

# BRAND BOOK ON ICT INDUSTRY

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# BRAND BOOK INDIAN ICT INDUSTRY



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DR. DEEPAK KUMAR SAHU
Publisher & Editor-in-Chief

### Preface

#### BEING GLOCAL GLOBAL THINKING & LOCAL LINKING

We're excited to unveil the tenth edition of the Brand Book. The Brand Book speaks about how the best Brands are reaching new heights and at the same time how certain start-ups are coming up with ground breaking ideas that are creating a deep impact.

The COVID-19 crisis and subsequent move to hybrid working models accelerated the need for new workforce skills, particularly social, emotional, and advanced cognitive abilities. One could not think of anything beyond coronavirus. The damages caused by the deadly coronavirus has taken everyone's life for a toss and has affected several businesses beyond repair.

Corporate IT priorities are shifting, e-commerce is thriving, and the pace of digitisation continues to accelerate, which makes the technology products, services and advanced solutions the company provides more important than ever.

Today, start-ups are focusing more into business values of both customers' and employees' along with their expectations. Large, successful companies already realize their core competencies and services, establishing themselves as the go-to-market place for a particular outcome. But the start-up ecosystem across the world is in its infancy, requiring to be more agile and nimble in the modern competitive business landscape. Having said that, disruptive technologies are the key enablers for companies seeking to drive innovation and efficiency.

The newer technologies reaching mainstream business are expediting exponentially. The time has changed now when one would have to quote oneself as an innovator. With the evolution of new-age technologies, companies just need to realize their potentials along with business objectives and move ahead by integrating them accordingly.

Undoubtedly, SMEs eminently mastered the rapidly changing Indian competitive landscape and made it amply evident that they have become the focus of future growth with the wave of 'Make in India' tag across the globe. But it did not happen easily. The brainchild of Prime Minister Narendra Modi has emerged as the strongest communication to the global communities.

It is a movement covering a bouquet of all the sizable sectors of our economy. Technology did not have its presence in the rural areas. However, now BharatNet is making digital delivery of various services across the country. It clearly reflects, digital transformation is the new job creator at the bottom of the pyramid.

India's digital economy is expected to touch \$1 trillion by 2025, with the government planning to triple India's installed power capacity for data centres from the existing 375MW by 2025, there is a \$4.9 billion investment opportunity by 2025 to set up data centre infrastructure. All the credit comes with the growing digital economy, increased investor interest and stable long-term returns. The era of automation and AI has shown that today's dream can become tomorrow's reality.

Secondly, the Ed-tech sector, the online education was a side show till the Covid-19 outbreak. 2020 was in fact the most exciting year for ed-tech start-ups, which brought online education to the mainstream. Though online education has seen over 15 years of meaningful existence. Governments have been working diligently to protect and save human lives, businesses have been hit and small businesses and start-ups have been the most affected.

Finally, Fintech has brought in better product dissemination and 'decisioning' options with the help of technology, machine learning, intricate algorithms, and big data, which is gradually replacing the traditional financial practices. Fintech has increased that pace now with digital adoption by the end consumers.

This year's Brand Book provides an in-depth presentation of several technology brands speaking about their best practices followed by them on the essential principles of branding including brand strategy and brand building in various spaces and verticals. We have taken utmost care to present the corporates who have made their presence strong to expand their business and services across the country.

A survey conducted among 400 CIOs on 10 different verticals in the country, results, Automation, leveraging artificial intelligence (AI) and other technologies, has opened up new possibilities. The pace of adoption has been rapid. They also view IT governance and risk as one of the top challenges for their organizations as far as complexity and priority are concerned. We have published the inputs of the CIOs in a dedicated section "Eminent CIOs of India". The objective of this survey was to assist the CIOs along with other IT leaders to prepare themselves for radical changes in the sector so that they are not left behind. With technology becoming a major enabler for businesses, the role of the CIO is evolving from technology expert to business strategist.

I hope the current edition of the brand book proves to be as helpful for the brand positioning as previous editions have. Your comments and suggestions are always welcome.

# FROM THE NORTHERN HILLS TO THE SOUTHERN SHORES.



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### A YEAR OF PROFOUND CHALLENGES & OPPORTUNITIES

#### S. Mohini Ratna Editor



The coronavirus pandemic has become one of the most serious public health crises in living memory. It has brought the world to its knees, shutting down entire countries and causing an exponential spike in the disease and death rates. Lockdowns and other restrictions have broken old habits and created new ones. 2021 will be a year of profound and rapid digital change following the shock delivered by Covid-19.

The enterprises need to harness the power of innovation to thrive in the digital era, but few really know how to do it effectively. Technology has taken us far beyond our imaginations and digital technology is rapidly shifting, from being a driver of marginal efficiency to an enabler of fundamental innovation and disruption.

Digital transformation provides industry with unparalleled opportunities for value creation from expanding profit pools, creating new revenue models and enabling unprecedented access to global markets. It used to take Fortune 500 companies an average of 20 years to reach a billion-dollar valuation; today's digital start-ups are getting there in just three to four years.

Artificial intelligence is becoming a core aspect of business strategy. Moreover, broader adoption of Al is fundamentally changing every aspect of the way leaders lead—from the way they recruit and train, to the way they inspire teams, to the way they apply Al and human power together to achieve their vision for the company, to the way they drive innovation and compete. 45% of IT decision makers report improved process performance from Al and 40% report productivity gains due to IT time spent on higher-value innovative work.

The Brand Book is positioned as the ultimate vehicle for the corporates to position their brand and product identity. The 10th edition of the Brand Book is the testimony of it and it complements to the innovations which are on the look-out for futuristic technologies to challenge the status-quo, cut costs, boost revenues, generate process efficiencies and facilitate the development of new products and services by continuing the turn towards digitization and differentiation.



Data privacy breaches have made Cyber Security one of the fastest growing industries and creating endless opportunities for entrepreneurs and business owners willing to bet on cybersecurity and data protection as a business. As more and more companies are experiencing crippling security breaches, the wave of compromised data is on the rise.

In today's data-driven world, data breaches can affect hundreds of millions or even billions of people at a time. Digital transformation has increased the supply of data moving, and data breaches have scaled up with it as attackers exploit the data-dependencies of daily life. With ever increasing threat, the role of the chief information Security Officer (CIO/CISO) has been constantly confronted by ever-increasing and sophisticated cyberattacks.

A survey reveals, 94% of organizations are moderately to extremely concerned about cloud security. When asked about what are the biggest security threats facing public clouds, organizations ranked misconfiguration (68%) highest, followed by unauthorized access (58%), insecure interfaces (52%), and hijacking of accounts (50%).

The Brand Book's "Best Tech Brands" was an initiative that recognised the best hardware, software and service providing companies in the country and their core competencies describes the leaders in the B2B technology space. The featured brands are the leading brands in the technology space and we have made an earnest attempt to highlight how they are distinguished from their contemporaries.

The Brand Book is the right testimonial to understand how the enterprises are getting ready for the newer technologies. We hope that our ardent efforts in engaging with the intricacies of the technology sector would bear the fruits of global development and pave the way for an ever shining industry.





#### BRANDING IS ESSENTIAL FOR ALL BUSINESSES STRIVING FOR SUCCESS

Digital transformation offers organizations an opportunity to engage modern buyers, and deliver to their expectations of a seamless customer experience regardless of channel or place. That being said, digitally transforming your business can be quite a complex project. Digital transformation is the use of digital technology to improve and optimize the customer experience.

Ever-changing consumer demands and fast-growing digital trends are driving the Digital Transformation (DX) initiatives, globally. The global pandemic permanently altered the way companies deliver customer experience. Physical contact centers shut down and organizations were forced to move much of their workforce remote. Managing these remote agents posed a brand new and daunting challenge that made companies significantly accelerate the development of digital Customer Experience (CX) capabilities.

The technology sector is in the midst of a massive digitization wave, with more global enterprises embracing digital transformation addressing the disruption of these unprecedented times. On top of that, more and more customers are digitally native and have high expectations from their interaction with you.

Given this demand, the majority of companies are already taking the 'customer-first' approach and adopting relevant practices to be aligned with their goals. And, they believe adopting digital transformation is the way forward! Despite this strong demand, some companies are still far away from the road to transformation. Some of them misunderstand the DX path, while some think it is an impossible task in the near period.

It is an exciting time for deep tech in India. Nowa-days, many tech and start-up companies are using deep tech to solve real world problems, and new technologies are driving an emerging breed of start-ups. The technology makes the competition more rampant for the brand positioning and identifying. In this era of digital, brand positioning becomes utmost important and it allows a company to differentiate itself from competitors. This differentiation helps increase brand awareness, communicate value, and justify pricing, all of which impact the bottom line.





















































#### 1. APPLE INC.

TIM COOK CEO

**KEY DIFFERENTIATOR:** Apple is a global brand and the products are intuitive and easy to use, easy for your business to support and the brand stands for the Quality, Signature and Loyalty to its niche premium clientele. Apple in general is positioned as a premium product. Apple products are generally priced higher than competition. This position has



helped Apple a lot as it avoids getting into a price war. MacBooks and iPhones are the main products of Apple which are the sign of success and popularity.

PRODUCTS & SOLUTIONS: iPhone -smartphone, iPad -tablet, Mac PC, iPod portable media player, Apple smartwatch, Apple TV, Apple AirPods wireless earbuds, macOS & iOS, Safari web browser, iTunes store, Mac App Store, Apple Music, Apple TV+, iMessage, iCloud and Apple Pay and a range of accessory, service and support offerings.

BRAND VISIBILITY: Apple's brand awareness tops all other global tech companies. Their ability to keep their branding simple, aesthetically pleasing, and also marketing in an exciting and informative way hugely contributes to their branding success. Apple is one of the world's most successful and profitable technology companies. Customers pay a premium for the product because of its user-friendly features.

#### 2. AMAZON

ANDY JASSY CEO

KEY DIFFERENTIATOR: Amazon is a powerful American brand focused on e-commerce, cloud computing, digital streaming, and artificial intelligence. The company has been referred to as "one of the most influential economic and cultural forces in the world", and the world's most valuable brand. Amazon provides



consumers with an outstanding shopping experience with low prices. The program, Amazon Prime, through which members get merchandise shipped free of charge in two days or less.

PRODUCTS & SOLUTIONS: Amazon product lines include several media, apparel, baby products, consumer electronics, beauty products and several thousand products. Amazon Web Services offers a broad set of global cloud-based products including compute, storage, databases, analytics, networking, mobile, developer tools, management tools, IoT, security and enterprise applications. These services help organizations move faster, lower IT costs, and scale.

BRAND VISIBILITY: The Amazon Demand-side Platform (DSP) allows marketers to target display inventory both on and off Amazon. Across a sample of dozens of Amazon DSP advertisers, On February 2, 2021, Amazon announced that Jeff Bezos would be stepping down as CEO and transition to Executive Chair of Amazon's board in Q3 of 2021. Amazon is known for its disruption of well-established industries through technological innovation and mass scale.

#### 3. GOOGLE LLC

SUNDAR PICHAI

**KEY DIFFERENTIATOR**: Google is an American multinational technology company, considered as one of the Big Four technology companies in the globe. In 2015, Google was reorganized as a wholly owned subsidiary of Alphabet Inc. Today Google is everywhere. Google



is regarded by experts to be the most advanced company in the field of AI, machine learning and deep learning.

PRODUCTS & SOLUTIONS: Search Tools (Google Search, Google Images, YouTube, Google News, Google Assistant, Google Analytics), Advertising Tools & Services (Google Ads, Google AdSense), Communication & Publication Tools (Google Docs, Google Drive, Google Calendar, G Suite business solutions, Gmail, Blogger), Development Tools, Map-related products (Google Maps), Operating Systems (Android, Chrome OS), Nexus Tablets, Chromecast, Google Glass, Google Pixel smartphone and Google Cloud.

BRAND VISIBILITY: Google.com is the most visited website in the world, while several other Google services also figure in the top 100 most visited websites, including YouTube and Blogger. G Suite now intelligently brings together the people; content for the live stream the meeting using Meet, a live-stream allows broadcasting meetings to large groups in real time. The traditional and arguably the best way to use Google Ads to generate brand awareness is by using Google's Display Network.

#### 4. TATA CONSULTANCY SERVICES LIMITED

RAJESH GOPINATHAN

**KEY DIFFERENTIATOR:** TCS (Tata Consultancy Services) is a global leader in IT services, consulting and business solutions organization offering transformational as well as outsourcing services to global enterprises. It is an



Indian multinational information technology (IT) services and consulting company, headquartered in Mumbai, India. As of February 2021, TCS is the largest IT services company in the world by market capitalization (\$169.2 billion). It is a subsidiary of the Tata Group and operates in 149 locations across 46 countries.

**PRODUCTS & SERVICES:** TCS and its 67 subsidiaries provide a wide range of information technology-related products and services including application development, business process outsourcing, capacity planning, consulting, enterprise software, hardware sizing, payment processing, software management, and technology education services.

BRAND VISIBILITY: TCS has successfully navigated through multiple technology cycles over the last five decades, helping clients realize the benefits of that new technology. Tata Consultancy Services (TCS), a leading global IT services, consulting and business solutions organization, has been recognized as a Leader in the IDC MarketScape for Worldwide Artificial Intelligence (AI) Services.

#### 5. INFOSYS LIMITED

presence with 2,42,371 employees and has operations

SALIL PAREKH CEO

**KEY DIFFERENTIATOR**: Infosys is a global leader in next-generation digital services that provides business consulting, information technology and outsourcing services. It enables clients in 46 countries to navigate their digital transformation. It has a growing global



spread across 191 locations, with the presence of 82 global sales & marketing offices and 123 development centers.

PRODUCTS & SOLUTIONS: Infosys provides software development, maintenance and independent validation services to companies in finance, insurance, manufacturing and other domains. It is a global leader in next-generation digital services and consulting, Managed Services, Infosys Finacle, NIA – Next Generation Integrated AI Platform. The current areas of innovation includes AI & ML, Blockchain, Computer Vision, Conversational interfaces, AR-VR, Deep Learning, Advanced analytics using video, speech, text etc.

**BRAND VISIBILITY:** Infosys offers innovation as a service to its clients and its strong belief on the responsibilities extend beyond business. This service consists of an end-to-end innovation partnership for creating, capturing, evaluating, incubating and scaling ideas.

#### 6. MICROSOFT CORPORATION

SATYA NADELLA

KEY DIFFERENTIATOR: Microsoft Corporation is an American multinational technology. which produces computer software, consumer electronics, personal computers, and related services. Its best known software products are the Microsoft Windows line of operating systems, the Microsoft Office suite, and the Internet Explorer



and Edge web browsers. The company has invested heavily into AI; championed bots as a new computing paradigm; and developed ambitious apps for platforms such as iOS and Android rather than trying to weaken the competition by tying its core assets directly to Windows, rated as the most valued company at the global level.

PRODUCTS & SOLUTIONS: Windows Office Servers, Skype, Visual Studio, Xbox, Surface, Azure, Bing, LinkedIn, Office 365, OneDrive, Microsoft 365 is powered by Office 365, Windows 10 & recently launched 11 and Enterprise Mobility, Security to fuel customers collaboration, creativity and revenue growth.

BRAND VISIBILITY: Microsoft is best known for its software products - Microsoft Windows, Microsoft Office and Internet Explorer. Nadella, 53, made a priority of cloud computing, which has become a lucrative growth engine at the tech giant based in the USA. The increasingly flexible software seamlessly integrates chat, calls, file sharing, video meetings Meet, and third-party apps to allow employees to engage in a nonlinear workflow.



#### 14. TECH MAHINDRA LIMITED

C. P. GURNANI

KEY DIFFERENTIATOR: Tech Mahindra is an Indian multinational company that provides information technology and business process outsourcing services. A subsidiary of the Mahindra Group, the company is headquartered in Pune. Tech Mahindra is a USD 5.2



billion company with 125,200+ professionals across 90 countries, helping 973 global customers including Fortune 500 companies.

**PRODUCTS & SOLUTIONS**: As 40 per cent of the revenue will be driven by Telco and 5G, powered by Hybrid Cloud; while 60 per cent will be driven by other industries. The five strategic focus areas of Tech Mahindra include 5G, automation, hybrid cloud, cyber security, data and AI.

BRAND VISIBILITY: Tech Mahindra is part of the Mahindra Group, a USD 19.4 billion federation of companies that enables people to rise through innovative mobility solutions, driving rural prosperity, enhancing urban living, nurturing new businesses and fostering communities. Headquartered in India, Mahindra employs over 2,56,000 people across 100 countries.

#### 15. SAMSUNG ELECTRONICS

**HYUN SUK KIM** 

KEY DIFFERENTIATOR: Samsung Electronics Co., Ltd. is a South Korean multinational electronics company headquartered in the Yeongtong District of Suwon. The product offering includes home appliances such as TVs, monitors, refrigerators, and washing machines as well as key mobile telecommunications products like



smartphones and tablets. Samsung also continues to be a trusted provider of key electronic components like DRAM and non-memory semiconductors.

PRODUCTS & SOLUTIONS: Samsung Electronics has assembly plants and sales networks in 74 countries and employs around 290,000 people .Product includes Semiconductors, Solid State Drives, DRAM, Telecommunications Equipment (phones, headphones, televisions and Blu-ray players), Home Appliances (refrigerators, ovens, washers and vacuums), Computing (laptops, tablets, printers) and display solutions.

BRAND VISIBILITY: Samsung has proven itself in electronics as a global leader in technology and innovation. For over 70 years, Samsung has been dedicated to making a better world through diverse businesses that today span advanced technology. India is an important market for Samsung, and the brand is fulfilling its commitment towards 'Make for India'. Samsung Electronics to Boost Investment in Logic Chip Businesses to KRW 171 Trillion by 2030.

#### 16. **HP INC.**

**ENRIQUE LORES** 

KEY DIFFERENTIATOR: Hewlett Packard Inc. is an American technology company, which develops personal computers (PCs), printers and 3D printing solutions. It has managed to retain its position as the no. 1 across all product categories. The reason behind its success is to keep reinventing products with a vision



to create technology that makes life better for everyone and everywhere, around the globe.

PRODUCTS & SOLUTIONS: HP Inc. creates technology that makes life better for everyone, everywhere. Through our product and service portfolio of personal systems, printers and 3D printing solutions, we engineer experiences that amaze. Personal Computers (Desktops & Laptops), Printers, Digital Press, 3D Printers, Scanners, Copiers and Displays.

BRAND VISIBILITY: HP is a computing company first and foremost, that's evident through their PC and Printing business. It sees big growth opportunities continuing in PCs, printers and peripherals. HP's 3D printing technology works a lot like a regular printer would, utilizing a lot of the same technologies and uses a heat/light activated bonding agent to create layers of printed material based on the company's unique powder that acts like '3d paper'.

#### 17. CISCO SYSTEMS, INC.

**CHUCK ROBBINS** CFO & CHAIRMAN

KEY DIFFERENTIATOR: Cisco Systems, Inc. is an American multinational technology conglomerate, headquartered in San Jose, California. Cisco develops, manufactures and sells networking hardware, software, telecommunications equipment and other high-technology services and products. Through its



numerous acquired subsidiaries, such as OpenDNS, Webex, Jabber and Jasper, Cisco specializes in specific tech markets, such as the Internet of Things (IoT), domain security and energy management.

PRODUCTS & SOLUTIONS: Networking Hardware, Enterprise Network Security, Telecommunications Equipment, Collaboration tools, SD-WAN, Catalyst 9200,4000 Series Integrated service Routers and Single platform Integrated all collaboration needs to deliver easy-to-use connected experiences. Cisco has 73,711 employees world-wide.

BRAND VISIBILITY: Cisco Systems is an IT and networking brand that specializes in switches, routers, cybersecurity, and IoT. Its logo seems to be seen on every office telephone or conference hardware. Cisco's fastest-growing business is its Cybersecurity unit, Cisco's Security business, which became increasingly important as companies sent all of their employees to work from home during the pandemic, grew 10% year over year to \$822 million. Cisco has been aggressively expanding that business through big investments and acquisitions.

#### 18. SALESFORCE.COM, INC.

MARC BENIOFF

KEY DIFFERENTIATOR: Salesforce is an American cloud-based software company headquartered in San Francisco, California. The bulk of its revenue comes from its customer-relationship management (CRM) service and thus it has carved its niche as the largest CRM software player globally. Salesforce lets you



efficiently unify different principal functions of your business so you can achieve customer success.

PRODUCTS & SOLUTIONS: The GTM strategy of Salesforce is, it allow everyone, on every team, to share a single source of truth with integrated collaboration with customer-Relationship Management, CRM (Service Sales Cloud, Service Cloud Platform, Marketing Cloud, Commerce Cloud, Community Cloud). With Salesforce, you get more than just the world's #1 CRM platform.

BRAND VISIBILITY: Salesforce is one of the largest and most popular cloud platform providers in the world and it helps your marketing, sales, commerce, service and IT teams work as one from anywhere. You can sell, provide service, market, collaborate, know your customers, and build apps on a single platform and it enables the preparation of a business-ready enhancement plan and provides innovations to improve/expand function.

#### 19. ACCENTURE





KEY DIFFERENTIATOR: Accenture is an Irish domiciled multinational professional services company and a Fortune Global 500 company. A Fortune Global 500 company, [4] it reported revenues of \$44.33 billion in 2020 and had 569,000 employees serving clients in more than 200 cities in 120 countries. It has more than 7,900 patents and certain patents are pending in 44 countries.

PRODUCTS & SOLUTIONS: Strategy, Consulting, Digital, Technology, Operations, Services and Solutions. Accenture people turn technology into innovations designed to transform society at scale and in a responsible way. Accenture Digital Analyst Lucía Andrada Cámara is one of those innovators.

BRAND VISIBILITY: Accenture believes that business transformation is the goal of the entire organization, not just a discrete group within Accenture. Technology can only deliver those goals if it is closely integrated with company strategy, business processes, talent and skills. Accenture's unique approach to combining AI with data, analytics and automation under a bold strategic vision to transform your business.



#### 7. FLIPKART

KALYAN KRISHNAMURTHY

KEY DIFFERENTIATOR: Flipkart is an Indian e-commerce company, headquartered in Bangalore, India, and incorporated in Singapore as a private limited company. The company initially focused on online book sales before expanding into other product categories such as consumer electronics, fashion, home essentials, groceries, and lifestyle



products. The service competes primarily with Amazon's Indian subsidiary and domestic rival Snapdeal. Flipkart has a dominant position in the apparel segment, bolstered by its acquisition of Myntra, and was described as being "neck and neck" with Amazon in the sale of electronics and mobile phones.

**PRODUCTS & SOLUTIONS**: Flipkart is one of the major e-commerce market leaders in the country. With more than 10 crore registered customers, Flipkart's online marketplace offers more scope for growth than you ever imagined. This, combined with all the support you need, makes it easy for you to spread your wings and soar.

BRAND VISIBILITY: Flipkart's online marketplace allows you to reap the benefits of sales without limitations since your cost of doing business on Flipkart is lower than other e-commerce portals. Whether you are a manufacturer, a vendor, or a supplier, you can become a top seller with minimal investment! On the last Big billion Days, 26 sellers became crorepatis, 544 sellers became millionaires, and 4124 sellers became lakhpatis!

#### 8. DELL TECHNOLOGIES INC.

MICHAEL DELL FOUNDER & CEO

**KEY DIFFERENTIATOR:** Dell Technologies is an American multinational corporation operating in the information technology industry. Dell Technologies is the leader in digital transformation, providing digital



technology solutions, products, and services to drive business success. It brings products including Server, Storage, Computing including desktop PCs, notebooks, tablets, and peripherals, such as monitors and projectors under the brand name of Dell.

**PRODUCTS & SOLUTIONS**: Personal computers, Data Protection, Dell Technologies Cloud, Servers, SAN storage, NAS storage, Networking, Computer software and Virtualisation.

BRAND VISIBILITY: Dell Technologies is instrumental in changing the digital landscape the world over. It gives today's workforce what they need to securely connect, produce, and collaborate; anywhere at any time. leading technology companies helping to transform people's lives with extraordinary capabilities. From hybrid cloud solutions to high-performance computing to ambitious social impact and sustainability initiatives, what we do impacts everyone, everywhere.

#### 9. **JIO**

MUKESH D AMBANI CHAIRMAN

KEY DIFFERENTIATOR: Reliance Jio promises to shape the future of India by providing end-to-end digital solutions for businesses, institutions and households and seamlessly bridging the rural-urban divide and aims to enable this transformation by creating not just a cutting-edge voice and broadband network, but also a powerful



ecosystem on which a range of rich digital services will be enabled – a unique green-field opportunity.

**PRODUCTS & SOLUTIONS:** The three-pronged focus on broadband networks, affordable smartphones and the availability of rich content and applications has enabled Jio to create an integrated business strategy from the very beginning, and today, Jio is capable of offering a unique combination of telecom, high speed data, digital commerce, media and payment services.

BRAND VISIBILITY: The Company has positioned itself as a tech major, but has to deliver on promises through effective monetization. RIL has sold over 22 per cent in Jio Platforms. The valuation of the deals is in line with recent transactions pegging Jio's equity value at Rs 4.91 trillion and enterprise value at Rs 5.16 trillion. Jio has so far concluded deals with global investors including Facebook, Silver Lake, Vista Equity Partners, General Atlantic, KKR, Mubadala, ADIA, TPG, and L Catterton in less than two months.



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For more than two decades, we have been tracking the emergence and explockchain, robotics process automation and core modernization. We have seen to make the modern modernization and the technology function. Brand Book reto meet the growing demand and helps in the growth curve.

Today, a plethora of personalization software tools are available, including like never before. In order to take full advantage of personalization technoloconsumers.

Like every year VARINDIA unveils the report on how the top 25 brands are Companies' (These are the industry benchmarks and honours given purely o

We are able to gather vital information from the survey with over 2500 C their product acceptance and support from the vendors. These 25 Most Trus prospects have with your company or organization.

#### THE METHODOLOGY

Our methodology seeks to provide a rich and insightful analysis of the bragrowth in the industry and we have re-evaluated on the products, service ecosystem, and training employees, among others—build trust.

Often it is the most critical and important task for our journalists and analy VARINDIA has pioneered in doing brand valuation since 1999, as strong bran

A distinguished panel of the industry's topmost CIOs, CTOs, CEOs, and analysts including VARINDIA's editorial board scrutinize the list throughout the year. The list intends to help to choose the Most Trusted Companies, you can trust them, who are continuously delivering an uncompromising performance, agile, higher availability with vastly improved Product quality. The Panel brings the list of Most Trusted Companies where the Brands strength measures the ability of the brands to create loyalty.

Today, social media increases the amount of exposure a brand receives and increases traffic. Social media also helps to develop loyal fans and generates leads. Having a strong social media presence allows a brand to develop business partnerships, reduce marketing costs and improve sales.

Our team has also analysed how digital experience continues to be a critical driver of enterprise transformation and a customer experience strategy, which is expected to provide a holistic view of interactions a customer will have with brands that are relevant, personalized, meaningful and insightful analysis of your brand.

We would like to acknowledge the efforts of the corporates for sharing their valuable inputs on their best practices they have experienced first-hand. All the feedback is valuable and can provide important insights for you to consider as the industry is always looking to adopt newer marketing strategies.

Let's look at these 25 Most Trusted Brands how they have made a difference with their newer marketing strategies to retain their leadership position in the Indian Technology Industry.

#### EY HIGHLIGHTS:

Brand Power clearly reflects its differentiation in quality Continued dialog with the audience

Trends shaping the personalization technology landscape Creating a data-driven organization is important to measure everything Strategic planning for current and future success

The influence of customer experience while making digital transformation Integration of internal data with external data from third parties Marketers need to work very smartly, since, AI makes decisions, ML makes

predictions Social listening becomes very important

chnology has proven its worth during the COVID-19 pandemic and resilience market volatility with strong risers like Zoom, Instagram, Microsoft, SAP io. Despite the uncertainty, tech giants and major digital retail brands are nriving—and some are running circles around those that are less pandemic-These brands had anticipated, even invented, the online-offline dynamics of n life that became indispensable for survival during the lockdown homebound of avoiding the contagion.

measures brand strength as per the efficacy of its performance on intangible res compared to its competitors. In order to stay relevant in today's ion to personalized experiences for website visitors. Marketers play a crucial n understanding the importance of personalization and positive business

ventual ascent of digital experience, analytics, cloud, digital reality, cognitive, en organizations exploring how they intersect to create more value as well as cognizes the technology brands that are bringing new products and solutions

AI and machine learning algorithms that allow us to achieve 1:1 personalization gy, we must first understand what it is and how it benefits both brands and

performing their leadership and have been identified as the '25 Most Trusted n the basis of voter participation in the website(www.mybrandbook.co.in).

ted Brands are the sum total of the experience the customers and customer

ands, providing a clear picture of how the brands are contributing to business s, and the solutions they offer—around managing data, building a partner

sts to select and implement an all-encompassing and necessary methodology ds influence customer choice and create loyalty.

#### 10. BHARTI AIRTEL LIMITED

SUNIL BHARTI MITTAL

across South Asia and Africa, and also in the Channel Islands. Airtel provides GSM, 3G, 4G



PRODUCTS & SOLUTIONS: The Company offers products and telco grade Security helps enterprises ensure that their IoT data is safe and available in real time for analytics and service delivery. The other solutions include mobile commerce, fixed line services, high speed DSL broadband, IPTV and Digital TV, Airtel Business, Airtel Payments

is something that defines Airtel.



#### 11. INTERNATIONAL **BUSINESS MACHINES CORPORATION (IBM)**

ARVIND KRISHNA CEO

KEY DIFFERENTIATOR: IBM is an American multinational technology company headquartered in Armonk, New York, with operations in over 170 countries. It provides integrated



solutions that leverage information technology and knowledge of business processes. It operates through the following segments: Cloud & Cognitive Software, Global Business Services, Global Technology Services, Systems, and Global Financing to accelerate their customers' return to the workplace by combining planning capabilities with critical employee, community health, and workplace data.

PRODUCTS & SOLUTIONS: Computer Hardware (IBM's POWER microprocessors, Middleware, Software, Hosting, Consulting Services, Cloud Computing (IaaS, SaaS and PaaS), Cognitive Computing, Data & Analytics, Internet of Things, IBM Watson, Security (IBM Secure Blue encryption hardware), All-flash Arrays, IT Outsourcing. IBM had spin off legacy business to focus on cloud and AI services.

BRAND VISIBILITY: The Global Technology Services segment provides comprehensive IT infrastructure and platform services that create business value for clients. The Systems segment provides clients with innovative infrastructure platforms to help meet the requirements of hybrid cloud and enterprise AI workload. IBM has made a huge bet on Red Hat, hoping to dominate a potentially trilliondollar market by scooping up the open-source giant for \$34 billion last year.

#### 12. HCL TECHNOLOGIES

ROSHNI NADAR MALHOTRA **CHAIRMAN** 

KEY DIFFERENTIATOR: HCL Technologies is an Indian multinational information technology (IT) services and consulting company, headquartered in Noida, Uttar Pradesh, India. It is a subsidiary of HCL Enterprise and it is the thirdlargest IT services company in India. The company made bold bets in infrastructure services, engineering services,



and products & platforms. HCL's revenue has crossed the \$10 billion revenue milestone for the year.

PRODUCTS & SOLUTIONS: It delivers innovative technology solutions built around Digital, IoT, Cloud and invest technology footprint to deliver transformation at scale; It operates across sectors including aerospace and defense, automotive, banking, capital markets, chemical and process industries, energy and utilities, healthcare, hi-tech, industrial manufacturing, consumer goods, insurance, life sciences, manufacturing, media and entertainment etc.

BRAND VISIBILITY: The brand visibility could reflect from the business consistency and overall performances. The company declared a dividend of Rs 6 per share, and a special interim dividend of Rs 10 per share as a milestone to mark the company crossing the \$10 billion milestone. HCL Technologies has established itself as a prominent player experiencing strong growth in the Industry 4.0 services market.

#### 13. WIPRO LIMITED

RISHAD PREMJI



KEY DIFFERENTIATOR: Wipro Limited is an Indian multinational corporation that provides information technology, consulting and business process services. Wipro harnesses the power of cognitive computing, hyper-automation, robotics, cloud, analytics and



emerging technologies to help its clients adapt to the digital world and make them successful. It is also ranked the 9th largest employer in India with nearly 195,000 employees.

PRODUCTS & SOLUTIONS: IT Services, Consulting, Outsourcing, Managed Services. Wipro brings its unique combination of product engineering, business processes and IT services expertise to address the most pressing needs of software vendors.

BRAND VISIBILITY: Wipro has recognized as one of the fastest growing brands in the global IT landscape and ranked third fastest growing global IT services brand in 2019 and we discover ideas and connect the dots to build a better and a bold new future. Wipro sees the potential for its clients at every intersection, every disruption and every touch-point.

## **VARINDIA**







































# FLASH BACK 2020 VIRTUAL 2020 EVENT

30 Speakaers, 50 Corporates & 550 Delegates
Attended the Brand Book Launch





#### 20. INGRAM MICRO INC.

ALAIN MONIÉ CEO

KEY DIFFERENTIATOR: Platinum Equity announced that it has completed the acquisition process of Ingram Micro from HNA Technology, a part of HNA Group and it is one of the largest companies in the world. The company supports global operations by way of an extensive sales and distribution network throughout



North America, Europe, Middle East and Africa, Latin America and Asia Pacific, with Local sales offices and/or representatives in 160 countries and 190 logistics centres worldwide.

PRODUCTS & SOLUTIONS: With its vast global infrastructure and focus on cloud, mobility, technology lifecycle, supply chain and technology solutions, Ingram Micro enables business partners to operate more efficiently and successfully in the markets they serve. It has more than 35,000 employees and operations in 60 countries, the company serves more than 250,000 customers and partners with over 2,000 vendors, including the world's best-known technology companies.

BRAND VISIBILITY: ngram Micro Inc. has matched its expertise in identifying the markets and technologies that shape the IT industry with its global distribution and logistics capabilities, demonstrating unparalleled leadership within the information and communications technology (ICT) marketplace. Platinum Equity concludes Ingram Micro acquisition for \$7.2 billion.

#### 21. **SAP**

CHRISTIAN KLEIN CEO

KEY DIFFERENTIATOR: SAP is a German multinational software corporation that makes enterprise software to manage business operations and customer relations. SAP is the market leader in enterprise application software, helping companies of all sizes and in all industries run at their best.

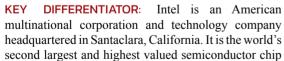


**PRODUCTS & SOLUTIONS:** SAP continues to lead the tier 1 ERP market and SAP S/4HANA is a critical part of the digital core, which drives digital transformation and delivers instant business value. SAP offers customers a choice of deployment options including cloud, on-premise and hybrid so they can choose any scenario or combination that is right for them.

BRAND VISIBILITY: The advantage of SAP is its flexibility. SAP allows companies to create their own rules within the SAP structure. These rules set the parameters for acceptable and unacceptable transactions and secondly, SAP Business One is an enterprise resource planning solution that can be used to make project management more streamlined. SAP builds a strong technical support for organization.

#### 22. INTEL CORPORATION

PATRICK GELSINGER CEO





manufacturer and became the dominant player in the microprocessor industry. It drives innovation that makes the world safer, builds healthy and vibrant communities, and increases productivity. Intel is working relentlessly to unleash the potential of data, leading to more capable and efficient networks, and pervasive AI across smart devices.

PRODUCTS & SERVICES: Comet Lake processors and Ice Lake 10 nm processors are together branded as the Intel "10th Generation Core" family. Intel officially launched Comet Lake-Refresh CPUs on the same day as 11th Gen Core Rocket Lake launch. Redefine the laptop experience with 10th Gen Intel® Core™ processors, featuring built-in AI, integrated Wi-Fi 6, and next-generation graphics.

BRAND VISIBILITY: Altera's Generation 10 FPGAs and SoCs optimize process technology and architecture to deliver the industry's highest performance and highest levels of system integration at the lowest power. Generation 10 families include Stratix® 10, Arria® 10, and MAX® 10 FPGAs

#### 23. CANON INC.

FUJIO MITARAI CHAIRMAN AND CEO

**KEY DIFFERENTIATOR**: Canon is a Japanese multinational corporation and has a primary listing on the Tokyo Stock Exchange and secondary listing on the New York Stock Exchange. Canon's journey into the cloud happened in parallel with our customers. As the cloud began to penetrate our personal and



professional lives a decade ago, we began to integrate cloud applications carefully and swiftly within our own IT.

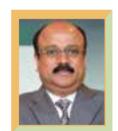
PRODUCTS & SOLUTIONS: As a first mover advantage in digital photography it has the strong leadership in imaging and optical products (SLR Cameras, Still Cameras, Photocopiers, Digital Cameras, Camcorders), Printers, Scanners, Lenses, LCDs, Projectors, Virtual Reality Headset, Calculators, Medical equipment, CCTV solutions and custom optical components.

**BRAND VISIBILITY:** Canon is a global provider of digital imaging technologies and a leading provider of consumer, business-to-business, and industrial digital imaging solutions and Canon's bubble jet (BJ) printing technology is a development of the ink jet-printing concept. Canon has recorded over 10,000 patents for bubble jet technology.

#### 24. REDINGTON

RAJ SHANKAR VICE CHAIRMAN & MD

**KEY DIFFERENTIATOR:** Today, in the digital-first world, businesses are embarking upon deploying increasingly sophisticated IT systems to automate and modernize their operations. Redington partners with leading global technology innovators to help bring these technology solutions for businesses across India.



Our team of certified experts works with system integrators and value-added resellers countrywide.

PRODUCTS & SOLUTIONS: Redington is a leading supply chain solutions provider for global brands of IT hardware and peripherals. Redington distributes the best and the most famous brands in the country. And offers a suite of value-added services to meet different needs of brands. Leading distributor of PCs, Tablets & Phablets, Printers & Supplies. Redington partners with leading global technology innovators to help bring these technology solutions for businesses across India. It has engaged with omnichannel distribution of smartphones and wearable devices across all urban and major markets in India.

**BRAND VISIBILITY:** Driven by professionals with rich business acumen and strong technical expertise. Committed to steering the Brand Redington towards the future of immense possibilities, our leadership team has embodied values that include exceeding the expectations of our customers, enriching our capabilities and expanding our business.

#### 25. L & T

S N SUBRAHMANYAN

KEY DIFFERENTIATOR: Larsen & Toubro is an Indian multinational engaged in EPC Projects, Hi-Tech Manufacturing and Services. It operates in over 50 countries worldwide. A strong, customer-focused approach and the constant quest for top-class quality have enabled L&T to attain and sustain leadership in its major lines of business for over eight decades.



**PRODUCTS & SOLUTIONS:** Every aspect of L&T's businesses is characterised by professionalism and high standards of corporate governance. Sustainability is embedded into our long-term strategy for growth. The Company's manufacturing footprint extends across eight countries in addition to India. L&T has several international offices and a supply chain that extends around the globe.

**BRAND VISIBILITY:** Over the past years, the Digital Transformation of L&T Construction has been an industry game changer, laying a blueprint for Digitalization across all L&T businesses. Our objective is to utilize the power of new and emerging technologies to make significant improvements to our business - save costs, improve productivity and efficiency, and reduce execution time.

### THE TECH INDUSTRY IS MARCHING AHEAD WITH THESE ADMIRED BRANDS



For the tenth year in a row, the VARINDIA Brand Book has been talking on how the technology brands are evolving with their creative innovations with signifying quality and inspiring confidence. The ongoing COVID-19 pandemic has made it the onerous responsibility of organisations to not only ensure business continuity but also ensure employee wellbeing.

Today, we are witnessing newer brands and start-ups disrupting and challenging the world class companies that are running since ages. Having said that, a great brand is important for any business to be successful and it must also be important for its first impression that lasts in people's minds and helps them trust the business. Since, a brand is the most potent asset that a business possesses.

of these changes could be here for the long haul. The ongoing crisis has accelerated the digitization of customer interactions by several years. It has heightened several kinds of uncertainty, but one trend has become clear, it has vastly accelerated digital adoption. Secondly, we have clearly witnessed the growth of e-commerce that has also contributed to an increase in digital financial services provided to small businesses and consumers. Digital adoption has taken a quantum leap at both the organizational and industry levels. Digital payment volumes are also receiving a boost through the Government, which has pledged monetary assistance to the poor via direct transfers to bank accounts.

This year the joint survey conducted by VARINDIA and the Brand Book team, the result shows how the listed Top 50 technology brands in India have made the biggest moves in the highly price sensitive Indian market out of hundreds of technology brands that are available in the market and our editorial team has used the metrics to present, the Most Admired Brands. The ratings are considered on the basics of product performance, R & D support, On-time availability and the most important is the post-sales support and these 50 Most Admired Brands underline the contribution and confidence of the consumers after they have tried and tested the leadership in their respective areas.



































































































Western Digital



Acer Inc. is a Taiwanese multinational hardware and electronics corporation specializing in advanced electronics technology, headquartered in Xizhi, New Taipei City. Its products include desktop PCs, laptop PCs (clamshells, 2-in-1s, convertibles and Chromebooks), tablets, servers, storage devices, virtual reality devices, displays, smartphones and peripherals, as well as gaming PCs and accessories under its Predator brand. Acer is the world's 6th-largest PC vendor by unit sales as of January 2021. Acer Expands Its Predator Gaming Portfolio with Three New HDR Monitors. The company has witnessed humongous growth across all segments.



**Alcatel Lucent Enterprise, India** is a French software company headquartered in Colombes, France and provides enterprise communication services. Its hybrid cloud communications solutions with flexible business models and services are tailored for vertical solutions in Healthcare, Government, Hospitality, Transportation and Education. Rainbow business communication solutions offer user friendly collaboration tools from voice to video, that connect people, machines, and processes. Increase productivity and revenues by leveraging new technologies to automate business processes.



AMD is an American multinational semiconductor company based in Santa Clara, California. AMD develops computer processors and related technologies for business and consumer markets. Pioneered in high-performance computing, graphics and visualization technologies has gained share in the three major processor markets: laptops, desktops, and servers. It has developed high-performance computing and visualization products to solve some of the world's toughest and most interesting challenges. AMD's growing momentum, strong and expanding set of partners, and breakthrough AMD technologies powering gaming, PCs and the data centre. Recently, AMD and partners introduced 3rd Gen AMD EPYC<sup>TM</sup> available from leading solutions providers ranging from OEMs to the cloud.



























Aruba Networks is a Santa Clara, California-based wireless networking and Hewlett Packard Enterprise company. Aruba Networks bridges the gap by supplying wireless local area network and edge access networking equipment for businesses. Aruba Edge-to-Cloud Security for the Intelligent Edge. It also helps enterprise customers to simplify in the adoption of IoT and is geared for the transformation for enterprises with a comprehensive edge-to-cloud networking solution covering all aspects of wired, wireless LAN and wide area networking (WAN). Aruba ClearPass is most reliable for automated BYOD provisioning and Secure Network Access.

**Autodesk Inc.** is an American multinational software corporation and is a leader in 3D design, engineering and entertainment software. Autodesk has driven innovation in every industry its software touches – pushing the boundaries of what's possible across architecture, manufacturing, product design, content creation and many more. It makes software products and services for the architecture, engineering, construction, manufacturing, media, education, and entertainment industries. Autodesk is one of the most visible 3D design software company.

Axis Communications is a Swedish manufacturer of network cameras for the physical security and video surveillance industries. Axis enables a smarter and safer world by creating network solutions to improve security and complete range of network video solutions including cameras and encoders, VMS and recorders, analytics and applications reduce costs, ensure scalability and simplify integration and its open access control solutions integrate seamlessly with your other systems. has been creating technology designed to make the world a safer and smarter place ever since. Innovation builds greater intelligence into its products that allow customers flexibility and convenience.

**Cadyce** is an Indian Brand into networking and lifestyle brands having a global presence. It seeks to be the most preferred brand in the computing and digital lifestyle marketplace. Cadyce designs and develops innovative solutions with a passion for 'making life easier.' And since the beginning, it has come up with an array of solutions to expand the home network. It follows a simple policy of Connect, Communicate and Consort. The company stands for the quality of the products. All products are a blend of style, efficiency, durability, as connecting, communicating and networking. Working from home has never been more convenient with cadyce's flawless integration of multiple functions, bundled into accessories that make your work at home and lives easier

**Check Point:** Check Point is an American-Israeli multinational provider of software and combined hardware and software products for IT security, including network security, endpoint security, cloud security, mobile security, data security and security management. Check Point Software Technologies with its solutions protects its customers from cyber-attacks with an industry leading catch rate of malware, ransomware and other types of attacks. Its solutions protect customers from 5th generation cyber-attacks with an industry leading catch rate of malware, ransomware and other types of attacks.

**CommScope Inc.** is an American global network infrastructure provider company having over 30,000 employees worldwide, with customers in over 130 countries, The vision of the company is to shape the networks of the future. It helps in shaping the infrastructure, products and solutions to improve human life. In 2019, CommScope acquired ARRIS. Approximately \$7.4 Billion Transaction Accelerates CommScope Vision to Shape Communications Networks of the Future. It offers world class solutions with innovation, quality and flexibility that businesses need to satisfy the increasing demands and expectations of seamless connectivity. As a communications infrastructure leader, CommScope shapes the always-on networks of tomorrow.

**Commvault** is an American Multinational company headquartered in Tinton Falls, New Jersey. Commvault enterprise software can be used for data protection and data management software companies. It is positioned as the trusted data partner for thousands of enterprises, public sector and commercial organisations across India and the globe. It supports more than 40 cloud storage options across public and private clouds. Commvault was recognized as a 2020 Gartner Peer Insights Customers' Choice for Data Center Backup and Recovery Solutions.

**CP PLUS** is an Indian brand, offers a comprehensive range of advanced security and surveillance solutions to meet the ever-changing requirements of different industries. Its products are serving in many different verticals comprising defence, government, hotels, hospitals, educational institutes, homes, infrastructure, and transportation among others. Being a major surveillance system brand globally, it brings efficient, reliable, scalable, and integrated solutions to its customers. CP PLUS has been honoured and acclaimed as 'India's No.1 Security brand' with its 45 branches and 600+ sales and technical professionals and 6500+ channel partners across the country.

CtrlS Datacenter is headquartered in Hyderabad, India. CtrlS is India's first Tier 4 certified data center having its presence in Hyderabad, Mumbai, Bangalore and Noida. Ctrls datacenter provides a penalty backed SLA of 99.995% uptime. CtrlS sells services like data center colocation, DC build and consulting, Internet bandwidth, managed services, cloud security services, and disaster recovery services. CtrlS has its plan to build six million square feet of tier-4 data centre by 2021 as it looks to capitalise on growth in data usage and proposed data localization norms.

**D-Link Corporation** is a Taiwanese multinational networking equipment manufacturing corporation headquartered in Taipei, Taiwan. It is a global leader in designing and developing networking and connectivity. D-Link (India) continues to demonstrate stupendous performance and progress in implementing and supporting unified network solutions that integrate capabilities in switching, wireless, broadband, storage, IP surveillance, cloud-based network management, and structured cabling. D-Link WiFi Mesh, allows users to enjoy fast, reliable coverage to match their increasing amount of high-bandwidth devices. D-Link brings its powerful, intelligent home routers with built-in McAfee protection for every device on the network. D-Link India today has 13 branch offices with State of-the-art service support infrastructure present PAN India.

ESDS Software is a home-grown cloud service provider. ESDS is an expert in Managed Data Center Services, Managed Cloud Solutions, Virtualization, Disaster Recovery Hosting and Auto-Scalable Cloud Solution provider. eNlight Cloud is a cloud computing platform based on the Xen virtualization platform by Nashik. It has presence in industry verticals – Banking & Finance, Healthcare, Education, Energy & Utilities, Agriculture, Manufacturing, IT, Entertainment & Media, Travel & Tourism, Telecom, Government and eCommerce. ESDS is Managed IT Data Centres in India offering DC Services & Cloud Solutions for Enterprises & Corporates to achieve higher performance levels.

**Fortinet** is an American multinational corporation headquartered in Sunnyvale, California. It develops and sells cybersecurity solutions, physical products such as firewalls, plus software and services such as anti-virus protection, intrusion prevention systems and endpoint security components. With a security-driven networking strategy in place, FortiGate Network Firewalls ensure consistent, end-to-end protection across all crucial network edges—from campuses and data centers to branch offices and multi-cloud deployments. Fortinet's unique approach with Security-Driven Networking allows organizations to protect any edge at any scale, providing broad visibility and protection across the entire attack surface.





**Hikvision** is headquartered at Hangzhou, China. Hangzhou Hikvision Digital Technology Co., Ltd., often shortened to Hikvision, is a Chinese state-owned manufacturer and supplier of video surveillance equipment for civilian and military purposes. Hikvision is an IoT solution provider with video as its core competency. Hikvision now has more than 42,000 employees, over 20,000 of which are R&D engineers. Hikvision advances the core technologies of audio and video encoding, video image processing, and related data storage, as well as forward-looking technologies such as cloud computing, big data, and deep learning.



**Hewlett Packard Enterprise** (HPE) is an American multinational company based in Houston, Texas, United States. It is a business-focused organization with two divisions: Enterprise Group, works in servers, storage, networking, consulting and support, and Financial Services. HPE is the global edge-to-cloud platform-as-a-service company that helps organizations accelerate outcomes by unlocking value from all of their data, everywhere. HPE delivers unique, open and intelligent technology solutions, with a consistent experience across all clouds and edges, to help customers develop new business models, engage in new ways, and increase operational performance.



**Hitachi Vantara** is the digital infrastructure, data management, and digital solutions subsidiary of Hitachi Ltd. Hitachi Vantara has a number of products on the storage market, in fields such as Internet of Things, big data analytics, data protection, cloud storage and converged systems. It has more than 6,300 customers in more than 100 countries, including more than half of Fortune 100 companies. More than 80% of the Fortune 100 trust Hitachi Vantara to help them develop new revenue streams, unlock competitive advantages, lower costs, enhance customer experiences, and deliver social and environmental value.



**Huawei** was Founded in 1987. Huawei is a leading global provider of information and communications technology (ICT) infrastructure and smart devices. It is the first technology brand to receive the "Top China Brand" award. It has approximately 197,000 employees and operates in over 170 countries and regions, serving more than three billion people around the world. Huawei has over 80,000 research and development employees (comprising 45% of its workforce) in Germany, Sweden, UK, the U.S., France, Italy, Belgium, Finland, Ireland, Russia, India, and China. It offers integrated solutions across four key domains – telecom networks, IT, smart devices, and cloud services. The company has redefined data infrastructure from computing, storage, and data processing.



**IVALUE** is a leading value added distributor in India and leader in providing smart, cutting-edge technology solutions which helps Enterprises to manage, optimize and protect their Digital Assets. As a top Value-Added Distributor, ivalue fosters innovation through delivering integrated offerings that power Data, Network & Application (DNA) management for enterprises. It has been recognized as India's fastest growing Value Added Distributor. The offerings are aligned, customized & optimized for businesses, across all vertical & sizes, through its OEM, consultant & channel partnerships. iValue helps companies manage and protect their digital assets. iValue's solutions and services help customers not only ride the digital transformation wave but also accelerate business operations.



JABRA a global brand in engineering communications and sound solutions – innovating to empower both consumers and businesses with a serious passion for sound. It is recognised for expertise in consumer, professional and medical audio technology. Jabra makes headsets and speakerphones, of all shapes and sizes, corded and wireless, for all types of users in all corners of the globe. Jabra is the brand of GN Audio, a subsidiary of GN Store Nord A/S (GN). It creates integrated headsets and communications tools that help professionals work more productively. It has been creating innovative communication solutions since 1869. It recently launched intelligent camera line up for insight driven collaboration in the hybrid world.



**Kaspersky Lab** is a multinational cybersecurity and anti-virus provider headquartered in Moscow, Russia and operated by a holding company in the United Kingdom. It is the security software that protects your PC & mobile devices and the entire digital world. Its core values are cutting-edge technology, innovation, highest quality, passion for progress, reliability and transparency. It operates in 200 countries and territories and 35 offices in 31 countries. Almost 3,800 highly-qualified specialists work for Kaspersky. Kaspersky discovers various malicious apps disguised as best selling games.



LG Electronics is a South Korean multinational company and is the world's fourth-largest LCD television manufacturer. The company has 128 operations worldwide and more than 250000 employees are serving the company with their best service. LG comprises four business units - Home Entertainment, Home Appliances, Air Solutions, and Vehicle Components. Its philosophy revolves around people, sincerity, and sticking to the fundamentals. LG Electronics manufactures smartphones and tablet devices and LG digital signage and commercial TVs deliver crystal clear images for advertising. LG Business IT products bring you a variety of computer monitors & cloud computing offerings to enhance productivity, improve daily operations and increase security.



NEC Corporation is a Japanese multinational information technology and electronics company, headquartered in Minato, Tokyo. It is a champion in executing governments and commercial enterprises worldwide that are increasingly adopting biometric solutions for comprehensive protection across digital, personal and infrastructure domains. NEC's biometric solutions are used in more than 700 systems in over 70 countries, including police department, immigration control agency, national ID and entertainment industry systems. It has more than 120 years of history, NEC has nurtured world-class technologies and the capabilities to implement those technologies.



**NetApp Inc.** is an American hybrid cloud data services and data management company headquartered in Sunnyvale, California. NetApp specializes in helping its customers get the most out of their data with industry-leading cloud data services, storage systems, and software. NetApp is gaining share in key storage markets and its public cloud services are at a scale where they are positively impacting total company billings and revenue growth. NetApp's flash storage business was another highlight, with an annualized net revenue run rate of \$2.9 billion, up 11% from a year ago.



NTT Global Data Centre has created the Global Data Centers division, which incorporates DPA, e-shelter, Gyron, Netmagic, NTT Communications Nexcenter, RagingWire and other data center companies that formerly sat under the NTT Communications brand. As the consolidated data center entity, our reach extends to over 20 countries and regions and represents over 160 carrier- and cloud-neutral data centers with a total of 500,000 sqm of server space. NTT is ideally positioned to serve global hyperscale entities, as well as enterprises seeking a comprehensive one-stop solution. The company's customer success stories cut across a wide spectrum of industries, including Banking and Financial Services, Insurance, E-commerce, Healthcare, Manufacturing, Media & Entertainment, IT & ITES, Logistics, Hospitality and Education.





























**NUTANIX Inc.** is an American cloud computing company that sells software, cloud services, and software-defined storage. It provides an enterprise cloud platform which combines storage, computing, and virtualization for clients. The company's software product families include Acropolis, Prism, Era, Frame, and Files. Nutanix was reported to have built a hypervisor in order to make managing computer infrastructure easier. Nutanix hyperconverged software running on each node distributes all operating functions across the cluster. Unprecedented Flexibility.

**Nvidia Corporation** is an American multinational technology company incorporated in Delaware and based in Santa Clara, California. It designs graphics processing units for the gaming and professional markets, as well as system on a chip units for the mobile computing and automotive market. As AI is the most powerful technology force of our time, it has launched a new wave of computing. To address the emerging threats, Palo Alto Networks, a global cybersecurity leader, has developed the first virtual next-generation firewall (NGFW) designed to be accelerated by NVIDIA's BlueField data processing unit (DPU).

**Oracle** Corporation is an American multinational computer technology corporation headquartered in Austin, Texas. The company sells database software and technology, cloud engineered systems, and enterprise software products—particularly its own brands of database management systems. In 2020, Oracle was the second-largest software company by revenue and market capitalization. Its ERP Cloud is well positioned to move business forward. There are 31,500 customers who choose Oracle, the leading cloud ERP solution provider.

**Palo Alto Networks,** Inc. is an American multinational cybersecurity company with headquarters in Santa Clara, California. Its core products are a platform that includes advanced firewalls and cloud-based offerings that extend those firewalls to cover other aspects of security. It Introduces Fastest-Ever Next-Generation Firewall and Integrated Cloud-Based DNS Security Service to Stop Attacks. It is the global cybersecurity leader, underscored the need for increased IT security by releasing several new capabilities that predict malicious attacks and use automation to stop them in progress.

**Poly** was born in 2019 from Plantronics and Polycom, Headquartered in San Jose and Santa Cruz, California, brings world-class communication products with its strong workforce of more than 6,500 employees working in 75 offices located in 35 different countries. The company has more than 1,500 patents in force worldwide. Poly has \$2 billion in annual revenue, and 90% of Fortune 500 companies rely on Poly products and services. Its products support unified communications, mobile use, gaming and music.

**Qualcomm** is an American multinational corporation headquartered in San Diego, California. It creates semiconductors, software, and services related to wireless technology. It owns patents critical to the 5G, 4G, CDMA2000, TD-SCDMA and WCDMA mobile communications standards. It invents breakthrough technologies that transform how the world connects, computes, and communicates. The portfolio of products for processors, modems, platforms, RF systems, and connectivity, plus products based on the end-use application of your design. It offers a full range of purpose-built, pre-packaged software, hardware, and tools that help you get your invention to market faster.

**Red Hat,** Inc. is an American multinational software company that provides open source software products to enterprises and headquarters in Raleigh, North Carolina, with a strong presence over the worldwide and became a subsidiary of IBM on July 9, 2019. It is a world's leading provider of enterprise open source solutions, including high-performing Linux, cloud, container, and Kubernetes technologies. Red Hat Enterprise Linux is the foundation for innovation, offering the latest stable development tools, container technologies, hardware, and cloud advancements. Red Hat's extensive partner ecosystem gives you choice and flexibility for your hybrid cloud to meet future needs as they arise.

**R&M** (Reichle & De-Massari AG) is a leading Global cabling and connectivity solution provider for high end-communication networks since 1964. It has wide range of industries in the sectors of Local Area Networks, Data Centers and Public Networks. The global R&M network have around 3,000 certified partners and serving in more than 100 countries. It is the first manufacturer with an approval mark from GHMT for the copper cabling of the future. Cat. 8.1 system enables data transmission of up to 40 Gigabit over Ethernet.

**SAS** was developed at North Carolina State University from 1966 until 1976, when SAS Institute was incorporated. SAS is a statistical software suite developed by SAS Institute for data management, advanced analytics, multivariate analysis, business intelligence, criminal investigation, and predictive analytics. SAS machine learning and artificial intelligence solutions address the end-to-end process of turning raw data into actionable insights. It is driven by more than 40 years of innovation, SAS has customers in 147 countries and at more than 83,000 business, government and university sites.

**Savex Technologies** is the third largest information and communication technology distributor in India. Headquartered in Mumbai, the company has 107 sales offices and 42 Stocking locations across the country, across 12000+ customers every month in over 750+ cities, catering to over 7000 + Channel Partners, Retailers, Corporate Resellers, VARs & System Integrators every month, with this Savex deals with 10,000 products and serves orders serviced per day. Today, Savex is a Rs 15,000+ crore IT hardware distribution company in FY20 and is one of the fastest growing IT hardware distributors in India.

**Schneider Electric** is a European multinational company, leader in digital transformation of energy management and automation. With more than 128,000 employees working in over 100 countries worldwide, Schneider Electric offers a vast range of products and solutions enabling integrated energy management for homes, buildings, data centers, infrastructure, and industries. Schneider's purpose is to empower all to make the most of its energy and resources, bridging progress and sustainability for all. At Schneider, they call this Life Is On. It Provides end-point to cloud integration connecting products, controls, software and services.

Seagate Technology PLC is an American data storage company. Seagate introduced a revolutionary modular storage solution to manage the surge of enterprise, cloud, and edge data. Seagate is the leading provider of bytes globally, having shipped over 3 zettabytes 1 in its 40-year history. Seagate says on Data is in our DNA. Seagate's more than 40-year storage heritage has culminated in a core technology stack that brings hyperscale cost and architectural efficiencies to the enterprise across software, silicon, system and device innovations. Seagate is a world leader in data solutions, delivering world-class, precision-engineered data management solutions.

**SonicWall,** originally is a private company headquartered in Silicon Valley. Dell sold to private equity firm Francisco Partners and Elliott Management. SonicWall next-generation firewalls (NGFW) provide the security, control and visibility you need to maintain an effective cybersecurity posture. The company offers its Super Massive line for the largest networks; NSA for midrange companies; and TZ series firewalls for small companies. The next-generation firewalls and network security solutions protect more than 1 million active security solutions trusted by more than 500,000 organizations in more than 215 countries. SonicWall Capture Labs threat research team researches and develops counter measures to deploy to firewalls for up-to-date protection.





















**vm**ware

ViewSonic 🌉



**Sophos Group** plc. is a British security software and hardware company. Thoma Bravo, has completed the acquisition of Sophos in a cash transaction that values the Britain-based cybersecurity solutions firm at approximately \$3.9 billion. Sophos develops products for communication endpoint, encryption, network security, email security, mobile security and unified threat management. Sophos partners with more than 53,000 resellers and managed service providers to protect more than 420,000 organisations and 100 million users from cyber threats. Sophos technologies protect and block malicious files and web traffic used by ransomware.

**Supertron Electronics** is one of the leading Indian companies in IT product distribution and services. Today, the company operates through its 35 branch offices and 18 satellite branches in India with a robust network of more than 9000 retail points. Supertron is a leading supply chain specialist on a wide variety of IT products. Supertron's product portfolio includes servers, desktops, laptops, PC components, peripherals, memory modules and storage products of global brands. Supertron has recently launched Enterprise Solutions, a new business vertical to serve corporate clients with Networking, Servers and Cloud Computing solutions.

**TeamViewer** is a proprietary software application for remote control, desktop sharing, online meetings, web conferencing and file transfer between computers, founded in Uhingen, Germany. TeamViewer offers remote access and remote control computer software, allowing maintenance of connecting devices. It has been installed on more than 2.5 billion devices, with 320 Million active devices per year and it has 600,000 Global customers. The TeamViewer remote connectivity cloud platform enables secure remote access to any device, across platforms, from anywhere, anytime.

**Tech Data Corporation** is an American multinational distribution company specializing in IT products and services headquartered in Clearwater, Florida. Synnex and Tech Data will create the world's largest IT distributor through their \$7.2 billion merger, which will be led by Tech Data CEO Rich Hume and 55 percent owned by Synnex shareholders. Two of the world's largest IT distributors will join forces to create a \$57 billion giant with more than 150,000 customers and 22,000 employees. This is transformational for Tech Data, Synnex and the entire technology ecosystem. The combined company will support more than 1,500 vendors and OEMs and serve customers in more than 100 countries across the Americas, Europe and Asia-Pacific regions.

Thales Group is a French multinational company that designs and builds electrical systems and provides services for the aerospace, defence, transportation and security markets. As a global leader in cyber security products and services, it has 5,000 specialists in critical information systems and cybersecurity design. Thales delivers a unique range of high-technology solutions to meet the requirements of the most demanding customers — governments, institutions, large global companies and critical infrastructure providers. The mantra of success of Thales is very simple, No digital transformation without trust and No trust without cyber security.

UiPath is a global software company that develops a platform and designs and develops robotic process automation and artificial intelligence software founded in Romania by Daniel Dines and Marius Tîrcă and headquartered in New York City. Now UIPath has become the world's leading RPA software company. It has 40 + offices around the world. Bill Gates used to talk at Microsoft about a computer in every home. I want a robot for every person, says Daniel Dines, CEO. Now it is being recognised as the World's first platform for hyperautomation. UiPath has been a leader in every Gartner Magic Quadrant, Forrester Wave, and Everest Peak Matrix for RPA. #1 in all Major Independent User Review sites for RPA including Gartner Peer Insights, GSCrowd, TrustRadius, Capterra, and ITCentralStation. Finally, automation software to end repetitive tasks and make digital transformation a reality.

Veeam Software is a privately held US-based information technology company owned by Insight Partners that develops backup, disaster recovery and intelligent data management software for virtual, physical and multi-cloud infrastructures. The company's headquarters are in Baar, Switzerland and Columbus, Ohio, United States. Veeam is the leader in backup solutions that delivers Cloud Data Management. Veeam provides a single platform for modernizing backup, accelerating hybrid cloud and securing your data. Veeam Backup & Replication is helping organizations make the most of their investments in virtualization.

**Vertiv** headquartered in Columbus, Ohio. It employs around 20,000 people and does business in more than 130 countries. It is the largest global provider of critical digital infrastructure, continuity solutions and leaders in data center cooling market which continues to undergo change and innovation. In Asia, Vertiv has launched several thermal management solutions, including the Liebert® CRV4, a row-based solution designed to provide maximum cooling in a compact design. Vertiv Launches Next-Generation Mid-size UPS System for Critical Applications in India.

Viewsonic is a privately-held multinational electronics company with headquarters in Brea, California, United States and a research and development center in New Taipei City, Taiwan. It is recognised as a visual solution company since last 38 years. ViewSonic® Gaming monitors help school district to develop successful Esports league. The uniqueness of Viewsonic is it's 144 Hz and 1ms refresh rate, the images constantly refresh. Everything is nice and clear. It has flagship products including Monitors, Projectors, Viewboards and Digital display. The interactive flat panel have giant market share in the country.

VMware Inc. is an American cloud computing and virtualization technology company headquartered in California. VMware was the first commercially successful company to virtualize the x86 architecture. VMware streamlines the journey for organizations to become digital businesses that deliver better experiences to their customers and empower employees to do their best work. VMware software spans App Modernization, Cloud, Networking & Security and Digital Workspace. VMware lets you run more applications using fewer physical servers. Fewer physical servers require less space in your datacenter and less energy to power and cool. Industry support: VMware is the foremost provider of virtualization services, with over 500,000 + customers aided by an ecosystem of 35,000 partners worldwide who are ready to solve your IT challenges and power the world's digital infrastructure.

Western Digital Corporation is an American computer hard disk drive manufacturer and data storage company, headquartered in San Jose, California. It designs, manufactures and sells data technology products, including storage devices, datacenter systems and cloud storage services. Western Digital has long been at the forefront of game changing innovations. From the invention of the first hard drive to recent advancements in 3D NAND its journey of innovation continues to inspire those who dare to think big about the possibilities of data. Recently, WD has added three new SSD storage drives to its growing portfolio, delivering the speed and capacity gamers need for quick access to their favourite titles.



### **CATEGORIES**

#### **ANTIVIRUS**

BIT DEFENDER
ESET
ESCAN
F-SECURE
KASPERSKY
K7 COMPUTING
MCAFEE
NORTON
QUICKHEAL
SYMANTEC

#### **BLOCKCHAIN**

COINBASE COINDCX INSTADAPP KOINARTH MIND DEFT SIGNZY WAZIREX

SOPHOS

TREND MICRO

#### **CLOUD COMPUTING**

AWS
AZURE
DIGITALOCEAN
CTRLS
ESDS
NXTGEN
GOOGLE
ORACLE
SOFTLAYER

#### **CYBERSECURITY**

BLACKFX CHECKPOINT CROWDSTRIKE FORTINET KASPERSKY INFOBLOX MCAFEE SOPHOS TENABLE

#### **DATA CENTER**

CTRLS
ESDS SOFTWARE
GPX GLOBAL
NETMAGIC
NXTGEN
NXTRA
PI
SIFY
WEBWORKS
YOTTA

#### **DATA PREVENTION**

FORCEPOINT
CHECKPOINT
CISCO
CROWDSTRIKE
DIGITAL GUARDIAN
FORCEPOINT
IMPERVA
MCAFEE
NETSKOPE
TABLEAU
ZSCALER

#### **DATA PROTECTION**

ACTIFO
COMMVAULT
CISCO
CHECKPOINT
COHESITY
DELL TECHNOLOGIES
IBM
MICROSOFT
VEEAM
VERITAS

#### DESKTOP / ALL-IN-ONE

ACER APPLE ASUS DELL HP LENOVO

#### DIGITAL TRANSFORMATION

ACCENTURE
COGNIZANT
DXC TECHNOLOGY
GENPACT
IBM
KPMG
MCKINSEY
SPLUNK
WIPRO

#### **EDTECH**

BYJU'S
CARRIER LAUNCHERS
CLASSMATE
CLASSPLUS
COLLEGEDEKHO
DOUBTNUT
EDUCOMP
EDUKART
PEARSON
SMART

SKILLMATICS TOPPR UNACADEMY VEDANTU

#### **EMS**

AGGRESSIVE
AMARA RAJA
DIXON
FOXCONN
FLEXTRONICS
INTEX
JABIL
MICROMAX
OPTIMUS ELECTRONICS
SANMINA
SFO TECHNOLOGIES
XIAOMI

#### **FLASH DRIVES**

HP KINGSTON SANDISK SAMSUNG SONY STRONTIUM TRANSCEND

#### **GRAPHIC CARDS**

AMD NVIDIA

#### HDD/SSD

KINGSTON SEAGATE SONY TRANSCEND TOSHIBA WESTERN DIGITAL

#### **IT SECURITY**

**ACCOPS** ARRAY NETWORKS ACRONICS **CHECKPOINT** CISCO **DARKTRACE FORCEPOINT FORTINET HUAWEI IMPERVA JUNIPER KASPERSKY** NETSCOUT **PALOALTO** RADWARE RAPID 7

**RIVERBED** 

SECLORE SENTINELONE TENABLE THALES TRENDMICRO VMRAY

#### **IP TELEPHONY**

AVAYA CISCO GRANDSTREAM PANASONIC POLY YEALINK

#### **LAPTOP**

APPLE
ASUS
DELL
HP
LENOVO
LG
MICROSOFT
NEXSTGO
PANASONIC
SAMSUNG
XIAOMI

**ACER** 

#### MANAGED PRINT SERVICES

CANON HP KONICA MINOLTA PANASONIC RICOH WEP PERIPHERALS XEROX

#### **MOTHER BOARD**

ASUS
DIGILITE
ECS
GIGABYTE
HP
INTEL
MSI
ZEBRONICS

#### **MONITOR**

AOC
ACER
BENQ
DELL
HP
LG
SAMSUNG
VIEWSONIC



#### NETWORKING & WIRELESS

ARUBA CAMBIUM NETWORKS CISCO

COMMSCOPE DIGISOL D-LINK

**EXTREME NETWORKS** 

HUAWEI
JUNIPER
MATRIX
NETGEAR
TP-LINK
UBIQUITI
ZTE

#### **OPERATING SYSTEM**

LINUX CHROME MAC UBUNTU WINDOWS

#### PASSIVE NETWORKING

ALPHA MAX
BELDEN
CIENA
CITADEL
COMMSCOPE
DIGISOL
DLINK
HUAWEI
INFINERA
R&M
SCHNEIDER
T 8
TEJAS

#### **PERIPHERALS**

AMKETTE
DELL
FOXIN
IBALL
HP
LG
LOGITECH
TVS-E
ZEBRONICS

#### POWER SUPPLY (UPS)

APC BY SCHNEIDER
BPE
DELTA
INTEX
LUMINOUS
MICROTEK
NUMERIC
SOCOMEC
UNILINE
VERTIV

#### **PRINTER**

CANON
HP
EPSON
KONICA MINOLTA
KYOCERA
PANASONIC
RICOH
TVS-E
XEROX

#### **PROCESSOR**

AMD INTEL TEGRA QUALCOMM

#### **PROJECTORS**

ACER
BENQ
CASIO
EPSON
GLOBUS
NEC
PANASONIC
SONY
VIEWSONIC
VIVITEK

#### **SMART PHONES**

APPLE
ASUS
GOOGLE PIXEL
LAVA
LENOVO
MOTOROLA
NOKIA
OPPO
ONE PLUS
SAMSUNG
VIVO
XIAOMI

#### **SERVER**

ACER
DELL
HPE
IBM
LENOVO
ORACLE
HUAWEI

#### **SERVICE SUPPORT**

ACCEL FRONTLINE
AFORESERVE
DIGI-CARE
INTARVO
IQOR
F1 SERVICES
REDINGTON
TVS-E
WIPRO

#### **SOFTWARE / ERP**

**ADOBE BMC** BUSY **FRESHWORKS IBM INFOR INTUIT** MICRO FOCUS MICROSOFT **NEWGEN ORACLE PEGA SYSTEMS** QUEST SOFTWARE **RAMCO SALESFORCE** SAP **TABLEAU TALLY** 

#### **STORAGE**

AMI
CISCO
DELL EMC
HITACHI VANTARA
HPE
HUAWEI
IBM
LENOVO
NETAPP
ORACLE

ZOHO

#### **SURVEILLANCE**

AXIS
CP PLUS
DLINK
GE
GODREJ
HIK VISION
HONEYWELL
NEC
SAMSUNG
SECUREYE
SPARSH
ZICOM

#### **TELCO**

AIRTEL BSNL ЛО VODAFONE IDEA

#### TELECOMMUNICATION

ALCATEL LUCENT
BT
C-DOT
CIENA
ERICSSON
FIBCOM
HUAWEI
ITI

MATRIX NSN STERLITE TATA TELE SERVICES TCIL TEJAS UT STARCOM

#### **THIN CLIENT**

CITRIX HP NCOMPUTING RDP DELL-WYSE

ZTE

#### **UTM & FIREWALL**

BARRACUDA
CISCO
CHECPOINT
FORTINET
GAJSCHIELD
HUAWEI
JUNIPER
PALOALTO
SONICWALL
SOPHOS
TRUSTWAVE

#### **VIDEO CONFERENCE**

CISCO WEBEX
GOOGLE MEET
HUAWEI
LIFESIZE
LOGMEIN
MICROSOFT TEAM
PANASONIC
POLY
PEOPLELINK
VIDYO
WICKER
ZOOM

#### WI-FI

ARUBA
CAMBIUM NETWORKS
CISCO
COMMSCOPE
DLINK
EXTREME NETWORKS
HUAWEI
JUNIPER

#### WFH SOLUTIONS

ANYDESK GOOGLE MEET LOGMEIN MICROSOFT TEAM SLACK VERSA NETWORKS WEBEX

**ZOHO ASSIST** 

#### THE TEAM BEHIND



**SAMRITA** BARUAH



**APARNA** MULLICK



**LOPAMUDRA** DAS



**RAKESH KUMAR** 



**RAKESH** KHARWAR



**RAVINDER** BARTHWAL



**ASHOK** KUMAR SINGH



SUBHASH MOHANTA



S. KAMALAKAR BANGALORE



ANIL KUMAR MUMBAI



NEW DELHI



SUNIL KUMAR KOLKATA

At Kalinga Digital Media, we believe that our team signifies our strength in offering the best service to the partners and customers, which has been instrumental to boosting productivity and the success, which we have witnessed during the COVID era also. It is absolutely true that COVID-19 has pushed companies over the technology tipping point-and transformed business forever and most of our readers have felt that, COVID-19 has sped up the adoption of digital technologies by several years, and that many of these changes are going to be here for the long haul. Digital adoption has taken a quantum leap at both the organizational and industry level.

Like you, we too are focusing on the safety of our employees across the country, and ensuring diligently meet all our service commitments. We have specific business continuity plans in place and are taking steps to ensure that we maintain operational readiness

The team always works with a common goal to serve the industry with the help of technology. It has been a combined effort to meet the goal and reach the top. The 10th edition of Brand Book helps the industry with its strong circulation in the print and through digital version, connecting the buyer and seller interface. With this Brand Book, brands now have the opportunity to listen to the customer.

Today, we are at a point where there is a convergence between humans and machines, and we need to have a mix of both and adapt quickly with better collaboration. The strategic importance of technology has changed radically during the crisis.

Our editorial team is fully geared to serve the industry with the changing dynamics of the latest digital technologies. At VARINDIA, we have already commenced the work on building a talent base that is equipped to be relevant and ready for future needs and each department at VARINDIA has efficiently and cohesively put their heart and soul to meet the common goal.

This project would never have been complete without a bunch of highly talented and inspiring team members and we are happy to see the hard work resulting in such success. The Brand Book has hence proved as the potential tool for developing creative ideas into innovations.

My heartiest thanks to each one of you for setting an extraordinary example of commitment, professionalism, and solidarity during the outbreak.

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### गेल (इंडिया) लिमिटेड



# लाएं ताजुगी भरा बदलाव

- 牽 हरित ईधन प्राकृतिक गैस अपनाएं
- 牽 सार्वजनिक वाहन का इस्तेमाल करें
- 牽 प्रदूषण-मुक्त वातावरण बनाएं





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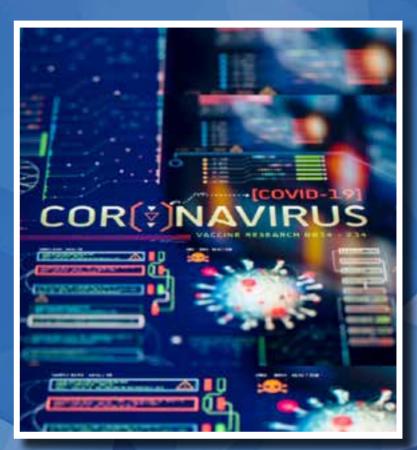
**Events** 



# Technology Trends SHAPING THE FUTURE

The Year 2020, for the entire world, and for all aspects of human life, was dominated by Covid and its impacts. It affected the health and wellbeing of human lives as much as it impacted all other aspects related to human lives – business, economy, communications and entertainment. Global leaders as well as experts in the healthcare industry have been trying their best to find a remedy for the deadly disease. Similarly, economist across the globe, are also brainstorming to find ways and means to overcome the impact of the pandemic on businesses and how to revive from the onslaught. India's IT industry contributed around 7.7% to the country's GDP and is expected to contribute 10% to India's GDP by 2025.

Indian IT's core competencies and strengths have attracted significant investment from major countries. As an annual practice to keep our readers updated about how various technology segments in India is driving digital transformation, in the **Brandbook**, we looked back at Ten Priority industry segments in India are brought you here an overview. Almost all the sectors we reviewed are heavily impacted by the pandemic however, we also have noticed a strong sign of revival across business verticals.





#### **AFTER SALES**

As per an estimate, there are around 4 billion electronics devices in India – at home, offices and industries - at various stages of their life. These devices need an assured service when they get damaged which means there is a huge untapped opportunity. A recent study by Counterpoint Research states that smartphone customers spend an average amount of Rs 2400 on servicing of their devices. And we have more than 800 million smartphone users! As far as the overall market size is concerned, it has grown phenomenally in last few years on account of increasing dependency on smart devices, cheaper access to internet, growing social media consumption and ease of owning



#### **CYBERSECURITY**

Worldwide spending cybersecurity products and services collectively has exceeded \$1 trillion from 2017 to 2021. The ever-growing number of public IP addresses and access points, a dramatic increase in the volume of Internet traffic, and the massive amounts of data that the world generates today, combine to create a highly favourable environment for cybercriminals to exploit vulnerabilities. The cost of cybercrime will reach 7 trillion dollars worldwide by 2021, and the cost of ransomware damages will rise to 20 billion dollars.



#### **DATACENTER**

A good data center infrastructure is critical for a robust digital economy. India's digital is economy expected to touch \$1 trillion by 2025, with the government planning to triple India's installed power capacity for data centres from the existing 375MW by 2025, there is a \$4.9 billion investment opportunity by 2025 to set up data centre infrastructure. All the credit comes with the growing digital economy, increased investor interest and stable long-term returns. The era of automation and AI has shown that today's dream can become tomorrow's reality.



#### **ECOMMERCE**

While human beings are locked up inside their houses and neighborhood grocery stores were shut, it was the machinery of the e-commerce industry that kept the provisions and other essential items flowed to households. Though Digital India, as a concept, has been hovering over the heads of the common man since 2014, its true value was realized when the entire country came to a standstill because of the lockdowns Covid-induced The immediate traction was so much which continued even today, a study by IBM said the pandemic accelerated the shift to e-commerce by five years!

01 02 03 04



#### **FINTECH**

India has emerged as the fastest growing FinTech market and the third largest FinTech ecosystem in the world. As per the Government's own estimate, India has the opportunity of a digital payments market of \$ 1 trillion by 2023. Indian has the highest FinTech adoption rate globally of 87% which is significantly higher than the global average rate of 64%. Of the 2,100+ FinTechs existing in India today, over 67% have been setup in the last 5 years and recorded 3,435 crore digital payments in the year 2019-20. As per data available, Indian Fintech firms have raised around \$3.5 billion and PayTm alone has raised more than \$1 billion.

05



#### IT HARDWARE

The Covid pandemic did not spare the Indian IT hardware either. Shipments industry of notebooks and mobile workstations increased 79% year on year to reach 67.8 million Desktops improved slightly at the start of 2021 after a string of poor quarters in 2020, with the level of shipment decline easing. Shipments of desktop and desktop workstations fell 5% year on year to 14.8 million units. The strong recovery from a weak Q1 2020 saw all vendors in the top five achieve double-digit year-on-year shipment growth. Lenovo maintained pole position in the PC market, securing a 25% market share and posting year-on-year growth of 61%, with shipments of 20.4 million units.



#### **SOFTWARE**

The Covid-hit year 2020 brought the entire world including India to a standstill and because business across sectors were almost paused for indefinite, the Indian IT & ITES sector did see unexpected investments across enterprise verticals. When all other industries were forced to take a pause, the IT industry made them going. The IT industry perhaps was the only the second industry after healthcare that saw developments. This industry helped all other industries to be in motion and maintain business continuity. Significant adoption were seen in the areas of cloud, collaboration technologies and digitalization of education, sports and finance. Besides domestic businesses, Indian IT industry also saw significant growth in their export businesses



#### IOT

The Internet of Things (IoT) is rapidly becoming a reality and set for a massive boom across industries of all scales. The pandemic has spurred the need for various innovations that can drive the digital ecosystem, and IoT is one of them. According to Gartner, the worldwide IoTconnected devices are likely to increase to 43 billion by 2023. One of the primary reasons for this swift rise is the acceleration of digital transformation and the growth of 5G networks. The Business Research Company report states that the global IoT market is slated to grow from \$139 billion in 2020 to \$162.39 billion in 2021, at compounded growth rate (CAGR) of 16.6%.

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#### **SMART PHONE**

smartphone India's market continues to witness strong momentum even during times of crisis. Despite the massive plunge in economic activities across the globe, the smartphone segment shipments, according to Counterpoint Research, grew 23% year-on-year to reach 38 million units in Q1 2021. For the entire year 2020, India shipped 145 million smartphones as against 148 million in 2019. The border tension between India and China did not seem to affect the consumer sentiments as Chinese smartphones dominated the market share with almost 77%. Xiaomi remained as the top smartphone player in the country followed by Samsung, Vivo and



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#### **TELECOM SERVICES**

The year 2020 began with a rather horrific note - the outbreak of Covid-19, while people has stay with the availability of telecommunication services that allowed them to get their essential items - food, medicines etc - at the doorstep. Similarly, the confined population glued on to the internet to get their quota of entertainment. At the end of December, 2020, the gross revenue of the telecom sector stood at Rs. 68,228 crore (US\$ 9.35 billion). The total number of internet subscribers increased from 757.61 million in January 2021 to 765.09 million in February 2021. Over the next five years, rise in mobile-phone penetration and decline in data costs will add 500 million new internet users in India, creating opportunities for new businesses.





**N9** 

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# DEVICE AND APPLIANCE MANUFACTURERS ARE INCREASINGLY TURNING THEIR FOCUS ON AFTER SALES SERVICES, NOT ONLY AS A MEANS TO ENHANCE CUSTOMER SATISFACTION BUT ALSO AS A REVENUE-GENERATING OPPORTUNITY.

The Covid pandemic has added one more 'necessity' to human lives — technology. For availing healthcare to education and even access to medicine or foods and grocery — everything has a technology aspect connected to it. During the pandemic people were forced to use technology for their survival — to have their food, to get connected with their near and dear ones and even to take medical consultation. This increased the dependency on electronic gadgets which further demanded that the devices remain work-worthy for a longer period. And it demands continuous service post sales.

Though there are many after sales service players in India – of various sizes – the overall service offering has still remained as a lip-service. Despite much innovations in the areas features, utilities in an electronic gadget, for consumers, there is always the same old worry – what if the gadget gets damaged? Who will repair my device? Will it be a reliable one? Will it cost me a bomb?

This worry of the consumers shows two sides of the same coin – genuine challenge and a huge opportunity – for the market. Various studies suggest brands typically spend two-thirds of what they spend on marketing on after sales.

So far the Indian after sales market is largely unorganized and a major chunk of consumer needs are catered to by their local servicemen. However, this is fast changing as many startups have joined this arena and started offering quite lucrative and reliable services using latest technologies and by making it affordable.

#### **Market Dynamics**

As per an estimate, there are around 4 billion electronics devices in India – at home, offices and industries - at various stages of their life. These devices need an assured service when they get damaged which means there is a huge untapped opportunity.

A recent study by Counterpoint Research states that smartphone

customers spend an average amount of Rs 2400 on servicing of their devices. And we have more than 800 million smartphone users!

As far as the overall market size is concerned, it has grown phenomenally in last few years on account of increasing dependency on smart devices, cheaper access to internet, growing social media consumption and ease of owning a device.

While the consumer device protection market size is expected to touch \$1.1 billion in FY24, other growth drivers will be on-demand repair services estimated to be worth \$1 billion, home protection and AMC services estimated to be worth \$1.2 billion and brand warranty and installation services at \$2 billion, which makes the overall after-sales service pie market worth \$5.3 billion in FY 24 in India.

**Aforeserve:** Aforeserve is a companies offering after sales services to multiple products across verticals. This Noida based firm perhaps has the widest range of products to serve—from PCs, tablets, smartphones, scanners, printers, servers, networking switches, routers, STBs, ATMs and VSAT.

Some of its major customers include HPE, IBM, Dimension Data, HP, Wipro, Lenovo, RIL, Tyco, Emerson, Micromax and Tata Sky.

Headquartered at Noida, the Company works closely with customers to implement tailored service solutions through an extensive, pan India support network of service centers in 45 major cities and resident engineers across 182 regional towns.

Supported by a team of over 2600 engineers, technicians and service executives, Aforeserve handles more than 55000 service calls every month, combining industry experience with superior repair capabilities and standardized support practices to assist individual and small-scale establishments as well as complex IT environments in large organizations to install, maintain, refurbish and dispose their ICT assets in a cost-effective, efficient and viable manner.



**B2X**: B2X is a Munich, Germany based aftermarket player and primarily serves the tier-1 IT and communications brands. The company offers services for mobility devices, consumer electronics, home automation, urban mobility, payment solutions and digital health. Some of the prominent names in its customer list include Apple, Samsung, OnePlus, Lenovo, Google, Microsoft, Motorola, Xiaomi and Sony.

The company's India business supports three neighbouring countries – Sri Lanka, Bangladesh and Nepal. The company has 237 frontend service locations and 12 backend repair centers. The firm employs around 900 employees to support these four markets. In these markets B2X serves customers of Apple, Samsung, Google, Microsoft and Xiaomi. B2X operates 27 Apple authorized service centers across India where people using Apple products receive immediate help – from software support and device diagnosis to hardware repair services for in-warranty and out-of-warranty issues.

The entire after-sales service process of B2X is automated through the B2X SMARTCARE Technology platform. B2X's SMARTANALYTICS provides real-time visibility on all service interactions.

**GoWarranty:** This is one more Mumbai-based after sales service firm. This company has a unique model – they specialise in offering extended warranty besides offering repair and services. They also claim to offer cashless service. Whether it is costs of repairs, labour, transportation, or taxes, GoWarranty covers all the charges associated with repairing the device.

GoWarranty offers coverage for Mobile, Tablets, Laptops, Cameras, Air Conditioners, Washing Machines, Televisions, and Small Appliances. The company offers Go Extended Warranty for up to 9 months after purchase of the devices and gadgets. The warranty can be taken for upto four years

**HCL:** HCL Care, the Support and Service division has one of the largest and most extensive service networks across the country and provides end to end support services across product categories – Laptop, Desktop, Tablet, Mobile Phones, Home Appliances and other Consumer Electronics & Durables. With proven track record of more than a decade of providing integrated end to end service support to leading brands, such as HCL, Philips, Lenovo, BlackBerry, Samsung, Bajaj, Emerson, Nokia, Dell etc, HCL Care has firmly established itself as the leader in after sales service & support of consumer electronics products. HCL Care specializes in providing tailored solution to its clients across the service value chain – Call Center Support, Walk-In Service Centers, Supply Chain Management and Repair Factory. With an aim to achieve 100% district coverage across India, it continues to grow its service network extensively across India and provide the best in class services to all its esteemed customers.

HCL has a remarkable tradition of service excellence span over decades. HCL has been a preferred choice of partner for marquee brands like HCL, Philips, Lenovo, BlackBerry, Samsung, Nokia, OBI, Oneplus, Xiaomi etc. HCL serveds its customers with an immense sense of commitment and it likes to find a similar commitment in its partners. HCL has tied up with leading OEM players in digital products to offer after sales warranty service support across India. It provides support on wide array of products – Mobile Phones, Smart Phones, Tablets, Laptop, Desktop, Printers, TV and other consumer electronics & lifestyle products.

**IQor:** iQor is one of the world's biggest after market service providers. The company entered Indian space in 2015 and had announced to invest Rs 1300 crore over a period of 3 years time and create employment for more than 20,000 people. At present the firm has more than 5000 people in India and a majority of them are located in the company contact center in Noida.

iQor perhaps is the only company in India to offer end to end aftermarket services to its customers. The company boasts of clientele including Oracle, Cisco, Ericsson and Apple besides almost all the handset brands including Indian smartphone players like Micromax, Karbonn and Laya.

**OnSiteGo:** This is one more new age after-sales service provider. Started business in 2010, the company claims to serve around 4.5 million customers in India and 1.2 lakh customers on a monthly basis. It works with some of the largest online and offline retailers in India like Croma, Vijay Sales, Amazon India and Ezone. The firm's products are available at regional speciality stores like Sanket, Great Eastern, Value Plus and Viveks.

In 2019, the company started offering brand warranty services for

international brands like Toshiba and Hamilton Beach and also expanded its offerings in AMC or Annual Maintenance Contract for air-conditioners and water purifiers and assured buyback for smartphones earlier this year.

**Redington:** Redington is one more big name in Indian after sales services market. It has set up hardware support service centres across the country with 77 owned service centres, supported by a certified franchisee network of 266 service partners, Redington provides the full spectrum of warranty and post-warranty services including solution design and consulting, technical helpdesk, field engineering support, parts warehousing, Forward and Reverse logistics, Imports and -reexports, and asset recovery . All these centres run on a robust CRM that enable to tightly manage the end-to-end service life cycle and create a great customer experience.

The company serves some premium customers including Hewlett Packard, Toshiba, Lenovo, Fujitsu, Apple, Motorola, Huawei, Microsoft, Ricoh, Logitech, Konica among others – several of them for a decade or more – ample testimony to the consistent value delivered by its Service team, enabling these brands live up to their commitment of providing world class service to their customers across the Indian sub-continent.

**Servify:** The Mumbai based startup founded by Sreevathsa Prabhakar is perhaps the biggest after sales service offering company with over 900 million devices on its platform. The firm, founded little over 5 years back, is now present in over 35 countries and have acquired quite a handful of companies in the same space last year.

In April this year the company acquired Munich based WebToGo, a one-stop provider for multichannel self-care and customer experience solutions for smartphones, tablets and laptops. This acquisition will help Servify further strengthen its global footprint both in terms of technology and people. Earlier to that the company had acquired the Bangalore based gadgets repair and service company iService.

The firm offers app-based after sales services to varied brands. Servify currently works with a number of top device brands, retailers, distributors, insurers, service providers and carriers such as Amazon, AmTrust, Apple, Samsung, Croma, Godrej, Huawei, Ingram Micro, Micromax, Motorola/Lenovo, Nokia, OnePlus, OPPO, Panasonic, RealMe, Redington, Reliance Jio, Reliance Retail, Sangeetha Mobiles, Vodafone and Xiaomi, among others.

The company claims it provides Brand Authorised Protection Plans for OEMs that account for nearly 70% of smartphones sold in India. It claims to have over 900 million devices on its platform.

**TVS Electronics:** TVS Electronics, from the TVS Group, is one more player in the after sales market. However, unlike others, TVS Electronics does not limit itself to just services of the products, rather it repairs as well as sells the refurbished products as well. Some of its refurbished products offer warranty of equal duration as the new product.

Some of the key services that TVS Electronics offers include repair services, refurbishment services, managed services, e-auction services and extended warranty plans.

From a product perspective, the company offers services for all sort of IT products including PCs and laptops, printers etc, telecom products including smartphones and feature phones, CCTVs, ATMs and PoS machines.

**Urban Company:** Started as Urban Clap, the company is now changed its name to Urban Company. This is a new age service model built by this startup in 2016. The company, in an innovative model, has partnered with local mechanics and repair shops to offer after sales service to almost every electronics appliance including smartphones, ACs, TVs, washing machines and refrigerators.

Their business model was so successful and the market opportunity was so huge that it attracted investors like former Tata Group Chairman Ratan Tata. The other investors include VY Capital, Bessemer Ventures, SAIF Partners and Accel Partners.

The company claims to have over 25,000 professionals on board and present in 22 cities with more than 5 million customers in 4 countries.

**Going Forward:** Studies suggest revenue share from new product sales has been on decline path and margins on new equipment are typically less compared to those on after sales market. Post Covid era, experts believe, people have become more cautious in their spend and would prefer to hold on to their cash and spend on products that offer longer utility with no or little opex cost escalation. This means, after sales can help manufacturers offset their declining margins from new product sales.



Worldwide spending on cybersecurity products and services has collectively exceeded \$1 trillion from 2017 to 2021. The ever-growing number of public IP addresses and access points, a dramatic increase in the volume of Internet traffic, and the massive amounts of data that the world generates today, combine to create a highly favourable environment for cybercriminals to exploit vulnerabilities. The cost of cybercrime will reach 7 trillion dollars worldwide by 2021, and the cost of ransomware damages will rise to 20 billion dollars.

Technological advancements have not only given us the power to manage everything with a click of a button, but it has also made us vulnerable to many threats online. The Covid-19 pandemic has given an unprecedented opportunity to cyber attackers to hack and break down the organizations' IT infrastructure. The work-from-home working module adopted by the organizations has been attributed to the rise of cyber-attacks. As per IBM's Cost of a Data Breach Report 2020 found that organizations took 207 days to detect a security breach and over 80 percent of the reported cybersecurity threats were phishing attacks.

As per a report, hackers had installed malware into IT company SolarWinds' Orion software and accessed critical data of blue-chip companies, hospitals, universities, and U.S. government agencies. According to the report, at least twenty-four tech giants, including Nvidia, VMware, Cisco, and Intel, fell victim to the malware embedded into the Orion software. In the second half of 2020, when the world was struggling to deal with the coronavirus pandemic, cybercriminals did not even spare Covid-19 vaccine research institutions, targeting seven

#### **HIGH PROFILE DATA BREACH IN 2020 AND 2021**

- Facebook users' phone numbers leaked on hacking forum (Exposed personal data of over 500 million Facebook users)
- LinkedIn profiles had been put for sale on a popular hacker forum (Exposed 500 million users)
- ParkMobile breach exposes license plate data and mobile numbers of its users (Exposed Mobile Numbers of 21M Users)
- Air India cyber-attack(4.5 million customers)
- Marriott International (Marriott Data Breach 2020: 5.2 Million Guest Records Were Stolen)
- Magellan(More Than 364,000 Individuals Affected)
- Twitter( A malicious code was inserted into its app hasimpacted information worldwide)
- Garmin( Hackers deployed the ransomware tool and encrypts company's digital infrastructure, paid \$10 million as ransom)
- Software AG(It has hit with \$23 million ransomware attack)
- FireEye and SolarWinds supply chain attack victims(Hackers inserting malicious code into a SolarWinds software update)
- Florida Water System( The intruder boosted the level of sodium hydroxidein the water supply to 100 times higher than normal)
- Microsoft Exchange Mass Cyber Attack( Causing Rampant Damage to Millions Worldwide)
- Airplane Manufacturer Bombardier (Confidential data of customers, suppliers and approx.
   130 Bombardier employees has compromised)
- Sopra Steria Ransomware Attack( Sopra Steria cyber attack costs to hit €50 million)
- Acer(REvil Ransomware Attack cost a ransom of \$50 Million)
- The US Fuel Pipeline(U.S. fuel pipeline operator Colonial Pipeline has shut its entire network)
- Telegram Hijack (Millions are exposed as a malicious new threat exploits Telegram with dangerous malware)
- Mobikwik (10 million users for mobile wallet reported to be on sale on the dark web)
- Juspay(35 million records with masked card data and card fingerprint were breached)
- Airtel denies claims that data of 2.5 million users was leaked



Cybercriminals are using other tricks too, like Google Docs, fake Google Alerts, Facebook and WhatsApp promotions, and tech support scams to spread banking trojans and other kinds of malware.

high-profile establishments from around the world, including one in India.

#### Time to Protect Your Organization Against Cyber Attacks

Every website on the Internet is somewhat vulnerable to security attacks. The threats range from human errors to sophisticated attacks by coordinated cyber criminals. The growing damages faced due to cyberattacks become necessary to take preventive measures right away.

- Generate Cyber Security Awareness:
- Implement a Phishing Incident Response Tool
- Carry Out periodic VAPT
- · Keep the Systems Updated
- Implement Multi-Factor Authentication (MFA)

Technologies and business models have emerged in the cybersecurity space as the world embraced a remote work model where there's no network perimeter and more applications and data are in the cloud than ever before. The funding landscape for cybersecurity startups has gone gangbusters this year, with 14 startups notching valuations in excess of \$1 billion through the first four months of 2021 alone. Secondly,the lack of a network perimeter in this new world accelerated the adoption of SASE (secure access service edge), zero trust and XDR (extended detection and response) to ensure remote users and their data are protected.

The COVID-19 pandemic has accelerated the journey to zero-trust platforms as virtually the world's entire workforce was shoved outside a defined network perimeter, forcing organizations to secure end users who are working remotely as well as fix anomalies and configuration issues revealed by the new approach. In light of the recent attack on the colonial pipeline, many countries have come forward to strengthen their network security.

Government of India is one of the largest digital ecosystems and the cyber-security budgets are still paltry. Indian government has increased the expenditure for the Indian digital programme by 23 percent to Rs 3958 crore for the year 2020-21.India's cybersecurity services industry is projected to grow from \$4.3 billion in 2020 to \$7.6 billion in 2022.According to the Data Security Council of India, the size of the industry is expected to be \$13.6 billion by 2025, with a growth rate of 21%. This proposal is geared toward helping the cybersecurity ecosystem in India to grow stronger. MeitY has launched the Cyber Surakshit Bharat initiative which was in conjunction with the National e-Governance Division (NeGD). Even though India is faceing a critical cybersecurity risk with a dire need to improve the cybersecurity defences, it is taking small steps in improving the overall cybersecurity infrastructure.

At the same time Private equity firms continue to eye the sector. Thoma Bravo has helped build many of the world's leading companies in applications, infrastructure and cybersecurity. Today, the private equity software portfolio includes 40+ companies that generate over \$16 billions of annual revenue and employ over 50,000 colleagues around the world.

Meanwhile, analysts say Netskope and Menlo Security are among cloud security startups that could launch IPOs. Analysts say a new wave of startups seems to be taking share from industry incumbents. They include Illumio, Cybereason, Exabeam, Darktrace and iBoss.

Microsoft is clearly pitching itself as offering a full security suite, a competitive advantage as customers increasingly want a unified view of threats. Microsoft has disclosed that its cybersecurity revenues top \$10

billion annually. Microsoft uses its own cybersecurity platform, Windows Defender Advanced Threat Protection (ATP), for preventative protection, breach detection, automated investigation and response. With 400,000 customers, Microsoft's computer security franchise is growing at more than 40%, as per the company.

Further, CrowdStrike's initial public offering in June, 2019 raised \$612 million, one of the largest cybersecurity offerings. CrowdStrike's rivals include VMware's Carbon Black, Palo Alto, FireEye and startup Cybereason. Private equity firms Blackstone and ClearSky recently invested \$400 million in FireEye.

As the Computers are attacking us, software is attacking us. The only way forward is using artificial intelligence. Now the cyber security companies are using AI and ML and a specialized database to detect malware on laptops, mobile phones and other devices that access corporate networks. Machine learning has become a vital technology for cybersecurity. In addition, many software companies are using artificial intelligence to get a competitive edge.

#### Coronavirus Outbreak Boosted Demand For Cloud Security

Other cybersecurity firms with a sizable government business include Tenable Holdings, Rapid7 and CyberArk. Tenable in February acquired France-based Alsid, which focuses on identity access management.Rapid7 and Qualys specialize in vulnerability management services.

Gartner forecasts that the corporate computer security market will grow more than 10% on average annually through 2024 versus 3% growth for information technology department spending. As remote workers access company data via the internet, many businesses are setting up virtual private networks, or VPNs. Some are buying laptops with preinstalled security software.

However, industries hard hit by the coronavirus pandemic will spend less on security software. They include airlines, hotels, retail and restaurants. However, one view is that mergers and acquisitions will pick up.

Spending on security technologies has evolved as companies shift business workloads to cloud computing service providers. Amazon Web Services, part of Amazon.com is the biggest cloud services firm. Amazon looms as a potential rival as it builds more security tools into its cloud services.

In addition, Microsoft is integrating more security tools into its cloud-based Office 365 software. Microsoft competes with cybersecurity firms such as Proofpoint, Splunk, CrowdStrike, Okta, and startup Netskope. To slow down hackers, more companies are focusing on internal security threats though a strategy known as Zero Trust. The things are getting complicated as the state-sponsored hackers and cybersecurity firms are both using artificial intelligence to get an edge.

Zero Trust cybersecurity models focus on internal threats, such as hackers stealing someone's security credentials. Security firms verify the identity of network users and limit access to applications.

You may think the time is right to move into cybersecurity stocks but the Cybersecurity products are battling with Ransomware, Phishing and the enterprises are fighting with Cybersecurity stocks span a wide-range of products and services. In addition, some security vendors are shifting to software-based subscription business models from selling hardware appliances.

The coronavirus emergency and shift to remote work has accelerated the growth of cloud-based network security. So the industry now has a new term for the infrastructure that supports distributed workers and branch offices.





# Israeli spyware Pegasus uses 'zero-click attack' on phones, rocks the industry

Pegasus, a spyware built by the NSO Group, a zero-click attack helps spyware could gain control over a device without human interaction or human error. The messages to 'zero-click' attacks which do not require any action from the phone's user.

This had made what was without a doubt the most powerful spyware out there, more potent and almost impossible to detect or stop. For example, if you are an iPhone user, for instance, the spyware gains "root-level privileges". After this it can view everything from contact lists to messages and internet browsing history and send the same to the attacker. Detection becomes even harder in encrypted environments where there is no visibility on the data packets being sent or received

The France-based media non-profit organisation Forbidden Stories had accessed a leaked database of 50,000 numbers who may have been targeted for surveillance by clients of NSO Group. Since, the Israeli company says that the advanced spyware is only sold to "vetted governments", it is safe to assume that these individuals were targets or potential targets of government or military agencies.

The Parliamentary panel, which has the maximum members from the ruling BJP, has summoned officials from the Ministry of Electronics, Information and Technology and the Ministry of Home Affairs. An international media consortium has reported that over 300 verified Indian mobile phone numbers were on a list of potential targets for surveillance using Israeli firm NSO's Pegasus spyware.

When an iPhone is compromised, it's done in such a way that allows the attacker to obtain so-called root privileges, or administrative privileges, on the device. Pegasus can do more than what the owner of the device can do."

However, the company has denied all allegations calling it a "planned and well-orchestrated media campaign led by Forbidden Stories and pushed by special interest groups". Denying the list of names published by several media outlets, NSO said, "The list is not a list of targets or potential targets of Pegasus. Any claim that a name in the list is necessarily related to a Pegasus target or Pegasus potential target is erroneous and false." Over this scandal by the Israel Spyware firm NSO's owner announced to get liquidated.

Israeli surveillance software company NSO Group has temporarily blocked several government clients around the world from using its Pegasus spyware as the company investigates its possible misuse.

### **Poor State of Cybersecurity Readiness**

Despite all the warnings and high-profile breaches, the state of readiness for most companies when it comes to cybersecurity is abysmal:

- Nearly 80% of senior IT employees and security leaders believe their companies lack sufficient protection against cyber-attacks despite increased IT security investments made in 2020
  - On average, every employee has access to 11 million files but only 5% of companies' folders are properly protected
  - Just 57% of companies conducted a data security risk assessment in 2020
  - More than 77% of organizations do not have an incident response plan
  - More than 93% of healthcare organizations reported at least one security breach in the last three years

#### Cybersecurity Startups to Watch for in 2021

Acquiring new customers is a difficult task. It's not as simple as putting out an amazing product and hoping for the best—you need to make a crystal clear customer journey to supplement it. It is fact that, hackers attack every 39 seconds, or about 2,244 times a day. Senior business leaders and the board may see cybersecurity as a priority only when an intrusion occurs, whereas cyber security is a major concern for all the stake holders in the eco-system.

The average time to identify a breach in 2020 was 228 days and The average time to contain a breach was 80 days as per IBM and the average time to identify a breach in 2019 was 206 days, at which point the cost could be in excess of \$3.92 million. Besides the numbers of attacks having grown significantly over the past few years, the sophistication of those threats has also increased dramatically. This is due to the application of emerging technologies such as machine learning / AI, as well as the greater tactical cooperation among hacker groups and state actors.

Arctic Wolf	Axis Security	BigID	Bitglass	Cado Security	Cato Networks
Cisco Umbrella	Confluera	Cybereason	Darktrace	Devo	Digital.ai
Eclypsium	Enso	Ethyca	Ilantus	Illumio	Immuta
Isovalent	JumpCloud	Malwarebyte	myNuspire	Ncipher	Netskope
Onelogin	OneTrust	Orca Security	Perimeter81	Privafy	Qualys
Randori	ReversingLabs	SECURITI.ai	Sentinel0ne	Sec0ps	SpiderSilk
Thales	Text IQ	Ubiq Security	Vdoo		

The Year 2021 is going to witness these companies into cyber security to bring unique differentiation as the worldwide spending on information security and risk management systems is going to reach \$174B in 2022 for protecting the endpoint. These 40 companies into Cyber security are expected to enter the Indian market.



# LET'S PEEP THROUGHHOW THE OEMS ARE GEARED TO SECURE INDUSTRY WITH THEIR VARIOUS PRODUCTS AND SERVICE OFFERINGS.

# Infoblox's BloxOne Threat Defense provides simple, ubiquitous protection for on-prem, cloud and hybrid networks from the network core

# MEASURES TO BE TAKEN FOR CYBER THREATS

The rise in remote work, branch offices, and IoT devices has led to the increased adoption of cloud-based applications, services, and infrastructure, and increased the challenge for enterprises. The growth of highly dispersed networks and the increased use of cloud have expanded the need to secure users and data located outside the four walls of headquarters, leaving organizations vulnerable to cyberthreats and highlighting the importance of end-to-end encryption.

In this network environment, organizations looking to protect themselves from cyberthreats need a solution that gives them visibility into their entire network. Without visibility into which devices are connecting to a network and where network traffic is going, network security professionals are working with one hand tied behind their back, forced to react to threats as they arise from unknown vectors instead of proactively managing threats before they cause damage.

BloxOne Threat Defense from Infoblox can provide this kind of visibility and security by enabling large organizations to secure and scale their networks to optimize the infrastructure for a cloud-first world. It provides simple, ubiquitous protection for on-prem, cloud and hybrid networks from the network core. It is a cloud-native, hybrid solution that uses the data generated by DDI to monitor network traffic, proactively identify threats and automatically inform security systems and branch office network managers, addressing security incidents with speed and efficiency in order to better protect data and mitigate the costs of an attack by catching the 90% of all malware that touches DNS to enter or exit the network.

#### PARTNER NETWORK

Our channel partners are some of the most important components of our business, and we are proud to have partners on five continents. We are relentless in providing opportunities for our partners to succeed, through investment, enablement, and special incentive opportunities to help them deliver the networks of the future to the entire world.

In today's cloud-first world, reaching the last mile has never been more important, and so we have stepped up our investments and innovation in our cloud-first BloxOne



Platform--which comprises BloxOne DDI and BloxOne Threat Defense--to enable our partners to provide security and networking security services over the cloud, as services. Because the BloxOne platform is cloud-native, it offers cloud-managed deployment, requiring no new infrastructure to implement, and enabling customers to quickly and remotely secure and manage connected devices, whether at HQ, in a worker's home, or in the middle of the ocean.

# Microsoft security business driven by its unique approach

## MEASURES TO BE TAKEN FOR CYBER THREATS

Security is a priority for organizations now, especially as organizations across industries are looking to transition from remote work to hybrid. But even as people begin to transition back to the office, we expect a future where hybrid work will be the norm.

People are working on corporate networks and home networks and moving fluidly between business and personal activity online, thanks to technologies intertwined with both aspects of our daily routines. The growing sophistication of the threat landscape, coupled with the inflection point that is hybrid, is driving a sea change for the security industry.

Given Microsoft's footprint across so many technologies, we are in a unique position to think holistically about the core aspects of security: stretching from identity and access management; through endpoint, email, and application security; to data loss prevention and into cloud security and SIEM. Across our platforms and services, we take in over 8 trillion security signals every 24 hours, which we then

put to work on behalf of our customers. In 2020 alone, almost six billion malware threats were blocked on endpoints protected by Microsoft Defender.

What drives our security business is our unique approach, which enables organizations to adopt a Zero Trust architecture, while also reducing the complexity, cost, and risk created by stitching together point solutions.

#### **PARTNER NETWORK**

With over 300,000 partners globally, our partners influence more than 95% of our commercial revenue, either directly or in partnership with us. In India, the ecosystem currently has more than 11,000 partners. Together, Microsoft and its partners are working toward the same goals: innovate and deliver new solutions and drive success and digital transformation for our customers.

We have launched a co-selling program in 2017 under which partners, to date, have made \$18.5 billion directly from co-selling their intellectual property (IP) with us. In the current fiscal year, our sales organization has



shared and closed more than 166,000 co-sell opportunities with partners. It's increasing its co-selling focus on small and midsize businesses this year.

The Microsoft Intelligent Security Association is a community of more than 175 partner companies who have created over 250 integrations with Microsoft products and services, helping organizations close the gaps between fragmented security solutions and minimize risk.



"Organisations in India need to shift from a traditional vulnerability management approach to one that is risk-based"



KARTIK SHAHANI Country Manager, Tenable India



The most effective way to ensure privacy and security is by implementing a 'security by design' approach



SANJAY MANOHAR Managing Director, McAfee Enterprise India

#### MEASURES TO BE TAKEN FOR CYBER THREATS

Digital transformation and the work-from-home economy have converged and dramatically expanded the attack surface. To improve security in this expanded environment, organisations in India need to shift from a traditional vulnerability management approach to one that is risk-based. This will enable security teams to see and continuously assess the modern attack surface, predict which vulnerabilities pose the greatest business risk and act with confidence to effectively reduce risk. The ability to see, predict and act are foundational to stay ahead of cyber threats.

#### **BEST PRACTICES**

GPS is used by industries for critical navigation, control systems, and operational processes. This includes maritime, aviation, automotive, financial, telecommunications and defence industries. It serves as a mechanism to determine precise location and also as a critical, extremely accurate time reference.

GPS systems that are not properly secured are vulnerable to GPS jamming, spoofing, and cyberattacks. GPS location data should be monitored and benchmarked against other navigational data. In situations where extremely precise time is required, accurate backup time devices should be implemented. These two simple countermeasures will mitigate attacks against GPS navigation and time data or loss of signal. In addition, security teams require full visibility and real-time accounting of what is on the network – such as GPS time servers and protection devices to be able to detect and thwart threats. Cellular networks and many industrial processes use GPS for time synchronisation. Many operational technology (OT) plants have their own GPS receivers to run local instances of NTP (network time protocol). Time synchronisation is critical for industrial processes where certain functions must take place at precisely the right time for the operations to run properly. The best practice would be to use at least two of the four globally available satellite navigation-based time sources for redundancy. That way, if one source of time malfunctions, industrial plants can rely on the remaining sources for accurate time. In the event all GPS signals are disrupted, a high precision backup clock can be used.

#### PARTNER NETWORK

Tenable has integrations with a variety of security and IT operations technology partners as part of its Cyber Exposure ecosystem. Alongside our ecosystem partners, we have the world's richest set of Cyber Exposure data to analyse, gain context and take decisive action to better understand and reduce cyber risk. We collaborate with leading security technology resellers, distributors and ecosystem partners worldwide.

#### MEASURES TO BE TAKEN FOR CYBER THREATS

Enterprise threats are growing in volume and sophistication, while rapidly targeting new vulnerabilities. Security practices must not only be established but updated and followed to safeguard against these agile, versatile threats.

There is a critical need to maintain an edge over cybercriminals and ensuring security teams are equipped to anticipate and outwit their next move. By adopting an active hunting approach, enterprises can develop an operational cycle to plan, execute, and review intelligence-driven activities, strengthen defences and stay one step ahead. There is a need for the cybersecurity framework to evolve towards deployment of a sustainable, proactive approach to adapt intelligently, and rapidly as and when advanced threat forms are identified. This progression mandates that CISOs transform their mindset, that has been traditionally focused on the prevention portion of the 'prevent-detect-correct' threat defence lifecycle to a balanced focus on detection and correction approach.

From an industry point of view, implementing a 'security by design' approach is the one of the most effective ways to ensure privacy and security. This ensures that data protection strategies are well incorporated into the technology, at the design stage. This allows the product or service to accept new technologies as threats evolve as well as work together with other systems as a cohesive defence.

#### SOLUTIONS FOR SOPHISTICATED ATTACKS

Online threats are growing at a pace unprecedented, with McAfee Labs observing an average of 588 malware threats per minute. This makes it difficult for legacy threat detection systems to monitor threat behaviour and detect new malicious code. One of the biggest challenges of AI is that it is a two-way street - if security teams use AI to prevent cyberattacks, the attackers too use AI to conceal or dispense more effective attacks.

Last month, we released a substantial expansion to our XDR platform aimed at proactively stopping targeted attacks. This expansion of our MVISION extended detection and response (XDR) solution by correlating with its endpoint security solution, Secure Access Service Edge (SASE), and our threat intelligence solution powered by MVISION Insights. Our objective is to protect organisations against threats while making security operations from device to cloud easier. Our solution combines machine learning techniques with human analysis across complex threat campaigns using AI-guided investigations. This delivers end-to-end threat visibility across all attack surfaces, using automation to streamline operations, so enterprises can foresee an attack and not scuffle to contain a breach.



### "Security should be built into the IT Infrastructure and applications, not bolted on"

#### MEASURES TO BE TAKEN FOR CYBER **THREATS**

Situational awareness is the most important subject of interest for any Chief Security Officer (CSO) today. This is a very broad scope here but if any organization reaches a state of full visibility and proactive security landscape awareness, then they have won half the battle. The other half is about how well the organization responds.

This is where I would reiterate the importance of an organization working as one. The responsibility to safeguard against cyber threats cannot be just owned by the security team. The discipline to be alert, preventative measures, and ability to thwart threats is a cultural goal that organizations should aspire to achieve.

Security should be built into the IT Infrastructure and applications, not bolted on. Different devices of the network should be able to talk to each other and act together to fight against cyber threats.

#### SOLUTIONS FOR SOPHISTICATED **ATTACKS**

It is a fact that lot of development in machine learning (ML), AI and crowd sourced data utilization happens in the dark web. As security

solution providers, we are constantly challenged by these attackers which drives innovation to be able to beat them. Our success is how we could be a step ahead of them. Some of our best work also happens in this space.

- Case in point is the Juniper Advanced Threat Prevention (ATP) solution. We have built one of the best ML based ATP system that combines the best of what Juniper had in its Cloud ATP offering and the cutting-edge solution we inherited from our acquisition of Cyphort. Juniper Sky ATP solution can provide protection against the day-zero malware attacks which are primary source of security concern these days.
- The Juniper Mist AI Engine is widely considered as the flag bearer of the AI Revolution that is taking over the network & security Space. Our goal is to integrate all our Enterprise solutions under the Mist AI Umbrella and when that happens the possibilities are limitless.
- Zero-trust security policy can be a good option to protect the organization against such coordinated attacks. The acquisition of 128Technology by Juniper empowered us with Session Smart Routing based SD-WAN solution, which is built on



zero-trust security policy.

Juniper Connected Security solution can help organizations to protect against such coordinated attack.

#### **PARTNER NETWORK**

We have extensive coverage across the various geographies through our own team, partner network and distributors catering to customers in various industry verticals and segments from Service Providers and Telcos to Large and Medium enterprise customer.

### "Our customers globally are using SAFE to objectively measure their cyber risk posture across the enterprise"

#### MEASURES TO BE TAKEN FOR CYBER **THREATS**

Firstly, we need to understand why we are seeing so many cyber threats globally, and not just in India. The COVID-19 pandemic has accelerated digital transformation plans for businesses, significantly increased cloud adoption and has forced companies to adopt a new way of working - from home. With this context in mind, hackers have exploited the lack of preparedness of most companies when it comes to cybersecurity, as security and risk management leaders globally face new security challenges because of the present economic and business environments

Moreover, businesses today continue to use traditional forms of cybersecurity to defend against cyberattacks. Traditional forms of cybersecurity only give a sense of security without showing an enterprise wide, realtime risk posture. This is where we are seeing the increased adoption of Digital Business Risk Quantification platforms such as SAFE. Our customers globally are using SAFE to objectively measure their cyber risk posture across the enterprise in real-time, and know their Breach Likelihood and stay a step ahead of cybercriminals.

#### **SOLUTIONS FOR SOPHISTICATED ATTACKS**

Every organization generates and manages data across three key areas - people, process, technology and third parties. SAFE is an API first, machine learning enabled SaaS platform that aggregates automated signals across people, process, and technology, both for first and third party to dynamically predict the Breach Likelihood of the organization and the dollar value impact a hack can have.

#### **PARTNER NETWORK**

We are actively working with Distributors, Channel Partners and System Integrators across the APAC, Europe and US region and are expanding our reach aggressively. Our product is a SaaS solution and truly enables our partners to become trusted advisors for their customers rather than being box sellers.

#### **CHANNEL EMPOWERMENT**

We began our journey with direct evangelical sales, but are now completely a channel driven organization. We really need partners to scale. Our product is a very senior level sale. This opens up the opportunity for partners to be more relevant, and meshes well



with their own services.

We provide extensive technical training and empower our channel partners to have the right conversations with their customers to truly bring value rather than being a box seller. We are pioneers of a completely new category of products in cybersecurity -Digital Business Risk Quantification and it enables customers for the first time, to see an enterprise wide risk posture in real-time and the financial impact if a hack occurs. This brings a lot of opportunities for our partners as we grow and expand the market.



# Empowering security team with capabilities – The need of the hour



SANDIP PANDA CEO, InstaSafe Technologies

#### MEASURES TO BE TAKEN FOR CYBER THREATS

Cybersecurity experts and CISOs in an organisation are often asked the same question over and over: How do we stay ahead of these attacks? The answer is simple: Experiment.Educate. Empower.

- Cybersecurity as a business unit thrives on stagnancy. Companies and security teams tend to
  rely on old school methodologies and technologies when it comes to securing their networks.
  They are often resistant to new technology adoption and innovation, without realising that their
  nemeses are using all forms of neoteric interventions to break through their systems. In this
  scenario, it becomes critical for companies to experiment and adopt innovative technologies, and
  realise the fitment of these technologies with modern network needs.
- No matter how many measures and defenses you put forth, the human element in cyberthreats is
  always an intimidating presence, and will continue to be so. Attacks driven by human error lead
  the pack when it comes to cyber incidents. And the same happens because of a singular reason:
  Lack of Investment in Cybersecurity Hygiene training. Educating and Training the end-users on
  security awareness so they can understand when a suspicious activity takes place, can potentially
  lead to millions of dollars saved on threat detection and response.
- Without the presence of monitoring technologies that lend visibility across the network spectrum, security teams are left powerless, and are unable to fend off attacks. The need of the hour is to empower security teams with capabilities to monitor network and user activity, which can help them in realtime identification of threat vectors

#### SOLUTIONS FOR SOPHISTICATED ATTACKS

Machine Learning attacks of this type often use a singular layer of protection. Once a set of credentials is compromised, attackers gain access to your network. But what if enterprises start using and implementing a system of continuous authentication and authorisation that leverages machine learning to assess the risk associated with every request for access, and limits access based on the privilege of the user? We end up with a system that trusts absolutely no one by default, and hides your entire network from the public cloud, granting restricted access only after a comprehensive process of pre authorisation and authentication. Essentially, InstaSafe's Zero Trust Solutions endeavour to emulate these security principles. By securing all applications, whether hosted on the cloud, or on premise, with a robust security setup that individually assesses every request for access, and grants least privilege application access on a need to know basis, InstaSafe serves to minimise the attack surface that can be exploited by hackers.

# F5 believes its partners need to be constantly reinventing themselves to make sure they handle enterprise-grade, complex projects

## MEASURES TO BE TAKEN FOR CYBER THREATS

Today, our world looks vastly different. The pervasiveness of the Internet, the ubiquity of mobile devices, the rise of social media, and dramatic shifts in web and cloud-based technology have changed, everything about the way we live, work and do business. Applications are at the heart of this ever-changing landscape; they power almost everything we do, and they are everywhere now. In addition to leveraging threat intelligence, there are a few key areas to concentrate on that will dramatically improve your security program and risk mitigation measures. Train Everyone from Administrative Staff to the Board: - Everyone is responsible for security, and awareness training makes everyone more alert. Train your users aggressively to recognize and avoid spear-phishing attempts. Help them understand the importance of proper password management (and the risks associated with not doing so) and provide tools such as Password Safes

Understand Hackers Motivations Targets and Tactics: - They range from unskilled newcomers who are only interested in wreaking havoc to those who are motivated by social and political agendas. The vast majority of today's

hackers, on the other hand, are cybercriminals motivated solely by monetary gain. And, despite their reputation for perpetuating sophisticated schemes, many of their methods are decidedly unsophisticated. They eventually take the path of least resistance—the easy targets—and why should not they when so many organizations make it so easy for them.

Have a DDOS Strategy:- The DDoS attack landscape has rapidly shifted from complex, expensive attacks launched only against high-value targets, to low-cost bots with plug-and-play attacks, to the new reality of IoT botnets that are simple to build and capable of launching terabyte-per-second attacks.

#### **CHANNEL EMPOWERMENT**

F5 plays an important role in helping enterprises address the issues related to application performance, infrastructure scalability, and data centre security. Our programs are designed to build a robust ecosystem of partners and distributors capable of building profitable businesses around F5's capability. With different consumption models on offer, a massive uptick in software/cloud-based deployments and the increased relevance of application security in today's digital environment, F5 believes that its partners need to be constantly reinventing



themselves to ensure that they have the required skills to be able to handle enterprise-grade, complex projects. With so many technologies to offer, F5 encourages its partners to focus on New Logo acquisition while ensuring that partners continue to invest in building skill sets that enable them to configure and troubleshoot. Not only are partners appropriately rewarded monetarily, but the program also helps build highly profitable recurring services revenue which adds to the bottom-line of the organization. Also, each partner qualifies for the Unity + program based on revenue, competencies, and Demand Generation.



# Vehere's solution takes advantage of both AI/ML and, policy-based automation to deliver actionable insights

## MEASURES TO BE TAKEN FOR CYBER THREATS

Businesses must understand that for them to stay ahead of cyber-threats, there is a pertinent need to have a clarity on the exposure first. The knowledge allows them to prioritize risk assessment and treatment plans. Anything that is out of this fundamental cycle is like jumping the queue and the more queues you jump, more gaps open up. Always follow the exposure and workflows to gain insights into your risks.

## SOLUTIONS FOR SOPHISTICATED ATTACKS

Attacks using AI/ML are real. Datapoisoning is a good example that corrupts the baseline being built by ML tools thereby allowing the attacker to have a free run. It is therefore important to have a hybrid approach — a combination of AI/ML to discover true unknowns and, an effective situational awareness — knowing the normal from deviations. Vehere's solution leverage both AI/ML and, policy-based automation to deliver actionable insights from situational awareness. Since network is the conduit that carries data, listening to the network provides comprehensive visibility into exposure, assets

and, entities – something best suited when you are dealing with connected devices. Using statistical anomaly detection techniques, you can observe changing behaviour of these entities and consequentially risk arising out of the changing patterns.

#### **BEST PRACTICES**

Organizations using fleet management need to ensure that the transmission of data is secure and tamper proof. Cryptography is and must be employed for such information exchange. In addition to that, heuristics and analytics should be employed to detect presence of rogue actor.

#### **PARTNER NETWORK**

Vehere partners with major Systems Integrator and has a network of reseller and support partners in the country. Our products use standards-based integration with technologies deployed in the enterprise to enable faster response and, deliver a compelling value to the buyers. With two distributors supporting the partner network, we have managed to reach all corners of the country.

#### **CHANNEL EMPOWERMENT**

Vehere's is a Channel's First strategy. We assist them to identify market needs,



industries based on their core strengths and, support their endeavours in creating the right buzz for their audience. In a nutshell, it is all about giving our channel better tools to communicate the right message and build simpler products to sell. We want to be known as a full security platform company with a hub and spoke model. Also, continue to build channel leverage and new customer momentum.

A channel specific discount structure and empowering them to qualify opportunity, perform proof of valve (POV) trials.



Sophos's wide range of products and services keep its customers ahead of adversaries



SUNIL SHARMA Managing Director – Sales, Sophos India and SAARC

#### MEASURES TO BE TAKEN FOR CYBER THREATS

The Sophos 2021 Threat Report flags how ransomware and attacker behaviours, from advanced to entry level, will shape the threat landscape and IT security in 2021. To defend against these attack trends, organizations need to have three main pillars in their cybersecurity:

- 1) Next-gen security solutions that provide layered security to prevent threats and unwanted software from infecting their devices and networks
- 2) A managed service that continuously monitors environments for organizations that don't have a security team
- 3) Cybersecurity awareness within organizations (i.e., phishing awareness training)

#### SOLUTIONS FOR SOPHISTICATED ATTACKS

Sophos has a broad portfolio of products and services to protect our customers from all kinds of cyberattacks ranging from mass attacks to the targeted ones. We have expanded synchronized security, where security solutions share threat intelligence and act as a system, to our whole portfolio. We have taken it to the next level with Sophos Adaptive Cybersecurity Ecosystem (ACE). ACE is an ecosystem of Sophos and non-Sophos products that feeds information into a data lake. This entire ecosystem helps us to detect suspicious behaviours and incidents faster and respond automatically with the help of AI.

We have a next generation endpoint protection product called Sophos Intercept X and an Endpoint Detection and Response product called Sophos Intercept X with EDR, used by advanced threat hunters to do security operations. We also offer Managed Threat and Response (MTR), which is our threat hunting service for organizations that don't have threat hunting capabilities. Under this service, our security practitioners will monitor customer environment 24/7 and take actions to neutralize threats.

We have an emergency incident response service called Rapid Response, aimed at customers hit with an attack to help them get through the incident and minimize damage. We have just released a new next-gen firewall dubbed XGS to inspect encrypted traffic on the network security side. Cybercriminals are using TLS encryption to hide their malware, and we have precise capabilities to inspect this traffic at wire speed, which is something most firewalls can't do.

There are a range of exciting products and services at Sophos to keep our customers ahead of adversaries.



### "Check Point provides customers of all sizes with the latest security solutions across the data center, edge and cloud"

#### **MEASURES TO BE TAKEN FOR CYBER THREATS**

- Adopt real time prevention rather than just adopt a detection approach: Vaccination is better than treatment even when it comes to cyber security. Real-time prevention of threats, before they can infiltrate the network, is the key to blocking future attacks.
- Secure your everything: The "new normal" requires organizations to revisit and check the security level and relevance of their network's infrastructures, processes, compliance of connected mobile and PC devices, IoT etc. The increased use of the cloud means an increased level of security, especially in technologies that secure workloads, containers and serverless applications on multi and hybrid cloud environments.
- Boosting visibility makes a huge difference: So many changes in the company's infrastructure present a unique opportunity to check security investments. The highest level of visibility, reached through consolidation, will guarantee the best effectiveness.
- Cybersecurity cannot be reactive or incident driven rather there has to be a proactive focus towards security.
- Recognize that cybersecurity is the responsibility of everyone within the organization, from the CEO down to the employees. It is not just an issue for the CIO or CISO to solve.

#### **PARTNER NETWORK**

Check Point has a vibrant channel ecosystem across the country. Our main goal is to continue evolving our partner network, so as to maximize reach and serve our customers better. In addition, we are always looking to diversify our partnerships by collaborating with partners who specialize in integration, cloud, pure play cyber security, managed services, etc. At Check Point, we strongly feel that there is tremendous opportunity working with partners whose competencies include selling advanced technologies or developing new market segments.

Check Point provides customers of all sizes with the latest security solutions across the data center, edge and cloud via an integrated next generation threat prevention platform, reducing complexity and lowering the total cost of ownership. CheckMe is a fast security assessment tool our partners can run in their customer environments within a minute for network, cloud endpoint or mobile and show customers the potential threats within their environment. Security checkup is an advanced assessment tool that brings up the actual threats and security



events that have happened on the customer's environment over a period of 1-2 weeks.

Our user-friendly mobile application, "Check Point Engage 2.0" empowers our partners to be the best trained and most growth-oriented channel they can be, so that they can be the ultimate trusted advisor to their customers. Engage allows our partners to master our solutions, prepare for their meetings and grow their business with all of the Engage 2.0 features such as direct access to Check Point experts, sales enablement resources, customer insights, and real-time updates - anytime, anywhere.

# "VSP enforces runtime protection cross the web, host and memory for a zero-trust approach"

#### **MEASURES TO BE TAKEN FOR CYBER THREATS**

Fundamentally, conventional security tries to solve yesterday's problem such as protecting the perimeter, identifying known attacks, and relying on patching to cure all ills. With the explosion of cloud deployments, mobile apps, and virtual infrastructure, a mindset focused on the perimeter and the user remains dangerously obsolete.

Proficient attackers are increasingly finding it easier to bypass conventional security tools to target undefended blind spots, attacking critical application runtime elements, and at the memory level. Runtime has become the new security battleground, yet most of our defences have no visibility or control across the runtime infrastructure. Hence, in order to stay ahead of the curve, Enterprise organizations concerned about "Zero trust" need to focus security on protecting Runtime as Application/Server Workloads execute. Virsec Security Platform (VSP) enforces runtime protection across the web, host and memory for a zero-trust approach thus ensuring that applications never get derailed, regardless of threats, vulnerabilities, or patch status.



BOBBY GUPTA
SVP & MD-International Business,
Virsec

#### SOLUTIONS FOR SOPHISTICATED ATTACKS

Virsec Security Platform is designed to provide continuous application-aware workload protection at runtime from the inside without prior knowledge, which AI and ML based tools tend to miss. It stops common and zero-day attacks at the earliest point in the threat cycle no matter how they manifest thus preventing exploits from metastasizing and exerting damage downstream.

#### Here's how VSP stops advanced attacks:

Accurate, Practical, and Effective Approach: Unlike other solutions that depend on behavioural and heuristics rules for detecting attacks, VSP relies on a deterministic approach for detecting and protecting against advanced cyberattacks with no tuning, no noise, and no signatures.

Complete Runtime Visibility: VSP maintains full awareness across the application stack covering all software elements (files, scripts libraries) used during execution as it relates to web, host, memory, and container images, Application Awareness: With patented AppMap technology, VSP maps all elements and what applications are allowed to do and stop deviations instantly before any damage occurs to ensure zero dwell-time and control flow integrity across all applications and components. Comprehensive Protection: VSP is designed to safeguard applications, including COTS, customs, legacy, third-party, SCADA, within all environments including on-premise, virtual, hybrid, cloud, & containers. Advanced Ransomware Protection: VSP precisely detects complex, never seen ransomware attacks upon the first insurgency within milliseconds and instantly executes protective actions that stop attacks and prevent any disruption or data theft.

Comprehensive Supply Chain Protection: With VSP, you can effectively prevent highly sophisticated supply-chain attacks from exploiting application runtime and memory to ensure malicious code never executes, and without isolating or unplugging the system until the patches are available. Virsec's app-aware workload protection uniquely enables Zero Trust runtime protection against sophisticated attacks.



# Skybox Security platform collectively visualises and analyses hybrid and multicloud environments



SHANTANU SRIVASTAVA Vice President, Sales - APAC Skybox Security

#### **MEASURES TO BE TAKEN FOR CYBER THREATS**

The threat landscape is continuously expanding and evolving. An important first step is to understand your unique threat landscape. A network model approach enables enterprises to walk the path of a potential breach. With attack simulation and exposure analysis, it is possible to remediate attack vectors ahead of an incident proactively.

#### **SOLUTIONS FOR SOPHISTICATED ATTACKS**

Skybox Security is the only platform that collectively visualises and analyses hybrid and multicloud environments to provide full context and understanding of the attack surface. We can identify the most critical vulnerabilities by running attack simulations and correlating our in-house threat intelligence to highlight business-critical risks.

Our unique vulnerability and policy management capabilities help organizations establish mature, consistent, and enterprise-wide security posture management programs. Over 500 of the largest and most security-conscious enterprises in the world rely on Skybox for the insights and assurance required to stay ahead of their dynamically changing attack surface.

#### PARTNER NETWORK

Skybox Security integrates with over 150 solutions that range from on-premise network devices to hybrid cloud environments. Skybox also integrates with IT/OT partners, ingesting their vulnerabilities to highlight business risks across complex environments. We are one of those very few cybersecurity vendors who have such a high technology integration coverage. Our threat intelligence feed is a unique differentiator, and we have alliances with bodies such as NIST and NVDs to highlight critical risks.

#### **CHANNEL EMPOWERMENT**

Channel partners are critical to Skybox's overall strategic mission to achieve business growth. One of the best ways to achieve that growth is for a concerted and focused strategy with critical partners. We are constantly working with our partners' goals in mind. We strive to be the cybersecurity industry's easiest and most valued company to partner with.

# Cyble aids organizations in building stronger resilience to cyber breaches and hacks

### MEASURES TO BE TAKEN FOR CYBER THREATS

With cybercrime evolving and growing in sophistication, the first step towards having a security roadmap is acknowledging that no organization, big or small, is immune to cyberattacks. Along with the rampant rise in data breaches across the world, a large volume of criminal transactions, including the sale of breach data, are taking place through darkweb marketplaces and cybercrime forums. We strongly recommend the incorporation of cybercrime and darkweb risk assessment in your cybersecurity strategic plan.

Cyble is a Y Combinator-backed global cybersecurity company specializing in providing advanced intelligence on threats at the earliest stages. Our Darkweb monitoring and Cybercrime Intelligence capabilities are proven to enable organizations make well-informed security decisions based on our evidence-based knowledge on threat actors and their techniques, along with indicators of compromise in the organization's security infrastructure.

## SOLUTIONS FOR SOPHISTICATED ATTACKS

With more and more data entering the

darkweb for sale, Cyble strives to help its clients detect and identify their exposure in the darkweb. Our proprietary SaaS platform, Cyble Vision empowers organizations with a 360-degree visibility of their threat landscape. With more than 150B+ darkweb records, 15B+ OSINT records, and 80% visibility into cybercrime markets, we aid organizations in building stronger resilience to cyber breaches and hacks.

Those worried about their sensitive data making their way into the darkweb can use our AmIBreached app to get faster and greater visibility of their exposed credentials and personal information that threaten the security of their accounts. With AmIBreached.com or the app, individuals can scan through 150 B+darkweb repositories to detect and investigate potential identity thefts and frauds.

#### **PARTNER NETWORK**

Our partners serve as the bridge to our diverse and widespread customers across the country. At Cyble, we rely on our reputable channel partners who are fully invested in our product along with the aims and objectives of our customers. Cyble's channel ecosystem



comprises Global Systems Integrators (GSI), National Security Integrators (NSI), Value-Added Partners (VAP), and Managed Security Service Providers (MSSPs). In order to reach the last mile, ie. our customers, we direct a considerable amount of our efforts at strengthening our partner ecosystem and aiding them with the tools and strategies to perform better. This is done by frequently engaging with our partner ecosystem to decipher and address the challenges they face



### Zero-trust model for application access enables organizations to shift away from relying on traditional VPN tunnels to secure assets being accessed remotely

## MEASURES TO BE TAKEN FOR CYBER THREATS

The massive shift to remote work and a continually expanding attack surface has made the concept of perimeter-based security naïve at best and dangerous at worst. The major trends and factors of the past year include the erosion of barriers between corporate and home offices and the expansion of targets. In today's work-from-home world, organizations need to find ways to give users secure access to the network and applications so they can do their jobs without compromising security.

Using the zero-trust model for application access or zero-trust network access (ZTNA), makes it possible for organizations to shift away from only relying on traditional virtual private network (VPN) tunnels to secure assets being accessed remotely. A VPN often provides unrestricted access to the network, which can allow compromised users or malware to move laterally across the network seeking resources to exploit.

With Zero Trust Network Access (ZTNA), access is only granted to network resources on a policy-based, per-session basis to individuals

and applications after devices and users have been authenticated and verified. The system applies this policy equally whether users are on or off the network. So, you have the same zero trust protections no matter from where a user is connecting.

### SOLUTIONS FOR SOPHISTICATED ATTACKS

FortiGuard Labs goes on the threat hunt every day, not just to react to existing threats, but to get ahead of the curve and research everything from the latest targets to following recent attacks campaigns. It is interesting to note as well that there has been a lot of information disclosure that could have consequences. People are going to public, open-source platforms with samples of emails or other information because they believe they are being targeted. While those people may have good intentions, cybercriminals can get access to that information and use it to launch spear phishing attacks. Some of the information people upload can also contain sensitive corporate information and personal identifiable information (P.I.I.), which really



leaves no work for cybercriminals other than downloading the documents and public information that has been shared with the forum.

For organizations it is important to work collaboratively to respond to events and trust is also a key solution. The zero trust model is super important here, as operating on a zero trust model significantly scales down the room for cybercriminals to enter. This solution was paramount during the shift to telework and should be carried through for the shift to hybrid work, or work from anywhere.

"Our core expertise is analysing files and URLs, delivered typically via email, as if they are being viewed by the victim"



GAURAV CHAWLA Business Development Manager – APAC, WMRav

#### MEASURES TO BE TAKEN FOR CYBER THREATS

Clearly understanding where the enterprise is most vulnerable is key to preventing cyber incidents and staying ahead of attackers. Cybersecurity is not static – organizations need to conduct regular security audits, assess the discovered risks to provide the appropriate level of protection, and fine-tune their security programs accordingly. Having a multi-layered security approach is more important than ever. You will need to put in place the right balance of defensive, detection and responsive measures. Integrate the security environment tightly to avoid blind spots and implement process automation at every possible stage of your security concept to allow your security teams to concentrate on critical tasks

#### **SOLUTIONS FOR SOPHISTICATED ATTACKS**

Cyber criminals are indeed using more sophisticated toolset. This is mainly true to phishing attacks which is responsible for the vast majority of malware infections. We are seeing ML and AI being used to make email attacks look more realistic, and thus trick users to open malware attachments and click on malicious links. The irony is that these types of attacks are harder to detect by ML and AI, which are considered the emerging detection technologies, because these technologies are focusing on the delivery method and not on the payload. This is like fighting fire with fire. Luckily, the VMRay threat analysis and detection technology is agnostic to the way attacks are delivered. Instead, we are focused on the "malicious payload", i.e. the actual code that harms the user. Our core expertise is analysing files and URLs, delivered typically via email, as if they are being viewed by the victim. This concept also known as "sandboxing". However, existing sandbox solutions are becoming less effective to detect more advanced threats, because these have learned to differentiate between a real user and a sandbox. Based on many years of research, VMRay uses a unique technology that makes it impossible for threats to know that they are being analysed by our sandbox. If a malicious payload is delivered via the email, we will detect it.

#### **PARTNER NETWORK**

We have established our regional presence in mid-2020 and are building up our 2-tier channel across the region to support our quickly growing number of customers. VMRay has already developed an extensive partner networks to support regional market requirement through recruitments of Distributor, VAR's, Global System Integrators, Regional Technology partners, Consulting organizations. As a provider of leading-edge technologies for advanced malware detection and analysis, we are adding partners with extensive experience in SOC and Incident Response.





# DATA LOCALIZATION BRINGS HUGE INVESTMENT INTO DATA CENTER MARKET IN INDIA ...WHO WILL INTRODUCE THE UNMANNED DATA CENTER?

India's digital is economy expected to touch \$1 trillion by 2025, with the government planning to triple India's installed power capacity for data centres from the existing 375MW by 2025, there is a \$4.9 billion investment opportunity by 2025 to set up data centre infrastructure. All the credit comes with the growing digital economy, increased investor interest and stable long-term returns. The era of automation and AI has shown that today's dream can become tomorrow's reality.

DC industry is expanding at an unprecedented pace, it will generate a greater need for hyperscale DCs located strategically across the globe. The DC parks are getting established far from large metros. We are witnessing a higher growth into hyperscale facilities, with the demand to support the platforms of the worldwide web, social media, streaming, cloud gaming, AI, machine learning and, inevitably, hyperscale cloud providers too.

With the all biggies eyeing to invest in the datacenter business including Reliance Industries, Adani Group and we have already seen how Hirananadani backed Yotta is investing heavily into this business. At the same time the global giant Digital Realty also is exploring the opportunity. According to McKinsey, core digital sectors in India, such as IT and digital communication services are projected to double in size by 2025 to contribute \$355-435 billion to the economy.

The recent pandemic has accelerated the move of companies large and small to the major cloud services. They are drawn by the scalability and accessibility of these platforms that are in place to assist with the complexities of a fully distributed workforce. Whether hosting previously in-house applications or utilizing full Infrastructure-as-a-Service models, many of these key providers have risen to the forefront of importance to global business.

alled power capacity for data centres, which may triple by 2025.

#### Key Companies Mentioned in this Report Include

• IT Infrastructure Providers –Atos, Broadcom, Cisco, Dell Technologies, Hewlett Packard Enterprise, Huawei, IBM, Lenovo and NetApp

- Construction Service Providers AECOM, Sterling & Wilson, DSCO Group, Nikom Infra Solutions and L&T Construction
- Support Infrastructure Providers ABB, Caterpillar, Cummins, Eaton, Delta Group, Legrand, NetRack Enclosures, Riello UPS, Rittal, Schneider Electric, Stulz and Vertiv
- Data Center Investors Bharti Airtel (NXTRA DATA), Bridge Data Centres, Colt Data Centre Services (Colt DCS), CtrlS, ESDS, GPX Global Systems, NTT Global Data Centers, Pi DATACENTERS, Rack Bank, Reliance Communications, Sify Technology, ST Telemedia Global Data Centres (STT GDC), Streamcast Group, Web Werks and Yotta Infrastructure Solutions.

Going forward, Indian's Data center Market is going to make a huge impact on the national economic landscape and expected to Cross over \$4.5 Billion by 2025. Only few Data Centers in India are focusing on the renewable energy and energy-efficient power and cooling solutions. As the growth of IoT and remote work is driving the cloud services market to an incredible double digit mark, but in order to properly capitalise this explosion of data it's important to scrutinise where the data is being held.

#### Key Highlights:

- Over \$2 billion cumulative revenue opportunity for data center construction contractor through India market during 2020-2025.
- India data center colocation market revenue to witness a CAGR of over 15% between 2019-2025, aided by significant developments in hyperscale data center colocation space.
- Maharashtra continues to dominate with 60% market share in investments, followed by Karnataka, Telangana, and Andhra Pradesh.
- Data localization will necessitate storing all consumer-related data that includes the need for Facebook and other social network platforms to store its data and skyrocketing data center demand in India ,as there is a need to store over 60% of data that is being stored in data centers across the globe. The spread of Covid-19 has significantly increased data traffic from March 2020.
- The rapidly-evolving digital economy is forcing enterprises to address more questions and challenges regarding their IT infrastructure. Artificial



intelligence is no different. The way we have to think about it has evolved as well. Here's what IT departments need to consider as they optimize AI for the digital economy.

#### Challenging Times ahead for the DC Companies:

There is a need for hosted AI solution for a new data-centric infrastructure architecture that puts data at the center of the architecture to localize data aggregation, staging, analytics, streaming, and management at global points of business presence. Additionally, architecture design must address data gravity challenges when deploying large-scale data analytics and AI solutions.

There is a need for the Platform support, storage optimization, security, protection, and cost-effective scalability are critical elements of success needed when enterprises bring AI, analytics platforms and applications to the data. According to Gartner, by the end of 2024, 75% of enterprises will shift

The Data Protection Act suggested by the Srikrishna committee, aims at protecting the data of citizens by storing it locally. Another reason for data localization is to help government form better domestic policies for its citizens; RBI has already come out with the mandate for companies to store all the financial data locally.

from piloting to operationalizing AI, driving a 5X increase in streaming data and analytics infrastructures.

Dave McCrory, Vice President of Growth at Digital Realty, explained that "Data gravity is growing at an incredible rate, and the data creation lifecycle is experiencing growth virtually every area." For example, according to 451 Research, by 2022, 87% of IT leaders will maintain local copies of customer and transaction data for compliance. This macro trend of data localization amplifies the effects of data gravity, and the result increases the number of locations where data is aggregated. Enterprises cannot expect optimal results from AI if their AI compute is not located in close proximity to their data.

EdgeConneX, the leading data centre operator with 50 facilities in 30 markets around the world, will bring expertise and technology solutions to the venture and leverage Adani's expertise in full-stack energy management, renewable power and real estate development, as well as its experience in building and managing large infrastructure projects throughout India.

#### Newer investment and disruptions to happen in 2021-22

- @ Princeton Digital's Navi Mumbai project to have 48 megawatt data centre in next two years will spread across two buildings. The new campus is designed to serve leading hyperscalers including internet and cloud companies in the fast-growing Mumbai region in India and is scheduled to be service-ready in 2022.
  - @ Samsung begins production of power-efficient SSD for data centres
- @ Reliance Jio planning to build data centre in Uttar Pradesh with \$950 million investment. A 20-acre plot had been allotted to the company, and the project is to cost approximately Rs 7,000 crore (\$1 Billion USD approx.). This data centre to be powered by its own renewable energy plant.
- @ Adani Group forms equal JV with US based EdgeConneX to build hyperscale data centre parks in the six cities including Chennai, Navi Mumbai, Noida, Vizag and Hyderabad . It'll also develop edge data centres pan-India. The pan-Indian platform of hyperscale and hyperlocal data centers will largely be powered by renewable energy.
- @ India's directive for data localisation has also influenced data center expansion plans by the likes of AWS, Airtel, Oracle, Google, Yotta and Jio in partnership with Microsoft Azure.
- @ Japanese tech firm NTT acquires 6-acre land in Greater Noida to set up a data centre with an investment of Rs 1,000 crore
- @ Mumbai-based Hiranandani Group's Yotta Infrastructure said it would set up a 20-acre data centre park with an investment of Rs 7,000 crore. Yotta park by the Hiranandani group will consist of 6 interconnected data center buildings offering 30,000 racks capacity and 200 MW of power.

Lastly, connectivity is an essential precondition and data centers are the warehouses of the digital economy, providing a home not only for the data itself, but also for the platforms and applications that have become so ubiquitous in the modern world. More and more Indian organisations are looking to transform into digital-first businesses, with a natural progression towards increased cloud-led innovation across the board. As a result, 40% of new enterprise applications in India are likely to be cloud-native by 2022.

### "At CtrlS, we have been focusing on investments in Hyperscale formats"

Data centers have emerged as a critical part of the digital infrastructure that connects people and businesses to one another and the rest of the world. Few data centers are exploring the option of deployment of robots in automating the operations of DCs as they can be programmed to perform repetitive tasks swiftly and efficiently.

Data center growth in India: Indian data center services footprint which stands at an estimated five million square feet is likely to cross 30 million square feet in next decade. Today, hyperscale data center space in the country occupies just about 10% of the overall third party data center (DC) market.

This is a true cause for concern as there is increasing demand from hyperscalers and modern business applications. The demand for the hyperscale DC space is expected to be around 5 million square feet as of 2021, but will continue to grow at 20% to 25% CAGR.

In addition, the oligopolistic nature of Indian DC industry suffers from high entry barriers due to high capital expenditure, high fixed costs. However, at CtrlS, we have been focusing on investments in Hyperscale formats and own more than one million square feet of rated-4 hyperscale data center space in the country.

Security & Data center: CtrlS is focused on powering mission critical applications. We are trusted by banks, telecom operators, financial services companies, e-commerce players among others including 30 of the Fortune 500 Global Multinationals – all of them requiring 100% uptime and round-the-clock support to keep their infrastructure and applications running.

We offer industry best uptime SLA of 99.995% combined with fault-tolerant rated-4 data center facilities, industry lowest PUE of 1.35, carrier neutral facilities, rack densities of 30+ KW and above all speed of deployment. We have had a record 100% uptime since inception. Having said that, yes, there has been a growing demand due to COVID-19 as WFH, Learn-from-Home have led to growth of data consumption from academic institutions and access to technologies such as desktop-as-a-service (DAAS). Well, this is a seasonal opportunity, and has led to growth in utilization of our data centers and cloud infrastructure as well.

Readiness to meet the demand: We are investing in building additional 5 million square feet of rated-4 hyperscale datacenter facilities in India and ready to absorb the likely surge in demand due to Personal Data Protection (PDP) bill which is likelyto be passed by the Indian Government – this will lead to large surge in demand for colocation facilities. Two million squarefeet each in Mumbai and Hyderabad and a million square feet in Chennai. Together, we will have a total of six million squarefeet in India backed by 600 MW of power. We will also be adding 1,000 Edge datacenters in the country focused on Tier-2 and Tier-3 cities. The Post COVID-19 situation, is likely to see India as an alternate destination to China, which will further increasethe consumption of data center space – we will need the entire industry working together to address the forthcoming growth opportunity.

#### "Our priority is to transform the entire country digitally"

Data center growth in India: The demand for data centers is rising since; digital transformation is the next big thing. Post COVID-19 digital transformation speed has been accelerated and the change will be seen in the upcoming 5 years instead of 10 years. Currently, people are not aware of the data center computing size required for next-generation technologies. World's largest IoT project, which is India's number one smart metering project, is going live phase by phase from ESDS intelligent cloud platform.

Therefore, we know the amount of compute required for IoT. The amount of computing deployed in our data centers is humongous, where only 10 million Smart Meters have gone live. With 250 million smart meters going live, the compute consumed by data centers cannot be imagined.

AI and ML involve GPU computing which will consume power equivalent to 10 racks of today. In other words, each rack will consume 10 times the power of the rack consumed today. Similarly, blockchain initiatives and quantum computing which will be an emerging technology in the next 3 years will consume a massive amount of compute. Augmented reality and virtual reality too are compute-intensive. Thus, it can be clearly stated the next-generation technologies will be compute-intensive.

The data centers being implemented in the country will be occupied within no time since the massive amount of data centers will be required with the rise in technologies. With the rise of Atmanirbhar Bharat Abhiyan and post-COVID realization country will see a massive transformation with new data centers.



Security & Data center: In the present scenario, security has turned out to be the biggest challenge. During COVID-19 induced lockdown, business organizations across the world have experienced ransomware attacks. Thus, security is crucial for cloud and data center offerings. The data center not offering security services will create a disaster for digital aspirants in the long run. If you have a data center then practicing SOC services is extremely important.

Post COVID-19 where people are working from home, there needs to be a strong security policy for the edge devices. Besides, an edge security solution should be installed on the devices transferring data to your cloud and data center ensuring the data is filtered. To ensure the customer data is digitally encrypted, it is vital to offer multiple encryption solutions within the cloud services.

ESDS enables its customers to secure the data with their encryption. So our customers are allowed to bring their encryption and ESDS too offers its encryption to some of our customers. We provide double encryption, where the database and applications are encrypted differently. A wide range of solutions are available in the market and SOC services have become important for the digital era.

Readiness to meet the demand: Currently, the hyper-scale data center is the need of the hour. In the future, it is not just centralized hyper-scale data centers playing a crucial role but we will require high-quality data centers and compute at the edge data centers. Processing entire data at the centralized data center and sending it back is a tedious task. ESDS is ready to invest heavily into launching more data centers and cloud offerings.

Since we are a digital transformation company, we are not focused just on launching data centers. The thought process behind launching data centers is to consume them for our cloud offerings, to offer services to our customers.

We are not focused much on hyper-scale data centers but, on delivering digital transformation solutions to enterprises, government organizations, and the banking sector in India. We want to be a value-added partner in the growth process of Indian organizations. We don't want to do just data center business for earning revenue. Our priority is to transform the entire country digitally and impact the lives of more than a billion Indians. Delivering happiness to the people of India is the core purpose of the existence of ESDS.

#### "Our Infinite Datacenter vision is to create a fog of computing, storage & network infrastructure reaching every one"

Data center growth in India: As we all are aware that each of the computing models, public or private serve specific purposes. Enterprises have been investing in private clouds for over 5 - 7 years and now there has been a big ramp up of the public cloud infrastructure. This works well for traditional application models where data lives in the data center. It is time for applications to move closer to Data, consumers.

India is a very large country with a developing network infrastructure, to serve this country it is not enough to invest in centralised data center facilities, but to enable distributed computing models enabled by the Edge. We import most of the data that we consume and the public policy will push the data to be hosted within the country so that laws of the land can be applied within their jurisdictions. In the next couple of years we will see a big influx of big tech companies into India, seeking whole-sale collocation space, beyond the current thought process of serving the hyper-scalers.

We also note that the enterprises are shy of investing, there will be many who will opt for hosted private clouds along with public clouds for specific applications. In summary, the market is underserved for whole-sale, enterprise co-location for hosted private clouds and the Edge.

Security & Data center: Our first and foremost responsibility is to secure our infrastructure including the electrical, HVAC and surveillance & access control systems. We are using Artificial Intelligence to secure the facilities and prepare them to be human-free datacenters. In parallel, we are using machine learning algorithms to predict and avoid outages.

Our future is AIOps and SecOps, to ensure our datacenters are human-free.

Readiness to meet the demand: As 5G is rolled-out our terrestrial networks will require big upgrade or they will choke. The immediate future is applications moving nearer to the data/consumer and the Edge is the big enabler. We have identified 236 locations where we will take our Edge and compliment it with a software defined network from multiple service providers. Our Infinite Datacenter vision is to create a fog of computing, storage & network infrastructure reaching every one of the 644 districts in the country.

To enable applications leverage the Edge, we are now offering managed kubernetes service. The Infinite Datacenter will be smart enough, to automatically take the web-service to the Edge closer to where the consumer is.

It is not enough to deploy the infrastructure, India is a very large country and it can only be served by a strong channel partner network, not just to resell services, but understand the local customer needs and provide them with host of services above the infrastructure layer. We are embarking on a mission to empower a large partner base in excess of 2,000+ Partners with new capabilities and a powerful service offering. We expect to launch that early April '21.

## "NTT-Netmagic aiming to double the capacity of its existing datacenters in coming three years"

Data center growth in India: The domestic data center market is growing at an annual rate of 20 per cent and will continue to clip at this level for the next few years more. Currently, India is the fifth largest data centre market in the world that is led by China.

We, the Global Data Centers and Cloud Infrastructure (India) of NTT Ltd. (also known as NTT-Netmagic), operate with 10 data centers across four major cities with 1.5 million square feet and over 150 MW of power capacity and India's first and largest operational hyperscale Data Center Park in Mumbai. The GDC division globally has more than 160 data centers located in over 20 countries and regions such as North America, APAC, EMEA and India.

We are also looking at doubling capacity of our existing data centers over the next 3 years. Alongside the development of new data centers, we are also committed to the cause of sustainability. We have built a 50-MW solar power plant in Solapur, Maharashtra and are in the process of installing 20.5 MW Wind Solar Hybrid Project in Karnataka, the energy from this project will utilised at Bangalore Data Centers.

Security & Data center: Our advanced technologies and expertise in the domain enable us to improve the client's ability to detect, respond and mitigate any cyber security risks.

Our innovative managed security solutions ensure 24x7 monitoring and detection of all threats through advanced analytics, AI-driven contextual threat intelligence and automated responsive strategic intervention. Our holistic involvement revolves around Rapid incident response and actionable resolution guidance.

We visualize and execute security programs for our clients in line with their risk profile. We help in selecting, aligning and designing the right tools, technologies, capabilities and processes across all security domains.

Our intelligence driven, proactive cybersecurity posture and advanced tools monitor and alert us about emerging threats or attacks. In the wake of the pandemic, we created unique service offerings like zero trust, MDRS, Threat intel etc. which help our customers extend cloud and WFH without worrying about security. We also offer holistic DR services to our clients.

Readiness to meet the demand: We have acquired six acres of land to construct a 70-MW data center in Noida, India in techzone IV of Greater Noida west. We also have a DC park of 6 acres coming up in Chennai. This will to accommodate two DCs with a combined power capacity of over 50 MW.

Last year, NTT Ltd. had announced the investment of about \$2 billion over the next four years to expand its data centre business in India.

We also want to embark on a major transformation initiative such as introducing more automation and AI Ops. This will help us in deriving more efficiency and understanding how clients can benefit. Apart from leveraging innovation, we are also trying to customize products and services in the country through our development centers.

### "GPX Cloud Solutions are focused on enabling enterprises in India to accelerate their cloud adoption"

Data center growth in India: In India, the demand for hyper-scale data centers has shot up in the last two years as more businesses are moving their IT infrastructure to the Cloud, primarily driven by increasing demand for app-based services and OTT platforms. Enterprises are transforming IT delivery and bringing applications and data processing closer to the users—in a colocation facility at the edge data center.

Deploying direct, private connections at the digital edge propels both application performance and user experience. Enterprises are leveraging hybrid multi-cloud IT platforms offered by data centers like GPX.

Security & Data center: The ongoing pandemic situation has made businesses pay greater attention to reliable and enduring network connectivity. Enterprise customers are increasingly moving away from their in-house data centres to either a third-party data centre or the Cloud. In third-party data centers, they can gain access to multiple Cloud Service Providers (CSPs) via an Open Cloud Exchange and have access to various other multiple network connectivity providers, including—Internet Exchanges (IXes), CDNs, SDNs, ISPs, content providers. All represent key building blocks of a connectivity-



rich Interconnection Ecosystem, the nerve center of digital transformation.

GPX is the only data center in India with 170+ ISPs, 12 Carriers, 8 CSPs, and all major OTTs, thus enabling all these interconnections within the same data center campus. GPXs' Uptime Tier IV designed colocation data center and cloud solutions facilitates Hybrid IT. It enables customers to host part of their infrastructure at GPX Colo, part in the Cloud using GPX Direct Cloud Connect and Open Cloud Exchange, and (if needed) part at Customers' Onprem. 'GPX Mumbai data center campus has 5 Internet Exchanges: NIXI, AMS-IX, Bharat IX, DE-CIX, and Extreme IX.

Readiness to meet the demand: GPX Cloud Solutions are focused on enabling enterprises in India to accelerate their cloud adoption. GPX is the first data center operator to launch an Open Cloud Exchange solution. It is a multi-homing solution that is a fully GPX managed solution, offering connectivity to multiple Cloud Service Providers (CSPs) hosted inside GPX Mumbai data center campus.

A big differentiator for the GPX Open Cloud Exchange is that it is not dependent on any other data center or network carrier. Enterprises can seamlessly connect to multiple cloud providers via a single port, accelerating their cloud adoption and enabling them to optimise hybrid-cloud and multicloud network strategies. Currently, there are 8 CSPs present in 'GPXs' Mumbai data center campus, out of which AWS, Google Cloud, and Oracle Cloud now offer direct private Cloud connect.

'Equinix's acquisition of GPX will enable a giant leap forward in growing India's ecosystem and give a solid foundation for rapid growth and expansion. GPX plans to expand across the region and globally via Platform Equinix, which has been highly successful with enterprises worldwide, especially the complementary segment with our existing customer base of carriers, content, and cloud service providers.

#### "The need for more realistic disaster recovery capabilities is fuelling the demand for DRaaS leading to growth in data center demand"

Data center growth in India: The demand for co-location data centers has been on the rise ever since the question of data nativity became inevitable, even as the need for data driven intelligence and ability to use the power of cloud native AI/ML services is leading to hybrid architectures.

Second, the significant increase in Social Media/OTT content and the need for keeping it closer to the consumers and the philosophy of edge computing has also been contributing to the growth in demand for local Data Centers leading to the idea of Distributed Data Centers which is a combination of hyperscale, colocation and edge locations.

The new reality post pandemic has sensitized businesses to relook at their IT Resiliency and business continuity readiness from a whole new perspective. The need for more realistic disaster recovery capabilities is fuelling the demand for DRaaS leading to growth in data center demand. This must be further looked into from a compliance perspective where the DR site has to be in a different seismic zone and also in today's reality where hyperscalers are not available in India in multiple regions.

To meet these emerging demands and help reduce the overall cost, rationalize IT spends, and rearchitect the underlying technology to bring in more agility and flexibility, service providers are investing to increase Data Center infrastructure availability.

Security & Data center: The perspective of security architecture is changing dramatically with the mobile first and cloud first world, where the security architecture must seamlessly cover the distributed Data Center scenario. The other trend of dissolution of security perimeter with Cloud becoming the Data Center coupled with various SaaS services has resulted in a perspective of Zero Trust Network Access (ZTNA) and Cloud Access Security Brokerage (CASB). These very measures have been of great help to seamlessly enable Work-from-Home access without any disruption and with all the confidence.

Achieving 100% uptime for the data center is easy, but maintaining it continuously is only possible with a sustainable model that includes strong process management and automation supporting process strengthening.

As for managed security services, Sify broadly offers three categories-Cloud Security Posture Management, Cloud Access Security Management and Cloud Workload Protection Management.

Readiness to meet the demand: The fundamental enabler to be ready for emerging business models is the full spectrum of Cloud@Core services comprising of Cloud Enabling, Cloud Inspired, Cloud Pure and Cloud Enhanced services. Our network transformation capabilities, Cloud connect services and Network presence with over 3100 PoPs across 1600 cities and

towns can enable 5G.

As for keeping ahead of the curve to offer the latest and greatest compute resources available, we leverage our Cloud Adjacent Data Centers to provide maximum agility, flexibility and choices to our customers. Our very low network latency access to hyperscalers make it compelling to leverage the rich set of storage services very easily.

### "In future, we can expect more adoption of Edge DC owing to the exponential growth of IoT devices"

Data center growth in India:Even before the pandemic hit, India's data center industry was witnessing a robust growth. COVID-19, however, was an inflection point for the sector, driving an exponential consumption of data, remote working, increased internet penetration. This in turn, resulted in an increased demand for bandwidth, storage capacities and cloud services. India's emphasis to achieve self-reliance through data localisation are likely to fuel the demand for data center and cloud services.

Today, we are witnessing more investments into hyperscale Tier IV data centers and data center operators are now building parks instead of isolated buildings. Majority of Hyperscalers are already outsourcing their colocation requirements in India for rapid expansion. International cloud providers are also setting up their captive data centers by availing incentives and benefits by government policies.

At the same time, there will be equal demand for Edge data centers. Increasing use of compute-intensive technologies like IoT and AI has increased the need for faster network response to customers, in-turn driving the demand for edge data centres. Unlike the traditional approach which adopts a centralized approach and sends every bit of data to the cloud, Edge DCs keep the heaviest traffic and data close to end-user applications. In the future, we can expect more adoption of Edge DC owing to the exponential growth of IoT devices.

Security & Data center: Thanks to the pandemic, organizations, large and small deviated from the traditional workplace and adapted to work with a distributed workforce. There was an urgent need to scale up the IT infrastructure. Cloud services became critical to functioning of organizations, with employees requiring access to data and working remotely. The need for reliable and a secure IT infrastructure became of paramount importance. To address these concerns, we have strived to make quality technology services accessible to everyone. With Yotta Enterprise Cloud, we are doing the same. The services offered under Yotta Enterprise Cloud Services include – public, private, and federated cloud. The portfolio includes Compute as a Service, Storage as a Service, Disaster Recovery as a Service, Software as a Service, Backup and Recovery as a Service. Yotta also provides end-to-end consultancy and support for cloud migration, prioritisation of applications and workloads, and identifying infrastructure dependencies.

Readiness to meet the demand: At Yotta, we believe that hyper-innovation happens at the intersection of modern technology and an infinitely scalable business ecosystem. We conceptualise, design, engineer and operate hyper scale data center parks to support the quality and capacity requirements of companies rapidly moving towards digitisation.

Market segmentation: We offer services to both hyperscalers (Yotta Colo) and enterprises (Yotta Tech). Yotta Colo will provide wholescale colocation, with racks on demand, whereas our enterprise IT services will continue to offer bouquet of managed services: private cloud, public cloud, hybrid cloud, managed security, IT management, desktop as a service, managed security, storage, BCP/DR, colocation, and even GPUs. Investments: Given our parent company- Hiranandani Group's vast experience over the past 35 years, Yotta Infrastructure has a competitive edge with strengths in the key pillars of the Data Centre business viz. ownership of land, world-class construction, timely completion of projects and in-house power supply capabilities. In October 2020, we committed a Rs.7000 crore investment to set-up a 20-acre hyperscale datacenter park in Noida. We have also recently announced our MoU with the West Bengal government, with an investment of Rs.8500 crore to set up logistics and hyperscale data center parks in the state. Our campuses across Chennai and Maharashtra will spread over 50 acres, offering 11 DC buildings with 60,000 racks.

## "Web Werks geared to capitalize on hyperscale and the edge with a strategy that seeks to extend its interconnection advantage"

Data center growth in India: In India, the demand for hyperscale data centers has shot up in the last two years as more businesses are moving their IT infrastructure to the cloud, especially driven by increasing demand for app-based services and OTT platforms. Colocation Data Centers consist of one data



center provider catering to multiple enterprise and hyperscale customers in a specific location. Interconnection is a large driver for businesses. Hyperscale operators are the fastest-growing customer category for colocation providers

A report by IDC stated that by 2025, the average person will interact with a smart device nearly 4,800 times a day, which is triple our usage today. This growing digital data necessitates faster and real-time processing to reduce market response time. Latency becomes a major factor as the majority of businesses are migrating their critical data to the cloud. Edge data centers increase network performance while reducing latency to a large extent. Over the next few years, we can expect to see a steady rise in the demand for edge data centers offering colocation and reliable connectivity to multiple cloud providers for Hybrid Multi-Cloud strategy. Due to real estate and construction being the ingredient of any data centers - it takes 2 years or more to build DCs. Because of this gestation period though demand has shot up supply remains extremely constrained

Security & Data center: Web Werks offer enterprise customers a location to host their ERP or applications and have a bandwidth on demand for serving their work from home employees. The DC has all the ISPs and is ultra-reliable / resilient in terms of connectivity. This daily operational continuity where the client can outsource everything including remote hands 24x7 which would otherwise be unable to them in their office. Private Cloud can be used for migration of applications, Tally on cloud built exclusively for small business, Acronis backup and Virtual Desktop are products launched for work from home.

Readiness to meet the demand: Web Werks has put together the most extensive range of cloud hosting services designed to allow our customers to work seamlessly. With public, private and virtual private cloud options available, as well as on-demand cloud services offering rapid deployment for a range of niche industries, we support our customers' business requirements. We focus on low latency along with exceptional network performance to ensure that your workloads are supported no matter the capacity. Disaster recovery is one of the major benefits that the hybrid cloud offers enterprises, especially those new to the cloud.

Digital will soon become a lifestyle choice, thanks to the burgeoning Indian millennial population. Due to high bandwidth and transmission demands, DCs will need to be ready to deal with changing latency and workloads. They need to incorporate mixed computing architectures. Web Werks is geared to capitalize on hyperscale and the edge with a strategy that seeks to extend its interconnection advantage. Web Werks offers a network dense ecosystem comprising of all major Telcos, 160+ ISPs and 3 major Internet Exchanges in India; NIXI, De-CIX, Extreme IX.

### "Cloud driving hyperscaler growth in India, also boosting colocation data center"

Data center growth in India: The first inflection was when the hyperscalers decided to enter India in 2015-16. Now that The Personal Data Protection Bill getting finalized is becoming a bigger possibility, a number of global players like AWS are tapping the Indian market through hyperscalers.

Cloud is growing at more than 33% CAGR which is driving hyperscaler growth in India and since cloud players leverage colocation infrastructure, it is a significant growth driver for colocation as well. STT GDC India is a leading colocation service provider and extensively focuses on cloud/hyperscaler players, ISVs, Global System Integrators and MHS players, enabling and supporting such players in building their cloud offerings.

These players build scalable solutions on STT GDC India's platform which in turn helps STT GDC India reach out to the top enterprises across the world. STT GDC India is on a multi-megawatt expansion journey, as part of which we had launched the STT Bengaluru DC 3 in December 2019 and added new structures to existing facilities recently. The organisation is fully equipped to further provide scalable solutions to other hyperscalers.

Security & Data center: As a carrier-neutral data centre services provider, STT GDC India is well positioned to provide a fitting combination of colocation and network services, even providing customers the ability to connect with multiple service providers. Customers can operate at any scale and level of privacy that their business requires with high flexibility, ranging from rack to multi-megawatt bespoke solutions that can include cage, suite, and/or containment.

STT GDC India provides a colocation platform to hyperscalers' and other cloud players and helps them build their cloud offerings. Majority of global and Indian cloud players have built their cloud solutions on its colocation platform. It provides a colocation platform to System Integrators and MHS providers and helps them build their MHS offerings. Its global platform offers extensive geographic reach, together with deep sector expertise, enabling its

customers to rapidly deploy a scalable, global footprint while maintaining STT GDC's premium standards of performance, reliability, security and network choice.

Customers benefit from the economies that STT GDC India brings with such a large footprint and scale. This capacity is available to its customers on a consumption basis which reduces the capex requirements for their end customers. This also means that the capacity is available when the customer needs it without waiting for multiple years of build cycle.

Readiness to meet the demand: STT GDC India has 17 data centres spread across 8 tier 1 and tier 2 cities totalling 135 MW of IT power. The company has firm plans of expanding in these cities through brownfield and greenfield expansion models and will be doubling the capacity over the next 2 years as part of its multi-megawatt expansion strategy. STT GDC India also has evaluated edge strategy in 5 tier2/tier3 cities and is in the process of finalising its edge plans.

#### "Our current and future datacenters and enterprise cloud fabric are modularly designed keeping dynamic data surge in the formula"

Data center growth in India: From a Hyperscale datacenter perspective, there are two key elements that matter the most - Availability of on-demand scalable space and power. Out of these two, Power, takes the podium. With the need for high-end compute processing reaching a mammoth level, the demand for uninterrupted quality power is at its peak like never before. From that perspective, if we look at India, we find ourselves underprepared to support such hyperscale demand for sustainable and green energy at a lower TCO

The demand for modular colocation is not only rising from the global hyperscale enterprises in the space of social media, retail, and technology, but also, from many large Indian businesses. If we do a 10 years' demand forecast analysis keeping in mind the hyperscale/colocation clients, it will run into several hundreds of megawatts of power demand. Hence a lot more capacity needs to be built that would serve industry verticals.

Hybrid Data centers – While we still see a significant capacity of data being hosted On-Premises by enterprises across industry verticals, there is a visible shift in demand where enterprises are factoring collocation of their partial data to a third party professionally run Data center. We can easily predict that eventually 20% capacity may still remain On-Premises, while 80% of the capacity would be outsourced to third party data centers. Another smart way to create cost and operational linearity.

Security & Data center: Pi DATACENTERS, has a unique story of being India's first Uptime Institute TIER IV certified hyperscale data center on one hand and on the other hand, owns the only native Indian enterprise cloud platform, Harbour1. Both data center and cloud, operate on IOT enabled uniform federated architecture, across multiple locations and cloud point of presences within India. This enables businesses to run their mission critical workloads seamlessly with 99.995% availability and complying to data localisation.

A year back, Pi introduced, its integrated Virtual Workspaces solutions, for businesses. This has aided to the productivity for professionals working from home and remote locations. The latest introduction was HarbourFront, Pi's indigenous CDN on cloud. Its multi path routing delivers content faster and in a very highly secured manner. This has come as a boon for businesses who thrive on live streaming and content on demand. For Indian businesses and global businesses operating in India, Pi has evolved as synonymous, to Business Empathy and Customer Centricity.

Readiness to meet the demand: Over the last few months businesses have witnessed enormous growth in terms of network traffic, increase in system complexity and content rich data, especially in the fields of videostreaming, gaming, e-healthcare and online education, to name a few. With this unprecedented growth, the demand for high performance computing with greater density is at its peak. Looking at this major shift, Pi has invested both dollars and time into product innovation and service excellence, to make data availability, delivery, and consumption seamless to the end user.

With the ever-growing data travelling transcontinental over the wire, storage and network play an important role. We have designed, our internal cloud network to handle loads up to 100 Gigs on a spine - leaf architecture with redundant routes. Similarly, we have enabled scale as you grow models, where clients can scale their compute, network and storage on demand basis their business needs and seasonal spikes. Our current and future data centers and enterprise cloud fabric are modularly designed keeping dynamic data surge in the formula. We are future ready.



# THOUGH AN UNWANTED TRIGGER, THE PANDEMIC BROUGHT THE BEST OUT OF THE INDIAN E-COMMERCE INDUSTRY AND GOOD THINGS ARE HERE TO STAY

While human beings locked up inside their houses and neighborhood grocery stores were shut, it was the machinery of the e-commerce industry that kept the provisions and other essential items flowed to households. Though Digital India, as a concept, has been hovering over the heads of the common man since 2014, its true value was realized when the entire country came to a standstill because of the Covid-induced lockdowns. People felt handicapped with shops and markets, baring few, closed all across the nation.

E-commerce came as a savior, became the order of the day and everything – from products to services – from groceries to vegetables to medicines to cooked foods- everything was being delivered over the e-commerce platform. And the sector saw humongous growth on account of restricted movements in one hand and ease of getting services on the other.

The immediate traction was so much which continues even today, a study by IBM said the pandemic accelerated the shift to e-commerce by five years!

#### Market Size

The Indian E-commerce industry has been an upward growth trajectory and is expected to surpass the US to become the second largest E-commerce market in the world by 2034. India e-commerce sector will reach \$99 billion by 2024 from \$30 billion in 2019, expanding at a 27% CAGR, with grocery and fashion/apparel likely to be the key drivers of incremental growth. According to Forrester Research, Indian e-commerce sales rose by  $\sim$ 7-8% in 202 0. The Indian online grocery market is estimated to reach \$18.2 billion in 2024 from US \$1.9 billion in 2019, expanding at a CAGR of 57%.

The Indian e-commerce sector is ranked 9th in cross-border growth in the world, according to Payoneer report. Indian e-commerce is projected to increase from 4% of the total food and grocery, apparel and consumer electronics retail trade in 2020 to 8% by 2025. E-commerce sales in India were estimated to increase by only 7-8% in 2020, compared with 20% in China and the US. The e-commerce market is expected to touch the US\$ 84-billion mark in 2021 on the back of healthy growth in the Indian organised retail sector.

The Indian online grocery market is estimated to reach US\$ 18.2 billion in 2024 from US\$1.9 billion in 2019, expanding at a CAGR of 57%. India's e-commerce

orders volume increased by 36% in the last quarter of 2020, with the personal care, beauty and wellness (PCB&W) segment being the largest beneficiary.

Propelled by rising smartphone penetration, launch of 4G network and increasing consumer wealth, the Indian E-commerce market is expected to grow to US\$ 200 billion by 2026 from US\$ 38.5 billion in 2017. In India, smartphone shipments reached 150 million units and 5G smartphone shipments crossed 4 million in 2020, driven by high consumer demand post-lockdown.

In festive season CY20, the Indian e-commerce GMV was recorded at US\$ 8.3 billion, a significant jump of 66% over the previous festive season. Similarly, the Indian e-commerce market recorded ~88 million users in festive season CY20, a significant jump of 87% over the previous festive season.

As most Indians have started shopping online rather than stepping outside their houses, the Indian e-commerce sector witnessed an increase. India's e-commerce festive sale season from October 15 to November 15 in 2020 recorded Rs. 58,000 crore (\$ 8.3 billion) worth of gross sales for brands and sellers, up 65% from Rs. 35,000 crore (\$ 5 billion) last year.

According to Bain & Company report, India's social commerce gross merchandise value (GMV) stood at  $\sim$ \$ 2 billion in 2020. By 2025, it is expected to reach \$ 20 billion, with a potentially monumental jump to \$ 70 billion by 2030, owing to high mobile usage. Tier 2 and 3 cities accounted for a 90%





YoY incremental volume and value growth in the e-commerce market in the last quarter of 2020. Also, these cities reported significant gains in share of the overall e-commerce sales volume (from 32% to 46%) and value (from 26% to 43%) in the last quarter of 2020 over the same period last year.

#### **Growth Drivers**

Much of the growth in the industry has been triggered by increasing internet and smartphone penetration. As of March 2021, the number of internet

connections in India significantly increased to 780 million, driven by the 'Digital India' programme. Out of the total internet connections, ~61% connections were in urban areas, of which 97% connections were wireless. Online penetration of retail is expected to reach 10.7% by 2024 compared with 4.7% in 2019. Moreover, online shoppers in India are expected to reach 220 million by 2025.

Smartphone shipments in India increased by  $\sim$ 23% YoY to reach 38 million units in the first quarter of 2021, driven by new product launches and delayed demand from 2020. Xiaomi led the Indian smartphone market with 26% shipping, followed by Samsung (20%).

Huge investments from global players—such as Facebook, which is investing in Reliance Jio—are being recorded in the e-commerce market. Google also reported its first investment worth US\$ 4.5 billion in Jio Platforms. This deal was followed by the purchase of Future Group by Reliance Retail, expanding the presence of the Ambani Group in the e-commerce space.

The Government of India's policies and regulatory frameworks such as 100% Foreign Direct Investment (FDI) in B2B E-commerce and 100% FDI under automatic route under the marketplace model of B2C E-commerce are expected to further propel growth in the sector. As per the new FDI policy, online entities through foreign investment cannot offer the products which are sold by retailers in which they hold equity stake.

For the financial year 2020-21, government procurement from micro and small enterprises was worth Rs. 23,424 crore (\$ 3.2 billion).

#### Major Developments In Recent Times (Put in a tabular format)

Some of the major developments in the Indian e-commerce sector in the last fiscal are as follows:

- May 2021: Amazon introduced a video streaming service within its shopping app called MiniTV for users in India.
- May 2021: Flipkart strengthened its grocery infrastructure to cater to customer safety and demand across India.
- May 2021: Flipkart announced that it is in talks with sovereign funds, private equity majors and other investors to raise up to US\$ 2 billion at a valuation of US\$ 30 billion
- April 2021: Flipkart announced to acquire Cleartrip, an online travel technology firm. Flipkart announced to purchase 100% shareholding of Cleartrip as the company expands its investments to broaden its digital commerce offerings for customers.
- **April 2021**: Kirana commerce platform ElasticRun raised US\$ 75 million in a round led by existing investors—Avataar Venture Partners and Prosus Ventures.
- March 2021: Amazon acquired Bengaluru-based retail tech start-up Perpule for Rs. 107.6 crore (US\$ 14.5 million).
- March 2021: Purplle, an online beauty store, raised US\$ 45 million from Sequoia Capital India, Verlinvest, Blume Ventures and JSW Ventures.
- March 2021: Captain Fresh, a B2B marketplace for seafood, raised US\$ 3 million in seed capital led by Matrix Partners India and Ankur Capital.
- March 2021: The Confederation of All India Traders (CAIT), which represents 80 million traders and 40,000 trader associations, announced the launch of a mobile app for its e-commerce portal, 'Bharat E-market'. The association aims to get more small traders to sell online easily through smartphones.
- February 2021: Flipkart partnered with Maharashtra State Khadi & Village Industries Board and Maharashtra Small Scale Industries Development Corporation to bring local artisans and small and medium businesses into the e-commerce ecosystem.
- **February 2021**: Zomato entered into an agreement with the Ministry of Housing and Urban Affairs (MoHUA) to introduce 300 street food vendors on its portal.
- **February 2021**: Flipkart Wholesale, the digital B2B marketplace of Flipkart Group will offer grocery on its app with an aim to provide kiranas and small retailers one-stop access to a wide selection of products.
- **February 2021**: Udaan, a B2B e-commerce firm, announced to expand its warehouse capacity (by 5x) to 50 million sq. ft.



across several states in the next 7-8 years.

- January 2021: Flipkart introduced SuperCoin Pay to strengthen its SuperCoin rewards programme by allowing customers to pay through SuperCoins at >5,000 retail outlets across the country.
- January 2021: The Khadi and Village Industries Commission (KVIC) unveiled eKhadiIndia.com, an e-commerce portal, which will comprise >50,000 products, ranging from apparel to home décor.

• January 2021: The B2B e-commerce

platform, Udaan raised US\$ 280 million (~Rs. 2,048 crore) in additional financing from new investors—Octahedron Capital and Moonstone Capital. Prior to this, in October 2019, the company raised US\$ 585 million (~Rs. 4,280 crore) from Tencent, Altimeter, Footpath Ventures, Hillhouse, GGV Capital and Citi Ventures. It is likely to deploy the latest fund towards continued market creation of B2B e-commerce in India and digitise more small businesses across the country.

#### **Government initiatives**

Besides Since 2014, the Government of India has announced various initiatives, namely Digital India, Make in India, Start-up India, Skill India and Innovation Fund. The timely and effective implementation of such programs will likely support growth of E-commerce in the country. Some of the major initiatives taken by the Government to promote E-commerce in India are as follows:

- In a bid to systematise the onboarding process of retailers on e-commerce platforms, the Department for Promotion of Industry and Internal Trade (DPIIT) is reportedly planning to utilise the Open Network for Digital Commerce (ONDC) to set protocols for cataloguing, vendor discovery and price discovery. The department aims to provide equal opportunities to all marketplace players to make optimum use of the e-commerce ecosystem in the larger interest of the country and its citizen.
- National Retail Policy: The government had identified five areas in its proposed national retail policy—ease of doing business, rationalisation of the licence process, digitisation of retail, focus on reforms and an open network for digital commerce—stating that offline retail and e-commerce need to be administered in an integral manner.
- The Consumer Protection (e-commerce) Rules 2020 notified by the Consumer Affairs Ministry in July directed e-commerce companies to display the country of origin alongside the product listings. In addition, the companies will also have to reveal parameters that go behind determining product listings on their platforms.
- Government e-Marketplace (GeM) signed a Memorandum of Understanding (MoU) with Union Bank of India to facilitate a cashless, paperless and transparent payment system for an array of services in October 2019.
- Under the Digital India movement, Government launched various initiatives like Umang, Start-up India Portal, Bharat Interface for Money (BHIM) etc. to boost digitisation.
- In October 2020, Minister of Commerce and Industry, Mr. Piyush Goyal invited start-ups to register at public procurement portal, GeM, and offer goods and services to government organisations and PSUs.
- In October 2020, amending the equalisation levy rules of 2016, the government mandated foreign companies operating e-commerce platforms in India to have permanent account numbers (PAN). It imposed a 2% tax in the FY21 budget on the sale of goods or delivery of services through a non-resident ecommerce operator.

#### Road Ahead

As the globe is still under-siege because of the pandemic, the trends of last year are expected to continue for another, at least. Some trends, like buying from digital markets, are going to be new normal.

The growth in E-commerce sector will also boost employment, increase revenues from export, increase tax collection by ex-chequers, and provide better products and services to customers in the long-term. Rise in smartphone usage is expected to rise 84% to reach 859 million by 2022.

E-retail market is expected to continue its strong growth - it registered a CAGR of over 35% to reach Rs. 1.8 trillion (US\$ 25.75 billion) in FY20. Over the next five years, the Indian e-retail industry is projected to exceed ~300-350 million shoppers, propelling the online Gross Merchandise Value (GMV) to US\$ 100-120 billion by 2025.

Overall, the e-commerce industry is expected to grow at 141% through 2025 to reach \$111.4 billion in 2025 from \$46.2 billion in 2020, as per a report published by Global Data



Trend Point: The E-commerce market in india is exoected to post a ~27% CAGR between 2019 and 2024.

Note: F- Forecast



# DESPITE THE MASSIVE DISRUPTION BROUGHT BY COVID-19, FINTECH COMPANIES REMAIN BULLISH ON THE LONG-TERM GROWTH PROSPECT OF THE INDUSTRY.

The landscape of banking and financial sector has undergone a phenomenal transformation since 2008 Global Financial Crisis (GFC), owing to financial technology firms, popularly known as 'FinTechs'. Both as creative disruptors and facilitators, FinTechs have contributed to the modern banking and financial sector through various channels including cost optimisation, better customer service and financial inclusion. FinTechs have played an important role in unbundling banking into core functions of settling payments, performing maturity transformation, sharing risk and allocating capital.

In India, FinTechs and digital players could function as the fourth segment of the Indian financial system, alongside large banks, mid-sized banks including niche banks, small finance banks, regional rural banks and cooperative banks. This segment has the potential to fundamentally transform the financial landscape where consumers will be able to choose from broader set of alternatives at competitive prices, and financial institutions could improve efficiency through lower costs.

#### Market Size

India has emerged as the fastest growing FinTech market and the third largest FinTech ecosystem in the world. Today, we carry out complex financial actions like sending or receiving money, paying bills, buying goods and services, purchasing insurance, trading on stock markets, opening bank accounts and applying for personal loans online using smartphones, without ever physically interfacing with a bank employee. As per the Government's own estimate, India has the opportunity of a digital payments market of \$ 1 trillion by 2023. It recorded 3,435 crore digital payments in the year 2019-20. As per data available, Indian Fintech firms have raised around \$3.5 billion and PayTm alone has raised more than \$1 billion. And of all the funding, top 10 fintech firms have accounted around 67% of total funds.

#### Fintech Landscape and growth Drivers

Over the last decade, the Indian FinTech ecosystem has witnessed a plethora of innovations. A report by the Reserve Bank of India (RBI) says there are more than 4680 fintech firms in the country having various business models. These fintech firms are primarily based out of Delhi-NCR, Mumbai-Pune corridor and Southern Indian cities ranging from Bengaluru to Chennai to Hyderabad and Kochi.

The growth of the fintech firms and the availability of their services in the Indian market can be attributed to the massive penetration of smartphones and internet across the length and breadth of the country. Besides, a higher population of young population is also pushing the adoption of new-age and tech driven financial services, Government policies like demonetization and natural incidences like Covid also forced the population to use digital way of banking thus helping the industry grew phenomenally in last few years.

#### **Digital Payments**

In the overall fintech space, Digital payments has been the poster boy since the beginning. In recent years, we have witnessed a plethora of exciting innovations like UPI, biometric payments, e-wallets initiations by banks, BharatQR code, and sound-wave-based payment technologies. One of the primary reasons can be attributed to the forward-thinking of central & state governments and Reserve Bank of India for successfully bringing a digital payment revolution in India.

The Indian payments landscape has been revolutionized by the regulators and the central bank's proactive initiatives such as UPI. India has emerged as one of the most exciting markets for digital payments across the world. As per RBI data, last year, home-grown payment networks (RuPay and UPI) took the lion's share of the total digital transactions, i.e., 65%, showcasing how their efforts have been in the right direction for achieving targets.



INDIAN FINTECH FIRMS					
<b>Business Models</b>	No. of Firms	Description			
Investment Tech	990	Platforms for retail and institutional investors to research and invest in multiple financial assets.			
Payments	978	Companies which participate in traditional web based and offline payment cycle; provide alternative mode of payment, and support the payment companies in terms of security, analytics, platform, etc.			
Finance and Accounting Tech	906	Automate functions of finance and accounting departments of organisations.			
Alternative Lending	702	Online lending platforms (including balance sheet lenders, marketplaces, P2P lenders as well as lead generators) and enablers.			
Banking Tech	369	Tech solutions for banking industry including software, hardware, and Tech-enabled services.			
Cryptocurrencies	342	Bitcoin and other digital currency products and services.			
Crowdfunding	185	Online platforms where people, organisations raise money from the masses.			
Internet First Insurance Platforn	ns 161	Tech platforms to consumers for purchasing and managing their insurance			
Insurance IT	98	Software products and data solutions primarily for the insurance industry			
RegTech	95	Tech products primarily for financial institutions and regulators for efficient implementation and monitoring of regulations			
Robo advisory	68	Automated, low-cost investment services to retail investors and technological solutions for automated investments.			
Remittance	46	Cross-border money transfer solutions & services			
Forex Tech	32	Tech solutions, including internet-first platforms and software for forex market.			
Islamic FinTech	7	Internet-first platforms and software for sharia-compliant finance			
Employer Insurance	6	Solutions for managing employee insurance benefits.			

Recently, tech giant Google wrote to the US Federal Reserve, praising the UPI model that has taken the digital payment space in India by storm and recommended creating similar open-payment architecture in the US. Furthermore, With UPI going global, it sets up the stage for the FinTech players as they have already started receiving queries from international financial institutions, banks, and governments. This has further opened immense opportunities for FinTech players who can share their technology with foreign countries like China, the Philippines, Sri Lanka, Bangladesh, and other SEA countries.

The digital payments segment of Fintech has so far seen investments close to \$3 billion and some major names in this space include PayTm, PhonePe, BharatPe, BillDesk and Khatabook.

#### Neobanking

The first wave of disruption in financial services was led by digital payment startups, followed by digital lending, wealth management, and InsurTech startups. However, in the last couple of years or if we call it "FinTech 2.0," a new age fintech category – Neobanks - took birth and has so far taken the industry by storm. These are purely digital-only financial service providers and offer services like fully digitized account opening, free debit cards, instant payments, personal finance advisory, cash flow analysis & projections, GST-compliant invoicing, and accounting integration. As per the MEDICI report, there are about 15 neobanks in India including SBI Yono, Niyo, Razorpay, Neo, Open, Kotak 811 etc.

With FinTech segments like payments and digital lending getting overcrowded, investors' interest has shifted towards India's Neobanking. The total funding raised by Indian Neobanks so far totals \$139.8 Mn. This does not include \$93 million raised by Razorpay since 2019, a part of which will fund their newly launched Neobanking initiative. In their efforts to become a part of the next wave of FinTech innovation, venture capital & private equity investors have started to invest heavily in Neobanking startups.

#### **Digital Lending**

Digital lending FinTechs are targeting the unmet demand from Indian MSMEs as well as consumers for credit. Many banks in India have so far focused on highly creditworthy segments primarily due to a lack of credit history of others. The traditional ways of banking approve only ~25 to 40% of the loan applications. However, with access to more data for credit scoring such as transaction, behavior, app-based data, location information, social data, and more, these new lending models aim to increase this threshold by an additional 10-15%, which is a huge market opportunity. From a small segment a few years ago, India now has over 338 lending startups. The acquisition of Mumbai-based consumer lending platform PaySense by digital payments provide PayU at a valuation of \$185 million, further brought the spotlight to the potential of digital lending in India. Several new models of digital lending have emerged, such as DMI Finance offering FinTech startups API access to sandboxes, thus helping them develop bespoke financial products and Apollo Finvest positioning themselves as 'AWS for Lending' by enabling partners to offer digital loan products to their end-customers through APIs. In consumer credit, the urban population is likely to leverage FinTech lending services to avoid heavy documentation. The rural population (which is new to credit) can benefit from alternative credit scoring mechanisms to avoid loan sharks. This would provide access to a market with over 300 million unbanked households. Hence, the use of identity, authentication, credit score, job eligibility, and social data to generate ratings for various use cases is likely to draw more attention in the near term. Some of the leading players in this space include Lazypay, Capital Float, Zest, eMudhra etc.

#### WealthTech

This is one more area where finance is being blended with technology to offer modern, customized and wealth related services including investment, broking, mutual funds etc. These firms help in democratization of investment advisory services, where wealth managers are leveraging technology to offer low-cost investment advisory to mass segments. A major category of wealthtech falls under Robo-advisory- a sort of advisory services primarily offered using artificial intelligence over digital format.

**Robo-Advisors:** Robo-advisory in India is rapidly evolving. We are seeing startups going beyond Mutual Fund distribution to offering digitized, long-term financial planning. They are using algorithms and artificial intelligence to understand the goals and aspirations of users better and provide them with personalized advice rather than just offering a generic portfolio. As more and more millennials pick up stock market investing and other investment avenues, financial literacy is also improving, leading to a mature outlook towards aspects such as financial life goals and retirement planning.

The services of these platforms range from automated plans, goal-based asset allocation, and end-to-end advisory based on information taken from the client. Today, not only startups but also established financial advisory services, such as Birla, Bajaj Capital, ICICI Securities, and Sanctum Wealth Management, are optimistic about the future of robo-advisory. The competition in robo-advisory is resulting in the expansion of the WealthTech market.

Some of the major names in Wealthtech include Zerodha, Upstox, Bankbazaar, ETMoney, Groww and FundsIndia.

Zerodha is the largest firm among all these and is valued at over \$ 1 billion.

#### InsurTech

InsurTech landscape is quite nascent in India. The current insurance penetration is quite low, i.e., 2.76% in life insurance and 0.93% in non-life insurance compared to the global average of 6.5%. 'Lack of customer trust' remains the key challenge facing the InsurTech segment, and so far, industry players have found it as a hard nut to crack. The current InsurTech space in India is being dominated by few new-age insurers like Toffee, Digit, and Acko with their ability to attract and popularity among millennials.

This space has seen investments upto \$445 million and some of the big names include Policy bazaar, Coverfox, Digit and Acko.

Besides the core financial services segments, aome other areas like agriculture, healthcare, and housing have started leveraging technology and finance in order to provide easier access to their services to the vast population in India. This is leading to the rise of AgriTech, HealthTech, and PropTech startups that are disrupting traditional ways of doing business in three industries that facilitate the nation's most vital necessities—food, healthcare, and shelter for citizens



Top Indian FinTechs b	y Funding Raised	in 2019-20
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Rank	Company	Founded	Funding Rounds	Total Amount Raised (\$ Million)	Description
1	Paytm	2010	Series G	1000	App-based wallet for consumer payments
2	BharatPe	2017	Series A, B, C	154.3	QR code based payment app
3	Policybazaar	2008	Series F	150	Online insurance comparison platform
4	CRED	2018	Series A, B	145.6	Rewards-based platform for credit card bill payments
5	KhataBook	2016	Angel, Seed. Series A. Series B	140.6	Digital ledger account book
6	Acko	2017	Series C	101.6	Tech-enabled automotive insurance
7	ZestMoney	2015	Series B	30.47	Online platform for point-of-sale financing
8	Lendingkart	2014	Series C, D	87.87	Online platform providing working capital for SMEs
9	InCred	2016	Series A	85.9	Alternative lending platform focusing on SME. consumer & personal, home and education loans.
10	Pine Labs	1998	Series C	85	PoS software solutions for offline retailers
11	Billdesk	2000	Series C	84.8	Payment Gateway
12	Digit Insurance	2016	Series C	84.35	Insurance platform for individuals

#### Challenges

Despite the humongous success of the FinTechs in the country, the industry is still staring at plethora of challenges, and that are to be addressed on priority basis to become more efficient, reliable, equitable and resilient.

First, despite immense scope for innovation, cross-border payments are still unchartered territory for FinTechs. Availing remittance services burdens migrant workers due to steep costs associated with such remittances. A high share of cross-border payments flows through correspondent banks, whose dwindling numbers could result in even higher costs and retrogression to informal, unregulated payment networks. In India, cross-border transactions are slow compared to domestic payments and few alternatives are available, despite heavy inward personal remittances.

To make payment systems in different jurisdictions interoperable, payment instructions need to be translated to a common language. For this, standards and practices across jurisdictions must be coordinated, and mutual confidence in each domestic network's Know Your Customer (KYC) and Anti-Money Laundering (AML) frameworks must be established. Recently, UPI was connected with Singapore's Network for Electronic Transfers (NETS) on a pilot basis at the Singapore FinTech Festival 2019, suggesting that significant advances could be made within the existing setup. The UPI system settles in fiat money within the regulated financial system perimeter and therefore, poses less risk than systems such as stablecoins which are usually managed by BigTechs.

Second, the increasing popularity of FinTechs could exacerbate data use, protection and privacy concerns if the statutory rights and obligations of service providers are not clearly delineated. Machine learning algorithms could reproduce and perpetuate existing patterns of discrimination and exclude vulnerable sections. As the Indian population becomes datarich with increasing Internet and mobile coverage, the next challenge is empowering consumers with the data generated by them through adequate legal and regulatory interventions. Citizens should be able to exercise control of their data like any other personal asset. There is an emerging demand for data localisation from various jurisdictions. In this context, a solution could be a model where data is stored locally, and only binary (Yes or No) queries are allowed on it from abroad, from a specified and globally agreed upon set of permitted queries.

Third, there is a need to ascertain the impact of FinTech on financial stability, due to higher potential for system-wide risk with its expansion. Lending standards could weaken due to wider credit access and higher competition. Since FinTech lenders give advances from debt and equity rather than from deposits, such credit could be more procyclical and volatile due to lack of standard credit guidelines.

Further, credit activity outside the prudential regulation space could render credit-related countercyclical policies less effective. Reputational, cyber and third-party risks may arise for banks interacting with FinTechs.

Fourth, there is inequality of access to FinTech services. Despite having the world's second largest Internet user base, the access to Internet is still highly biased towards the urban, male and affluent population segments. Trust in the online marketplace is low and a typical user takes 3-4 months to make their first online transaction. Most users use online platforms for product research, but prefer subsequent offline purchase. Though 'micromerchants' in India account for an overwhelming proportion of sales, they have been left out of the cashless revolution especially in smaller cities. Despite high penetration of mobile-data and smartphones, use for financial transactions is low due to behavioral reasons like lack of trust, misconceptions about taxation, lack of applied knowledge in using digital payment modes and perceived security threats.

Fifth is the issue of consumer protection and digital education. Regulators need to stress on preemptive fraud detection, while also integrating digital literacy into financial literacy to dispel misconceptions. Safety provisions and grievance redressal mechanisms need to be simplified and publicised to encourage participation by low-income groups. However, financial literacy and digital hygiene alone may be insufficient. Cross-country evidences suggest that paying with cash is a habit, generally slow to change. In China, street vendors, buskers, and even beggars accept electronic payments. However, in Tokyo, six of ten restaurants require cash payment. Cash use increases as concerns about privacy rise, while it declines as confidence in banks rises. Thus, policies to promote electronic payments need to address fundamental concerns about privacy and confidence in financial institutions.

#### Outlook

Indian FinTechs are now witnessing one of their biggest challenges till now - the COVID-19 pandemic. A recent survey of 250 Indian startups confirms that largely, the pandemic had a negative impact on business, though the FinTech startups among these reported the lowest operational disruptions. Experts foresee that new firms are bound to lose out and established, well-funded startups and BigTechs in favorable sectors such as payments, e-commerce and online learning will tide through the business disruptions. Ensuring a high degree of interoperability among startups is key to ensure a coordinated response to market demand and changing attitudes.

The pandemic also challenges the belief that FinTechs promote financial inclusion; a topic of future research is to ascertain whether Indian FinTechs helped their vulnerable customers when they most needed them, or were they helpless in servicing their needs. For a healthy and sustainable business ecosystem, FinTechs need to bridge the digital divide and promote equitable, broad-based customer participation across urban and rural areas and the various producing and consuming sectors.





# THE INDIAN IT HARDWARE INDUSTRY TOO HAD TO BEAR THE BRUNT OF THE PANDEMIC AND ALL ITS LEADING SEGMENTS DEMONSTRATED A SHARP DECLINE IN BUSINESS

The Covid pandemic did not spare the Indian IT hardware industry either. The sector showed a decline of 19% during the last year on account of sharp decline in PC, storage, server and printer business.

While the PC industry showed a decline of 7.2%, the server market plunged 14.3%, the external storage market degrown by 21.8% and

the printer market demonstrated a decline of 19.1% on account of the Covid impact.

#### Indian PC Business

The Indian traditional PC market that includes notebooks, laptops, desktops and workstation, had to face the brunt of the Covid pandemic

Company	2020 Shipments	2020 Market Share	2019 Shipments	2019 Market Share	Year-over-Year unit change (2020 vs 2019)
1. HP Inc.	2,948	28.7%	2,907	26.5%	1.4%
2. Dell Technologies	2,381	23.2%	2,172	19.8%	9.7%
3. Lenovo	2,225	21.7%	3,514	32.0%	-36.7%
4. Acer Group	1,005	9.8%	1,228	11.2%	-18.2%
5. Asus	645	6.3%	373	3.4%	72.7%
Others	1,069	10.3%	782	7.1%	36.7%
Total	10,271	100.0%	10,976	100.0%	-6.4% Source: IDC



in the year 2020. The industry declined 7.2% in the year 2020 to ship 10.2 million units as against 11 million units for the year 2019. The Covid-induced movement restrictions and crippled supply chain can be attributed to this decline as vendors struggled to deliver shipments at the demanded time at their customers.

In the last quarter of 2020, the India PC market, according to IDC, witnessed shipments growing by 27.0% year-over-year. 2.9 million PCs were shipped in 4Q20 (Oct-Dec), with notebooks growing 62.1% YoY to contribute more than three-fourths of total shipments. The growth driver continues to be the demand from e-learning and remote working, leading to a 74.1% and 14.1% annual growth in the consumer and enterprise segments, respectively.

3.4 million units shipped during the quarter, as the demand for e-learning and remote working remained strong, resulting in 3Q20 being the biggest quarter in the last seven years in India. Although the commercial segment had very few government and education projects, the consumer segment recorded its biggest quarter ever with 2.0 million shipments, growing 41.7% YoY and 167.2% from the previous quarter.

Schools and colleges continued to function virtually, leading to a surge in demand for consumer notebooks, especially in large cities. Despite the supply challenges, vendors were able to stock up for the upcoming online festivals. However, the demand for notebook PCs remains much higher than the current supply, which is likely to lead to another strong quarter of shipments in 4Q20 (Oct-Dec). New entrants like Xiaomi and Avita were able to leverage this opportunity but remained

outside of the top five companies in the consumer segment. Apple shipments also grew 19.4% YoY as it ended its biggest quarter of shipments in the country.

In the commercial segment, enterprises continued investing in PCs under their business continuity planning to manage their remote working requirements. However, the volume of key big deals has come down in this second wave of enterprise buying as compared to initial orders in 2Q20.

This led to a marginal 3.1% YoY growth in the overall

enterprise segment. Notebook shipments grew at a strong 70.1% YoY as enterprises preferred them over desktops. SMBs resumed their purchases after taking a slight pause, as business operations started for most of the sectors with a relaxation in the lockdown restrictions. Shipments to this segment grew 5.5% YoY in 3Q20. However, this growth can also be attributed to channel procurement for better control over inventories amid the uncertain supply situation in the ecosystem.

Notebooks recorded a -16.8% decline in Q1 due to significant YoY contractions in the consumer and education segments. The private sector, however, posted much better results with companies advising their employees to work from home in March. In anticipation of an upcoming lockdown, many businesses increased their orders for notebooks, which resulted in a 7.1% YoY increase for this segment. The growth would have been even higher, if not for supply constraints which affected the industry in February and March and caused some of the orders to be delayed until 2Q20. The desktop category had relatively better inventory since most of it is assembled in India but saw a decline in demand and contracted -15.9% YoY in the first quarter of 2020.

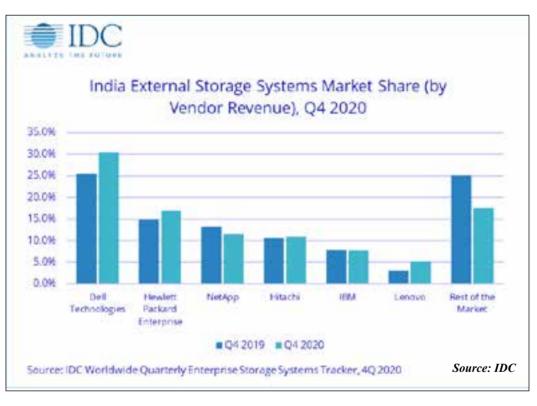
2020 ended as the biggest year for notebooks with 7.9-million-unit shipments during the year. Notebook shipments grew by 6.0% in 2020. However, if we exclude the mega ELCOT deal, notebooks witnessed an impressive 34.3% YoY growth this year. Had the industry not been challenged by the component shortages, notebook shipments could have been much higher during the year. Contrary to this, desktop shipments saw a decline of 33.2% in 2020 as companies reduced their spending on fixed computing devices and preferred mobile devices to manage their operations remotely.

#### **Top Players**

Dell Technologies replaced HP for the top position in the overall PC market, as its shipments grew 57.1% YoY in 4Q20. The vendor also led the commercial segment with a share of 32.7% resulting in 15.2% YoY growth a despite decline in the commercial segment during 4Q20. Dell's consumer shipments registered an impressive 159.1% YoY growth and maintained the lead for the second position in the category.

HP Inc. secured the second position with a 26.7% share with 8.8% YoY growth in 4Q20. HP remained the leader for the full year of 2020. Also, HP maintained its lead in the consumer segment as its shipments grew 47.3% from the same quarter a year ago. However, supply constraints restricted its growth in the commercial segment.

Lenovo slipped to the third position as its share dropped to 18.4% in 4Q20 from 21.7% in 3Q20. Strong momentum in its SMB and consumer segments helped the vendor to register 3.7% YoY growth in 4Q20.



Acer Group retained the fourth position 8.5% market share in 4Q20. However, the vendor registered an 11.0% decline in its overall shipments, mainly because of its heavy reliance on desktops, which fell 36.9% from the same time a year ago.

A S U S maintained the fifth position with a share of 6.4% as it grew an impressive 183.6% YoY in 4Q20. Its VivoBook 15, VivoBook 14 and TUF Gaming models continued to be the frontrunner in

its growth. Also, a balanced portfolio in the online and offline channels helped the brand to sustain this growth.

#### Server Market

Indian server market too saw a big plunge in the year 2020 marred by Covid related challenges. The segment posted revenues of \$1051.3 million in 2020 as against \$1228 million in 2019 showing a decline of 14 3%

As per IDC, the overall server market in India witnessed a year-over-year (YoY) decline of 11.2% in terms of revenue to reach \$266.1 million in Q4 2020 (Oct-Dec) versus \$299.6 million in Q4 2019. The x86 server market contribution grew to 92.9% in terms of revenue, a growth of 4.8 percentage points over last year same quarter. The highest contribution in the x86 market mainly came from the professional services, telecommunications, and manufacturing verticals. In the professional services vertical, original design manufacturers (ODM) and new-age IT companies witnessed positive YoY growth with respect to the server spend. At the processor brand level, AMD witnessed YoY revenue growth of 4.7 percentage points claiming a revenue share of 8.4% at the end of Q4 2020.



The x86 server market in terms of revenue declined YoY by 6.3% to reach \$247.2 million in Q4 2020 from \$264.0 million in Q4 2019. The contribution largely came from the custom-built server category with revenue growth of 28.7% YoY. Hyperscalers continues to spend towards building robust data centers and support the global and local customer demands. The General-purpose server revenue declined by 13.4% due to the weakening demand across different industries. During Q4 2020, verticals such as utilities, resource industries, and securities and investment services witnessed the highest YoY growth in terms of revenue at 331.5%, 218.7%, and 160.6% respectively.

The non-x86 server market declined YoY by 47.1% to reach \$18.9 million in revenue in Q4 2020. IBM continues to dominate the market accounting for 49.4% of revenue share, during Q4 2020 with a revenue of \$9.3 million. HPE came at second position followed by Oracle with a revenue share of 27.8% and 8.3% respectively.

In Q4 2020, Dell Technologies emerged as the top vendor in the India x86 server market with a revenue share of 29.6% and a revenue of \$73.1 million. Top three verticals for Dell Technologies were professional services, banking, and discrete manufacturing. HPE came at second spot with a revenue share of 19.5% and a revenue of \$48.2 million. Key verticals for HPE were telecommunications, discrete manufacturing, and professional services. At number three is Lenovo with a revenue share of 10.9% and a revenue of \$27.0 million. Cisco came in fourth accounting for a revenue share of 9.1% and a revenue of \$22.6 million.

In Q3, the server market in India witnessed a year-over-year (YoY) growth of 0.3% in terms of revenue to reach \$281.1 million versus \$280.1 million in Q3 2019. The x86 server market contribution had grown to 91.2% in terms of revenue, a growth of 5.9 percentage points over last year's same quarter. This contribution to the x86 market mainly came from professional services, telecommunications, and banking verticals. In the professional services vertical, global hyperscaler spend was directed towards building infrastructure to support business continuity operations of end customers whereas telecommunication spend was seen towards building and modernizing

their network. Banks continue to spend on compute, supporting the upsurge of digital transactions and on-going digitalization projects.

The x86 server market in terms of revenue grew YoY by 7.3% to reach \$256.4 million in Q3 2020 up from \$239.0 million in Q3 2019. The growth largely came from the custom-built server category with revenue growth of 18.3% YoY. Hyperscalers were seen spending on infra to build capacity and expanding their datacenter footprint across various availability zones. The general-purpose server witnessed revenue growth of 4.5% due to the spending coming from very large customers across different industries. On the other hand, small and medium businesses, and large businesses failed to show signs of recovery caused due to the pandemic. During Q3 2020, verticals such as insurance, securities and investment services, and process manufacturing witnessed the highest YoY growth in terms of revenue at 201.5%, 137.5%, and 107.4% respectively.

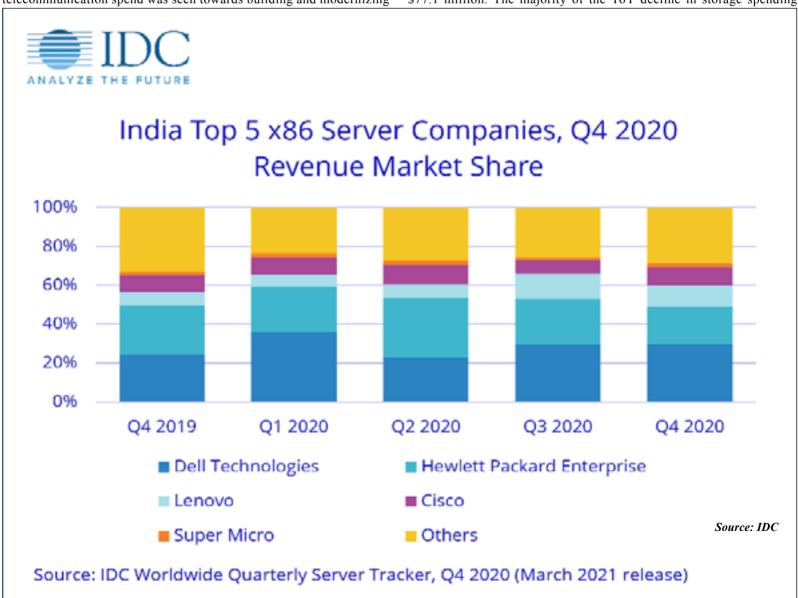
The non-x86 server market declined YoY by 40.1% to reach \$24.7 million revenue in Q3 2020. IBM continues to dominate the market accounting for 74.4% of revenue share during Q3 2020 with a revenue of \$18.4 million. Oracle came at second position followed by Hewlett Packard Enterprise (HPE) with a revenue share of 20.8% and 4.8% respectively.

In Q2 the server market in India witnessed a year-over-year (YoY) decline of 22.3% in terms of vendor revenue to reach \$272.0 million versus \$350.2 million in Q2 2019. In Q1 also, the server market showed a decline of 22.1% in terms of revenue to reach \$232.1 million versus \$298.0 million in 1Q2019.

#### **External Storage**

The Indian external storage market in the year 2020 plunged 21.8% to post revenues of \$308.6 million on account of the cautious approach of the customers during the pandemic hit year.

In Q4 2020, India's external storage market witnessed a decline of 15.6% year-over-year (YoY) by vendor revenue and stood at \$77.1 million. The majority of the YoY decline in storage spending





was due to decreased spending from banking organizations, while manufacturing, central government and security, and investment services saw a growth in Q4 2020. The full year decline for the external storage market in India during 2020 (Jan-Dec) was 21.8%.

The growth of All-Flash Arrays (AFA) is evident across verticals with a contribution of 39.6% to the overall external storage systems market in Q4 2020. BFSI, professional services, manufacturing, and government verticals were the major contributors to AFA demand in Q4 2020. Stronger uptake of NVMe-based flash arrays is witnessed due to significant performance benefits with negligible cost differences. In the coming years, enterprises would prefer NVMe-based flash arrays as de facto storage media for all the production workloads.

All the Storage Class segments saw a sharp YoY decline in Q4 2020. Entry storage and high-end storage segments witnessed a strong YoY decline compared to midrange systems in Q4 2020. The impact of Entry storage is due to decreased storage demand from SMB and enterprises for their non-core applications.

Enterprises are investing in the modernization of applications/ Infrastructure, seamless movement of data across multiple clouds, AIOps for managing infrastructure platforms, and security to be digitally resilient. Organizations are looking for trusted advisors and not standalone technology deployment partners to enable them to be

In Q3 2020, India's external storage market witnessed a decline of 14.8% yearover-year and stood at \$79.9 million. In Q2 the revenue was \$63.8 million showing a y-o-y degrowth of 36.8%. In Q1 too there was a sharp decline of 20.6% Year-over-Year (YoY) by vendor revenue and the industry posted a revenue of \$87.8

future-ready.

Dell Technologies continued to be the market leader in the external storage systems market with a 30.4% market share by vendor revenue, followed by HPE with a 16.9% market share.

#### Printer Market

million.

For the CY2020 (Jan-Dec 2020), the overall HCP market declined by 19.1% mainly due to the laser segment (including copiers) which declined by 28.5%, following the commercial market's struggle to resume operations during the COVID-19 crisis. The laser copier market dropped by 44.9% owing to weak corporate and Government demand. The inkjet market declined by 9.2%, due to the surge in demand from the Home segment. CY2020 observed high demand for Wi-Fi and ink tank printers which could be met partially as vendors struggled to furnish enough stock. Vendors were challenged by the limited manufacturing capacity following the global surge in demand for Wi-Fi ink tank printers.

Indian Hardcopy Peripherals (HCP) market recorded its best Q4 till date in terms of unit shipments. As the country opened further during the festival season and vendors partially resolved their supply issues following a global surge in demand, India's HCP market witnessed a growth of 4.0% quarter-over-quarter (QoQ) during 4Q20 (Oct-Dec 2020). The market registered shipments of 0.95 million units during the quarter posting a growth of 19.7% year-over-year (YoY), according to the latest IDC Worldwide Quarterly Hardcopy

Peripherals Tracker, 4Q20.

In the inkjet segment, vendors continued to face supply challenges during the beginning of the quarter. However, the situation improved as the manufacturing hubs in China and Southeast Asian countries increased their capacity to meet the global surge in demand for inkjet printers from the Home segment. Following this, the inkjet segment noted a YoY growth of 38.8%. Within inkjet printers, the ink tank printer segment grew steadily following improved availability and the pent-up consumer demand owing to continued work from home and e-learning for students.

The laser printers' segment (including copiers) recorded a YoY growth of 3.8% at the back of laser printers (excluding copiers) as multiple delayed orders from the previous few quarters were executed in 4Q20. The laser copier segment, however, witnessed a YoY decline of 27.5% following muted demand from Corporates.

"In the commercial segment, the demand situation improved from a QoQ perspective as certain segments, primarily jobbers and SMBs/SOHOs, resumed full-time operations. However, demand from large corporates continued to be muted as the offices remain closed. 4Q20 witnessed increased activity from the Government as it released several tenders following directives from Ministry of Finance to other ministers and public sector enterprises to exhaust their planned budget for capital expenditure (CAPEX)," says Bani Johri, Market Analyst, IPDS, IDC India.

#### **Leading Players**

ΗP Inc. (excluding Samsung) maintained its leadership in the overall HCP market with a share of 40.2% and a growth in shipment of 22.1% YoY. The growth was primarily led by the inkjet segment wherein HP grew by 51.7% YoY and captured a market share of 33.8%, occupying the 2nd position, as it smoothened its supply and logistics issues to cater to the increased demand. HP recorded an almost equal growth in both the segments - ink tank and Ink cartridge-based printers. In the laser printer segment (excluding laser copiers), it grew by 2.1% YoY and continued to maintain its number #1 position with a 55.8% market share.

Epson replaced Canon to occupy the 2nd position in the overall HCP market with a market share of 26.2% while registering a YoY growth of 14.9%. In the inkjet segment, Epson replaced HP to regain its top position in the market with a share of 41.1%. This comes primarily at the back of Epson having resolved the supply issues it was facing previously in 3Q20.

Canon recorded a YoY growth of 34.6% and occupied the 3rd position in the overall India HCP market, capturing a unit market share of 22.7%. In the inkjet segment, Canon observed a YoY growth of 63.9% at the back of its increased online presence and lucrative end-user schemes. In the laser segment (including laser copiers) Canon maintained its 2nd position with a market share of 25.0% with a heavy dependency on entry-level mono printers, primarily LBP 2900B. In the laser copier segment, although Canon declined by 33.3% YoY, yet it continued to lead the copier market with a 32.6% market share because of its wide product portfolio and a strong foothold in the corporate segment.





WHILE THE COVID-INDUCED YEAR 2020 FORCED ENTERPRISES TO FOCUS ON SURVIVAL AND USE THEIR RESOURCES OPTIMALLY TO MAINTAIN BUSINESS CONTINUITY, THE INDUSTRY IS EXPECTED TO INVEST MORE IN 2021 IN THE AREAS OF TECHNOLOGY THAT HELP THEM BUILD RESILIENCE

The Covid-hit year 2020 brought the entire world including India to a standstill and -business across sectors were almost paused for indefinite. The Indian IT & ITES sector did see unexpected investments across enterprise verticals. When all other industries were forced to take a pause, the IT industry made them going. The IT industry perhaps was only the second industry after healthcare that saw developments. This industry helped all other industries to be in motion and maintain business continuity. Significant adoption were seen in the areas of cloud, collaboration technologies and digitalization of education, sports and finance. Besides domestic businesses, Indian IT industry also saw significant growth in their export businesses.

#### Market Size

The IT industry accounted for 8% of India's GDP in 2020. Exports from the Indian IT industry are expected to increase by 1.9% to reach US\$ 150 billion in

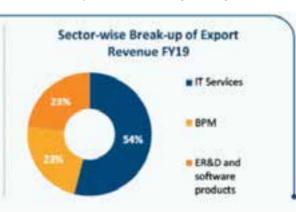
FY21. In 2020, the IT industry recorded 138,000 new hires. According to STPI (Software Technology Park of India), the software exports by its registered units increased by 7% YoY to reach Rs. 5 lakh crore (US\$ 67.40 billion) in FY21 from Rs. 4.66 lakh crore (US\$ 62.82 billion) in FY20, driven by rapid digitization and the IT industry's timely transition to remote working environments that helped to keep up the industry's growth amid coronavirus pandemics.

The IT & BPM industry's revenue is estimated at  $\sim$ US\$ 194 billion in FY21, an increase of 2.3% YoY. The domestic revenue of the IT industry is estimated at US\$ 45 billion and export revenue is estimated at US\$ 150 billion in FY21. According to Gartner estimates, IT spending in India is estimated to reach US\$ 93 billion in 2021 (7.3% YoY growth) and further increase to US\$ 98.5 billion in 2022.

The global sourcing market in India continues to grow at a higher pace compared to the IT-BPM industry. India is the leading sourcing destination across









the world, accounting for approximately 55% market share of the US\$ 200-250 billion global services sourcing business in 2019-20.

Indian software product industry is expected to reach US\$ 100 billion by 2025. Indian companies are focusing to invest internationally to expand global footprint and enhance their global delivery centres. In line with this, in February 2021, Tata Consultancy Services announced to recruit  $\sim$ 1,500 technology employees across the UK over the next year. The development would build capabilities for TCS to deliver efficiently to the UK customers.

The data annotation market in India stood at  $\sim$  US\$ 250 million in FY20, of which the US market contributed  $\sim60\%$  to the overall value. The market is expected to reach  $\sim$  US\$ 7 billion by 2030 due to accelerated domestic demand for AI

#### Investments/ Developments

Indian IT's core competencies and strengths have attracted significant investment from major countries. The computer software and hardware sector in India attracted cumulative foreign direct investment (FDI) inflows worth US\$ 69.29 billion between April 2000 and September 2020. The sector ranked 2nd in FDI inflows as per the data released by Department for Promotion of Industry and Internal Trade (DPIIT). In FY21, computer software and hardware topped FDI investments, accounting for 44% share of the total FDI inflows of US\$ 81.72 billion.

In 2020, PE investments in the sector stood at US\$ 7.5 billion. IT & BPM led the venture capital (VC) investment with 380 deals in in 2020, contributing 71% to the total deal count. The COVID-19 pandemic has accelerated the demand for third-party data centre services in India.

The Government of India has extended tax holidays to the IT sector for Software Technology Parks of India (STPI) and Special Economic Zones (SEZs). As of February 2020, there were 421 approved SEZs across the country, with 276 of them from IT & BPM and 145 as exporting SEZs.

Leading Indian IT firms like Infosys, Wipro, TCS and Tech Mahindra are diversifying their offerings and showcasing leading ideas in blockchain and artificial intelligence to clients using innovation hubs and research and development centres to create differentiated offerings.

Some of the major developments in the Indian IT and ITeS sector are as follows:

• In May 2021, Infosys entered a partnership with Majesco, a New Jersey-



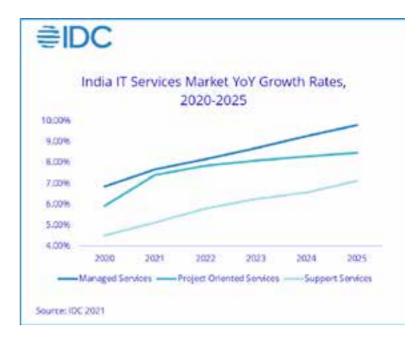
based cloud insurance software solutions provider, to enable insurance companies to aid in digital adoption and transformation across the insurance value chain.

- In May 2021, HCL Technologies (HCL) announced a multi-year contract with Hitachi ABB Power Grids to build a new greenfield digital foundation as part of a global transformation programme. Through this engagement, HCL will help Hitachi ABB Power Grids establish a new, efficient and modern independent IT organisation.
- In May 2021, Tata Consultancy Services (TCS) joined forces with VIAVI Solutions, a network test, measurement and assurance solutions company, to launch new test solutions that address the industry's need for comprehensive testing of next-generation disaggregated 5G radio access network (RAN) products.
- In May 2021, Tata Consultancy Services (TCS) partnered with LACChain, an initiative led by IDB Lab, the innovation laboratory of the Inter-American Development Bank Group, to boost adoption of a blockchain ecosystem across Latin America and the Caribbean.
- In May 2021, IBM collaborated with 11 top-tier academic institutions, including IIT Kharagpur and the Indian Institute of Science (IISc), Bangalore, to enable 'over-the-cloud' access to its quantum systems to boost advanced training and research in the area of quantum computing.
- In May 2021, Infosys announced a definitive agreement to acquire GuideVision, a ServiceNow Elite Partner in Europe.

#### **Government Initiatives**

Some of the major initiatives taken by the Government to promote IT and ITeS sector in India are as follows:

• In May 2021, MyGov, the citizen engagement platform of the Government of India, in partnership with the Department of Higher Education



launched an innovation challenge to create an Indian language learning app.

- In order to establish an enabling environment for the IT industry, in April 2021, the Development of Advanced Computing (C-DAC) launched three innovatice technologies Automatic Parallelizing Compiler (CAPC), Cyber Security Operation Centre (CSoC) as a Service, and C-DAC's indigenous High-performance Computing software solutions—Parallel Development Environment (ParaDE).
- In Budget 2021, the government has allocated Rs. 53,108 crore (US\$ 7.31 billion) to the IT and telecom sector.
- Department of Telecom, Government of India and Ministry of Communications, Government of Japan signed a MoU to enhance cooperation in areas of 5G technologies, telecom security and submarine optical fibre cable system.
- In 2020, the government released "Simplified Other Service Provider" (OSP) guidelines to improve the ease of doing business in the IT Industry, Business Process Outsourcing (BPO) and IT-enabled Services.

#### Road Ahead

India is the topmost offshoring destination for IT companies across the world. Having proven its capabilities in delivering both on-shore and off-shore services to global clients, emerging technologies now offer an entire new gamut of opportunities for top IT firms in India. The industry is expected to grow to US\$ 350 billion by 2025 and BPM is expected to account for US\$ 50 55 billion of the total revenue.

India is the world's largest sourcing destination with largest qualified talent pool of technical graduates in the world.

A big push towards cloud services has boosted hyper-scale data centre investments, with global investments estimated to exceed ~US\$ 200 billion annually by 2025. India is expected to gain a significant share in the global market, with the country's investment expected to hit ~US\$ 5 billion annually by 2025.

In Budget 2021, the government has allocated Rs. 53,108 crore (US\$ 7.31 billion) to the IT and telecom sector.

Artificial Intelligence (AI) is expected to boost India's annual growth rate by 1.3% by 2035, as per NITI Aayog. A substantial increase in AI by Indian firms can result in a 2.5% increase in India's Gross Domestic Product (GDP) in the immediate term. In September 2020, NASSCOM FutureSkills and Microsoft collaborated to launch a nationwide AI skilling initiative to train one million students in AI technology by 2021.

The computer software and hardware sector in India attracted cumulative foreign direct investment (FDI) inflows worth US\$ 69.29 billion between April 2000 and December 2020. The sector ranked 2nd in FDI inflows as per the data released by Department for Promotion of Industry and Internal Trade (DPIIT).







# THE INTERNET OF THINGS (IOT) IS GAINING SUBSTANTIAL TRACTION OVER THE PAST FEW YEARS AND PLAYING A CRITICAL ROLE IN TRANSFORMING SEVERAL INDUSTRIES

The Internet of Things (IoT) is rapidly becoming a reality and set for a massive boom across industries of all scales. Gartner defines IoT as the network of physical objects that contain embedded technology to communicate and sense or interact with their internal states or the external environment.

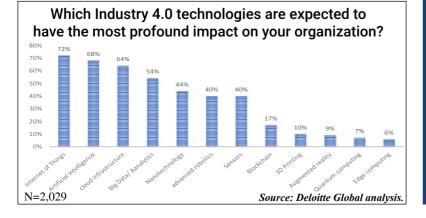
The pandemic has spurred the need for various innovations that can drive the digital ecosystem, and IoT is one of them. According to Gartner, the worldwide IoT-connected devices are likely to increase to 43 billion by 2023. One of the primary reasons for this swift rise is the acceleration of digital transformation and the growth of 5G networks.

The Business Research Company report states that the global IoT market is slated to grow from \$139 billion in 2020 to \$162.39 billion in 2021, at a compounded growth rate (CAGR) of 16.6%. One of the primary reasons for the growth is companies resuming their operations and adapting to the new normal while recovering from COVID-19.

IoT, AI, data management, and cloud solutions enable businesses to automate their processes and fast-track growth. Not only do IoT-enabled platforms help organizations understand the different consumer platters, their behaviors and predict future outcomes, but they can also provide proactive resolution to a given problem and help navigate the uncertainties.

#### Changing the way of communications

These are exciting times as far as technology is concerned. The amalgamation of data, analytics, artificial intelligence, machine learning, and cloud are creating unprecedented opportunities across industries. The concept of connected vehicles is already gaining momentum, and driverless cars will be a reality. Through the power of intelligent sensors, analytics, and machine learning, you can connect with your home appliances in real-time and give them directions even when not at home.



#### MOST COMMON AND EASILY ADDRESSABLE SECURITY ISSUES IN IOT:

- Privacy concerns: Eight of the 10 devices tested, along with their corresponding cloud and mobile application components, raised privacy concerns regarding the collection of consumer data such as name, email address, home address, date of birth, credit card credentials and health information. Moreover, 90 percent of tested devices collected at least one piece of personal information via the product itself, the cloud or its mobile application.
- Insufficient authorization: 80 percent of IoT devices tested, including their cloud and mobile components, failed to require passwords of sufficient complexity and length, with most devices allowing password such as "1234." In fact, many of the test accounts HP configured with weak passwords were also used on the products' websites and mobile applications.
- Lack of transport encryption: 70 percent of IoT devices analyzed did not encrypt communications to the internet and local network, while half of the devices' mobile applications performed unencrypted communications to the cloud, internet or local network. Transport encryption is crucial given that many of the tested devices collected and transmitted sensitive data across channels.
- Insecure web interface: Six of the 10 devices evaluated raised security concerns with their user interfaces such as persistent XSS, poor session management, weak default credentials and credentials transmitted in clear text. Seventy percent of devices with cloud and mobile components would enable a potential attacker to determine valid user accounts through account enumeration or the password reset feature.
- Inadequate software protection: 60 percent of devices did not use encryption when downloading software updates, an alarming number given that software powers the functionality of the tested devices. Some downloads could even be intercepted, extracted and mounted as a file system in Linux where the software could be viewed or modified.

Source: HP Research



Connected devices and intelligent sensors are the future, and IoT will drive greater automation, exceptional business results, and process enhancements through accurate and actionable data. Various sectors such as healthcare, manufacturing, automotive, agriculture, retail, and hospitality are likely to generate better revenue from IoT devices. Across the world, there have been several new use cases emerging at an accelerated pace—the most prominent one of concepts of smart homes. There has been a significant development in the role of IoT in automating homes. Amazon Echo, Smart light, and Google's Alexa are the prime IoT examples of home automation.

Some of the critical use cases of IoT include autonomous and connected vehicles, AR/VR, drones, smart cities, smartwatches, wearables, and home devices. In India, companies like TCS, Infosys, LTI, HCL Tech, Tech Mahindra, Wipro, and Mphasis are working on partners to develop IoT use cases. For the hospitality industry, IoT can help enhance safety, optimize room turnover and cleaning, providing customized experiences, smart infrastructure, and facilities.

#### Manufacturing is the biggest gainer

The biggest beneficiary emerging from IoT is the manufacturing sector. Over the last few years, IoT has become hugely popular and influential in streamlining manufacturing operations. The Industrial IoT, as it is widely known, is transforming the processes of manufacturing firms. The ingredients of IIoT comprises various advanced technologies such as artificial intelligence (AI), blockchain, analytics to enable enterprises to move towards lean manufacturing and automated processes. With reduced latency and trailblazing speed, the fifth generation of technology can help IoT's efficiency in driving predictive maintenance, demand forecasting, and anomaly detection.

According to Deloitte, COVID-19 and the resulting geopolitical fallout have made it more urgent for corporate leaders to ensure that India can respond to the new normal. They also need to ensure that the country can seize the opportunity to increase its market share in the global manufacturing economy. COVID-19 has precipitated companies' entire focus towards industry 4.0. Two things have become more important for companies: focusing on adopting digital technologies that constitute the Industrial 4.0 revolution and investing in new products and services to thrive in the fast-evolving economic environment.

It is challenging to address manufacturers' various sensitivities through wired connections, primarily used for IoT deployments. According to a report by EY, How IoT could power the future and what could stop it, Businesses have two primary goals from IoT and AI-powered revolution: productivity and growth. Despite efforts to improve efficiency and offset the cost through labor arbitrage, businesses need new approaches to offset years of productivity decline. The use of emerging technologies to measure asset utilization, combined with AI and real-time decision management systems, gives many businesses great hope of increasing productivity.

"IoT, AI, data management, and cloud solutions also give businesses great hope of accelerating growth. Companies can build platforms to listen to customers, recognize their behaviors and preferences, and better address their needs – even to the point of predicting what they want – and that leads to growth," it states.

#### Key concerns

The biggest challenges related to IoT deployments are lack of strategy. Often, enterprises deploy IoT without having detailed planning around its implementation need and future-focused vision. Concerns related to data ownership, privacy, compliance, and algorithm bias can put CIOs in a difficult position.

Regarding IoT deployment concerns, the most significant ones are security, especially when it comes to multi-site operations. Connected devices can be controlled by hackers for their nefarious means. Imagine, someone taking control of the different devices being operated in factories, houses, enterprises.

#### What has held back IoT adoption in India

- Lack of clarity on what to prioritize
- Lack of vision and short-term value realization
- Lack of right talent and skills for implementing and maintaining IoT ecosystem
- Technical challenges of connectivity, compatibility, interoperability, and cybersecurity

Source: Internet of Things (IoT), The rise of the connected world, Deloit

According to a HP study, 70 percent of the most commonly used Internet of Things (IoT) devices contain vulnerabilities, including password security, encryption and general lack of granular user access permissions.

"This spike in demand [for IoT] is pushing manufacturers to quickly bring to market connected devices, cloud access capabilities and mobile applications in order to gain share. While this increase in IoT devices promises benefits to consumers, it also opens the doors for security threats ranging from software vulnerabilities to denial-of-service (DOS) attacks to weak passwords and cross-site scripting vulnerabilities," HP notes.

Various vulneralabilities and threats which have emerged with the rise of IoT needs to be tackled by enterprises by implementing end-to-end security approach to scan and identify the network security flaws before they become a serious issues.

Enterprises will be required to explore technologies such as SD-WAN to resolve the issues related to IoT security. With IoT, the role of network administrators will become more complex as they will need to keep a consistent check through remote management. Robust authentication policies will be required to prevent attacks from IoT devices to other network sites.

A recent Technology Industry Innovation study by KPMG states that IoT is ranked as the top technology to have the tremendous potential to drive future business transformation and long-term value, especially around improved business efficiencies, increased profitability, and cost reduction. However, according to the study, the biggest challenge in fully embracing the IoT by enterprises is to shape a new relationship between organizations, customers, and others operating in their supply chain.

One of the ways to develop the relationship is to analyze data from a connected ecosystem, the KPMG report states. "Thus, building trust with customers and suppliers who want to know their data is secure, and for organizations to make informed business decisions, knowing they can trust the data collected," it says.

Another challenge that creates a hindrance in the mass-level adoption of IoT among enterprises is the lack of robust mobile broadband connectivity. Large-scale transformations cannot be achieved consistently based on 2G/3G/4G or even in wired infrastructure. Because these technologies are either slow or have latency issues, or they may use an exorbitant amount of energy to support IIoT. The fifth generation of technology can become really useful in this case. When powered with 5G speed and AI-based analytics, manufacturers can forecast problems, analyze them in real-time, and curtail production downtime.

One of India's leading IT services firms, Wipro, in a report, states that because of the high capacity, wireless flexibility, and low-latency performance of 5G, IIoT deployments in the manufacturing segment will see strong demand. In such a scenario, 5G has the potential to enable high-speed connectivity without the cost and complexity of fiber optic cables. And this makes 5G a natural choice for high precision manufacturing environments.

In addition, the sensors market will likely evolve considerably during the next three to four years. In the post COVID world, where businesses are going hybrid ways of working, sensor monitoring solutions will play a pivotal role in IoT-related projects.

#### THE EVER-EXPANDING IOT WORLD

IoT is already integrated across several areas where technology adoption is accelerating. The critical areas of leading IoT integration are:

#### Smart life

Health care - a new patient-centric model, is emerging

- Consumer and retail businesses the age of empowered customer and co-creator
- Banking convergence moving from statistics to individual factbased policies
- Insurance
- Public services

#### **Smart city**

- Smarter management of city infrastructure
- Collaboration across multiple and disparate agencies
- Real-time data collection
- Enhanced security
- · Better city planning
- Networked utilities
- Building developments

#### **Smart mobility**

- Autonomous/driverless/connected cars
- · Urban mobility
- Interurban mobility connected across the transport network
- Fare management and payment solutions
- Distribution and logistics
- Fleet management

#### **Smart manufacturing**

- Machine learning intelligent, automated decision making
- Machine communications more interaction and collaboration
- Networking networked control
- · Optimized processes rapid prototyping and manufacturing
- Proactive asset management preventive diagnostic
- Better infrastructure integration overcoming the interface standards

Source: EY





# THE BUDGET-FRIENDLY DEVICES INTRODUCED BY PLAYERS SUCH AS SAMSUNG, XIAOMI, AND REALME HELPED MANY CUSTOMERS UPGRADE TO THE NEXT LEVEL OF SMARTPHONES.

India's smartphone market continues to witness strong momentum even during times of crisis. Despite the massive plunge in economic activities across the globe, the smartphone segment shipments, according to Counterpoint Research, grew 23% year-on-year to reach 38 million units in Q1 2021. According to the research firm, Q1 2021 recorded the highest ever first-quarter shipments, and new product launches, promotions, and financial schemes, as well as pent-up demand coming from 2020, drove the smartphone market in this quarter.

However, these shipments did not necessarily result in sales throughout the year despite a strong recovery in the second half of 2020 after the first wave of coronavirus pandemic. Like most countries and regions, the Indian smartphone market also declined for the first half of 2020, mainly due to the rapidly increased number of coronavirus infections. The second half of the year saw some momentum back for smartphones as the covid cases subside. However, the resurgence of COVID-19 instances in March 2021 cut the celebrations short, and the smartphone market growth once again stalled.

Interestingly, during the last year, the industry saw several first-time buyers who moved from feature phones to smartphones due to growing digital transformation and staying connected with their friends and family. With the rise of e-retail, e-education, and virtual ways of working, many buyers bought high-end smartphones with more features and expanded memory support.

The budget-friendly devices introduced by players such as Samsung, Xiaomi, and Realme helped many customers upgrade to the next level of smartphones.

#### New Range Of Devices

The past year expectedly saw the growth of online sales faster than retail sales. According to various industry estimates, the shipments for 5G smartphones crossed 3 million, with Chinese OEMs such as Xiaomi launching products with an aggressive price range.

In the age of growing reliance on digital channels, not surprisingly, the industry has witnessed a consistent decline in the uptake of feature phones, which according to IDC, declined by 8% YoY. This is despite Reliance Jio launching a new 4G device bundled with telco offers. IDC further states that the 2G segment witnessed 3% growth driven by iTel and Lava.

"Almost 7% of overall shipments were 5G, leading to a 3% YoY increase in ASP to US\$176. Further, the premium segment (US\$500+), grew 143% YoY, with 71% of those based on 5G. Apple, Samsung, and OnePlus continued to dominate in that space; the iPhone 11 and 12 together accounted for 28% of shipments, followed by the debut of the Galaxy S21 series and the OnePlus 9 series," IDC notes.

One of the significant factors that have driven the growth of the Chinese smartphone in India is the lack of innovation coming from any of the Indian smartphone brands. Most Indian smartphone brands such as Micromax, Xolo, YU Televentures, Lava, and Karbonn mobile lack the offerings that modern-day smartphone users want in their mobiles.

The industry perception of Indian smartphone makers' failure revolves around their inability to plan device launches at the time of the 4G launch. Most domestic smartphone makers recognized that they



could not prepare for the 4G transition effectively, which resulted in their abrupt exit from the top 5 mobile phones market share. This was the time when most Chinese phone-makers entered the Indian market with several affordable-priced smartphones with great cameras, unique video calling, and attractive designs. Unfortunately, Indian OEMs perhaps misjudged their perception.

#### **Market Share**

Despite growing border tensions with China, India's smartphone market story has been dominated by Chinese handset manufacturers. According to a market study by research firm Canalys, Xiaomi, Vivo, Oppo, and Realme, together form three-fourth of the Indian smartphone market in 2020.

Xiaomi rules the Indian smartphone market with about 26% market share, followed by Samsung (22%), Vivo (16%), Realme (12%), and Oppo (12%). The continued success of Xiaomi could be primarily attributed to its strong focus on building a multi-brand strategy and online-exclusive sales for select models. According to IDC research, its Mi10i was the leading 5G model in 1Q21. Its sub-brand POCO has been on a stellar ride in the online retail segment, driven by affordable models like POCO C3 and M3. Also, the top 8 online models were from Xiaomi/POCO, with a 30% contribution, IDC notes.

Samsung's shift in approach from conventional retail to online exclusive budget-friendly M series launches is helping it give tough competition to the Chinese handset makers. Samsung and Xiaomi are competing very closely every quarter to earn the top smartphone maker badge in the Indian market.

The South Korean consumer electronics giant seems to have learned from the mistakes committed by the yesteryear leading smartphone brand Nokia in India and consistently expanding its budget-friendly M series phones, all with different variants.

Oppo's A15 Series became the top-selling model amongst all of its devices. The company is also launching 5G models to attract buyers looking at upgrading their phones with a tight budget. Its premium subbrand, OnePlus, is gaining considerable popularity in the premium phone segment is the OnePlus series. In 5G phone shipments, the company has over 30% share in the Indian market.

Along with OnePlus and Realme, Oppo has achieved an overall market share of about 18 percent in the global Smartphone market.

In addition, Apple has been swiftly making a mark in the premium

phone segment, with several attractive no-cost EMI schemes and launching previous models of its iPhone, which are still prevalent in the Indian market, at competitive market prices.

Vivo's IPL sponsorship seems to be helping it take to the masses as the company has been achieving consistent growth and shining in a league of its own. Vivo brand has made a strong presence in the youth market because of its exceptional camera quality and features.

According to IDC, MediaTek-based smartphone shipments continued to lead for three consecutive quarters with a share of 52 percent, widening the gap with Qualcomm, which had a 35 percent share.

Some of the year's top smartphones included: OnePlus Nord CE 5G, VivoX60 pro, Samsung Galaxy S20 FE 5G, Mi 11X Pro, Redmi Note 10 Pro Max, among others.

#### The Outlook

These may not be very exciting for the industry in general. Still, the smartphone market is expected to achieve substantial growth due to the continued focus on remote and hybrid workplace models. The rest of 2021 is expected to see an upward trend of all top companies launching new and innovative 5G devices, and some of them may be designed exclusively to support new technologies such as the Internet of Things (IoT).

Research from Polaris estimates that the global smartphone 5G market was valued at \$13.4 billion in 2019 and is likely to grow by 122.7% by 2027. Nevertheless, due to the ongoing pandemic and its aftereffects, the 5G growth will take time to build momentum in a country like India, where still 4G rollouts have not happened in the way they should be.

The second wave of the covid-19 pandemic has created an unprecedented panic in the mindset of Indian consumers, many of whom are spending cautiously on luxury items to save for their future healthcare needs.

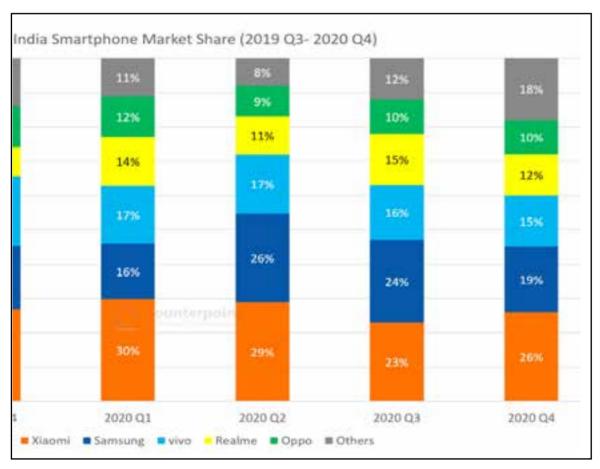
The disruption caused by the pandemic has also impacted the production levels of several smartphone makers. For instance, Foxconn, a renowned smartphone assembler, closed its factories in China in February 2020. The remote working scenario has also made an impact on the research and innovation in the smartphone industry. With many workers continuing to work from home amidst the ongoing pandemic, it has become challenging for smartphone makers to put enough resources and collaborate to build new innovative handsets. There will be a focus

of smartphone makers in India in the year ahead to take a deep-dive approach to expand their tier-2 and tier 3 presence.

There are also concerns such as rising workforce cost, safety protocols in all manufacturing and non-manufacturing units, and limited disposal income of people that are creating a massive dent in the earnings of smartphone makers.

The industry is likely to see a slew of 5G based smartphone offerings from all leading smartphone players in India in the year ahead. Due to the country's growing technical expertise in repairing phones, India could also see a massive uptake of second-hand or refurbished phones, most notably the high-end devices, across all regions.

With vaccination roll-out programme creating positive sentiments and markets are starting to open-up, the smartphone industry could see a robust growth in Fy22 without any substantial hiccups.







The year 2020 began with a rather horrific note – the outbreak of Covid-19 – and it engulfed every aspect of human life – health and wellness, economy, businesses, lifestyle and above all human lives. Restrictions on movement were placed across the globe – travel through any means was stopped or curbed, movement of goods were put on hold. Lockdowns across the world commanded human beings to stay in-house. Millions of lives lost to the deadly virus and trillions of economic losses reported across the globe.

While people had to stay put in their homes and did not venture out, the only saving grace for them was the availability of telecommunication services that allowed them to get their essential items – food, medicines etc – at the doorstep through the home delivery mechanisms placed by many merchants. Similarly, the confined population glued on to the internet to get their quota of entertainment.

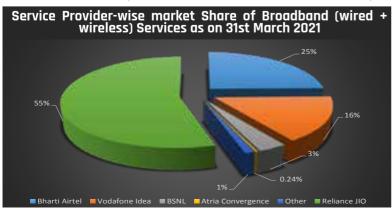
Currently, India is the world's second-largest telecommunications market with a subscriber base of 1.2 billion and has registered strong growth in the last decade. The Indian mobile economy is growing rapidly and will contribute substantially to India's Gross Domestic Product (GDP) according to a report prepared by GSM Association (GSMA) in collaboration with Boston Consulting Group (BCG). In 2019, India surpassed the US to become the second largest market in terms of number of app downloads.

At the end of December, 2020, the gross revenue of the telecom sector stood at Rs. 68,228 crore (US\$ 9.35 billion). Over the next five years, rise in mobile-phone penetration and decline in data costs will add 500 million new internet users in India, creating opportunities for new businesses.

#### Market Size

The number of telephone subscribers in India increased from 1,177.97 million at the end of March-20 to 1,201.20 million at the end of March-21, thereby showing an annual growth of almost 2%. Urban telephone subscription increased from 657.72 million at the end of February-21 to 663.77 million at the end of March-21 and the rural subscription also increased from 530.18 million to 537.42 million during the same period. The monthly growth rates of urban and rural telephone subscription were 0.92% and 1.37% respectively during the month of March-21.

The overall Tele-density in India increased from 87.26 at the end of February-21



to 88.17 at the end of March-21. The Urban Tele-density increased from 139.96 at the end of February-21 to 141.03 at the end of March-21 and Rural Tele-density also increased from 59.48 to 60.27 during the same period. The share of urban and rural subscribers in total number of telephone subscribers at the end of March-21 was 55.26% and 44.74% respectively.

**Wireless Subscribers:** Total wireless subscribers increased from 1,167.71 million at the end of February-21 to 1,180.96 million at the end of March-21, thereby registering a monthly growth rate of 1.13%. Wireless subscription in urban areas increased from 639.24 million at the end of February-21 to 645.20 million at the end of March-21 and wireless subscription in rural areas also increased from 528.47 million to 535.75 million during the same period. Monthly growth rates of urban and rural wireless subscription were 0.93% and 1.38% respectively.

The Wireless Tele-density in increased from 85.78 at the end of February-21 to 86.68 at the end of March-21. The Urban Wireless Tele-density increased from 136.03 at the end of February-21 to 137.08 at the end of March-21 and Rural Teledensity also increased from 59.28 to 60.08 during the same period. The share of urban and rural wireless subscribers in total number of wireless subscribers was 54.63% and 45.37% respectively at the end of March-21.

As on 31st March, 2021, the private access service providers held 89.68% market share of the wireless subscribers whereas BSNL and MTNL, the two PSU access service providers, had a market share of only 10.32%.

**Wireline Subscribers:** Wireline subscribers increased from 20.19 million at the end of February-21 to 20.24 million at the end of March-21. Net increase in the wireline subscriber base was 0.05 million with a monthly growth rate of 0.26%. The share of urban and rural subscribers in total wireline subscribers were 91.76% and 8.24% respectively at the end of March, 2021.

The Overall Wireline Tele-density increased from 1.48% at the end of February-21 to 1.49% at the end of March-21. Urban and Rural Wireline Teledensity were 3.95% and 0.19% respectively during the same period. BSNL and MTNL, the two PSU access service providers, held 47.20% of the wireline market share as on 31st March, 2021.

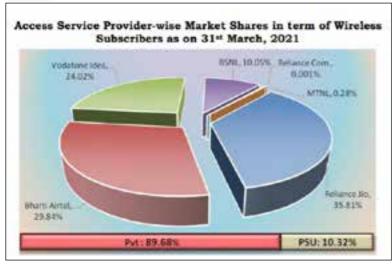
**Broadband Subscribers :** As of March, 2021, the number of broadband subscribers increased from 765.09 million at the end of February-21 to 778.09 million at the end of March-21 with a monthly growth rate of 1.70%.

Top five service providers constituted 98.82% market share of the total broadband subscribers at the end of March-21. These service providers were Reliance Jio Infocomm Ltd (425.51 million), Bharti Airtel (191.93 million), Vodafone Idea (123.61 million), BSNL (26.04 million) and Atria Convergence (1.85 million).

As on 31st March, 2021, the top five Wired Broadband Service providers were BSNL (6.82 million), Bharti Airtel (3.09 million), Reliance Jio Infocomm Ltd (2.60 million), Atria Convergence Technologies (1.85 million) and Hathway Cable & Datacom (1.07 million).

As on 31st March, 2021, the top five Wireless Broadband Service providers were Reliance Jio Infocom Ltd (422.92 million), Bharti Airtel (188.84 million),





Vodafone Idea (123.60 million), BSNL (19.22 million) and Tikona Infinet Ltd. (0.32 million).

#### **Major Developments**

With daily increasing subscriber base, there have been a lot of investment and development in the sector. FDI inflow into the telecom sector during April 2000 – December 2020 total US\$ 37.62 billion according to the data released by Department for Promotion of Industry and Internal Trade (DPIIT).

Some of the developments in the recent past are:

- In April 2021, Elon Musk's SpaceX has started accepting pre-orders for the beta version of its Starlink satellite internet service in India for a fully refundable deposit of US\$ 99. Currently, Department of Telecommunications (DoT) is screening the move and more developments will be unveiled soon.
- In March 2021, Vodafone Idea Ltd. (VIL) announced that the acquired spectrum in five circles would help improve 4G coverage and bandwidth, allowing it to offer 'superior digital experience' to customers.
- In March 2021, Advanced Television Systems Committee (ATSC) and Telecommunications Standards Development Society, India (TSDSI) signed a deal to boost adoption of ATSC standards in India in order to make broadcast services available on mobile devices. This allows the TSDSI to follow ATSC standards, fostering global digital broadcasting standard harmonisation.
- In December 2020, BSNL, in partnership with Skylotech India, announced a breakthrough in satellite-based NB-IoT (Narrowband-Internet of Things) for fishermen, farmers, construction, mining and logistics enterprises.
- In the first quarter of FY21, customer spending on telecom services increased 16.6% y-o-y, with over three-fourths spent on data services. This spike in consumer spending came despite of the COVID-19 disruption and lack of access of offline recharges for a few weeks
- India had over 500 million active internet users (accessed Internet in the last one month) as of May 2020.
- In June 2020, Jio Platforms Ltd. sold 22.38% stake worth Rs 1.04 trillion (US\$ 14.75 billion) to ten global investors in a span of eight weeks under separate deals, involving Facebook, Silver Lake, Vista, General Atlantic, Mubadala, Abu Dhabi Investment Authority (ADIA), TPG Capital and L. Catterton. This is the largest continuous fundraise by any company in the world.

#### **Government Initiatives**

The Government has fast-tracked reforms in the telecom sector and continues to be proactive in providing room for growth for telecom companies. Some of the key initiatives taken by the Government are as follows:

- The Rs. 12,195 crore (US\$ 1.65 billion) production-linked incentive (PLI) scheme or telecome is expected to bring in investment of around Rs. 3,000 crore (US\$ 400.08 million) and generate huge direct and indirect employment.
- In April 2021, the government pointed out that firms such as Ericsson and Nokia are now eager to expand their operations in India, and global companies like Samsung, Cisco, Ciena and Foxconn have expressed interest to set up their manufacturing base in the country for telecom and networking products.
- In March 2021, TEPC (Telecom Equipment Export Promotion Council) organised India Telecom 2021—a platform for convergence of technologies and business exchange.
- The Union Cabinet approved Rs. 12,195 crore (US\$ 1.65 billion) production-linked incentive (PLI) scheme for telecom & networking products under the Department of Telecom.
- In 2021-22, the Department of Telecommunications has been allocated Rs. 58,737.00 crore (US\$ 8 billion). 56% allocation is towards revenue expenditure and the remaining 44% is towards capital expenditure.
- Under Union Budget 2021-22, the government allocated Rs. 14,200 crore (US\$ 1.9 billion) for telecom infrastructure that entails completion of optical fibre cable-based network for Defence services, rolling out broadband in 2.2 lakh panchayats and improving mobile services in the North East.

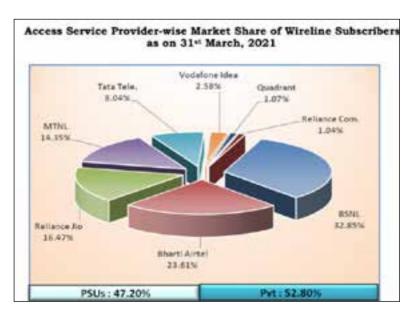
- On January 15, 2021, India and Japan signed an MoU to enhance cooperation in the field of Information and Communications Technologies. The MoU was signed between the Union Minister for Communications, Electronics and IT, Ravi Shankar Prasad, and the Japanese Minister for Internal Affairs and Communications, Takeda Ryota.
- On January 6, 2021, the Department of Telecommunications (DoT) issued Notice Inviting Applications (NIA) for auction of Spectrum in 700 MHz, 800 MHz, 900 MHz, 1,800 MHz, 2,100 MHz, 2,300 MHz and 2,500 MHz bands. Last date for submission of applications for participation in the auction was February 5, 2021, and auction to commence online from March 1, 2021.
- In December 2020, the Union Cabinet, chaired by the Prime Minister, Mr. Narendra Modi, approved a proposal by Department of Telecommunications for setting up of Public Wi-Fi Networks by Public Data Office Aggregators (PDOAs) to provide public Wi-Fi services through Public Data Offices (PDOs).
- In December 2020, the Union Cabinet, chaired by the Prime Minister, Mr. Narendra Modi, approved the provision of submarine optical fibre cable connectivity between Mainland (Kochi) and Lakshadweep Islands (KLI Project).
- On November 4, 2020, The Union Cabinet, chaired by the Prime Minister, Mr. Narendra Modi, approved to sign a Memorandum of Understanding (MoU) between the Ministry of Communication and Information Technology and the Department of Digital, Culture, Media and Sports (DCMS) of United Kingdom Government on cooperation in the field of telecommunications/information and communication technologies (ICTs).
- On September 21, 2020, Prime Minister, Mr. Narendra Modi launched a project to connect all 45,945 villages in Bihar with optical fibre internet service. This project completed by March 31, 2021 at a cost of Rs. ~1,000 crore (US\$ 135.97 million); Rs. 640 crore (US\$ 87.01 million) of capital expenditure will be funded by Department of Telecommunications.
- In March 2020, the government approved the Production Incentive Scheme (PLI) for Large- scale Electronics Manufacturing. The scheme proposes production-linked incentive to boost domestic manufacturing and attract large investments in mobile phone manufacturing and specified electronic components including Assembly, Testing, Marking and Packaging (ATMP) units.
- FDI cap in the telecom sector has been increased to 100% from 74%; out of 100%, 49% will be done through the automatic route and the rest will be done through the FIPB approval route. FDI of up to 100% is permitted for infrastructure providers offering dark fibre, electronic mail and voice mail.

#### Road Ahead

Though the FY20-21 was marred by the Covid pandemic, and the world is still reeling under the havoc of the deadly virus, it is expected that the trends that were prevalent in 2020 would continue to hold good in the next couple of years. As Covid is a contagious disease, it was advised to avail contactless services as much as possible. This led to growth of home delivery services, work from home (WFH) and digital financial services.

Moving on to 2021, revenue from the telecom equipment sector is expected to grow to US\$ 36 billion by 2021 on account of the PLI scheme launched by the Government. The number of internet subscribers in the country is expected to reach 900 million and overall IP traffic is expected to grow four-fold at a CAGR of 30% by end of 2021.

It is also expected that in 2021, 5G services would be made available in the country. Trail spectrum has been offered to all three operators – Bharti Airtel, Reliance Jio and Vodafone Idea – the first two operators have already launched 5G trial services in pockets. They are eyeing the 5G spectrum auction which is expected in the second quarter of 2021. It is expected once the spectrum are available, operators will be rolling out plethora of services including that for healthcare, manufacturing, education, mining and IoT using 5G services



# INCEDO INC. TRANSFORMS SECURITY DEFENSES AND BECOMES A HIGHLY RESILIENT ORGANIZATION WITH CHECK POINT





#### **Customer Profile**

Incedo Inc. is a U.S.-based digital transformation consulting, data science and analytics, and technology services and solutions firm.

#### Challenge

- Consolidate multiple point solutions from different security vendors
- Unify cloud security defenses and management across multi-cloud architecture
- Gain better run-time visibility into endpoints to reduce risk

#### Solution

- Check Point Quantum Security Gateways
- Check Point Harmony Endpoint
- Check Point CloudGuard Posture Management
- Check Point CloudGuard Network Security
- Check Point R81 Security Management

#### **Benefits**

- Consolidated and automatically orchestrated defenses across platforms enterprise-wide
- Gained automated protection from ransomware and other zero-day attacks
- Unified endpoint protection, threathunting, email security, and mobile security in a single solution
- Orchestrated network, application, and cloud security and governance across multiple clouds
- Increased resiliency with automated threat detection, investigation, and remediation

"By consolidating our security defenses with Check Point, we're far more agile and flexible than we could have been before. Check Point has helped us become a highly resilient organization."

- Archie Jackson, Senior Director and Head of IT and Security, Incedo Inc.

#### Overview

Incedo Inc. helps clients achieve competitive advantage through end-to-end data science, analytics, and technology services and solutions. By combining strong engineering, data science, and design capabilities with deep domain understanding, the company helps clients in financial services, telecommunications, life sciences, healthcare, and product engineering maximize business impact from emerging technologies.















# A 10 NETWORKS CONTINUES TO EMPOWER CUSTOMERS WITH SECURE AND INNOVATIVE DIGITAL EXPERIENCE

# RESILIENCE AND AGILITY THROUGH IT SIMPLICITY

With cyber attacks increasing every hour amid the pandemic, cybersecurity is indispensable and has become a top priority for businesses today. According to a recent study by A10 Networks, 62% of Indian enterprises have accelerated investments in security as a result of the pandemic. Hence, innovating and adopting advanced IT and security strategies to address the challenges of the new normal and empowering customers with the most secure and available digital experience is A10 Networks' top priority.

When it comes to its marketing strategy, A10 Networks is focused around communicating how it is helping its customers, service providers and enterprises solve their operational challenges. These include -

- Providing always available app delivery and security onpremises and in the cloud
- Supporting seamless migration to the cloud with hybrid solutions
- Securing multi-generational networks throughout the transition to 5G and cloud-native architectures
- Protecting networks from cyber security attacks that endanger network availability
- Simplifying IT operations with connected intelligence
  - Canturing the benefits of emerging 5G opportunities

A10 Networks is differentiated from its competitors in a way that it secures application services powered by connected intelligence across its solutions for multi-cloud, edge cloud and 5G, all at hyperscale.

# ACCELERATING DIGITAL TRANSFORMATION

At A10 Networks, the health and safety of employees has been the utmost concern during the pandemic and continues to be a key focus in the future as well. Hence, at the onset of the pandemic it embraced digital communications with employees, partners and customers alike. Digital transformation has been the central pillar of its strategy, and it's key to its customers as well. A10 Networks has been committed to addressing customer and partner needs over digital platforms, to ensure business operations continue uninterrupted.

Clearly, the COVID-19 crisis is creating uncertainty across the globe and A10 Networks is committed to its customers and partners and continues to support their business needs.

#### CREATING CUSTOMER EXPERIENCE

A10 Networks is committed to delivering secure application services for on-premises, multi-cloud and edge-cloud environments at hyperscale. It provides its customers with secure and reliable app delivery for hybrid cloud environments, which include private clouds with its application delivery controller (ADC). A10 Network's solution addresses the operational complexities associated with securely scaling for hybrid cloud. It empowers application teams with a self-service model that employs integrated load balancing, security, and analytics to enhance agility while providing per-application visibility and insights.



#### SANJAI GANGADHARAN

Area Vice President - South ASEAN, A10 Networks, Inc.

The A10 Networks ADC optimizes the delivery and security of cloud applications and services across the customer's cloud infrastructure. Also, A10 Networks' advanced load balancers with central management and analytics, provides a unified solution that allows the customer to manage and deliver secure, elastic, cloud-native applications and services centrally across the entire private and hybrid cloud infrastructure.

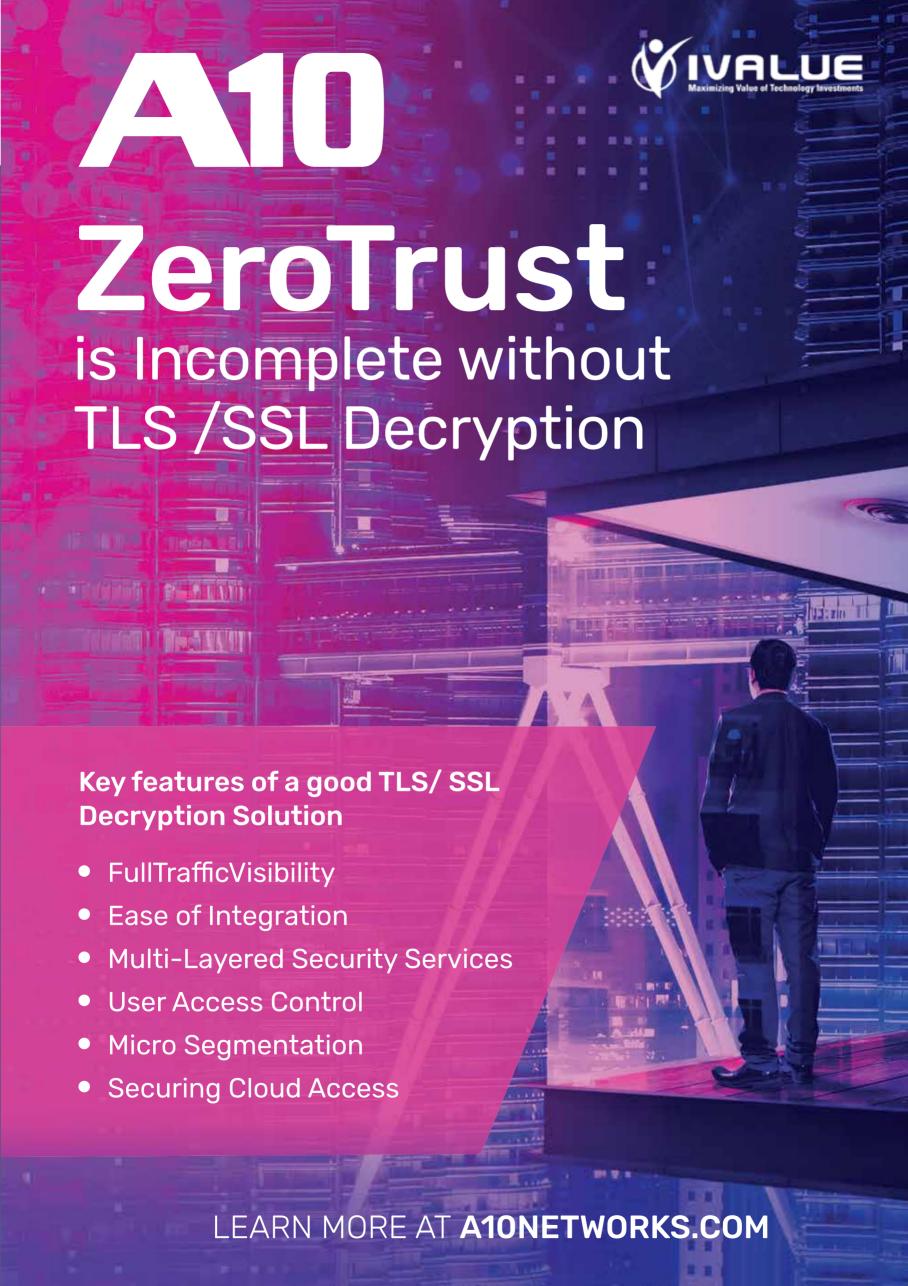
#### **BUILDING A CYBERSECURITY DEFENSE**

A10 Networks continues to work with its customers to help them evaluate the efficacy of their security posture, to secure their multi-cloud and 5G networks and ensure that their business-critical applications are secured and available. Its DDoS protection solutions protect against the largest DDoS attacks, particularly with attacks becoming more sophisticated and as new targets are being attacked, like healthcare and government entities in the age of COVID-19.

Application delivery and centralised management ensure security and availability of applications, particularly as work-from-home scenarios are becoming the norm. The Orion 5G Security Suite helps service providers not only secure their 4G networks, but also help prepare for their 5G deployments along with the increasing use of mobile edge clouds to ensure mobile services can be accessed where subscribers are located. Finally, with a majority of traffic now being encrypted, A10 Network's SSL visibility solution helps customers decrypt and inspect network traffic for malicious threats, including malware and ransomware.

Also, A10 Networks has quickly mobilized to help customers in times of extreme spikes in network traffic and security threats. Its teams remain available 24/7 to address expanding customer requirements for application delivery and security solutions.









# ACER ENSURING BUSINESS CONTINUITY OF ITS CUSTOMERS AND PARTNERS WITH THE POWER OF NEW TECHNOLOGIES

# RESILIENCE AND AGILITY THROUGH IT SIMPLICITY

Amidst the challenges of the past year, Acer has enjoyed a great set of learnings that have phenomenally changed the way people think and work. In the coming years, Acer will be focused on transforming these learning into actions

While the pandemic and economic disruptions are constantly changing the landscape for future work, Acer has understood that new technologies have the power to help companies to pivot and redo their strategies to sustain. Digital transformation is here to remain and will play a vital role in ensuring business continuity. Today, it isn't about the size of the company, but how agile it is to change that matters. Merging of physical and digital, personalization of communication, and valuing the consumers' time when they engage with a brand is imperative. Brands are no longer broadcasters, but they should be listeners and responders to intercept the consumer at the right moments to position the brand and product.

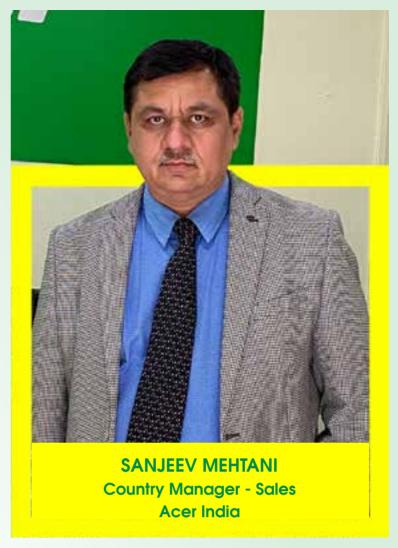
#### **ACCELERATING DIGITAL TRANSFORMATION**

Covid-19 has accelerated the shift to remote working for every business and employee. Acer however has been blessed that it is a technology first company and had business continuity plans in place before the pandemic. In this current scenario, Acer is taking precautionary measures to protect its employees, Acer clients, and business partners. In fact Acer is one of the few companies who has vaccinated 100% of the eligible employees and their families. It also has many employee safety policies which helps them cope with the pandemic.

With technology powering Acer's internal operations, it has created multiple internal tools that have been in place for various functionalities within the organization and this has helped the company align everyone. The IT team at Acer has taken enough measures to ensure that its workforce can work from anywhere and all of its services and meetings can be performed virtually.

#### **CREATING CUSTOMER EXPERIENCE**

Doing the right thing for customers and partners has been at the heart of Acer's mission from the very start of 2020. As a channel-friendly company, Acer has been bringing up programs to educate its partners in the areas of



understanding and accommodating the changing consumer behaviours during the ongoing pandemic. To sustain the second wave of COVID-19, Acer has introduced an innovative Omni-Channel experience for its partners and customers. The retail partners of Acer can sell the entire range of Acer products to their customers without holding stock while still enjoying the benefits and margins using the Acer e-store which serves over 20000 pincodes. The brand helps them offer unique and safe shopping experiences for their customers during the pandemic.

Acer is also generating leads using digital platforms to help retail stores to fulfill Work From Home, Learn From Home, and Gaming From Home segments including enablement of offers that caters to these needs. The channel partners are an extension of Acer and the message it wants to leave for them is that Acer is always there during these uncertain times with its partners. They together will come out of it stronger as Acer will be with its partners at every step of the way.

#### **BUILDING A CYBERSECURITY DEFENSE**

Cyber attacks on businesses seem to be inevitable, at least with the current situation in the cyber landscape. But this can be avoidable to a certain extent by securing hardware and backing them up by multiple authentications.

To prevent cyberattacks, Acer has robust internal controls in place. The systems of Acer are constantly upgraded, checked and maintained with the highest security standards. Also, employee education is one of the biggest keys to improving business security. Acer conducts cybersecurity awareness training regularly. It believes that by having a well-informed team, Acer will be able to create a much more secure business overall.







# Acuutech®



PRITI MEHTA

Group Chief Executive Officer

Acuutech

"

Priti has over 25 years in the IT business and is one of the founding members of the Acuutech board. With a background in technology solution deployment, she intrinsically understands the opportunities and demands within the IT sector. But although she has a thorough understanding of the technology arena, what motivates her, is delivering business first solutions by understanding and working with clients.

As group CEO, Priti leads the group's global business, both commercially and operationally in Europe, Asia and North America.



# ACUUTECH CONTINUES TO DELIVER SUPPORT SOLUTIONS TO CONSTANTLY ENHANCE ITS CUSTOMERS' JOURNEY

#### **INDIA ROADMAP**

Acuutech with its strong partnership with Lenovo and Microsoft forayed into the India market. The company boasts of solutions like Orchestration, Automation and Turnkey Solutions delivery platform built on Microsoft's Azure Stack Family that improves customer experience through simplification, by removing technical complexity and simplifying integration between components. It has signed distribution agreements with Savex to enhance its reach across all major cities in India and address the strong growing enterprise segment in India. This also allows the partners to easily deploy Acuutech's range of integrated offerings into their client base and empower them to drive additional value, in key verticals or areas of specialization.

Acuutech also works with its partners to run high-quality, deeply informative events & roadshows with their clients and opportunities to help them show the business value and key commercial benefits that Acuutech's offering can provide, coupled with the value add services the business partner can offer.

#### SET AS A DIFFERENTIATOR

Acuutech's 25 years of expertise has allowed it to refine and deliver tried and tested methodologies to provide repeatable outcomes for its customers and partners. The company has developed a series of turnkey services, business ready solutions and tools to automate the deployment of complex Microsoft cloud platforms, removing human error, allowing remote deployment at scale. It continues to innovate with Microsoft Technologies and other hardware vendors to deliver additional value-added modular services to complete an overall solution.

Looking at its latest range of integrated, on-premise, hybrid cloud solutions, Acuutech continues to deliver its customers streamlined deployment, migration and support solutions in a way that it constantly improves, refines and enhances the customer journey and ultimately delivers increased business productivity.

For Acuutech, its approach has always been towards an experience driven approach. The way is defines and enables the next wave of technologies offering professional services on leading edge Microsoft technologies. These are designed and framed in an experience centric way. The way it talks about the next wave of Acuutech MESH services and capabilities, these are discussed and framed in an experience centric way. Acuutech can also offer a turnkey modular plat form called AcuutechMESH a simplified systems management etc. It talks in terms of simplified systems management and deployment that does not require technical knowledge, and has billing and commercial terms that are flexible to meet client requirements.

#### CYBER SECURITY A PRIORITY

Security is central to all IT platforms and is a multi-layered activity, encompassing technology and process. One of the key challenges for organizations is correctly taking advantage of the security, encryption and protection systems built into the software and operating systems they use.

Acuutech removes the complexity and challenges associated with delivery platforms that are secure and reliable. Through its advanced knowledge of the Microsoft technology landscape, Acuutech configures and combines the suite of security capabilities within the platform to provide protection from the group up. This starts with protecting the base hardware, firmware and operating system with validated components and security-signed drivers and updates.

#### **R&D PLANS & FOCUS**

R&D is core to everything Acuutech does. As an organization at the forefront of advanced Microsoft based technology solutions, Acuutech continues to invest in R&D that allows the company to deliver the latest and most advanced solutions and capabilities to its partners and customers in a way that is simple to deploy and manage. In doing so, it removes the complexity and significant cost inherent utilizing these new technologies in the traditional way, therefore opening them up to a significantly wider audience and market.

#### NEXT GENERATION FLEXIBLE HYPER-**CONVERGED PLATFORM**



#### TURNKEY, HCI, HYBRID

Organisations want an agile, cost-efficient and trusted IT infrastructure which is future-ready, rapidly scales with demand and facilitates their business growth.

A wealth of experience, with over 23 years of building complex end-to-end solutions

A system which enables them to take full advantage of the new generation Microsoft Azure Stack HCI plaform capabilities to leverage industry leading hyper-converd performance. Coupled with a full range of external services fro the cloud, including applications on demand, security, mobility, and business continuity. All delivered in an easy to manage, ready to go package.

Acuutech MESH is the answer. An extensive IT platform specifically developed for agile businesses, built upon the leading technologies of Microsoft Azure Stack HCI and Lenovo. MESH is a proven, turnkey IT solution, its deployment de-risks IT investment and enables organisations to get on with their core task...delivering business success.

#### **PLATFORM**

The root of the platform is the HCI hardware appliance, build on the foundations of the Microsoft Azure Stack HCI platform. Available in various configurations and topologies. This platform delivers high-performance, highly available storage, networking and visualisation to support your most demanding applications.

- Volume replication Synchronous or asynchronous replication between two sites to enable fast system fail-over and disaster recovery.
- Application hosting Virtual machine creation and management.
- Software defined networking (SDN) - Network segmentation and isolation, ideal for organisations wanting to separate tenants or business units.
- VM encryption and protection -Encrypt and protect sensitive or secure VM's from the base platform, allowing secure workloads to be run concurrently with other VM's.

#### **HYBRID**

Hybrid solutions extend the capabilities of your HCI platform into the cloud providing additional protection and data access solutions.

- **Managed Disaster Recovery** Fully managed DR, from on-premises to the cloud. Full design and configuration of fail-over, data replication monitoring and application fail-over testina.
- Off-site backup to Azure VM level backup of your HCI appliance, Windows VM, VMWare or bare metal systems, unlimited retention period, coupled with flexible backup snapshot intervals
- Hybrid File Server Make any file server share available over the Internet or archive rarely used files to Azure, saving local space.

#### CLOUD

Leverage the benefits of key cloud services. Fully configured solutions, curated and tuned to be simpler to use and manage.

- Infrastructure on demand (laaS)
- Flexible virtual machine and infrastructure services, simplified with support for multiple deployment locations.
- **Virtual desktop** Azure hosted virtual desktop solution, supporting a wide range of VM types and configurations.
- Applications on demand (PaaS)
  - Enhance laaS and Office 365 through support for PaaS database services and the Azure Marketplace.

Driving thought leadership in advanced technologies and solution design

- Office 365 Full support for all Office 365 subscriptions, with migration, support and maintenance built-in.
- Multi-factor authentication (MFA)
  - Provide additional challenge and response for user logins beyond a basic username and password.
- **Device Management Control** and manage your user's mobile devices and desktop computers. To protect business-related data and applications.

#### FEATURE ENHANCE-MENTS AND SUPPORT

Acuutech MESH is a turnkey solution platform; upgrades and feature enhancements are included, and this approach applies to new versions of cloud-based services and on-premises platform capabilities. The system fully supports the life-cycle of your users and systems, providing reliability today and into the future.

#### Platform



Hyper-converged appliance

failover



Hybrid Disaster recovery



Cloud Infrastructure on demand (laaS)



Offsite backup



Virtual Desktop



Application hosting



Hybrid-file server



Application Services on



Software defined networking



Office 365 Productivity

demand (PaaS)



VM Encryption and



Multi-factor







# ALE COMMITTED TO DELIVERING DIGITAL AGE NETWORKING AND COMMUNICATIONS SOLUTIONS

# RESILIENCE AND AGILITY THROUGH IT SIMPLICITY

In the wake of the pandemic, Alcatel Lucent Enterprise (ALE) has pivoted its marketing mix to focus less on traditional physical face-to-face events in the current landscape. Its strategy spans across raising brand awareness in key go-to-markets and creating demand through vertical and account-based marketing to drive pipeline with its partner ecosystem.

To support and leverage its existing customers, ALE runs a green clinic program for its key verticals - Government, Healthcare, Transportation, Education & Commercial. This program initiates fresh outreach to its install base, where it evaluates pain-points and suggests new converged solution offerings from ALE. It has also instituted Vertical Marketing Programs aimed at the key industries to educate customers and prospects about new ALE offerings.

Furthermore, ALE has initiated multiple partner programs this year. Jointly driven with the key VAD's & DR's, these programs take a collective approach to reach the end customer and prospect base. With these programs, key partner accounts have been identified and engaged with integrated marketing tactics. For example, ALE introduced the Build2Win Channel rewards program for its APAC network of partners. This Build2Win program strengthens engagement and supports its partners, while offering an opportunity to recognize and reward the champions within the ALE partner ecosystem.

# ACCELERATING DIGITAL TRANSFORMATION

ALE is uniquely placed to handle the challenges of remote work. This is the reason why the pandemic did not affect the way it operates. In fact, it has helped to accelerate areas of transformation such as upskilling the team.

ALE has been using its own communication and collaboration platform Rainbow to manage its internal communications even before the pandemic. As such, it was able to seamlessly transition to work from different physical locations.

The Rainbow platform has been key for ALE in engaging with colleagues globally. It allows teams to have centralized discussions that facilitate communication despite the distance, keeping essential communications open across teams in challenging times.

ALE is also taking this time to ensure that the company is well placed and coming back stronger to help businesses to restore and thrive with its solutions.

#### CREATING CUSTOMER EXPERIENCE

ALE has always focused on helping its customers make everything connect by delivering digital age networking, communications and cloud solutions that are tailored for their success. This continues to be its objective this year.

ALE continues to help customers identify pain points and overcome communication and networking challenges. This year, it has helped many customers bridge digital gaps with technology, and successfully supported them in their transition to distributed operations.



MR. PRASATH L RAO
Country Director – India & South Asia,
Alcatel-Lucent Enterprise

By providing their employees with online collaboration tools and business telephony applications, ALE has been able to foster inter-employee communication and collaboration despite physical distances

## COMPLEMENTING DIGITAL INDIA

When the pandemic hit, millions of Indian citizens were forced to work remotely, creating an unprecedented surge in network traffic. India's cross-country network coverage was unprepared for the new normal. The Digital India initiative is meant to strengthen India's mobile and terrestrial network infrastructure and support the country's small businesses that were hit hard by the said network challenges.

As part of the Digital Village program to connect every rural village, ALE has helped in this effort by connecting about 7,000 villages thus far. It has also customised its smart city solutions for some cities, with ruggedized network switches and access points carrying critical and sensitive data to the monitoring centre.

Additionally, ALE played a significant role in supporting many of India's metro operators, enabling them to integrate IoT applications and connect standalone systems into their network. ALE's solutions are also now available on the GeM, the India Government e-Marketplace for public procurement in the government.



# AMD Accelerates Innovation Across the High-Performance Computing Ecosystem



VINAY SINHA

Managing Director, Sales

AMD India Private Limited

It has never been a better time to be in the computing and semiconductor industry. At AMD, our role is to push the envelope in high performance computing and set the pace for the industry and for the future. Whether it is PC, supercomputing, servers, workstations, consoles or edge devices, AMD is at the core of high performance. We are powering devices that are enabling digital transformation in enterprises and also changing the way end consumers work, learn, and play.

Last year, we marked an inflection point in our long-term journey as we made significant progress in establishing AMD as the high-performance computing leader. We exceeded our aggressive growth goals for the year while navigating industry-wide challenges caused by COVID-19. The momentum continues as AMD has been building strong mindshare among consumers – with Ryzen™ CPUs, Radeon™ graphic cards and EPYC™ server processors.

For two consecutive years now, AMD has been bestowed as India's "Most Trusted Brand" and "Most Desired Brand" in the Semiconductor category in 2020 and 2021 respectively by

TRA Research. These recognitions are a testimony to the deep mindshare, consumer confidence and partner ecosystem relationships we have established in India.

# Elevating Business Computing with Ryzen™ PRO Mobile & Desktop Processors

AMD is the fastest-growing commercial processor brand, and AMD continues to elevate business computing with the latest "Zen 3" architecture and the latest technology. We work closely with PC manufacturers, as well as software and technology providers, to optimize the end user experience and enhance security features, to bring more leadership products and solutions to market.

Earlier this year we launched the AMD Ryzen™ PRO 5000 Series mobile processors to deliver leading performance for ultrathin business notebooks. Now with the launch of AMD Ryzen™ PRO 5000 Series desktop processors for OEM systems, we are bringing the "Zen 3" high performance and power efficiency to desktop PCs for business.

With the changing dynamics of businesses today and the need to navigate in an increasingly distributed work environment, large enterprises and SMBs are recognizing the need for more robust and flexible PC solutions to empower their employees to stay productive and engaged, through more performance and strengthened security from professional laptops and desktops powered by AMD.



#### ANOMALI



# Anomali's mission is to help customers improve their security posture and build cyber resilience

#### **MANOJ TASKAR**

Country Manager Anomali India

## RESILIENCE AND AGILITY THROUGH IT SIMPLICITY

Anomali is a 100% channel driven company and is focused and committed to engaging, enabling and empowering its partner community to grow its market share, branding and presence. The company's key priorities are to invest in joint initiatives with its partners to ramp up channel and field marketing activities, drive pipeline creation and velocity, and raise its share of voice. Partners hold the ultimate key to customer relationships, and strong partnerships are the unique differentiators to garnering a larger footprint in the market.

#### **ACCELERATING DIGITAL TRANSFORMATION**

Anomali has implemented connectivity, collaboration and communication tools to ensure employees are able to continue working productively, build business relationships across the organization and beyond borders. It also extends regular and effective training on new technologies and compliance requirements.

#### **CREATING CUSTOMER EXPERIENCE**

Customers recognize Anomali as the market leader in global threat intelligence that is enriched by being the hub of threat sharing across trusted circles. Anomali is committed to investing in its technology roadmap to deliver more for its customers' journey. Most recently, Anomali announced investing in intelligence-powered cloud XDR Solution, using its Match product use-cases as the starting foundation. The brand is also ready to have conversations with customers who want to explore its current Match use cases as well as conversations about cloud XDR, which it expects to deliver later in the fiscal year. Anomali's mission is to help customers improve their security posture and build cyber resilience by stopping breaches, which all starts and ends with intelligence.

#### **BUILDING A CYBERSECURITY DEFENSE**

Organizations need to regularly access the potential vulnerabilities, improve their security posture and focus on building cyber resilience. It all starts and ends with intelligence.

Anomali foresees a continuous uptrend of cybersecurity technology adoption from organizations across the board in India regardless of their digital maturity level. And so much so, these cybersecurity tools will help organizations in their fight against cyber attackers.

The industry demand for cybersecurity in India will continue to gain traction, especially in industries like Government, Banking, Insurance, Financial Services, Healthcare and Manufacturing. Small and medium businesses will also be key to driving market growth.

There will be pertinent advancements and adoption in cybersecurity technology to stop cyberattacks – breaches and threats – specifically in the areas of intelligence-driven cybersecurity solutions, machine learning and Al. All of these would contribute to fast Mean-Time-To-Detection (MTTD), reduced cost of security incidents, automation, and more efficient security operations. Hence, organizations will be able to quickly identify key areas of concern in their environment and prioritize their response appropriately.

#### PERSONALIZING B2B MARKETING INITIATIVES

Covid 19 has shifted the way we drive B2B marketing initiatives drastically. In a "new normal" where most organizations are vying to engage with the same customer through a few digital means, this has proved to be increasingly ineffective. Customers are inundated with numerous invitations to virtual events and more often than not, face death-by-webinars.

Anomali is encouraged to think of ways to reignite and foster that basic human relationship again, and its campaigns are driven on the same basis of a simple message, #AnomaliAPJcare.

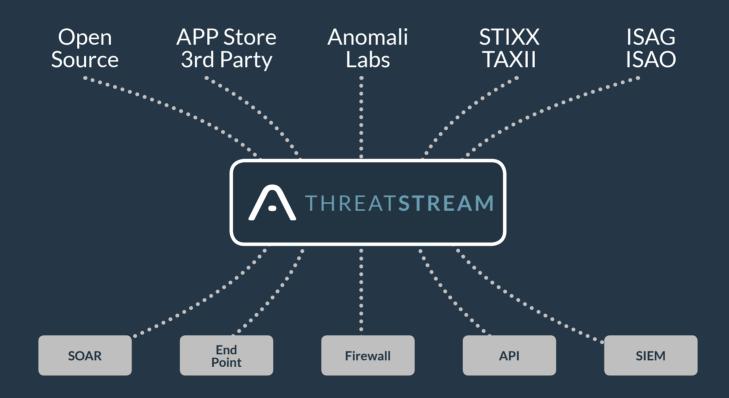


# ANOMALI

# Intel on demand. Turnkey integrations. Fast time to value.

#### **Anomali ThreatStream**

The industry's leading Threat Intelligence Platform (TIP)



TOE IC

- Aggregate intel from any source
- Threat intel"marketplace" (APP Store)
- Full 2-way IOC sharing

# MANAGE

- Normalize IOCs across sources
- Enrich with Actor, Campaign, TTP
- De-dupe, False Positive detection

INTEGRATE

- Download indicators locally
- Integrate with internal systems
- Custom integration via APIs





# ARUBA EDGE SERVICES PLATFORM HELPS ORGANIZATIONS BUILD AN INTELLIGENT AND SECURED HYBRID WORKPLACE

Aruba has identified four major trends that CIOs now face that can make or break an organization's IT program -

- The rise of the hybrid workforce and how that will evolve during and after the pandemic
- The changing role of network security integrated across the fabric of the network
- Graduating from uptime networking metrics to user satisfaction metrics
- Staying the course in implementing automation in networking operations, despite challenges posed by the LAN, WAN and Cloud

#### THE HYBRID WORKFORCE IS HERE TO STAY

What many organizations thought would be temporary remote setups to "flatten the curve" of the pandemic infection rate, have evolved to form the hybrid workforce of the future, where employees will work from home, the office, or anywhere else – wherever they have a secure and reliable connection.

For IT, this crisis has presented enormous challenges, but there is a silver lining. CEOs and their boards of directors have come to recognize the impact that IT can have on the business, including how fast change can be implemented, even under such stressful circumstances.

As a result, IT has a seat at the table in pushing forward ambitious forms of digital transformation, even accelerating existing planned transitions, emboldened with how the workforce has adapted to what has become known as the "new normal."

# SECURITY MUST BE VIEWED DYNAMICALLY – FROM ENDPOINTS, TO THE EDGE, TO THE CLOUD

With the rise of remote working and the hybrid work environment, CSOs and CIOs are clamoring for a connected security approach. When looking at network design principles of the past, security experts essentially started with a policy and then designed a network topology that in turn satisfied policy, which meant that topology and policy were tightly coupled. Networking solutions have evolved to offer significant degrees of separation, where policy gets programmed when and where it is needed, and only when and where it is needed.

Zero Trust network architecture solutions will remain a core piece of effective security with traditional IT workloads moving out of the Edge into either the cloud or SaaS environment. The vacuum left behind is eventually going to be replaced by OT/IoT specific workloads at the Edge. Furthermore, with the implementation of 5G, the networking architecture must contend with multi-access edge compute (MEC) workloads – both private and public - all the more requiring dynamic approaches to security policy that must evolve beyond the user-centric workflows that Zero Trust is primarily optimized for today.

#### **END-USER SATISFACTION IS KING**

It's no longer sufficient to just keep the network infrastructure up and running. The metric du jour is user satisfaction which, from the CIO standpoint, is tied to employee productivity that can ultimately impact business profitability.

Networking and security teams are now focused on dynamic experiences that end-users want and expect with the services and applications they



PRAKASH KRISHNAMOORTHY

Director - India at Aruba
a Hewlett Packard Enterprise company

choose to use for improved productivity. Instead of asking just what kind of devices are connecting to the network, they are also required to focus on maintaining flexibility and agility while minimizing risk. The goal of network control goes hand-in-hand with business agility.

# STAYING THE COURSE ON AUTOMATION IN NETWORK OPERATIONS

Automation progress is not equal across the entire networking paradigm. In the data center, which is a more controlled environment when compared to the WAN or LAN, adoption is farther along. Changes in a data center are driven mostly in a naturally hierarchical structure and are thus easier to understand and manage through automation scripts.

The Edge (both LAN and WAN), on the other hand, is a more chaotic environment because changes are triggered by factors that are not totally within IT's control – namely human and device behavior patterns that are constantly changing. There is a big need for leveraging AI and machine learning models to sense changes as soon as they occur and respond to the ones that seem persistent, even if for a short period of time. The maturity of deployed solutions that provide this learning component of automation at the Edge will improve significantly in 2021 and beyond.

#### **MAKING 2021 A SUCCESS**

The four trends outlined can provide CIOs and IT leaders with the tools to be better equipped for navigating the unpredictability of today and beyond.

Aruba ESP (Edge Services Platform), an AI-powered, cloud-native platform to automate, unify, and protect the edge eliminates network complexity and overcomes traditional network limitations in areas of operation, management, and security. Aruba ESP helps organizations deliver a hybrid workplace with built-in intelligence, automation, integration, and security, along with a single point of control. Qualitative and quantitative findings confirmed that organizations using Aruba ESP improved their operational agility and efficiency while reducing risk.



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# ASUS BUILDING A STRONG ONLINE PRESENCE TO SERVE CUSTOMERS BETTER & FASTER

### RESILIENCE AND AGILITY THROUGH IT SIMPLICITY

ASUS has successfully transitioned more than 70% of its business online which also include its traditional partners and distributors operating offline. And this has been one major marketing strategy shift for the company. In the current situation, since most people are online and working remotely, ASUS has turned to digital marketing. The marketing team at ASUS also assists and trains partners and sellers with the basic setting up of their respective offline business online to ensure business continuity. The brand has adopted a stronger presence online approach – on social and digital forums with an aggressive SEO and extensive influencer marketing.

Today, the current line of offerings of ASUS have products that compliment WFH – such as Mini PCs, Wi-Fi routers with layered security, portable monitors, webcams and wireless peripherals.

# ACCELERATING DIGITAL TRANSFORMATION

Remote working is here to stay. The meetings with stakeholders – HQ, Distributors, Partners, SI, Media and internally have now become digital meetings through MS teams. ASUS ensured that all employees have Laptops and IT support to ensure there was no disruption. It already had internal communications systems in place which made it easier to transition to work from home.

To keep employees motivated the HR also organizes fortnightly engagement programs and has a weekly idea sharing virtual meeting where everyone discusses different solutions and methods – it could be service, product based or even general.

#### CREATING CUSTOMER EXPERIENCE

The lockdown meant that the turnaround time in service would naturally go up. ASUS ensured that it sensitized its customers through social media and on its website proactively that there would be delays other than normal days during this time. The service team also ensured there were timely responses for critical service issues. In locations where there were no lockdowns imposed, the onsite service colleagues visited to resolve any product related issues. Since most of its service centres were shut, ASUS even offered and continues to offer some customers a pickup and drop service in remote locations.

# BUILDING A CYBERSECURITY DEFENSE

It is true that working from home makes one more open to vulnerability. Taking cognizance of this situation, in terms of organizational access to the information and the website for employees – ASUS uses a VPN and has a 3 layer system to access any information which would require OTPs that would be sent to the respective employee. In the unlikely situation of an employee's system or device getting infected and opening a chance for an attack – the ASUS HQ has a system of terminating that employee's connection to the internal system immediately.



VINAY SHETTY

Regional Director - Component Business for India & South Asia

ASUS





# Atos



# ATOS AT THE FOREFRONT OF ADOPTING AND CREATING DIGITAL TECHNOLOGIES

UMAR ALI SHAIKH
CEO
Atos India Pvt. Ltd

#### **KEY STRATEGIES FOR 2021**

Atos's business strategy is based on the quality of its products and services delivery and is founded on the continuing satisfaction of its customers. Customers rely on Atos for sustainable and innovative solutions that will lead to their digital transformation and ensure their success and growth in an evolving & challenging business environment.

Atos aspires to build a transparent and long-term relationship with its customers based on open dialogue and trust and work closely to advance innovation and create value. It being an industry-focused organization, Atos believes in customizing its solutions to meet specific market requirements for their respective industry verticals. Atos likes to invest in Talent, Innovation, and Partnership with Global Technology leaders to bring value to its customers

#### **ACCELERATING DIGITAL TRANSFORMATION**

With the foresight of digital as the future, Atos has enabled its resources with capable and secure workplace solutions with an ambition to become a secure and decarbonized digital leader.

Since 2017, Atos launched several initiatives within key business areas by deploying more digital tools and re-engineering processes through automation. Its Engaged Employee Experience services empower employees with the help of collaborative tools and personalized services to work from anywhere, anytime, without compromising on security and performance. The company believes that an empowered & engaged employee offers better services to its customers and is equipped to handle challenging situations.

Atos modernizes the workplace with intelligent automation, predictive analytics, chatbots, enterprise collaboration platforms, and smart-assist agents available on desktop and mobile platforms.

Atos continues to hire new staff, onboard, and induct them remotely in these unprecedented times. It believes that since it is the new way of ensuring safety for all involved, digital technology has helped the brand to remain focused and effective on its customer's requirements.

#### MAKING CUSTOMERS 'DIGITAL READY'

The fundamental lesson the years 2020-21 have taught is that Victory belongs to the most persevering and adaptable. It requires determination and

the ability to fight adversity and remain upright to rebound after the most adverse challenges humanity has faced on both personal and business sides.

Remote working has become necessary to work from anywhere and anytime, even for the most traditional workplaces. Most organizations are aware that they must embrace digital technologies to enable their workforce, manufacturing, logistics, and sales channels across industry verticals. The dynamics and the speed of adoption have changed due to the Covid-19 crisis.

Atos's experience in deploying future-ready digital workplace solutions goes beyond performance and profitability for the brand. It is using its digital journey to showcase the power of a successful digital transformation to its clients to help them create a future-ready workplace that can benefit from the Cloud, Digital Workplace, and Cybersecurity technologies.

#### **BUILDING A CYBERSECURITY DEFENSE**

With the evolution of the digital ecosystem, Cybersecurity has become a significant business risk and challenge for organizations and companies. Today, the internet connects buildings, cities, vehicles, industries, mobile phones, laptops, and in the future, it will even connect the human mind. The digital world is constantly changing with the exponential growth of cyber threats.

Atos is #1 in Europe and #2 worldwide in managed security services. Its 6-pillars of cybersecurity ensure a secure digital transformation for the protection of the entire digital ecosystem. Atos develops, manufactures, and maintains cutting-edge cybersecurity products that combine data protection, access management, and digital identities.

Atos's solutions for Trusted Digital Identities prevent intrusions; its Digital Workplace Security solutions protect the digital equipment; its security solutions for Industry 4.0 secures an intertwined internal & external industrial environment, and Data security renders high protection to data in any state. Cloud transition with applications and infrastructures challenges are addressed with cloud adoption and optimization with Atos OneCloud.

These 6-pillars are supplemented with added hats of supervision through Atos' strategic partners and alliances and its in-house products like Evidian, IDnomic, and Trustway, along with analytics & automation – providing 360-degree security for the entire digital ecosystem to address the ever-changing threat landscape.





# AUTODESK LEVERAGES ADVANCED TECHNOLOGIES AS PART OF ITS LONG-TERM VISION

ALOK SHARMA Country Manager Channels India & SAARC Autodesk



# ACCELERATING DIGITAL TRANSFORMATION

Autodesk has kept a close eye on how the world has evolved in the last year, and the impact that the pandemic has had on industries. It has been working with its clients to enable them to work remotely with minimum business disruption. For instance, during the height of the pandemic in 2020, Autodesk launched a temporary Extended Access Program, which allowed for free commercial use of several Autodesk cloud collaboration products to better support customers facing the new reality. These products included AutoCAD web and AutoCAD mobile apps.

Autodesk is far ahead of competition to invest in cloud, which sets the brand apart. Autodesk has also been executing a longer-term vision to support advanced technologies like digital twin, which enables building owners to harness data throughout the design process and improve operations. Digital twin technology has a wide range of applications. It can be used by a hospital facility manager to manage critical systems, and in a water processing facility to monitor water scarcity and weather. The global digital twin market size in 2020 was valued at \$3.1 billion and is projected to reach \$48.2 billion by 2026.

# STAYING CONNECTED THROUGH AUTOCAD SOLUTION

AutoCAD 2022 can be a very powerful tool given the current circumstances as it helps users stay connected to their CAD drawings at job sites, at home, and in clients' offices with the web and mobile apps. It has easy-to-use tools and can be accessed through smartphone and tablets—even offline in areas that may not have great internet connectivity.

It also makes collaboration easy because it allows users to communicate faster and make changes in real time without compromising on quality. For instance, in AutoCAD, a user can share a controlled copy of the drawing with teammates and safely review and markup colleagues' drawings.

# AUTOCAD 2022 – ENSURING PRODUCTIVITY & PROJECT ROI

There are seven industry-specific toolsets that AutoCAD 2022 offers for architecture, mechanical design, mapping, and more. These toolsets are designed to boost productivity and save valuable time. Among other things, these toolsets offer access to libraries of over 750,000 symbols, parts, and detail components that automate tasks.

Recent studies have shown an average productivity gain of up to 63% for AutoCAD tasks completed with the help of a specialized toolset.

Each toolset brings its own unique benefits. For instance, Mechanical Toolset available in AutoCAD—which can be used by mechanical engineers while designing machines, planning factory layouts, or reworking legacy data—has shown an approximately 55% reduction in total time taken to complete a task. It also reduces the risk of error due to more standardized functions and the availability of standardized parts.

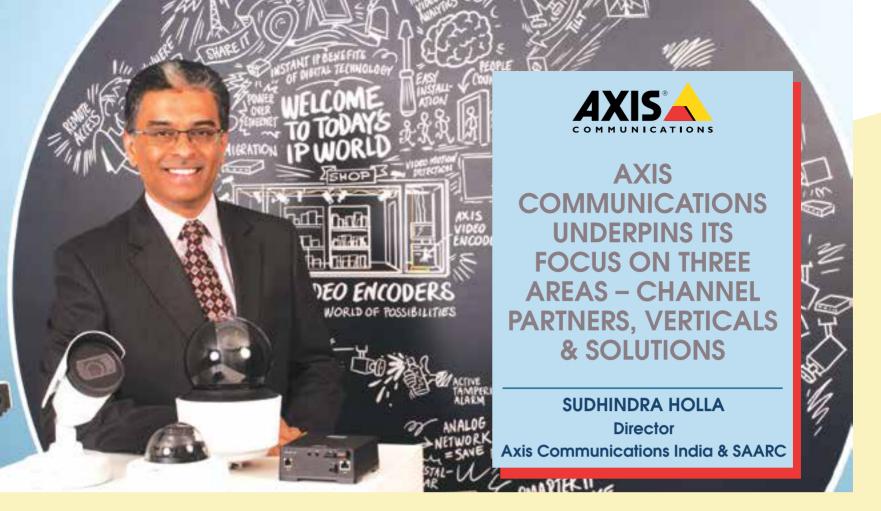
# TRANSITIONING TOWARDS A CLOUD-BASED SOFTWARE

Autodesk understands the importance of cloud in today's world and AutoCAD 2022 is a best example of that.

A user can view, edit, and save DWG files stored in the cloud directly with AutoCAD 2022 on virtually any device. In fact, the platform goes beyond just the Autodesk ecosystem to make things much easier for users. For instance, besides Autodesk's cloud, a user can access files stored in several other leading cloud storage providers, including Microsoft OneDrive, Google Drive, Dropbox, and Box. This makes AutoCAD 2022 even more intuitive and handy.

In addition, AutoCAD 2022 lets users edit, create and share drawings without even having AutoCAD installed on their computer through a simplified web interface that runs in the web browser.





# RESILIENCE AND AGILITY THROUGH IT SIMPLICITY

Axis Communications has been very consistent in terms of strategy execution. It is driving a three-pillar strategy with its focus on three key areas – channel partners strategy, segments or verticals and solutions strategy.

With regards to its channel strategy, Axis Communications is focusing on diving deep with its solution partners in terms of expansion and an indepth knowledge of its offerings through education programs, certification courses, training sessions and incentive schemes. While trying to develop a breed of partners for its end-to-end solutions, Axis had launched a program a few years ago and is now emphasizing on it to drive more solution sales. It also has a similar program for its Audio Specialists. In a nutshell, Axis Communications is looking at strengthening its domestic presence in India with the help of its newly launched partnership programs.

In terms of its segment strategy, Axis Communications is focusing on segments where it has a strong presence such as the commercial segment (IT and large enterprise buildings). It is also focusing on segments like city surveillance, smart city, transportation, critical infrastructure, hospitality, and retail

In terms of its solutions, Axis Communications is focusing on selling its end-to-end solutions through its end-to-end specialist partners. It is equally keeping its focus on its Extended Video Products (EVP) – thermal cameras, explosion protected cameras, multi-sensor panoramic cameras and radar systems.

#### **ACCELERATING DIGITAL TRANSFORMATION**

Consistent and efficient communication with its employees has been a focal point of the brand's business strategy ever since everyone went into remote working. According to its global organizational guidelines, Axis Communications exhibits the best practices and responsiveness in terms of technical support with its chatbot 24\*7. This practice ensures its immediate support in case of any technical glitch for a seamless customer experience. Additionally, Axis Communications has maintained round-the clock communication with its distributors and partners through engaging educational and training sessions to keep them updated on all fronts.

To better suit the remote working situation, Axis Communications had rolled out new guidelines for its employees. It is utilizing platforms like Webex and Microsoft Teams to stay connected, while also launching employee-centric initiatives like yoga and meditation sessions, frequent tea-time catch-ups, tips on maintaining a work-life balance and ensuring a healthy work life balance.

#### AGE OF DIGITAL INNOVATION

One of the bigger initiatives that Axis Communications has undertaken towards digital adoption is introducing digital training for its channel

partners. It has streamlined and calendarized the training modules for its end-to-end and audio specialist partners and distributors. Last year, Axis Communications introduced the Axis Virtual Certification training which was conducted physically before the pandemic hit. The team has adapted to communicating similar training digitally by breaking the module into a three-day course.

Axis Communications is also encouraging a follow up module for partners who have not completed all sessions. Globally, it is also introducing the 'Learning Management System' (LMS) initiative where learning will be more self-paced. Through this initiative, it will be able to track the progress of its partners, understand what piques their interest and elevate learning to the next level.

#### **BUILDING A CYBERSECURITY DEFENSE**

Cybersecurity is of utmost importance to Axis Communications. It therefore follows a strict cyber policy in terms of its devices and solutions. For instance, to prevent cyber-attacks, it does the firmware for the products itself. The engineers at Axis Communications ensure that the firmware is robust and well-guarded from data thefts.

Axis being a Swedish company has no backdoor policies. This enables its solutions to be resilient against cyber-attacks by third parties. Axis Communications also works with its own video management system, known as Axis Camera Station with a unified portal system that shows upgrades and maintenance of the systems pro-actively. The video stored is encrypted and if any tampering occurs, Axis cameras auto reboot themselves to the previous system. Regular patches and upgrades are also sent to the customers to ensure data security.



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# BD SOFT'S RELIANCE ON INNOVATIVE MARKETING TOOLS HELPS IT TO INCREASE ITS BUSINESS

#### **KEY MARKETING PRIORITIES FOR 2021**

For the coming year, BD Soft is focusing on digital advertisement, Social media marketing and lead generation as marketing tools. The traditional way of advertising in paper print is almost over for products used in the IT industry, according to the company. It also does a lot of PR activities for its products and solutions to increase awareness and brand recall. BD Soft is targeting specific segments for business as per the solutions it has. It is blending old and new methods of marketing to get the best out of both. BD Soft had been doing a pilot run last year and has been getting required success. Marketing is the need of the hour to increase business and stay afloat during these turbulent times.

### ACCELERATING DIGITAL TRANSFORMATION

BD Soft has kept alternate days at the office for different staff, so that everyone gets a chance to come to office and at the same time exposure to risk is not high. The brand has adjusted well to the new normal. Fortunately for BD Soft, the company has not lost any work during the pandemic and its teams have done everything in their capacity to address all the work demands coming their way. It has made all pdf of its products ready and available with all staff so that they can send to the prospect asap. BD Soft's technical support teams are working well from home and able to give extra support as travelling time has almost become nil. At the same time it keeps doing various meetings in offices and smaller picnics to keep the morale high of the team as some of them are bored working from home. BD Soft has been having video meetings with its regular partners and customers and they have done well. As a matter of fact, many things have become faster than before like doing training or a webinar which now can be done on video without having to worry about arranging places, food, projector etc.

BD Soft is doing all its banking digitally now and all payments are digitalized. It has tried stopping paper visiting cards and made digital cards for its staff mandatory. BD Soft is trying daily to become more paperless.

#### CREATING CUSTOMER EXPERIENCE

BD Soft is well prepared in terms of giving support, doing POC or doing webinars with all necessary tools required to work from home. The idea is keep the staff updated on new tech required to keep working seamlessly without any hiccups and give a good experience to the customers. BD Soft made sure that the teams are equipped with good technology products to work during their presentations and demos; this very much adds to their confidence. BD Soft also made digital banking compulsory in the oganization and all payments are done via digital mode.



ZAKIR HUSSAIN
Director
BD Soft India

### PERSONALIZING MARKETING ACTIVITIES

BD Soft has started focusing more on B2B campaigns after the lockdown started last year. It started talking to its current clients and started asking for references. BD Soft started targeted marketing to get connected with B2B prospects. It was already doing social media marketing and started some activity on LinkedIn too. There is no one strategy but a mix of everything which suits the company the most and BD Soft took that route.

# DIVIDED WE SURVIVE TOGETHER WE THRIVE



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# RESILIENCE AND AGILITY THROUGH IT SIMPLICITY

The global business scenario has undergone a sea change with the pandemic. Despite its business in the entertainment segment getting significantly impacted following the pandemic, Barco has always been focused on the future and it took consistent efforts to turn the situation into an opportunity for learning and transformation.

For 2021-2022, Barco is geared towards building a solid software talent at its Indian R&D team and is focused on enabling bright outcomes in the hybrid new normal across key segments like entertainment, enterprise and healthcare. To ensure that its products reach the end consumers, Barco has tied up with a strong partner network as a part of its 'In Country for Country' approach towards catering to the unique requirements of Indian customers.

Barco is also focused on leveraging new and emerging verticals like smart city solutions, surveillance and security via control rooms and aiding digital transformation for enterprises through its hybrid workplace solutions.

## ACCELERATING DIGITAL TRANSFORMATION

Digital is the future, especially in the new normal. Barco listens to, and puts its employees first and takes in their expectations, towards enabling an employee-centric workplace for its people, as well as for other organizations.

The Barco GEAX facility is a state-of-the-art, hybrid work environment and is the largest global Centre of Excellence for Software innovation and R&D in India. The workspace is equipped with the latest technologies and Conferencing Solutions and is designed based on the needs of a hybrid work culture and a young team i.e. collaboration, brainstorming, flexibility, and innovative thinking.

Barco is working towards enabling a hybrid work model based on trust, agility, talent and innovation. It is also focusing on a reskilling agenda and the adoption of new-age digital tools and technologies, as well as co-creation, for better efficiency and throughput.

# CREATING CUSTOMER EXPERIENCE

Barco has adopted new technologies in order to reduce operation cost, mitigate risks, and enable a resilient model to deliver business value and is also working towards data solutions to catalyze new revenue streams and create better customer experiences. Barco is a change advocate and it believes in driving adoption of technology to create a next-generation operating model to keep people engaged, driven and imaginative in 2021 and beyond. Some of the measures it has taken include strengthening the global software development structure by expanding Barco's software team in India and combining efforts, internationally and cross-divisionally, towards a more customer-oriented strategy focused on creating solutions with, and for its customers.

# BUILDING A CYBERSECURITY DEFENSE

Cybercrime is, indeed, a major security threat, especially in the hybrid era. Industries across sectors are, currently, ramping up technology solutions to empower a hybrid work model. Even as Barco is evolving into hybrid models, it is also ensuring that its data is safe and secure.

Throughout Barco, a lot of attention is paid to this topic. It works closely together with different organizations to ensure that not only Barco is secure as an organization, but also the solutions it delivers are secure to use.

At an organization level, Barco monitors





closely and is taking preventive and corrective actions. At a product level, each stage of the product development life cycle at Barco has inbuilt security and addresses all possible security compliance requirements.

Barco is in fact one of the frontrunners in the secure collaborative services sector and its innovative remote working solution – the ClickShare Conference. The solution is a secure, connected and cloud managed solution that enables conferencing and collaboration in 7 seconds

# COMPLEMENTING DIGITAL INDIA

Barco has always taken initiatives to complement the government's policies. It is working towards making India its global innovation and R&D Hub. The company has recently set up Barco's biggest global software research and development (R&D) centre in Noida, spread over an area of 51,500 sq ft.

Barco believes that the government's Digital India focus has offered a major push to infrastructure, manufacturing, technology, urbanisation, job creation and rural digitization and the company is equipped with state-of-the-art facilities to complement the Centre's efforts. It is also working to address the gap in accessibility and affordability, and supporting technology-driven innovations across sectors.



#### **KEY MARKETING PRIORITIES FOR 2021**

Business agility is a key success trait of an Autonomous Digital Enterprise (ADE), where manual effort is minimized to capitalize on human creativity, skills, and intellect across the enterprise. This ADE framework is how BMC is evolving its own business, including marketing and serving its customers.

BMC always looks for new ways to connect, engage, and build a relationship with customers and prospects through creative marketing. This helps in building trusting relationships with the entire BMC ecosystem—customers, employees, and partners. There's a lot of competition for attention, and so BMC teams work hard at creating unique content and messaging across a variety of digital channels and services to rise above the noise. It empowers its employees, partners, and advocates to help build a brand experience that keeps key audiences close to advocate for BMC.

#### **ACCELERATING DIGITAL TRANSFORMATION**

Being a global enterprise software company that's accustomed to working across multiple offices and remote locations, BMC Software was well equipped to deal with the pandemic that forced virtually everyone into a home office. Though there have been some challenges that everyone's faced, the company managed to excel during this period of uncertainty by giving its employees the tools needed to collaborate with their peers and partners, keeping connected with customers, and engaging with prospects. In some ways, BMC believes that moving to virtual events and executive briefings have allowed the company to reach out to more people than it would have been possible through in-person events. Like many, BMC had to streamline some processes to operate more efficiently in this environment, but these changes have positioned the brand well to continue to drive operational excellence in everything it does.

### ENSURING BETTER CUSTOMER EXPERIENCE

This is what becoming an Autonomous Digital Enterprise is all about - The ability to adapt to changes and capture opportunities in an increasingly digital world. An ADE and its operational characteristics are supported by five technology tenets - Transcendent Customer

Experience, Automation Everywhere, Enterprise DevOps, Data-driven Business, and Adaptive Cybersecurity.

As an organization, BMC continues to invest in these areas to help drive agility, customer centricity, and gain more actionable insights throughout the business. For instance, it is deploying automation technology wherever possible to minimize manual effort for mundane tasks to free up its employees to focus on higher-value work.

## PERSONALIZING B2B MARKETING INITIATIVES

It takes tremendous teamwork to create and build great experiences for customers. BMC works collaboratively across its marketing functions to develop content and ways of engaging with its customers and prospects. From yearly and quarterly planning to ad hoc check-ins, BMC encourages its employees to share ideas—no matter how big or small—to help better tell and share the BMC story.

Moreover, BMC has given its teams a couple of days over the past year to completely unplug from work. Having that time to step back helps get the creative energy flowing again. In a year-plus of everyone staring at a screen all day, BMC had to go the extra mile to deliver those experiences that

standout and make the audience take notice. Whether it is the Exchange virtual event or regular executive briefings, BMC tries to make the experience unique and memorable.



BMC is involved in delivering bestin-class technology to many government projects. IT remains keenly interested in participating in projects under Digital India through its partners. BMC is empanelled in GeM to enable its government customers to procure its technology.

India is an important region for BMC, as a very large portion of its R&D, support, and many other global functions are housed in offices at Pune and Bangalore where the company has almost 2000 resources engaged to deliver the cuttingedge technology and support for its customers globally.



bmc.com/ADE



### BRIGHTCOVE

#### BRIGHTCOVE'S COMMITMENT TO INNOVATION HELP IN SUPPORTING CUSTOMERS' GROWING BUSINESS NEEDS

# RESILIENCE AND AGILITY THROUGH IT SIMPLICITY

The need for a strong, scalable, and nimble business growth and continuity plan is clearly evident today in the wake of the pandemic. To meet the customer's emerging needs, Brightcove is pushing the boundaries of video innovation, investing every year into R&D to better understand customer's challenges, and make it easier for them to inform, challenge, inspire, amuse, and connect with their target audience.

For instance, as virtual events become the new norm, Brightcove launched Virtual Events for Business this year to allow businesses and teams to deliver secure, reliable, live video events to internal and external audiences. It also expanded its end-to-end video platform with Cloud Playout to enable businesses to quickly and seamlessly provide broadcast-grade "live-TV" experience within a singular all-inclusive platform.

Growing its reach globally through partnerships is another of Brightcove's key priorities. To help customers tap into the projected US\$2.8 trillion e-commerce opportunity in the world's most populous market of China, Brightcove established a partnership with Alibaba Cloud to enable companies to seamlessly deliver video content into that market. It also recently announced a partnership with ByteArk, a leading content delivery network (CDN) service provider in Thailand to support customers looking to use video to connect with viewers across the world.

#### CREATING CUSTOMER EXPERIENCE

Video innovation has always been a priority for Brightcove. With over 50 industry-defining patents under its belt, Brightcove provides unrivalled video capabilities to over 3,300 customers globally. This includes industry leaders such as AMC, Showtime Networks, and Vox Media, to food and beverage giants like Wendy's and Dunkin Brands, entertainment authorities like the Academy of Motion Picture Arts and Sciences, and, sports partners like the USGA.

Furthermore, as a result of its strong focus on R&D and partnerships, Brightcove's video platform has also been awarded two Emmy Awards for excellence and creativity in technology and engineering this year.

#### ACCELERATING DIGITAL TRANSFORMATION

Brightcove's approach to organizational transformation seeks to secure the well-being, satisfaction, and success of its customers, partners, and employees. To ensure that the rise of remote work does not impact the experience with Brightcove's platform or services, the company has put in place several measures to ensure the safety of employees and continuity of services.

Safety of employees: All of Brightcove's global offices are adhering to



guidelines and best practices from global health organisations. Many teams at Brightcove have worked remotely from all corners of the globe, for over a decade. A cross-functional team within Brightcove is closely monitoring all aspects of the pandemic and will take prudent, agile, and swift action necessary to ensure the safety of its employees and the continuity of service.

Continuity of Service: All Brightcove products are built upon a highly reliable commercial cloud infrastructure and delivered through a variety of content delivery networks (CDNs). As with any best-in-class software-as-a-service (SaaS) organisation, Brightcove is able to perform all systems monitoring and product development remotely. Its R&D and Support teams are globally dispersed and able to provide access around the clock. Though geographically dispersed, Brightcove is one global, highly coordinated team, dedicated to supporting customer's business needs.

#### **BUILDING A CYBERSECURITY DEFENSE**

Cyberattacks are growing in frequency and scale. With cybersecurity at the top of mind for all customers, Brightcove adopts a comprehensive approach to security that is focused on making media content more secure than ever. For instance, it recently introduced a new set of security features called Brightcove Playback Restrictions to address challenges with restricting assets, handling viewer access/permissions, and preventing content piracy. This helps customers control how audiences are able to view content, prevent link sharing, and if piracy is a concern, it can also prevent viewers from copying the content and sharing it with others.

Now that video is used for everything from confidential town hall meetings to big-budget virtual events, video security plays a crucial role in safeguarding brands' reputation, integrity, and ROI. Brightcove is constantly on the lookout for new threats and developing new solutions to mitigate them before it's too late.









# CREATE CONNECTIONS EVERY TIME SOMEONE PRESSES PLAY.



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We deliver the most advanced video technology, resources, and expertise you'll find anywhere. We don't just know video, we've helped define it – for 15 years, our sole mission has been to help big brands use video to accomplish big things. We are video that means business.



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#### **WE BRING YOU THE WORLD**

The whole world is streaming – there are millions of devices turned on at any moment with a finger hovering above the play button. Brightcove is here to push the boundaries of what's possible, so brands and organisations can connect more easily and more powerfully with audiences everywhere.





MANABU YAMAZAKI

President and CEO Canon India

# CANON BELIEVES IN A CUSTOMER-FIRST APPROACH AND ENDEAVORS TO OFFER THE BEST SERVICES

#### **KEY MARKETING STRATEGIES FOR 2021-2022**

Canon started the year with an aim to 'Reset and Restart' and increase the business through its strengths in existing divisions and expanding horizons to newer avenues. As India continues to be a high priority and high growth market for Canon, the imaging brand focused on resetting its businesses, people, and overall ecosystem in line with the current market landscape.

Canon endeavours to turn 2021 as the year to gain sustainable power and further build on it in the coming years. It aims to adapt to new situations by reviewing efficient working styles and processes, developing high profit business and most importantly, utilize its strength to develop new businesses.

Canon will hence continue to bring forth products backed by innovation with a 'full lineup' strategy to cater to the diverse needs and different buying capacities of consumers and enterprises.

#### **ACCELERATING DIGITAL TRANSFORMATION**

Technology has played a pivotal role for businesses in the year 2020. While acknowledging that digitization and tech innovation is the future, Canon India is always looking at new ways to build a dynamic digital workforce by leveraging the right technology.

One of Canon's endeavors is to promote a digitally empowered workforce which includes iCan, a sales force automation, and CMP - customer management portal - for the service division. Additionally, Canon also has a 'Canon Sensei' app, a one of its kind initiative to bring knowledge one step closer to the sales team.

It has also introduced a Chatbot called MITR for employees to get answers to their everyday queries related to HR issues, and RPA (Robotic Process Automation) has been introduced as a digital workforce to happily coexist with the employees.

Considering everyone has been working from home since the pandemic, Canon has been constantly upgrading its Information Management and Information Security models. Through such initiatives, the aim is to help Canon employees stay connected, informed and updated about everything, anywhere and anytime.

#### **CREATING CUSTOMER EXPERIENCE**

The pandemic has led to dramatic shifts in consumer behavior. Customer service and customer experience have acquired an indispensable dimension, especially after the pandemic affected the business continuity plans.

Canon has been a constant support pillar for all the customers and partners, helping them to smoothly run their business operations and fight against adversities caused by COVID-19. It has employed digital channels, such as AI-powered chatbots and mobile platforms like WhatsApp, to efficiently serve and support its customers over the past year. Canon also developed exclusive apps such as Canon Care and Mobile CMP, providing more flexibility and seamless value-added services. Canon has been increasingly using the power of predictive maintenance to deliver up to and also exceed customer expectations. It also has a service by the name of e-Maintenance, which is an integral part of Canon's remote service portfolio and service delivery model.

Additionally, Canon's Market Engineering team has ensured that it maintains constant communication with its customers from the point of purchase to throughout their journey with the brand.

## DEVELOPING PERSONALIZED MARKETING ACTIVITIES

Canon believes that a personalized marketing approach creates a better experience that leads to faster conversions and stronger prospect relationships. This helps a fast-growing brand like Canon cut through the noise and provide an exclusive customer experience, in return reaping the biggest results at scale.

As part of its marketing strategy, Canon focuses on getting to know its audience better and their behaviors, creating a brand story and delivering a cohesive message across multiple channels. For instance, wedding photography has been an important business driver for Canon's camera segment. Understanding the innate desire of customers to cherish their wedding memories, Canon recently launched 'Weddings by Canon' campaign. The campaign is curated specially to address the growing demand for wedding photography and increase the brand recall for Canon products among users.

Similarly, in the B2B segment, hybrid work infrastructure has become the need of the hour. To educate its partners and customers about how digitization and office automation can enable smooth business operations, Canon constantly drives campaigns to increase the visibility of its B2B product portfolio.











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#### **GAUTAM A SHAH**

Founder and President Cadyce

# CADYCE CARVES ITS NICHE AS A BRAND THAT OFFERS THE BEST POSSIBLE CUSTOMER SUPPORT

### **KEY MARKETING STRATEGIES FOR 2021-2022?**

In the wake of the new normal, Cadyce shifted its base from traditional marketing to comprehensive digital marketing. Today, it focuses on Google Ads, social media ads, retargeting, SEO, blogging, website optimization, YouTube ads, backlink generation, newsletters, and promotion through social media pages. Cadyce has strategies in place for customer retention. It also has an online store on social media pages where customers can buy on the spot. Cadyce has created advertisement videos, which are running on famous web platforms and maintains impeccable follow-ups with customers via email.

Most importantly, Cadyce monitors all its advertisements to study the customer's behavior. It utilizes these parameters to come up with future marketing strategies and shape its future products.

Alongside this, Cadyce is creating strategies to strike smooth communication with customers by organizing various activities on social media.



#### ACCELERATING DIGITAL TRANSFORMATION

With social distancing in place, Cadyce undertakes various virtual events to keep the spirit high of the employees, while maintaining seamless communication using emails and virtual meetings. Together with this, telephonic conversation is an added advantage. Even when employees were working from home, they were constantly in touch via emails and various virtual meeting platforms. Their tasks assignment and day-to-day follow-ups were maintained via email.

Most importantly, the office of Cadyce is equipped with high-speed internet for an unperturbed working environment.

#### CREATING CUSTOMER EXPERIENCE

Cadyce is known for its top-notch customer support, and it has strengthened it more for a steady experience. Cadyce has converted its customer support platform into digital. It has a chat model, virtual support and toll-free customer support number. If nothing works, Cadyce connects with customers online and tries to understand their problem with remote desktop support, further explaining and undertaking problem solving through these mediums.

As soon as the order is booked, Cadyce ensures that customers start receiving an update of their shipment via SMS, email. It has altered the whole buying experience into digital. Most importantly, the brand has come up with 'plug-and-play' products with which customers do not have to download any drivers or have to go through any lengthy installation process.

Cadyce products' videos are uploaded on its website, which is self-explanatory. These videos help the customer in all possible ways to start using the gadgets. Despite all this, if any problem sets in, Cadyce offers toll-free customer care number, email, chat and remote desktop support.

#### PERSONALIZING MARKETING ACTIVITIES

Secured and safe shopping experience is Cadyce's utmost priority. Therefore, it has firewalls installed at every checkpoint. Cadyce undertakes double checks when entering the system and has an anti-virus installed in every machine to stop any cyber intrusion. Cadyce also maintains regular backup of the system. Its high-end servers regularly undertake data mirroring and download updates as and when released. All of its data is maintained in a digital format.

#### **COMPLEMENTING DIGITAL INDIA**

Cadyce makes sure that it abides by all Government-made policies. Whenever there are any changes, Cadyce implements them at its end; be it taxation or any other digital move. As far as Digital India is concerned, Cadyce has enhanced the infrastructure to embrace digitalization to the core by maintaining data in a digital format, choosing email as a form of communication, and conducting virtual meetings.







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# CHECK POINT STRIVES TO PROTECT ITS CUSTOMERS AGAINST SOPHISTICATED NEW GENERATION CYBER THREATS

#### **KEY PRIORITIES FOR 2021**

At the heart of Check Point's strategy to drive revenue is the commitment to address current and future customer requirements for enterprises of all sizes. To make its vision a reality, Check Point has recalibrated its Infinity portfolio of products in 2021 to focus on those technologies and capabilities that will provide uncompromised security based on its three core principles - 1) Prevention-first approach 2) Gold Standard Management 3) Consolidated Solution

#### Further, Check Point is trying to accomplish its objectives in multiple ways -

- O Through a global network of thousands of partners, which spans across distributors, value-added resellers, global systems integrators, telecommunications companies and managed service providers, Check Point works closely with them to capture customer needs and match them with the right solutions.
- O As part of its pre-sales support to its Partner community, Check Point employs technical consultants and systems engineers who work closely with partners and customers to assist them with pre-sale product configuration, use and application support. It is also launching a massive initiative to ramp up the technical capabilities of its esteemed partners, to enable them to provide implementation and day-2 support services to the customers.
- To drive awareness and demand for Check Point solutions, Check Point creates messaging and communication strategies to target users and business decision makers. It promotes its innovation and technology agenda globally through frequent product launches supported by targeted demand generation programs that are executed jointly with partners.

#### **CREATING CUSTOMER EXPERIENCE**

The pandemic outbreak has compelled professionals to access corporate applications from their mobile devices, irrespective of the location they are in. With this increased flexibility, there is also a drastic increase in attack surfaces. Check Point remains committed to safeguarding its customers by protecting their digital ecosystem using its latest cutting edge security technologies. It has over 80 products and technologies and organized them into three main pillars -

- Check Point Harmony: Check Point Harmony protects remote employees, devices and internet connectivity from malicious attacks, while ensuring secure, remote zero-trust access at any scale to any corporate application
- Check Point CloudGuard: Check Point CloudGuard offers cloud posture management, serverless security, and a new generation of Web Application Firewalls powered by contextual AI that secures APIs, Web applications as well as hosted and on-premise web servers.
- Check Point Quantum: In 2021, Check Point continued to leverage Check Point Maestro, its unique and disruptive scalable performance solution. It will also accelerate data center firewall innovation with the introduction of a super-fast firewall gateway with 200 Gbps firewall throughput and sub-3 microseconds latency.

In addition, to develop the right skillset and best practices needed to protect organizations in the cloud, Check Point has launched the Check Point Cloud Academy in partnership with three Check Point Platinum Elite ATC Partners. The platform is a dedicated cloud security education program for partners and IT professionals.



# BUILDING A ROBUST SECURITY INFRASTRUCTURE

Check Point, with its range of products, allows organizations of all sizes to proactively protect their networks against sophisticated 5th generation of cyber threats. Its product strategy of driving innovation through research and development and strategic partnerships, helps enterprises transition their corporate security strategies from not just detecting threats but to preventing them.

While doing so, Check Point also advices everyone to follow the prevention tips below -

- Adopt real time prevention rather than just adopting a detection approach: Vaccination is better than treatment even when it comes to cyber security. Real-time prevention of threats, before they can infiltrate the network, is the key to blocking future attacks.
- Secure your everything: The increased use of the cloud means an increased level of security, especially in technologies that secure workloads, containers and serverless applications on multi and hybrid cloud environments.\
- Boosting visibility makes a huge difference: So many changes in the company's infrastructure present a unique opportunity to check security investments. The highest level of visibility, reached through consolidation, will guarantee the best effectiveness.







# CITRIX REVOLUTIONIZING THE WAY PEOPLE WORK AND CREATING GREAT EMPLOYEE EXPERIENCES

DIXIT ROY MAHIDHARA
Regional Director
Citrix

#### ACCELERATING DIGITAL TRANSFORMATION

The Covid-19 outbreak and the resultant lockdowns have transformed the landscape of the global employment sector. Organizations and teams adapted to remote work models and had to fast-track their digital transformation strategies. HR and IT teams have now become the catalysts and enablers that ensure the top two priorities for any organization - the safety and wellbeing of their employees while also delivering customer outcomes. Companies are increasingly realizing that its greatest assets are its employees and prioritizing them is the key for better productivity and business outcomes.

Although having the right technology to work remotely is critical, creating a physical space where work doesn't seem cluttered and disorganized is equally important. At Citrix, what is truly special is that the new employee feeling never fades away. Through the last three decades, especially in the past year, the Citrix product and engineering teams have created exceptional digital experiences for its employees. This has not only helped its employees innovate like never before, but also helped them efficiently navigate the pandemic.

Path breaking technologies such as Citrix Workspace have empowered its employees to stay organized and connected through a feed of all their outstanding tasks, business reporting, corporate communications, and more. With easy access to apps and other resources, it is personalized for each employee, ensuring their feed shows only the highly relevant notifications, helping them cut through the clutter and stay productive. All the simple yet elegant Citrix technologies help the employees to work more efficiently, securely, and from anywhere, with fewer distractions.

#### CREATING CUSTOMER EXPERIENCE

Customer satisfaction has always been one of the key focus areas at Citrix. It understands that the company's success depends on its customers' success. Throughout the year, to better understand its customers' Citrix experiences amidst these challenging times, the brand has been working on several initiatives. The customers' journeys are often anything but linear. To better optimize their journey with Citrix, the company has helped them effectively map it, tying each step to actionable success milestones. It is

a 5-stepholistic approach – Plan (setting the project up for success), Build (getting started with the solution), Rollout (introducing the technology to their team), Manage (keeping a pulse on the company's performance), and Optimize (finding the best path forward for the business). This simple framework is the foundation of all Citrix's customer success-driven experiences, content, and communications.

The technology driven innovations have helped Citrix customers maximize the value of their investment and achieve their business goals. Along with its offerings being available for the digital workspaces on-premises, cloud, and hybrid customers, Citrix has also now made them available for app delivery and security subscriptions. The several testimonials from its customers are only proof that the right technology facilitates the right outcomes, especially in today's increasingly digital world. Citrix has revolutionized the way people work at companies, and will continue to make great employee experiences possible for its customers across the world.

#### COMPLEMENTING DIGITAL INDIA

Digital transformation has always been a process for Citrix. It has never been a one-time project or a single event. With many smaller substeps and milestones, the digital transformation journey requires a long-term, strategic plan. Getting everyone on board by helping them embrace change is an important part of Citrix's journey. It believes that with the right technology, there's no limit to what a business can achieve.

In line with the government's focus on the Digital India mission and its push for domestic products, Citrix has also committed to making digitization a reality for its customers. Its R&D centre located in Bengaluru, one of the largest locations worldwide, reinforces its commitment to this. It has helped Citrix better understand the customer needs in the product development stage itself, and is in line with its vision to develop innovative solutions that lay as much emphasis on security as on productivity.

Further, with its entire suite of pro-active solutions like networking, cloud, analytics, and workspace, Citrix is transforming how people work enabling a truly simplified future of work.



# FOR COMMSCOPE, CUSTOMERS ALWAYS COME AT THE FOREFRONT

### RESILIENCE AND AGILITY THROUGH IT SIMPLICITY

With the current situation remaining challenging, it is crucial that businesses must be agile with their marketing strategies. CommScope has since 2020 steered its marketing efforts towards online and digital platforms in order to keep engaged with its customers. From running virtual roundtables and partner & customer conferences to hosting regular podcasts to driving social media initiatives, CommScope has been redefining the customer experience as a means to adapt to a digital way of doing business.

While physical interactions are proven difficult at this moment, the importance of human interaction will always be there. To this end, CommScope continues to put customers first and believe that a strong collaboration between partners, customers and CommScope is the best way to bring critical infrastructure and network solutions to an evolving Indian market.

#### ACCELERATING DIGITAL TRANSFORMATION

As a global partner with a manufacturing and operations footprint in over 200 countries, CommScope has been resilient in managing the disruptions brought about by the pandemic. Its factories and distribution centers remain fully operational, while maintaining rigorous COVID-19 control measures to keep its employees safe. For instance, digital solutions such as monitoring systems have been implemented to ensure workers maintain a safe distance and avoid unnecessary contact, while keeping operations running.

Given that remote working will continue for several months for many employees, the company has also pivoted to several digital IT tools such as an AI chatbot that offers quick resolution for many common IT issues which could be faced in remote working.

#### **CREATING CUSTOMER EXPERIENCE**

CommScope continues to build key programs that are helping to drive optimization and will lead to increased customer satisfaction. By putting customers at the center, the brand continues to work toward the objective to provide best in class online customer support. By doing so, customers can easily connect, communicate and collaborate with CommScope. For instance, it recently launched an improved version of 'The CommScope Virtual Assistant' on its website, which now has new features incorporated and customized (these features were identified by studying website visitor behavior and their intentions over several months). One of the new features would be that on-line customers now have direct access to chat live with a TAC agent for CommScope specific products such as Infrastructure solutions.

#### **ADVENT OF 5G INNOVATION**

Broadband access is the backbone of economic and social development, whether it's through wireless or wireline technologies. Fibre to the Home (FTTH) is here for the long term, along with 5G that is also gaining momentum to meet the broadband requirements of the new normal. The combination of fibre and wireless technology will be crucial to meet the needs of India's expanding bandwidth demands.

The 5G ecosystem has been building in India for a while now and the country is one step closer with recent government announcements revealing that approvals for trials have been given and telecom providers will be allotted 5G spectrum for the trials this month.

As network operators in India strive towards a connected future, CommScope has several products and solutions that will be key to simplifying 5G rollouts in India -

- Expansion of RUCKUS Wi-Fi 6 Portfolio: New Wi-Fi 6 access points (the indoor H550 and the outdoor T350), that enables high performance IoT connectivity to dense environments, as well as the new SmartZoneOS network controllers that feature simplified network set-up and management, enhanced security and ease of upgrades for networks using the RUCKUS portfolio.
- New interleaved passive-active antenna (IPAA): The recently launched modular IPAA that simplifies the introduction of 5G by enabling the technology's deployment on existing sites, without the need for additional footprint. The solution will allow operators to roll-out 5G services faster and keep pace with the increasing subscriber demand for mobile broadband, through modular passive-active in-field adjustments.

### COMMSCOPE®



J N MYLARAIAH

Director, Enterprise Sales, India & SAARC

CommScope





# Shaping the always-on networks of tomorrow.

The connected world never sleeps. 24/7 mobile networks, data centers, connected cities and intelligent buildings call for a network solutions partner who understands the pressures—and the potential—of the always-on world we live in.

For more than 40 years, CommScope expertise has unlocked standards-smashing breakthroughs on which our global partners depend. We can help your network navigate this new world because we helped build it. Count on the partner with the experience to show you how now meets next.







# COMMVAULT IS THE LIFE-BOARD ENTERPRISES NEED TO NAVIGATE TODAY'S MASSIVE DATA AND WORKLOAD SPRAWL

#### **BUSINESS STRATEGIES FOR 2021**

Commvault gives businesses the peace of mind that liberates businesses to do amazing things with data. It simplifies and manages the complexity of customers' data, uncovering insights, accelerating their growth, and helping ensure the fundamental integrity of their business. With technology excellence at its core, Commvault continues to lead the market with its Intelligent Data Services Platform.

Commvault has been at the forefront of innovation for its rich 25-year history and recognizes that customers need flexibility and choice. The company will continue to expand and unify its full set of data management offerings across Metallic and Commvault, in line with the growing needs of enterprises for cloud-delivered data management and protection.

Commvault aims to achieve sustainable sales growth and wants to more than double its top line growth. Its partners being a key part of this journey, Commvault has exciting award-winning, profitable and predictable programs for them.

#### DIFFERENTIATING FACTOR

Today, Commvault not only anticipates customer challenges but also solves them ahead of time.

It delivers its Intelligent Data Services as software on-premises; in the cloud; as a managed service through partners; or as SaaS—a critical differentiator in the market. Commvault is uniquely positioned to address the critical use cases customers' encounter on their transformation journeys.

Analysts such as Forrester have named Commvault a leader for multiple years in a row. Just last month, it was named a Leader in the 2021 Gartner Magic Quadrant for Enterprise Backup and Recovery Software Solutions for the 10th Consecutive Time.

Commvault is customer-centric, and is customer-obsessed – and it continues to rev its innovation engine to deliver the best products, service and support to customers in India and across the globe.

#### ADDRESSING CHALLENGES OF CUSTOMERS

Data risk is a new reality in boardrooms across the globe. With remote working norms and a distributed workforce at large, data has become the most valuable currency, and companies should see it as an asset, not a liability.

However, with businesses having workloads and their data everywhere, effectively extracting value from data to deliver a competitive advantage is becoming increasingly difficult due to massive data sprawl.





ANSHUMAN RAI
Area Vice President, India and South Asia
Commvault

Today, most data environments are not where they should be for organizations to unlock their potential and accelerate business growth. This is due to 5 key challenges:

- Data fragmentation & failure points
- Increasing surface for cyber attacks
- Evolving regulations and privacy requirements
- Inability to scale and innovate with market demands
- · Lack of automation and process efficiency

Commvault meets these challenges with its Intelligent Data Services platform, closing the business integrity gap and enabling organizations to execute on their digital transformation strategy and accelerate business growth. Customers need simplicity and flexibility today, and no vendor in the market is positioned like Commvault to help them embrace the possibilities of this future.

#### **CHANNEL ROADMAP FOR 2021**

The Channel is a significant layer to Commvault's go-to-market strategy. A partner-led organization, Commvault co-sells with its channel partners. The Channel market growth certainly has a positive outlook and the same will continue post pandemic as more organizations are embracing digitalization at a faster pace.

The data management channel which includes the fast-growing SaaS and BaaS partners have helped enterprises continue their business and survive through the global lockdown. Moreover, other factors such as accelerated digitalization, growth of cloud adoption, and increased remote working will create a huge demand for IT services with SaaS/BaaS remaining strong and the channel market will benefit out of this.

Commvault's award-winning Partner Advantage program makes it easier for partners to source and complete new transactions. Moving ahead into 2021, Commvault will continue to enable its partners to take a long term and financially beneficial journey together while delivering the industry's leading intelligent data services to its customers.

# Do amazing things with Power your business. your data.

One unified data services platform to solve business-critical data challenges.

Explore now





COMMVAULT \* Backup & Recovery



**COMMVAULT** ® Recovery Disaster



Optimization File Storage **COMMVAULT®** 



**COMMVAULT** ® Data



Governance



HyperScale X COMMVAULT



eDiscovery δ Compliance **COMMVAULT** \*



**Distributed COMMVAULT®** Storage



# Your Commvault Advantage:

A revolutionary converged data management solution redefining how your progressive enterprise protects, manages and uses your data.

Learn more at commvault.com/why-commvault





# **★CP PLUS**

#### ADOPTION OF DIGITIZATION, AUTOMATION AND SHIFTING TO ONLINE CHANNELS HAVE PROVEN BENEFICIAL TO CP PLUS

### RESILIENCE AND AGILITY THROUGH IT SIMPLICITY

In today's world, it is becoming increasingly imperative to induce new and incomparable strategies into the market to entice the customers. There is no doubt that digital technology allows marketers to engage in innovative new ways to meet customers' needs far more effectively. But taking advantage of these new possibilities requires us to become more and more agile every day as we have to continuously source opportunities and solutions to problems in real-time.

As a highly competitive brand, CP Plus begins by developing a clear sense of what it is that it wants to accomplish with its initiatives and have sufficient data, analytics as well as the optimum marketing-technology infrastructure in place to support those initiatives.

Being the leading security and surveillance brand in the country, spreading alertness and information regarding the products and services is one technique which weighs a lot for CP Plus. Education, training and upliftment for the masses have proven to be significant tools to make CP PLUS a household name. The brand has also been diligently holding webinars and workshops all over India for multiple, different IT segments. Enlarging its partner relations and enabling them to grow along has been the most vital strategy for CP Plus as a brand.

#### ACCELERATING DIGITAL TRANSFORMATION

Becoming agile and resilient with time is the way to keep the customers satisfied and also continuing to grow. CP Plus has noticed rapid acceleration towards digitization, including automation and shifts to online channels. It has even created a web interface for its partners and customers, from where they directly surf through the entire collection of solutions that it offers as well as track their orders. CP Partner Interface has proven to be revolutionary in every aspect as it makes everything easier not just for the consumers but also for the in-house team.

Productivity-enhancing digital actions along with a dedicated investment in strengthening capabilities have played vital roles for CP Plus in the past. It looks to defining new ways of keeping the customers satisfied while also constantly growing. In particular, one should always keep in mind that digitization is not a magic wand - it's powerful only when integrated with people and processes.

#### COMPLEMENTING DIGITAL INDIA

Digilitalization is proving to be exceptionally great for businesses due to its ability to enhance customer satisfaction, lower operating costs and to some extent change and improve certain elements around the business.

In the surveillance and security industry, the use of digital technologies and of data is enabling the creation of new avenues of producing better and more proficient products. For instance, CP PLUS has developed special



ADITYA KHEMKA Managing Director CP Plus

thermal cameras that have been able to effectively secure places like shopping malls, stations and such against the pandemic, eliminating the threat of the virus at the door itself through automatically denying permission to those that have been screened with abnormal body temperatures.

#### PERSONALIZING MARKETING ACTIVITIES

As purchasing behavior changes, attention also needs to be paid to how products ought to be marketed. The upcoming marketing scenario portrays a buyer journey that takes place with no direct contact. On the other hand, there is a marketing firefight going on, where one has to stay mindful of the need to move forward and take ground knowing exactly where to go and what to do.

The implementation, at times, poses more challenges than the adaptation of expert marketing strategies and to support that strategy, having a reliable structure in place is also imperative. Otherwise, implementation of any given marketing strategy, no matter how stupendous, just will not go swiftly.

To empower the marketers, an organization should take the ideal stance when it comes to appreciating and encouraging smart ideas that also have the ability for improvisation when the time comes. Past data, patterns and experiences can, very well, be used to create models for the future. The focus should remain on cultivating strength in intuition and have the infrastructure in place to support the strategy which the intuition deems fit.







It takes being persistently

# Committed

to secure every corner of the country

**Our portfolio is the strongest,** broadest, and most relevant with the changing requirements of the time. Our premium products cater to a growing range of industry verticals, securing every segment even with varied demands.





The Widest Product Portfolio



### CtrlS helping businesses become an inclusive part of the country's digital transformation journey



#### SRIDHAR PINNAPUREDDY

Founder and CEO CtrlS Datacenters

#### **CORE FOCUS AREAS FOR 2021**

The core focus of the business for CtrlS is 'Customer'. Everything that it does surrounds its customers, as they are at the heart of its business strategy.

As Asia's largest rated-4 data center provider, CtrlS is trusted by 60 of the Fortune 500 global multinationals including three of the top 5 hyperscalers in the world. The 'trust' reposed by such mission critical players demonstrates the company's business alignment with needs of customers as it broadly follows an outside-in framework. CtrlS improvises its processes, policies to address customer needs for today and tomorrow. It has had 200 innovations since its inception and eighty of them in the energy efficiency space to lower the PUE and energy consumption leading to lowered costs – the benefits of which are passed on to the customers.

Additionally, it is rolling out 1,000 edge data centers in tier-2, tier-3 cities across India in the initial two phases, while the last phase will comprise 5,000 edge data centers. With this, CtrlS will be able to provide robust infrastructure to fulfill the dream of Digital India and ensure availability of technologies not only in urban India but also across the rural areas making India a Digitally Inclusive nation. This will help in powering education, healthcare, media, entertainment and SMEs spread across tier-2, tier-3 and beyond and enable them to embrace technologies and become an inclusive part of the country's digital transformation journey.

#### **ACCELERATING DIGITAL TRANSFORMATION**

CtrlS is a 100% Digital Workplace today. All its employees work from home, with the exception of those who manage the data center operations – they too enjoy work-from-home in a round-robin manner. Its major focus was to take care of its employees and their families and ensure they all are safe at home during the lockdown and beyond. As a policy, CtrlS will continue to be a Digital Workplace. Transforming the organization from a Work-from-Office to Work-from-home requires beefing up infrastructure at homes, providing tools and technologies, and change of organization culture. CtrlS was able to achieve all of these while it ensured virtually zero mortality due to COVID-19 within the organization. Protecting the interest of its team and providing them a great workplace culture is the number one priority for CtrlS today.

#### CREATING CUSTOMER EXPERIENCE

COVID-19 pandemic has accelerated digital transformation. There is now a rapid growth in e-commerce purchases of groceries, digital classrooms becoming a reality, the re-emergence of telemedicine due to social distancing, entertainment at home powered by OTTs (substituted for physical malls) and growth of digital payments like never before in the country. India is now truly emerging as a Digital Nation.

As an organization, CtrlS has been powering these businesses through its data center and cloud technology solutions during

#### **COMPLEMENTING DIGITAL INDIA**

CtrlS is completely aligned with the Digital India initiatives. It is providing solutions for modernization of technologies at banks, smart cities, manufacturing units that have been adopting new technologies and stepping into industry 4.0. It is also powering special government projects. CtrlS data centers and cloud solutions act as pillars of the Digital India initiative through hyperscale data center facilities, disaster recovery services and private/hybrid cloud and managed cloud services on hyperscalers such as AWS, Azure, Google through Cloud4C, its group company.

#### **GROWTH PLANS & STRATEGIES**

Within India, CtrlS has initiated constructing its 5 million square feet Rated-4 Hyperscale data center facilities. Two million square feet is planned in Mumbai and Hyderabad each, while one million is planned in Chennai. With that, CtrlS will be enjoying a total footprint of 6 million square feet of rated-4 hyperscale datacenter space in the country.



the pandemic.



### **D¢LL**Technologies

# DELL CONTINUES TO INVEST IN EMERGING TECHNOLOGIES TO SOLVE SOCIETAL CHALLENGES AND FACE FUTURE OBSTACLES

## RESILIENCE AND AGILITY THROUGH IT SIMPLICITY

Dell Technologies has been focusing its efforts towards leveraging technology to develop creative solutions, to address some of the toughest real-world problems and support its customers, partners and the community. Its top priority is to ensure the safety and well-being of its team members, customers, partners and the communities. As a company and as a team, Dell met all the unprecedented challenges, while powering through and increasing its revenue to \$94.2 billion.

As one of the leading essential technology companies, Dell's focus remains on generating growth opportunities and providing customers with best-inclass solutions to maintain business continuity. With 2022 approaching, building new growth engines with technologies like edge, cloud, 5G-telecom, data management, AI/ML and security continues to be one of its topmost priorities.

#### ACCELERATING THE DIGITAL WORK CULTURE

Dell has a longstanding culture of working remotely, a journey that started about a decade ago. This was implemented as a company initiative many years ago. The new approach which it strategized during the pandemic was an extension of the existing one. In India, Dell's entire workforce has been working remotely, with the required infrastructure already in place due to its flexible working policies.

Dell's initiative, Connected Workplace, allows team members to choose the work style that best suits them. Under the Connected Workplace 2.0 program, Dell extended the work from home facility across countries, enabling team members with remote and hybrid schedules. In line with Dell's Progress Made Real 2030 goals, this would pave the way for a more inclusive, equitable and diverse workforce, with deeper social impact on human progress, upliftment and prosperity.

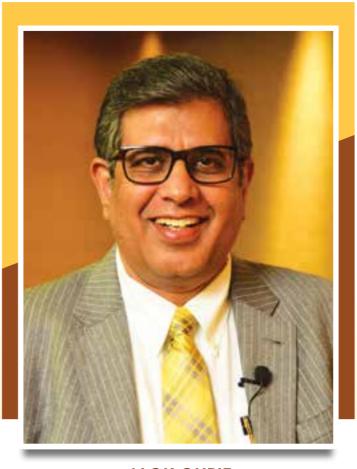
#### **CREATING CUSTOMER EXPERIENCE**

2020 brought with it an accelerated pace of digital transformation faster than anyone could have predicted. The rapid shift to a remote workforce and e-commerce for business continuity required organizations to re-draw their transformation roadmaps.

Dell being a technology company, offering end-to-end new, sophisticated infrastructure and applications solutions, it had a front-row seat to the overnight digital transformation that took place. As a company that has built flexibility into its culture over the last decade, Dell continues to see that flexible culture combined with right technology infrastructure will unleash innovation

With the vast portfolio of product and services, and innovation in technologies, Dell Technologies is making the digital transformation journey simpler for its customers and partners. The company has launched more than 40 products while working remotely, which enables and supports its customer's digital growth journey. Furthermore, winning the NASSOCM Next-Gen Product of the Year 2021 for the launch of Dell EMC PowerStore is a testament to this commitment and efforts of Dell.





ALOK OHRIE
President and MD
Dell Technologies India

#### COMPLEMENTING DIGITAL INDIA

Dell Technologies is committed towards India's Digital India vision through sustained focus in areas of nation building such as education, skills development and employability.

Talking about education, Dell is committed to utilize technologies to democratize education consistently across India. It is inclined towards encouraging girl students to participate in STEM (Science, technology, engineering, and mathematics) fields and has this dedicated program called 'SheCodes Innovation Challenge', in association with NITI Aayog's Atal Innovation Mission. It also launched Dell Aarambh in June 2016, with the purpose of bridging the gap of digital literacy.

For Skills development and employability, Dell has associated with the Government of Puducherry (to launch Dell Kaushal Kendra, a state-in-the-art computer hardware lab for training youth on computer manufacturing and repair services), Maharashtra (to launch the first Atal Tinkering Lab to encourage students to think creatively and break barriers of curriculum) and Andhra Pradesh (to establish a Centre of Excellence to strengthen the skilling ecosystem and develop skilled workforce of the future).

Dell also launched 'Project Future Ready' recently, in association with American India Foundation, National Skills Development Corporation and University of Mumbai to equip the future workforce with career skills.

Furthermore, Dell has worked with the government and non-profit organizations to launch the Digital LifeCare Solution, designed to support health workers, doctors and health officials with mobile apps and services.

On the smart cities front, Dell Technologies has collaborated with Pune Smart City Development Corporation Ltd. as the Technology Knowledge Partner for the Centre of Excellence with the purpose of utilizing latest technologies to fast track local innovations in resolving urban issues. Besides, it has implemented and executed several other smart-city related projects globally and plans to bring those global best practices to India and customize solutions to match Indian necessities.





# THE 'CUSTOMER FIRST' IDEOLOGY OF DE-CIX HELPS IT TO WIN THE TRUST OF ITS CONSUMERS

India's Internet infrastructure has significantly improved and the pandemic has been a prime factor in achieving this. Mr. Sudhir Kunder, Country Director of Asia's largest Internet Exchange, DE-CIX India, in conversation about the growth witnessed in the Interconnection Industry.



Resilience is our word of the year. DE-CIX faced unprecedented challenges, but we've also seen some great milestones and remarkable growth.Our quest for continuous improvement—to make DECIX better for our staff, our clients, and our partners—has never wavered. This year, we're especially proud of the way our team has responded to adversity and taken our company to new heights across our five core values: Customer delight, excellence, teamwork, leadership, and impact.

# DE-CIX MUMBAI IS NOW THE MARKET LEADER IN THE APAC REGION. WHAT ARE YOUR THOUGHTS ON THIS?

I always believe that having great ideas is good, but execution is of paramount importance. We have unambiguously demonstrated to the industry how we have significantly impacted and redefined the market: thanks to our focus on a "customer first" ideology, due to which we not only heavily invested in network resilience, but also ensured first in class initiatives. We are proud of the trust that consumers in India and throughout the world have placed in us. We became the market share leader with a rapidly growing customer base and the most preferred IX in Mumbai, as well as the largest in the APAC region.DE-CIX Mumbai became the number one Internet Exchange in the Asia Pacific region in the first half of 2021. This is a great milestone and shows the value of the work we have invested in our infrastructure and our services.

# WHAT ARE YOUR THOUGHTS ON INTERCONNECTION IN INDIA AND SAARC COUNTRIES?

We have been at the forefront in helping our customers not only from India but also from SAARC countries. The interconnection community must deliver continuous and high-performance connectivity: Everywhere, for everybody, and for everything.

As an element of the critical digital infrastructure, Internet Exchange Points like DE-CIX are key to improving the quality of performance of digital applications and digital communication – for businesses, education, entertainment, news, and media outlets – for all users. Interconnection services need to allow communication to occur along the shortest route and in the most secure way. With the timely investments made in the right areas we were able to seamlessly serve the multiple surges of traffic growth across all segments at DE-CIX India.

Businesses are beginning to understand the importance of latency, which means the door is open for data center development closer to the edge. Reducing latency remains essential to today's and tomorrow's applications. The combination of high-performance interconnectivity and proximity to people and business continue to drive digital innovation in digital infrastructure. Latency is the very much new currency.



SUDHIR KUNDER
Country Director
DE-CIX India

DE-CIX is working on developing a solution based on consideration of the digital triangle of interconnection, which is IoT, AI and 5G. The software-defined Internet Exchange may well be one of the solutions not only to serve these needs efficiently, but also to enable fast and cost-efficient expansion of the interconnection industry with less dependency on hardware. SD will also both bring more dynamism and encourage greater productivity. IoT is the edge, AI is in the edge, and 5G serves the edge.

### YOUR THOUGHTS ON THE IMPORTANCE OF NETWORK STABILITY IN A CRISIS?

As a crucial part of the essential services, we have the responsibility of providing our customers with the best network experience at all times. Even when Mumbai city faced a storm which impacted the services of major telecommunication companies, DE-CIX India was able to provide seamless interconnection services to its esteemed customers. In times of crisis, communication is central to overcoming dangers and keeping people safe.

# IS THE DEMAND FOR THE DATA TRAFFIC STILL SIMILAR TOWHAT IT WAS IN THE START OF THE PANDEMIC?

DE-CIX India saw a remarkable growth in data traffic in the last 18 months. From Feb 2020 to July 2021, we observed huge growth due to the consumption of digital content and use of digital applications. The OTT & Video on Demand traffic grew a whopping 1397%, while gaming traffic grew at 1141%, the ISP traffic grew by 437%. The segmentwise growth statistics can be seen in the infographic. DE-CIX India was able to cope up with the exponential rise in traffic through expanding its geographical presence to 15 data centers across the nation and expanding its DWDM network capacity in all four markets. In accelerated digitalization, Internet Exchanges play a critical part, with the responsibility of providing fast, secure and smooth interconnection services to thousands of networks. We build our platforms for the future. Traffic rates grow at an unbelievable speed, and our platforms are ready for the growth.

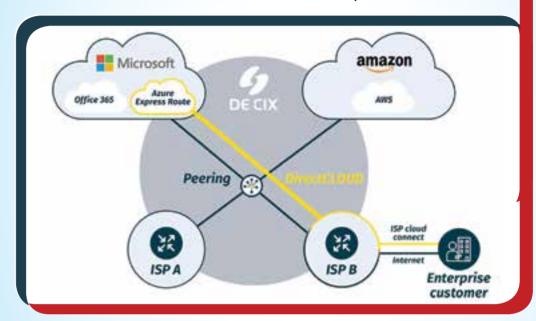


## DE-CIX DIRECTCLOUD - YOUR DEDICATED CONNECTION INTO THE CLOUD: FAST, SIMPLE, STABLE, AND SECURE.

The DirectCLOUD service can also be used to connect to other ISPs in order to use their services, e.g. IP transit, infrastructure, and network capabilities.

## DIRECTCLOUD IN A NUTSHELL

- The connection is established via SDWAN, which is transported from you to DE-CIX. DE-CIX extends this SDWAN to the cloud.
- All this within our cloud ecosystem for end-toend cloud connectivity, where you can choose your preferred partners.



The top four requirements for customers for connecting to business-critical cloud services are reliability, flexibility, security, and lowlatency.DirectCLOUD offers guaranteed bandwidth, secured connections protected against DDoS, direct connections that bypass the Internet, and much more.

DE-CIX India has the four major cloud service providers in India connected, these being Google Cloud, Oracle Cloud, Amazon Web Services and the Microsoft Azure Cloud.

In contrast to the current mechanism of connecting through the traditional methods of telecom operators, which entails 8 to 12 weeks until implementation, DE-CIX DirectCLOUD can have customers connected to their preferred cloud service providers in 7 to 9 working days. Making your cloud connectivity journey quick and hassle free.

The DE-CIX India team has been able to effectively onboard customers of great reputation, such as Hiveloop Technology Pvt Ltd (Udaan), Adweb Technologies, Intime Netralaya and NTPC, amongst many others. Customers can connect to the cloud with bandwidth ranging from 50mb to 10G for multiple cloud direct connects.

Enterprise spending on cloud infrastructure services continued to ramp up aggressively in 2020, growing by 35% to reach almost \$130 billion. Meanwhile enterprise spending on data center hardware and software dropped by 6% to under \$90 billion. This means that cloud spending by enterprises has surpassed enterprise spending on on-premises data centers. Enterprises need to get connected to the cloud, and with a large number of Internet service providers (ISPs) connected to DE-CIX, thousands of enterprises are now within easy

reach of DirectCLOUD. Offering a dedicated and private cloud connection, DirectCLOUD enables customers to connect to one or multiple CSPs at the same time.

The Internet was not designed to support the kind of connectivity that digital enterprises require for business-critical services and applications in the cloud. This is why DE-CIX India is offering enterprise-grade interconnection solutions to support the digital transformation of enterprises. In the near future DE-CIX will be onboarding Microsoft Azure Peering Service (MAPS) in India. MAPS via DE-CIX is an interconnection service that enhances your connectivity to Microsoft's applications, such as Microsoft 365 (formerly known as Office 365). It offers a controlled, reliable, and high-performanceconnectivity with optimal routing from enterprises to the Microsoft Cloud.

#### **BENEFITS FOR ENTERPRISES**

- An optimal network connection to the nearest edge PoP of the Microsoft network
- A future-ready and scalable solution, adjustable to changing needs
- Less performance issues and therefore happier end users
- Extensive geo redundancy through connections to multiple Microsoft routers.
- A guaranteed DDoS-free connection even for the smallest bandwidths with Binding SLAs and supported by Microsoft.



## A STRATEGIC AND FOCUSED MARKETING APPROACH GIVES D-LINK THE COMPETITIVE EDGE

## RESILIENCE AND AGILITY THROUGH TECH INNOVATION

In the current post-pandemic world, a lot has changed with technology having played a crucial role in enabling people to stay connected. Digital strategy is hence becoming imperative for business growth.

D-Link has always been observant of evolving customer needs, market trends and its strategies are designed to meet market requirements efficiently. It has a team of young and enthusiastic Digital Marketers who are constantly working towards enhancing its brand presence on the online medium. D-Link has been actively working towards understanding the evolving market needs and enabling customers with customized solutions. With its marketing campaigns, D-Link seeks to extend its Innovative networking solution to the masses as well as business enterprises and help differentiate the brand positioning basis the product & service offerings.

#### **ACCELERATING DIGITAL TRANSFORMATION**

D-Link has always believed that "every problem has a solution and with every challenge comes new opportunities". While the ongoing pandemic has brought about radical changes impacting many, it has also ushered in many new opportunities like it has accelerated Digitization. The pandemic has led to a paradigm shift towards Digital transformation.

In the wake of COVID-19 crisis where organizations were confronted with operational challenges, D-Link managed to embrace digital transformation. In fact D-Link has always had a robust IT infrastructure with policies and data security measures in place. Hence the networking major could promptly support remote working. Also keeping employee well-being in mind, D-Link provided them with new tools, training and support, to enable them to deliver optimal output even in these difficult times.

#### CREATING CUSTOMER EXPERIENCE

Adoption of technology has been rampant since the last couple of years. However, the recent pandemic has further accelerated this process with everything going online be it shopping, digital payments, online classroom etc. Digital engagement is here to stay and D-Link is observant of the ever changing technology landscape and its impact.

During the pandemic D-Link leveraged its digital platforms to connect with its customers through a series of campaigns. D-Link continues to leverage technologies like Artificial Intelligence (AI) and Analytics to expand sales, customer acquisition, and analyze buying trends. These digital tools also help to shape customer experience, enhance customer engagement, and enrich after sales support. The company continues to promote digital initiative both for organizational as well as business growth. Its customer engagement strategy is designed with technology being a key enabler.

#### **BUILDING A CYBERSECURITY DEFENSE**

Cyber security today is an important aspect of any business. We live in a Digital Era and Cyber threats are real. Being mindful of the cyber threats, D-Link has defined its Cyber security policy to ensure utmost security of its business. Through learning programs, it has empowered its employees on the importance of data protection and security protocols. D-Link has also invested in cybersecurity tools like antivirus software, firewall, and other privacy tools to automatically scan threats.







TUSHAR SIGHAT

MD & CEO

D-Link (India) Limited

D-Link products also feature high level security features that make it difficult for intruders and hackers to invade into its customer network. D-Link Business Cloud is one such solution that is based on the latest in cloud technology. It is equipped with security features and UTM capabilities which allow for service blocking and site blocking.

## COMPLEMENTING DIGITAL INDIA

Digital India & Make in India initiatives have certainly broadened the horizon for ICT brands. Infrastructure projects led by the government such as hotspots in popular tourist spots, railway stations, expressways and city surveillance have resulted in significant business opportunities in the Wireless and Surveillance domain.

The Make in India initiative has been specifically laid with the primary goal of making India a global manufacturing hub, and D-Link India whole-heartedly embraces this vision. Following this, D-Link has laid out a roadmap to source an increasingly greater number of products from local OEM manufacturers. Today, the bulk of its products are manufactured in India by local OEMs and at present more than 60% of its products are manufactured in India.

D-Link aims to amplify this and is actively in dialogue with several leading domestic players to indigenize several of its products.







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With a brand that spells Trust & Excellence. D-Link with its legacy of over three decades lets you connect to a secure & safer Digital World! 200+ **INNOVATIVE** SOLUTIONS

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# ESDS TAILORS ITS CAMPAIGNS TO MEET THE SPECIFIC NEEDS OF ITS CUSTOMERS AND PARTNERS

## RESILIENCE AND AGILITY THROUGH IT SIMPLICITY

ESDS has always believed in the 'Digital First' Strategy in marketing, much before the pandemic hit the world. It constantly focuses on improving the ways ESDS customers experience its products and services by prioritizing Customer Experience.

Product-based GTM strategy, Integrated Marketing Strategy for Acquisition, Retention & Up-selling, and Value-Added Services are key aspects at ESDS. It has implemented a cutting-edge 360-degree Digital Marketing strategy, which is followed by numerous BTL activities to enhance Brand Association and Brand Attachment.

Through account-based marketing and opt-in Email Newsletter initiatives, ESDS targets the decision-makers that boost its relationship with them and gives them an idea about ESDS's solutions for their specific IT needs. Furthermore, ESDS focuses on PR activities and public relations to enhance its brand visibility and brand identity.

#### ACCELERATING DIGITAL TRANSFORMATION

When the pandemic started, there was an inevitable realization that ESDS needs to first wholly Digitally Transform in order to stay relevant for the future. It therefore undertook many initiatives in the initial days, when its staff wasn't present at the Data Centers owing to the various restrictions.

Each department in the organization subsequently started working on bringing autonomous technologies, while also putting a lot of security solutions in place. ESDS also implemented automated, software-based solutions for multiple in-house processes. For instance, eNlight 3600 is its in-house developed Data Center Management and Cloud Orchestration Suite. ESDS integrated many things where it brought a lot of autonomous solutions in the software to completely take the software-driven solution that could be given to monitor and manage the software Data Center.

It also did the same thing about its CRM system that brought many autonomous solutions to ensure that ESDS does not need to go and manually approve/disapprove leads or approve/disapprove. ESDS already had a work-from-home policy in place. The only thing was that the company had to give laptops to a lot of people who worked earlier from the office only.

#### CREATING CUSTOMER EXPERIENCE

With Digital Transformation becoming an absolute must, ESDS Digitally Transformed itself from an overall company and people management point of view. To name just a few areas, it revamped employee engagement by introducing an indigenously developed, easy-to-use online meeting, live work, and conferencing solution - eNlight Meet. ESDS also released an improved eNlight 360° that brings in Functions that can automate infrastructure management and bring in self-healing capabilities. It also implemented a completely autonomous Swayatta CRM & ERP by replacing its traditional customer management systems.



#### **COMPLEMENTING DIGITAL INDIA**

ESDS was among the first few companies in India that got empanelled with the Government of India as a Cloud Service Provider. Since then, most customers through the MeitY empanelment have subscribed for Cloud Services, with almost 50% of these web portals and customers hosting their services with ESDS. Today, there are more than 250 Government, and PSU Organizations hosted with ESDS.

Owing to numerous and industry-compliant solutions, ESDS is gaining a lot of preference in the Government Sector. It creates indigenous products that are completely autonomous and require lesser human inputs. AI, ML, RPA are the kind of future solutions that are the need of the hour, and ESDS is developing for this. It also understands that 100% of users in a country of 140 Crore people cannot be accurate, owing to various reasons. Thus, bringing Autonomous Technology to a country like India becomes essentially important.

Cloud Maturity is a significant problem in India right now. The kind of maturity required to migrate to a Public Cloud is very low. To fill this gap, ESDS steps in as it migrates such customers with ease to its Cloud. A lot of large PSU Government organizations are running their software and operating systems and databases that are way too outdated.

Getting customers on Cloud becomes very difficult for any international Cloud Service Provider. ESDS, being an Indian Cloud Company, understands that the majority of its customers go through such problems during their Digital Transformation Journey. ESDS takes the entire ownership for migrating and managing such customers on its Cloud platform.



#### INDIA'S LARGEST DIGITAL MARKETPLACE

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## INVESTMENT IN GROWTH IS A BIG THEME FOR FORTINET

For the past 21 years, Fortinet has been focused on developing a comprehensive security platform designed to protect all network edges, adapt to digital innovation requirements, and unify networking and security functions into a single solution. Fortinet has worked to create a broad, integrated, and automated approach that has been very successful. More than a half a million organizations now trust Fortinet to protect their distributed networks.

Much of this is due to its commitment to advanced innovation, evidenced by Fortinet's over 700 patents—the most of any security vendor. Fortinet is the only vendor in the industry to have had the foresight to develop advanced security processors, or SPUs. These SPUs have paved the way for full support of the new hyperperformance applications and networks being introduced by 5G and beyond. Fortinet's advanced security solutions extend that performance and functionality to every network edge, including the newly expanded remote workforce and adaptive cloud environments that require data and compute resources to reside as close to the end user as possible.

## SECURING THE CUSTOMERS' ORGANIZATIONS FOR THE FUTURE

Two of the biggest issues facing organizations are the need to consolidate security infrastructure and to extend their security policies across their expanding networks. But this goes beyond just security. The perimeter not only extends across the entire IT infrastructure, but beyond the traditional trusted zone. Today's networks are also very dynamic.

This is why Fortinet continues to expand its Security-driven Networking strategy. It enables security to follow data and applications from end-to-end, regardless of how rapidly the underlying network changes or adapts. This is critical for enabling flexible, anywhere, anytime, secure remote access, especially for enabling the home office to function as the "new branch

## BUSINESS OPPORTUNITY AROUND SECURITY-DRIVEN NETWORKING

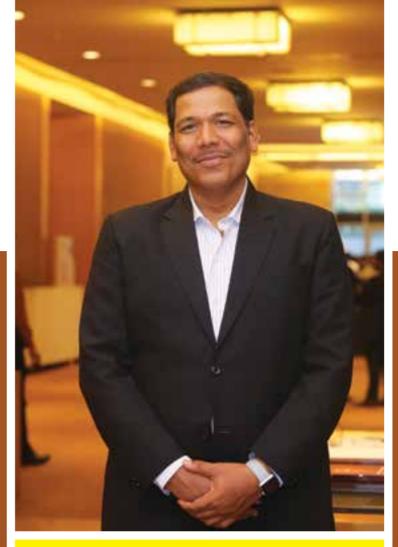
Fortinet's Security-driven networking strategy enables partners to offer customers greater levels of protection while growing their own businesses. Helping customers establish a security-driven networking strategy also gives partners a way to demonstrate value by providing guidance when addressing hybrid IT challenges.

Flexibility is a key component to Fortinet's security-driven networking approach. With flexible infrastructures, organizations can quickly adapt to shifts in the IT landscape, allowing them to provide cutting edge services. And because customers expect quick and effective solutions, security must match the speed of the network. Security-driven networking gives customers the performance they need without sacrificing security.

#### **CLOSING THE CYBER SKILLS GAP**

Fortinet is committed to closing the cybersecurity skills gap through its Training Advancement Agenda (TAA) by providing training of all skill levels, connecting professionals to employers, and creating partnerships to bring untapped talent into the cybersecurity profession.

Fortinet's NSE Training Institute is a critical part of its TAA efforts. It is a global program serving new users, IT and security professionals,



RAJESH MAURYA
Regional Vice President, India & SAARC
Fortinet

and underrepresented populations around the world. NSE delivers more than 30 technical courses on critical topics, ranging from personal online security to cloud security to specific technologies such as SD-WAN. It has now made many of its self-paced technical training courses available to the public free of charge. There have been more than 1,000,000 registrations for these free courses to date.

## GROWTH INVESTMENT – A BIG THEME FOR FORTINET

Fortinet's top investment priorities are focused on those technologies today's organizations require to compete securely in the digital marketplace. The new FortiSASE solution ensures that remote users and devices, in any location, can enjoy the exact same security protections as any device connected directly to the core network. Zero Trust Access (ZTA) helps distributed organizations, especially those with a large remote workforce, provide secure connectivity to specific resources based on things like a user's role, the type of device being used, or even when or from where a connection is made.

Fortinet is preparing now for the next generation solutions organizations will need to support, whether it's the 5G networks now being developed, hyperconnected systems such as smart buildings, cities, or manufacturing floors, or increasingly mobile users building temporary networks to develop and share critical information, applications, and workflows.

Fortinet's continued development and integration of AI into its systems completes this strategy. Security decisions today need to be made locally, quickly, and accurately. This can only be done if Machine Learning and AI are built into every element of the security framework. Fortinet already has the most robust AI systems in the industry built into its security devices, threat intelligence systems, and SOC solutions.

Fortinet is committed to expanding those resources through a combination of innovation, training advanced AI systems, and integration into more solutions and environments.



## Secure IT-OT convergence, everywhere you need it.

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### FITBIT COMMITTED TO HELP EVERYONE MANAGE PHYSICAL AND MENTAL WELLNESS

## fitbit.

## RESILIENCE AND AGILITY THROUGH IT SIMPLICITY

The wearable category has witnessed a tremendous growth of 144.3%, according to IDC, with India registering a triple-digit growth in the market. Consumers' preferences are seen evolving with the pandemic, since keeping a close check on their health amid the pandemic has become more important than ever.

Fitbit's strategy for 2021-22 would be to democratize health for everyone and equipping consumers with data, technology, and access to expertise. Its mission to make everyone in the world healthier has become even more relevant. Fitbit is making products that help people stay active, move more, manage stress, sleep better, and eat well. This gets complimented by Fitbit's local and global marketing focus which is to educate consumers on ways and means to get themselves empowered to better manage physical and mental wellness.

#### **ACCELERATING DIGITAL TRANSFORMATION**

With the second wave of the pandemic, 2021 just like 2020 is also proving to be equally challenging for all. The pandemic-led disruption has provided an unprecedented chance to help in new ways of connecting with stakeholders by helping in their challenges while ensuring safety of everyone involved.

Fitbit has now understood that it can digitalize more processes and tasks than it was ever thought possible before. Employees, suppliers, retail partners, and customers can now be connected virtually, regularly, and comprehensively to manage the value chain. The opportunity to explore new technologies and ways of thinking (such as work from home, virtual sales meetings, and events that involve participants from all across India) has shown the brand new ways to increase productivity and efficiency.

#### AGE OF DIGITAL INNOVATION

From remote working, telehealth to at-home fitness and wellness, millions of people have digitally transformed their lives. Since the onset of the pandemic last year, it has introduced innovative and effective solutions to safeguard the interests of the community and people.

Since last year, the brand has made its Fitbit Premium in-app service available for a 90-day free trial, followed by a paid subscription of INR 99 per month or INR 999 per year. Recently, we have extended free access to 'Health Metrics Dashboard' to its users, which will enable them to check their health trends from the past week.

Fitbit has partnered with Deepak Chopra, a world-renowned and leading mindfulness expert, to curate custom mindfulness sessions. Fitbit is thus addressing important health issues like stress through its digital tools and platforms like Fitbit Premium.

#### CREATING CUSTOMER EXPERIENCE

Fitbit continues to bring new and innovative features to provide a best-inclass customer experience and lead a path towards positive business growth. It believes in keeping a pragmatic attitude that will always leave a marketer with highly creative, realistic ideas - ideas that have always connected with its consumers and fellow partners.

From a consumer's standpoint, Fitbit has always thought of creating an emotional connection amongst family and friends. It develops a genuine connect on topical days like Diwali, Rakshabandhan and motivates consumers



ALOK SHANKAR

Country General Manager

Fitbit India

to help friends and family stay fit while doing all the daily chores, especially at the outset of festivals.

Beyond the campaigns around key moments, Fitbit continues to be focused on helping people navigate through the pandemic and stay fit while staying at home. It took center stage at India's biggest wellness event – International Yoga Day last year. Bipasha Basu (Bollywood actress and fitness icon) and other prominent Yoga influencers and Friends of Fitbit drove the month-long social media campaign - "Yoga Together Fit Together". With the campaign, Fitbit emerged as the most talked-about brand during the yoga day.

Forced creativity can lead to inauthentic campaigns, and marketers will end up missing out on building a strong genuine connect with consumers. Hence, Fitbit believes in giving an open hand to its marketers to think creatively, while building campaigns relevant to the product briefs.





GPX INDIA CREATES ITS NICHE
AS THE MOST HYPERCONNECTED
EDGE DATA CENTER IN INDIA

MANOJ PAUL
Managing Director
GPX India



## RESILIENCE AND AGILITY THROUGH IT SIMPLICITY

The Data Center market in India is booming and is expected to nearly triple the installed capacity from 400MW in 2020 to 1078MW by 2024. In the last 3 years, many new International and Domestic players have entered into the India Data Center space with a huge investment commitment of over \$4.9Bn in the next 3 years.

In the face of ever-increasing competition, GPX India has created its niche as the most hyperconnected Edge Data Center in India with an enviable ecosystem of Cloud Service Providers (CSPs), Content Providers and Telcos and the only DC with five Internet Exchanges and its own Cloud Exchange.

GPX has been recognized as one of the World's Top 10 Hyper connected Enterprise Networking Hubs by Telegeography; the only one in India to feature in the list. With enterprises, small or large, going digital in an accelerated manner post the pandemic, Hybrid Multi cloud is emerging as the favoured strategy for enterprises. GPX, with its unique ecosystem of multiple CSPs along with a highly reliable colocation infrastructure offering 99.999% uptime, is the ideal Edge Data Center for enterprises. The plus point is that it is not in direct competition with the other DC Service Providers focusing on hyper scale customers and pure colocation services.

Equinix, the largest data center service provider globally and leader in interconnection services, is entering India through its acquisition of GPX India. This will add a new dimension to the interconnection value proposition that GPX has built over the years, helping Indian enterprises to rapidly scale their infrastructure and expand their reach across boundaries.

## ENSURING UPTIME AND SERVICE DURING PANDEMIC

Throughout the pandemic, GPX has been able to keep its Data Center fully operational, providing support to its customers which required the presence of the team at the DC 24x7 on all days. GPX adopted a hybrid model – where the critical operations' teams continued to work at the Data center sites, while the non-critical functional teams like Sales, Marketing and Finance worked from home. A few other initiatives include –

- GPX ensured no employee used public transport and provided pick up and drop service. Accommodation was arranged in a nearby hotel including for the security staff. Employees of the two data centers were put in two different hotels to create a bio bubble.
- Free vaccination camp was organized for all employees and their families and also for the guards and housekeeping staff.
- All three meals are being provided by the company so that employees don't have to go out for food.
- Temperature and Oxygen level are checked for everyone entering the site. Sanitization of premises and installation of "no contact" taps were among the other steps taken.
- COVID Medical Support Oxygen concentrator was purchased and made

available in case required by any employee. It also tied up with Diagnostic Labs for conducting quick RT PCR tests, all paid by the company.

The GPX management also recognizes that apart from physical safety, mental well-being is equally important and should not ignored. We focused on initiatives to ensure team bonding and interaction continued and team members who are working from home don't feel isolated. These include virtual team lunch sessions, birthday celebrations, staycation at Renaissance Hotel for employee and family and personalized thank you notes to employees' families from the management etc. These help give employees the assurance that GPX sees them as its biggest asset.

#### **COMPLEMENTING DIGITAL INDIA**

GPX believes that it has also played a role in enabling Digital India on multiple fronts. GPX, being a carrier neutral data center with 170+ ISPs, 12 Telcos and 5 IXes along with all major OTTs, has helped in reducing the content acquisition cost of ISPs, enabling them to offer lower internet rental or higher download limits to their end customers, thus encouraging data consumption.

On the other hand, GPX is actively contributing to the discussions on ease of doing business for data centers by providing vital inputs to make the Draft Data Center policy (from MeITY) relevant. It was involved along with NASSCOM in the drafting of Data Center policy within the IT/ITES 2015 policy of the Maharashtra Government.

GPX, along with NASSCOM, has also made representation at the Department of Telecommunication (DoT) to seek clarification allowing Telcos to provide dark fiber to enterprises to connect their multiple PoPs in nearby DCs without needing transmission equipment, thus saving huge costs. Another important recommendation that has been made is to make IP1 more light touch to encourage new investors in telecom infrastructure.







# HIKVISION INDIA GEARS UP WITH MARKET STRATEGIES SUPPORTED BY RESILIENCE AND AGILITY

#### **RESILIENCE AND AGILITY**

When the entire world and humanity is fighting a war against the pandemic, Hikvision India is setting up an agenda and acting up on it for the future growth of the security industry. It has the resilience and innovative marketing strategies to communicate and engage the target audience in a simple and effective manner.

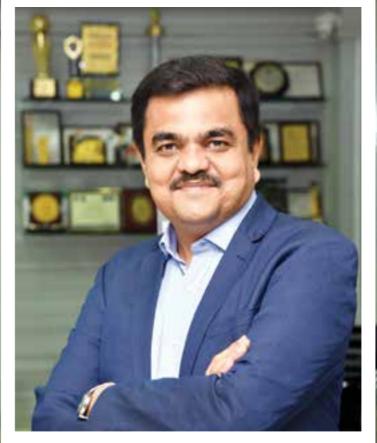
The key priority for the marketing leadership at Hikvision India is to keep on innovating and evolving as an organization while navigating through these difficult times. The company has set the strategic priorities of its marketing initiatives to tackle constraints on capacity, capital and capability. It also involves strategic decision making and prioritizing budget for key initiatives and media engagements. These focused marketing initiatives are based on the evolving market trends, technology advantages, customer and employee demand for societal impact.

#### **ACCELERATING DIGITAL TRANSFORMATION**

The pandemic forced small, medium, and large enterprises to adapt to the Work from Home (WFH) model. While this migration has proven successful for Hikvision India, challenges still exist, and business managers will need to be mindful of those challenges.

The company is focusing on digital transformation efforts on the people, processes, and technology that make them more resilient and adaptable to future changes. It is in the exciting phase of a major digital transformation, which is happening at all levels in the organization. The pandemic has enforced the digital transformation much earlier than it was being envisaged. Hikvision India is therefore ramping up the value added services to enhance the customer experience at every touch point. Some of its initiatives include Digital Showroom, Web based and Mobile based Apps to support the Regional Distributor (RD) and Sub Regional Distributors (SRD) partners, Digital Marketing Promotions on social media platforms, etc.





ASHISH P. DHAKAN

MD & CEO

Prama Hikvision India Pvt. Ltd.

#### CREATING CUSTOMER EXPERIENCE

Hikvision India is implementing a series of digital transformation initiatives to keep customers engaged and satisfied. One such initiative is the launch of the online Hikvision Digital Showroom. The showroom allows customers to explore core technologies, flagship products, and trending applications of Hikvision through a new virtual experience on the web.

The brand actively embraces change and explores more digital means, such as live online webcasts, creative social media interactions, and the online community marketing tools. All the while, Hikvision India is continuing to create high-quality digital content, build efficient digital marketing platforms, and deliver the values of its products and solutions to customers.

#### **BUILDING A CYBERSECURITY DEFENCE**

Hikvision India has built a culture of cybersecurity resilience in its organization by adhering to the best practices and standards. It is actively working with customers, partners, competitors and cybersecurity associations to ensure best practices and to mitigate threats. While supporting and adhering to internationally recognized cybersecurity standards and best practices, Prama Hikvision also supports research efforts to increase network defence capabilities. It continues to improve and use open and transparent methods so that users can assess its cybersecurity capabilities.

Hikvision India is also dedicated to enhancing and optimizing cybersecurity in the development, manufacturing, delivery and servicing of its video surveillance products. It has established a sustainable and reliable cybersecurity assurance system that encompasses the company's policies, organizational and operational procedures, technology and regulations.

#### COMPLEMENTING DIGITAL INDIA

Hikvision India as a responsible Indian corporate is putting its best efforts and commitment towards Digital India, Skill India and Make-in–India programs to support the government initiatives. Its state-of-the-art manufacturing facility in Vasai near Mumbai is a shining example of the company's long term commitment towards 'Make-in-India' vision. It has made a big investment of Rs. 500 Cr. so far and plans are underway to do more investment.

Hikvision India has also partnered with the National Skill Development Corporation (NSDC) to offer security technology training for India's youth. The company has signed a unique two year partnership contract with NSDC and is providing security and video surveillance products and technology related training and certification programs HCSA and HCSP by collaborating with the Skill India program of NSDC.



# COMPLETE SOLUTIONS FOR EVERY APPLICATION



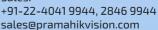


To explore innovative ways to better perceive and understand the world, to empower vision for decision-makers and practitioners, and work together to enhance safety and advance sustainable development around the world.



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## HITACHI Inspire the Next

# HITACHI VANTARA LOOKS TO CO-CREATING CUSTOMIZED SOLUTIONS TO DELIVER HIGH OPERATIONAL EFFICIENCY

## ADOPTION OF DIGITAL TRANSFORMATION

India has seen digital transformation at a warp speed in the past year. According to a study by Zendesk, more than half the companies surveyed said their digital transformation had been fast-tracked by one to three years due to the pandemic. The demand for digital customer experiences is greater than ever, according to a Harvey Nash / KPMG CIO Survey. This demand paired with the remote working setting required technological interventions to enable seamless interactions between businesses and their customers, accelerating the digital transformation process.

#### KEY FINDINGS FROM THE SURVEY INCLUDE -

- Additional IT budget Global IT leaders reported a median additional spend of 5 percent of IT budget to deal with the COVID-19 crisis.
- **Increased cyber-security threats** more than four in ten (41 percent) of organizations have experienced increased incidents mainly from spear phishing and malware attacks.
- Skill shortages, even in a pandemic for the first time in this survey's history, cyber-security expertise has become the most in-demand skill set, especially in the cloud and data security space.
- A massive surge in remote working 86 percent of our respondents have moved their workforce to remote working, and 43% of technology leaders expect over half their staff to remain working predominantly from home.
- **Technology investments** almost half (47 percent) say the pandemic has permanently accelerated digital transformation and the adoption of emergent technologies.
- Mental health is an issue 84 percent of technology leaders report they are concerned about their team's mental health, and encouragingly, 58 percent have programs put in place to support mental well-being.
- Technology leaders feel more influential over six in ten respondents agree or strongly agree that their influence has increased as a result of the pandemic. This is not reflected in board membership, however, which for CIOs is down from 71 percent in 2017 to 61 percent now.
- **Diverse teams promote better business performance** more than two-thirds of organizations feel that being diverse has improved trust and collaboration in the technology team.

## CHALLENGES TO DIGITAL TRANSFORMATION

While data privacy and cybersecurity issues continue to remain matters of top concern, inability to identify the root problems and poor change management are often two main barriers obstructing



HEMANT TIWARI

Managing Director, India

Hitachi Vantara

the path to transformation. Hitachi Vantara works closely with its customers to co-create a customized solution that tackles the challenges and delivers high operational efficiency.

#### **PANDEMIC CONSEQUENCES**

The pandemic has accelerated the use of contactless digital technology across India. According to the World Economic Forum (WEF), there has been an increase of cashless payments in the banking sector. Data from the apex Reserve Bank of India (RBI) show that India clocked around 100 million digital transactions a day with a volume of 5 trillion rupees (\$67 billion) in 2020, about a five-time jump from 2016.

There is no doubt that the pandemic has had a dramatic effect on almost every aspect of business and life. It exposed a growing digital divide, shifting some priorities, and amplifying many of the challenges that the IT organization faced prior to COVID-19. However, fundamentals also remain, such as the top two priorities for boards - improving operational efficiency and improving customer engagement – both long-standing priorities of the technology leader.

## UPCOMING TRENDS IN MARKET GROWTH

While the world eagerly waits to embrace the use of 5G, automation, quantum computing and IoT will continue to open exciting avenues across sectors. Following the pandemic, adoption of multi-cloud and hybrid cloud systems will continue to flourish. CIOs therefore need to establish an application-first infrastructure to enable them to be digitally agile and deliver their multi-cloud service.



## **Hewlett Packard**Enterprise

## THE FUTURE IS EDGE-TO-CLOUD

SOM SATSANGI
Managing Director
Hewlett Packard India (HPE), India



Over the past year, we have faced incredibly turbulent times. As we begin to shift attention away from the pandemic's immediate demands, we must look holistically towards building a more digitally enabled, inclusive world. That's why HPE's purpose, to advance the way people live and work, has never been more critical.

Digital transformation is no longer a priority, but a strategic imperative, and data is essential to operate in this new digital economy.

In the next decade, the edge-to-cloud architectures will play an integral role, enabling flexible, open private clouds and secure, private data spaces that balance sovereignty and privacy concerns with the need to share, collaborate, and innovate.

At our recently held annual event, HPE Discover 2021, we reinforced why HPE believes "The Future is Edge-to-Cloud."

We extended our leadership in hybrid cloud with a comprehensive set of innovations to the HPE GreenLake edge to cloud platform, the industry's most robust and proven platform for cloud services in the data center, in a colocation center and at the edge. The innovations span applications, security, silicon and software with automated, cloud-native capabilities that can be performed in just a few clicks and managed in a unified platform—the HPE GreenLake Lighthouse.

Additionally, we announced new HPE GreenLake cloud services to support critical applications across industries, such as for 5G, electronic medical records, financial services, data and risk analytics, and high performance computing (HPC) and artificial intelligence (AI).

Together, these innovations extend HPE's market leadership in delivering cloud services anywhere: in a customer's data center, in a colocation center, or at the edge. The HPE GreenLake cloud platform now has over 1,200 customers representing \$4.8 B in total contract value and a 95% customer renewal rate, and is actively sold by over 900 partners worldwide.

As HPE navigates its own transformation to become the leading edgeto-cloud platform company, we also want to ensure these changes and the transformations we enable for our customers ultimately lead to a better, more equitable future.

Customers need secure, single-tenant environments to run their apps and data wherever they reside.

As enterprises digitally transform, they will require greater control over their data while accelerating the modernization of their on-premises infrastructure to keep up with their changing business requirements.

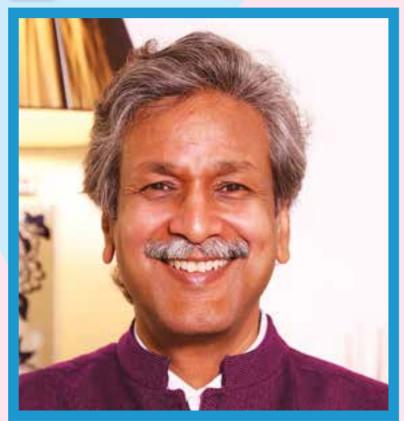
The next decade holds incredible promises unlike any other - Securing your entire enterprise; Automating all of your operations using AI and machine learning; Generating real-time insights from all of your data, wherever it lives.

But this must also be the decade of shared success. Our purpose – to advance the way people live and work – is HPE's North Star.

Our mandate is to ensure that digital transformation improves businesses and improves society as a whole to drive a more inclusive and sustainable world.







#### **RAJNISH GUPTA**

Senior Director and Head, Enterprise Personal Systems Sales HP India

#### SPEARHEADING DIGITAL TRANSFORMATION

The Covid-19 pandemic has led to a dramatic uptake of digital products and services. Prior to the pandemic, digital tools and experiences were gradually becoming interwoven into daily life.

HP is ensuring measures to provide a harmonious remote working experience for its employees. For instance, it is helping device deployment at residences ensuring consistent experience, improved uptimes, contactless services, self-help and self-healing tools, reducing complexity for IT buyers and helping prevent malware in unsecured networks. Additionally, HP is helping companies, big or small, acquire IT assets to protect their long-term investments with flexible payment options.

The pandemic has indeed jumpstarted the significance of technology. HP reskilled all its employees to be comfortable using digital tools like Zoom/ Microsoft Teams to connect both internally and externally. Many of its front-end employees were trained on soft skills and self-help tools to be more effective. Another critical element was to ensure team building and improvement of morale with the help of high decibel engagement plans, continuous communication, higher personalised touch with employees, helping them in tough times to reduce stress and be more productive. Additionally, it is using social tools like LinkedIn Navigator for one-on-one opportunity hunting.

#### **COMPLEMENTING DIGITAL INDIA**

HP is committed to providing technology that can enable people and businesses of India to achieve their true potential. It is enabling Governments to run efficiently by accelerating their adoption of digital collaboration technologies, allowing them to function flexibly. HP is leading vendor on GeM and is working closely with MeiTy and other state and central government departments.

From the consumer point of view, HP is reinventing the education and the classroom experience. It recently launched solutions targeted at the education sector under a global campaign called "Re-Invent the Classroom". It is using the next generation AI, gamification, and social collaboration cloud technologies to help students, teachers and administrators adapt to a hybrid learning environment and help accelerate learning outcomes.



### HP INDIA IS A TRUE HARBINGER OF INDIA'S DIGITAL TRANSFORMATION JOURNEY

#### ALIGNING WITH SUSTAINABILITY GOALS

As part of Extended Producer Responsibility (EPR) under the E-waste Management Rules 2016, HP has established collection take back mechanism for its IT products and it is we are channelizing the same through its e-waste management partners for ethical recycling. HP has also set up mechanisms for its consumer and Small and Medium Business (SMB) customers to drop-off their empty original HP ink and toner cartridges at the nearest E-waste Collection Centre operated by HP's e-waste management partners.

In the recently announced HP Sustainable Impact Report 2020, the company announced new commitments on Climate action. HP's climate action strategy is now one of the most comprehensive in the industry, encompassing carbon emissions, circularity, and forests. By 2025 HP's goal is to reach carbon neutrality and zero waste in HP operations and 100% renewable electricity in global operations, while also reaching 75% circularity for products and packaging by 2030. HP also aims to achieve carbon neutrality with Supplies business; reduce HP absolute value chain GHG emissions 50% and maintain zero deforestation for HP paper and paper-based packaging by 2030.

#### THE ENTERPRISE PC MARKET IN INDIA

The traditional PC market including desktops, notebooks and workstations is growing at a rapid pace. According to the data revealed by IDC, PC market continued its growth streak with shipments growing 73.1% year-over-year (YoY) in 1Q21. PCs have been in high demand as enterprises, SMBs, and consumers continue their purchases. Companies are gearing towards a hybrid working model and are increasingly relying on PCs to manage the growing demands fuelled by the pandemic. Additionally, large enterprises are procuring PCs in bulk to manage their workforce, adopting these new working models for the long haul.

Organizations are deeply concerned about data security and employee experience while working remotely. This has resulted in a have huge interest in HP's AI based proactive monitoring tools, cradle to grave lifecycle management, Modern Device Provisioning and other Work from Home Services and security solutions portfolio.







### HP USHERS IN A NEW ERA OF

### PROGRESS IN THE AREA OF

### **SUSTAINABILITY**

#### ALIGNING WITH SUSTAINABILITY GOALS

In today's world, sustainability plays a critical role. Enterprises are changing their key priorities to become more sustainable. HP's vision is to create lasting, positive change for the planet, people, and the communities. HP adheres to sustainable design principles and is shifting toward circular, service-based business models. It is keeping materials in use, increasing renewable and recycled content, and advancing materials and energy efficiency while continuing to offer and expand robust repair, reuse, and recycling programs.

HP is also committed to using sustainable materials in its packaging. The goal is to Eliminate 75% of single-use plastic packaging by 2025. It has already achieved zero deforestation for 99% of HP brand paper and paperbased product packaging, with the remaining 1% assessed to ensure reported fiber usage thus meeting HP's Sustainable Paper and Wood Policy.

HP's e-waste policies and practices offer a comprehensive take back program namely, the HP Planet Partners Program that allows its customers to conveniently return their end-of-life HP equipment and supplies.

#### MOBILIZING A DIGITAL WORKFORCE

HP has eased the transition towards a digital workspace without compromising on security and convenience. On the work-from-home front, HP is now providing the HP FlexWorker 2.0 initiative. This initiative provides an option to manage its customer's entire fleet of office and remote printers as part of their existing Managed Print Services Contract (including the fleet provided to WFH Workers).

The "just-in-time" Supplies replenishment process enables convenient delivery of supplies for the work-from-home users. HP solutions help provide customer's users seamless mobility between work and home - without compromising on Security or the User Print & Scan experience.

#### ACCELERATING DIGITAL TRANSFORMATION

HP is uniquely positioned to help customers adapt to this new "baseline standard". With years of experience in handling and digitizing documents and document-based processes, HP Digitization solutions & services can help customers by smartly migrating and managing their legacy documents and processes to their new digital systems.

 $Today\,HP\,can\,partner\,with\,customers\,as\,part\,of\,their\,Digital\,Transformation$ journey. It understands that its customer's imaging and printing fleet plays a key enablement role in removing people and paper-based bottlenecks within critical business processes. And this is where HP provides its disruptive and evolutionary technology which enables digitalization with ease. HP has spearheaded Technology solutions, around Managed Print Services as well as Digitization & Workflow services scaling up to Managed Workplace Services.

#### **BUILDING A CYBERSECURITY DEFENSE**

HP's focus has been on Print Security for Enterprise and Corporate customers as well as for work-from-home users. The pandemic has highlighted the importance of business-critical printing and/or regulatory compliance-based printing.



**Director, Enterprise Print, Services & Solutions HP India** 

On the work-from-home front, HP has now started the HP FlexWorker 2.0 initiative which includes integrated management of home and office print with "Best in Class Device Security" features as part of the customer's existing Managed Print Services contract. In addition to this, HP Cloud Services use industry standard Encryption for communication with the remote HP FlexWorker device. All these features will ensure safety of shared infrastructure and can serve as protection against cybercrime.

#### **ORCHESTRATING B2B & B2C CAMPAIGNS**

It is extremely important to nudge marketers towards using their creativity and intuition, and HP has a host of solutions for the same. HP provides Workpath Apps (a cloud based) solutions that help to distribute marketing content real-time via the cloud - directly to the HP Future Smart MFP (without the need for a PC). The MFPs, which directly connect to industry standard cloud repositories (OneDrive or Google Drive), can print required types and quantities of marketing collateral - specific to each site/location.

Additionally, HP also has solutions available for its customers to help them with content management around their End Customer communication strategy with its Customer Communication Management solution.

#### MEETING GST INVOICING STANDARDS

With Supply Chain/Logistics being categorized as essential services, businesses will need to ensure they have print infrastructure to comply with GST e-invoicing standards. This will help them make use of Supply Chain/Logistics services to transport their goods across the country for selling.

HP is the first vendor to be able to provide Printers, MFPs & Scanners which complied with all the requirements setup by multiple state GST departments for their e-invoicing projects. Additionally, HP is best positioned in the market with its own and Partners' reach to services all types of businesses across the country.



### HUAWEI'S LONG-STANDING COLLABORATION WITH INDIA CONTINUES TO REMAIN STRONG

#### VISION FOR THE DIGITAL FUTURE

Huawei's 20-years in India has been a remarkable journey of joint efforts and joint achievements, marked by a long term commitment and contribution to India, working together to create a safe and trusted digital India ecosystem. The brand has been a partner to India's efforts to establish a strong digital economy and infrastructure powered by leading ICT technologies and locally tailored solutions. Huawei India has a long list of firsts to its credit in the country, including introducing the first-ever Narrowband 4G LTE, pre-5G tech solutions such as Massive MIMO and CloudAIR, and conducting the first 5G network trial under a test setup.

Huawei India will continue to bring new age technologies like 5G, AI, IoT, Cloud, and big data to promote important projects under the Government of India's Digital India goal across Enterprise, telecom and retail domains to empower India specific use-cases. Huawei offers its expertise to enable enterprise digitization for 17 industries, including transportation, retail, banking, energy, and manufacturing, to provide the groundwork for the intelligent world.

Over the last 20-years, Huawei India has continuously invested into the local ecosystem and local talent, supporting partners, and contributing towards innovation.

Huawei's vision is to bring digital to every person, home and organization for a fully connected, intelligent world. It wants to be the driving force behind digital and intelligent social development, as well as the finest partner in assisting customers with digital, cloud, and smart transformation. Following its "Platform + Connection + Ecosystem" strategy to create an open, mutually beneficial ecosystem for intelligent change in businesses, Huawei has constructed 13 Open Labs around the world to facilitate shared research and incubate various solutions for industrial applications as part of this initiative. Doing so, it supports intelligent industrial upgrades and facilitates digital transformation for all industries.

#### SUPPORTING KEY TECHNOLOGIES

Huawei maintains that digital transformation should be focused on actual business use and scenarios, which can then be used to create value for customers through continuous improvement. As part of its strategy and vision, Huawei has four key products for the digital needs of Indian industries, namely -

- AirEngine Wi-Fi 6 Enterprises can accelerate their digital transformation
  journey by building fully connected, all-wireless office and production
  campus networks with unprecedented levels of office, production, and
  service experience.
- Huawei IdeaHub Huawei offers its next-generation IdeaHub series to improve efficiency for enterprises, especially remote collaboration during social distancing. It is a productivity solution that enables cross-region and cross-enterprise communication and collaboration to create an allscenario smart workplace in the Cloud era.





## STANDY NIE President, Enterprise Business Huawei India

- OceanStor DoradoV6 and Flash Only+ It meets the data-hungry storage needs of huge databases, especially in the transportation, finance, government, and manufacturing industries.
- Huawei SmartLi UPS It ensures that systems can run properly even
  if one battery module is faulty, guaranteeing reliability, as compared to
  traditional lead-acid battery UPS solutions.

## BUILDING A STRONG PARTNER ECOSYSTEM

Under Huawei's Enterprise Business Group's (EBG) new strategic plan for partner business, Huawei will continue to develop, nurture, motivate, and support partners through better investment and incentives to build an open, collaborative, mutually beneficial ecosystem.

By the end of 2020, Huawei EBG had over 30,000 partners globally comprising sales partners, solution partners, service and operation partners, talent alliances, as well as investment and financing partners. Moreover, over 19,000 partners have joined the HUAWEI CLOUD partner program.

Huawei prioritises building a new ecosystem in the digital future by continuing to focus on cultivating, motivating, and supporting core partners, improving partners' capabilities, and building a mutual community. Further on, the company will strengthen the development of global talent alliances and cultivate ICT talent for industries to help improve the business environment. Globally, Huawei aims to establish 2,000 Huawei ICT Academies and certify another 160,000 professionals (560,000 people certified by then) worldwide by 2021.

With the pandemic impacting the world and Huawei to a certain extent, the latter has collaborated with other partners to rapidly enhance network capacity to ensure that everyone is connected. Furthermore, online education, e-consolation, work from home, etc played a key part throughout the pandemic. Huawei also collaborated with its partners to provide technical support for these initiatives.

In other words, Huawei will continue to collaborate with its partners throughout the world to assist the development of the digital economy, which is both a challenge and an opportunity.



## ACCELERATING DIGITAL TRANSFORMATION WITH NEXTGEN TECHNOLOGIES

## MARKETING STRATEGIES DRIVING BUSINESS AGILITY

Business Agility and Resiliency is key for success in post pandemic new world order. Agile businesses can adapt quickly to market changes and respond rapidly to ever-evolving customer demands.

IBM is all-on hybrid cloud and AI and our imperative is to embed AI into business processes while modernizing clients mission critical workloads to hybrid multi-cloud. We are bringing Data and AI together to transform how clients develop, deploy and operate IT. Our strategy is based on the cornerstone of Ecosystem collaboration and allows business partners to leverage IBM's unparalleled depth and breadth of products and services to expand the scope of their marketing efforts and tap into new markets, industries and clients. We have announced new competencies, skills training and benefits to ensure our partners succeed in the competitive market. We have also developed a new competency framework to enable partners to demonstrate expertise in specialized areas like hybrid cloud infrastructure, security and automation. Our continuous focus on areas of market research and insights helps our partners on new campaigns, programs and industry trends. We leverage IBM Enterprise Design Thinking framework to scale marketing outcomes.

A robust Marketing Automation Platform, Ready-to-use Campaigns and Events, Website syndication, Asset Library and Performance Metrics are some of the key strategic marketing assets are leveraged to win in the marketplace.

#### **BUILDING DIGITAL WORKSPACE FOR FUTURE**

The pandemic gave remote work a rocket boost and made it mainstream. To survive this disruption means turning an organization into a truly Digital one where remote work and Digital workplace are the natural ways of work. Building this Digital organization needs a multi-layered transformation across Culture, Technology and Processes.

We always had a culture of remote work that helped in a smooth transformation to quickly become a truly Digital Workplace during the pandemic. We introduced dynamic delivery model for our clients built on resilient infrastructure, pervasive platforms and virtual engagement. Our cloud-based delivery platform is built on principle of 6As: Asset Enabled-Assured-Adaptable-Automated-Anytime-Anywhere. Virtual collaboration tools are institutionalized to augment contactless delivery capabilities.

Embedded security is an important aspect of Digital Workplace. Deploying cybersecurity measures, Implementing Security best practices and virtually extending the security team is a very important step in this transformation journey. We reshaped some of our internal processes such as 100% remote talent acquisition and onboarding through automation. Cognitive AI Chatbots for HR and Admin Operations, Intelligent Workflow implementation, Platform for ecosystem collaboration, Virtual Learning and Digital Badges were instrumental in integrating Digital Workplace processes. Self Service Portals, Digital Playbooks creation helped ease the employees in accessing help as per their convenience.





## ACCELERATING DIGITAL TRANSFORMATION

With the changing priorities of the business, it's of paramount importance to focus on strategic envisioning and inside-out transformation. This is an opportunity to build digital foundation powered by secured open hybrid multi-cloud architecture. Hybrid Multi-cloud Transformation is the reality now. IBM's hybrid cloud platform enables orchestration of an integrated hybrid fabric across all existing infrastructure along with new cloud aspirations to accelerate client's digital transformation journey

Culture of agile innovation coupled with exponential technologies, nextgen applications, intelligent workflows fuelled by data and built on a secured hybrid cloud infrastructure is driving transformation of our clients business. We are continually bringing new innovations to Exponential Technologies. For instance, industry and process design expertise to co-create solutions with customers embedding AI into core business processes and building intelligent workflows at scale. IBM's leadership in AI and Quantum combined with high performance computers is revolutionizing computing models.

#### **BUILDING A CYBERSECURITY DEFENSE**

The rapid shift to digital ways of working has opened new loopholes for cybersecurity exploitation today. Patching the system is just as integral as washing hands to ward off viruses.

A 3-layered foundation approach helps clients to safeguard from cyber attackers. The first and the most important one is patching the latest security updates. Making sure security posture, operating systems, firewalls, network controllers are up to date is extremely crucial to protect from known vulnerabilities and threats. The second is making sure staff and personnel are educated and they do not fall for click baits to reduce the risk of threats considerably. The third is to integrate a shift-left development approach for software development along with implementation of zero-trust security.

Data protection and privacy is an important imperative for enterprises today. With the changing landscape of cyber-attacks, we recommend implementing zero-trust security, Secure Access Service Edge (SASE), Data Loss Prevention (DLP), Security orchestration, automation and response (SOAR) and Cloud Public Key Infrastructure (PKI), Governance, Risk and Compliance (GRC) capabilities and threat modelling techniques. Adoption of AI and Cloud based security services, Telemetry analytics for attack surface management and attack vector modelling will strengthen the cybersecurity posture in coming days.







## IBM LEADS CLIENT DIGITAL JOURNEY WITH HYBRID CLOUD & AI

LATA SINGH
Director - Partner Ecosystem
IBM India & South Asia

#### A HELPING HAND TO PARTNERS

The Partner ecosystem plays a critical role in delivering value to clients through IBM's open hybrid cloud and AI platform. IBM is committed to enabling its partners with market-leading skills, expertise and support and has invested \$1billion in the ecosystem. The investment revolves around 3 key elements –

- New benefits to help fuel co-innovation with partners which includes co-creation client centers and proof-of-concept incentives.
- Access to technical expertise including IBM's specialized Hybrid Cloud Build Team to co-create advanced solutions with ecosystem partners.
- Unified competency framework to help partners demonstrate specialization by differentiating their business, showcasing expertise and exploring new client opportunities across Hybrid Cloud and AI.

In addition, IBM continues to evolve and simplify its partner program to enable them to accelerate their go-to-market engagements through Build & Service models while leveraging IBM's Hybrid Cloud & AI solutions.

## BUILDING A ROBUST SECURITY INFRASTRUCTURE

IBM's Cost of Data breach report 2021 highlighted that the average cost of data breach in India was \$165 million, an increase of 17.85% from 2020.

As businesses continue to accelerate their digital journey, the need to focus on security holistically is critical. The right combination of security capabilities — empowered by a zero-trust approach — is a good first step towards success followed by leveraging AI to detect and block any suspicious behaviour. IBM ecosystem partners are leveraging IBM Security solutions like IBM Q Radar Security Information and Event Management (SIEM) to deliver managed security services to their clients. In addition, the partners are also leveraging IBM Cloud Pak for Security which is an open security platform that connects clients existing data sources to generate deeper insights and enables them to act faster with automation. IBM Cloud Pak for Security thus reduces time to investigate threats across data sources.

#### **ENHANCED CUSTOMER EXPERIENCE**

The COVID pandemic has pushed every enterprise to adopt digital in a full-fledged manner and with urgency. IBM is at the forefront of helping its clients undergo their respective digital transformation journeys and one of the key offerings enabling this is IBM Garage. The IBM Garage is an end-to-end collaborative engagement model that helps clients rapidly convert ideas into

business value with a unique methodology that includes stages such as cocreation, co-execution and co-operation.

IBM has further sharpened its go-to-market approach by regrouping its offerings into the 4 following areas - Predict, Automate, Secure & Analyse. This will help IBM lead with its strengths and offer an enhanced customer experience by bringing tangible value to its clients.

IBM is also committed to helping the partner ecosystem community to adopt an all-out digital marketing approach while going-to-market. Over the past few months, the IBM Ecosystem Marketing team has enabled many partners on 'My Digital Marketing' - a digital marketing platform that has helped IBM partners to successfully plan, personalize and execute multiple digital marketing campaigns. IBM has also initiated Design Thinking Workshops with its partners to plan its joint engagement.

#### **KEY MARKETING STRATEGIES**

As IBM emerges from the pandemic, the key focus area is growth. Some of the examples of its key go-to-market marketing activities are -

- Repeatable digital event: IBM recently delivered 'Parivartan' a
  first-of-a-kind, completely chat based industry jam event for the
  Indian Retail industry and brought together industry bodies like
  TRRAIN, RAI, IAMAI, MHS and had audience across large
  conglomerates, innovative start-ups, entrepreneurs and social
  ventures.
- Multi-media, multi-month campaign: The event, Reshape Tomorrow was an initiative by IBM that focused on nurturing the untapped potential of India's business ecosystem by bringing industry stalwarts to discuss next-gen technologies.

In addition, a number of ecosystem speakers are joining IBM for fireside chats as well as Industry Blitz sessions for its colleagues across geographies. It is also working with partners to address their client needs and helping them to build pipeline through account based marketing.

#### PERSONALIZING MARKETING ACTIVITIES

Transforming and enabling marketing teams with skilling opportunities, innovative and engaging technologies, encouraging creative ideation and pilot execution, and new ways of sustaining communication and collaboration in times of uncertainty and beyond are some of the steps IBM is taking to empower its marketing teams to drive personalised client and enhanced partner experiences. For example: Project HoPE (Humans of Partner Ecosystem) was executed through the design thinking approach and celebrates the personal and professional milestones of its partners besides showcasing customer success stories.



Fast Track your Digital
Transformation Journey
with Tech Data & IBM

New initiatives launched to deepen Data and AI cpabilities for businesses in the region



We are excited to share with you our joint Digital Transformation series that we have recently launched with IBM; a Go-To-Market program intended to assist in driving more collaboration and business opportunities across IBM Cloud Pak solutions (Cloud Pak for Data, Data Governance and Business Intelligence). As a part of this initiative, Tech Data will be providing a suite of enablement, marketing and technical offerings to provide assistance along the buying lifecycle journey.

The solutions provided in the Digital Transformation Series will be delivered through flexible consumption models with options to tailor deployments for cloud, on-premises, or hybrid cloud environments.

IBM Cloud® Pak for Data is an open, extensible platform equipped with powerful automation to unify and simplify how enterprises collect, organize, and understand business-ready data. Simplified offering with unified experience and integrated automation of manual tasks, improved governance and security and compatibility with any cloud. Financing options is now available at special rate\*.



#### Key benefits of IBM Cloud Pak for Data include:



#### Flexible deployment:

The solution runs on any cloud and fully supports multi-cloud environments, avoiding lock-in



#### Data modernization:

Elimination of data silos, improved query efficiency and governance



#### Security and compliance:

Cloud Pak provides the capability to catalog and govern all enterprise data, models, rules, and insights, in line with regulatory requirements



#### Al capabilities:

Automate and govern the data and AI lifecycle; accelerate time to value with AI apps to automate planning, budgeting and forecasting



## Ice///arp®

# ICEWARP LEADING THE WAY BY TRANSFORMING CHALLENGES INTO OPPORTUNITIES



Head - Marketing & Channel Sales IceWarp



Powerful marketing strategies are required for the growth of a business. However, it all starts from internal operational processes in order to ensure agility. Competition exists in every market but to succeed, one needs to be efficient, innovative, and should stay ahead of time.

IceWarp promises its customers that its products are flexible and that they co-exist with any other mailing solution in a single domain. Apart from that IceWarp offers the uniqueness of being able to pay for what the customer uses, so all of this fits the market requirement well in terms of huge TCO savings along with the best of features in the Business Email and Collaboration market

IceWarp has been able to lead its way by transforming challenges into opportunities. Its specialization in providing collaborative solutions across industry brings profitability as IceWarp uses a local approach to target its customers based on their preferences and comfort. The company is hiring people to be able to meet the demand and expectations from the market.

#### **ACCELERATING DIGITAL TRANSFORMATION**

The rise of remote work has disrupted employment and entrepreneurship to a large extent. Working from home is the new normal for most of the organisations. Due to the COVID onslaught, organizations had to adapt to the new normal in order to survive and sustain.

In the present scenario, businesses are switching to remote functioning and looking for online platforms that are easy to deploy. Since IceWarp is a brand that provides collaborative solutions, the rise of remote has disrupted the company in a positive way as the demand for its solutions has increased when organizations realized that remote work is and will be the new normal.

IceWarp did not have to transform its business into a digital one. Being a collaborative solution provider, IceWarp has been promoting the Hybrid Work Culture since inception. But like any other organization the brand has been trying to keep up the pace by encouraging its employees through various other steps such as organizing online webinars, Yoga Sessions for them with Yoga Experts, Engaging Webinars, Employee engagement activities, Weekly Activities in order to keep a check on employees health security, and reducing emotional and mental stress etc.



#### CREATING CUSTOMER EXPERIENCE

It is true that digital transformation has forced companies to change their business models and adapt to the new reality for growth. The interesting part is that the technology companies are not driving this adoption; rather this change is being driven by the brand itself. In the year 2021, businesses have understood that the pandemic is here to stay, the effect of the same will last for a long time and there's no going back. The acceleration in the use of technology, digitization, and new forms of working is going to be sustained.

Being a solution provider, IceWarp has a broader perspective. It has already established the era of team collaboration and remote work and is continuously working towards upgrading its platform, tuning up new features with stronger security. The entire focus is on helping customers implement hybrid work and address the challenges and opportunities that come along with such transformative change with its easy-to-use services like Business email, Team Chat for project teamwork, real-time office document collaboration, online meetings and many more.

Also IceWarp is constantly evolving to engage with its prospects and existing customers and update them about what are the developments at the brand and take their consistent feedback on the product.

#### **COMPLEMENTING DIGITAL INDIA**

India is already on its way to become a digitally advanced country since the launch of the Digital India Initiative. However, the pandemic has given a strong push to the same.

In India, IceWarp has been present from the last 6 years and has helped numerous Indian companies within BFSI, Pharma & Healthcare, Manufacturing & FMCG, BPOs and Services sector to sail through the collaboration challenges. Even during the COVID-19 crisis, IceWarp is moving ahead to provide secured team collaboration and email solutions by continuously upgrading its platform.

IceWarp is the ONLY alternative to MS Exchange, 0365 & G Suite

## Streamline all email communication and collaboration features in one unified solution.

IceWarp, the future of digital workplace where you connect with people across organizations to make better decisions, faster.



IceWarp includes all of the productivity apps you know and love:



#### **Email & Calendaring**

Collaborate with teams on projects and share your schedules to streamline tasks.



#### **TeamChat & Video Calls**

Touch base with your clientele, employees & customers virtually. Invite up to 70 participants, real-time chat, share screen, etc.



#### **Storage and Document**

Experience maximum cloud storage. Work on documents with your colleagues either by working remotely or sitting at the same desk.



#### **Multi Layered Security**

Embrace 2-factor authentication, anti-spam & anti-virus powered by CISCO, and more.



#### **Web Documents**

Edit, share, read, collaborate on documents/file formats like Word, PowerPoint, Excel seamlessly powered with advanced features.



#### **Desktop App & File Sync**

Share files by embedding file link in a message. Convert your OS like windows, Mac, Linux into a cloud-based virtual drive.



#### **IceChat & Mobility**

Chat, video call, share photos from different devices and manage all your conversations with a single swipe, anytime & anywhere.

#### **Top Reasons to Choose IceWarp**



All-in-one Platform



**Advanced Security** 



**Cost Effective** 



**Seamless Integration** 



Migration with Zero-down Time





FOR INFLOW
TECHNOLOGIES, GOING
DIGITAL FULL THROTTLE IS THE
MANTRA TO FACE COMPETITION



## RESILIENCE AND AGILITY THROUGH IT SIMPLICITY

After the second wave of Covid 19 in India, the market is expected to take off with a boom with almost all the industries opening up. Most of the industries have already adapted to the New Normal.

Being one of the biggest distributors in India, Inflow Technologies always focuses on updating itself to the latest trends. Going fully digital is the mantra to face the market competition. Its Social Media and digital campaigns for various Vendors and Partners were very unique and distinctive and always focused on reaching the right set of Target audience.

Inflow Technologies would also like to accelerate its digital activities at a higher level while focusing on quality deliverables for its OEMs. Virtual partner events and customer events for the partner will also play a pivotal role. The distributor has already set a benchmark in the industry by driving many successful virtual events; increasing the frequency of these events will be a Key Focus. Driving unique activities for the partner community will also be a prime focus for the coming year, as it will keep its partners engaged.



#### ACCELERATING DIGITAL TRANSFORMATION

Rapid deployment and development of Smart work from home technologies was one of the key initiatives for Inflow Technologies after the lockdown was announced. The team at Inflow was already well equipped and trained for the change with expertise in Cisco WebEx, Zoom and Microsoft teams. It just had to align itself in place for the new normal.

Being in constant touch with its partner community with these tools, this gave Inflow Technologies the edge with respect to its competitors. It also took the initiative to pay for the broadband or Internet bills for all the respective employees, so that there should be no hindrance of any kind for employee productivity.

#### CREATING CUSTOMER EXPERIENCE

Utilization of various Digital platforms to the fullest is one of the key priorities for Inflow Technologies; one of the main focuses being Virtual events to the partner community and Customers.

To capture the mindshare of the partners in these events and making sure that they keep their enthusiasm intact, the distribution major extends itself in making small gestures like delivering event T shirts to the partner or customer at their doorstep before the event and delivering food at their doorstep during the event so that the partner and their family can enjoy their meal and attend the event.

#### **BUILDING A CYBERSECURITY DEFENSE**

The Vulnerability of remote workers being attacked by hackers has become very common as there is no protection endorsed by the common Broadband providers for home connection. However, Cyber Security being one of its strongest architectures in the distribution segment, Inflow Technologies is very well equipped to protect its employees from Cyber threats. It has multiple layers of protection from the biggest Cyber Security threats from the top Cyber Security providers in the industry.

#### COMPLEMENTING DIGITAL INDIA

The distribution portfolio of Inflow Technologies includes Cyber Security, UCC and Wireless. As these products are essentially vital in enabling Digital India, the company is also directly connected to a large set of partners, some of whom are start-ups who are all set to become the technology enablers of India. To sum it up, Inflow Technologies goes hand in hand with the Digital India Initiative.



**CYBERSECURITY** 



**UNIFIED** COMMUNICATIONS & COLLABORATION











**ELECTRONIC SECURITY** 















**NETWORKING** 















MONVT PHYBRIDGE Raritan. Wavesight ZYXEL







**INFRASTRUCTURE** & APPLICATION **SOFTWARE** 



AIDC & POS



**STORAGE &** SERVER **MANAGEMENT** 



Fasting growing Value Added Distributor with run-rate revenue of 2500 cr

Ability to provide pre and post-sales technical support



2400 + Channel partners



Effective supply chain management and robust credit services



Strong product portfolio with 50+ vendor relationship

Reach across 25+ cities in India and 5 countries in South Asia









INFOBLOX HELPING

CUSTOMERS TRANSITION

TO CLOUD-FIRST NETWORKS

RAJEEV SREEDHAR

Managing Director – India & SAARC

Infoblox

## RESILIENCE AND AGILITY THROUGH IT SIMPLICITY

Infoblox is the leading provider of DDI, a bundle of core networking services — DNS, DHCP, and IP address management. These services simplify the complexities of building, maintaining and securing today's cloud-first networks. Infoblox delivers cloud-first networking and security services to help customers modernize their IT networks for a multi-cloud, hybrid world, and enable them to simplify and scale connectivity and security for corporate devices. Infoblox's technologies enable 12,000 organizations, including more than 70% of the Fortune 500, to modernize their IT infrastructure for remote work.

The key priority for Infoblox in 2021 is to support its customers' transition to cloud-first networks that power the hybrid office. The COVID-19 pandemic shifted companies to remote work and exponentially expanded the surface area for cyberattacks. This further forced organizations to adopt security and core network services capable of scaling availability and protection beyond the four walls of the corporate campus. Infoblox's cloud-native BloxOne DDI enables the borderless enterprise by simplifying and automating management of critical network services. BloxOne Threat Defense on the other hand provides a foundational layer of security for workers wherever they are located. Infoblox BloxOne platforms enable organizations to take advantage of the benefits of cloud, both during the pandemic and once offices reopen.

## ACCELERATING DIGITAL TRANSFORMATION

Infoblox technologies, including its BloxOne DDI and BloxOne Threat Defense platforms, enables companies to adopt a borderless IT architecture so that their employees can connect to the network securely and reliably from anywhere in the world.

Because the company is already cloud-enabled, Infoblox was one of the first companies in Silicon Valley to allow its employees to work remotely. To help ease the transition, it provided a remote office setup fund for employees to more comfortably work from home and periodically sent office snack packs to Bloxers.

#### CREATING CUSTOMER EXPERIENCE

Infoblox constantly listens to its customers to develop new products that meet their needs. The Voice of the Customer program gives customers a way to deepen their relationship with Infoblox and offers them a variety of exclusive benefits such as merchandise, special discounts, and training opportunities.

Participants can build relationships with Infoblox experts, promote their company's successes and experience with Infoblox products, build their personal and professional brands, as well as network and share ideas with like-minded peers. The program also gives them the opportunity to earn valuable rewards for professional services.

#### **BUILDING A CYBERSECURITY DEFENSE**

Infoblox uses its own BloxOne Threat Defense, the industry's first cloud-managed DNS security solution to protect the farthest edges of the ever-growing corporate network. The solution works with an organization's existing security stack to monitor network traffic and proactively identify threats and breaches. This allows IT teams to catch and remediate security incidents quickly and efficiently to better protect data and mitigate the costs of an attack.

The BloxOne Threat Defense solution leverages the power of DNS – which over 90% of malware touches to enter or exit a network—to secure the increasingly decentralized nature of cloud-first networks. A recent study found that the solution can reduce by almost 20% the amount of time security teams spend investigating threats and by 34% the amount of effort needed to address security incidents.



# Harness the Power of A Secure, Cloud-First Network Experience

### The Foundation for Enterprise Edge Networking

Whether your organization was born with data centers or entirely in the cloud, your success hinges on your ability to harness the full power of the cloud and edge networking to move deftly in an ever-changing, work-from-anywhere business landscape. That starts with core network services-DNS, DHCP and IPAM (collectively known as DDI). The BloxOne® Platform from Infoblox enables a secure, cloud-first network experience for the distributed enterprise with BloxOne® DDI and BloxOne® Threat Defense.

BloxOne DDI is the industry's first SaaS-based solution that simplifies, automates and controls DNS and other core network services from the cloud. BloxOne DDI enables rapid deployment of network services at scale, improves the performance of cloud-based applications and increases network uptime for distributed locations.

BloxOne Threat Defense maximizes brand protection by securing your existing networks as well as digital imperatives like SD-WAN, loT and cloud. It powers security orchestration, automation and response (SOAR) solutions and slashes the time to investigate and remediate cyber threats. It works with what you already have to optimize the performance of the entire security ecosystem, requires no additional infrastructure and reduces the total cost enterprise threat defense.

#### Learn more at:

www.infoblox.com ,or contact:

Vinny Sharma

vsharma@infoblox.com





Ingram Micro is synonymous with distribution and has been making the latest technology available to businesses globally for the last 42 years. Specifically in India, Ingram Micro has been the leader in this space since 1996 and serves over 15,000 resellers, VARs, system integrators, MSPs, and born-in-the-cloud channel partners by providing access to over 200 of the leading OEMs across multiple categories like Servers, Storage, Networking, Security, Computing, Printing/Scanning, Mobility, SaaS, IaaS, etc.

As part of our continuous efforts to add value to our customers and partners, we have established a comprehensive services division that truly helps businesses deliver the promise of technology TM. Our services cover all stages of technology adoption, from consulting and advisory to implementation and deployment, culminating in long term maintenance and support. Besides our own services teams, we have tied up with 200+ of the country's leading system integrators who use IM Link – our Services Exchange platform to provider their services to other channel partners. I invite all channel partners to join the IM Link platform at ingrammicrolink.com and meet all the services requirements of their customers, thereby increasing profitability and creating long term relationships.

Ingram Micro is committed to the success of our partners by augmenting our traditional distribution offerings with the following portfolio of services.

#### CYBERSECURITY SERVICES

#### **IM Smart Assure Services**

- Cyber Maturity Assessments
- Cyber Risk Assessment
- Compliance Assessments
- Training & Awareness
- Cyber Drills & Phishing Simulations
- SOC Reviews

#### **IM Smart Protect Services**

- ▶ Product Maintenance & Support
- Skills Provisioning
- Managed Security Services

#### **IM Smart Secure Services**

- ► End Point Security Installation
- Network Security Installation Email Security Installation
- Data/ Cloud Security Installation
- Security Operations Solution Installations

#### **Smart Deploy**

- ► Unboxing, Rack
- Mounting, Power-test Firmware, Image, OS loading
- Standard software
- loading & configuration
  Platform migration
- Integration with existing /new infra
- Migration/integration with Public Cloud

#### **PROFESSIONAL SERVICES**

#### **Smart Support**

- Onsite/remote infra support
- Operating system support
- Managing Configuration issues & Parameter changes support
- Support & co-ordination with OEM for breakdown
- or performance issues
  Skills provisioning

#### **Smart Project**

- Project Assessment & Plan creation
- Driving Project as per scope, plan and schedule
- Monitoring and tracking the deliverables
   Reporting to Customer highlighting the progress/gap
- Setup Project meetings cadence Close and sign-off on completion of deliverables

#### **INGRAM MICRO SERVICES**

#### TRAINING SERVICES

Leading industry and vendor training awards garnered in the last 3 vears alone.

Top Training industry vendors in our portfolio including IBM, VMware, Citrix and more.

#### 15,000

Business and technical courses offered in over 100 countries in a variety of learning formats.

of Customers would recommend our services based on Net Promoter Scores.

#### **IM LINK**

- A global portal operated and managed by Ingram Micro; open to all our Reseller Partners
- ▶ Partners can join IMLink as Service buyer, Service seller or both
- Avail Professional Services from other Partners in a safe & secure environment under one platform
- Entire engagement from requirement floating till closure tracked through IMLink workflow, enabled with stage wise notifications
- Financial transactions are managed by Ingram Micro

Contact us at: impsindia@ingrammicro.com

#### **Ingram Micro India presents**

the largest & most diverse portfolio of products and services







MANOJ KANODIA CEO Inspira Enterprise

#### **KEY MARKETING PRIORITIES**

Inspira endeavours to work in consonance with the trending digital marketing solutions to enhance the organization's online presence. Its digital strategy for 2021-2022 will revolve around - Blog Promotion, Inbound Marketing, Social Media Marketing, Search Engine Optimization, Search Engine Marketing/PPC, Account Based Marketing (ABM) & Retargeting, Earned Online Media and PR, Referral Programs, Virtual Events, and Conversational Marketing.



#### **ACCELERATING DIGITAL TRANSFORMATION**

Setting a consistent remote digital space was a mandatory move owing to the pandemic. With the organisational functions still active, Inspira initiated considerable engagement activities to keep the work culture going even on a digital scale. A few instances that reflect Inspira's remote working atmosphere are -

- Hired "Chief Listening Officer" specifically for virtual assistance across departments
- Organized Annual Awards Function with the host of honour being Cyrus Sahukar. The function was celebrated in full swing with interesting activities such as Sand Art, Online Quiz and Game Songs
- Partnered with LinkedIn to reskill its workforce with upgraded learning
- Organised several workshops targeted at employee well-being. It mainly focused on de-stressing, harmonizing work culture and offering career guidance for employee kids.

#### **CREATING CUSTOMER EXPERIENCE**

Customers are well-informed and adept with an assortment of online channels. The demand for digitally enabled products, disruptive technologies etc. are on the rise. Hence, Inspira strives to meet customer goals and specifications with next-gen disruptive technologies such as Analytics, Cloud, SIEM/ SOAR AI/ML, IIOT Solutions etc.

The distributor brand has also maintained a stable connectivity link with its esteemed customers via digitally viable sources - virtual events, webinars, workshops, SEM, SEO, SMM, ABMs etc.

#### **BUILDING A CYBERSECURITY DEFENSE**

Inspira is an organization compliant with cyber security standards. To safeguard its work network from potential threats, the company has adopted certain safety and legal practices -

- Good governance essential for managing cybersecurity issues
- Detailed plans to cope up with various contingencies, pivot challenges, overcome adversities, and meet customer expectations.
- Built an in-house security culture and security awareness program
- Dedicated risk management strategies to mitigate difficulties

#### COMPLEMENTING DIGITAL INDIA

Having positioned digital transformation seamlessly across verticals, Inspira as an organization is equipped with state-of-the-art, pioneering IT solutions. Its market existence is paced with a vast portfolio of industry applications, strong technical expertise, execution capabilities, and automation offerings. This has led to a structured business eco-system that retains its presence in the Digital India bandwagon.





## Your partner in Digital Transformation

Offering Innovative Technology & Services to help you grow, and bridge the gap between your dreams & reality.



Established in 2008, Inspira is the one stop destination for all advanced IT solutions.

Partnering with leading IT firms across the globe to help you optimise to the latest technological trends.







#### **KEY PRIORITIES FOR 2021**

It is extremely important to be proactive and have very specific marketing and growth strategies, to stay ahead of competition.

In view of these ground realities, Iris has adopted a three-pronged strategy –

#### • NEW PRODUCT TIE-UPS

Iris have tied up with some of the best and leading products in the areas of Enterprise Storage and Security, Tablets, Power Solutions, Surveillance, Audiovisual software and is in process of having more such alliances.

#### INCREASE ONLINE PRESENCE

Iris have come up with a brand-new corporate website which is informative and exhaustive and investing more on platforms like Linkedin, Facebook and Twitter.

#### • PURSUE BIG PROJECTS

Iris specializes in executing end-to-end big turnkey and complex projects such as SSA; pursuing these untapped projects helps Iris leverage the skills of its employees, scale its operations and increase footprint

## ACCELERATING DIGITAL TRANSFORMATION

Iris strongly believes that Digital Transformation should have two main aspects i.e. Team empowerment and Customer engagement. Considering these two aspects, Iris has leveraged new technology platforms to interact with its team and engage with its customers.

The distributor brand is also in the process of streamlining certain internal functions and enabling them digitally.

#### CREATING CUSTOMER EXPERIENCE

In Iris, employees are encouraged to look for new software and new ideas and relevant technologies that are then evaluated and if appropriately adopted.

This openness to embracing change throughout the organization helps Iris ensure that it is prepared to take on every new challenge.

#### PERSONALIZING MARKETING INITIATIVES

The customer's expectations are ever increasing, and they expect relevant information with immediate access. Companies that fail will see customers gradually moving away. Iris has made certain enhancements and thereby empowered its marketing team to run successful campaigns such as

- Giving them access to various data, tools and support team.
- Allocating funds to invest and experiment with and using new and different channels to contact customers.
- Rewarding its marketing team on successful completion of projects.

#### COMPLEMENTING DIGITAL INDIA

Digital India and Preferential Market Access are the need of the hour for the country to become self-reliant, especially in IT and Surveillance products.

Iris supports this initiative and to do its bit, the company has already tied up with leading Make in India manufacturers in the country like Sparsh, Wishtel, Datamini and HLBS to distribute their quality products in India.

Iris looks forward to tying up with more such manufacturers and serving its partners and the country better.





### POWERSTORE



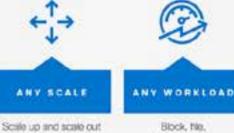
**D¢LL**Technologies

intel

#### POWERSTORE FROM DELL TECHNOLOGIES STAY AGILE IN A CHANGING WORLD WITH THE NEW RELEASE OF POWERSTORE

To address the challenges of the data era, where organizations must capitalize on the myriad of data sources available in order to achieve competitive advantage, Dell Technologies launched PowerStore, its revolutionary storage appliance. Since its launch PowerStore has received industry accolades and acclaim', and with systems in over 50 countries and a sales pipeline over \$2Bn, it is also achieving significant sales success.

PowerStore has proven itself to be highly differentiated in the all-flash market, delivering significant performance, architectural and program advantages versus overy competitor in terms of:



Block, file. VVol. container ANY FUTURE

Controller swaps. no migrations, maximum flexibility





Storage array and on-array application hosting with AppeCN







**Please Contact** 

## Iris Global Services Pvt Ltd

1, Bypass Road, Mahipalpur, New Delhi - 110037 Achin Kumar: +91 9873592171



# iValue aggressively pursuing growth opportunities to ensure business continuity



KRISHNARAJ SHARMA

CEO & Director iValue InfoSolutions

### RESILIENCE AND AGILITY THROUGH IT SIMPLICITY

The market strategy of iValue has allowed the company to not only ride with the tide but also to soar to new heights. In the first two quarters of 2021, iValue was able to achieve greater heights with these trends. The first step in staying ahead of the curve is to predict what the market will offer and what clients require. iValue has always been able to overcome any problem, including the pandemic, using this approach. The approach in the market is to consultatively understand and address customers' business and IT needs around Data, Network and Application (DNA) offerings with a medium to long-term perspective.

iValue is also aggressively pursuing inorganic growth opportunities both on capabilities and geography coverage to maximize profitable growth.

#### **ACCELERATING DIGITAL TRANSFORMATION**

At iValue, digital transformation is a continuous process and has been in place over the last few years. Along with mobile UPS, every employee gets a dedicated laptop / safe endpoint with DLP / regular data backup, and secure connectivity with multi-level authentication to iValue's hybrid clouds. Employees could work safely and securely from anywhere using the correct security tools on both endpoints and in the hybrid cloud. iValue also utilized the time to enhance and improve the technical and soft skills of each of its team members, as cybersecurity is a rapidly evolving field. Also, it added quite a few niche and compelling offerings to iValue's solution and services portfolio.

#### **CREATING CUSTOMER EXPERIENCE**

The only time iValue had difficulties was during the two-month initial lockdown in the year 2020. On the business front, due to transportation constraints, it was unable to get through customs the hardware solutions for DNA protection and management from both abroad and local OEMs and into its warehouse for delivery to its customers and partners. However, as soon as the transportation limitations were eased, iValue bounced back into action. On the technical side however, iValue was able to assist its customer base 24 hours a day, seven days a week. iValue leveraged on its partners' relationship with customers and their proximity to remotely design, deliver and deploy solutions around the DNA of every business.

iValue started adopting digital solutions in June 2020 and so 2021 was not a challenging period in terms of customer satisfaction and growth. It started adding Al-driven chatbots to its website to ensure the right teams are alerted to the queries/challenges expressed by the visitors. This also ensures that the relevant team is getting in touch with the customers in less than half an hour during business hours and within 2 hours during non-business hours. Besides, iValue continues to leverage Social media and email engines for constant engagement by its Digital sales team to update its customer and partner teams on the relevant offerings.

#### **BUILDING A CYBERSECURITY DEFENSE**

With the rise in cyber security risks, a new era of cyber security has begun. All these new age cyber security technologies, from cloud-edge security to network forensics, are progressively catching up to the shifting trends in cyber security. With the growth of cyber security to combat threat actors, businesses across all industries require cyber security to safeguard them from advanced threats.

iValue's DNA - Data, Network and Application Management has been evolving to meet the emerging needs of its customers and partners.

#### COMPLEMENTING DIGITAL INDIA

iValue had recently received an award for being a strong distribution and project management partner in the implementation of the ambitious WIFI Choupal village digitalization project, part of the 'Digital India' initiative.

Since its inception, iValue has primarily focused on four segments in terms of growth: government, BFSI, Enterprise and Commercial sector. Its solutions and products are geared towards helping governments successfully achieve this.





## iValue Training Academy

Upgrade your career. Be a cyber security professional Equip yourself with adept skills to defend the digital world from malicious attacks.



COURSES OFFERED

- → Vulnerability Assessment and Management
- → Privileged Access and Management
- → Next Generation Security Operations
- → Customized Cyber Security Curriculum

#### SCOPE

- India is poised to create
   The highest number of
   Cyber-Security jobs in
   the world by 2024
- Cyber-Security is Expected to grow at 11% CAGR in the next 5 years

#### **CONTACT:**

Alok Kumar Head - COE & Training alok.kumar@ivalue.co.in +91 9711992680

## UNIQUE APPROACH WITH A COMPREHENSIVE FOUNDATION OF CORE CYBER SECURITY CONCEPTS

- State-of-the-Art Labs with Comprehensive Tools & Technologies
- Lab work based on Real Customer Scenarios
- Online and Classroom based Delivery Models
- Methodical and Advance Approach to Cyber Security Careers
- Course Themes based on Present & Future Enthralling Needs
- Cover Fundamental Concepts to Case Studies on Present Trends
- Designed and Delivered by Cyber Security Experts
- Curriculum Structure: 70% Practical & 30% Theoretical

### Jabra GN

### JABRA POSITIONS ITSELF AS A PIONEER IN AUDIO AND VIDEO TECHNOLOGY

#### **FORAY INTO INDIA MARKET**

Jabra entered the Indian market at the turn of this century with its enterprise-grade products. It has undergone an exciting journey, right from the time it entered to where the brand stands today. With its range of professional headsets, speakerphones, and video collaboration solutions, Jabra witnessed phenomenal business growth with successful launches of industry leading, award winning products. India has always been an important market for Jabra, and it works vigorously towards introducing products and solutions which solve real-world problems.

Jabra further believes that each type of use has a unique pain point and need, and so its ultimate goal is to design products that cater to their unique requirement as per their use case.

Jabra's customers embrace its vision, design approach and quality of products by patronizing its products. This is the reason why its India market share has always been consistent with the brand's global market share. India is an important growth market, and Jabra has got its attention focused on this.

#### A PREMIUM PRICING STRATEGY

Jabra retains a premium aura in India. In spite of many options available in the market today at a much lower cost, customers recognize the value of Jabra products which are engineered in Denmark and built by a company which has been in existence for over 150 years. Jabra is the only company with a history of building medical, consumer and enterprise grade products. It is a specialist in audio and video technology and has unrivalled understanding of high-quality sound in all its forms from conversation to music. Jabra is a pioneering innovator of new sound experiences from wired to wireless and the brand stands for quality and premium products.

In its experience, customers are discerning and will pay the right price for a product that will solve their needs and pain points.





## PETER JAYASEELAN Managing Director, South Asia Jabra

#### **ENGINEERED FOR PURPOSE DESIGNS**

While Jabra sells audio and video conferencing solutions, its product design approach is to identify different user profiles (or personas), each with some unique needs and purpose and design solutions to cater to their unique needs. For example, enterprise users have different needs - some are desk workers, some need to move within the office to conduct their work, some travel outside the office, some need to concentrate in a noisy office environment, some work from home, some need integration to different UC platforms, etc. While a headset is a common requirement for all this, Jabra's "Engineered for purpose" design caters to these specific needs.

Jabra designs solutions as per customer use cases. For example, the Evolve series is for Office use, Biz and Engage series for Contact Centric use and Panacast and Speak for Collaboration. All of its products solve customers' pain points and needs, thereby adding value. Jabra's pricing strategy reflects this, and it sees uniformly good uptake across the board.

Jabra extensively uses advanced AI, edge computing technologies, etc. in many of its products to suit the changing ways of working in the new normal.

#### IN THE PIPELINE

As a pioneer in audio and video solutions, Jabra continues to bring innovative products into the market every year. It recently expanded its new Evolve2 range by adding Evolve2 30 at attractive prices to enable hybrid work modes, thus enabling every user to enjoy the benefits of experiencing premium collaboration, concentration, and comfort while working.

Jabra also recently launched the Panacast 50, the first-ever normal-ready intelligent video bar. It is appreciative that its products are being praised and loved by its audience worldwide. This will be followed by the top of the range Panacast 20, which takes the personal video conferencing to the next level.

Jabra has lined up a range of new and exciting products to be launched during the later part of the year.





PANACAST 50

## Video conferencing. Reinvented.

Fully immersive meetings, for everyone.



## kaspersky

### KASPERSKY LOOKS AT CYBER SECURITY AS A PART OF THE DIGITAL INDIA TRANSFORMATION JOURNEY

DIPESH KAURA

General Manager

Kaspersky (South Asia)

## RESILIENCE AND AGILITY THROUGH IT SIMPLICITY

Powerful marketing strategies are the ones that can help the brand achieve a huge impact and overall aim at the business growth. It is also very important for each brand to identify the correct marketing tools and platforms for their campaigns in order to optimize their impact.

Kaspersky found out that the cybersecurity awareness and maturity amongst end users and businesses has not reached the desired level yet. This is why it planned its strategy in such a way that it would help the company increase the awareness and maturity amongst its customers by using various channels and marketing tools. It plans to continue with this strategy for 2021-22 as well.

To increase awareness amongst end consumers, Kaspersky started associating with the top most schools in India. Through these associations it aimed at educating gen Z and through them tried to get the conversation started. Kaspersky also tried to increase awareness amongst businesses and their staff by organizing corporate cybersecurity trainings in association with its partners. It even organizes robust training sessions for its partners, so that they can support the consumers accordingly. Kaspersky is hosting specialized Training Workshops towards partner enablement so that the channel community is further equipped to spread the message and awareness to the end customer.

Kaspersky has invested considerable time and effort to ensure that the technology teams of the Kaspersky Channel community are trained and updated to the latest versions of the Advanced Cyber solutions. This not only ensures the fastest level of deployment and installation with the customer but also lays the platform for the customer to move from Cyber Security to Cyber Immunity.

#### ACCELERATING DIGITAL TRANSFORMATION

Remote working has accelerated digital transformation for businesses across the globe. Like every other business, Kaspersky too had to adapt to digital platforms in order to continue with its work and ensure smooth functioning of all its operations.

The very first and most important step that Kaspersky took in its digital transformation journey, was to ensure security of all the personal devices used

by its employees while working from home. Once the network was secured, the company continued with its business operations virtually.

Kaspersky shifted all its business & internal meetings, hiring processes, partner trainings, events, etc to the virtual world through various digital platforms that ensured the utmost security at all ends.

The digital transformation journey of Kaspersky has been extremely smooth and well planned and it has been able to not only improve its business performance as compared to 2020 but have found the merit and success in this well adopted digitally empowered new normal world.

#### CREATING CUSTOMER EXPERIENCE

In challenging times, when customers are reluctant to discuss major changes or replacement strategies for their cyber security infrastructure, it's really important to understand their situations and be flexible in addressing them through the digital medium.

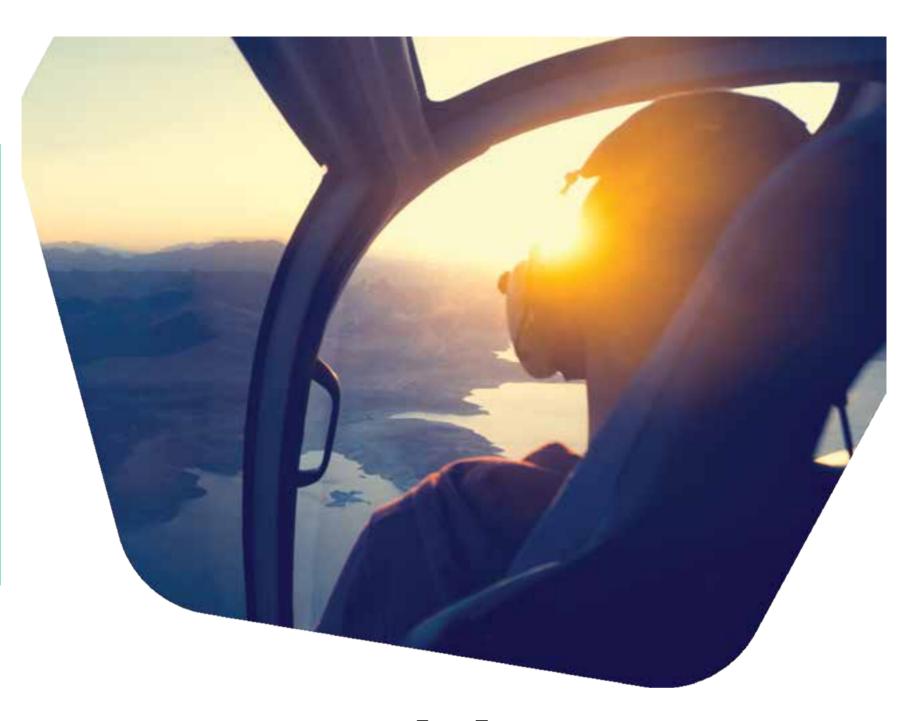
Kaspersky made sure that its partners were up to date and well aware of the ever evolving and sophisticated threat landscape, and knew everything about its solutions and services. It conducted regular and very robust training sessions for its partners and regional distributors, so that they would be able to understand the customer's pain points and guide them accordingly.

It also made sure that its experts and support team were available 24\*7 so that every challenge faced by its customers or partners could be resolved with utmost priority and attention.

#### **COMPLEMENTING DIGITAL INDIA**

Kaspersky has associated with the Indian Computer Emergency Response team (CERT-In) to support them in their fight against the ever evolving, complex threats. It helps them in achieving the desired level of awareness and cyber maturity amongst the IT officials that work with them in safeguarding the nation from various potential attacks. This is achieved by conducting regular training sessions through its Kaspersky Interactive Protection Simulation (KIPS) online platform.

Further, Kaspersky has conducted several cyber workshops at various levels within different government investigative agencies to empower them with deeper insights about the potential threats.



# Expert tech in expert hands

Nurture your team's cybersecurity power with industry-leading tech backed by elite threat intelligence, knowledge and expert guidance from the greatest minds in cybersecurity

Awards & recognition



















#### PRODUCT STRATEGY DURING THE PANDEMIC

The previous year has been unprecedented in terms of the series of changes that it has brought about and how it has affected the way one looks at work, educate, entertain or even play. Kingston Technology has a compelling range of products for this stay-at-home scenario. In fact, there is a spike of customers queuing up for Kingston Technology's premium offerings in the

with memory as well as storage solutions across mainstream (entry), high performance (mid) and extreme gaming (high) segment. The brand has received an overwhelming response for its Kingston KC2500 NVMe for its extremely efficient performance. The newly launched Kingston NV1 NVMe SSD as well has been getting compelling love from the consumers. Even its DRAMs segment is seeing a huge uptake from customers who want to upgrade their PCs for gaming or work from home or e-learning.

Riding on this trend, Kingston is the most preferred brand in the Indian market and well poised in the market due to extensive SSD and DRAM product portfolio and aggressive pricing.

#### **ENSURING RESILIENCE AND AGILITY** THROUGH MARKETING

Marketing is one of the most innovative functions, and with right strategies certainly help businesses grow in leaps and bounds. Kingston has always been a frontrunner in enabling people in preserving their precious indelible memories through its most reliable and high-performing memory and storage products. The company has taken a 360-degree marketing approach and built synergies between online and offline communications to build impactful

To further strengthen its campaign initiatives, Kingston also has a channel friendly approach. There are on-going knowledge sharing and training sessions with the channel partners in order to educate them about new products and share useful first-hand information about the latest industry trends and how Kingston Technology is gearing up for it.

In addition, Kingston will continue with its 360-degree marketing approach and will be coming up with compelling campaigns in order to touch the lives of new age users.

Kingston Technology has constantly been adopting digital solutions to stressed market, Kingston Technology has set new benchmarks in the quality of service with turnaround times not exceeding 48 hours to address any kind of customer feedback on areas like quality and service. Transitioning to digital channels during the pandemic has been appreciated as well by its customers.

Pre-sales would include product compatibility check assistance and answering questions about product specification and general usage, through calls, email, e-tail sites, customer Q&A and all social media platforms. Postconfirmation assistance, with free technical support for installation. The transition to SSDs from the old drives is also made easy now with the free Acronis tool that is used for cloning the old date onto the new SSD with assistance right through the entire process. This is complimented by the upgrades during the pandemic include logistical support and courier options for customers who would not prefer stepping out.

#### CHALLENGES GALORE

The ongoing pandemic has come with its own set of challenges that have been unprecedented. Awareness about memory and storage products takes a focused approach and involvement as it is a much deeper topic than what is actually realized. Kingston Technology being a world leader in memory and storage products, its marketing campaigns are designed to be more connected to its consumers with tailored messaging.

Kingston realized that even when the world is going through a drastic change, life never stops moving forward. It therefore launched the 'Kingston Is With You' campaign, through which it aims to bring to life the invincible impact of memories in everyone's lives and emphasizes on the fact that memories not only exist in the past but can also be the driving force that motivates one to move forward in life.





## LTTS WILL CONTINUE TO BE THE ENABLER OF TRANSFORMATIVE TECHNOLOGIES

**ABHISHEK SINHA** 

Chief Operating Officer and Member of the Board L&T Technology Services

#### REINFORCING THE DIGITAL MANDATE

The key priorities for FY22 for LTTS would be to ensure the health and well-being of all employees, while maintaining the strong financial and operational metrics. Additionally, the Company has identified 6 strategic investment areas to develop new solutions and platforms for its customers, including Electric Autonomous Connected Vehicles (EACV), 5G, Med Tech, Digital Manufacturing, AI&ML driven smart offerings and Sustainability.

Apart from the 6 Big Bets, there are various other Organizational priorities for 2021 for LTTS -  $\,$ 

- WFX Enabling each employee to productively work from anywhere
- Investing in the Global Engineering Academy (GEA) which ensures Competency Upskilling of LTTS' current and future employees through various training programs
- IT Infrastructure investments to ensure protection from cyber threats and to digitally reach out to employees and customers world-wide
- Re-imagine HR programs which foster employee connect and camaraderie in the digital world.

#### ADOPTING THE NEW NORMAL

When the pandemic hit last year, the immediate goal of LTTS was to migrate to a WFH model to ensure safety and well-being of all employees. At the same time, the Company took it up as a challenge as well as an opportunity to come up with disruptive innovations that will ensure seamless business continuity in a new normal world. Thus, came a unique digital engineering-led WFX or Work from Anywhere paradigm.

More than 90% of LTTS' staff staff is currently working from home. For Engineers who need physical access to labs and engineering centers, LTTS has ensured a 360-degree secure and safe environment in its premises.

A few of the key initiatives undertaken for the benefit of employees are – Omni Opus<sup>TM</sup>: A Customized Certification program to enable Managers to not only manage projects remotely, but also manage their team members and their aspirations through the digital mode

**AURA** – As Customers postponed travel plans owing to the pandemic, LTTS launched Project Aura which made digital clones of its innovation labs to showcase to customers.

**Home Labs:** Last year, as part of its WFX transformation, LTTS created Innovation Home Labs wherein some of its engineers with bigger workspaces at home set up physical replicas of office labs, with engineering equipment, infrastructure and power back up provided by the Company.

From an operational perspective, all employees' home workstations have encrypted hard-disks and ports are monitored, and engineers are equipped with VPN access and secure cloud infrastructure.

**Innovative HR programs:** To foster heightened employee engagement, the LTTS HR function holds innovative HR fests and competitions every week to stimulate and motivate employees.



## BUILDING A CYBERSECURITY DEFENSE

LTTS has continuously re-evaluated and realigned its IT security strategy to be in line with the changing times. Being an enabler of transformative technologies, the Company has embraced the best-in-class solutions, integrating Artificial Intelligence & Machine Learning-enabled tools to support data processing activities and focusing on improving data quality-based information needs.

Earlier an enterprise perimeter security was responsible for preventing cyber threats, but now with change in work paradigms, this no longer fully protects systems data and employees. As a result, LTTS re-looked at the overarching security posture, gaps and maturity levels and then designed its security strategy from a short term and medium-term perspective. The focus is to give similar security controls irrespective of the employee working from office or from anywhere and also irrespective of device (managed or unmanaged device) being used for work

LTTS will provide access to employees to systems via multi-factor authentication, conditional access, least privileges and an integration of data leakage protection. This will be true for endpoints such as Laptops/Desktops, intranet systems, SaaS applications, services & storages and cloud native technologies. This is one of its key strategies to formulate a ZERO TRUST NETWORK approach.

Moreover, as logical next steps, LTTS is giving primacy to security management with quarterly review at the highest level i.e. in its audit & risk committee and board meetings. Finally, LTTS conducts various cyber security drills including simulations, security awareness and advisories to employees.



### MICRO FOCUS EVOLVING ITS SECURITY PLATFORM FROM CYBERSECURITY TO CYBER RESILIENCE

SAURABH SAXENA
Country Director, India
Micro Focus



## RESILIENCE AND AGILITY THROUGH IT SIMPLICITY

Micro Focus believes in delivering 'High Tech, Low Drama' to its customers. In 2021-22, the company is prioritizing the delivery of a high level of IT flexibility to its customers around the globe for safeguarding revenue models and delivering higher returns on investment.

With the pandemic accelerating digital transformation globally while also giving rise to unprecedented security threats and breaches, Micro Focus has evolved its security platform from cybersecurity to cyber resilience. It understands the fact that a cyber resilient organization can adapt to known and unknown crises, threats, adversities, and challenges and ultimately help an organization thrive in the face of adverse conditions.

The key to driving enterprise resiliency is to build "shock-absorbers" to sustain business operations, customer outreach, and non-stop business transformation during times of crisis. Digital transformation is a good strategy for building enterprise resiliency. For example, digitally-enabled organizations were able to "quickly pivot" during COVID-19 and address supply chain issues, minimize customer disruptions, and bring innovative products and services to their customers.

With the increase in security breaches and ever growing need to ensure business agility, Micro Focus is thus focusing on enabling enterprise resilience for its customers.

#### **BUILDING A CYBERSECURITY DEFENSE**

In the face of global pandemic and the rise of cybercrime, organizations are seizing the opportunity to transform into a resilient enterprise designed to have the agility, structure, and growth-centric focus to not only weather adverse conditions but also drive sustained business performance. Knowing

how to successfully adapt to an evolving business and threat landscape can be a challenge. Micro Focus launched a digital resource – CyberResilient.com, which is designed to support CISOs and board members as they navigate these challenges.

The company's core pillars in providing cyber resilience to its customers throughout the enterprise lifecycle include protecting the business, detecting for changing risk surfaces, and evolving competencies in line with changing threats. By integrating these pillars, organizations will be able to strategize, communicate, plan, implement and integrate technologies to "pivot at scale," secure the business value chain, and enable resilient operational excellence and digital transformation. Micro Focus aims to leverage artificial intelligence (AI), machine learning (ML) and automation in a business outcome centric approach to simplify the cost of becoming resilient for its customers.

#### COMPLEMENTING DIGITAL INDIA

The pandemic has pushed forward the government's Digital India initiative to the forefront. From registering for vaccination online to making digital payments, the government is digitally empowering citizens. With applications and interfaces scaling up in demand and usage, continuous focus on customer experience is becoming of utmost importance.

"Over the years, Micro Focus with its technology offerings has been instrumental in collaborating with the Government of India to help facilitate citizen services to the masses." It is working with multiple state governments on smart city building projects through partners and infrastructure organizations. It is delivering IT management and digital solutions required for the smooth functioning of the smart cities while also ensuring cyber security.

#### **CREATING CUSTOMER EXPERIENCE**

The pandemic has accelerated the digital transformation timeline for the entire business ecosystem. With businesses accelerating their digital transformation journey on cloud and hybrid environments, the company is working towards enabling its customers through its four focus areas -

- Simplify IT transformations: Constantly scaling agile operations across the enterprise's IT environments from mainframe to cloud solutions and eliminate complexity
- Accelerate Application Delivery: Accelerating application delivery and speed testing at high speed and lower risks
- Cyber Resilience: Protection against cyberthreats, and vulnerability detection in applications, identity, and data
- Predictive Analytics: Analytics fueled by innovative technologies to gain new levels of insights and prediction accuracy for businesses.

To be ahead of the evolutionary curve, Micro Focus is also focusing on making partner collaboration easier. To this end, it has integrated its global partner program to ensure profitability. Micro Focus is working with its partner ecosystem to identify how it can build on and modernize existing solutions and digital infrastructures to fulfil customer-specific requirements.





### MICROSOFT HELPING EACH INDUSTRY NOT JUST BE FUTURE-READY BUT FUTURE FORWARD

HITU CHAWLA
Chief Marketing Officer
Microsoft India



Microsoft has always been a technology-first company and at the heart of its mission is a concept called 'Tech Intensity'. Tech Intensity will increasingly be a determinant of success for every organization. Tech intensity usually comes down to three things. First, how one adopts the latest technology and integrates it into the organization; Second, how one builds one's own unique digital capability; and finally, the trust, both trust in technology and business models built on the technology.

While the pandemic has taught that no business is 100% resilient, those fortified by digital technology are more resilient, more capable of transforming. Microsoft is working closely with organizations of every size, across every industry and sector, to enable their transformation with tech intensity.

## EMPOWERING EVERY CUSTOMER WITH NEXT LEVEL CLOUD INFRASTRUCTURE

Microsoft's mission is to empower every person and every organization on the planet to achieve more. Its solution areas across cloud, data and AI, modern work tools, business applications and security are empowering organizations big and small-from government to large enterprises to startups, SMBs, SaaS companies and ISVs, to drive impact at scale and build resilience.

Microsoft now has six new industry-specific cloud offerings -Microsoft Cloud for Financial Services, Cloud for Healthcare, Cloud for Manufacturing, Cloud for Retail, Cloud for Sustainability and Cloud for Non-profit. Through these industry clouds, Microsoft hopes to empower every industry to deliver value faster, build for the future, and do all of this with security at the core.

Microsoft is building the next level of cloud infrastructure required for a digitally empowered India. It ramped up its capacity to meet the growing demand of its customers and partners during the pandemic and demonstrated how India can uniquely use this infrastructure.

For instance, Apollo 24|7 uses Microsoft Azure to bring virtual healthcare services closer to Indians. Royal Enfield uses Dynamics 365 to enable frictionless interactions across customer touchpoints. And in e-commerce, Myntra scaled up to meet demand spikes during the pandemic with Microsoft cloud, using Azure Machine Learning to understand customer needs better.

Along with its broad ecosystem of partners, Microsoft is using the intelligent cloud and intelligent edge to provide the technology, tools, devices, and solutions that empower every customer across every industry to succeed in their digital future.



Microsoft's marketing strategy for FY22 is pivoted around three principles. First, not to lose sight of what marketing should inherently be grounded in: the brand's purpose. There is deliberate focus on being customer-first and not sales-first, in demonstrating empathy and helping solve real problems. It's no longer a B2B but a B2H(uman) approach, where every touch point of the customer experience feels like an interaction with a human or a person

Second, empowering marketers with technology. Equipping them with data-driven insights for enhanced segmentation and hyperpersonalization. Also, letting martech and automation take care of repetitive, mundane tasks, freeing up their bandwidth to focus on what matters most - the big picture and the creativity to get there!

Last and importantly, the phase of porting the physical into the virtual is clearly behind us now. The digital-first and the evolving hybrid phygital world, warrants rethinking of how we communicate, approach and engage with customers, across newer platforms. As this space evolves, a data bent of mind with digital-native thinking will be critical for all marketers, to stay relevant & maintain business agility.

#### COMPLEMENTING DIGITAL INDIA

In an increasingly digital future, the country's youth will be the most significant competitive advantage. Empowering this talent with the right skills to be self-reliant and succeed in a digital economy will be foundational to India's long-term growth and success.

In early 2020, Microsoft launched a global effort to help 25 million people worldwide acquire new digital skills. Over 3 million people have been skilled in India so far through this initiative. Microsoft is working closely with the government and industry partners like NASSCOM and National Skills Development Council (NSDC) on several skilling initiatives that make the youth future ready. The brand has a unique opportunity to become an increasingly important tech engine of the world. Providing equal opportunity and access to digital skills for the youth will be critical to that journey, and Microsoft is deeply focused on this effort.



## NEC

# NEC COMMITTED TO USING DIGITAL TECHNOLOGY TO HELP SOLVE PROBLEMS IN THE REAL WORLD

## CREATING CUSTOMER EXPERIENCE

Under the brand's purpose of 'Orchestrating a brighter world', NEC is committed to using digital technology to help solve problems in the real world, embracing critical values like safety, security, efficiency, and equality. As a global leader in integrating IT and network technologies, NEC continues to stay relevant as it prioritizes an innovation-first mindset.

NEC's growth strategy is centered on three pillars - Product & Solutions innovation; Deploying the right technology in the right place, at the right time, at the right cost and Delivering through NEC's globally renowned project delivery capabilities. NEC has also rolled out a campaign titled 'NEC Makes it Happen' to augment its positioning amongst its partners, customers, and people. With the reflection of the team's impact on society, customers and stakeholders, NEC has aspired to start a movement to spread awareness about India's development, overcoming challenges, particularly pandemic-induced uncertainties. NEC thus promotes an 'India Go Big' initiative by leveraging its own solution development and delivery capability from India to aid global business growth.

## RESILIENCE AND AGILITY THROUGH IT SIMPLICITY

NEC as an organization has always focused on a solutionsled approach for its business. In 2020, amid the pandemic, NEC quickly pivoted its model to ensure that customer experience was not compromised. NEC India prioritizes a digital-first mindset, businessled outcomes, and integrated marketing approach with an equal emphasis on internal communication. This recent rebranding and restructuring efforts reflect the revived and synchronized energies of its team members and the hallmark of its expertise which is cutting-edge technology.

Going ahead, NEC plans to focus its marketing goals according to the changing buying personas. With creative storytelling, genuine reputation, social listening, and interactive feedback mechanism at the center of its strategy, NEC plans to communicate its story to the market simply and effectively.

## ACCELERATING DIGITAL TRANSFORMATION

NEC keeps people at the center of all decision-making, understanding the challenges and optimizing solutions. Last year, as countries worldwide went into lockdown, NEC seamlessly adopted the digital work model as part of its cultural transition aligned to demands of the time. It tailored its processes to support the hybrid working model keeping safety and security at the center of what it does. A focused and structured approach has been adopted to redefine NEC's digital landscape ranging from Admin, IT, Finance, SCM, HR business process automations to Cloud adoption. To enable hassle-free, effective and secure way of working for employees, integrated automation is available starting from home to visiting the office, booking conference rooms and seats, entering the office – all touch points are contactless and secured.



AALOK KUMAR

President and CEO - NEC Corporation India

## COMPLEMENTING THE DIGITAL INDIA PROGRAM

NEC Corporation India has been a long-standing partner to the Indian Government and businesses in driving digital transformation across all sectors such as logistics, telecommunication, transportation, smart cities, manufacturing etc. For instance, the first 5G Open Radio Access Networks (ORAN) Laboratory in Chennai is a part of NEC's 'In India, For India and From India, For global' strategy. NEC is further strengthening the R&D lab in Bangalore – one of the 7 in the world – with more investments in newer areas. Through NEC's ready-made Logistics Visualization Solution (LVS), businesses, Government, and logistics agencies can easily keep a tab on consignment, inventory, and location details in real-time through a common portal known as Logistics Data Bank (LDB), managed through NLDS (NICDC Logistics Data Services) and NEC Corporation.

In the aviation sector, to ensure faster check-ins, NEC has deployed biometric technology at major airports, including Lal Bahadur Shastri Airport in Varanasi, Netaji Subhas Chandra Bose airport in Kolkata, Pune airport, and Vijayawada airport.

NEC has been working closely with the Government of India on their vision for the flagship smart cities initiative to promote cities that provide core infrastructure, clean and sustainable environment. India is moving towards becoming an urban majority country; therefore, the government's razor-sharp focus on building more intelligent cities is significant. NEC takes pride in partnering with the government and large enterprises with seamless and practical deployment of sophisticated technology solutions across sectors.



## Transforming

Building smarter, safer, futuristic cities

With advanced Smart City solutions

NEC makes it happen.



Biometrics | Al | Video Analytics | ICCC | IoT | Cyber Security | RPA & Chatbot

\*World's no.1 company in biometrics



### **■** NetApp

# NetApp works closely with its customers to help leverage the hybrid and multi-cloud environment

#### **PUNEET GUPTA**

Managing Director NetApp India

## RESILIENCE AND AGILITY THROUGH IT SIMPLICITY

NetApp's strategy is simple - to work with customers on their changing requirements that the pandemic has brought about. It offers a unique combination of cutting edge on-prem technology and the simplicity and flexibility of cloud to the enterprise datacentre.

NetApp specializes in helping organizations leverage the hybrid and multi-cloud environment - a combination of on-premises software, data storage, and public and private cloud computing. It believes that hybrid and multi-cloud are here to stay, and NetApp helps its customers navigate these cloud adoptions. The launch of Spot Wave by NetApp and Spot Ocean's support of Microsoft Azure Kubernetes Service have together provided customers with leading solutions for simple, scalable, and efficient infrastructure for cloud-native applications.

Through its partner program, NetApp Unified Partner Program (UPP), the company helps its partners enable their customers to unlock the best of cloud.

#### **ACCELERATING DIGITAL TRANSFORMATION**

Being a technology company headquartered in the United States with a lot of innovation driven out of the India R&D site, collaborating online was not new for NetApp. The pandemic, however, taught newer and more efficient ways of working remotely. Many of its partners' and their customers' requirements changed and NetApp had to provide solutions to enable them better to sustain their businesses, ensuring the lights are on.

NetApp is uniquely positioned to not only implement enterprisescale Virtual Desktop Infrastructure (VDI) solutions within the company but also extend these services to its partners and customers. With world-class storage, industry leading cloud services, and on-premises infrastructure for modern workplaces, NetApp is transforming the remote workforces into a hybrid and or multi-cloud environment allowing them to work from anywhere.

#### **CREATING CUSTOMER EXPERIENCE**

The new normal has witnessed technology emerge as a key driver of continuity and resilience and opened new opportunities for all sectors. As a result, the pace of digital transformation has accelerated significantly. The need for products and services to be available online is increasing, thereby resulting in a demand for

IT Solutions and Services including cloud. This growth is here to stay as there has been an increased demand and appetite for digital services and cloud-based data management capabilities.

The need of the hour for virtual work environments are scalable, secure, reliable, and cost-effective off-premises technology services. NetApp has partnered with major cloud service providers like Google Cloud, Amazon Web Services, and Microsoft to help organisations like AstraZeneca, DreamWorks Animation and Ducati leverage cloud-ready data management capabilities to overcome complexity.

NetApp also relooked at its traditional marketing channels and revaluated those to better connect with partners, customers, and stakeholders. It launched 'Explore NetApp' – a page dedicated to provide seamless user experience to those seeking cloud and storage-based solutions. NetApp also introduced initiatives like webinars, virtual experiences for customers, virtual tours and roadmaps that helped sustain the momentum even in a virtual setup.

#### **BUILDING A CYBERSECURITY DEFENSE**

The onslaught of data caused due to digitization has increased the risk of data breaches and threats exponentially. NetApp's proprietary and industry-leading operating system ONTAP includes a number of technologies to ensure proper data access and restrictions to the wrong users. The solutions used are designed to alert when internal threats are identified. It provides centralized visibility and control of user access. All its solutions and offerings meet the strictest backup and recovery windows that help ensure a fast and full recovery from unplanned events.

#### **COMPLEMENTING DIGITAL INDIA**

The basic foundation of the Digital India program is to provide internet access to every citizen. As this program grows, it will lead to exponential increase in data generation as citizens seek to access government services digitally.

NetApp is at the forefront of supporting all stakeholders in managing data across platforms. The brand has partnered with several states in the SDC program and has supported the digitization process. NetApp is also working with leading banks, telcos, IT Companies, and ecommerce companies in their digitization journey which will leverage Digital India, enabling them to reach every corner of India.









# The **CLOUD STORAGE**Specialists



Cloud's full potential is waiting to be unleashed. That's where we come in. Simplify your cloud management landscape while unlocking the speed, efficiency, and flexibility to shift focus from administration to innovation.

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# NUTANIX: HELPING BUSINESSES FOCUS ON INNOVATION AND GROWTH THROUGH HYBRID MULTICLOUD ENVIRONMENTS

## RE-STRATEGIZING TO SUPPORT CUSTOMERS THROUGH THE PANDEMIC

The pandemic shone a spotlight on the existing gaps in enterprise IT and drove businesses to quickly find solutions that enabled them to shift millions of employees from on-premises to remote work environments, overnight. Concerns about risk, governance, security, and cost were thrust to the forefront, and rightly so. Today, every industry is turning to technology to gain a competitive advantage, and in fact, most enterprises are still in the early stages of digital transformation as they look for the right IT strategy that fits their unique needs.

Enterprises which have made investments into hybrid and multicloud are finding themselves ahead of the pack. Over the past year, hybrid multicloud has emerged as the ideal choice for India's businesses, as it not only addresses immediate requirements, but enables long-term business agility and freedom of choice. The recent Nutanix Enterprise cloud Index (ECI) report found that 63 percent of India's enterprises have increased their investments in hybrid cloud because of the pandemic. A remarkable 97 percent of Indian IT pros agreed that an integrated mix of public and private clouds is the ideal architecture for their organizations, compared to 87 percent globally.

Nutanix hybrid multicloud solutions help customers navigate cloud complexity and make full use of their existing IT investments. The Nutanix Clusters solution reinforces us as a compelling cloud player, positioning us at the forefront of customers' cloud and digital transformation journey. Our strategic alliances offer customers true freedom of choice to achieve



the best balance between cost, revenue, performance and risk management. For example, our global partnerships with HPE GreenLake and Lenovo TruScale have provided customers the choice and flexibility of pay-as-you-use environments.

Security as a fundamental factor for enterprise IT gained a strong impetus during the pandemic, as work-from-home added security concerns beyond the datacentre and ransomware attacks increased significantly with a plethora of connected devices. Customers that had Nutanix hybrid multicloud solutions in place were able to move workloads between their public and private clouds depending on the level of security required. For a host of other customers, Nutanix End User Computing (EUC) solutions played a large role in offering a secure environment for remote workers. Thanks to Nutanix Frame, 3i Infotech was able to get hundreds of employees working from home in the first week of the pandemic.

Moreover, since the pandemic, there has been a pivot to everything-as-a-service (EaaS) and subscription models. The economic advantages of this for enterprises are enormous as this prevents longer-term vendor contracts and allows businesses to focus on outcomes rather than being burdened with product or service ownership. Nutanix has successfully transitioned to software and subscription-based models which helps customers focus on innovation and their core business.

## SETTING UP THE PARTNER ECOSYSTEM FOR SUCCESS

In 2020 we launched Elevate, our partner programme. Elevate simplifies engagement for our entire partner ecosystem using a consistent set of tools, resources, and marketing platforms provided in the new Nutanix Partner Portal. Additionally, to further support our service provider partners, we launched the Nutanix Elevate Service Provider Program (NESPP) which removes complexity and increases reward opportunities.

Nutanix is committed to ensuring that our partner ecosystem maintains a competitive edge in the market. We launched Partner Support Centres (PSCs) in Bangalore and Kuala Lumpur so our partners remain equipped with the knowledge and tools to cater to dynamic customer needs and drive greater profitability and success for Nutanix channel communities across Asia Pacific and Japan. Our PSCs will focus on enabling the channel to move more swiftly to an EaaS model, including helping customers to use the full suite of Nutanix products. Apart from collaborating to offer multilingual support in countries across APAC, the two PSCs will combine knowledge in strategy implementation and execution, as well as channel sales, to ensure our partners get the full breadth of support that Nutanix can provide to grow their business.

Nutanix is 100 percent channel-driven in India, and our channel ecosystem is our partner in the truest sense. Together, we drive enormous, positive business impact for customers.





# THIRTEN QUARTERS IN A ROW

From **CY18Q1 to CY21Q1**, in India, in terms of Vendor Revenue for Hyperconverged Systems by HCI SW vendor view.

Source: IDC Worldwide Quarterly Converged Systems Tracker Q1 2021(June 2021 Release).





## ORACLE

## Oracle is helping customers transform into digital-first businesses

#### **SANJOY MUKHERJEE**

Senior Director & Head-Technology Alliances & Channels Oracle India

#### CLOUD HELPS BUSINESSES SUCCEED IN THE NEW NORMAL

Since the onset of the pandemic, enterprises are fast realizing the need for a cloud-led, digital-first approach to business to accelerate growth recovery and sustain success. They are turning to technology providers like Oracle to help them succeed in their digital journey.

Oracle has the industry's broadest portfolio of on-premises and cloud offerings - across SaaS, PaaS and laaS - with flexible deployment options: public cloud, private cloud, on-premises, or a hybrid approach with an option to bring the public cloud into a customer's or third party datacenter, behind their firewall, with Oracle Cloud@Customer. The enterprise cloud major has two fully functional second-generation cloud infrastructure regions (Mumbai and Hyderabad) in India.

Oracle has innovative programs that enable customers to exercise full control over their cloud journey. With Oracle Universal Credits (UC) model, customers improve their predictability of spends, gain flexibility of starting and stopping any laaS and PaaS services on-demand. With Bring Your Own License (BYOL), customers can use their current on-premises Oracle software licenses to run those applications on high-performance Oracle Cloud Infrastructure (OCI).

With the recently announced Oracle Support Rewards, Oracle customers can eliminate license support costs and get even more value when they move to OCI. With Oracle Cloud Lift Services, customers can avail guidance from Oracle's cloud engineers on planning, architecting, prototyping and managing cloud migrations, at no extra cost.

Partners play a key role in driving Oracle's cloud growth in India. The Modern Oracle Partner Network (OPN) offers 3 Cloud tracks - Cloud Sales, Cloud Services and Cloud Build tracks, and each track empowers partners to strengthen their Oracle Cloud capabilities and help customers succeed.

#### **ENHANCING CUSTOMER EXPERIENCE**

Oracle is engaging with customers to help them improve their digital agility and get more value out of its cloud services with a number of strategic initiatives. These comprise a mix of short-term projects and long-term, large-scale digital transformation programs.

One of its flagship innovations - the Oracle Autonomous Database helps customers reduce operational costs by up to 90%. The Oracle Cloud pricing model is based on a simple unit cost structure supporting a wide range of technology use cases. With the easy-to-use cost estimator, customers can calculate accurate pricing details and take advantage of everyday low pricing, and uniform pricing across all cloud regions.

From a partner perspective, under the aegis of the Modern OPN, Oracle encourages partners in the Cloud Service and Cloud Build tracks to sharpen their innovation efforts and enhance their capabilities in respective areas.





## STRENGTHENING CYBER RESILIENCE

Security is ingrained in Oracle's DNA. OCI is designed to protect customer workloads with a security-first approach across compute, network, and storage - down to the hardware. It's complemented by essential security services to provide the required levels of security for customers' most business-critical workloads.

Two of Oracle's recent innovations in the cloud security area include Oracle Cloud Guard and Oracle Maximum Security Zones. Oracle Cloud Guard helps customers maintain good security posture by detecting weak security configurations and activities that can indicate cloud security risks. Oracle Maximum Security Zones help customers implement Oracle's security best practices.

#### COMPLEMENTING DIGITAL INDIA

Oracle has a large customer base in the Government sector, with a number of departments both at the Central and State levels relying on its technologies for smooth functioning.



It has recently partnered with NITI Aayog to help modernize vital IT infrastructure underpinning the Aspirational Districts Programme. The purpose is to help improve the quality of life of citizens in 112 of India's most backward districts. Oracle Autonomous Database, the first and only true autonomous database, is at the heart of data management in this programme.

Further, to encourage innovation at the grassroots level, Oracle recently supported Gov-TechThon. It was a 36 hours, pan-India virtual hackathon organized by National Informatics Centre (NIC), IEEE and Oracle under the aegis of the Ministry of Electronics and Information Technology (MeitY), Government of India.

Along with dedicated partners, Oracle is working on a number of technology modernization projects in the Government/Public Sector space - in areas ranging from e-governance to Education, Healthcare to Public Utilities.





### **Oracle Database Technologies**

#### Oracle Database 19c & 21c

Accelerate your business with flexible database deployment options



Oracle Database offers market-leading performance, scalability, reliability, and security, both on-premises and in the cloud. Oracle Database 19c is the current long-term release, and it provides the highest level of release stability and longest time-frame for support and bug fixes.

Oracle Database 21c, also available for production use today as an innovation release, provides an early insight into the many enhancements and new capabilities. These include improved mult-imodel support through in-database Javascript and native blockchain tables, and multi-workload improvements such as AutoML and sharding enhancements that will be incorporated into future long-term releases.

#### WHY CHOOSE ORACLE DATABASE FOR ALL YOUR DATA NEEDS?

- Reduce operational costs by up to 90%
- Utilize data warehousing on-premises or in the cloud
- Guard against data breaches and Protect crucial data
- Comprehensive, scalable app development
- Comprehensive, high availability capabilities
- Faster, better data-driven decisions

- Integrated, enterprise-wide Oracle Database management
- Optimized database performance throughout the enterprise
- Easy deployment in cloud Autonomous, agile, flexible, and secure database management

#### **Redington India brings**

Cloud Business Simplified for Channel Partners

Build & Grow a profitable business with cloud services along with Redington.

#### "One stop shop for all customers cloud needs"

#### DIGITAL PLATFORM

Quick ordering via marketplace |
Monitor & manage instances | Invoicing
& Payment | Single click auto
provisioning | Predictable revenue |
Business trends & reports

#### CLOUD CONSULTING

Discovery & assessment
| Security best practices
| Migration Plan &
roadmap | TCO & ROI estimate

#### MANAGE CLOUD

24x7 Monitoring | Server & security management | Backup & Storage | Devops| Optimization

#### ADVANCED SOLUTIONUD

IoT | Blockchain | Big Data | Machine Learning | Analytics



# PALO ALTO NETWORKS HELPING ORGANIZATIONS TO BE CYBER SAVVY AND IMPROVE CYBER PROWESS

## RESILIENCE AND AGILITY THROUGH IT SIMPLICITY

At Palo Alto Networks, everything that it does in marketing is centred on its vision - a world where each day is safer and more secure than the one before. Its overarching strategy is to enable comprehensive security for its customers. It achieves this by delivering an effective, coordinated defense, without increasing cost and complexity; protecting data, devices and users, without slowing down innovation; and staying ahead of sophisticated attacks, without becoming overwhelmed.

The marketing strategies of Palo Alto Networks are aligned to address critical customer needs and focus on digital engagement. The company believes that the golden ticket lies in coupling best-in-class products with its passion to secure the future and better serve its customers.

#### ACCELERATING DIGITAL TRANSFORMATION

As uncertainty over COVID-19 prevails in India, Palo Alto Networks is leveraging its own cloud-delivered network security product, Prisma Access, to securely connect all employees to the applications they need. It has also transitioned its internal Security Operations Center (SOC) to a remote model, in which all its analysts are working from home.

The company's business continuity plans are consistent with industry best practices and include workarounds for possible disruptions to its people, facilities, applications, dependencies and vendors. The all-hazards, multiscenario approach is designed to ensure the continuity of not the company but also the remote workforces of its customers.

#### **CREATING CUSTOMER EXPERIENCE**

The mission of Palo Alto Networks is to be the cybersecurity partner of choice, protecting our digital way of life. It does this through a multipronged approach -

- Understanding the business challenges of its target audiences: Whether they are tech professionals or senior executives, they have different priorities and Palo Alto Networks marketing strategy is woven around these priorities.
- Improving cybersecurity education: Cybersecurity education must precede any marketing initiative. The company tailors its education according to different target audiences CEOs, the board, technocrats, users, academia and governments.
- Get audiences to experience our technologies: Palo Alto Networks runs programs that allow its prospects to understand its technology, get comfortable with it and see first-hand how it works before they purchase the solutions.
- Recognizing the sense of urgency: Many companies have still not prioritized cybersecurity seriously. The company works with these companies to help them to understand the need to act quickly and decisively
- No ambulance chasing: Palo Alto Networks steers clear of scare tactics. That way a business can continue to focus on their core activities without worrying about security.

#### **BUILDING A CYBERSECURITY DEFENSE**

The biggest risk in cybersecurity today is that organizations can't keep up with the amount of work it takes to be secure. The cybersecurity teams in today's enterprises are overloaded, as they are manually responding to



UNNIKRISHNAN KP, vice president, Japan & Asia Pacific Palo Alto Networks

sophisticated and advanced attacks mounted by an adversary (hackers) using machine learning (ML) algorithms to scale attacks that can only be prevented by comparable techniques using Artificial Intelligence (AI) and ML.

The future of cybersecurity depends on a platform approach, an integrated platform using ML and AI to lift the burden off cybersecurity teams. This will allow cybersecurity teams to focus on security and to keep up with digital transformation.

The cloud, however, is a completely different story. There is no established model for cloud security. This means organizations still have a chance to get it right. It can be fixed on how to access the cloud and manage security operations centres (SOCs) to maximize ML and AI for prevention, detection, response and recovery.

#### COMPLEMENTING DIGITAL INDIA

Many of the Indian government's initiatives aim to transform the country into a digitally empowered society and knowledge economy. Palo Alto Networks has been helping many Indian government entities and enterprises move quickly and securely to the cloud, particularly in the wake of COVID-19, so that they can continue to serve Indian citizens.

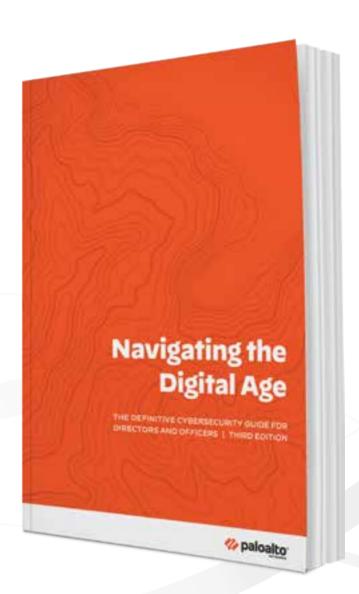
The journey to becoming a digital nation requires educating tomorrow's cybersecurity professionals to help close the cybersecurity skills gap, winning the battle against cybercrime and preserving the trust of people everywhere in the digital world. The Palo Alto Networks Cybersecurity Academy works with academic institutions and instructors to provide students with the knowledge and skills to be prepared for a successful career in cybersecurity. Palo Alto Networks has over 375 Cybersecurity Academy partners throughout India.

## **50 Expert Viewpoints.** 1 Cybersecurity Guide.

#### **Secure Today, for a Better Tomorrow**

2020 has undoubtedly shed light on today's most urgent and vital cybersecurity challenges. As trends like digital transformation, cloud adoption, automation, AI and machine learning continue to accelerate, embedding cybersecurity in every aspect of your organization has never been more important.

At Palo Alto Networks, we believe it is part of our mission to provide a platform for voices of expertise, guidance and vision. We also proudly embrace our responsibility to help the cyber community as we secure today, for a better tomorrow. Fifty global leaders and visionaries have contributed chapters on a wide range of challenges in today's world - from addressing disruptions caused by the pandemic, to keeping pace with accelerated digital transformation, to safeguarding our digital way of life.



Get the e-book today



go.paloaltonetworks.com/ntda







## POLY ASPIRES TO BECOME THE PARTNER OF CHOICE FOR THEIR CUSTOMERS

#### **OPPORTUNITIES GALORE**

Poly sees tremendous opportunities in the Indian market and has customers across all sectors – government, manufacturing, healthcare, IT/ ITeS. Poly has a wide range of products and solutions spanning across audio, video conferencing.

Poly has a rich heritage of creating collaboration technology that are designed and engineered to connect people with incredible clarity. It provides premium audio and video products so that customers can have their best meeting -- anywhere, anytime, every time.

The brand understands the challenges that the employees face while working from home and thereby provides solutions that make the new world of work much easier. Poly's range of headsets, desk phones, audio and video conferencing solutions can be used by workers anywhere and anytime for incredible collaboration experience. These products are pro-grade, easy to use and work seamlessly with all the best video and audio conferencing services.

#### **GOALS FOR 2021 & BEYOND**

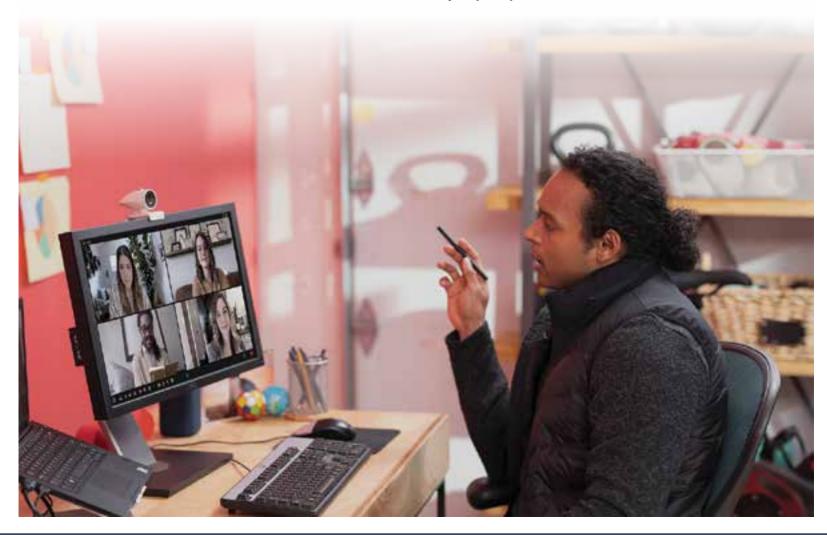
For 2021 and beyond, Poly's focus will be to educate and help its customers navigate in the new world of work i.e. hybrid working.

It wants to provide a best-in-class conferencing experience for users from



all segments, irrespective of their work location, whether they are working from home, in-office, or client locations.

With respect to segments, Poly sees many opportunities in the healthcare and education sector— the way these customers are using collaboration technology is exciting. The pandemic has propelled these customers to disrupt the way they use technology to serve their clients, and Poly sees a lot of opportunities to be the collaboration partner for them in this digital disruption journey.









# Pure Storage is helping its customers in their digital transformation journeys with new innovations

## JITHESH CHEMBIL Head of Channels Pure Storage India

#### **RESILIENCE AND AGILITY THROUGH IT SIMPLICITY**

Pure Storage pivoted to digital marketing very quickly as the pandemic limited the ability to meet its customers face-to-face. The company ran Pure//Accelerate in a digital format in the last two years very successfully and was able to reach more customers and partners. The partner community has been critical in continuing to support its customers. The focus of Pure Storage is to continue supporting its partners through video-based training, remote installs and virtual EBCs and POCs. It will also continue to focus on innovating on data management technologies that will help its customers in their digital transformation journeys.

#### **ACCELERATING DIGITAL TRANSFORMATION**

The IT infrastructure and workforce at Pure Storage was already set up to work remotely. All its employees in India have been working from home over the past 15 months and they will continue to do so until it's safe to return to the office. The employees and their dependents in India now also have access to 24x7 remote healthcare consultations.

Pure Storage has also been providing all its employees corporate well-being resources for mental and emotional health through Konterra and Lyra which gives them access to virtual therapy sessions and stress management programs. Additionally, it had arranged for webinars for its employees with a medical professional who shared knowledge on COVID vaccinations, answered questions and reduced anxiety.

#### **CREATING CUSTOMER EXPERIENCE**

Having recognized the extraordinary business and social challenges presented by the pandemic, Pure Storage made available a set of flexibility programs from last year to provide extra help to customers as they navigate shifting resource demands and new ways of working in a rapidly changing environment.

These new programs are Pure's way of providing a one-stop resource for enterprises going the extra mile for their own customers and end users, with a focus on getting them what they need most when presented with new and urgent challenges.

#### These resources include -

- Remote installation options The need for reliable data services is growing exponentially as more employees require remote access to company data. The Remote Installation Service for FlashBlade and FlashArray can get the customers up and running even when it's not possible for Pure's teams to physically work onsite in their facilities. Customers can install themselves, with Pure Storage via videoconference, or have the latter do the install for them.
- Mobile system management and assistance Customers need instant access to information about their storage inventory, capacity consumption and performance no matter where they are working. The Pure1 Mobile app delivers a full view of critical system information at the fingertips and allows the customer to enable Remote Assist from virtually anywhere so that Pure Support can remotely provide diagnostic information or perform system upgrades.
- Self-service product test drives To quickly and easily evaluate Pure products and solutions without having to ship hardware to a physical site, customers can experience self-service, on-demand instances of Pure Test Drive and Proof of Concept Labs.

#### **BUILDING A CYBERSECURITY DEFENSE**

Pure Storage protects its customers from the effects and costs of ransomware attacks by helping them to be prepared at every point along the ransomware lifecycle. That includes having plans for before an attack, during an attack, and after an attack.

**Before an attack:** Pure can serve as a very fast platform to ingest logs and provide scale-out performance and data tiering for high-speed processing by security analytics tools used by cyber threat hunters.

**During an attack:** Pure's unique and highly differentiated SafeMode snapshots provide immutability, so they can't be changed once written. SafeMode also provides an additional layer of snapshot protection. In addition, Pure arrays come with AES-256 encryption that can't be turned off or disabled and has no performance implication on the array.

**After an attack:** Pure's RapidRestore capability can help recover data at speeds greater than 270TB/hour. This is hugely important because what matters most after an attack is speed.

#### **COMPLEMENTING DIGITAL INDIA**

Pure Storage believes its technologies are critical for organizations as they embark on digital transformation. Although its solutions are targeted at larger enterprises and service providers, Pure's partnership with managed service providers (MSPs) means the company is also able to reach smaller companies over a Pure Storage platform.









### R&M GEARS UP IN A BIG WAY TO SERVE INDIAN CUSTOMERS BETTER

GAURAV AHLUWALIA
Managing Director
R&M India



itself as a trusted advisor. Customers are offered the opportunity to benefit from the company's vast knowledge in the field of connectivity and the results have been promising.

## focused in the year ahead. R&M will continue to have a healthy mix of ATL and BTL activities, but with a dash of digital outreach since that is what the times now mandate.

**ACCELERATING DIGITAL TRANSFORMATION** 

**RESILIENCE AND AGILITY THROUGH IT** 

India is the third-largest global market for R&M. The potential is huge with lots of new infrastructure projects. R&M is widely accepted in the transportation verticals like metro rails, airports, etc. due to the wide range of

Almost every big player in the market is R&M's customer today. R&M's solutions are deployed at many customer sites and its footprint is pan-India. R&M has been a key player not just in the global market but also in the Indian

region. The fiscal year 2021-2022 will see R&M implementing and executing

projects at the same pace while also enhancing its copper and Fiber solutions.

With 5G about to roll out in near future, R&M is building its capacities on both human and technology level and has been continuously upgrading

its human skill set for the upcoming demand. Innovation in its marketing

activities has remained steady in the last few months and it intends to stay

**SIMPLICITY** 

Ingress Protected product lines.

As R&M has always been one step ahead, it was easily able to transition into digital mode. R&M's all 13 plants implemented directives of the local governments by introducing strict hygiene rules and ensured that the plants were up to code. Also, its HQ in Switzerland had set up a task force for smooth supply, production and delivery. R&M India too has followed the same directive where we have been working from home.

Apart from this, R&M as a manufacturer kept its distributors and clients informed of the new trends and changes in its products via demonstrations and other means by holding virtual events. The webinars cover 13 topics in the areas of data centers, public networks, and local area networks. R&M is providing insights and information about trends and solutions, positioning



#### CREATING CUSTOMER EXPERIENCE

To ensure the best customer experience, R&M has set up the Customer Experience Cell where customers will be welcomed to address any confusion or need for information. When it comes to manufacturing units and products, many had preferred to know the lay of the land physically, but now due to known constraints, this is being successfully done with customer experience cell. R&M's brand identity and trustworthy products that have made a name for it have kept the customers' minds at ease.

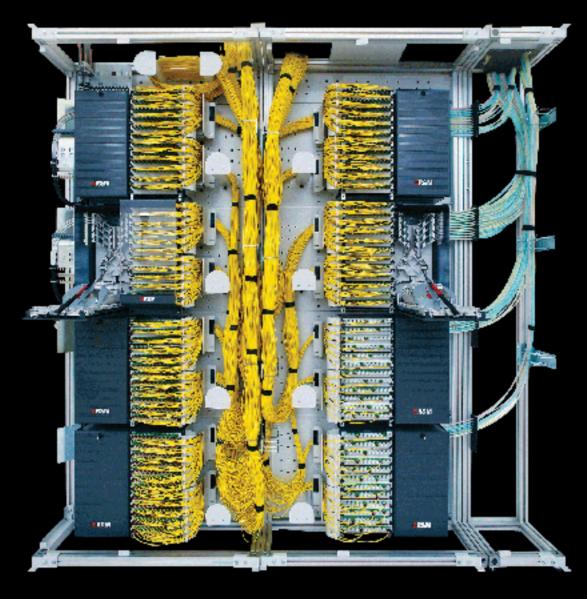
R&M India's marketing and brand strategy are primarily driven by its centralized marketing team in Switzerland based headquarter, and those are implemented as well as localized by the marketing team in India. Reaching out to the target audiences in the customer side, channel partners, media, analysts, government and policymakers and other sub audience segments such as stakeholders and current as well as prospective employees is a continuous ongoing process.

#### **COMPLEMENTING DIGITAL INDIA**

R&M has a strong understanding of the competitive Indian market and its growth is backed by significant deals across BFSI, Telecom, Healthcare, Hospitality and Government verticals. R&M India is not just preparing and focusing on enterprises but also on government projects, building smart cities. To that end, R&M has developed special product lines for copper, shielded or double jacketed cables with anti-rodent, anti-termite features specifically designed for the smart city market.

With the recent push by the GoI towards digitalization, R&M's sophisticated product development, high-quality assurance and future proof products have helped in bagging huge orders from the public sector for the development of smart cities, metro rail projects, national and international airports, etc. R&M is actively involved in most of the smart cities projects and is proudly part of more than 15 projects across India. R&M is achieving double-digit growth every year.

## SWISSNESS



Operators of public networks are making rapid advances in the transition to a gigabit society. R&M supports them in their efforts with commercially viable fiber optic solutions for the design and construction of future-oriented broadband infrastructures. R&M, as a supplier of a large range of products all matched to work with each other, covers all network levels from the central office to the customer premises. Working together with you, we rely on our experience and expertise to plan cost-effective equipment for distribution sites, overall outside plant cabling along with profitable strategies for access networks.

Our modular R&Mfoxs product line is also the flexible basis for individual FTTX topologies and future PON applications. Furthermore, R&M provides custom-tailored copper and fiber optic cabling systems for WAN, MAN and CATV applications, for utilities, railroads and transportation systems as well as for city carriers and communities.

#### www.rdm.com







## RESILIENCE AND AGILITY THROUGH IT SIMPLICITY

Post Covid, the market dynamics saw a drastic change and there is a paradigm shift in the way businesses operate. There's also a significant change in the customers' purchase priority.

As far as marketing strategy is concerned, RAH Infotech primarily focuses on two areas - cybersecurity and IT infrastructure.

RAH Infotech is primarily focused on security – be it on the network or in cyberspace –that has been its identity since inception. That remains as its brand strategy too – to offer the best-in-class network and cybersecurity solutions to customers. It partners with the best names in global security space and offers customized end-to-end security solutions to industries across verticals.

Infrastructure is one more core area that RAH Infotech invests heavily in. Partnering with the biggest names in infrastructure space, it offers data center and cloud infrastructure solutions – public, private and hybrid – to its customers.

RAH Infotech adopts a holistic approach to reach out to its partners and customers. For partners, it conducts partner enablement programs that include training sessions, webinars and events – both physical and virtual – to update them with new product additions, solution offerings to keep them abreast with the latest developments at our OEM side.

RAH Infotech also creates awareness campaigns around security issues, be it endpoint, network or cyber for its partners; conduct roadshows, webinars, events, virtual events and even training programs and thought leadership sessions in partnership with its OEM partners for all of its solutions.

## ACCELERATING DIGITAL TRANSFORMATION

Since the beginning of 2020, the world has started seeing a humongous growth in digital transformation. For example, technology solutions that were there as concepts or had a mild adoption during the last one and half decade including telemedicine, tele-education, virtual and unified communications, skyrocketed during this pandemic.

Being a technology-heavy company, RAH Infotech too deployed many new collaborative tools - WFH and other solutions to help its partners and customers at this time of crisis. RAH is a value added technology distributor, and besides technology solutions, its priority is always to add value to the customer experience. During this lockdown, the company ensured that its partners and customers face least challenges in their business continuity.

#### **CREATING CUSTOMER EXPERIENCE**

Organizations that have embraced and invested in digital technologies are better prepared to operate effectively during the pandemic. As a digital transformation enabler for tens of thousands of customers, RAH Infotech was quick to adapt to the new changes brought by the pandemic and were agile enough to understand and serve the customer needs. The sales, pre-sales and technical team work closely in association with its OEM partners to understand the customer requirements and offer end-to-end solutions. RAH Infotech has also deployed an omni-channel communications network involving physical, digital and social media to address its customer needs and offer 24\*7 support.

#### **BUILDING A CYBERSECURITY DEFENSE**

With the constantly evolving digital landscape, new vulnerabilities emerge regularly from external attacks and internal issues caused by human error or malice. Therefore, it is imperative that Enterprise Security should be an architectural decision and not an afterthought. It should be integrated throughout the IT lifecycle by ensuring proactive and reactive security with automation, and by using data and analytics to anticipate, detect, and respond to maintenance issues in order to evaluate and manage risk.

Importance of Cybersecurity is a relative term and the threat perception varies from organization to organization. It also varies for business verticals. For example, cybersecurity perception for the BFSI industry might differ from, say, manufacturing industry, and so on.

However, there should never be a disagreement on the need of cybersecurity from a broader aspect but there can be debates on the type of solution one deploys. As organizations are becoming more reliant on technology and departments across organizations getting transformed digitally, the attack area for the bad guys is also increasing significantly. More than that, the threat perception grows phenomenally when it is connected to cyberspace. Hence, organizations need to do a proper assessment of the probable vulnerabilities, select the right partners and choose the right solutions that help them keep their organizations and digital assets safe.



### **OUR OFFERINGS**

Data & Cybersecurity

Enterprise Networking Storage & Data Center Solutions Performance Management

Cloud Solutions

Managed Services

#### **OUR TECHNOLOGY PARTNERS**

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#### **BANGALORE**

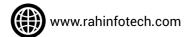
#304A, 3rd Floor, HVS Court, Cunningham Road, Opp. Indian Express, Bangalore-560052 KARNATAKA.

#### **OTHER OFFICES**

INDIA: Kolkata, Chennai, Ahmedabad INTERNATIONAL: Singapore, Netherlands, US, UK

For more information, write to us at marcom@rahinfotech.com

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CONTACT US I cloud@redington.co.in I www.redingtoncloud.com



#### **PROTECT your Customer's Data, Network & IT Infrastructure**

Covid-19 has brought many of the attack vectors traditionally used by cyber criminals to the fore, and employees have become much more susceptible.

> **PHISHING ATTACKS**

MALWARE **ATTACKS** 

**RANSOMWARE ATTACKS** 

With remote working, where access rights may not have been adequately scrutinized, the chances of a cyber attack are far greater.

**Phishing Malicious Actors Data Theft** 

Leads to Leads to Leads to **Unsactioned Access** 

**Cyber Attacks Malware Scripts**  Redington believes that a new approach is needed to deliver security in this new normal and it centres around the three aspects: Plan. Prioritize and Protect

#### **Enabling Partners offer end-end Cyber Security Services**

#### What we offer:

Threat Assessment services Consulting – led solutions Security Audit services

#### **Why Redington:**

Technical expertise Pan India presence Implementation & Support

#### **Partner Benefits:**

End – End cyber security solutions White labelled services Future ready security solutions

Contact us: https://bit.ly/Redington\_Watchover | Avail FREE threat assessment with Watchover

#### SEAMLESS PARTNERSHIPS

One among many reasons to Partner with us

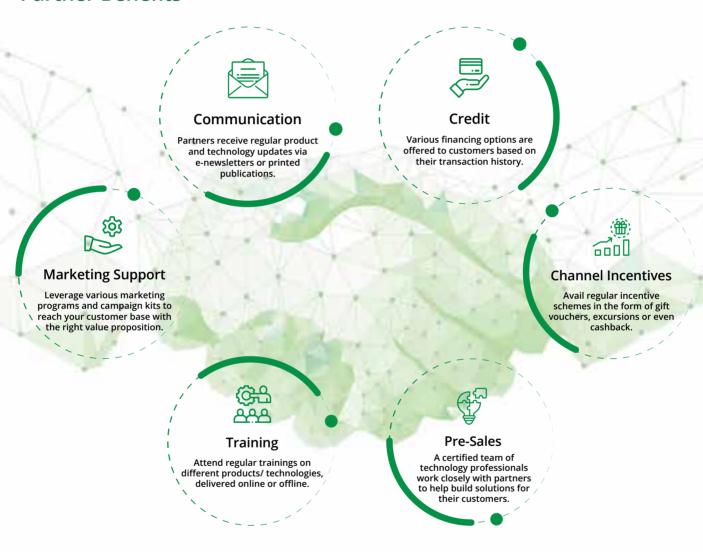


#### **Transforming Opportunities Together**

Partnering with Redington will help you tap into new opportunities, expand your offerings, enhance your customer base, and help increase revenue. The fact that we call our resellers as partners is a testimony for the relationship we share with our more than 33,950 channel partners across countries.

At Redington, partners are core to the success of our business and growth across regions. Offering a range of products and solutions in technology, services and consumer durables, we engage and nurture a varied set of partners ranging from ISVs and Value-Added Resellers to System Integrators and Retailers.

#### **Partner Benefits**



#### **Redington Offerings**



235+ Leading Brands



Strong In-House Technical Teams



Managed Services



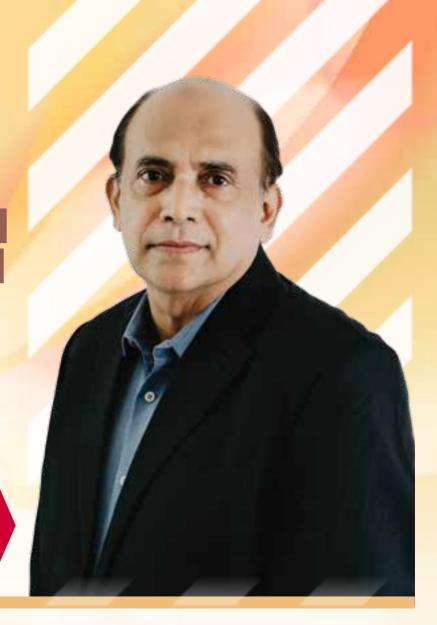


Robust Supply Chain



# RED HAT WELL POSITIONED TO SUPPORT BUSINESSES IN THEIR DIGITAL TRANSFORMATION JOURNEY





## ACCELERATING DIGITAL TRANSFORMATION

Digital transformation remains critical to gain a competitive edge. The pandemic has further accelerated the adoption of digital technologies and has sped up digital transformation to adapt, gain business continuity, agility and resilience. All businesses in a way are becoming technology companies and Red Hat as an Enterprise Software Solutions Company with Open Source delivery model has technology to power this transformation.

Red Hat has a strong remote work culture and its IT infrastructure has been built to enable this for both associate mobility and business continuity purposes. To cope with sudden additional load, it has integrated additional capacity for VPN and single-sign on (SSO) infrastructure for users signing on from home.

At Red Hat, all its associates are available for virtual engagements with customers, partners and other ecosystem players. It also realizes that a remote workforce requires a different communication style and even more engaged leadership. Team leads at Red Hat have stepped up to create virtual office hours and additional (but remote) face time with their teams--not just to convey the latest information and updates, but to check in with their teams and listen to their concerns or just keep the bonds strong.

#### **READY FOR WHAT'S NEXT**

Red Hat plans to further increase engagement across its partner ecosystem using a customer-centric strategy. It is well positioned to support businesses and governments that have a forward looking plan to serve their customers wherever they are in their digital transformation efforts. The brand has an ecosystem of hundreds of Red Hat Certified Cloud and Service Providers including IBM Cloud, Microsoft Azure, AWS and Google Cloud, that lets clients run any app in any environment on any cloud, and an Operating System like Red Hat Enterprise Linux that lets it all run seamlessly.

Its collaboration with open source communities has further helped Red Hat bring various innovations to market with products like Red Hat Enterprise Linux, Red Hat OpenShift, Red Hat Ansible Automation Platform, Red Hat Data Services, Red hat Enterprise Linux CoreOS and more.

#### **BUILDING A CYBERSECURITY DEFENSE**

Ideally, IT security should be continuous and integrated in a way that security framework is built in and not bolted on. With the constantly evolving digital landscape, new vulnerabilities emerge regularly, from external attacks and internal issues caused by human error or malice. Public and hybrid clouds are redistributing responsibility for regulatory compliance and security across multiple vendors. Therefore, it is imperative that Enterprise Security should be an architectural decision and not an afterthought.

Red Hat offers a tested, supported portfolio of stable open source infrastructure and application development solutions for enterprise adoption of emerging technology. With Red Hat products and services, organizations can take advantage of security built into each phase of the application life cycle. For instance, earlier this year it completed the acquisition of StackRox, a leader and innovator in container and Kubernetes-native security. By bringing StackRox's powerful Kubernetes-native security capabilities to Red Hat OpenShift, Red Hat has furthered its vision to deliver a single, holistic platform that enables users to build, deploy and securely run nearly any application across the entirety of the hybrid cloud.

#### COMPLEMENTING DIGITAL INDIA

Red Hat is very well poised on the digital transformation value chain. It is a trusted advisor in partnering with enterprises including Government on the platform front, and also in high-performing cloud, middleware, storage, and virtualization. Red Hat has grown on a power of collaboration with its partner ecosystem, customers and open source community. Open source has made way for many technology advances, including cloud computing, analytics, social, mobile, AI, IoT and blockchain. The entire foundation of successful digital strategy is based on how best an enterprise integrates these digital technologies to drive maximum business growth and customer satisfaction.

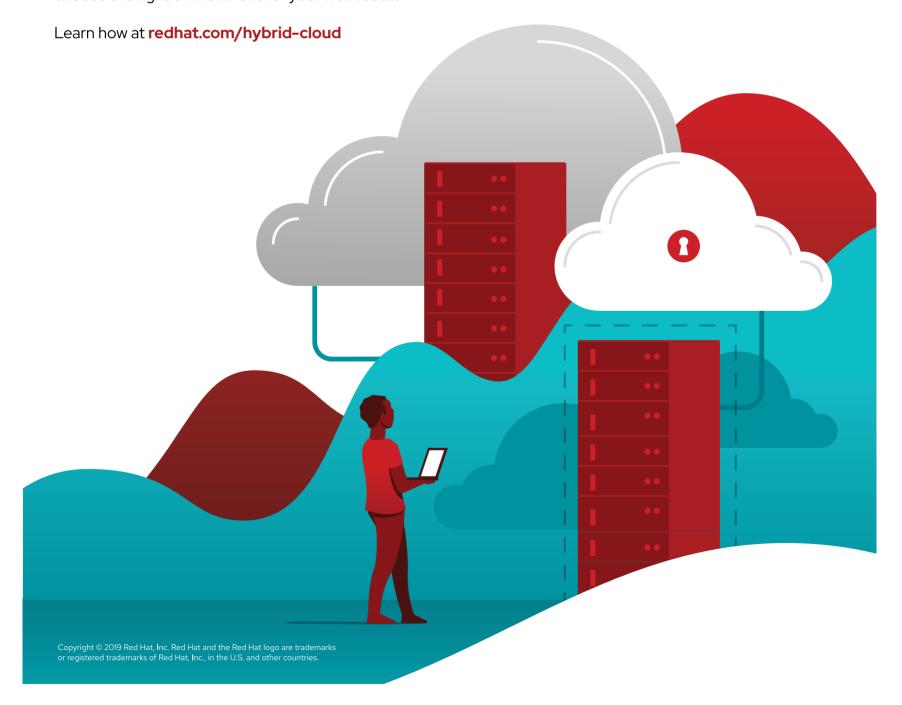
Red Hat is today engaged in many mission critical projects under 'Digital India' like UIDAI, EPFO, GSTN and many more. It has also partnered with clients across verticals like Vodafone Idea for building their universal cloud, supporting banks in their digital banking initiatives, insurance companies in enhancing their customer experience journey and many more.



## Bridge your clouds. Build your future.

Odds are, your IT ecosystem sprawls across public and private clouds, bare-metal servers, and virtualized infrastructure. To make the most of those environments, you need to move applications and workloads across them.

With Red Hat's flexible hybrid cloud solutions, you can choose the right environment for your workloads.







## **RP TECH**

### 



RAJESH GOENKA

Director, Sales & Marketing

RP tech India

## RESILIENCE AND AGILITY THROUGH SIMPLICITY

Formed in 1989, RP tech India is a division of Rashi Peripherals Pvt Ltd and is the fastest-growing B2B technology solutions provider in India. It is growing at a consistent 20+ per cent CAGR YoY and offers products and solutions from 25+ brands to 9000+ B2B customers in 750+ towns/cities. It has a robust network of 50 branches and 50 service centers spread across India. The company is today recognized as the most preferred B2B partner of renowned global technology brands

On the backdrop of the COVID-19 global pandemic, there has been a major shift in business operations and the buying patterns of the consumers. Therefore, every organization needs to adapt to the dramatic change that has happened, especially in the last year. Needless to say that Work from Home (WFH) and Learn from Home (LFH) have become the order of the day. Today, customers do a lot of online research before making a buying decision. Even if they opt for offline purchase, they first check products online. Therefore, it is inevitable for every organization to have a strong digital marketing team in place.

RP tech India has invested in the digital marketing team in lines with the changing needs of the market. It is fully geared up to implement the new marketing strategies that are required for scaling up the business.

## ACCELERATING DIGITAL TRANSFORMATION

RP tech is fortunate to have implemented SAP almost 13 years back. With a strong SAP architecture in place, most of its data points are remote. It has further extended the SAP and has implemented power BI, which improves the digitization and digital usage of its employees. As a result, the company's efficiency and effectiveness have significantly improved within the ecosystem.

#### CREATING CUSTOMER EXPERIENCE

RP tech has implemented various marketing initiatives and digital tracking systems in the past 2 years. As part of digital tracking systems, the company is now tracking tier 2 sales-out. To enable that RP tech has launched a DMS portal, wherein it gets the complete tier 2 sales-out data and information. Based on these data it offers incentives to channel partners. Secondly, RP tech has also set up WhatsApp Business, wherein a lot of information sharing happens from the channel partners. It has also set up an internal call centre, which supports its channel partners and retailers.

Last but not least the distributor has further strengthened the conventional website and email system for more effective marketing.

Apart from these marketing initiatives, RP tech has a dedicated team for digital marketing. It is supporting its channel partners with localized digital marketing initiatives focused on their respective city/location. For instance, if a partner is based in Raipur city then on behalf of that respective partner, RP tech does digital marketing focused on lead generation and promotion within the territory of the Raipur city. Ever since RP tech has started this initiative, there has been a significant increase in ROI as compared to generic marketing.

#### COMPLEMENTING DIGITAL INDIA

RP tech India offers products and solutions which enhances the objective of Digital India. Besides it is also promoting a lot of IT and ITeS solutions that are manufactured in India. This indirectly helps in promoting the PMA policy.





## **RP** tech India

Ariisto House, 5th Floor, Telli Galli, Andheri East) Mumbai - 400 069, India



















## SAFE SECURITY POSITIONED AS A CUSTOMER FIRST COMPANY TO STAND OUT IN THE MARKET

## RESILIENCE AND AGILITY THROUGH IT SIMPLICITY

Safe Security is today uniquely positioned in the global cybersecurity market. Formerly Lucideus, the cybersecurity company is headquartered in Palo Alto, California.

With its Digital Business Risk Quantification platform – SAFE that was launched in 2017, the company has created a completely new category within cybersecurity. Today, multiple Fortune 2000 companies are using the SAFE platform to visualize their cyber risk posture & Breach Likelihood across people, process, technology, cybersecurity products and third parties dynamically. For the first time, customers are able to make informed business decisions on cybersecurity. The SAFE has been integrated with several technology vendors.

Safe Security's strategy has always been to become a Customer First company and this has further helped the brand stand out in the market, coupled with its unique offering.

#### BUILDING A CYBERSECURITY DEFENSE

Safe Security has adopted a secure technology architecture in its core business functions right from its first day of operations. This has enabled the company to manage remote work security, while continuing to drive its projects more efficiently throughout the pandemic.

On the cybersecurity front, Safe Security relies on its own Digital Business Risk Quantification product - SAFE - to keep itself secure. SAFE is a comprehensive solution which generates an enterprise-wide, real-time breach likelihood score between 0 and 5. It enables Safe Security to predict cyber breaches through vulnerabilities in each Line of Business, crown jewels, cloud instances, employees, applications, data centers, devices, IP addresses, and more.

#### COMPLEMENTING DIGITAL INDIA

In December 2020, Safe Security forayed into the consumer space with its zero permission, free of cost mobile application, available across iOS and Android - SAFE Me. For the first time, consumers have had the opportunity to have a platform where they can access everything they need to protect their digital identities. SAFE Me has hundreds of courses, quizzes, deep and dark web exposure analysis and real-time visibility of an individual's cyber risk posture, and this enables individuals to take their digital security in their own hands. It's a product Made in India, for the world.

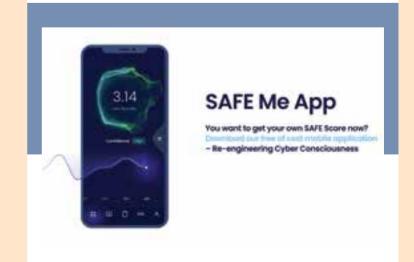
Especially today when credential thefts are on a rise, and leaks of PII of individuals happen relentlessly on the deep and dark web, Safe Security believes that it is crucial for Digital India to be 'Secure Digital India' for it to succeed.





RAHUL TYAGI
Co-Founder
Safe Security





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\*Terms and conditions apply. The cashback offer is available on HDFC Bank Debit and Credit card EMI and on HDFC Bank Credit card Non-EMI transactions. The cashback offer is valid for transactions made using Brand EMI option on Pine Labs terminals. The cashback shall be credited within 120 business days from the last date of the transaction month on a best effort basis to all open and active card members' accounts only. No Cost EMI is also applicable on HDFC Bank Debit and Credit cards EMI transactions on 6 months tenor only. No Cost EMI schemes also available on Bajaj Finance Ltd, HDFC Bank, IDFC FIRST bank and ZestMoney consumer loans up to 24 months tenor. The offers may be revised or withdrawn without any prior notice. Terms and conditions apply. For detailed terms and conditions and store details log on to www.indiaistore.com. Product features vary by model. TM and © 2021 Apple Inc. All rights reserved. ¹Compared with previous generation. ²Battery life varies by use and configuration. See apple.com/batteries for





# SAS CONTINUES TO BE CUSTOMER-CENTRIC RATHER THAN JUST A PRODUCT-CENTRIC BRAND

## ESTABLISHING RESILIENCE AND AGILITY THROUGH MARKETING

The pandemic has meant that the marketing unit builds agility as an essential muscle. In line with this, SAS made adjustments at both the strategic as well as at a tactical level. However, one thing that hasn't changed is reliance on data to drive its decisions.

SAS is going through the biggest brand effort it has had in 20 years in the form of a campaign, which will run in 20 global markets. This will include updating SAS's entire corporate identity and developing thought leadership, content and experiences that bring the new brand to life.

Scaling up its initiatives to the next level, SAS hosted a global hackathon allowing over 1,000 participants to use its analytics tools to solve some of the world's biggest challenges.

Similarly, SAS executed its largest SAS Forum by drawing over 30000 senior executives, middle managers, analytics enthusiasts as well as students in its 2021 edition.

#### ACCELERATING DIGITAL TRANSFORMATION

SAS believes that its role as leaders is to keep everyone (both employees & customers) safe and to make them feel safe—economically, mentally and physically. To cope with the changing situation, it quickly pivoted its presence from a physical environment to that of a virtual one.

SAS kicked off various employee experience initiatives across the globe. In India, SAS has undertaken all safety measures including vaccination drives for its workforce and their families, social distancing while at work and sanitization protocols. SAS also focused on rolling out initiatives such as yoga, meditation, virtual lunches as well as casual conversations to ease the mind.

#### CREATING BETTER CUSTOMER EXPERIENCE

SAS continues to be customer-centric rather than only product-centric. As a leader in Analytics, it leverages its own solutions for Data-driven marketing. Its latest Cloud native CX product, SAS CI 360, helps organizations of all levels of maturity move from data to insight to action with rich functionality for agile planning, customer journey activation and business impact measurement – all fueled by powerful analytics and artificial intelligence (AI) capabilities.

The tool SAS offers to the market gets used internally as well. The analytics helps teams at SAS to adopt a more holistic view of the customer journey, create customized nurture funnels and imagine the next best offer, thus improving the hit rate of marketing campaigns. Thus the customer's experience for SAS is a seamless journey in the form of tailored content - be it whitepapers, digital content or web events.



KUNAL AMAN

Head Marketing & Communications
SAS India

#### **COMPLEMENTING DIGITAL INDIA**

With digital transformation and the need for data driven decisioning, analytics has become a key focus on government agendas. Government agencies have steadily understood the importance of a solid analytics strategy over the past few years.

SAS has been working with Governments across states as well Central Government and Law enforcement agencies in India to help analyze data. Its revenue intelligence solution helps various state excise departments and local municipal corporations, identify fraudulent transactions with tax liability of thousands of crores. SAS is also working with various state governments to help build smarter cities with its IoT solutions, besides working with different Commercial tax and Sales tax Departments to help plug revenue leakages and expand the tax reporting.

SAS has been working very closely with governments across states including Maharashtra, Rajasthan, Odisha, Assam, UP from the start of the pandemic to provide COVID-19 dashboards based on various analytical modelling. SAS solution offers situational awareness to the states, empowering them to understand where the COVID-19 cases are emerging from, and travelling population from outside the country, interstate travelers and possibilities of individuals returning to the state after the lock down. The advanced analytics empowers the Governments to combat pandemic and help keep citizens safe.

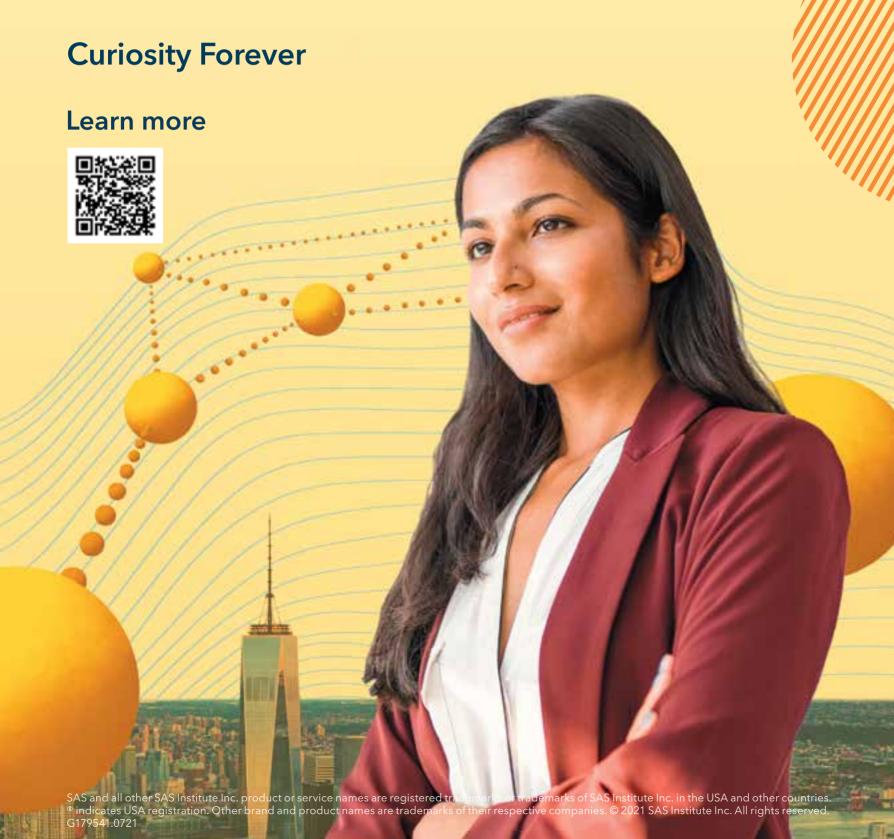
SAS has recently partnered with NHA to support the Ayushman Bharat PM-JAY Project to leverage Data Analytics for Fraud Prevention and Detection.

In short, with advanced analytics, AI and machine learning, under the Digital India umbrella, SAS is enabling both State and Central Government agencies to put data to work to improve outcomes for citizens.



# THE ANSWERS WE NEED ARE EVERYWHERE. JUST ASK THE DATA.

From protecting people from fraud to improving their health and public services, data can do amazing things. All it takes is the right questions and the latest in analytics from SAS. Because we believe everyone can make the world smarter, faster and kinder than it's ever been. We just have to ask the data. Follow your curiosity to sas.com/curiosity.





## Savex as an organization believes in promoting entrepreneurial ideas while embracing CHANGE

#### **KEY MARKETING PRIORITIES FOR 2021**

Savex has a Marketing department, engineered by a strong, experienced and professional team. The company has a defined marketing strategy to support business needs and growth requirements. As per the need of the business, the marketing funds are invested to achieve tactical and strategic objectives. Data is the king today and the teams at Savex use information in most productive ways to maximise ROIs.

The key pillars of the strategy are -

- 1. **Digital Media** The company has a strong social media presence and is well connected with various elements, including but not limited to professional bloggers to drive various needs of the business. Variety of launches, promotion or even lead gen activities or participating in Virtual conferences, webinars etc is a very focussed and regular marketing activity.
- 2. Channel Promotions From time to time various channel promotion schemes and programs are launched to achieve the key objectives of the company.
- 3. End user E-commerce demand generation activities Savex is strategically and uniquely positioned in India to drive its brand store penetration. To constantly be ahead in the curve, Savex compliments OEM activities and helps drive various promotions, like EMI offers, Cashbacks with banks or fintech companies, redemption offers for end consumers, exchange programs etc. Savex is also one of the large players to support marketplace promotions and extensively invests in AI/ML, SCO/SEO, banners etc to ensure that the brand is extremely visible and conversions are maximised.
- 4. **ATL and BTL activities**-With a strong presence in offline segment (both retail and LFRs), Savex drives a variety of BTL activities such as In Shop Promoter marketing with fixture, branding, standees etc activities and equally compliments the same with ATL activities like Media/Print OOH etc.
- 5. Lead Gen programs With the unique positioning of Savex both in SAAS and IAAS (cloud space) and to drive the end user (b2b) demand, Savex runs many promotions including tele-calling and support activities to complement the efforts of OEMs to maximize the business.

The speed of execution with Savex is unmatched in the industry and the best part is that the marketing teams are always open to new ideas, while also complimenting and spicing them with some value added initiatives to achieve the desired.

#### **ACCELERATING DIGITAL TRANSFORMATION**

Remote work has its own merits and demerits. Indeed to some extent it has disrupted employment but on the contrary, in many cases





## JAYANT GORADIA Managing Director Savex

it has given rise to entrepreneurship. It is said that all difficult situations are the genesis of creativity. The only thing which is required is, organizations should be promoting and allowing entrepreneurial ideas and be open to change.

Savex promotes this culture while constantly embracing CHANGE, which the company believes is the only thing which remains constant. Savex is the fastest growing organization with many facets. With covid-19, digital transformation has gone from a strategic advantage to an existential need. Today, Savex is running entirely on digital with Digital transformation taking place in several areas in the organization. With a very basic secure remote working model, to detailed analytics at a variety of its operational levels, or even usage of RPA, a host of cloud based secure services, b2b or b2c commerce models, cloud marketplace, many improvements in the payment collection and financing models too, Savex is seeing a lot of transformations happening within the organization.

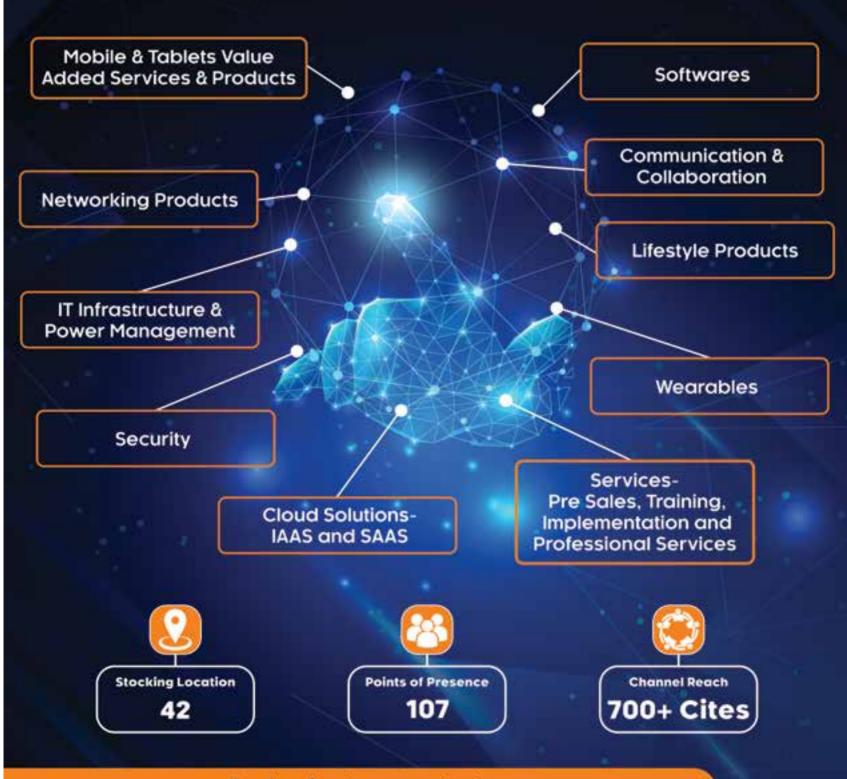
The company is also investing to secure data, not only technologically but also financially.

pricing, and uniform pricing across all cloud regions.

From a partner perspective, under the aegis of the Modern OPN, Oracle encourages partners in the Cloud Service and Cloud Build tracks to sharpen their innovation efforts and enhance their capabilities in respective areas.



## Powering Innovation Driving Businesses



Any inquiry please contact:

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Mumbai - 400 021, Maharashtra.

Ph: +91-22-2279-9999 | Email: marketing@savex.in





SWARUP DAS

Director – Channel Business

Schneider Electric India





# SCHNEIDER ELECTRIC CONTINUES TO SERVE ITS CUSTOMERS AND PARTNERS WITH RESILIENCE AND FLEXIBILITY

#### **RESILIENCE AND AGILITY THROUGH IT SIMPLICITY**

With the pandemic impacting businesses globally, the agile marketing team at Schneider Electric has rapidly reconstructed its marketing playbook by keeping two critical aspects in consideration – deeper relevant customer engagement and deeper sectorial identification to pursue. The evolving marketing function at Schneider Electric comprises of digitalization and communication, leading further to business continuity, deeper customer engagement and acceleration of the sales funnel.

To support the changing ways with more people working from home, Schneider Electric has expanded its e-commerce platform and ensured all products are available in the e-shop (B2B and B2C). Responding to the requirements of the market, the e-shop not only lists products but also offers expert consultation to help customers, vendors and partners choose the right product, along with options for express delivery starting from four hours to two days.

The brand adopted a non-linear process specifically focused on shifts in human behaviour, identified new problems and came up with innovative solutions keeping the customer at the centre. Also, it moved to a zero-touch robust sales model, transitioning the process of lead discovery, qualification & order booking to invoice signing from traditional to digital ways without a single customer interface. Moreover, Schneider Electric has created a value chain that provides a bespoke experience to different customer segments.

#### **ACCELERATING DIGITAL TRANSFORMATION**

Schneider Electric has shown resilience and flexibility to continue serving its customers and partners during the crisis. The company's new ways of working assume flexibility and are based on trust, empowerment and a culture that focuses on behaviour and results.

Being an agile organization, Schneider Electric has quickly adapted and moved to hybrid working to cater to its diverse needs of manufacturing, R&D, global IT, and commercial entities. Depending on the business-specific needs, the brand is working up to 70% remotely and has also evolved its sales and business virtual models accordingly.

At Schneider Electric, communication with its employees across the organisation has been a top priority and its digital journey has helped during this phase. Apart from creating campaigns on virtual engagement and collaboration, the teams rose to the occasion and creative connections such as virtual radio were implemented for staying in touch.

#### CREATING CUSTOMER EXPERIENCE

Schneider has always been at the forefront of using digital tools to make customer interactions more seamless and effective. The tools used to engage with customers are –

- MySE: A one-stop shop for its channel partners for most commercial transactions, including order booking and order status, among others.
- There are partner relationship management tools for each type of channel partners to interact with customer support and also receive information on the products, new launches, offers and suchlike.
- Schneider has a digital tool for its Registered Channel Partners in mySchneider portal or App to configure the products themselves and book an order directly in the Schneider System
- Schneider also has a digital tool to enhance the revenue-generating opportunities for its partners by allotting leads and working with them to convert the lead into a sale.

Besides, the company offers a Seamless Brand Narrative across functions, providing a 'known', 'personalized' and 'seamless' environment for its customers and channel partners across all digital expressions such as app, web and partner relationship portal.

#### **BUILDING A CYBERSECURITY DEFENSE**

When preparing a cybersecurity defence plan, a general misconception of corporate stakeholders is to turn to IT departments for a solution. Although IT departments will play a principal role in protecting machines and control systems, IT teams working with OT (operations technology) stakeholders will need to recognize some vital distinctions between the way IT systems are cyber-protected and the way OT systems need protection.

Unlike IT systems, OT does not operate solely in a cyber world and addresses a cyber-physical world. Therefore, Schneider Electric uses end-to-end cybersecurity systems to halt cyberattacks in varied scenarios.



IT Professionals boost edge

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# Snowflake delivering business agility and growth to customers through its cloud platform

## VIMAL VENKATRAM Country Manager, India Snowflake



#### **CLOUD ADOPTION IN INDIA**

In India, the cloud infrastructure market is one of the few sectors that grew strongly and continues to do so despite the ongoing pandemic. The outbreak of Covid-19 triggered a surge in demand for secure, reliable, scalable, and cost-effective cloud services, which ultimately led to higher cloud adoption and cloud infrastructure spending. According to the Cloud Infrastructure Market in India 2021 report by Research And Markets, the Indian market is expected to grow from INR 301.40 billion in 2020 to INR 1,169.23 billion by 2025, a CAGR of 29.02 percent from 2021-2025.

An IDC survey lends further credence to the growth factor with its prediction that around 60 percent of Indian organizations will be leveraging cloud platforms for digital innovation, as they restrategize their IT spending plans due to the current situation.

#### SNOWFLAKE DATA CLOUD

Snowflake's platform enables organizations to securely share data across their entire business ecosystem. With its cloud-built architecture, data sharing eradicates the need to move or copy data. Those with access can simply reference the data in a controlled and secure manner, including across regions, cloud providers, and even organizations.

In addition, Snowflake's unique architecture enables customers to run multiple workloads across multiple teams without draining resources, therefore maximizing performance and efficiency.

These include data engineering, data lake, data warehouse, data science, data applications, and data sharing. Start-ups that are already on the cloud can adopt Snowflake to manage their workloads while traditional enterprises, with on-premises data centers, will be able to move to the cloud seamlessly.

## SECURITY CAPABILITIES OF SNOWFLAKE CLOUD

Snowflake provides industry-leading features that ensure the highest levels of security for an account and its users, as well as all the data stored in Snowflake. Customers can be assured of end-to-end encryption which means user communications are always encrypted. Snowflake also provides fully encrypted data storage which ensures stored or saved data is always in encrypted form when handled by the Snowflake drivers and systems.

The company also provides a built-in multi-factor strong authentication system which ensures that data is safely integrated with the user's federated SSO and user-friendly interface. Snowflake also tracks every login, transaction, data transfer and it sends the report to the user's security tools. These are among the key factors that give customers confidence in Snowflake as they continue to put their faith in the company to provide the foundation that will deliver business agility and growth.

#### DRIVING VALUE OUT OF DATA

Data has become a vital input for driving business growth. It enables businesses to stand out from their competitors. We are now living in a digital economy era which explains well why data has become a crucial asset for organizations.

An organization's ability to compete well in the market will increasingly be driven by how well it can leverage data, apply analytics, and implement new technology. Organizations that leverage data for scaling up their business, for innovation, and to make crucial business decisions will witness increased operational efficiency, reduced risks, and improved ROI.



# JOINTHE DATA CLOUD

Mobilize Your Data



### **ABOUT SNOWFLAKE**

Snowflake delivers the Data Cloud - A global network where thousands of organizations mobilize data with near-unlimited scale, concurrency, and performance. Inside the Data Cloud, organizations unite their siloed data, easily discover and securely share governed data, and execute diverse analytic workloads. Wherever data or users live, Snowflake delivers a single and seamless experience across multiple public clouds. Snowflake's platform is the engine that powers and provides access to the Data Cloud, creating a solution for data warehousing, data lakes, data engineering, data science, data application development, and data sharing. Join Snowflake customers, partners, and data providers already taking their businesses to new frontiers in the Data Cloud. Snowflake.com.





DEBASISH MUKHERJEE VP - Regional Sales, APAC SonicWall

### RESILIENCE AND AGILITY THROUGH IT SIMPLICITY

There have been 3 core areas where SonicWall focuses to grow its business in India.

Branding, partner network and R&D have been and will continue to be the areas where SonicWall will continue to lay emphasis in order to not only meet the business goals but also maintain the niche it brings to the enterprise security arena. The aim is to take these areas up a notch in the current financial year of 2020-21

In terms of branding, SonicWall has always been dominant or the no.1 player globally in the UTM segment. In the recent past, the emphasis has been to be an enterprise security player.

Secondly, globally SonicWall enjoys the partnership of more than 27,000 individuals/ organizations. So far more than 600 partners are part of the SonicWall India team, giving the company a good Pan India presence.

Research and Development forms the core of SonicWall and because India is an important region, it launched its R&D centre in Bangalore a few years back. More than 350 people are already providing technical support and working in the R&D space.

In the backdrop of the Covid-19 pandemic and with ever increasing cyber threats, SonicWall is dedicated to releasing some of its products and solutions that are fastest and enjoy highest performing threat detectors.

Besides these core areas, SonicWall also believes that Marketing is an equally important function for any business to thrive. Marketing teams should be empowered with technologies that give wings to their creativity while giving sales teams more data points and actionable insights. This culmination will result in unified messaging, synchronized brand perception and seamless customer experience, according to SonicWall.





# INTEGRATED SECURITY SOLUTION, PARTNER ENABELMENT AND INNOVATION ARE AREAS OF FOCUS



### ACCELERATING DIGITAL TRANSFORMATION

For SonicWall Work From Home is not a new concept. SonicWall has not only been providing Solutions which are Boundless but also practicing it in real terms for decades. In the recent past due to the pandemic, SonicWall went 100% remote. SonicWall Boundless cybersecurity is a real example of anywhere, anytime business in the hyper distributed era.

### **CREATING CUSTOMER EXPERIENCE**

This pandemic saw that there is no code of conduct when it comes to cybercriminals, their methods of attacks and the selection of their targets. While technology, as always, moves at an unprecedented rate, threats that were once thought to be two or three years away are now a reality, with do-it-yourself, cloud-based tools creating an army of cybercriminals armed with the same devastating force and impact of a nation-state or larger criminal enterprise.

The growing volume of ransomware attacks has enterprises and government agencies moving quickly to evaluate their mitigation capabilities and strengthen their security postures.

SonicWall has added more throughputs, more security features in its Firewalls and has brought Simplified Secure SD-WAN Deployment, Management with New Orchestration and Monitoring Capabilities. It has further created Optimized Productivity with Enhanced Network Visibility, Monitoring and Reporting and last but not the least, Zero-Trust Security Offering expanded to include more granular control for cloud native customers.

#### **BUILDING A CYBERSECURITY DEFENSE**

SonicWall has prepared a layered approach to meet the needs of advanced threats while keeping customers' business objectives a priority. The idea behind layered cybersecurity is simple - the more obstacles you place in front of an attacker, the better your chances are to identify and stop the attack before your network, data or business are compromised. Layered defense starts with Security Awareness followed by Strong authentication, Email security, Mobile & Remote Access Security, Wireless Security, Endpoint Security, SSL/TLS Decryption & Inspection and Real time sandboxing.

### **COMPLEMENTING DIGITAL INDIA**

SonicWall is committed to supporting the Govt of India initiatives. The company has invested in the R&D center in India, which is the second largest facility for SonicWall. Most of its major developments are happening at the Bangalore center. SonicWall has created the state of the art development center and a tech Support facility at Embassy Tech Village, Bangalore.



# BOUNDLESS CYBERSECURITY FROM SONICWALL

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- SECURE REMOTE ACCESS
- WIRELESS SECURITY

- EMAIL SECURITY
- ENDPOINT SECURITY
- **CLOUD SECURITY**

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### A TOP PRIORITY FOR SOPHOS

### RESILIENCE AND AGILITY THROUGH IT SIMPLICITY

For a technology company like Sophos, which is into the cybersecurity domain, a powerful marketing strategy starts from the innovative solutions that it designs to help organizations of all sizes to fight cybercrime. The core of all its marketing is around what the next generation cybersecurity solutions and services can do for businesses to protect them from new age sophisticated cyber threats.

Sophos believes that its target customers should be aware of the threat landscape and best practices to combat such threats. Hence a major portion of its marketing is also around creating awareness on sophisticated threats like Ransomware and ways to tackle such threats. SophosLabs, which is its research labs, provides detailed research into the cyber threats, their mode of operation and the best practices and tools to combat such threats.

Being a channel driven company, Sophos also ensures that it dedicates a portion of its marketing efforts targeted to the channel community. Organizations look up to the channel partners as trusted security advisors and Sophos makes sure that its channel partners are well equipped to consult customers on best cybersecurity strategy, tools and services to be ahead of adversaries. Besides, it emphasizes training its channel partners both on messaging and technical front, so that partners can help protect their customers with the right kind of technology and solution.

#### ACCELERATING DIGITAL TRANSFORMATION

A vast majority of Sophos employees are already set up to work remotely, as this was a practice that it used before COVID-19. Being a technology company with a geographically diverse workforce, Sophos was already a digitally enabled organization.

Sophos also has in place a robust set of technologies that enables the majority of its global employees to work from home. The company is fully enabled to continue day-to-day business, including product development and other important efforts, remotely. The major aim of Sophos is to ensure uncompromised protection of its partners and customers in any kind of situation.

### **CREATING CUSTOMER EXPERIENCE**

Sophos and its channel partners believe in providing support to the customers at each stage of their interaction with the company, be it presales



### **SUNIL SHARMA**

MD - Sales (India & SAARC) Sophos

or post sales. It believes that cybersecurity is the top priority and customers should be addressed in the timely manner. To make sure that Sophos has a robust customer experience, all its departments, including threat intelligence, protection, and response from SophosLabs, Managed Threat Response, and Global Support Services operate to provide 24×7 detection, protection, and technical support.

### **BUILDING A CYBERSECURITY DEFENSE**

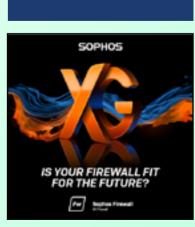
Being one of the global cybersecurity leaders, Sophos helps companies fight cybercrime not just in one but several ways.

Firstly, Sophos provides companies with products that prevent threats and unwanted software from infecting devices and networks. Next, it provides a managed service that continuously monitors customer environments for those that don't have a security team, and a rapid response team to help companies who find themselves under active attack. Lastly, Sophos provides insight into current threats and adversary tactics, and advice on how to best protect oneself through its various outreach channels.









# Sophos stops ransomware.







# SUPERTRON IS POISED TO DIGITALLY INNOVATE ITS PROCESSES AND CUSTOMER EXPERIENCES

V. K. BHANDARI
CMD
Supertron Electronics Pvt Ltd.

### **EXPLORING NEW OPPORTUNITIES**

Every event or situation provides new learning. Given the roller coaster ride due to the COVID Pandemic, India's IT hardware space has seen an opportunity and Supertron is geared up to grab it. Adaptability to the New Normal has forced all businesses to evolve and redefine their strategies. With the virtual and contactless engagement gaining momentum, IT hardware and software together will play an integral part in offering solution in this space.

Apart from the surge in demand for PCs, the segments that look promising are Storage, Server, Networking, Gaming and solutions around work from home, learn from home, Security, AI & Machine learning. Digital innovation is also another area that Supertron is looking at with unabated interests.

With these opportunities knocking at the door, Supertron is well equipped to take the next leap by adding new Products, Solutions & services in line with industry growth, thereby expanding its reach and its services to partners all across India.

### DRIVING EMPLOYEE MOTIVATION

Supertron's employees are its extended family. The company ensures to safeguard and protect the Supertron Family. It conducted vaccination drive all across for all team members and their families. Supertron continues to focus on health hygiene for its employees across the country, besides adopting a hybrid workplace with flexibility office timing.

To keep the physical and the mental balance of its team members during this tough time, Supertron is encouraged to practice meditation and yoga. Through online platforms, it keeps on engaging with its team regularly for these activities while also inviting spiritual Gurus and professionals to motivate them.

### A SOCIALLY RESPONSIBLE CORPORATE

Giving back to society is also an important part of Supertron's organisational philosophy. With the help of IT associations and

other industry bodies across India, Supertron has donated Oxygen concentrators under the program "Mission Breath" which can be used by anyone who need to fight against COVID.

### CREATING CUSTOMER EXPERIENCE

Customer experience is an important aspect of every business. With digital innovation, Supertron is poised to give its partners an experience which would help them to get all information about their business on finger tips.

It is an ongoing process for Supertron to empower its partners and monitor their business with the company. Flow of information is another key area in today's business environment.

Keeping that in mind Supertron is working around ways to implement digital transformation which eventually help its partners to keep themselves updated of new products and technologies.



# RIGHT

### DIVERSIFIED

Supertron provides a suite of value-added products, strengthening its recall as a one-stop solution provider

### RIGHT APPROACH

#### DIFFERENTIATED

Supertron focuses on quick product offtake and superior working capital management

Supertron is a focused distributor, driven to enhance the principal's market share.

Acting as an extended arm of the principal by playing a consultative cum distribution role, Supertron help the brands to build the distribution network.

Most of our relationships with principals are based on exclusive representation in India on the basis of substantial value delivered. Supertron works directly with retailers, strengthening a deeper understanding of the marketplace and prompting proactive improvements in the product mix.

### CUSTOMER CENTRIC

Supertron extended beyond transactional (product distribution) to enduring relationships (market expansion), strengthening its engagement with principals

### WIDESPREAD

Supertron's footprint extends across India, especially Tier 2/3 towns where it addresses the needs of general trade, large format retail and ecommerce formats



Supertron Electronics Pvt. Ltd. "Supertron House", 2, Cooper Lane, Kolkata-700 001

"Supertron House", 2, Cooper Lane, Kolkata- 700 001 Ph: 03340371000, frontdesk@supertronindia.com, www.supertronindia.com







### TEAMVIEWER'S VISION IS TO EMPOWER AND HELP CUSTOMERS WITH SECURE, EASY-TO-USE TECHNOLOGY

### **KEY GROWTH STRATEGIES FOR 2021**

TeamViewer is a secure remote connectivity platform that keeps on innovating continuously. It aspires to connect any device, anywhere and anytime for its customer to use the software flexibly in various use cases. TeamViewer has expanded its remote connectivity platform to support new use cases with innovative solutions around internet of things and augmented reality. Its overall objective is to bring best of breed global solutions, which are secure, scalable and simple to use, to India.

TeamViewer is used by various businesses for a variety of use cases, and so it has a clear product strategy to support the needs of the target groups in its customer; for the simple reason that the needs of each segment are different. TeamViewer Core licenses which include corporate licenses are aimed to fulfil remote support requirements of the small and medium enterprises, while TeamViewer Tensor enterprise is for large and super large enterprises.

### **GTM STRATEGY FOR INDIA**

TeamViewer has various go to markets for India. Its objective for each of the GTM is to be more close to the customer and service them when needed in their time. There is the direct GTM and indirect GTM. Indirect GTM basically is the distributor-reseller model, where TeamViewer has appointed a distributor and are now appointing resellers. Currently it has an online webstore where TeamViewer sells direct. TeamViewer will continue to work with resellers, partners and customers to ensure that they can get the best solution.

#### **ENHANCED CUSTOMER EXPERIENCE**

TeamViewer is simple to download and to use. It is constantly evolving the technology to connect all devices and Operating Systems. The R&D is heavily focused on creating secure, resilient and customizable solutions. TeamViewer is also creating online journeys and communities which enhance purchase and usage experiences.

TeamViewer has expanded its solutions to support the entire customer company value chain from product development to after sales. With the TeamViewer Engage solution, it helps customers to engage better with their customers. TeamViewer has also expanded its industry 4.0 portfolio with

more augmented reality solutions to help customers improve productivity in manufacturing and supply chain.

TeamViewer is selling solutions which allow users to collaborate and work together. The company believes that its marketing strategy should indeed be pivoted in experience, rather than be only about product. TeamViewer is already enabling a lot of avenues such as free trials for its customers to experience the product. TeamViewer is also now going local and closer to its customers to have proof of concepts in their near real business scenarios for its enterprise offerings like TeamViewer Tensor and TeamViewer internet of things (IoT).

### BUILDING A ROBUST SECURITY INFRASTRUCTURE

Security is one of the most important focus areas for TeamViewer. All TeamViewer versions use full encryption that is based on 2048bit RSA private/public key exchange and 256 Bit AES session encoding.

As the private key never leaves the client computer, this procedure ensures that interconnected computers—including the TeamViewer routing servers—cannot decipher the data stream. All TeamViewer servers are housed in state-of-the-art data centers that are compliant with ISO 27001 and leverage multiredundant carrier connections and redundant power supplies. As an additional security feature, all of its software is signed via VeriSign Code Signing. TeamViewer ensures that the personal information of its customers and its own people is handled in accordance with GDPR.

### **COMMITTED TO R&D**

TeamViewer's vision is to empower and help people through secure, easy-to-use technology that connects Anyone. Anything. Anywhere. Anytime. It is deeply invested in creating customizable solutions. Such solutions ensure that any firm of any size can be attended to, while also ensuring that there is maximum value for all customers. TeamViewer also continuously works to develop and add more features to the remote access software which is optimized to the network, and agnostic to the operating system and device. With its enterprise solution, TeamViewer Tensor, the company has been able to offer an excellent viable solution which is great value for money.



### **Solution Highlights**

### Scalability

Quickly and easily scale the solutions, replicating workflows across multiple sites for consistency.

### Adaptability

Send workflow task changes to frontline workers' smart glasses and wearables in real time to meet changing process requirements.

### Usability

Easy-to-use with a visual dragand-drop user interface (UI) — no coding or programming required.

### Agility

Quickly create and dynamically update workflows to adapt to unforeseen or onthe-fly process changes.





### Tech Mahindra

TECH MAHINDRA HELPING
CUSTOMERS EMBRACE DIGITAL
TRANSFORMATION WITH CLOUD
AS THE WAY FORWARD

### **VIVEK GUPTA**

VP & Global Head of Cloud Services Tech Mahindra

### **KEY PRIORITIES FOR 2021**

Digital and technology-led transformation is at the core of every business. The cloud is changing the business landscape as it gives the agility and scalability to adapt quickly to changing customer and market demands. It is one of Tech Mahindra's key priorities to help its customers embrace digital transformation with cloud as the way forward. Tech Mahindra helps customers to define how their cloud landscape will change and how it can proactively meet that progression, develop cloud systems and processes for them, so that these customers can overcome and succeed through revolutionary change.

Tech Mahindra ensures stellar performance by partnering with customers in every phase of their cloud journey. It helps its customers to be future-ready by adapting to innovative go-to-market initiatives like CloudNXT.NOW, a comprehensive portfolio of services, solutions and frameworks that enable customers to accelerate their Cloud journey. Tech Mahindra is establishing niche partnerships with leading advisory and consulting firms and collaborating with Hyperscalers to build state-of-the-art solutions. It sees that there is a huge value addition to its customers with verticalization of cloud services as Tech Mahindra understands what their business needs are. It is therefore Tech Mahindra's key priority to increase focus on industry-aligned cloud solutions to drive significant business value for its customers.

### **ACCELERATING DIGITAL TRANSFORMATION**

Organizations are embracing the future of work and adopting hybrid working models which give an edge to meet the modern workforce needs. Tech Mahindra too has embraced the digital with hybrid workspace delivery model, leveraging virtualization, enterprise mobility, and context-aware security powered by real-time user experience management. It strives to deliver the best end-user experience in an economical way with next-generation integrated digital workplace solutions for enterprises globally. Rapidly changing user and business expectations increase the need for omni-channel access, consistent user experience, and hyperpersonalization. Tech Mahindra is on a mission to enable the future of work today with an intelligent workspace enabled by automation and analytics, digital adoption management, and right experience level metrics at the right end-user touch-points.

#### CREATING CUSTOMER EXPERIENCE

Tech Mahindra is revolutionizing customer experiences for tomorrow, with a robust strategic approach. In reinforcing its customer-centric business approach, Tech Mahindra has evolved its business model to make it more digital and intelligent, driving human-centered experiences with its NXT.NOW strategy. This strategy is focused on helping companies accelerate technology-led transformation NOW and gain competitive dominance. The brand aspires to continuously deliver customer delight; the voice of its customers empowers

Tech Mahindra to understand the preferences and viewpoints of its customers. With digital transformation imperative for businesses to be agile, Tech Mahindra has constituted a Cloud Advisory Board to work on accelerating cloud transformation and build a robust roadmap for business agility and competitive edge for enterprises. Tech Mahindra ensures operational excellence with a robust operating framework using New Age Delivery engine, driving agile and more technology-enabled operations.

### **BUILDING A CYBERSECURITY DEFENSE**

The utmost priority of Tech Mahindra is to ensure that policy and processes are benchmarked against best practices or standards and assessed by 3rd parties. Tech Mahindra is assessed at Enterprise Level to SOC 2 Type 2 as well as certified to ISO 27001, ISO 27701, and ISO 22301.

The company has also invested in leading products using the NIST Cyber Security Framework. It uses tools like EDR, Cloud Proxies, Encryption, Anti APT Email & Web Gateways, DLP, SIEM, IPS, and firewalls. In addition, Tech Mahindra has proprietary tools which use AI for contextual risk assessment. It continuously monitors and tests its environment for IT hygiene, vulnerabilities and attacks using a variety of detection methods, techniques, and tools. Some of them are Red Teaming, Breach and Simulation, Phishing Simulation, Vulnerability Management products and Risk Management tools.

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100+

Countries Served

125,000+

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Tech Data India has its offices in 18 locations within India.

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### Technology Solutions

MODERN DATA CENTER CLOUD **SECURITY ANALYTICS END POINT** 

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Built for our channel partners and end users in mind, the Tech Data CoE provides ready multi-vendor next-gen solutions that support the most common and complex IT problems. The solutions that support the most across vendors and are ready to be tested and demonstrated, helping you go-to-market and scale your business at speed.

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Digital transformation is enabling new business models as firms shift from purchasing silo IT products to comprehensive IT solutions that meet their business goals.

Assessment

- Readiness Aseessment (Consultative Study)
- Migration Assessment
- Application Integration Assessment

**Proof of** Concept

- Showcase live demo and capabilities of emerging technologies
- Test technology integration with customers's existing environment
- Pilot new solutions and use cases

Innovation

- Enhance and complement your current offerings with CoE solutions
- Leverage CoE to meet evolving customer requirements

**Enablement** 

- Training platform for new technologies
- Experience tools and applications in a hands-on environment

Accelerate your business with our CoE. If you have a specific solution requirement or any questions about the CoE, Email us at asia@techdata.com

#### Tech Data Advanced Solutions (I) Pvt. Ltd.





### TP-LINK COMMITTED TO SERVE ITS CUSTOMERS BY EMBRACING TECHNOLOGY THROUGH INNOVATION

### **KEY PRIORITIES FOR 2021**

Founded in 1996, TP-Link is a global leader of reliable networking, IoT devices and accessories, involved in all aspects of everyday life. The company is ranked by analyst firm IDC as the No. 1 provider of Wi-Fi devices for consecutive 10 years\*. TP-Link offers its products to more than 170 countries and serves billions of people worldwide. The company has always been on the forefront of understanding the needs of customers.

TP-Link has designed its solutions to address their requirements. With WFH and Hybrid work model being the norm in the near future, Cloud-based Infrastructure is going to be the key for business growth. TP-Link has developed its SDN Cloud for ease of accessibility and remote management of connected devices. In addition to SDN cloud, the company will be offering a wide range of Security and IoT solutions in the coming years.

Its evolving product range includes wireless routers, Sim Based Router, Range Extender, Wireless Adapters, Load balance / VPN Routers, Network Switches, IP cameras, Pint Servers, Media Converters, and Smart Home & IoT devices.

With a proven heritage of stability, performance, and value, TP-Link has curated a portfolio of products that meet the networking needs of all individuals. Now, as the connected lifestyle continues to evolve, the company is expanding today to exceed the demands of tomorrow.

### ACCELERATING DIGITAL TRANSFORMATION

TP-Link is fully committed to developing home & business networking solutions and services for consumers, solution providers and partners, embracing the process of innovation through technology.

At TP-Link, the safety of its employees and adherence to local guidelines always comes first. Keeping in mind the same, we adapted quickly to a remote work environment for its employees and WFH as the de facto standard in 2020/21. An option of WFH or Hybrid Work environment has been provided to employees, which they can choose depending on their need.

Considering the remote work option, TP-Link engaged with partners and employees based out of tier 2 & 3 cities on an assignment basis. For Value-added resellers (VARs) looking for access to even better deals and tailored support, TP-Link has designed the TP-Link Partner Program to reward loyalty and help grow the VAR's overall business. TP-Link Partner Program provides the partners with the essential resources to accelerate their sales cycle and subsequently help their businesses to grow.



#### CREATING CUSTOMER EXPERIENCE

TP-Link endeavors to provide stable Business WiFi solutions for small and medium business customers and reliable enterprise switches and routers.

Customer and partner engagement using digital solutions have always been a part of TP-Link's business policy. The pandemic has accelerated/advanced the use of digital solutions for Trainings/Webinars over Zoom/Webex, for warranty support using Chat bots, for Tech support & product installation using digital videos etc. 2020 was the year of Online communication and due to limitations on physical promotions, TP-Link moved most of its promotional plans to the digital mode and has been effective since then. It began with the webinar training session to make sure its channel partners and end customers have the right product information to aid their channel sales and educate them and provide the right product for their usage.

#### COMPLEMENTING DIGITAL INDIA

TP-Link is well involved in the Digital India program and has participated and won many prestigious projects involving Wired and Wireless connectivity. In addition to the Digital India program, TP-Link has partnered with local partners to offer solutions under the PM Wani project.

\* Source: IDC Worldwide Quarterly WLAN Tracker, Q4 2020 (claim based on worldwide shipments)

### 10 Years at No.1

Wi-Fi Products Provider



We provide the tools to make tomorrow's dreams today's reality















**OMADA CLOUD SDN MESH Wi-Fi** 

BUSINESS Wi-Fi ROUTERS

**NETWORK SWITCHING** IOT





# UIPATH LOOKS TO POSITIONING ITSELF AS THE AUTOMATION PARTNER OF CHOICE

### OPPORTUNITIES & GROWTH PROSPECTS IN AUTOMATION

Automation is a widely recognised technology solution that saves time, money, and precious human resources, while enabling accelerated digital transformation. In a very short time, the technology has progressed from early-stage experimentations. Today, organisations are scaling their automation programs beyond basic processes, and are addressing possible digitisation of critical and complex functions.

With opportunities continuing to evolve and increase, UiPath is now looking at expanding its technology leadership. It will also broaden its market and technology partner ecosystems, as well as its developer community, while attracting and retaining world-class talent. As a brand, UiPath wants to be positioned as the automation partner of choice. For this, the brand is proactively engaging with its customers, partners, and the media to understand opportunities and requirements better. Collaborations with industry leaders and experts are helping create thought leadership that help in educating the larger ecosystem.

Businesses across sectors are keen on automating their processes in order to improve efficiency, turnaround time, and reduce costs. Over the course of a year, automation has become a C-Suite priority and a major part of boardroom discussions. Today, conversations have shifted to how businesses can scale existing automation projects for better results.

#### ADOPTION OF AUTOMATION

The South Asian region has progressed to a hyper growth stage of automation adoption. The Indian subcontinent in particular, presents immense potential. UiPath's efforts are focused towards enabling organizations of different scale, capacity, and structure in their automation journey. With solutions such as automation cloud, process and task mining, and enterprise-scale governance and management, UiPath continues to lead innovation in this space. As a company, UiPath is also committed to making it as easy as possible for organisations to implement, scale, and see value from its platform.



### **ANIL BHASIN**

Managing Director and Vice President UiPath India and South Asia

At India Inc, organisations have been able to see impactful results particularly in processes that focus on customer servicing. For example, automation has helped increase efficiency of customer support representatives, thus allowing them more time to focus on connecting better with customers. This has further helped improve quality of service. Employees are now able to refocus their efforts away from repetitive but unavoidable activities, and are able to spend more time on high-value, cognitive tasks. Similar benefits can be seen across BFSI, Manufacturing & Logistics, IT, Telecom & Services, Healthcare, Food & Beverage, and Energy sectors.

### **COMPLEMENTING DIGITAL INDIA**

UiPath's mission today is to elevate enterprises into Fully Automated Enterprises and help them make significant progress in their digital transformation journey. This entails tasks ranging from automating all that is automatable, helping develop robust Citizen Developer approaches, democratizing automation, and infusing AI into automation, making it smarter, faster, and better. By helping organisations automate, and accelerate human achievement, UiPath is complementing the national efforts towards a Digital India, and is a step closer to achieving its vision of a world with a robot for every person.

# Our robots love doing the tasks you hate.



UiPath® makes Robotic Process Automation, or RPA, to automate dull, repetitive tasks. Freeing you to get the real work done. Looking for digital transformation? Your robots are on it. Start today at uipath.com





### VeeAM

Veeam strives to be ahead of the curve in terms of driving technological innovation

### SANDEEP BHAMBURE

VP and MD, India & SAARC Veeam Software

#### **CREATING CUSTOMER EXPERIENCE**

The pandemic and uncertain market conditions have significantly impacted businesses. As per Veeam's Data Protection Report 2021, over 64% of Indian organizations accelerated their Digital Transformation (DX) initiatives, to ensure business continuity.

Veeam is committed to driving this innovation and delivering leading-edge reliable and secure data management and protection solutions to its customers. It focuses on eliminating the fundamental shortcomings of traditional approaches to save time, reduce costs, ensure reliability and increase the value of data protection and disaster recovery to the next level.

During VeeamON 2021, Veeam announced a single platform for protecting and managing resources in multi-cloud environments, including AWS, Azure and Google Cloud. It delivers cloud mobility to backup, recover and migrate workloads across any environment and ensures up to 50X lower costs when natively protecting cloud workloads. Also, in Q1 '21 Veeam released v11 with an additional 200 new and powerful backup, cloud, DR, security and automation enhancements.

In the last one year, Veeam has announced 17 new product releases that span across the ecosystem of cloud, virtual, physical, SaaS and application-specific environments. With the acquisition of Kasten, Veeam is now foraying into the Kubernetes space and envisioning the future of containerized product development. This move strengthens Veeam's commitment to deliver industry leading Cloud Data Management platform that supports data protection for container-based applications built in Kubernetes environment.

#### **BUILDING A CYBERSECURITY DEFENSE**

With the rapid rate of digitalization, businesses, including small and medium-sized enterprises (SMEs) are now more susceptible to cybercrimes such as cyber-attacks, phishing attacks and malware. With workplace trends like Work from Home (WFH) and BYOD (Bring Your Own Device), organizations are witnessing proliferation of data, which is becoming difficult to manage, control and protect.

Veeam is continually innovating and is at the forefront of delivering Modern Data Protection with its advanced backup, recovery and data management solutions. It is enabling its customers to protect their data and safeguard themselves against cyber-attacks, by ensuring a good data protection strategy.

Veeam ensures that its customers are protected against cyberattacks, by implementing a strong, multi-layered defense strategy and an ultra-resilient approach to backing up, recovering and restoring data (3-2-1-1-0 Backup Rule) to ensure business continuity. Also, Veeam ensures that its customers focus on the fundamentals of data protection and immutable backups and train their workforce to successfully prevent or recover from sophisticated cyber-attacks.'

In the last two years alone Veeam has added over 400 features and capabilities to its solutions, and aims to innovate further and add more layers of security to enhance the data protection functionality in the solutions. Early this year, Veeam launched Veeam Backup & Replication v11 — with an additional 200 new and powerful backup, cloud, DR, security and automation solutions. In response to the new data protection challenges customers faced in 2020 and in anticipation of those to come this year, the new V11 includes reliable security and ransomware protection that fends off increasing risks of cyber threats now and into the future, delivering unprecedented resiliency for companies of any size.



### **ACCELERATING DIGITAL TRANSFORMATION**

Veeam has been ahead of the curve when it comes to deploying digital workplace solutions for its employees. Digital is a part of Veeam's DNA and the company has very well integrated it into the existing company culture and experience. To support its employees during the pandemic, Veeam implemented a complete work-from-home policy to limit the potential spread of infection and safeguard its employees. Pandemic is in fact a disaster recovery use case for Veeam.

Easy access of data is the key to remote working, and Veeam has enabled just that for its employees, while also taking various steps for data protection, privacy and security. Veeam's vision is to create a truly digital workplace that enables employees to connect and innovate in new ways, and to serve customers better.

### **COMPLEMENTING DIGITAL INDIA**

As Indian organizations adopt hybrid cloud strategies to fuel rapid digital transformation, data is now trading as a valuable currency. Adding an impetus to the digital revolution is the Government's 'Digital India' initiative and the private sectors digitizing its offerings. This digital environment demands access to information and applications any time and from any device, with no tolerance for downtime or data loss.

Veeam is looking to seize the momentum of rapidly expanding Digital India with upgraded solutions, redefining data protection and availability with a single intuitive approach to avail business continuity. The company is poised to support the initiative with its best in class backup, recovery and data management solutions that deliver Modern Data Protection and are built to help businesses solve their real-world IT challenges and improve operational efficiencies.

### **DESIGNING A POWERFUL MARKETING STRATEGY**

A comprehensive marketing strategy is the key to an organizations success and can help drive critical business benefits such as revenue increase, brand awareness, and customer retention. A powerful marketing strategy not only generates new opportunities for businesses but also accelerates expansion into newer markets and helps attain growth. To drive revenue growth, companies must wisely craft their marketing initiatives based on desired business results and target audience. The ever evolving technology landscape demands continued innovation and robust go-to-market strategy from vendors to meet complex customer demands.

We at Veeam believe in "disruption" by bringing innovation to our product portfolio. Similarly we need to bring continuous innovation in our marketing strategies to reach out to our customers and stay ahead of the curve. We have seen a change in the market dynamics & hence our marketing strategies have always been innovative and evolve with the ongoing trends. Veeam's marketing strategies are unparalleled as Veeam continues to lead the industry with an exceptionally solid roadmap through 2020 and beyond. Veeam has achieved great milestones over the years, and continues its Streak as a Leader in the Gartner Magic Quadrant for Enterprise Backup and Recovery Software Solutions."



# Modern Data Protection

Simple, Flexible, Reliable.

Your Single Backup and Data Management Platform for Cloud, Virtual, Physical

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### VERTIV CONTINUES TO INVEST IN TECHNOLOGIES THAT SUPPORT GROWTH OF ITS PARTNERS

### RESILIENCE AND AGILITY THROUGH IT SIMPLICITY

The advent of newer and more advanced technologies in the past few years have had a positive impact on several sectors, with the latter evolving to suit the new and more informed customer. Organizations have undertaken a 360-degree marketing approach where the customer is at the center of all things. Technology has empowered people with easy access to information and has therefore moved marketers to be more creative.

Taking a cue from this, Vertiv has come out with several initiatives to support and encourage business growth for its channel partners and the brand -

- The Long Tail Initiative: This is a global Centre of Excellence (COE) initiative to help Vertiv identify, recruit, activate, grow, and retain partners and therefore drive continuous improvement via channel insights and corrective actions.
- Re-Activation Promotion for dormant resellers: Vertiv motivates its partners by providing product discounts, with alternatives including bonus points/vouchers or similar such offers.
- E-commerce: This is another global initiative where Vertiv is live on Aahaa e-stores with select partners. For B2B customers, Vertiv has distributor portals and partner websites and for B2C customers the brand has e-commerce and tech-commerce portals.
- Warrior program: The Vertiv warrior program helps to empower sales representatives of its exclusive partners through customized incentives.

### ACCELERATING DIGITAL TRANSFORMATION

Vertiv has fully embraced and provided its employees with the latest modern digital tools and technology to collaborate and be productive anywhere. As part of its digital transformation, Vertiv has moved core business applications to the cloud and to SaaS solutions with secure, remote access. With the rise of remote work routines, usage of Microsoft Teams, video and collaboration technologies has allowed Vertiv to remain and gain productivity globally. In addition, IT tools like SharePoint, One Drive, Employee and Partner Portals, etc. have all helped make the move to an effective digital organization.

#### **READY FOR WHAT'S NEXT**

In the wake of the pandemic, Vertiv continues to invest in technology and develop new customer connect programs that help keep its customers and partners engaged and updated with the latest technologies from the company.

Vertiv's channel partners remain an extremely important part of its go-to-market strategy. In a bid to support them, it provides 360-degree support through the enhanced 'Vertiv Partner Portal' that includes easy access to sales & marketing tools, product documentation, and other partner related information. To help them drive business growth, the portal also allows them access to the latest online and face-to-face training courses and partner-only events.

Vertiv also conducts regular training sessions for partners to create awareness around energy efficiency and showcase the advantages of its leading energy efficient solutions. Vertiv is also using virtual and augmented reality to deliver best in class experience to its customers and partners to explore its products and learn its capabilities.



JOHN PARIKH
Vice President, Marketing & Strategy
Vertiv – ANZ, SEA and India

### **BUILDING A CYBERSECURITY DEFENSE**

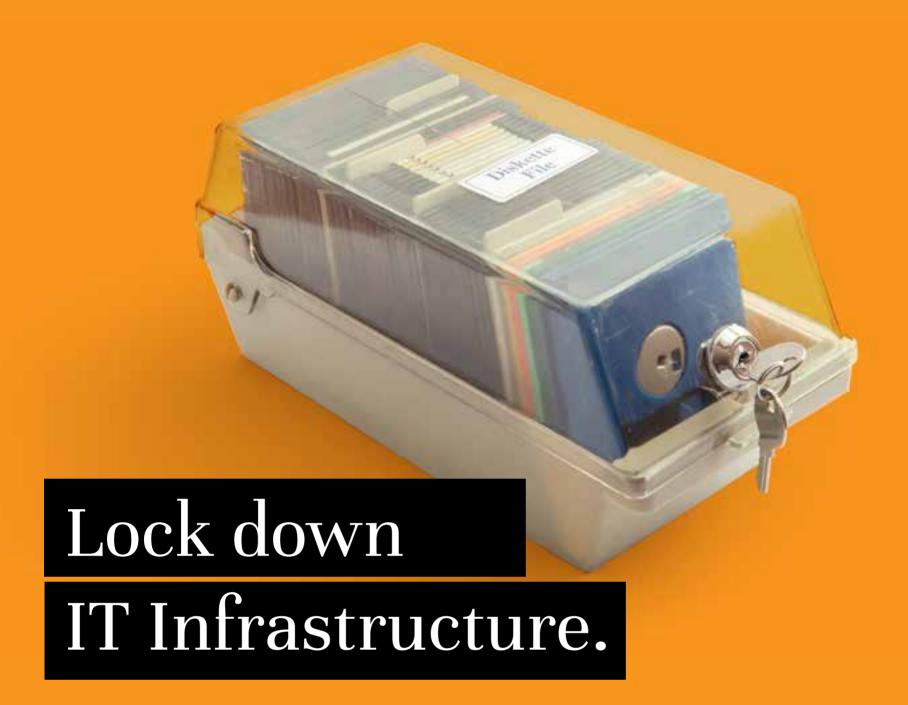
Vertiv believes that every employee plays a critical role in cybersecurity defence. It therefore not only trains employees on security best practices, but also tests them to determine areas of improvement.

It understands that security is a layered approach and that simplifying the way employees handle sensitive data is also imperative. A layered approach provides security blocks and protection at every layer of Vertiv's network. Providing a clear set of guidelines regarding the acceptable way data can be transferred on and off network, is the first step in reducing opportunities for data to be stolen or compromised by Vertiv. Vertiv's data centres are equipped with technical security appliances that ensure only the right access is granted to its most sensitive infrastructure.

#### AGE OF DIGITAL INNOVATION

To align with operating environments in the country, Vertiv regularly conducts quality testing specific to India. It also designs and manufactures some of its products in India, both for local consumption and for exports. The aftereffects of the Digital India and Smart City initiatives have resulted in great traction for its products. As a result of these initiatives, intelligent green building designs, cloud computing, and colocation data centres have witnessed increased demands.





### Ensure your customers are taking appropriate steps with their infrastructure deployments.

There are many challenges your customers will be facing when it comes to data security. In addition to the measures taken online, here are a few ways you can help when it comes to setting up their infrastructure.

### What's Their Edge.





Call Tollfree: 1-800-2096070 E-mail: marketing.india@vertiv.com

Corporate Office: Plot C-20, Rd No.19, Wagle Ind Estate, Thane (W), 400604. India





**PROMISING 2021** 

India's technology sector is evolving at a rapid pace and is growing tremendously. For ViewSonic, India is one of the top five markets in the world where the brand wants to establish a long-term presence. We are on a constant surge to expand and grow our business portfolio in the Indian market. Offering innovative products with the latest technology, dwelled with high-end features and catering to the customer's needs is what we focus on. Our entire R&D, manufacturing, and distribution teams are all involved in designing products or technologies to bring the best to customers, based on thorough research and in-depth analysis. ViewSonic's commitment to innovation and customer-centricity has catapulted the firm to the forefront of the gaming industry, and as a result, we are focusing on launching new products that are infused with cutting-edge technology and offer best-in-class quality.

### SET AS A DIFFERENTIATOR

As society has become more tech and internet-savvy, people can now benefit from the efficient and innovative services provided by the Indian consumer-tech industry. Consumers have come to anticipate specialized, more responsive, and equally efficient products as a result of this trend. ViewSonic's objective is to completely alter gaming trends by offering technologically advanced products that usher in the next generation of interactive gaming displays. The paradigm shift in the gaming industry can be attributed to technological advancements that have resulted in more exciting innovations in the gaming industry. We focus on providing monitors with cutting-edge technology, packed with high-end features, and tailored to the needs of our customers. With ViewSonic launching their Elite and ColorPro series gaming monitors in the upcoming months, it is bound to redefine the experience for the industry as well as for the end-users.

#### DIGITAL TRANSFORMATION AGENDA

With technology constantly evolving, ViewSonic has been focusing on innovating and developing products that cater to tech-savvy users. Creating a working environment anywhere, it is the basic idea that the products don't only have a robust design but are also compact, lightweight, and highly portable for users. Providing an ideal gadget for tech-savvy professionals and a one-stop solution for working, gaming, or enjoying the latest in multimedia entertainment is what ViewSonic works on.

### **DIGITAL INDIA MAKING STRIDES**

The evolution of the IT industry has created multiple opportunities for companies. ViewSonic has been quickly adapting to the concept and has always been at the forefront of advancement and innovation.

- As the work-from-home scenario creates a demand for a smoother and feasible working environment, ViewSonic has been keeping their stride on pride by launching its latest portable monitors in the TD and VG series
- Built for a comfortable work-from-home solution, the VG1655 and TD1655 monitors can supplement a laptop or tablet screen for increased productivity. This monitor fits neatly in a bag or briefcase, allowing users to work wherever their lives lead them, resulting in an efficient workflow
- For even gaming or watching movies, ViewSonic's gaming monitors are the most appropriate option. Most mobile or tablet users would rather prefer a portable monitor as a cost-effective solution than investing in a laptop
- With the 4G /5G adaptation, the thrill of gaming became more entertaining. Therefore, ViewSonic has seen exponential growth in the Indian monitors market than in the worldwide monitor sector. Focusing on the same, we ensure to deliver revolutionary technologies and solutions for an enhanced experience



XG2405

## UNIQUE AND ADVANCED TECHNOLOGY FOR

AN OUTSTANDING PERFORMANCE

Your One Stop Display Solution for Immersive Entertainment and Productivity

**VP2785** 

VA3456-MHDJ

VX3258-2KPC-MHD

TD1655

VG1655

Designed to seamlessly integrate into your workflow and leisure time, ViewSonic display solutions are well-suited for home and office use. Trust Viewsonic to deliver the best of technology that exceeds all expectations.

### **UPGRADE TO VIEWSONIC IT MONITORS DISPLAY SOLUTIONS FOR**

Smoother Scrolling | Better Video Quality | Easier on the eyes | Better Performance | Ergonomically Convenient | Better Color and Viewing Angles

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### VMRAY WELL POISED TO OFFER ITS CUSTOMERS A COMPLETELY DIGITAL BUYER JOURNEY

### **KEY MARKETING PRIORITIES**

VMRay believes in customer centricity and it puts the customer at the center of its business strategy. Instead of focusing on the competition, VMRay focuses on the customer, learns all it can about their needs and then brings to market the solutions that can address these needs. Accordingly, the emphasis of its marketing strategy is on helping prospective customers to navigate the buyer journey – serving them the information they need to make informed buying decisions. VMRay is using a multi-channel marketing approach to reach out to customers on their preferred channels.

### ACCELERATING DIGITAL TRANSFORMATION

VMRay was a "digital native" from the start. Founded in 2013, VMRay made remote work a key strategy for recruiting and retaining talent. All its core business applications are cloudified, and it has the online-collaboration and video conferencing tools VMRay needs to effectively communicate with customers, business partners, and co-workers across geographies.

VMRay also has a powerful VPN solution for secure remote access to the corporate network. When remote work was no longer an option during the Pandemic, VMRay was well prepared to immediately transition to a 100% workfrom-home scenario. Protection against advanced malware is another important point when "on-premise" businesses transform into digital businesses. VMRay being a provider of leading technologies for advanced malware detection, the company is naturally well protected in this respect.

### **CREATING CUSTOMER EXPERIENCE**

Being a young company on a steep international growth course, VMRay was already adept in remote selling before the crisis forced every business to switch to digital business processes in haste before suffering severe competitive disadvantages. A technology company that wants to expand into new markets must learn early on to navigate successfully through a complex buying cycle where buyers and sellers are in different physical locations. VMRay is well prepared to offer its customers a completely digital buyer journey that goes well beyond the actual sales process and also includes the post-sales and customer retention phase.



GAURAV CHAWLA

Business Development Manager – APAC

VMRAY

### BUILDING A CYBERSECURITY DEFENSE

VMRay's cybersecurity strategy is based on a holistic approach that encompasses technologies, processes, and people. There is no single product or solution that can protect a company from cyber threats. It is the right mix of threat prevention, detection, and response measures, tied together into a multi-layered security ecosystem that will achieve the highest possible level of protection.

Integration of all security technologies and processes across the security ecosystem is a key requirement; a collection of individual products and disconnected workflows will compromise the efficacy of the overall security approach. Another key requirement for adequate cyber resilience is the fast and accurate detection of advanced malware. For this, VMRay uses its own market-leading technologies for automated malware detection and analysis. Another very important building block of VMRay's security strategy is the regular Security Awareness training for all VMRay employees. It is educating its employees to act in a safe manner, as VMRay understands that the root cause of many security problems is employee behaviour.



X-RAY VISION FOR MALWARE

# Advanced Malware Protection

Why malware sandboxing should be part of your security strategy.

vmray.com/why-malware-sandboxing





### **m**ware<sup>®</sup>

## VMWARE OFFERS SOLUTIONS THAT HELP IN BUILDING A DIGITAL FOUNDATION FOR MODERN IT

#### **BUILDING A RESILIENT & AGILE BRAND**

VMware is well-positioned to accelerate its strategy and continue driving success into FY22 and beyond by building a strong business and with its vision and strategy resonating with customers. It is shifting its focus towards consumption-based licensing or subscription-based licensing that can address the problem of liquidity as well for its customers.

VMware has been successfully helping its customers in delivering Modern Apps, Multi cloud and Anywhere workspace solutions. These solution areas are perfectly aligned with market demand.

#### **ACCELERATING DIGITAL TRANSFORMATION**

VMware is building a dynamic, global workforce of the future where its people work from any location that accelerates their productivity to deliver the most innovative solutions for its customers. The foundation of VMware's business is grounded on its ability to run, manage, connect and protect any application on any cloud and any device.

VMware uses its products and technology to solve the most critical challenges. VMware Workspace ONE is a platform that allows its colleagues to fully access their apps and other critical work via any device, and not just a corporate one. It deploys VMware Tunnel to establish a seamless VPN-like connection that instantly recognizes colleague credentials and allows access to any internal page. The virtual VMware Horizon desktops have apps that can mimic Windows, yet do not need a laptop to operate, allowing colleagues to access all their software. Lastly, VMware's 'no-touch laptop provisioning process doesn't require IT to set up the machines as laptops are shipped directly from the factory. Similar capabilities are available for smartphones, tablets and other devices.

### **CREATING CUSTOMER EXPERIENCE**

As a tech company, VMware has seen that customers are going through the same challenges. The customer requirements have changed in the last year or two. VMware is now looking at serving a highly distributed remote workforce and making necessary changes with a new digital-first customer approach.

VMware has adapted quickly to support its customers and help them respond to the challenges without disruption. Its digital workspace solutions have been at the disposal of the customers when they needed to shift to remote work environments.

### **BUILDING A CYBERSECURITY DEFENSE**

By providing solutions to build a digital foundation for modern IT, VMware is in a unique position to address security challenges with intrinsic security. VMware offers a cloud-native endpoint protection platform that works with the infrastructure to protect from modern attacks, reduce the impact on end-user devices and decrease management overhead associated with legacy antivirus solutions.VMware's networking security solutions protect apps and data across multi-cloud environments by employing network security policies specific to every app and workload.

Similarly, VMware solutions give its users an easy way to manage and safeguard users, applications and endpoint devices—while delivering an exceptional user experience through digital workspaces. It also offers cloud security solutions, which offer real-time detection and response capabilities for multiple public cloud providers.



MOHIT ARORA
Senior Director - Commercial Business,
VMware India

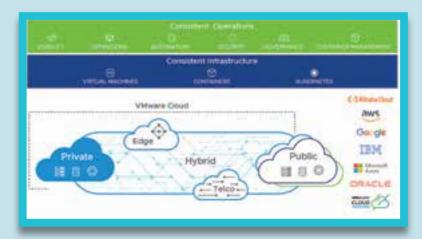
### COMPLEMENTING DIGITAL INDIA

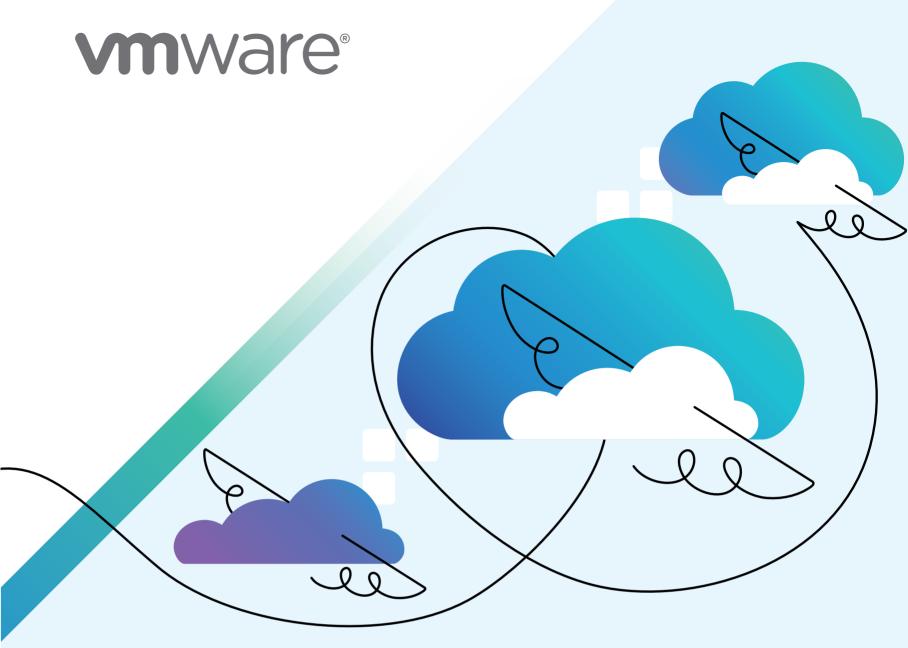
Throughout this challenging year, VMware has seen countless examples of how customers, across industries, and at different stages of digital transformation, have pivoted. These also include supporting its customers in the government(s) and pubic sector undertakings.

To encourage a digital-first public sector, VMware has partnered with several Smart City projects in the cities of Dehradun, Bhopal, Pimpri Chinchwad, as well as accelerating cloud for faster delivery of services in organizations such as Power Finance Corporation, National Informatics Centre, Oil India Limited and Indian Ports Association. During the last year, VMware has also supported projects in the public sector such as RailTel, Indian Oil Corporation, NABARD, Madhya Pradesh PoorvKshetra Vidyut Vitaran across the country.

VMware has helped achieve digital transformation in governance across the country by helping most state governments invest in local technology infrastructure to support their citizens digitally.

For instance, VMware helped National Informatics Centre (NIC) in its endeavor to set up the Government Cloud that has led to the provisioning of state-of-the-art scalable infrastructure, on-demand to government ministries and departments. RailTel also partnered with VMware to accelerate its digital transformation journey with a cloud setup for eOffice rollout and IT services to Indian Railways dept/entities





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### Western Digital.

WESTERN DIGITAL EQUIPS ITSELF TO MANAGE THE NEW NORMAL WITH DIGITAL TOOLS AND SOLUTIONS

### JAGANATHAN CHELLIAH

Director Marketing, India Western Digital



### ACCELERATING DIGITAL TRANSFORMATION

The new normal hastened Indian consumers and businesses to adopt digital technologies. India's market is now fast transitioning to a data economy. Western digital noticed this trend early and shifted the strategy to ride on this change.

Western Digital focused on changing consumer needs and habits to drive demand for different product brands like SanDisk, WD MyPassport, WD\_BLACK, for consumers and Western Digital Ultrastar for enterprise markets. Being the first to move into a digital model of engagement with both its partners and end users, Western Digital built a multimodal digital engagement model with SI partners, Resellers, Retailers, and e-tailers for channel development and affinity. After the 1st Covid wave, Western Digital created a spectrum of virtual platforms to keep in touch with its partners. For instance, Western Digital's Virtual Channel Partner meet is an industry benchmark in terms of experience and turnout.

Western Digital also deepened its research and analytics to understand the tectonic shifts in consumer habits and identify new growth opportunities. It created a strong digital model

Western Digital.
Ultrastar
DC SN840
DATA CENTER SSD

to run end-user marketing initiatives targeting both enterprise and retail customers. Its proactive outreach and demand creation initiatives have helped its partners manage the challenging market conditions. The virtual product launch events of Western Digital have caught the attention of customers to make an impact.

The digital video campaigns and social media initiatives is also giving a leg up for brand Western Digital and its popular product brands like SanDisk, WD MyPassport and WD\_BLACK. It has created a WhatsApp-led platform to engage and interact with 3K+ partners across the country. Besides, the Western Digital retailer training app is an effective tool for educating the retail partners and their sales team. As an organization, Western Digital is fully prepared for managing the new normal with the digital tools and solutions.

### CREATING CUSTOMER EXPERIENCE

We have been living a classic VUCA world ever since the onset of the pandemic in March 2020 - Unpredictability in market demand, new consumer habits, supply chain constraints, cash flow impact, and employees' mental health. Western Digital stepped up to reorient itself swiftly and realigned the strategy to navigate the org through this disruption -

- On the B2C side, Western Digital worked on digital-led marketing campaigns for demand generation. It introduced campaigns like 'Back Up & Stay Safe' on the side-lines of World Backup Day to highlight the WD My Passport range of portable SSDs and HDDs as the best storage solution to back up customer data.
- 'Festive Season Demand Generation Campaign' was run to revive demand for WD & SanDisk products during Diwali and the New Year season
- A new product launch campaign named 'WD\_ BLACK brand campaign' was undertaken to introduce the gaming brand WD Black.
- On the B2B side, Western Digital's intent is to educate the CXOs and Key decision makers on new tech trends that will allow them to build



scalable data infrastructure. It has successfully created a virtual engagement model called "Next Gen Storage Intelligence" to connect with them and share its proposition.

### COMPLEMENTING DIGITAL INDIA

As a leader in data infrastructure, Western Digital drives the innovation needed to help customers capture, preserve, access, and transform an ever-increasing diversity of data. The government's Digital India efforts have boosted data generation with governance and citizen services going digital. This initiative coupled with the covid induced digital transformation initiatives by businesses has laid the stress of creating a robust data infrastructure

As a global leader in data technology, Western Digital is committed to provide the best-in-class digital storage solutions to preserve and manage this valuable content. Its innovative storage solutions will help enterprises, millions of SMBs and consumers to manage this data deluge. Western Digital data-centric solutions consist of the Western Digital, G-Technology, SanDisk, and WD brands.

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Technology is reshaping the industries globally. CIOs are finally being recognized for their leadership role, joining their C-suite peers in defining core business strategy, cultivating customer and board room relationships, and taking on additional responsibilities as companies prepare for the next chapter in digital business. As newer technologies emerge and businesses are increasingly entering into the digital era with evolving IT strategies, enterprises are demanding that senior IT leaders possess skills that go beyond traditional technology management, with this CIO are helping the company to grow and become a data-driven enterprise.

As digital transformation efforts progresses, the successful CIOs become business leaders of digital business units or have empowered organizations to create the digital backbone to accelerate the move towards hybrid cloud environments and new operating models. To promote its new revenue focus, IT organizations are taking a number of steps to support the creation of new products and services. For one thing, CIOs are coming at their role with a fresh customer-centric focus, expanding their definition of customer to the external community. With that in mind, CIOs are spending much more time on direct customer interaction (42%) and doing their part to help develop the customer journey (38%). CIOs are also embracing a customer-centric mentality for product development. More than half (57%) of respondents are using a design thinking approach to building customerand employee-facing technologies and applications, whether practiced by internal product design resources or outside consultants.

A Gartner report on emerging risks shows that while companies continue to prioritize and fund digital initiatives, two-thirds not only fail to deliver on their promises but also reveal "enterprise weaknesses, causing organizations to see a gap between expectations and results. 67% of ClOs say that the creation of new revenue-generating initiatives is among their job responsibilities.

Our survey outlines, as digital business initiatives heat up and spread across all areas of the business, there's an increasing need for more integration and a higher degree of collaboration between Information Technology (IT) and Operational Technology (OT). Historically, core enterprise and operational systems were procured, deployed, and managed separately, by different organizations that have historically not collaborated consistently, if at all, with little data sharing between platforms.

The modern CIO must understand how to manage and use data to drive growth, and they must be able to make strategic business choices about technology allowing that to happen. Today's chief information officers spend ample time outside of the IT department and must have a blend of technical expertise, business acumen, and communication and leadership skills.

### ADDRESSING CYBERSECURITY AND RISK MANAGEMENT

A CIO has a really critical role when it comes to instantiating security inside of an organization across all the business lines, plus the responsibility for really handling risk mitigation activities that span the spectrum for the entire organization."

This is a huge responsibility since massive amounts of data are shared and stored by companies daily. Unfortunately, data breaches are common. Today, cyberattacks happen daily, from small computer viruses to major data breaches. CIOs must continually educate themselves about risks and help hire professionals who can protect against them daily.

#### **ROLE IN THE CRISIS MANAGEMENT TEAM**

Technology is fundamental to business continuity. There has been so much change since the pandemic, and frankly, change is still happening as we're moving forward. The biggest challenge was on how do you set up the corporate infrastructure to be accessible in ways that allow people to work from a new blueprint? People are working from different locations now; they're not physically together. Challenge is to re-architecting of the technology backplane so that you could simplify, modernize, you could deliver the missing capability that was required.

The Gartner 2021 CIO Agenda found 62% of CIOs had some involvement in their organization's environmental sustainability agenda. Look at how the IT team can support these initiatives — from changing how you assess digital transformation and asking sustainability-first questions to getting up to speed on the data and arguments related to environmental sustainability.

The biggest thing we can see that CIOs are recognised for delivering value and these are the CIOs from 121 different organisations who have driven their organisations with various technology innovations. The warriors will be recognised as the Eminent CIOs of India at the annual Infotech Forum & Awards ceremony in August 2021.

#### IN ASSOCIATION WITH





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**VIJAY SETHI** 



DR. PAVAN DUGGAL



**CHANDRA MOULI** 



**DR. SAYED PEERZADE** 



ATUL GOVIL



**VED PRAKASH NIRBHYA** 



**KRC MURTY** 



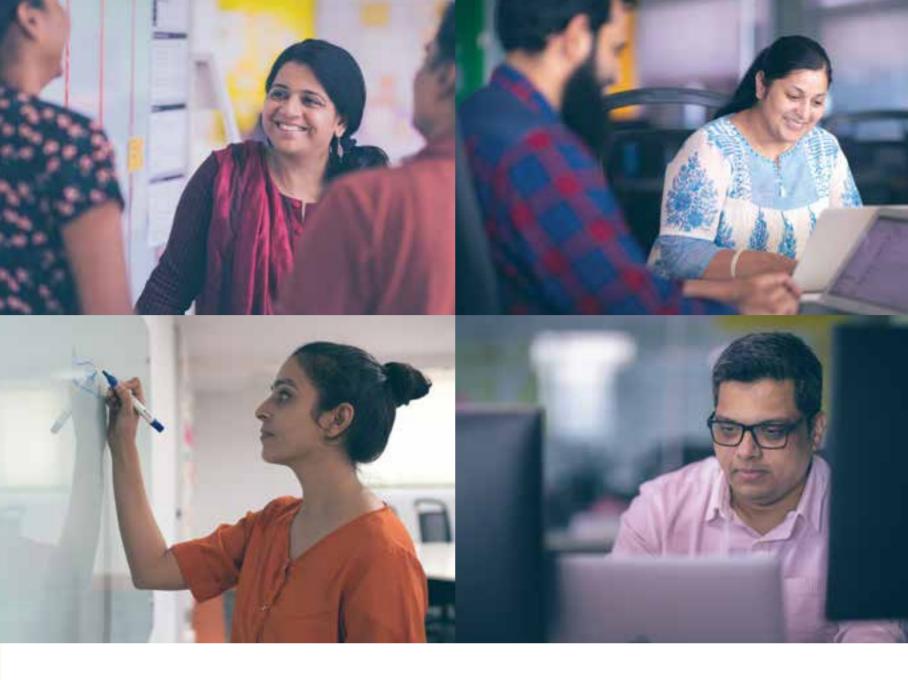
**AVNEESH VATS** 



SUBROTO PANDA



**RAJESH CHOPRA** 



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YOGENDRA SINGH

VISHWAJEET SINGH

**VIVEK AHUJA** 

YOGESH KUMAR

YOGESH DADKE



### EMINENT CIO'S OF INDIA

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### UMESH MEHTA President - CIO Klub

### Seat-Belts on, Let's Move Forward

Hope that as you read this page, you are in good health and spirits. And so are your loved ones, colleagues, team peers and business associates!

What a year it has been! It is really staggering to look back in the rearview mirror and reminisce the crisis we have braved together. So many lessons! So many trials! So many turning points!

It is not surprising then to hear so many intellectuals and industry-watchers label the Covid phase as a Black Swan event. It had its fair degree of unpredictability and massive impact for sure. But when we think of how the IT function adapted to it, should we not call it a Flamingo instead?

Just think of how much agility, prominence and flamboyance transpired during these challenging quarters! IT really stood out for its resilience and support in helping the business respond fast to new challenges and questions. IT was pivotal in aligning enterprises with strategic models fit for the new set of realities. We really manifested a lot of speed, and strength, in empowering business with all the customer experience management, robust infrastructure and work-from-anywhere confidence that it needed.

In fact, digital transformation has hit that much-needed fast-forward button during this phase. A lot of technology initiatives were embraced with acceleration and open arms – thanks to the pandemic-induced needs. We could experiment fast, fail fast and learn fast. We could inject a lot of future-forward tools and impactful platforms in this phase. We could prove ourselves as the spine of business strategy. From empowering employees to supply chain partners to customers – IT emerged as the core source of agility and innovation in these trying times.

But as the dust settles and as we step ahead to a new world; we have to make sure that we deepen this impact. We have a lot of work cut out ahead for us. We have to cultivate even stronger strengths and even more creative answers for the business to embrace the unpredictable world with some degree of certainty in its own core capabilities.

The road laid out for us is dotted with many opportunities and challenges:

- Fighting IT fatigue
- Recovering from IT-debt specially of heterogeneity, fragmentation and of decisions made in hurry
- Expanding and scaling some pandemic-phase ideas
- Supporting the post-pandemic customer with relevant solutions
- Creating a compelling competitive advantage for business and helping it to stand out soon and brightly in the new world
- Fixing mistakes that were inadvertently made in the crisis
- Making sense of new security and infrastructure paradigms as people return/not return to workplaces
- Imparting confidence, safety and business continuity in the six-feet reality

It is not going to be easy. But it is what it is. IT has its golden moment to stand tall and next to business strategy like never before.

Let's roll up our sleeves and tie up our shoe-laces. With passion, hope and creativity.

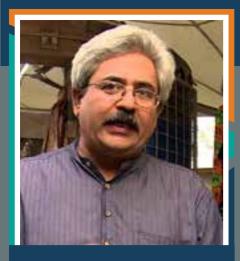
We have helped our businesses to stand on one foot during an unpredictable crisis. We have done our best to be a Flamingo when we met a Black Swan.

Time to be on our toes. Time to steer the business into the right direction. Time to be on the front seat, for a change!

Let's drive towards excellence. Let's fly towards predictability in a landscape where everything looks uncertain now.

Let's be the power. Let's be the shoulder. Let's be that one foot they can count upon.





### JAIDEEP KHANDUJA CTO AccioMango

### "We were always on 'being digital' path and never on 'doing digital'"

#### **RESPONSIBILITIES OF THE CIO**

CIO in modern organizations cannot afford to be any less than CEO of the organization as far as thinking about business is concerned. Only then a CIO can do a full justice to his /her role and CEO's expectations.

#### **KEY PRIORITIES FOR 2021**

Our organization's digital mandate was very clear right since its inception two and a half years ago. We were always on the 'being digital' path and never on 'doing digital'. So, for us, it was a clear cut mandate given by our CEO right in the beginning. Like, for me, as CTO of my organization key priorities have always been - every operational process and activity has to be on cloud without any compromise with security and availability.

#### ADOPTING WORK-FROM ANYWHERE

Basically, being a new age startup and our CEO being a hardcore tech savvy by heart, we did not have to face this change in a big way. For us, it was already 'normal' for us. Only major change that happened is that physical meetings got replaced with online meetings.

#### **REDESIGNING IT & SECURITY STRATEGY**

Any organization in the world can never set and deploy one set of security measures and sleep over it. This is true for any kind of situation and environment. Security measures always need to be audited and re-evaluated in this dynamic world of technology especially when data is the lifeline of an organization and it has spread its wings to public territories unlike in those years when it was limited to controlled boundaries.

#### AGENDA OF 2021

Fast track digital transformation initiatives lacking focus on appropriate security measures witnessed compromises in terms of ransomware or similar kinds of breaches. This needs to be balanced. Second important thing is the variable pace of digital transformation of organizations, especially those related to public domains. Core meaning of digital transformation is still not clear to many organisations including large ones.



NASEEM HALDER
CISO
Acko General Insurance

### Adoption of SaaS model at its peak to manage the technological risks

### **RESPONSIBILITIES OF THE CIO**

We believe technology is such a domain which is changing every second. Technology lovers are trying various combinations and permutations to improve the performance of their tech-stacks. Being a CIO and technology leader we should always look for the edge to improve the performance and sustainability of the technology platform of the organization.

### **KEY PRIORITIES FOR 2021**

Set aside a few minutes for the pandemic, if we are not being digital, it will be a slow poison to our business. Regardless of industries, if the technology stack is not providing the finest experience to the customer, we will lose our good customers, only the bad customer will be there with an additional customer acquisition cost. Technology leaders must look for the tech-enabled services to support the business agility with adequate data security.

#### **ADOPTING WORK-FROM ANYWHERE**

Every organization and business has their own way to run the show, therefore the adoption of changes is a bit different for each and every organization. But the adoption of cloud tech-infra services and technology services are a boom, especially the SaaS model to manage the technological risks.

#### **REDESIGNING IT & SECURITY STRATEGY**

Nowadays business equations are changing rapidly and today's digital business synergies are opening up unknown risks. Implementation of cutting edge security solution (i.e, SASE) can provide some short and medium-term advantages, but to solve it from the core and protect the crown jewels, build a data security orientated culture and employees are aware of data security threats.





"Hybrid model is going to be there wherein you will work-from-office and work-from-anywhere however percentages may vary role and industry wise"

### **RESPONSIBILITIES OF THE CIO**

CIO must take responsibility of transforming business digitally and accountability lies with everyone in the organization starting from top to lowest level in the organizational hierarchy. All must contribute. Digital Transformation is not possible without creating a digital culture and going through a journey of successful implementation of initiatives. To change the culture CIO needs to play the role of 'Chief Influence Officer' and for execution excellence and adoption, need to play the role of a 'change

#### **KEY PRIORITIES FOR 2021**

Most of the organizations were embarking on digital transformation journeys prior to pandemic as well; however, they were at different maturity levels. This has accelerated the efforts. Many consider even making one process or activity digitize is also digital, but this is a misconception and at the most can be considered 'Doing Digital'. Now the focus is on transforming business digitally wherein end-to-end processes in fully integrated way are digitalized. Creating new revenue streams and business models is the mandate and for that organizational culture and mindset is to change and this is in two space can be called 'Reing Digital'. this is in true sense can be called 'Being Digital'

### **ADOPTING WORK-FROM ANYWHERE**

Adani Group

So called 'New Normal' is 'Normal' going forward. Hybrid model is going to be there wherein you will work-from-office and work-from-anywhere however percentages may vary role and industry wise. Technological changes were given and will continue to evolve; information and cyber security has taken front seat. Last but not the least, shifts in HR processes and policies must be in sync with new realities of workspaces.

#### **REDESIGNING IT & SECURITY STRATEGY**

The threats and risks were there from decades but were restricted to the organizational boundaries. Now with the speed and scale of emerging technologies and their consumption at mass level, the threats and their corresponding risks have increased manifold. IT infrastructure modernization, usage of right skills, deployment of best-in-class security solutions and putting in place governance framework to hunt, detect, respond, and mitigate these challenges is the way forward.



YOGESH DADKE IT Leader – Global Control & Compliance, Adient Technologies LLC

### Adient Technologies adopted a slew of steps to enable Work from Anywhere

### **KEY PRIORITIES FOR 2021**

I would approach it as a four step process from ideation to business management digitally.

- 1. Digital ideation and delivery: Identify, test and scale the most benefiting digital business ideas within budget.
- 2. Digital foundation block: Manage digital approach horizontally and vertically cross-cutting platforms and integration.
- 3. Traditional IT management: (rip/replace/retire) legacy infrastructure, security and core enterprise.
- **4. General business management:** Work with business leaders to formalize organization's approach to digital business transformation and build the digital dexterity of leaders.

With the rapid rate of digital transformation changing the face of enterprises globally, the role of the CIO is also transforming. Insular IT management is a thing of the past, with CIOs now an essential in the C-suite, educating and guiding business leaders on ownership of critical digital responsibilities to help accelerate digital business progress.

### ADOPTING WORK-FROM ANYWHERE

**COVID Response:** 

- Enabling Work from Home, implemented VDI and Windows remote desktop capabilities for the Product Development team. Engineers were able to work from home at about 97% efficiency within a week from the pandemic
- Setup a dedicated VPN connection point in India, which significantly improved CAD performance for the 2500+ Engineers at India
- Communication, Health & Safety initiatives: Implemented full online return to work survey at manufacturing plants and technical centers, saving significant time and risk of exposure by eliminating long lines.
- Reacting to COVID affected the economy, implemented lights-on mode with no impact to business operations during pandemic, resulting in \$2M cost savings
- Implemented Chatbot/Al/Cloud/Automation/CICD for efficient IT support practices. By shift left to ChatBOT and implementing RPA and effective knowledge management system eliminated Helpdesk L1 support and reduced L2 by 60%.
- Implemented Rapid Application Development platform, this helped in expediting solution delivery 5X. It also helped with creating the perfect cocreation environment and culture to develop for-purpose applications at a rapid pace.

**REDESIGNING IT & SECURITY STRATEGY**The Must have; the need to have and good to have is always a part of short term and long term plans. However as no compromise to security and no compromise on business impact; always strong focus on basics remains as part of our strategy.





SOURAV DAS
Chief Digital & Information Officer
Aditya Birla Group
Essel Mining & Industries

### "We adopted leading technologies in Cloud Proxy as well as Internet Based Patching System"

### **KEY PRIORITIES FOR 2021**

The biz ecosystem is fast changing; additionally, the pandemic has induced a distributed remote workplace - "in all, the need of the time is "Anything, Anywhere, Anytime". Therefore, newer initiatives of digitisation are sowing the seeds of digitalisation and digital transformation. In this backdrop, CIOs mandate has immensely changed - from being technology-centric to business-centric. The KPIs therefore are not just about servers and networks, but about the business - be it customer-centricity, or employee productivity or operational excellence.

The role of IT and digital is therefore not just supporting business but in creating differentiation for business in these stressed competitive markets, and how digital can lead to positive impact on top-line, bottom-line or compliance.

### ADOPTING WORK-FROM ANYWHERE

The challenges in adopting the new normal were primarily on two accounts - psychological and technical. The process of adapting of employees to the new normal was surrounded with various unknowns, however on the technical front if the initial challenge was to ramp up hardware, subsequently it became IT security. We therefore adopted leading technologies in Cloud Proxy as well as Internet Based Patching System, and ensured secured access on a strengthened network. The whole process also required several policy decisions, effective leveraging of Cloud and strategically moving from perimeter security to end-point. Finally, the critical differentiator

was the service provided by the IT team, and for all of that the users praised us as no less than COVID front-line workers.

### **REDESIGNING IT & SECURITY STRATEGY**

This really is the need of the time - our re-evaluated IT strategy has three pillars. The first, on re-imaging business - how IT and digital initiatives can measure and save a kilometre in the route a vehicle travels, how a heavy machinery can work an hour more in a day, or how a litre of oil can be saved per tonne of mineral mined.

The second, on adopting a digital workplace - where an employee can work from anywhere, business processes are leveraging automation more than ever, and a seamless integration between machines and systems. And third, the aspects of security and social ePresence - improving the posture and positioning, respectively.



ANAND RAO Co-founder & CEO AG O2O Stores LLP

### "The next great security challenge is cloud complexity"

#### **RESPONSIBILITIES OF THE CIO**

The role of a CIO has drastically changed during the current pandemic. A CIO is now required to collaborate with organizational leaders to help guide digital business transformation efforts, strategies and digital capabilities and communicate mission and goals. During the COVID-19 lockdown, many CIOs have helped save their enterprises. They now have the attention of the CEO in a way they never had before. The future path of an enterprise runs through IT, and the Board and CEOs know it.

These stronger relationships give the CIOs a leverage they will need for their next big challenge of digital business acceleration.

### **KEY PRIORITIES FOR 2021**

The CIOs have helped save many enterprises during the COVID-19 lockdown and grabbed the attention of the CEO. CIOs have been trying to convince senior business leaders to modernize and take full advantage of technology for years. With this, many prior roadblocks have been removed. Boards of Directors have launched a large majority of enterprises on digital business acceleration. CIOs must seize this moment as they might not get another opportunity like this.

### **ADOPTING WORK-FROM ANYWHERE**

The biggest accomplishment for many CIOs in 2020 was a classic IT responsibility in provisioning laptops and VPN connections for remote workers and digital workplace technologies to support work from home.

#### **REDESIGNING IT & SECURITY STRATEGY**

The next great security challenge is cloud complexity including shifts in workloads, new software development models, remote work and heterogeneous public cloud usage.

As information technology systems continue to become more complex in a hybrid work environment, there is a lot that can go wrong. Being able to understand and resolve potential problems is crucial to a company's success. That is where a robust observability plan which enhances traditional IT monitoring practices to include more effective problem detection and security measures comes in. The most effective observability measures would be employing automation and expanding training, increasing visibility into application performance, cloud infrastructure, security risks and root causes of service failures.





#### Security: A major focus of Ahuja Hive

#### **RESPONSIBILITIES OF THE CIO**

As an influencer or change agent, I am taking my organization on world portal to believe that this is the company which is focused on technology and customer centric approach to help grow in the fast growing market scenario.

I am a true influencer and a true change agent and believe in learning and transferring knowledge to our team. IOT and Automation is one my digital strategy for my project location as we are growing fast and connected devices and automation is one my concern to implement the same.

#### **KEY PRIORITIES FOR 2021**

We are working on to focus completely to move from manual to complete digital. We are working on a Salesforce application to digitize all our project locations with automation of data and all. Earlier we moved all our legacy applications on SAAS or some private cloud platform.

We are a fast growing real estate and construction company and our majority of users are working from home or our management sitting overseas locations as this is an MNC, so availability of data is easily available in a secure manner. Right now we can say that we are 100% on cloud.

#### **ADOPTING WORK-FROM ANYWHERE**

CIO & IT Head Ahuja Hive

We have been completely working from home for the last one year. Our core project team is traveling, but we are working remotely. Our core digital projects are all online, like SAP on AWS, Microsoft Team and Office 365, Salesforce, etc. Our complete focus is a secure way of using all our applications online.

#### **REDESIGNING IT & SECURITY STRATEGY**

For the short term we are focusing on core security and motivation of our employees to use the proper web portal etc. Due to the fast growing nature of our business, we as a team completely focus on a secure way of using our devices. For the long run, we are planning for the SOC to outsource to check our security properly, respond and update to our users. Security is our major focus area this year.

Our strategy behind this in future also, work from anywhere concept, as though project team are working on project site, but others are working and supporting remotely. ERP, Sales, CRM, Email, Cloud Storage, Security everything is on cloud.



## A remote workforce brings countless security dangers

#### **KEY PRIORITIES FOR 2021**

Top priorities for IT teams in 2021 are digital transformation, cybersecurity and cloud/cloud migration, digital business acceleration, rightsizing support for remote and hybrid work, building supply chain resilience customer experience also near the top, indicating the continued importance of a customer-centric attitude aimed at increasing customer retention, encouraging repeat business and driving up revenue..

#### **ADOPTING WORK-FROM ANYWHERE**

WFH to become the new normal as organisations prepare for what life looks like in a post-pandemic world; one of the many issues they will have to address is IT security for home workers. A remote workforce comes with myriad dangers, with employees relying on their home networks – and sometimes their own devices – to complete tasks. Without the security protections that office systems afford us – such as firewalls and blacklisted IP addresses – and increased reliance on technology, we are far more vulnerable to cyber-attacks while WFH.

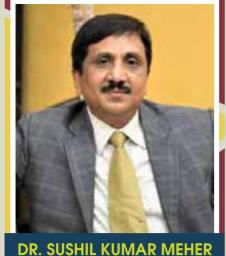
Business leaders will look upon the IT fraternity to facilitate this mode of work but their worries of potential security breaches need to be addressed on top priority so that IT leaders succeed in meeting their expectations.

#### **REDESIGNING IT & SECURITY STRATEGY**

Traditional cyber threats or attacks have targeted information and communication infrastructure that usually result in economic loss.

- 1. Prioritize cybersecurity by setting up a security strategy to assess and classify the data you handle and the type of security you need to protect them. Run a security audit on a regular basis.
- 2. Focus on cybersecurity awareness.
- 3. Create a unique and strong password combination and complement it with two-factor authentication to access the system.
- 4. Invest in cybersecurity tools like antivirus software, firewall, and other privacy tools to automatically scan threats.
- 5. Have a strong backup policy. It will protect you from ransomware attacks.
- 6. Apply end-to-end encryption to all your confidential files.
- 7. Hack yourself! This will help you identify the vulnerabilities in the system.
- 8. Go beyond technical controls to build a holistic program that protects the enterprise.
- 9. Integrate cybersecurity with business strategy to build trust and co-create value.





KEY PRIORITIES FOR 202

Digital transformation and best IT strategy is the most important pillar to make efficient health service, research and education in AlIMS, New Delhi. Transforming healthcare through digitalisation is a passion in AlIMS, New Delhi for a long time. The highest priority has been for transformation to provide high level health research, promoting high standard of teaching / training and providing high quality of healthcare in the entire speciality. Digitisation in AlIMS is a never ending process and applied to yield quantum leaps in efficiency, cost-savings, patient safety and care quality.

"Digitisation in AIIMS is a never ending process

cost-savings, patient safety and care quality"

and applied to yield quantum leaps in efficiency,

Today the trend in digital health is integration of medical knowledge with IT applications / IT technologies, which improve the quality of medical care, right protocol for treatment and management of patients. Integration of mobile applications in digital health has given an opportunity for the specialist doctor to get the real time patient data and give the doctor consultation anywhere and anytime. Now a day's digital health in GOI health organisation has revolutionised the business models in the area of health insurance (Ayushman Bharat GOI scheme), as well as those related to organisational forms of medical care, and have also changed the role/relationship between doctor and patient virtually which patients are getting an early warning about their disease.

# DR. SUSHIL KUMAR MEHER CIO, Department of Computer Facility, All India Institute of Medical Sciences (AIIMS)

The advantages of Electronic Health Record (EHR) in AIIMS which is already been implemented:

- Increased patient safety automatic reaction control (Drug drug interaction and Allergic) with newly prescribed medications.
- Reduction of treatment costs of patients i. Avoiding duplicate examinations ii Past disease history and treatment of the patients iii. Management of hospital resources.
- Goal-oriented, medically appropriate treatment through the availability of laboratory findings, knowledge of previous illnesses, visual data from Radiology imaging.
- Rapid availability of second opinions from specialised doctors.

#### **KEY PRIORITIES FOR 2021**

- 1. IMPROVING PATIENT CARE & TRIAGE USING CHATBOTS/ VOICEBOTS Patients do have a tendency to book appointments at slightest threat or medical issue, which could sometimes be cured at home or self-treatment or turns out to be false-alarms. Artificial Intelligence here can assist to enable smoother flow by automating basic care, allowing doctors to deal more with complex and dire cases.
- 2. CUSTOMER SERVICE BOTS & FRAUD DETECTION Utilizing artificial intelligence (NLP), interactive service bots can be built, allowing patients to ask questions regarding bill payment, appointments, or medication refills. Various AI tools can assist in providing positive results to patients while healthcare professionals have time to focus on priority tasks. Therefore, this digital healthcare solution achieves better outcomes with advanced treatment while engaging patients.
- 3. **HEALTH MONITORING** Artificial Intelligence based technologies can keep track of a patient's health. They can monitor the pulse, body temperature and other activities ensuring the individual is healthy. The system can notify the user regarding improvements. Also, this collected data and the patterns generated can then be used to timely diagnose any illness or give an indication to the doctor for any further tests to be done on the patients to further find out the issue with the patient's health. Prescriptive analytics on patient data also enables accurate real-time case prioritization.
- **4. IoMT** (Internet of Medical Things) is the amalgamation of data from medical devices or equipment and medical software applications that connects to HIS wirelessly. All the real time data seamlessly will be stored in the central server. The intention is to combine people, data and processes through connected medical devices and mobile applications to help improve patient outcomes. In this case elderly care (Geriatric) and very critical patients will benefit from integration of technology through remote home monitoring (IOMT). IoMT will play a significant role in enabling doctors, for the first time, to monitor patients remotely and prevent episodes of care in a timely manner.
- **5.** Artificial intelligence (AI) and Machine Learning (ML) in healthcare is playing a big role in prediction of disease and can get early detection of infection in public. Which helps to analyse massive amounts of data around the human genome and drug molecules, and these new-age technologies can play an important role in the fight against COVID-19.

#### **ADOPTING WORK-FROM ANYWHERE**

AllMS business model is providing higher medical education and training to students, health workers within the AllMS as well as outside AllMS and health care also. During the COVID time most of the classes and examinations have been conducted online. A new program has been continuously organised "National Combined Grand Rounds on COVID – 19" on the open source Wordpress. Telehealth has been introduced to give remote consultation to the revisit patients. Different apps have been developed for monitoring patients remotely and giving / changing the prescription. Now AllMS is taking an innovative new approach to address three key areas of impact: clinical, safety and security, and high-impact IT incidents.

#### **REDESIGNING IT & SECURITY STRATEGY**

Healthcare sector is seeing the highest number of ransomware attacks, hackers actively scan for known vulnerabilities to exploit and gain a foothold onto the network. Organized crime, and now in some cases, nation-state actors, have seen substantial earnings by taking healthcare networks hostage, predominantly from care providers and hospitals battling COVID-19 on the front lines. With each success and ransom paid, more ransomware attacks are guaranteed. In healthcare, there are downstream effects for everything that happens. Whatever happens with data eventually affects a human being.

There are steps we can and must take to prevent becoming a victim. With Ransomware, knowledge is power. Understanding why it is happening, how it is happening, and to whom is critical. Gaining insights into how you can detect intruders and knowing the methods they use to gain access is necessary if you are going to stop them before the harm is substantial. Ransomware attacks have warning signs, and attackers leave trails. Analysis of the anatomy and psychology of a ransomware attack and take a smarter, more adaptive approach to protect critical databases, files and more with a comprehensive data security platform. Phishing emails are another entry point, so refreshing employee security awareness can also support ransomware prevention efforts.

**Blockchain technology:** All health data can be saved securely by means of this technology. When it comes to the storage of health data, having a database network means a patient can have their own password that they use to verify access to records at a range of hospitals and medical offices, thus maintaining accurate data that promotes health without the need for vulnerable personal records. Medical records should be stored on a distributed ledger or blockchain using tools. This is shared with the patient, healthcare provider, insurer, and the government. In this case, the AlIMS acts as the regulator for his own patients. Blockchain uses cryptographic proof to validate records on public-key cryptography to secure data. In this technology EMR of the patients will be more secured.





#### "The CTO has to adopt and adapt auickly to the newest technologies and integrate them with the functions of the teams"

#### **(EY PRIORITIES FOR 202)**

The rapid uptake of digital media consumption is happening and it is imperative for organizations to segment, analyze and understand the present perspective of Digital India. This significant progress in the sophistication of digital users is due to various factors such as income effects, affordability, availability of internet access, quality of high-speed internet access.

The immense demand for the variety in content led to the focus on the supply of the same, thereby increasing the revenues by more than 30% in this pandemic year alone.

Multitasking has become more common. Hence, our dependency on a tiny device called a smartphone. The largest consumer of digital media is the age group between 10 - 40 which seeks convenience and connectivity. This is provided by the digital platform. Moreover, the business of TV viewing has shifted from being provider-driven to consumer-driven.

No more scheduled programs that people have time to watch. The consumer now chooses what, when, how to view what he desires. This is due to the convergence of television and the internet. This shift has given way to the rise of many content creators. Viewership is becoming more consumer-driven. Adapting to this change must be welcomed.

Alliance Broadcasting

ADOPTING WORK-FROM ANYWHERE
In the pre-pandemic period, virtual connections used to take place on a smaller scale. But lately, the crisis has forced people to stay connected virtually.

Bringing everyone up to speed, keeping the team looped and connected, uploading all content and syncing them, doing voice recordings remotely, and connecting all users to NRCS have been a tremendous challenge. But we manage to do it. The use of virtual video platforms like Zoom, Google Meet and Skype has been integrated successfully.

REDESIGNING IT & SECURITY STRATEGY
The CTO has to adopt and adapt quickly to the newest technologies and integrate them with the functions of the teams. This will increase productivity. We should only focus on the best technologies to improve productivity in a more modernized way.



**SUBROTO PANDA** CIO Anand and Anand

"We are not traditional organizations that 'do' digital projects; instead, we have altered the corporate DNA to become digital"

#### **KEY PRIORITIES FOR 2021**

For our organisation, digital traits and a digital mindset define the corporate outlook and behavior. Rather than merely digitizing customer touchpoints, we reimagine new ways to engage with customers. Similarly, rather than simply 'doing' digital projects, we have adopted an integrated strategy that makes them digital at the core right to the level of their DNA. We are not traditional organizations that 'do' digital projects; instead, we have altered the corporate DNA to become digital.

Key Priorities for 2021 are:

- Data-driven decision making
- Multi-speed operating environment
- Agile way of working
- Establishing Cloud ecosystems

#### **REDESIGNING IT & SECURITY STRATEGY**

The first step is to understand what the new technologies are and then to look at the potential risks and consequences. After this is it possible to plan to mitigate the risk.

Threats change at a much greater pace than organizations can react. So, the onus is put on organizations to ensure that the adoption of new technologies is done in a secure manner. Unfortunately, there is no silver bullet when it comes to cyber-security, but we focused on three areas which needed to be addressed:

**People:** Education is everything in the fast-changing nature of technology. We ensured they understand the risks of any new technology they install as this will be key to properly securing it. This is not just the IT team, everyone working with critical data and new technologies need to understand the risks and how to mitigate them as well.

Processes: Established clear processes for implementing new technologies. For example, made it mandatory for the security team to be involved in every discussion about investing in technology so they are aware of what they need to do in order to prepare to secure the devices and the data at the point of installation.

Technology: Technology is there as the last line of defense, to help enforce policies and ultimately to keep people and information safe. Use established security technology to protect data at every point.

Adoptive DLP solution adoption helped with the capabilities that go far beyond traditional DLP and network security. For example, features such as anti-steganography can guarantee that images are not used to convey malware or to leak sensitive information, while OCR can ensure that information is not leaked using images from multi-function printers and screen grabs.





## "Information and cyber security awareness programs are the need of the hour"

#### **RESPONSIBILITIES OF THE CIO**

CIO carries dual responsibilities of not only driving the IT services and strategy for an organisation, he also acts as an influencer for the new initiatives or digitizing business processes with increase in the value proposition. CIOs have to think like a business executive to drive the digital transformation. If he/she thinks like a business executive, he/she will be in a better state to understand the actual digitization requirement of the business and will be able to make digitalization a success for the organisation.

#### **KEY PRIORITIES FOR 2021**

CIO's responsibilities had changed drastically from last one year, earlier digital transformation was thought to be a long process. But now it's required in real time. One has to be ahead of time. WFH is now normal for traditional companies. People want each and every service/information on their system irrespective of the location. You have to digitize each and every department.

Our main focus will be on upgrading the infrastructure and support services as they are the backbone of an organisation, which carries most critical functions on the backstage to support business.

#### **ADOPTING WORK-FROM ANYWHERE**

Earlier it was Work from Home for IT/ITES companies, now pandemic has created another front of working for employees as "Work From Anywhere" in every organisation. SSL VPN, Cloud migration and secure cloud share drives are now accepted normally nowadays. We have migrated our native applications to cloud infrastructure, each employee is provided with VPN client and logins. Due to work from anywhere major security threats are also arising day by day, as the perimeter is not the office or cloud infrastructure which is to be secure. One cannot restrict people connecting from any part of the globe. Information and cyber security awareness programs are the need of the hour. Regular updates on email scams and phishing / ransomware email identification are going on. Lots of work has been done in the past one year on corporate information security and still is going on as security is a continuous improvement program.

#### **REDESIGNING IT & SECURITY STRATEGY**

Work from home and work from anywhere concepts had changed all the previous planned and designed security strategy and IT DR/BCP programs. We have to revisit our security strategy, review the security posture of the organisation, security audit considering the new normal of WFH/WFA and make major changes in the security services implementation. Increased our information security awareness sessions with employees.



VENEETH PURUSHOTAMAN
Group CIO
Aster DM Healthcare

"Investments in collaboration tools in early 2019 helped us during the pandemic to get our employees to seamlessly transition to remote working"

#### **RESPONSIBILITIES OF THE CIO**

CIO was always a business leader who had to keep business in front while making any decisions on technology, I believe the CIO is the most equipped among other CXOs because of the visibility they have across the functions to drive the digital strategy.

#### **KEY PRIORITIES FOR 2021**

The role of the CIO in the journey of doing digital to being digital is crucial as he works closely with the rest of the organization in putting together a roadmap to accelerate the architecting and deployment of the digital platforms and solutions. Further, the CIO like the other CXOs will also play a key role in driving the change management and process re-engineering.

#### ADOPTING WORK-FROM ANYWHERE

Our investments in collaboration tools in early 2019 helped us during the pandemic to get our employees to seamlessly transition to remote working. However our frontline employees working at the hospitals and clinics had to be at the units to take care of the patients. This team was empowered with solutions like Remote ICU, Remote care solutions and VPN based access to on premise hospital information systems.

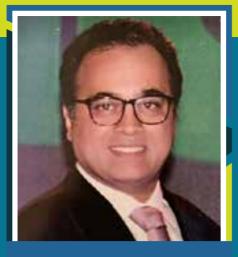
#### **REDESIGNING IT & SECURITY STRATEGY**

The Information Security posture is too critical and more important than ever; the pandemic and the resultant remote working or work from home have moved all of us into a perimeter-less networking environment where the end point security is no doubt the first and last line of defense. While continuing to invest in solutions and tools to strengthen the end point security organizations must also continue to spread the awareness among the users and have third party assessments of the security landscape periodically.

#### AGENDA OF 2021

If 2020 has accelerated the Digital transformation for the organizations, I believe 2021 will further accelerate the transformation and organizations will have a plan to be a digital company in the coming years running up to 2025. Any organization who does not have an aggressive plan will have a tough time surviving the coming five years.





AVINASH VELHAL

RBU Growing Markets, IT & Process

Atos Global IT Solutions and Services

#### CIOs: The new "Cultural Integration Officers"

#### **RESPONSIBILITIES OF THE CIO**

CIOs have always focused on technology and process. The current virtual organisations now demand CIOs to be cultural change agents focusing on people issues which have become critical due to individual isolated remote working. The old concepts of NOC and peremeterised IT support are no longer viable and new support structures and policies are to be integrated. CIOs are the new "Cultural Integration Officers" in addition to all other hats worn by them.

#### **KEY PRIORITIES FOR 2021**

CIOs have been asked to adopt the digital technologies internally first, demonstrate business impact so that this can be shown as proof of concept in front of clients. The current situation requires realigning the IT architecture with market realities to exploit the digital opportunities. CIOs are now more integral to business operations and its outcomes. The need of the hour is to rearchitect the IT landscape to align with the revised realities of business in this post pandemic era. To strengthen the processes in terms of security and compliance and leverage them to optimise business outcomes in anywhere workplace environment.

#### ADOPTING WORK FROM ANYWHERE

Anywhere workplace is the crucial component of all businesses. Policy changes related to asset provision and returning of assets to deliver and collect them has become critical for remote onboarding provisioning of resources; digitalisation of employee self-services especially local expense claims process, leave management etc. Providing a seamless collaboration and

knowledge platform through MS Teams, SharePoint, Yammer O365 has been a big differentiation to provide any device anywhere workplace. Enabling the Knowledge management and collaboration tools of the organisation are of paramount importance in the current virtual business environment to increase customer intimacy and satisfaction.

#### **REDESIGNING IT & SECURITY STRATEGY**

The current context requires a re-architecture of the IT landscape focusing on remote working and provisioning, securing the information security aspects. Investing in new security solutions to be effective in this borderless IT environment. Policy changes while adopting new tools and technologies considering all dimensions of security threats considering existing revised landscape and working environments is a new challenge. Building up the knowledge management and collaboration environment with robust communities and content to achieve virtual teams delivering high customer satisfaction is essential.



YOGENDRA SINGH Head - IT/SAP Barista Coffee Company

## "So we should consider security based frames at top of the technology"

#### **KEY PRIORITIES FOR 2021**

2020 has introduced dramatic changes in the way industry operates. Pandemic has had a significant impact on many businesses worldwide. Most importantly, 2020 revealed the great importance of digital infrastructure of business operations, as these infrastructures ensured business continuity during the pandemic crises.

Digital Mandate or Priorities for 2021-

- Maximizing the Benefits of Remote Working in the New Normal
- Increase productivity and cut costs through Intelligence and Hyper automation
- Digitize the physical process with IT and OT Alignment
- Training for IT Team and end users to ensure technology based productivity

#### **ADOPTING WORK-FROM ANYWHERE**

The spread of pandemic has left the entire world grappling with its negative impact on the economic front. With most of the countries steadily going into lockdown, the businesses across the globe have taken or started taking a hit and nobody knows when the pandemic will get over.

In these difficult times, the primary endeavour of the organizations would be to keep the business and the employees' immune from the aftermath. However, with the resulting turbulence and uncertainty, organizations would be required to strategically align themselves with the need of the hour and take conscious decisions or even reconsider the ones taken earlier

So there are many changes required to adopt to sustain business

- 1- Digital transformation
- 2- Remove time and Location based boundaries to allow flexible working hours. KRA and KPI's should be well placed in the organization
- 3- Investment into IT Innovations because future business will be based on Technology.

#### **REDESIGNING IT & SECURITY STRATEGY**

Any technology has two main parts- one is features that we require and second is Security. So while everybody will work from different locations with multiple devices and different internet connections, "Security will be the major concern". So we should consider security based frames at the top of the technology.

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DR. MUKESH MEHTA

CTO

Batlivala & Karani Securities

#### "The role of the CIO is even more integral as enterprises shift from tackling digital transformation projects to living in a fully digital society"

#### KEY PRIORITIES FOR 2021

A mindset shift is required from a CIO in a digital society. The role and responsibility of the CIO has changed from typically driving projects and deliveries to business executive. The transformational CIO collaborates on digital strategies, leads organization change, drives agile practices and experiments with platform and emerging technologies.

In short, CIOs are transitioning from traditional IT service delivery to a more strategic role. The divide between organizations that are executing a digital strategy and those that have not started is becoming more pronounced. Today, CIOs are spending more time on aligning IT projects with business goals, leading business innovation, and organizational change programs.

There are multiple changes that the leadership must adapt to, and evolve with to meet the business demands. The role of the CIO is even more integral as enterprises shift from tackling digital transformation projects to living in a fully digital society.

#### ADOPTING WORK-FROM ANYWHERE

Digital adoption has taken a quantum leap at both the organizational and industry levels

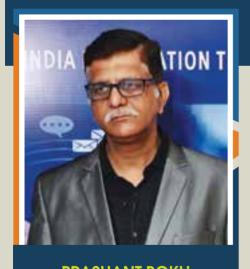
We expect India Inc. to look at the following:

- Work from home as a means to cut investments on office infrastructure
- Adapt with tools to make work from home more productive and secure
- Preparedness to cope with unexpected challenges
- More investments in strengthening security infrastructure
- Cloud for data access and better data control

#### **REDESIGNING IT & SECURITY STRATEGY**

Every organization needs to evaluate IT strategies, few steps we have taken are highlighted below:

- A dedicated monitoring team for the infrastructure
- A secure browsing and email access for user's who do work from home
- PAM to help track server activities performed, like which user logged in and which command was executed
- Security assessments and configuration assessments should be performed regularly foron-premise as well as for remote user's and cloud infrastructure, application to find the loopholes in the infrastructure and fix it
- Robust response mechanism for incidents
- A DLP to protect from data leak and Email encryption.



PRASHANT BOKLI CTO Being Human Clothing

### Being Human Clothing adopted personal / hybrid / shared cloud as its IT strategy for long term

#### **RESPONSIBILITIES OF THE CIO**

During this changing era, the CIO's have emerged as Chief Influencer Officers, there are many things that need to be considered here, shortly the requirements of the organizations have been changing and according to that role of CIOs and CTOs have changed appropriate to the business and industry domain needs.

One major part towards awareness about the upcoming technologies and impact of the same on the business processes need to be considered by CIO / CTO, educating stakeholders as a primary requirement may come up. There are many threats while using the newest technologies such as data breach / more intensive ransomware attacks, what sort of precautions need to be taken while saving data on cloud, the structure of cloud data directory or folder needs to be designed very smartly. Protection from virus attacks, unauthorised access from persons or devices, and so many new responsibilities have been added to the role of CIO / CTO. Many of the responsibilities mentioned above may be there in the CIO / CTO role, but the metrics have been changed.

#### **KEY PRIORITIES FOR 2021**

The technology-driven innovations that were transformational in a previous era have become table stakes for staying in business. It is no longer enough to execute on a digital transformation at the speed of business. CIO/CTO now need digital acceleration — and CIO/CTO need to keep accelerating.

#### **ADOPTING WORK-FROM ANYWHERE**

The New Normal (Work from Anywhere) brings many challenges or changes required in organizations, as far as our organization is concern, in the month of January 2020, we have implemented our ERP on Cloud, including all data storage on hybrid cloud, which enables smooth working during Covid-19 pandemic as well as "New Normal" or Work from Anywhere. We have implemented all sorts of securities on top of the business data and provide secure access to hybrid cloud with the help of Secure VPN Connectivity.

#### **REDESIGNING IT & SECURITY STRATEGY**

During Work from Anywhere culture, many new threats have emerged, they were there earlier also, but the intensity of those threats had increased drastically. As far as the redesigning IT strategy is concerned, the use of laptops within the organizations has been increased compared to desktops. Use of smartphones and cloud data sharing has been increased.

As I have mentioned earlier we have moved everything to a personal / hybrid / shared cloud and started using it extensively in the month of Jan 2020, hence we have changed our strategies according to being digital or compatible with cloud computing.





#### SHIJU RAWTHER Chief Information & Technology Officer **CARE Ratings**

#### "Going digital is the new normal and has become mainstream now"

#### **KEY PRIORITIES FOR 2021**

Customer experience is now clearly at the heart of digital transformation, and digital is at the centre of that customer experience. A CIO is the employee of any organization behind today's digital transformation initiatives and as well as their approach will decide the future innovations.

But they face a continuous challenge to use the latest technologies and keep on inventing new IT innovations to make the entire business process agile. CIOs are carrying the major responsibility of driving technological change. Those who are not willing to take the challenge to transform their business processes, always carries a risk of becoming an ordinary player in their industry.

ADOPTING WORK-FROM ANYWHERE
"This pandemic has taught us a lot of things which will now become a part of the new normal." The importance of technology cannot be overstated. Making solutions and customer deliverables techdependent is the way forward. A sure-shot way of achieving a lot in this space is by connecting with customers online and catering to their specific requests in line with their current needs.

As CARE Ratings is a technologically driven company, it was able to leverage technological solutions to ensure the continuity of business. Going digital is the new normal and has become mainstream

now. "It is technology which shall shape mankind thus focus on Al/ML framework, next-generation UI/UX is indispensable for envisioned and scalable ecosystems.".

#### **REDESIGNING IT & SECURITY STRATEGY**

IT security is implemented in 3 different layers. We have tightened the perimeters, since that is from where one can get inside our network. Multiple technology solutions at all layers have been implemented to prevent any external / internal threats. We keep monitoring the network traffic pattern, the security operation center which runs 24\*7 so that anomalies can be captured immediately to take action. Another aspect is the internal threat. The activities of people need to be monitored very closely. We use data analytics internally to observe the changing user behaviour patterns.

There is also a robust Data Leak Prevention (DLP) system implemented. The DLP solution is implemented at 3 layers – at the email gateway, at the internet gateway and on end points - so that there is no way the data can move out of the systems. Encryption of data at rest and data in motion is implemented to ensure no one has visibility of data



**ANUJ AGARWAL** Chairman Centre for Research on Cyber Crime and Cyber Law

End-Point security, ransomware protection, employee productivity and data privacy and protection: The key winning strategy

#### **RESPONSIBILITIES OF THE CIO**

CIO is now the eyes and ears of the organization and should be equipped to report on employee productivity especially in WFH as well as safety of information assets. He is the key business enabler, and is a countering force to pandemic led business disruption. He is also a key change agent in cost saving from remote working while still maintaining the high availability of critical information

#### **KEY PRIORITIES FOR 2021**

Work from Home (WFH) has emerged as a key challenge to remain digital as physical workplaces have to be closed or are working at below normal capacity and technologies around WFH enablement is a key driver for being digital.

#### ADOPTING WORK-FROM ANYWHERE

Sending appropriate hardware including laptops and even furniture to their homes and ensuring internet connectivity through a patchy network emerged as a key challenge for business continuity. Protection of data and privacy of consumers in compliance with GDPR, HIPAA and SOC2 another major challenge and concern.

#### REDESIGNING IT & SECURITY STRATEGY

Threat perception is now more focussed on end-point as more and more work is from home and away from corporate networks, where standard corporate threat prevention measures are no more workable, like firewall is effective once threat crosses it to enter the network. End-Point security, ransomware protection, employee productivity and data privacy and protection is the key to winning strategy.

#### **AGENDA OF 2021**

Securing the information assets from ransomware like disruption. Ensuring productivity measurement. Enabling cost cutting through WFH, data protection & privacy. Blockchain adoption cost and benefits, training and competency development to be completely on-line.





"We leverage the innovative capabilities of the emerging technologies and cloud to help customers generate new revenue streams, increase efficiency, and deliver incredible experiences"

#### **KEY PRIORITIES FOR 2021**

Being digital with a cloud native services partner company @ Cirrus1.co, our key objectives are focused to lead the most complex technology projects with our Fortune 500 customers. As an Enterprise Design Thinking approach, we leverage the innovative capabilities of the emerging technologies and cloud to help customers generate new revenue streams, increase efficiency, and deliver incredible experiences with the following major priorities in 2021:-

- Enterprise Cloud Transformation
   Enterprise Architecture Organization Transformation
- Business Optimization
   Application Portfolio Rationalization
- Post-Merger Application Harmonization

#### **ADOPTING WORK-FROM ANYWHERE**

From survival to revival-turning business challenges into meaningful change it is customary how organizations can undergo an optimistic metamorphosis to combat the crisis and also come out shining. Since the leader of an organization undoubtedly plays the most predominant role during a predicament, the trait they exhibit under current times can actually determine the success or failure of an organization.

#### **REDESIGNING IT & SECURITY STRATEGY**

Cirrus1co

As customers transition their applications and data to cloud computing, it is critical for us to re-validate, maintain or exceed the level of Enterprise Security and Privacy Protection they had in their traditional IT environment. Hence there is a prescriptive series of validation steps for cloud service customers to evaluate and manage the security and privacy of their use of cloud services, with the goal of mitigating risk and delivering an appropriate level of support.

- Ensure effective governance, risk and compliance processes exist
   Audit operational and business processes
- Manage people, roles and identities
   Ensure proper protection of data and information
   Enforce privacy policies
- Assess the security provisions for cloud applications
   Ensure cloud networks and connections are secure
- Evaluate security controls on physical infrastructure and facilities Manage security terms in the cloud service agreement
- Understand the security requirements of the exit process

Each step takes into account the realities of today's cloud computing landscape and postulates how this space is likely to evolve in the future, including the important role that standards will play.



DR. LOPA MUDRAA BASUU Advisor, Cloud Security Alliance APAC Research Advisory Council

"The key is how organizations are uncovering risks in time and managing them within organizational risk appetite"

#### **RESPONSIBILITIES OF THE CIO**

CIO is just not a change agent or influencer, she / he is "The Chief Information Officer". Business demands the emphasis on information and not just IT. CIO & CISO are together silently shaping the business for tomorrow by striking a balance between risk and opportunities. A CIO is strongly emerging as a C-suite business leader with a multi-faceted role that wears several hats - Strategy Enabler, Governance Leader, Compliance Enabler, Execution Officer, Security & Risk Ambassador, Value Appropriator & Innovation Catalyst. CIO as a globally savvy leader must adopt an enterprise point of view thereby capable of establishing a safe and boundary - less business territory.

#### **KEY PRIORITIES FOR 2021**

We are in the era of digital transformation. Irrespective of industry sector, emerging technologies are radically seeping into the veins of business and boosting the digitization manifold. With this, the CIO role is transforming from a pure play technology leader to a business leader.

CIOs will be responsible to leverage emerging technology to drive business performance through innovation. Business acumen, relationship ability and leadership become the key expectations besides expertise in the technology domain. CIOs will have to move away from technological jargons to speaking the boardroom business language. In a nutshell, the CIO will be "a consummate

executive capable to guide the business towards a desired goal and cultivate the culture of collaboration, innovation and success".

#### **REDESIGNING IT & SECURITY STRATEGY**

With the continuously evolving cyber threat landscape and emerging regulatory and compliance needs, it is imperative for an organization to have a strategy in place and work in an agile mode. Every technology has an inherent risk and emerging technologies are not an exception. Adoption is a business call but onboarding them safely is a technology risk ball game. Technology and cyber risk are not just standalone risks; they have an immense capability to trigger – reputational risk, regulatory risk, financial risk, operational risk if not taken care off and in adequate time.

Organizations need best of the breed, seasoned professionals who are capable to deep dive to uncover risks associated with new technologies and work with SMEs to wrap it with efficient controls at different levels. The key is how organizations are uncovering risks in time and managing them within organizational risk appetite. This is a neglected niche skill area and the biggest challenge is lack of skilled talent pool.





#### VENKATESH BABU S President & Head - IT Coffee Day Global (Cafe Coffee Day)

#### Cafe Coffee Day implemented contactless ordering platform - Digital menu, Digital ordering, e-bill. Digital payment and NPS

#### **RESPONSIBILITIES OF THE CIO**

CIOs are expected to identify newer digital business models and help everyone understand the same. They are also expected to implement and scale these models at an accelerated pace without compromising security.

CIOs are expected to be business drivers rather than enablers.

#### **KEY PRIORITIES FOR 2021**

Enabling remote workforce on short notice was the 'doing digital' and that itself was a major effort from CIO/CTOs by establishing and securing virtual environments and collaboration tools.

Today, digital is no longer about cost and efficiency improvement, it is about survival and being relevant in the competitive marketplace. Therefore, companies are looking to the CIO / CTO to help them understand and implement sophisticated digital tools on a greatly accelerated timeline.

#### ADOPTING WORK-FROM ANYWHERE

We were enabling remote workforce in secure virtual environments. We have used collaboration tools like Office 365, Microsoft teams, which helped us to do meetings, town hall, training, etc.

We also implemented a mobility app for the sales team, field force automation, etc.

We setup VPN access to users to ensure security of transactions.

Safety of our customers was of utmost importance to us. We implemented a contactless ordering platform - Digital menu, Digital ordering, e-bill, Digital payment and NPS.

#### **REDESIGNING IT & SECURITY STRATEGY**

We see these are opportunities rather than threats. We have planned the migration of our workload to the cloud even before COVID-19. We have integrated all the delivery platforms to Point of Sales. We believe there will be a shift in e-commerce and m-commerce to conversational commerce and we are coming up with our offerings capitalizing the same.

The current focus is on the quick deployment of new digital business models. Medium-term, we will be filtering successful business models and optimizing the same.



**AVANEESH KUMAR VATS** Head (IT) Convergence Energy Services

#### "As our cloud-based office setup was already in place, implementing WFH required minimal technical effort"

#### **KEY PRIORITIES FOR 2021**

Digital has become a buzzword. It is treated differently across sectors and industries, and thus has many meanings. What we can agree on is that every organisation seeks to transform itself using digital technologies. Technology leaders will also agree on technology's all-pervasiveness, and the need for organisations to not only embrace technology, but to position themselves to harness it as a tool to aid their strategic transformation.

#### ADOPTING WORK-FROM ANYWHERE

Though working from home is not possible for every industry, most have implemented some variation of remote working, as it can support business continuity and help prevent the spread of Covid. Major changes implemented include providing the workforce with collaboration tools to work from home. These include online, virtual private network (VPN) secured applications including shared virtual folders, email, and eOffice, a digital solution to access and exchange files, documents and SAP, along with other office collaboration and meeting tools.

As our cloud-based office setup was already in place, implementing WFH required minimal technical effort. Constant connectivity was ensured across the organisation through mobile apps and the provision of laptops for all employees. Further, monthly reviews of Business Verticals and Support Functions were conducted at the highest level of management to assess target achievement via virtual meetings.

#### **REDESIGNING IT & SECURITY STRATEGY**

The risk of cyberattacks and confidentiality breaches are higher due to WFH, especially if employees are using their personal laptops or devices to perform official duties and connect to the company network. Organisations will need to look at digital innovation across the dimensions of people, process, data, and technology. Companies should have an existing data protection confidentiality and security policy for this purpose. Having a robust IT system with the necessary safeguards, including anti-virus protection, secured VPN and firewalls against cyber threats installed on the devices is critical. Not only do social media platforms provide hackers access to personal information, but certain sites also allow them to reveal someone's exact location at any time.

Mobile cybersecurity risks are evolving at the same time as mobile technology. Smartphones, which today carry more data than older devices, are now used by 45% of mobile phone owners. Any new phone, tablet, or laptop provides a new way for a cybercriminal to access someone's personal information. Since many mobile devices can be charged by plugging them into computers, sharing charging ports with others can result in device malware issues. All such issues can be handled by security policies and discipline.





**POOJA CHATRATH** CIO Cryoviva Biotech

#### "IT hygiene is the first line of defense that an organization can adopt by identifying what we want to protect"

- KEY PRIORITIES FOR 2021IT as an enabler of business growth • Enabling the return to workplace
- Reducing silos within the organizational departments and streamlining the technology landscape
- Increase emphasis on data and cybersecurity • Expand the role of Artificial Intelligence
- Integrate IT and OT systems

- ADOPTING WORK-FROM ANYWHERE

  Online meets to stay in touch; while physical distance is a must, virtual distance is not.
- Transparent communication has been the key to keep employees informed about the current state of the organization.
- Exercise compassion by approving the essential/unavoidable leaves of staff without asking for specific explanations. One can also offer the option of flexible working hours so that they can contribute to their fullest potential.

**REDESIGNING IT & SECURITY STRATEGY**The need of the hour was to enhance Al/Analytics models to help prevent issues and predict better and therefore investments should be focused in these areas. "Our strategy has been agile and will continue with same" and planning of IT spending in the coming future will depend on the business need.

#### Security Strategy:

- Integral part of any CIO role is to guard the data. "In principle, this is not different to what was happening before COVID, but it is different in scale". The more distributed the work environment becomes, the more distributed protection is needed.
- Make cybersecurity a boardroom agenda. As digital transformation has become the core component of almost all business processes, security has become a business concern, and as a result, cybersecurity will firmly be on the boardroom agenda. Invest in cloud security. Most cloud service providers include built-in security services. Yet, it is critical for organizations to build a robust strategy for risk management framework, secure cloud design, security governance and skills expertise in the cloud.
- Implement basic IT hygiene. Cybersecurity is no longer the sole responsibility of IT teams and security teams. Therefore, it is essential to ensure that every individual is aware and agrees to be an integral part of the ecosystem, thereby understanding and practicing IT hygiene, which will provide a healthy security posture. IT hygiene is the first line of defense that an organization can adopt by identifying what we want to protect, where these entities are located and who manages them.



**ANIL NAMA** CIO CtrlS Datacenters

#### "We have always been pro-active as far as our organizational security practice is concerned"

'Digital Culture' is the key to transforming organizations today. Information Technology (IT) is an integral part of the business models today. Ola, Flipkart, Amazon, Paytm, Big Basket are organizations where technology is an integral part of business.

Therefore, CIOs have a larger responsibility of introducing, integration technology with the evolving model of their respective companies. They are the initiators of the 'digital mandate', obtain the necessary nod from the CEO / CFO and the board to roll-out the digital initiatives.

Such digital initiatives led by CIOs should create value for the organization, optimize costs, gain speed-to-market, customer delight and competitive advantage. According to me, the 'Digital Mandate' and key priorities for CIOs for 2021 would be security, process automation, modernization of applications, workplace modernization, integrating AI / ML as a part of the business DNA, introduction of consorter facing applications (example: mobile apps), ensuring business continuity and risk management.

#### **ADOPTING WORK-FROM ANYWHERE**

COVID-19 has accelerated digitization of workplaces. Today, majority of the companies have embraced work-from-home (or) work-from-anywhere models and technology has played a key role in enabling the same. 'Digital Workplaces' have arrived and will stay here.

As a CIO, it is our responsibility to ensure all applications are made available remotely and securely to employees without compromising data – all elements such as desktop-as-a-service, virtual private network (VPN), collaboration and conferencing tools, laptops and desktops, network devices, internet bandwidth played a key role in enabling the digital workplaces during COVID-19 pandemic.

#### **REDESIGNING IT & SECURITY STRATEGY**

According to an industry survey about 4,000 data breaches occurred since the world was hit by COVID-19 pandemic compromising sensitive information. Security threats will continue to persist today and tomorrow.

Such threats were prevalent yesterday too. Hence, Security threats will be a constant. It is important for IT leaders CIOs / CISOs to take pro-active measures to protect the critical organizational data – they should not compromise on cost when it comes to security threats.

Every company should invest liberally on security tools and technologies – lest, they may have to pay a bigger price due to non-compliance, business loss, brand erosion and loss of stock value and perhaps the IT Leader may have to pay a heavy price in case of any major breach. We have always been pro-active as far as our organizational security practice is concerned.





#### DR. HAROLD D'COSTA President Cyber Security Corporation

#### "Security has been the pinnacle and a buzz word for our organization"

#### **KEY PRIORITIES FOR 2021**

As a responsible and people centric organization we had to systematize the processes and do a 180-degree change in our environment and redesign our system to make it ready for the digital environment. The priorities we have set for 2021 are:

- Reengineer the process to make it conducive and make it user friendly for all stakeholders
- Porting our different applications from heterogeneous to homogeneous environment Minimizing the gap in our system and make it to work according to the best industry standards
- Continuous improvement and providing end to end solutions

#### ADOPTING WORK-FROM ANYWHERE

Work from Home (WFH) has become the new normal. We had to make seesaw changes so that the organization and other stakeholders do not get to be affected. The major changes adopted were:

- Identifying the superstars in the organization and making them understand about the pros of working remotely. These officers in turn were assigned to educate others in the organization. In this way we had many trainers who seamlessly made our process easier for others to understand
- Provide infrastructure to employees to Work from Home.
- Sanitize the system and fix in relevant patches and software's
- Design and deployment of user-friendly e-manual to work on the applications as well as troubleshoot in case of any problem they face
- Setting up a dedicated call centre in case the employees are stuck on issues related to work procedure. The same was also used by our vendors and customers in case they have any issues related to logistics or any services related to their work.

#### **REDESIGNING IT & SECURITY STRATEGY**

Security has been the pinnacle and a buzz word for our organization. We bought all our servers under the localized environment. An exclusive Non-Disclosure Agreement (NDA) was signed with all our vendors related to localization of data. Systems critical in nature were isolated and a series of security patches and parameters were set, to ensure that third party access was blocked. Social media sites were blocked with an intention that all stakeholders become more productive. Most of the social media sites are carriers of Malware. Blocking promotional and fake links orchestrated from social media which set up traps for our employees.



DR. MAKARAND SAWANT Sr. GM - IT Deepak Fertilisers and Petrochemicals Corporation

#### Zero Trust security architecture and Cloud are new tools for business continuity in new normal

#### **RESPONSIBILITIES OF THE CIO**

Digital Transformation is an organization wide initiative so leading change management is very critical and this has to be driven by IT digital leaders in the organization with full participation from business and other functions. Business case and ROI has to be jointly evaluated by Technology and Business.

#### **KEY PRIORITIES FOR 2021**

IT Digital leaders are now expected to drive business growth through digital transformation initiatives. Automation of business processes to bring more agility and reliability is expected which can bring rapid and sustainable business growth. Improvement in quality and productivity through digital initiatives is also a key ask.

#### **ADOPTING WORK-FROM ANYWHERE**

With this new normal all organizations have to go through a massive change in ways IT services and technology is consumed. New information security architectures like Zero Trust are getting implemented to enhance security and reliability. Cloud adoption is increasing for high availability, reliability and business continuity.

#### **REDESIGNING IT & SECURITY STRATEGY**

Strategy for quick adoption of emerging technologies is required to sustain in this new normal. Organizations have to be more agile and flexible to adopt new technologies and services that can be integrated with business processes.

#### **AGENDA OF 2021**

Business Process Automation, adoption of emerging technologies by business and Industry 4.0 Smart Factory initiatives in manufacturing are complementing initiatives towards Digital India.





#### SANJAY KUMAR DAS

WBCS (Executive), Joint Secretary, Dept. of IT and Electronics & State Information Security Officer, Govt. of West Bengal

# Government of West Bengal successfully established itself in transformation towards "being digital"

#### **KEY PRIORITIES FOR 2021**

The State Government of West Bengal in the Dept. of IT&E has adopted the digital transformation at the core of citizen-oriented services and is gradually going towards "Being Digital". Starting from e-office, e-district, Integrated Financial Management Service to exploring solutions on emerging technology West Bengal has successfully established itself in transformation towards "being digital". Continuous efforts towards (i) ensuring Data Security by implementing solutions which utilizes anonymous data, (ii) achieving Cyber Security through wide-ranging initiative of Cyber Security Centre of Excellence and generating popular awareness alongside (iii) promoting uses of emerging technologies through laying down implementation guidelines. This way, the State is on the right path towards "being digital".

#### ADOPTING WORK-FROM ANYWHERE

Remote working or "Work from Anywhere" is not a new concept. It has been there even before the Covid-19 pandemic hit us. However, it was limited to a few IT organizations. Covid-19 forced most of the organizations and even the Government to become familiar with the term "Work from Home (WfH)" and "Work from Anywhere (WfA)".

The global economic fall due to pandemic hit lockdown caused immediate reaction by most organizations to ensure business continuity. They adopted technologies to conduct day to day operations digitally – through video conferencing, progress tracking etc.

- The important pre-requisite before WfH or WfA to succeed is "effective communication" between colleagues, authorities and clients.
- Data security is another concern when working out of the office's network. The leading organizations, however, have this matter as per their business continuity plan and keep their assets under VPN to protect its network from unauthorized attacks. Additionally, compliance practices and frequent training on data security and privacy are being imparted.
- Organizations now have the geographic flexibility when it comes to access to skilled resources as the resource can connect from anywhere. This has given a freehand to the organizations to utilize gig workforce wherever required so as to best utilize resources according to work requirement.

#### **REDESIGNING IT & SECURITY STRATEGY**

Keeping this in mind, Cyber Security Centre of Excellence, West Bengal has been relentlessly imparting customized awareness generation and skill building-trainings on cyber security to govt. employees, police officials, school teachers, professionals from industry as well as common citizens from all walks of life. Focus has been given on a continuous audit process to identify vulnerabilities in Govt. websites and portals. Similarly, Govt. ICT infrastructures are also being audited.



# MANIKANT R SINGH CISO DMI Finance

# Frequent testing of Business Continuity & Disaster Recovery has enabled DMI Finance shift to WFH effortlessly

#### RESPONSIBILITIES OF THE CIO

Every organization has a different expectation from the role of CIO/CTO. There are organizations which only look at traditional CIO/CTO to handle daily operations and innovations. With the advent of industry 4.0, the board is expecting CXO to be a visionary technology athlete who can be good at numbers and embrace growth of the organization. Cost reduction and innovation has been one of the key result areas for a CXO while in future business transformation and digital simplicity would be a key differentiator for CTO.

#### KEY PRIORITIES FOR 2021

There is a substantial shift in digital mandate. There is a huge push to improve Work from Home - Tools for employees' seamless working. Access to data and security has got high priority. Employee mental health and flexible working are catching the top management. Entire hire to retire (digital onboarding and retirement) is getting high importance.

#### ADOPTING WORK-FROM ANYWHERE

Being a cloud friendly company it was easy for us to move into the ecosystem of new normal. Frequent testing of business continuity and disaster recovery was key to success, which also helped us to sail through this complete transformation from Prem working to work from home in a short span. Technically we did not have any challenges except for employees who had to be trained and managed remotely for support and fault management. Besides these initial teething problems we managed to completely move our workforce to work from home solutions without much struggle.

#### **REDESIGNING IT & SECURITY STRATEGY**

In the current scenario emerging technologies are impacting every business including their data and their critical infrastructure. Strategically we have put in place solutions as per best practices followed by many companies. We basically focused on how to protect the confidentiality, integrity and availability of data and subsequently after much brainstorming, we put in place people, processes, technologies which helped our organization in achieving short, medium and long term business goals.





MRINAL CHAKRABORTY

Executive VP,

Technology & Innovation

DTDC Express

### DTDC Express undertakes a lot of security initiatives to keep intruders at bay

#### **KEY PRIORITIES FOR 2021**

"Being Digital" is becoming or already has become a key component. We work with business very closely and now with a 360 degree approach starting from on-boarding a customer, to serve a Customer, to satisfy them - all are being done digitally as the day and month progresses.

To name a few:-

- To have an extensive online presence
- To become more social media aware organisation
- To give digital experience through Al Based Cloud Call Center, ML/Al based BOT services at all touch points
- ML/Al based Prediction at ops system
- Complete mobility in core ERP

- Secured environment for both customer and employee
- SSO, SASE based solution for all remote branches
- Complete Hybrid Multi-Cloud environment
- Online BOT based commercial support system for customer
- Complete digital solution for 12k+ channel partners

#### **ADOPTING WORK-FROM ANYWHERE**

Despite pandemic a large workforce had to work on ground, keeping our logistics and transportation business in nature

- For people working from office a lot of mobility is now enabled so that they can work from anywhere in case office becomes quarantined, a lot
  of mobile computer is provide to facilitate the same
- VPN was provided for people who needs to use Core Financial Accounting System
- A very powerful EDR was already placed for Endpoint Security
- Already a powerful Collaboration tool was in place in terms of Gsuite which had helped immense for collaboration while working from home

#### **REDESIGNING IT & SECURITY STRATEGY**

Security is a major concern area which is being looked holistically, though there is nothing called end of opportunity to protect better.

- 1. To keep both external and internal perimeter safe and secured we have kept (a) separate external firewall (b) separate and different internal firewall which would make penetration a bit more complex (c) exclusive DMZ to keep intruders at bay.
- 2. For all endpoints and servers we have deployed state of the art, Crowdstrike EDR solution which has come of great use during this WFH
- 3. 24\*7 SOC (Security Operating Centre) deployed and every log is being scrutinized for any lead on intrusion, this operates 24\*7 round the clock.
- 4. Regular patch updates for Windows machines were done on a regular basis.



**RAJESH CHOPRA**SVP – IT
EIH – The Oberoi Hotels and Resorts

# The Oberoi Hotel and Resorts focuses on data leakage prevention and document classification for information protection by remote workers

#### **KEY PRIORITIES OF 2020**

The Oberoi Hotel and Resorts was lucky to have embarked on the Digital journey before COVID pandemic. We are continuously evaluating digital opportunities for cost and energy optimization and looking in the space of Al/ML and OCR.

#### **ADOPTING WORK-FROM ANYWHERE**

As hospitality industry we need to balance out between personal touch and being digital. More robust and secured remote workplace emerged during COVID pandemic. Collaborative communication technology tools have been deployed for online learning, team collaboration and interaction.

#### **REDESIGNING IT & SECURITY STRATEGY**

Special focus has been put on cyber security in wake of increased threat perception and new normal of remote working. More focus has been put on data leakage prevention and document classification to ensure information protection by remote workers.

#### **RESPONSIBILITIES OF THE CIO**

CIOs need to partner with business leaders to look at new revenue streams using technology. There is an immense need to boost the confidence of guests on safety and security of the hotel they are visiting by introducing contact-less technologies in front of the house areas. Operating costs need to be optimized since financials are under stress.





#### SUBODH NAIR Head - IT Elgi Equipments

#### Elgi Equipments evaluating on adopting Zero trust **VPN** technologies

#### **RESPONSIBILITIES OF THE CIO**

The role of a CIO has become more aligned to strategy development for digital transformation. From a business enabler the CIO has become more of a business transformer. With companies realizing that change is a key factor for transformation and soon adopting them, a CIO is expected to provide critical areas for change using digital technologies. A CIO is now expected to lead the change in both

#### **KEY PRIORITIES FOR 2021**

With digital transformation becoming the mantra for the success of any organization, some of the key priorities for CIO's are centered around the following:

- Transforming customer experience (CX) using AI & AR
- Transforming employee experience (EX) using digital tools for handling employee onboarding, employee engagement
- Improving product experience using IOT
- Investing on Cyber-Security solutions
- Adopting to best practices for remote-working and collaboration

#### **ADOPTING WORK-FROM ANYWHERE**

Due to the lockdown and restrictions on movements, companies had to adopt flexible work policies like Work from Anywhere. CIO's had to provide remote conferencing and collaboration tools over a secure platform. The concept of a centralized data-centre is getting diluted. Gradually, IT platforms are being moved to Cloud to ensure better availability, reliability and security. Desktop / Workstations are getting deployed from Cloud platforms to enable the users to work from their locations. Security protocols like multi-factor authentications are getting adopted. There is an increase in investments related to security platforms.

#### **REDESIGNING IT & SECURITY STRATEGY**

Considering the spike in cyber security threats, we have taken a relook on the areas for IT investments and priorities. We have decided to globally have all our offices under a common collaboration and communication platform with multi-factor authentication protocols enabled. We are also evaluating on adopting Zero trust VPN technologies. There has been a need to prioritize log monitoring and analysis through SIEM and SOC services. Mobile users have to be monitored and controlled using MDM and MAM solutions. Adopting Cloud technologies for critical workloads are getting evaluated. Endpoint security has to be improved with right EDR platforms.



PRAKASH DHARMANI Global CIO **EPL** 

#### EPL's advanced steps of digitizing its key processes even before pandemic helped the company to navigate easily

#### RESPONSIBILITIES OF THE CIO

I firmly believe in JFK's quote "Change is the law of life and those who look only to the past or present are certain to miss the future." As a mandate for digitization and process automation grows it becomes an important and rather golden opportunity to work with key business stakeholders and identify areas of business process improvement and deliver digitization. IT is no more silo but synonymous with business.

**KEY PRIORITIES FOR 2021**The global COVID-19 lockdown has had unprecedented impacts on our personal and professional lives. If you closely observe and analyse the annual results of companies which had adopted dDigital technologies long back, they have not only survived but actually thrived. They have turned this adversity into opportunity.

CIO's can play a very important role in the digital transformation journey of an organization as they have knowledge and insights of cross functional processes and linkages. CIO's need to collaborate and engage with all stakeholders and identify areas of improvement wherein they can bring in business efficiency by working all KPI's i.e. reducing time to market, increasing revenue, reducing cost, improving experience across all facets i.e. customer, employee and partners.

#### ADOPTING WORK-FROM ANYWHERE

Fortunately we had digitized many of our key processes like P2P, O2C, customer requirement capturing, even before pandemic hit us. This helped us navigate. However we did invest a lot in laptops to ensure smooth transitioning from office to home. Similarly on IT security we upgraded our end protection and scaled up VPN.

**REDESIGNING IT & SECURITY STRATEGY**Change is the only constant. Gone are the days of a five year road map as the IT landscape keeps changing very fast. We need to keep making a three year IT strategy road map and evaluate progress and achievement on a yearly basis and keep doing course corrections.





# DR. RAJEEV PAPNEJA Chief Growth Officer ESDS Software Solution

# ESDS extended SOC services to its remote workforce to take care of immediate security risks

#### **KEY PRIORITIES FOR 2021**

I remember the days when the headlines of certain magazines read that the role of CIO is over. Ironically, decades have passed and the role not only stays intact but has become more powerful and more transformational. "Being Digital" dictates the CIO's to once again have a shift in mindset from what was required in the last decade of "Doing Digital".

While moving to an ERP like SAP was part of Doing Digital, moving to SAP HANA and combining it with Al/ML technologies and data from IoT devices, performing advanced real-time analytics resulting in real-time decision making, improved efficiency and customer experience to increase sales could be viewed as a part of Being Digital.

#### **ADOPTING WORK-FROM ANYWHERE**

Since this was a different kind of work-from-home situation, our HR team had to be more active to make sure the staff stays motivated and healthy so as to perform optimally. Managers took the initiative to modify the KPI's of their team members to make the team comfortable while sailing through the crisis.

Daily webinars have become a new norm where various departments are sharing their new initiatives and achievements amidst lockdown which is serving as a great knowledge exchange mechanism and assisting in cross-skilling of resources. More or less the policies have been designed in a way

to keep the staff on similar routines as they were while working from office, so that when the time comes to start coming to office, no one should experience a cultural shock.

#### **REDESIGNING IT & SECURITY STRATEGY**

As part of the strategy the basics need to be kept in mind that everything finally boils down to people, process and technology. Each of these aspects need to be revisited to secure the digital infrastructure of organizations and its workforce. Since ESDS already provides SOC as a service to most of its customers from its own SOC, we treated the remote workforce as our customers and extended our SOC services to them to take care of immediate security risks as part of transition. Being ourselves a cloud services company, we were very agile and quick to embrace various cloud based solutions for enhancing our security stack. All our systems had SSO implemented and we are making sure that going forward every system has dual factor authentication at minimum.

SOAR, SIEM and endpoint management tools are playing a critical role in making our security landscape robust. We have changed certain policies to make it more stringent, for example increasing the frequency of Penetration testing, and as part of a long term strategy embracing DevSecOps as part of increasing automation to tackle the threats at an early stage.



DR. SINDHU BHASKAR Co-Chairman & Founder EST Global Inc.

# The new normal indicates a hybrid approach for general and administrative functions of an organization

#### **KEY PRIORITIES FOR 2021**

Covid 19 has shown the proximity of human beings deathly for each other. It has badly shocked the labour-intensive manufacturing industries. Flight of migrant labour created extreme shortage of workforce. The working people had to be following the social distancing norms in factories. These two issues mocked our so-called automation plans of our industries. Digitization on the back burner, rickety automation budget, meagre utilization of funds, half-zealous CIO/CTO and a non-responsive management got the rudest shock with the pandemic. The socialistic labour battle-cry has also been shaken to its roots.

We see a mad rush for digital adoption taking a quantum leap at both the organizational and industry levels, most notably, filling gaps for technology talent during the crisis, the use of more advanced technologies, and speed in experimenting and innovating. Digital is having its big moment and the effort should be digitization and robotization of the dangerous and unhealthy processes and 2021 should witness the completion of this effort.

#### **ADOPTING WORK-FROM ANYWHERE**

According to a survey in June 2020, 47% of business leaders said they intended to allow employees to work remotely full-time even as it becomes possible to return to the workplace; 82% intended to

permit remote working at least some of the time. The guiding norm was WFH – work from home or anywhere but from the office and it was the new normal. The New Normal is suggestive of a hybrid approach for general and administrative functions, categorizing them into four types with varying needs for interaction. Office versus home and staff interaction level distinguish the hybrid approach. It includes teams that work mostly remotely but come together for periods of intense collaboration, or hub-and-spoke systems where remote workers can come into satellite or co-working spaces as desired. The on-site approach changes to an off-site and on-site mix due to the nature of the job.

#### **REDESIGNING IT & SECURITY STRATEGY**

Digitization of working patterns has been accelerated by the COVID-19 pandemic and switching to telework brings permanent effects on everyday life. It increases vulnerabilities to cyberattacks. Connected objects are often shipped to the consumer with known vulnerabilities, which further increases the attack-surface for malicious cyber activities. Increasingly digitized and connected also means that cyberattacks can have far greater impact on industries and ecosystems than ever before. The BFSI sector must use the latest cybersecurity architecture stacks, innovations and advanced threat-monitoring mechanisms and stringent tools real-time and experience-driven simulation programs. An ever-vigilant CTOs and Risk Officers can ensure reduced incidences.





# SUMIT PURI Group CTO Evercare Group Management

# Evercare Group Management embraced mobile first cloud strategy for applications to better engage with customers

#### **RESPONSIBILITIES OF THE CIO**

In my mind, CIO stands for Chief Innovation Officer since innovation is the core of success in today's digital age. Every business requires to become predominantly digital and leverage customer and enterprise data effectively.

ClOs of today, by virtue of their roles, have access to the majority of business domains which need to be digitised to make the business engagement better with our customers. They need to speak the language of business, become more design oriented and agile in order to respond quickly and effectively to the changing business landscape.

#### **KEY PRIORITIES FOR 2021**

CIO / CTOs are now being looked upon to be one of the flag bearers for driving revenue through digital channels. The need of the hour is an intuitive user friendly mobile first digital apps with excellent UI/UX design, supported by a robust backend IT platform. CIOs / CTOs need to be well versed with business domain aspects and have a good understanding of what will appeal to the consumers in the digital age.

#### ADOPTING WORK-FROM ANYWHERE

We were relatively fortunate because we had already moved to Zoom enterprise collaboration tool and O365 for all key corporate users. We were also in the process of rolling out a mobile first strategy with remote patient management and tele-health solution on the cloud. We also rolled out Oracle global cloud EBS Financials and supply chain modules with Enterprise Performance Management instances rolled out across our geographies for financial consolidation and enhanced business MIS dashboards.

#### **REDESIGNING IT & SECURITY STRATEGY**

In order to engage with our customers better, we had already embraced a mobile first cloud strategy for applications which do not have sensitive patient data hosted on them.

We also launched tools like AI based chat bot on websites to make our communication channels more seamless for our customers. With enhanced remote workforce, care was taken to ensure role based VPN access was provided to key users and IT security was further strengthened by adopting tools like Artificial intelligence based email and network security solution from darktrace. Also, a lot of effort was spent on reiterating the importance of effective security incident response across teams.



GANAPATHY SUBRAMANIYAN CIO Everise

### CIOs need to be a part of core team responsible for value creation from digital assets

To be the business co-owner is CIO's key responsibility in this post digital era. CIO's cannot afford to stay outside business as the role of IT has moved from being a business enabler to business owner. Evolving role of CIO brings more focus on Digital Experience. DX strategy is not IT driven anymore and it is customer needs driven . Hence CIO's responsibility of engaging the business to address changing customer needs takes priority over everything.

Impactful storytelling to transform today's pain of systems and technology into a Competitive Edge is a key skill CIO needs to acquire.

Being digital is no more just a CIO's agenda, it is driven by business and customers. It is CIOs responsibility to be a part of the core team responsible for value creation from digital assets.

Evangelising Digital solutions and leveraging Digital to improve customer experience will be the priority for most. Expanding on automated Content moderation , Analytics and Conversational Al capabilities are some of the priorities.

Work from home at a large scale for 100% of the employees was a challenge when it started. But efficient processes set through our prior experience in this area helped us seamlessly move to this model. Adoption of new technology / tools for additional security, monitoring, employee engagement, logistics management, providing self-service options for better employee experience were areas we came out successful.

Hybrid work Model has already become the new Norm with many organisations adopting a best fit Model of their own. Employee experience and Customer Experience being the core of those models, it is evolving fast.

To continue to improve in the cyber security space has been our strategy. Change in the threat Landscape due to the remote working model needed greater improvement to our security stack and we addressed those using new age Al based cyber security solutions.

Keeping an eye on all new Threat vectors and improving on them is a challenge, However choosing the right partner and embracing Al based solutions helps mitigate the risks in a better way than standard ways. Solutions for Business email compromise, Phishing and Insider Threats are some of the priorities.





Along with IT skill and knowledge, CIOs should have enhanced ability to understand markets, competition and vision to make economic advantages

#### **RESPONSIBILITIES OF THE CIO**

CIO works very closely with the CEO and spearheads the implementation of the vision of the organisation and mission of the CEO.

While IT skill and knowledge have paramount importance, CIOs should have enhanced ability to understand markets, competition and vision to make economic advantages.

#### **KEY PRIORITIES FOR 2021**

The key priorities are:

- Introduction of RPA in all the areas where redundant manual work involved
- Enhancement of self service
- Also based proactive Transactions management
- Improve BCP

#### **ADOPTING WORK-FROM ANYWHERE**

Being into financial services, customer profile data, portfolio etc. are extremely confidential and critical. There are areas in which we have never thought of remote management. Regulation was not allowing to access data from outside, closed and protected networks.

Overcoming many traditional and constrained regulations was done with collective efforts of industry. Regulators also acted fast

Acceleration of digitisation of onboarding, subsequent services and risk management helped us to continue the business as market demands

There are times only 20 people were on-premise and the remaining 3000 employees worked remotely.

Enhanced security, increased the frequency of DR drills and made application device agnostic.

#### **REDESIGNING IT & SECURITY STRATEGY**

During the period we have done a comprehensive gap analysis by a competent agency. Recommendations are getting implemented at a faster pace. Multiple interactions of VAPT done as many of our colleagues work from home. Special audit of WFH infrastructure was executed.



**DR. VINEET BANSAL**CIO
Greenpanel Industries

#### **Endpoint security solutions: A must have**

#### **RESPONSIBILITIES OF THE CIO**

A mindset shift is required from a CIO in a digital society. The role and responsibility of the CIO has CIO should work like the "Chief Influence Office", who can influence businesses to get on the digital platform. CIO should have a complete understanding of business and should transform business using digital platforms. CIO should help the business to grow, if the business will grow, ROI will not be a challenge and IT will work as a partner in the business.

#### **KEY PRIORITIES FOR 2021**

Organizations who kept them away from digitization, now digitization has become their topmost agenda. To make a presence in the market, digitization is a must now, and doing digital was the past, being digital is the future. CIO/CTO responsibilities are now completely changed, how IT can enable business, how IT can make the presence of products in the market, how a sale can be increased using the digital platform is the topmost priority. In the time of Covid-19, organizations have realized the power of digitization and want their business online to minimize loss of business and grow digitally.

#### **ADOPTING WORK-FROM ANYWHERE**

To sustain business, when everything was locked, digital platforms were still working, schools, grocery shops, food delivery, every business which was digital, was working. To support the business in such a time every employee of the business who have a proposite to work from home and the requirement of tools like an account of the businesses who

online meeting platform, secure connection to enterprise applications, etc. became a necessity to work from home. Most of the businesses who adopted the work-from-anywhere practice last year, benefitted this year.

#### **REDESIGNING IT & SECURITY STRATEGY**

In the times where people are working from home, endpoint security becomes most important, endpoint devices should be as secure as it was in an enterprise network. So using endpoint security solutions is a must that can secure and provide the same security level. Security is a major focus for us and we have deployed tools to secure our environment.





DHAVAL MANKAD

VP IT

Haymor Ice Cream

#### Early adoption of Cloud strategy by Havmor Ice Cream led to easy transition to hybrid work culture during pandemic

#### **RESPONSIBILITIES OF THE CIO**

CIO's role has been changing over the years and it is more of business management role than the technology management role, a CIO need to know the business and work as part of a business team to deliver value to the business, it is not about volume of technology or volume of users but it is more of value addition to the business. A CIO needs to spend time in aligning the right solution partner to the business to meet the requirements rather than knowing the technology. A CIO also needs to focus on building a team which works as a business champion rather than the IT champions. I think these are the few success mantras for newer CIOs.

#### **KEY PRIORITIES FOR 2021**

Organisations have no choice but to become digital, organisations start leveraging the data and in this journey CIOs play a very pivotal role in driving all the business initiatives to help leverage technology.

CIO needs to start understanding the business and start driving digital initiatives. In this game it is very important that the processes are revisited, simplified with newer ways of working and most importantly the right set of data elements are captured so that this data can be used for digital transformation. It is a journey and one needs to start taking steps, fail fast and move on.

#### **ADOPTING WORK-FROM ANYWHERE**

We have adopted cloud first strategy since 2018 and all our critical production workloads are on different clouds. We had a population of laptops because of which we had no difficulty in adopting new work from anywhere or a hybrid work culture.

With a hybrid culture of remote and on premise working, of course the focus also shifted towards security measures for all the end points as well as the cloud landscape.

#### REDESIGNING IT & SECURITY STRATEGY

Ensuring security is a continuous process, the COVID pandemic and the increased threats have only put further focus on this area and we have been continuously reviewing our IT security landscape, the organisation security posture to align with the newer requirement and ensure that the data remains secure and we remain protected from all the threats.

We have adopted the newer generation endpoint protection solutions with XDR, multiple cloud backup solutions to have backup copies spread across a different landscape and implementing various cloud security tools as well.



NINAD RAJE
Director & CIO
HealthAssure

"We have infused significant investments in augmenting the information security posture for our organization"

#### KEY PRIORITIES FOR 2021

Digital transformation has catapulted CIOs into the epicenter of organizational change, not just as a cheerleader for technology, but as a key change agent for promoting the cultural shifts necessary for successful transformation. One of the changing responsibilities of the CIO is to move the organization from thinking about building digital strategies to building a strategy that works for a digital world. Digital CIOs do not just implement technology; they are responsible to implement organizational change through applications or technologies.

The new age CIOs are building out a toolkit of sorts, which includes embracing agile business practices and launching training initiatives and communications campaigns, all while burnishing their own ability to take on new challenges related to leading organizational and cultural transformation. CIO's new responsibilities also include nurturing digital dexterity across the workforce with an emphasis on design thinking, agile methodology, DevOps, and digital technologies.

One of the most critical responsibilities of the Digital CIO is to provide cutting edge consumer experience, round-the-clock accessibility & availability, resilient & stable platforms & constantly innovate & evolve the digital landscape thereby extracting the highest value for the organization.

innovate & evolve the digital landscape thereby extracting the highest value for the organization. In order to achieve this, CIOs need to introduce & deploy state-of-art AI/ML, Mobility, Analytics, IoT, Cloud and similar other new-age technologies.

#### REDESIGNING IT & SECURITY STRATEGY

With the ever-increasing reality of newer threats, our organization, too, has embarked on ensuring our data security is of the highest measure. We have infused significant investments in augmenting the information security posture for our organization. Data and information security has taken centre-stage and our IT strategy has been appropriately evolved and aligned towards this fact. Having earmarked the highest level of criticality and importance to data security and privacy, we have implemented perimeter security, edge security and have worked upon tools rendering us with the ability not only to protect, but also to detect and prevent security events / incidents from happening. Apart from the tools and devices, we have also adopted the doctrine of embedding security within all our software, during the initial creation of the software.

As we are aware, the biggest threat to information security emerges from within the organizations – that is the human factor. Staff - knowingly, unknowingly and inadvertently are responsible for these threats. To address this situation, we are conducting information security awareness programs and extensive training with a certification based approach to ensure adoption by the entire population within our organization.





HARSH ARORA
Group Head IT
Hindustan Powerprojects

#### Being digital: The need of the hour

#### **RESPONSIBILITIES OF THE CIO**

CIOs must understand the business processes thoroughly, propose innovative solutions and technology adoption, collaborate with business process owners and the leadership team, and convince as to how technology adoption can bring value to the organization and let the business process owners to lead for enhanced acceptability of the solution and to address insecurity and change management issues. The success of such projects is much more when they are taken up as Business Projects instead of IT Projects.

#### **KEY PRIORITIES FOR 2021**

The focus in the industry has been shifted from whether we should go for digital transformation to how to go for it i.e., being digital has become the need of the hour. With fast developing new technologies, it has become imperative to adopt the same for business excellence.

#### **ADOPTING WORK-FROM ANYWHERE**

The pandemic situation and lockdowns made organizations understand the importance of technology in running the operations smoothly. There were a lot of challenges in keeping the employees connected which were overcome using multiple solutions like providing laptops to all, VPN connectivity, need to update software upgrades, ensure AV systems are patched with latest versions, avoid phishing mails as users were connected through private internet connections and adopt innovative audio & video conferencing solutions.

#### **REDESIGNING IT & SECURITY STRATEGY**

Cybersecurity has emerged as one of the most important challenges. Government regulations are also tightening and becoming more elaborate. IT security is the responsibility of each and every employee of the organization and not just the IT team. It is important to conduct frequent workshops and awareness sessions for the employees about emerging security threats. It is important to keep an eye on social media and even the dark web to understand threat perception. Implementation of ransomware prevention solutions and keeping the systems updated are also necessary.



DR. HARSHA E
THENNARASU
Chief IT & Cyber Security Advisor
HKIT Security Solutions

### To convert into mandatory digital approach: Key priority of 2021

#### **RESPONSIBILITIES OF THE CIO**

CIO role can be redefined as Chief Innovative Officer and Chief Interactive Officer with all stakeholders of the organization to ensure more team efficiency on deliverables and addressing business objectives to achieve ROI.

#### **KEY PRIORITIES FOR 2021**

The key priority of 2021 is to convert into mandatory digital approach on every process of the organization and classify them into critical and non-critical, and securing them are the major responsibilities of CIO/CTO/CISO.

#### **ADOPTING WORK-FROM ANYWHERE**

Centralized, enhanced performance, secure and monitoring mechanisms were adopted to create a stable work from anywhere.

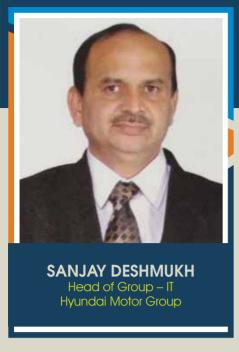
#### **REDESIGNING IT & SECURITY STRATEGY**

The IT strategy is re-evaluated from reactive approach to pro-active approach to defend from newer threats, as re-active approach does not lead to expected result.

#### **AGENDA OF 2021**

Unpredictable situations are ahead, the organization's digital transformation should go in super-fast track with social responsibilities as base approach which will address their own employees, customers and public for successful business at the 2021 pandemic.





New technologies need to be thoroughly evaluated in terms of security along with user awareness and a periodic review of security posture

#### **RESPONSIBILITIES OF THE CIO**

CIO needs to balance between the technology implementation costs v/s the benefits of the organization. Whichever solution is planned, CIO has to look for the value which will be brought in by that solution. Now-a-days business is looking at IT as a business enabler and expecting support like machine integration, various digital platforms like online sales platforms, Big Data and Analytics. CIO has to evaluate the solutions, find out the value and implement the emerging technologies.

#### **KEY PRIORITIES FOR 2021**

CIO responsibilities are increasing exponentially. Business is more demanding and digitalization is the key. Though CIOs are creating a technology roadmap to take the business to the next level, the support from CEOs and current market situation is blocking the progress of digitalization projects.

#### **ADOPTING WORK-FROM ANYWHERE**

Fortunately we had remote working infrastructure ready before COVID-19. A small effort of configuration and security enhancement enabled us to start work from home.

#### **REDESIGNING IT & SECURITY STRATEGY**

Emerging technologies will bring in new vulnerabilities. So due diligence is of very much importance. Any new technology be it a cloud computing or smartphone or new infrastructure must be thoroughly evaluated in terms of security. User awareness is again a key aspect which needs to be brought into the organization culture. A periodic review of security posture is a must. Apart from internal reviews, external audits need to be planned.



#### "The CxOs are beginning to realize the power of the Network economy"

#### **KEY PRIORITIES FOR 2021**

The pandemic has significantly accelerated the digital transformation journey of companies of all sizes and industries; what we normally see happening in five or six years is now happening in a year or less. Therefore the transformation to being digital is more existential than a matter of choice.

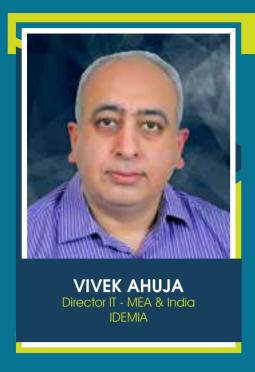
In this journey, the role played by a CIO/CTO has become vital. They envision the shifts in technology and how it affects the organization they serve -- they have become the drivers of the change within the company. Increasingly this transformation exercise is taking into account the business outcomes and it is expected that this process triggers thoughts around the newer business model and ecosystem development. As part of their responsibilities, the CxOs are beginning to realize the power of the Network economy - this includes how they conduct their business, how they work and interact with people, and how they connect with the larger community, their customers, their business partners, etc. These virtual networks are fast becoming the enabler of work, especially in these times.

#### **REDESIGNING IT & SECURITY STRATEGY**

Increased digitization will lead to a rise in cybercrime, simply because of the increased surface area for attack. In addition to reviewing and strengthening enterprise IT security regularly, it is increasingly important to have state-of-the-art security operations that continuously monitor, alert, and prevent cyber-attacks. IBM Security recommends several actions to bolster an organization's cybersecurity posture.

- Establish collaborative governance and culture: Adopt a unified strategy that combines cloud and security operations across application developers, IT Operations, and Security. Designate clear policies and responsibilities for existing cloud resources as well as for the acquisition of new cloud resources.
- Take a risk-based view: Assess the kinds of workload and data you plan to deploy and move to the cloud and define appropriate security policies.
- Apply strong access management: Leverage access management policies and tools for access resources, including multifactor authentication, to prevent infiltration using stolen credentials. Restrict privileged accounts and set all user groups to least-required privileges to minimize damage from account compromise (zero trust model).
- Have the right tools: Ensure tools for security monitoring, visibility and response are effective across all cloud and on-premise resources.
- Automate security processes: Implementing effective security automation in your system can improve your detection and response capabilities, rather than relying on manual reaction to events.





#### "Being digital" lies within IDEMIA's DNA

#### **RESPONSIBILITIES OF THE CIO**

Change is the only constant! I believe in that and our organization also believes in that, we don't have static policies, and we keep innovating / changing our processes, policies and infrastructure to align with the business needs. Example, we had deployed and migrated to TEAMS from Skype and other tools back in March 2019, well before the pandemic and most companies started to think about WFH solutions, scrambling to meet up with the changes in the way of working.

#### **KEY PRIORITIES FOR 2021**

IDEMIA is a forerunner in facilitating digital solutions to top financial institutions, Mobile operators and governments, across the world. Hence we have the DNA of "being digital". Our organisation's ambition is to enable a secure and trusted environment for citizens and consumers alike to perform their daily critical activities (such as pay, connect, travel or access public or private spaces), in the real as well as digital worlds. So IDEMIA has always had the "digital mandate".

#### ADOPTING WORK-FROM ANYWHERE

With the onset on COVID 19 in early 2020, we strategically had done a dry run well before the lock down was announced, in case our employees needed to work from home. Hence once the lockdown was announced we were already prepared, it was a very smooth transition for IDEMIA. Being an essential service provider our office and production facilities were open with absolute WHO mandated precautions for our R&D and production employees who need to work on secured workspace with much higher security standards to protect our customers data without any relaxation on the security parameters and adding all COVID related measures as mandated by the authorities.

#### **REDESIGNING IT & SECURITY STRATEGY**

Security being central to all our offerings, we have got various tools to monitor and protect our users, data and infrastructure. We only allow access on a need basis with proper risk assessment and the risk is significantly reduced. Yes, from time to time we re-evalute the IT Strategy and keep making changes as needed to ensure we stay High on mitigation of the risks. This is a regular exercise and we constantly review our risks and keep adding measures as needed to stay safe, and reduce the risk and impact due to incidents which may happen.

#### **AGENDA OF 2021**

We are very proud that IDEMIA has powered many mission critical and digital transformation projects in partnership with the government and other leading players in the private sector.



ARCHIE JACKSON
Sr. Director, Head IT & Security
Incedo Inc.

# "Digitization is autonomous, it does not require 'doing digital' for 'being digital"

#### **RESPONSIBILITIES OF THE CIO**

CIOs are multi-disciplinary now, they are CMOs where they influence the organisation's brand and reputation, they are the CDOs where they in parallel work upon the digital transformation, they are the CISOs to protect the organisation's critical data from being compromised. The role has transformed to a very strong impactful responsible role.

#### **KEY PRIORITIES FOR 2021**

Digitization is autonomous, it does not require 'doing digital' for 'being digital'. The surroundings will change and to sail through, the organisations have to adopt 'digital'. However, to succeed and be competitive, it is essential to be the leader in such initiatives. Some of the basic but important initiatives are cloud adoption, mobility, intelligent security that must not impact the business performance.

#### **ADOPTING WORK-FROM ANYWHERE**

There have been primarily three focus areas, one - availability of resources at remote and mobile locations, two - accessibility to all business applications and resources with minimal impact to performance or productivity and three - making the entire remote operations secure from threats. Therefore, proactive asset arrangement, right applications deployment and proactive

threat hunting tools had helped manage this change.

#### **REDESIGNING IT & SECURITY STRATEGY**

There isn't a re-design of the IT or security strategy as it was already a part of the roadmap. We are at Gen VI of threats and security by far must be embedded in any and every architecture be it infrastructure, application etc. by design and not reviewed once the design is complete.

#### **AGENDA OF 202**

The pandemic has brought in the VUCA realisation and that honours the priority of environmental and mental health. While the digital strategy gets a boost it is equally important to create more opportunities for the future.





**ATUL GOVIL** Chief Transformation Officer Head (SAP & IT) India Glycols

#### India Glycols' initiative of setting up a site wise IoT solution helps in remote monitoring of key plant assets and inventory during lockdown

#### **KEY PRIORITIES FOR 2021**

Our company strives to contextually use technology to enable new ways of conducting business, drive effective collaboration and achieve progressively higher productively. Across our leadership levels, there is consensus and focus to leverage technology to achieve the 4C's important in current

- Communicate Facilitate seamless communication as new events unfolded. Have a transparent
- brief to top leadership for their required buy-in.
  Collaborate Enable collaboration within and with business partners, for smooth fulfilment of
- Catalyse Fast track adoption of technologies, where possible get deep in the business processes to handhold in new learnings & adoption.
- Change engage, orient, emphasise, address fears, manage teams and staying outcomes focussed in chaotic situations

#### ADOPTING WORK-FROM ANYWHERE

Before the lockdown restrictions were enforced in March'20, we had contemplated a situation wherein most individuals may be required to work from home (we never expected that this would last for several months) and made select individuals ready for transition to remote work. We had to quickly ramp up provision of end point devices, virtual private networks and video conferencing capabilities so employees could work remotely from home. Our team scaled VPN capabilities multi-fold to ensure all identified employees were able to work remotely to achieve due business continuity and be able to serve our customer's demand. This was so important factoring some of our health and hygiene linked product lines which included medical oxygen, hand sanitisers and many intermediates for pharma products manufacturing. Our initiatives on setting up a complete site wise loT solution was extremely useful for remote monitoring of key plant assets and inventory during the lockdown state and also for running operations with limited team and experts available in the Plant premises. operations with limited team and experts available in the Plant premises.

#### **REDESIGNING IT & SECURITY STRATEGY**

Working from home resulted in a new way of working, new threat vectors emerged and hackers also tuned their working to take advantage of the pandemic. Phishing messages, sharing of fraudulent links to upload malware, attacks on frequently used collaboration platforms and more vulnerabilities is now the order of the day.

As a counter measure, it is increasingly important to ensure that systems and end point devices are updated, patched. Employees continually be made aware of the best practices, do's and don'ts on using mails, collaboration tools and devices.



**SANJEEV SINHA** President – IT & Digitization India Power Corporation

"It is a CIO's responsibility to facilitate how people of the organization need to adopt itself to the digital culture which is the new way of doing business"

**KEY PRIORITIES FOR 2021**"Doing digital" refers to bringing digital technology to its organization for benefits while "being digital" is its adoption in day to day affairs. Adoption of such digital culture is an important step in digital transformation. CIOs today are faced with this added responsibility of taking the organization to higher adoption so that benefits are realized.

This is not necessarily a technical step but a rather people step so that a new culture emerges. We have seen this when email came a few decades earlier and it is the need in every work flow today. It is a CIO's responsibility to facilitate how people of the organization need to adopt itself to the digital culture which is the new way of doing business.

#### ADOPTING WORK-FROM ANYWHERE

While some industries like IT had been used to remote working and serving clients remotely, for many other industries, it was a culture change. Many non-IT companies went for modifying their infrastructure for better accessibility to facilitate work from anywhere. This was followed up with training to adopt technology better for efficient working. This was a culture change for many employees who were not used to such kind of working. At an organizational level, there was a need to expedite

digital projects. Budgets for digitization seemed to be getting raised. Most digital projects were put in fast track since they could reduce travel and contact and yet ensure high deliverables.

#### **REDESIGNING IT & SECURITY STRATEGY**

IT architecture all across has been modified to facilitate work from home. While this is the need of the hour, organizations have to deal with a major issue with this change - security. Security was always dealt with earlier but the threats are now much higher. It is therefore important to understand the current state of Critical Information Infrastructure (CII) components from a Security point of view.

This may involve identification of inventory of CII components. This will usually allow an organization to identify gaps in existing process control in line with best practices from a security point of view. It is required to take all necessary similar measures to facilitate protection of Critical Information Infrastructure from unauthorized access, modification, use or destruction through coherent coordination, synergy and raising information Security awareness among all stakeholders





# "Infogain enhance the organisation cyber security framework by investing in best of security tools"

#### **KEY PRIORITIES FOR 2021**

Over the last two years, CISO responsibilities have drastically changed. Initially, CISOs were only responsible for managing information security and establishing protocols for identifying and neutralizing threats. But with the rapid adoption of digital transformation in organizations across industries, it is now the CISO's responsibility to bring that change, accelerate digital operations in the organization. For example, when referring to security, they must evaluate and identify when to change the organization's traditional approach, which has been followed for years. Furthermore, to make an organization more robust towards information security culture, CISOs usually work on different security innovations, particularly the new technologies and tools that can be adopted into the organization.

#### **ADOPTING WORK-FROM ANYWHERE**

To sail through the security risks brought forth by this new normal, we strongly recommend the need for endpoint security controls as everyone is working from home and connecting to the organization network. At Infogain, we have installed some endpoint security tools on employee laptops to mitigate security risks. Notably, these tools help us monitor employees precisely what they are doing on the organization network. Further, they provide a controlled Internet environment, as restricted sites and unauthorized software installations can be a huge risk to organizational security.

So, I think the biggest priority for organizations should be to install the best endpoint security tools on a laptop to mitigate the risk of this new work-from-anywhere environment.

#### **REDESIGNING IT & SECURITY STRATEGY**

Looking at these new threats, we identified the need to re-evaluate our IT and security strategy, keeping our long-term and short-term goals in mind. For example, as working from home leads to new security threats, users need to understand their information security and have good security compliance awareness. Information security awareness is a high priority for us at Infogain. We engage with employees frequently, sending mailers and/or conducting activities such as quizzes to make them aware and make information security part of the overall culture.

Also, looking at the increased ransomware attacks across the globe, we are now planning to deploy new information security and cybersecurity tools on a short-term plan, which was initially a part of our long-term goal. So, the long-term strategy that we had mapped out in terms of deployment of security tools is now a part of the short-term strategy.



SANJEEV JAIN CIO Integreon

# Growing demands of latest technologies make cyber security critical and an imperative for all business functions

#### **RESPONSIBILITIES OF THE CIO**

CIO's role is progressively becoming challenging every day. Business expects us to be more proactive when it comes to implementing the latest technologies, which can improve operation productivity and efficiency. Getting more out of existing resources is one thing. Initiating new ideas and ways of working to uncover new kinds of value is the next thing.

#### **ADOPTING WORK-FROM ANYWHERE**

New norm Work from Home (WFH) is always challenging, and it is not easy for IT to manage their infrastructures remotely. Technology and tools like Virtual Desktop Interface and Secured VPN have made life easy with implementing all necessary security controls. Supporting partners plays a very critical role for implementing these technologies.

#### **REDESIGNING IT & SECURITY STRATEGY**

Artificial Intelligence and Robotic Process Automation are growing rapidly. In today's Digital Transformation age, various technological advancements have given machines a greater ability to understand information, to learn, to reason, and act upon it.

One must continuously evaluate and improve technology to meet new objectives and scale with business as we grow. And our people need to be managed in a way which enables them to be fulfilled in their work and to reach their potential – for themselves and for their organizations.

With the growing demands of the Internet of Things, digitization, Machine Learning and Robotic Automation, cyber security has become critical and an imperative for all business functions.





#### **SHAILENDRA CHOUDHARY**

VP & Head - IT Interarch Building Products

#### To survive and succeed in the age of information. organizations need to adapt security and privacy platforms

#### **RESPONSIBILITIES OF THE CIO**

In my view today's CIOs should be strategic assets to the organization. Sometimes, the CIO may move into a Chief Innovation Officer or Chief Digital Officer role to advance the company's digital strategy. Progressive CIOs and those with an agile and growth mindset are leaving the traditional CIO roles for these new opportunities where they can shape the future of their companies, design new products and define new business models.

#### **KEY PRIORITIES FOR 2021**

Doing digital often means asking questions and coming up with a limited answer. Moreover, being digital means that you understand there are often more answers that any one human can provide. In my view, I firmly believe that being digital is the key to our future. The role of the CIO/CTO is even more integral as enterprises shift from tackling digital transformation projects to living in a fully digital society. A mindset shift is required from a CIO/CTO in a digital society. There are multiple changes that the leadership must adapt to and evolve with to meet the business demands. Push through organizational resistance by selling senior leaders on the benefits of collaborating around digital business. To survive and succeed in the age of information, organizations need to adapt faster than ever before and they need security and privacy platforms that can protect at the speed of business.

#### **ADOPTING WORK-FROM ANYWHERE**

Covid-19 compels organizations en masse to adopt remote working through VPN and meeting with Google Meet. This seems, at first sight, to be quite successful, but there are also many signals that productivity and work-life balance are coming under pressure. It will only be real success if organizations start tackling remote working structurally. It is not advised to take a wait-and-see approach, because after the corona crises, remote working will become the new normal.

#### **REDESIGNING IT & SECURITY STRATEGY**

In my view organizations must have emerging technologies policies and make sure it should apply in terms of awareness of the employees. IT security strategy as below:

- Know what you need to protect • Take a data-centric approach Consider a cloud access security broker
- Develop a clear understanding of cloud service models and security issues.



SANDEEP SENGUPTA Director ISOAH Data Securities

#### Business continuity, organisational resilience, disaster recovery: The key focus in the pandemic

#### **KEY PRIORITIES FOR 2021**

Information Security has become a business risk, rather than an IT risk. CIOs are now part of the board, influencing decisions. The new normal brings unknown risks. Digital hygiene is now getting embedded into company culture.

#### ADOPTING WORK-FROM ANYWHERE

Business continuity, organisational resilience, disaster recovery have been the key focus in the pandemic. These were mostly neglected in pre-COVID scenarios. With unavailability of infrastructure and people, disruption in supply chain and vendors; organisations are doing RTO & RPO for each and every process within the organisation. ISO 22301 (Business Continuity), BS 65000:2014 (Guidance on organizational resilience) are the standards in demand, superseding ISO27001 (Data Security) or ISO 27701 (Data privacy). To achieve business continuity, depting of NYOR business adoption of cloud technologies, usage of VPN with MFA. Adoption of BYOD has also increased. HR has played an active role in the psychological wellbeing of the workforce.

REDESIGNING IT & SECURITY STRATEGY

First, the companies that invested in perimeter security assuming everything will remain secured within the office, had a problem to solve while everyone was working from outside

the office. They had to redefine their budgets to accommodate end-point security, BYOD security, VPN security, etc.

Data protection and privacy became another concern for the companies with European GDPR and many other countries adopting regulations similar to GDPR. With government and regulatory bodies tightening the noose against the companies with stiff penalties against data breaches; the chance of data breach skyrocketed with companies trying to adapt to a new normal and in understanding

#### Few offbeat Recommendations for businesses:

- 1. Procurement of department needs to ask vendors to submit their DR drill reports, business continuity policy during vendor empanelment. Merely an undertaking of business continuity is not enough any more. Either the vendor needs to be ISO22301 certified by trusted certification bodies; or send questionnaires on basic BCMS to understand their BCMS maturity.
- 2. Use job rotation to create a robust succession plan. People's unavailability is an acute problem.
- 3. Get ISO22301 best practices implemented in organisation and get certified by a trusted certification body. External assessments add a lot of value to dig out risks which otherwise would have remained undetected.
- 4. Focus on data protection and privacy well in advance. IDPR will come into force sooner or later. Being ready will give any organization a market advantage. Being unready and waiting till the last moment can bring a 15 crore penalty in case of a data breach.





DR. PAVAN DUGGAL
Chairman
International Commission on
Cyber Security Law

# "The relevant mantra is a holistic approach on IT security and a starting point could be ensuring compliance"

#### RESPONSIBILITIES OF THE CIO

With the coming of Covid-19, the Golden Age of Cybercrime has already arrived. In my new book entitled "New Cyber World Order Post Covid-19", I have argued that by the time the countries are successful against the fight of Covid-19 in terms of first and subsequent waves of infections, the world will enter into a New Cyber World Order, where cybercrime will be the new default normal, where increasing cyber security breaches will be a daily constant companion of ours.

In these newly changed ground realities concerning new cyberspace that are awaiting us, I think the role of CIOs in the companies will undergo massive transformation. From just being a Chief Information Officer, the CIO will transform

itself into becoming a Chief Lifeline Officer of the company.

Data is the new oil of the data economy and therefore this data is the new building block of the new age. So everything must be done so as to protect the authenticity, veracity, security, reliability and stability of data resident on corporate networks and corporate resources. Therefore, with each passing day, the role of ClOs in companies will start getting more and more significant. They will start getting far more powerful, in terms of having much growing cloud in corporate management decisions. ClOs will become an essential element of all corporate decisions that will be taken at the management level, because issues around data will, to a large extent, govern business strategies and potential business opportunities in the coming times.

#### **KEY PRIORITIES FOR 2021**

The key priorities for ClOs and ClSOs in 2021 will be how to keep the organizations abreast with the latest onslaught of the digital format. Today, digital format has become the defacto format and with increasingly organizations Working From Home, they have to now come up with new mechanisms on how to adopt not just the electronic digital transformation processes, but also newly emerging technologies like Artificial Intelligence (AI), Internet of Things and Blockchain into the holistic corporate ecosystem.

The focus is primarily not just to enhance the experiences of customers but also to secure the authenticity and veracity of corporate data as also the cyber security of corporate networks, corporate resources and corporate systems, apart from confidential data and information resident therein.

#### ADOPTING WORK-FROM ANYWHERE

CIOs need to adopt new strategies and approaches, while dealing with the Work From Home paradigm. Not only, the existing policies of corporates have to be relooked at, but more significantly, now corporates need to come up with new policies and frameworks so as to regulate the activities of employees Working From Home. Protecting the confidentiality of corporate data and companies' trade secrets becomes a topmost priority. Also, ensuring the cyber security of corporate systems and networks which are being accessed by Work From Home devices, has assumed topmost relevance. In this regard, the Government of India has already notified the Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021.

These Rules have set up a new set of compliances for CIOs and CISOs including implementing and maintaining reasonable security practices and procedures, while they engage in their day-to-day activities. So holistic overall perspectives, in terms of not just having changed and amended policies, but also effectively implementing the same apart from augmenting the technical parameters and taking the constructive advantages of newly emerging technologies have to be all adopted on a simultaneous basis by CIOs and CISOs of the respective companies, in order to protect their corporate legal and technical interests.

#### REDESIGNING IT & SECURITY STRATEGY

Companies need to reevaluate and revise their existing IT strategies. Security on the perimeter is no longer the relevant mantra. The relevant mantra is a holistic approach on IT security and a starting point could be ensuring compliance with the international ISO 27,001 standard on information security.

Given the Indian context and given the propensity of Indian users Working From Home to unauthorizedly copy corporate data, sell it or distribute it in any manner whatsoever without permission, the challenges for preserving the IT security of corporate assets and corporate data is indeed huge. The fact that you have had one IT security policy and you think you are done, that mindset has to evaporate. Today, IT security or cyber security is a daily evolving phenomenon. Companies will have to start adopting cyber security as a way of life, as they now come up with new approaches to deal with the new distinctive challenges thrown up by the Covid-19 paradigm.





#### iXcheck Technologies invested in training and right mix of technology to enable anywhere working environment

#### **RESPONSIBILITIES OF THE CIO**

It is challenging and expectations are increasing rapidly. The meaning of CIO is not limited to Chief Information Officer, it is known as Chief Infrastructure Officer, Chief Integration Officer, Chief International Officer, Chief Inspiration Officer, and Chief Innovation Officer etc.

CIO needs to be entrepreneur driven, situation oriented and value-added. CIO will take many paradoxical roles: both as business strategist and technology visionary. A CIO needs to be a talent master and effective communicator, business enabler and cost optimizer.

#### **KEY PRIORITIES FOR 2021**

With change in time, technology is becoming increasingly important for an organization's growth. CIO has to have the ability to move from Functional to Strategic Business Leader.

Now changes are happening at a much faster speed and the reflection time has become zero. Business is in constant threat and all the stakeholders including the CIO are required to plan and act proactively.

#### **ADOPTING WORK-FROM ANYWHERE**

As mentioned the reflection time has become zero, we acted well in time. Our complete workforce is working from home and it is in fact much before the government announced lockdown.

Year 2020 taught us how drastically situations can change and it is just the ability to adapt to the change that can help in survival. We invested both in training and the right mix of technology to enable anywhere working environment for our employees. We are mostly on VDI.

#### **REDESIGNING IT & SECURITY STRATEGY**

We invested more in our VDI platforms and security tools. Zero Trust is the new cybersecurity practice. Zero trust assumes there is no implicit trust granted to assets or user accounts based solely on their physical or network location (i.e., local area networks versus the internet) or based on asset ownership (enterprise or personally owned). We created more robust authentication provisions and alert mechanisms. Our network team is constantly monitoring the traffic and raising alerts for any suspicious activity found. In addition, all the employees are being constantly trained on the new possible ways of compromises and safety measures



**AMIT BHATIA** Jaquar & Company

#### "CIOs need to design a system architecture with resilience, agility, and scalability at its core"

#### **KEY PRIORITIES FOR 2021**

CIOs need to design a system architecture with resilience, agility, and scalability at its core. They need to design a system dictillectate with resilience, againly, and scalability at its cole. They need to prioritize business continuity and IT security to be able to pivot efficiently. The situation has created a need for stress-testing the application and infrastructure landscape in order to bring more stability and resilience. Business-critical processes that rely heavily on off-line data and manual interventions have to be transformed with the help of digital tools. CIOs need to facilitate this transformation across business processes, and train existing incumbents to convert them into a virtual, future-ready, workforce.

#### **ADOPTING WORK-FROM ANYWHERE**

Video Conferencing and Remote Desktop Tools

Implementation of the tools like Lifesize, Cisco WebEx, and AnyDesk, help the Business Teams to initiate and conduct live conferences and remote meetings and also the IT Training Team to impart various training and demonstrations.

Remote Desktop Connectivity to Non-Mobile Users

There are users who use desktop for their official tasks and need to access them remotely amidst lockdown. For the same, Jaquar IT team provides them with Remote Desktop Connectivity, which enables them to connect and access the resource from their Office desktops. Furthermore, GlobalProtect, a VPN connectivity has been provided to every user of Jaquar to access Jaquar ERP and other related applications; shared resources; etc. remotely.

#### Server Migration

We have migrated all applications, web and other related servers to our own Cloud system. This is to ensure increased data security and continuous availability of Server for Business with almost zero downtime.

#### **REDESIGNING IT & SECURITY STRATEGY**

Jaquar has implemented a next generation Firewall solution from Palo Alto that manages network traffic flows using dedicated processing and memory for networking, security, threat prevention and management. The controlling element of the next generation Firewall solution implemented is a security-specific operating system that natively classifies all traffic, inclusive of applications, threats and content, then ties that traffic to the user, regardless of location or device type. The trio of application, content, and user, which are the core business elements, provide the base for security policies, resulting in an improved security posture and a reduction in incident response time.





HARIKESH MISHRA CISO & Additional GM (IT) Jaypee Group

#### Defence-in-depth: An important security architecture

#### **RESPONSIBILITIES OF THE CIO**

It is a great idea to adapt CIO as Chief Influence officer or change agent in the current digital transformation landscape. As a CIO/CISO, one needs to stay ahead of the technological changes and trends that affect an organisation; CIO/CISO can face the function of educating the top players in the firm, so they remain ahead of the same changes and trends. This learning culture will enable the team to be stronger than ever, no matter what challenges come on the way.

#### ADOPTING WORK-FROM ANYWHERE

A large-scale transition from traditional, collocated work to remote work arguably began with the adoption of work-from-home (WFH) policies in this pandemic. It is quite exciting that millennials were excited by the idea of traveling the world while still employed.

In such a scenario, technologies that enable secure access to data, enterprise applications, virtual meetings, cloud conferencing, and virtual/mixed/augmented reality are the forefront leaders to ensure deliverables are not impacted. Remote working is a blessing that comes due to technology and is one the greatest solution that helps us in social distancing.

#### **REDESIGNING IT & SECURITY STRATEGY**

Our ICT world is under assault, and we need to take proactive upgrades to build our defences. In the past couple of years, the attack surface has vastly expanded from a move to remote work, from

more people coming online, and from more interconnectivity of PCs and smart devices around the globe.

The recent Solar Winds breach that sidestepped cyber-defences of numerous countries and most of the Fortune 500 companies was yet another wake-up call to the overwhelmed cybersecurity ecosystem endlessly being attacked by phishing, ransomware, spoofing, and Distributed Denial of Service attacks. However Defence-in-depth is an important security architecture principle that has significant application to ICT Infra (ICS), cloud services, organization's sensitive data, and many other areas.

We claim that an ideal defence-in-depth posture is 'deep', containing many layers of security, and 'narrow', the number of node independent attack paths is minimized. In view of the same Zero Trust (ZT) play an important role for an evolving set of cybersecurity paradigms that move defences from static, network-based perimeters to focus on users, assets, and resources.



Group CIO & EVP - IT JBM Group

"We had all basic requirements of infrastructure, collaborating tools and we already adapted private cloud to some environment, public cloud for some of the environment"

#### **RESPONSIBILITIES OF THE CIO**

The responsibilities are:

- In the VUCA world, a CIO's role is more focused on resolving business pain points, which may be related to man, machine, material or method without compromising on safety of all
- As the data is residing at multiple landscape within private / public cloud environment, we need to overhaul security landscape, which is really on top priority
- Further IoT, AI, ML is forcing us to adapt more open source based solutions, the legacy transition is also one of the important leavers, CIO has to excel
- Unlike before, most of the projects one deploys in the present digital space, most of the solutions are focused on man, machine, material or method, so we are coming closer to calculate the right Rol of the many projects we are deploying.

Better exposure to different ways to calculate Rol is bringing the gap between IT & business function, now ClOs are more meaningful.

#### ADOPTING WORK-FROM ANYWHERE

JBM really feels proud that by design we adapt technology, which catered to different kinds of data access working from anywhere. We had all basic requirements of infrastructure, collaborating tools and we already adapted private cloud to some environment, public cloud for some of the environment. More or less we were already in the work from home kind of environment, but were accessing all the applications from plants to either DC or public cloud infrastructure. So despite having some security related assets, which were there but not put to use, because we normally work from the office

**REDESIGNING IT & SECURITY STRATEGY**We had security standards available in the infrastructure that are already built in, thanks to the way JBM management works. We started using the available solutions to ensure security solutions are used to the potential

Post pandemic the manufacturing is adapting more technology like visual based quality system, visual based manpower productivity, visual based safety system deployed. This resulted in IT-OT merging. Because of unpredictable infrastructure requirements for such a solution, we adapted public cloud. This has really increased the risk, specifically security of data, as some are in private cloud and some in public cloud. The risk of data security is more visible and we could create a use case with ROI also as one of the parameters for management to make the right decision.





**KRC MURTY** Senior VP & Head - IT Apps RTB Kotak Mahindra Bank

#### "Kotak Mahindra Bank is a new-age bank and we were ready to shift to a work-from-home mode from day one"

#### **KEY PRIORITIES FOR 2021**

Before the pandemic, many organisations had been going through a 'doing digital' phase but were not 'being digital'. However, some companies were already 'being digital' before the pandemic and they further escalated the speed of implementing digital initiatives in the post-COVID world. We are at a critical juncture and the task at hand for ClOs/CTOs is to fulfil this journey successfully and continue on the path of digital transformation.

A contactless journey for customer on-boarding and servicing their requests online without having to step into a brick and mortar setup is a key priority in today's world. Enabling most services through digital mode is becoming the norm. The top priority for CIOs/CTOs is focussing on customers' needs and enabling them to transact digitally.

#### **ADOPTING WORK-FROM ANYWHERE**

Kotak Mahindra Bank is a new-age bank and we were ready to shift to a work-from-home mode from day one. Our staff also took turns to test remote connectivity. The scale of staff now accessing remote connectivity has risen substantially and we are able to cater to the same seamlessly.

#### **REDESIGNING IT & SECURITY STRATEGY**

Cyber threats have always existed and will continue. It is only the ways and means of the threats that take on new shapes and forms. The way forward is:

- Give top priority in the stack to security while implementing any technology or application. There should be no compromise, shortcuts or exceptions whatsoever and adopt a zero tolerance policy against bypassing such mandates.
- There has to be a very strong governance on IT controls and security implementation. The team can be a mix of internal stakeholders and a niche partner who has the right information, updated tools, policies and procedures implemented at the right time.
- Organisations should give compulsory and ongoing education to employees including the IT teams from time to time. This will help mitigate threats from internal staff, which happens in many organisations worldwide. This has to be made a part of the DNA of the organisation.
- Upgrade the infrastructure / applications from time to time to ensure that there is no legacy of old applications or old hardware infrastructure. This can be one of the major causes of a cyber-breach if not acted on time.



**SRINIVAS RAO KOLLIPARA** CIO L&T IDPL

#### L&T IDPL embraces various best practices to be future ready

ADOPTING WORK-FROM ANYWHERE
We have started our preparation much before the actual lock down announcement made in March'2020. Some of the initiatives which we have implemented made it possible for our organization to work from anywhere.

In fact, I am proud to inform that we have rolled out and implemented complete SAP S4 Hana 1909 with 16+ SAP modules along with various other applications like Mobile application / platform for our O&M teams (Highways / Power Transmission lines) integrated with SAP, vendor collaboration portal/platform integrated with SAP, implementation of eRFI / eQuality for major contractor works happening across highways which includes quality inspection and auto results from application. Also implemented various other applications to ease business pains, allow to work from any remote location, to avoid as much as paper flows. location, to avoid as much as paper flows

#### **REDESIGNING IT & SECURITY STRATEGY**

In order to be future ready, we have adopted many best practices like usage of low code / no code tool platforms for all the new web and mobile applications which would reduce the time to delivery from years / months to months / weeks, allow for quick changes to the dynamic changing business requirements, low maintenance, few resources to manage and maintain.

Though we have implemented various security related tools / projects to strengthen our infrastructure, networking and security, we are going ahead with a very detailed 550 point check list to implement security framework across all our SPV's (companies). This security framework will consider all the various areas of security (Infra, monitoring, user awareness, trainings, data protection, access controls, SOC etc.).

In order to be more agile, scalable, and resilient and reduce our dependency on our local data centers, we have initiated hybrid cloud approach and already moved couple of critical applications in cloud and the strategy is to maintain hybrid cloud down the line.

We are initiating various change management training programs to all our IT teams as well to adopt to the new reality of quickly learning new technologies, frameworks, changing roles as per business demand, and move towards being part of business and drive solutions instead of receiving the requirements from business and deliver them. More of a proactive and business approach.

Implementation of collaboration platform for communication (chat, video etc.), automation tools like RPA, and applications within O365 to automate the business processes / approvals etc., elimination of entire data in local shared drives is also one of the very important drive which we will continue towards the achieving the overall company IT / business strategy / digital adoption drive.





HARIKRISHNA RAGUPATHI VP – IT Lakshmi Machine Works

# Implementation of CMMC/ISO 27001 compliance framework becomes mandatory for manufacturing sector

#### **RESPONSIBILITIES OF THE CIO**

CIOs have become business enablers to drive organization targets. Since most of the processes involved technology enablement, IT has now started driving the business processes and influencing decision making.

#### **KEY PRIORITIES FOR 2021**

CIOs have become a business team to drive digitalization and automations to de-skill human element. Companies had realized the importance of Automation during pandemic and ready to invest in technology.

#### **ADOPTING WORK-FROM ANYWHERE**

Implementing a secured work from home policy along with necessary Infrastructure. Policy covers all areas of process, security and monitoring mechanisms.

#### **REDESIGNING IT & SECURITY STRATEGY**

Evaluation of current IT landscape in terms of Cyber security compliance which covers IT policies related to internet applications. Implementing CMMC/ISO 27001 compliance framework becomes mandatory for every manufacturing sector.



Group CIO
Lulu Group International

"The CIO role is not only enabling technology but also providing avenues for business to re-invent the business model"

#### **RESPONSIBILITIES OF THE CIO**

As a CIO I have to play the role of a change agent and it is important to create an innovation agenda for the enterprise. I have to carve out new digital tools and methodologies which will make innovation led change possible in the enterprise. We are in the process of creating an omni-channel customer experience for our customers and it is important that the CIO office leads that change. The CIO role is not only enabling technology but also providing avenues for business to re-invent the business model.

#### **KEY PRIORITIES FOR 2021**

Digital is the new business model for all enterprises. The following parameters are required for being digital:

- 1) Accelerate Cloud Transformation journey
- 2) Work on Application Modernization journey
- 3) Create Data led Transformation for customer experience
- 4) Increase Workforce Transformation with new skills
- 5) Create Automated Process to enable Intelligent Enterprise

#### **ADOPTING WORK-FROM ANYWHERE**

Workforce of the new era needs to adopt the digital skills to be relevant in the new normal. They need to ensure design thinking skills and Data Analytics skills. The IT workforce needs to learn Cloud management and Data platform to enable Cloud enabled solutions which are secure.

The workforce needs to embrace new ways of collaboration and we have invested in digital collaboration tools which help in remote working setups.

#### **REDESIGNING IT & SECURITY STRATEGY**

The digital world poses cyber security threats which need to be dealt with strong solutions which secure the data in the enterprise. We have done assessment of security threats and created a roadmap which will protect us in the following:

- 1) Enterprise data security
- 2) Enterprise threat assessment
- 3) Cyber Surveillance and monitoring

We have invested in the best tools which will help create a secure environment. Also we have built tools in the cloud which are more secure.





# KAPIL MADAAN CISO Minda Corporation

# "The first step in designing a security strategy is to understand the current state of the security environment"

#### **REDESIGNING IT & SECURITY STRATEGY**

The current health crisis has driven organizations to shift to a remote-work model overnight. As a result, employees are having to merge personal technology with work devices. This immediate expansion of the attack surface has introduced new uncertainties and heightened cybersecurity risks for organizations.

What's needed is a comprehensive security strategy that clearly defines the current state of the security environment and aligns with business objectives for the next three years. Without it, the CISO won't be able to elevate security to the level of corporate strategy—where it belongs. The first step in designing a security strategy is to understand the current state of the security environment. That may seem obvious, but many companies skip this critical step.

#### Ensure all your stakeholders understand your new strategy

When you have developed a new strategy, ask your stakeholders about the strategy's core elements and the rationale behind them. Can they articulate them? Do they know how the new strategy will affect their work? Before you can realize your strategic objectives, you need to know how people feel about it and whether they all buy into the same long-term goals.

#### Define the functions & skills necessary for success, Shape your processes and culture

Branding and communications, project management, product and service innovation, talent management—these are some examples of core functions that could be necessary to meet your new strategic goals.

#### Following some of these tips can help organizations to redesign security strategy.

Prioritize off-premises solutions: Use resources such as cloud-based services to foster agility and enable employees to easily and securely access the apps and data they need without creating a bottleneck.

Limit access to virtual private networks: Create separate VPNs (virtual private networks) for individual departments to facilitate access only to employees who need such data or resources.

Encourage adoption of collaborative systems: Distributed workforces require new tools that foster collaboration and communication in place of the social interactions that typically occur within a physical workplace.

Partner with internal and external peers: Every department relies on an organization's technical infrastructure, therefore it's crucial for IT leaders to regularly communicate with relevant stakeholders to look for ways to improve productivity and security.

Keep abreast of new developments: Keep track of the evolving threat landscape to adapt and respond quickly.



PREETI KANWAR
CIO, CISO &
Head – Digital Workplace
NEC Corporation India

### "We at NEC, are planning to adopt cloud wherever possible"

#### **KEY PRIORITIES FOR 2021**

There is a paradigm shift as far as IT is concerned. IT has to support anytime / anywhere way of working to enable the workforce and to provide business continuity. Digitization is an important aspect of anytime/ anywhere enablement. Till sometime back we were discussing about mandatory processes to be automated but now we are struggling how to automate all business processes. I think the struggle is not budget and acceptance now, the struggle is how to deliver at lightning speed, what all tools are available in the market, how to have the landscape of integrated tools and apps for best user experience.

The priorities are online and real time dashboards for board room and executive level reviews. Cloud adoption also is becoming mandatory and is no more optional. Security enhancement of data center, network and end user is also on the high priority. Most of the organizations have very aggressive IT roadmap with action paced projects and stringent timelines. The pace of IT modernization has accelerated a lot.

#### **ADOPTING WORK-FROM ANYWHERE**

The biggest change is the enablement of anytime / anywhere way of working. The need for IT help desk availability has changed to enable the anytime / anywhere model. IT Asset / consumables

management protocols have changed drastically. Security protocols had to be enhanced a lot. We at NEC, are planning to adopt cloud wherever possible. Way of interaction with users at organization level has taken a big shift to ensure that we are able to communicate and connect effectively with users.

#### **REDESIGNING IT & SECURITY STRATEGY**

We need to be on our toes all the time to ensure that we stay secure. "We cannot stay secure by chance, we can only stay secure "by design".

We have ensured that all mobile devices also have scanning software if VPN needs to be enabled on those devices. Else no official connectivity on mobile devices is permitted.

We have enhanced our end user and data center security protocols a lot. In addition to regular audits, internal random audits have been planned.

One of the most important aspects is "before we secure, we need to know what to secure" – for this we have streamlined our asset management protocols to ensure that all IT assets are covered for compliance check.

During the past few months security has become mandatory and not optional for us.





#### **BIBHAS SEN CHOUDHURI AGM IT** Neotia Healthcare Initiative

#### "We are running through a digital transformation since 2017 and still going on"

#### **RESPONSIBILITIES OF THE CIO**

As nowadays CIOs / CTOs are directly involved in organizational growth map, technology adoption is part of this growth. Now CIOs / CTOs are required to plan and prioritize the technology upgradation as per their current operational process and business needs. In healthcare we are required to plan the upgradation in such a way that commercial for the implementation does not affect the service cost and it should not get passed to the receivers.

#### **KEY PRIORITIES FOR 2021**

Nowadays CIO / CTO are becoming a part of organizational financial and revenue roadmap. In healthcare industries after clinical service, next priority is IT services, where 30% patient satisfaction depends on IT services. We are running through a digital transformation since 2017 and still going on, some of our major priorities in 2021 are:

- Implementation of next generation Firewall for high data security. Already implemented in one of our hospitals, implementation in another two hospitals is in process.
- Network Audit and Endpoint Security Implementation
- Paperless and contact less IT services, starting from Registration, Billing, Investigation Reporting,
   Discharge Process, Billing and Insurance Claim. Most of the implementation is completed and some of them are in the pipeline.
- 15 community clinics in rural areas of entire West Bengal will have full IT services connected to the central database.

#### **ADOPTING WORK-FROM ANYWHERE**

We are very lucky that we work in healthcare industry and involve in direct service, where "work from home", "work from anywhere" does not applicable, we have worked 100% onsite during the pandemic situation and extra hours than normal situation sometime without weekly leave to serve the humanity during the tough time.

#### **REDESIGNING IT & SECURITY STRATEGY**

As mentioned above, that we have started our digital transformation journey in 2017, in this journey so far we have covered social media, cloud computing, smartphone technology, artificial intelligence, there was some gap in data security related concern which we have taken up this year and going forward, we have planned to have a half yearly base network, data security and licensing audit so that we can take necessary action on the gap (if any).



**AMITABH MISHRA** Senior IT Executive **Novartis** 

#### 'Digital' becomes an integral part of every CIO's or CTO's portfolio

#### **RESPONSIBILITIES OF THE CIO**

ClOs have certainly had to address what I call the 'Digital Question' during the last few years. I believe most leading organizations are already sold on the need for digital, but yes, to the extent that management needs to buy into the digital vision, CIOs have had to build a greater influence on IT agendas and budgets. Those CIOs who possess greater awareness of value as a driver of decision-making, are more successful than others who are not as aware.

#### **KEY PRIORITIES FOR 2021**

The leading organizations in every industry have already kick-started their digital journeys, some from as far back as 2013 or even earlier. Having said that, 'Digital' is an integral part now of every CIO's or CTO's portfolio. In most cases the Digital organization is part of the CIO's team. In some cases, there's a CDO (Chief Digital Officer) who's a peer to the CIO who owns the digital agenda and organization.

#### **ADOPTING WORK-FROM ANYWHERE**

Most organizations were forced to evaluate (and in some cases, institute) WFH policies. In the west, WFH has long been an accepted practice of organizational culture. However, in India,

management was in some cases obligated to provide a flexible work framework in order to incentivize and engage the workforce. In some cases it was absolutely essential to ensure continuity in operations. In addition, organizations also provided 'exposure bonuses' to those employees who had to interact face-to-face with customers and clients (healthcare, banking, etc.).

#### **REDESIGNING IT & SECURITY STRATEGY**

We have carried out an exhaustive review of our cyber-security strategy, and ensured that the company network (whether onsite or remote) is bulletproof.

#### **AGENDA OF 2021**

I believe cybersecurity and digital are getting greater focus - and budgets - as a result of the pandemic. Within digital, data and analytics are fast becoming the top priority due to the reason that executives are looking to data as a driver of organizational strategy and budgeting.





**ANAND SINHA** O & Director IT OCS Group India

#### OCS follows a strong, dedicated and ethical approach to cyber security and data protection

#### **KEY PRIORITIES FOR 2021**

OCS will be leveraging digital platforms, automation of feedback, audit, checklist & tasks, management, automation in energy management, customer experience analytics, and transformational predictive maintenance services to offer an integrated solution to clients. IoT and All are transforming the facilities management industry today. These technologies have opened new possibilities for OCS by allowing us to create business cases based on strong, reliable data thereby resulting in a measurable return on investment. With Al and predictive analytics coming into their own, the need of the hour is to use data insights that bring together operations, maintenance, and sustainability for smart operations, everyday sustainability performance intelligence, and occupant engagement and productivity, and the most important factor and top priority for all the above-mentioned Technologies with Constantly evolving to defend, Protect, implementation of toughest security measures and enhancement in existing security architecture, support for new initiatives is "Cyber Security" this will be Shield and necessary for any technology we bring for Business.

#### ADOPTING WORK-FROM ANYWHERE

The office of the future would be more remote, digital, and virtual. Future corporate workspaces will look and operate in fundamentally different ways from how they have in the past. They will be defined by three major points of innovation - technology, office space and collaboration. Internet

of things, connectivity and big data would radically change the way people work. Moreover, applications like AI, AR and virtual reality will help increase collaboration leading to better efficiency. Technologies such as access control systems, automated thermal cameras for temperature screening, face detection using AI, room sensors to track human activity, mass compliance systems will be widely used by facility management service providers to ensure safety and security at all offices

#### **REDESIGNING IT & SECURITY STRATEGY**

OCS has a strong, dedicated and ethical approach to cyber security and data protection compliance. Our approach to information security is guided by a large framework of key internal policies, procedures, standards and guidelines. All information assets (data) (either owned by OCS or entrusted to OCS by a client under a specific agreement) are subject to the same procedures. This includes information assets held, processed or stored on OCS premises, at approved client locations or at off-site premises and locations. All supporting assets (non-data) (whether by direct or indirect association) are an integral part of ensuring the confidentiality, integrity or availability of the information assets. OCS provides a dedicated team of information security and data protection professionals, including a DPO, with the necessary skillset to monitor and assess compliance throughout the business.



**SANJAY SINGH GAHLOD** GM - System & IT Department Oriental Rubber Ind.

#### "We should plan proactive rather reactive"

#### **KEY PRIORITIES FOR 2021**

Key priorities should be

- 1. IT infrastructure mostly (laptop need to be arrange proactively considering pandemic)
- 2. VPN connectivity with secure network so people can use file server and shared folder access securely
- 3. Hard copy signature for invoice need to include digital signature
- Internet connectivity at home with do's and don'ts (lengthy and secure password for home Wi-Fi, lock the laptop)
- We should have tools like MS Team, Zoom meeting for audio video conferencing with recording for future references, all recording should be backed up.
- 6. Regular touch with end users for their IT issue, we should encourage people to work from home and give them the feeling that somebody is there for them to take care (either HR or IT).

Oriental Rubber Ind.

ADOPTING WORK-FROM ANYWHERE

We should plan proactive rather reactive, now people are taking advantages of pandemic, higher rental or non-availability of IT stuff so we should keep enough stock to handle any situation and best part we should reduce plan at office for landline and rental printer for office, any way people are not going to office so we can reduce rental for printer and landline P.M. rental. So we can save some money.

In an emergency, if we have to allow people to use their personal belongings like laptops then we should have a checklist on how securely we can configure their personal stuff without compromising security.

#### REDESIGNING IT & SECURITY STRATEGY

We should deploy a firewall with the best security policy, we should have our pain area list always available with us. We should always be eager for new technology, attending seminars and always update us for new things so we can compare what we have v/s what best is available in the market so we can do analyses of the gaps and needs and try to find out solutions for our pain areas so we can propose new solutions to management.





#### DR. DEEPAK KALAMBKAR **AVP Infrastructure & CSC** PayGate India (Safexpay)

# Digital transformation, cybersecurity and cloud/ cloud migration: Key Priorities for IT team

#### RESPONSIBILITIES OF THE CIO

One of the most important CIO jobs now is to create an IT culture that is all about the business, so every dime it spends is related to something in the business. That approach applies whether an IT project directly supports a money-making endeavour, or it plays a supporting role.

Wolff acknowledges that CIOs typically find ROIs easier to determine when the project drives new revenue, such as creating a new app that enables sales, but they should aim to tie all IT projects to business needs if they want to present accurate ROIs.

#### **KEY PRIORITIES FOR 2021**

Top priorities for IT teams in 2021 are digital transformation, cybersecurity and cloud/cloud migration. Customer experience is also near the top, indicating the continued importance of a customercentric attitude aimed at increasing customer retention, encouraging repeat business and driving up revenue. The pandemic and recession have also driven a much greater emphasis on cost savings vs. our findings from 2020.

Responding to business-led IT, CIOs and IT executives continue to balance running day-to-day business operations reliably with providing support for growth and innovation. Without sufficient focus

on the latter, IT can lose relevance quickly. To mitigate the impacts of this challenge, it's important for IT to align itself as closely as possible with business needs.

#### **REDESIGNING IT & SECURITY STRATEGY**

The exponential growth of the Internet interconnections has led to a significant growth of cyber- attack incidents often with disastrous and grievous consequences. Malware is the primary choice of weapon to carry out malicious intents in cyberspace, either by exploitation into existing vulnerabilities or utilization of unique characteristics of emerging technologies. The development of more innovative and effective malware defense mechanisms has been regarded as an urgent requirement in the cyber security community. To assist in achieving this goal, we first present an overview of the most exploited vulnerabilities in existing hardware, software, and network layers.

This is followed by critiques of existing state-of-the-art mitigation techniques as to why they do or do not work. We then discuss new attack patterns in emerging technologies such as social media, cloud computing, smartphone technology, and critical infrastructure. Finally, we describe our speculative observations on future research directions.



**BASANT KUMAR CHATURVEDI** Associate Director IT / CIO Perfetti Van Melle India

#### Data driven organization: Focus of Perfetti Van Melle India

#### **RESPONSIBILITIES OF THE CIO**

Today's CIO is acting as a business leader rather than technology leader. CIOs are spending more time on digital transformations with business goals, leading business innovation, digitization and organizational change programs.

#### **KEY PRIORITIES FOR 2021**

The focus is more on data driven organization. Adoption of rapid automation tools like RAD, RPA, Al & ML for digitizing processes has increased. Cloud First has become a part of the strategy. Skill development and outsourcing of service management is getting more attention to deliver in an agile way. Investment is getting diverted towards top line growth, cost saving, sustainability, making organization future ready and security has increased.

ADOPTING WORK-FROM ANYWHERE

NPenetration of digital platforms till the consumer side is already evident since the COVID-19 started. Investments towards m-commerce and e-commerce have increased. A new way of sales is getting adopted by CPGs like Social selling, where platforms like WhatsApp, Facebook, Google and SMS are used for reaching to serve micro entrepreneurs/consumers.

#### **REDESIGNING IT & SECURITY STRATEGY**

Program and projects are divided into five pillars - Top line growth, Growing the bottom line, Sustainability (paperless, less power, recycling etc.), Powering future (building skillsets and building foundation in place) and minimizing cyber risks.

#### **AGENDA OF 2021**

Adoption of digital platforms like Cloud and Mobile first, RPA, RAD, Al & ML enabling efficiency and business growth, Analytics / Data Driven based decisions etc.





**AMIT KAPOOR** Group IT/Application Head Pristine Group of Companies

#### Frequent review of IT and security strategy – a necessity

#### **KEY PRIORITIES FOR 2021**

Key Priorities are:

- Increase emphasis on data and cybersecurity
  Increasingly digital and remote workforces
  Driving and embedding digital transformation in the company business strategy, Being responsive to the clients
- Dealing with industry disruption
- Finding and keeping top IT talent
  Increasing focus on privacy and security of customer data
- Rethinking the IT budget

**ADOPTING WORK-FROM ANYWHERE**Major changes adopted by the organizations are Cloud computing, Data Security and monitoring, Digitalization and RPA.

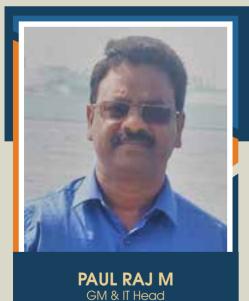
#### **REDESIGNING IT & SECURITY STRATEGY**

The exponential growth of the interconnections has led to a significant growth of cyber-attack incidents often with disastrous and grievous consequences. Malware is the primary choice of weapon to carry out malicious intents in cyberspace, either by exploitation into existing vulnerabilities or utilization of unique characteristics of emerging technologies. The development of more innovative and effective malware defence mechanisms has been regarded as an urgent requirement in the cybersecurity community.

Hence frequent review of IT and security strategy is very much required because the trend of cyber-attack is changing very frequently.

Create a security system: Unlike traditional administrative structures where operations and enforcement of rules are handled from the top-down, creating a security system using human capital will need to be organized from the bottom-up. This security system to protect enterprises starts by securing devices that employees use in business. Increase employee skill set: Cybersecurity is only as strong as its weakest link. Regularly train the team on the latest IT best practices. Help them understand that their efforts are critical to protecting company assets and that it is in their best interest to increase their IT knowledge base. Backup the data: Always backup data, files and any electronic information that is vital to business as well as the most recent drafts/iterations of projects the team is working on.

Put the cloud to work: Although the cloud still has its risks, it is less likely to lose critical data by saving data to the cloud. Using the cloud for data storage is an economical option for small to mid-sized businesses. Invest in IT infrastructure: Install antivirus programs and firewalls on computers. Firewalls will discourage the average cybercriminal seeking to do damage to the company. Regularly update computer security systems.



"We introduced a fully automated Productivity Tracking Software that unleashes the value of human capital and digital investments, provides analytics to effectively manage the team, analyse the trend across the businesses etc."

#### **RESPONSIBILITIES OF THE CIO**

NNow, CIO's play the role of cross-functional business leader in determining how technology budget is deployed in enabling an organization to respond to future disruption, maximize growth and achieve positive ROI. With the advent of cloud technologies, Artificial Intelligence (AI), etc. and the transformative impacts it created, organizations have been forced to rapidly adapt to the new business environment and enhance digital experiences. The challenge going forward will be accelerating digital business while improving operational excellence and support remote / hybrid workforce models.

#### **KEY PRIORITIES FOR 2021**

We have been harbouring ERP, BPR, BIM, Video Analytics, Omni-channel Customer Engagement Platform for the past few months. As the business processes are the DNA of the organization, implementing these suites ultimately looked at to achieve clearly defined goals, improving productivity, and promote long-term business strategy.

#### **ADOPTING WORK-FROM ANYWHERE**

Puravankara

While firms have been remarkably flexible in remote working there have been challenges in large-scale deployments, ensuring security in the home network, continuing to deliver performance, etc.

We introduced a fully automated Productivity Tracking Software that unleashes the value of human capital and digital investments, provides analytics to effectively manage the team, analyse the trend across the businesses etc.

#### **REDESIGNING IT & SECURITY STRATEGY**

First, we focused on secure and encrypted access from personal devices to the company's network supported by strong authentication and a suitably adapted ICT security strategy. Second, Management and IT are equally called upon to prevent the uncontrolled proliferation of devices brought in by employees, which entails considerable security risks. Microsoft Endpoint Manager met organization demands in enabling cloud security across the endpoints, while we embark on our journey to Azure. It protects user devices and applications against threats by delivering security and unique capabilities.





**TARUN BALI** AVP & Head IT, India & South Asia Quest Retail Group

#### Organizations significantly shifted the way to operate – Physical to Physital

#### **KEY PRIORITIES FOR 2021**

From Physical to Physital, there has been a significant shift in the way organisations operate. Previously, marketing and a small section from tech were in charge of moving the digital journey forward, but due to the complexities of ecosystems, tech is now leading from the front with bigger responsibilities. IT services have evolved into a product, with each touch point aimed at providing a smooth, frictionless driven user experience through the entire product portfolio.

Though there is always a scope of improvement and new developments in core technology, which may have already been covered, I'm highlighting main trends for technology-driven businesses.

- Video and social commerce
- Influencer and user-generated content commerce
- The transition from Omnichannel to Omnipresent through new channels and ecosystems
- Al analytics from click to collect and post purchase experiences with actionable insights
- Virtual Try-ons and Virtual Assistance (AR/VR)

#### ADOPTING WORK-FROM ANYWHERE

WFH has embraced a modern way of working, and from physical office culture, we quickly adopted a remote working culture, setting up new technology to serve HO workers, store employees, and

warehouse employees anytime anyware but in controlled environments. We also moved sensitive/critical software to the cloud because the office was closed and we could not access the physical data centre, and infrastructure scaling was a challenge due to restricted hardware accessibility. In an unpredictably changing environment, the digital revolution, in addition to increased efficiencies and cost reductions, has become more important than ever.

#### REDESIGNING IT & SECURITY STRATEGY

Threats and problems are often present as new technology is adopted. Another issue is the use of shadow IT, which is a concern because the workforce prefer public clouds and commodity apps due to their ease of use and familiarity with how they function.

Over the years, we are consistently upgrading our physical and cloud ecosystems to include more powerful firewall, anti-ransomware, and DLP solutions, as well as BCP for all critical applications. In order to have a more controlled process across the organization and to protect our customers, we also became an ISO 27001 business this year.



**CHANDRA KISHORE PRASAD** 

"WFH and remote working due to the pandemic saw an unprecedented demand for on-line meeting/ Video Conferencing secure VPN connections"

#### **KEY PRIORITIES FOR 2021**

The key priorities are:

- 1. Modernising the infrastructure and building services
- 2. Key role in digital transformation initiatives across business functions
- Automation with impetus on Al based operations support to enhance productivity
- Data driven decision making using extensive Data Analytics and Al solutions 5. Facilitate adoption of digital services across the enterprise
- IT security operations due to changing cyber threat landscape
- 7. Re-skilling and up-skilling of IT teams

#### **ADOPTING WORK-FROM ANYWHERE**

COVID-19 and the lockdown saw a big surge in demand for video collaboration solutions for online meetings and video conferences. Video Conferencing services were ramped up from the Cloud infrastructure to cater to the increased demand from the existing and new customers and for the workforce within the enterprise. laaS from the Software Defined Data Centre was upgraded to PaaS within a record time. In a timeframe of 15 months into the pandemic more than 10 lakh people minutes of video conferences were delivered from the platform. WFH and remote working due to the pandemic saw an unprecedented demand for secure VPN connections to access the applications and services hosted in the Cloud. Around 20,000 VPN accounts were created in less than a week's time to support remote workforces.

20,000 VPN accounts were created in less than a week's time to support remote workforces.

#### **REDESIGNING IT & SECURITY STRATEGY**

IT security certification, security audits, and compliances have been implemented based on industry best practices. The data centre is certified for ISO 270001 and best in class infrastructure security solution has been deployed. The security in terms of HIPS, IPS/IDS, Next Generation Firewall, WAF for Web facing applications, Mult-Factor Authentication, Anti-DDoS and micro segmentation has been implemented to provide a layered model for security. Security Incidence Event Management solution has been implemented and a 24X7 SOC has been deployed. The security analytics team monitors the security events, co-relates the logs and takes proactive action to remediate the threat.

Security & Compliance checks:

- Apply high severity security OS patches within three days of release.
   Apply all other security patches within 30 days.
- 3. Use a supported operating system and application version.
- Use machine images only from trusted source
- 5. Identify and remediate severity four and five CVE vulnerabilities within seven days of discovery, and severity three vulnerabilities within 30 days.

Automation in operations and service provisioning has been implemented.





DR. BALASUBRAMANIAM O A CIO Roots Industries India

Supporting remote workers and ensuring organizations' information systems to continue functioning under challenging circumstances: Top priority of Roots Industries

#### **RESPONSIBILITIES OF THE CIO**

Traditional IT management is the core area like managing legacy infrastructure, security and core enterprise. Apart from this CIOs should take care of digital ideation and delivery i.e. identify, test and scale the most promising digital business ideas within the budget available.

To take part in the technology initiatives like digital transformation, IoT and similar platforms, CIOs should concentrate on integration of various technologies also. CIO has to work with business leaders to shape the organization's approach to digital business transformation and build the digital skills of leaders.

#### **KEY PRIORITIES FOR 2021**

Supporting the remote workers will still be the top priority for this year and to ensure that our organizations' information systems should be able to continue functioning under a challenging set of circumstances. Implementing new-age technologies such as robotic process automation, artificial intelligence (AI) to drive automation and deliver superior customer experience.

Maintaining privacy and increasing focus on cybersecurity is going to be a high priority for every company. Finding the right person to take care of the rapid growth and change in emerging technologies, and keeping top IT talent is a challenge.

ADOPTING WORK-FROM ANYWHERE
To provide IT support in terms of hardware and software, including connectivity is a big task. We have defined who are eligible to work from home and based on that we have established an approval process. We have to set regular working hours also for WFH employees. We created attendance and availability standards. Streamline communications channels and maintaining security standards, also an important task.

#### **REDESIGNING IT & SECURITY STRATEGY**

While for most of the workers these days, a computer and the internet are not enough for them to perform their work. Collaborative communication tools such as Microsoft Teams, Google meet and Zoom (for live chat, screen sharing, calling, video conferencing etc.) were enabled for productive communication and collaboration.

We employed Virtual Private Networks (VPNs) to ensure proper cybersecurity. We have strengthened the anti-virus software.



**PRAGNESH MISTRY** Group IT **RPG** Enterprises

"IT aligned with business to achieve the business goals, ensuring on time delivery, providing optimized, scalable and secure infrastructure is key to our strategy"

#### **RESPONSIBILITIES OF THE CIO**

Majority of IT leaders do not have to balance projects directly with sales numbers. But CIOs should consider business impacts if they want to assess the expected returns of the project they are undertaking, and costs involved with it.

81% of IT leaders agree that CIOs are under extreme pressure to secure their investments and prove ROI. And that number is expected to grow even more as almost every business plan made today includes a technology element that requires a financial assessment.

#### **KEY PRIORITIES FOR 2021**

CIOs are responsible for around 40% of the digital transformation in corporate. It is the CIO who is responsible for any organization's direction towards digital transformation. One research shows 40% of the CIOs are responsible for digital transformation, while only 27% of the CEOs are there in the list.

#### **ADOPTING WORK-FROM ANYWHERE**

COVID-19 forced companies to switch to remote working very quickly. Although this migration went reasonably well in a short period of time, there are a few pitfalls that business managers need to be aware of. After all, the implementation of remote working is broader and deeper than most organizations realize. To be successful in the long term, a structured approach is needed, together with a significant investment to change corporate culture.

- Implementing remote working in a structural way.
- Balancing the work and private lives of employees.
- Securing the infrastructure for remote working.

#### **REDESIGNING IT & SECURITY STRATEGY**

IT strategy is focused on providing efficient, effective and highly available infrastructure to our customers. This apart, IT aligned with business to achieve the business goals, ensuring on time delivery, providing optimized, scalable and secure infrastructure is key to our strategy.





## KRIPADYUTI SARKAR Rupa & Company

## Re-evaluating IT strategy in short and medium term became necessary considering the faster go-to-market for change and security

Like most of the Indian mid-market companies, we at RUPA, were in the mode of "Exploration" and "Doing Digital" stage at pre-COVID era of 2019-20. In post COVID scenario with "No Employee Physically at Work" for more than four months and 60% of the entire retail customer base in the premium purchase category shifted to digital platform, has forced us to elevate to "Being Digital" stage in almost no time.

- As a Group CIO, I am focusing on following priorities to serve being a digital organisation.

  Customer engagement ambitions to create instantaneous value for customer to help sales

  Total, Comprehensive, rapid, cost effective and agile transformation

  Build centralise digital asset with smaller scope but rapid release

There are two stages of preparations for IT change that CIO's have taken to tackle the "New Normal". First Stage or initial stage is more towards enabling workforce to operate same efficiency level from remote with following change

- Bulk use of VPN software to enable then surely connect to office LAN seamlessly Enabling all web application that has huge target user base to mobile app

- Second Stage is with more long term objective towards making the workforce more equipped with IT application utilities like:

  Introduction of BOT in every aspect of IT application where user does the bulk manual entry without any critical decision making
  Desktop GUI (like SAP) based application made available in mobile through FIORI enhancement so that business transaction can be made on
- the go
  Peripheral application integrated with Enterprise Core so that centralised analytics can be drawn

Change is inevitable and it has been since civilization started, but the rate of change or slope of change curve with time is very stiff now. It is almost perpendicular to the time axis. That means CIOs have to be vigilant and agile to adopt this run rate. But the focus on the security aspect is increasing exponentially and the threat knocking on the door with each change that we are making. The business around the dark web market is growing at the speed of light. It became more necessary to re-evaluate IT strategy in the short and medium term considering the faster go-to-market for change and security.



DR. N. RAVEENDRAN VP - Enterprise wide Solutions

## Information Security always been a critical focus for Sakthi Finance

### **RESPONSIBILITIES OF THE CIO**

CIOs are no longer meant for ensuring the functions related to 'keeping the lights-on' part. We are taking multiple avatars to support the business to flourish in the competitive scenario. CIOs are the key enablers and work closely with the management in all the strategic initiatives. Their core focus is reimagining business in the digital age through digital transformation. Providing innovative ideas for business /automation lead them to wear the cap of 'Chief Innovation Officer' also. In my view, CIOs are getting elevated as strategic persons from the mere role of managing the mundane IT support

#### **KEY PRIORITIES FOR 2021**

Undoubtedly, ClOs have to play a pivotal role in handling the digital transformation in their companies. 'Being / Staying digital' is not an option and a must for achieving excellence in all the areas and satisfying all stakeholders. Just managing the transaction generation applications is taken out of the agenda of the ClOs now. Digital enablement, as per the corporate objectives, with suitable homework [like process re-engineering], using the right technologies, in secured platforms and through change management, are the mandatory portfolios of the ClOs now.

ADOPTING WORK-FROM ANYWHERE

We were necessitated to enable more users to work from home. Besides organizing the devices like laptops, suitable security measures were taken to ensure the secured connectivity and access of applications. Facilities for the communication and collaboration among the employees and with the customers were well established. Suitable training and hand-holding were done for effectively deploying the facilities offered to the staff.

New modes for collecting the money from the customers were arranged swiftly to maximize the money inflow to the company. Adequate information was pushed to the staff towards taking decisions without depending on multiple people or data sources. Many processes were simplified for executing the business operations towards either maintaining or enhancing the Turn-around-time [TAT].

REDESIGNING IT & SECURITY STRATEGY

As a RBI governed NBFC, Information Security is a critical focus for us always. No compromise on the investment related to the needed tools and technologies. Frequent VAPT are being done. Information security audits are conducted once in a year. External agencies are involved to monitor the logs etc., related to the key devices like Firewall. We are also on the verge of getting our ISO:27001 certification to establish and sustain the related policies and procedures.





# S CHANDRA MOULI Digital Strategist & Technology Advisor Sankara Nethralaya

## "Change @ pandemic speed is the new mantra"

#### **RESPONSIBILITIES OF THE CIO**

Pandemic has put an onus on CIOs to go the extra mile in terms of both innovation and evangelization of technologies and practices through extreme digitization leading to quantum benefits for the organization.

Change @ pandemic speed is the new mantra internally we practice to keep up the pace of the user expectations and also provide value added service to our patient community. For us to become change agents, the change must start from within and from the IT organizations which carry a legacy of applications from the pre pandemic era to the digital tsunami that we are in. Incremental training, smart cloud services, continuous cost optimization, extreme programming to pair programming and working from anywhere with focus on outcomes and deliverables so that we can make the difference for our stakeholders.

#### **KEY PRIORITIES FOR 2021**

CThe key priorities are:

- 1. Cost Optimization resulting deep automation across all business process areas
- 2. Enhancing Customer / Patient experience using disruptive technologies and Tele medicine
- 3. Intelligent Cloud services and Active defense on Cyber security

#### **ADOPTING WORK-FROM ANYWHERE**

Being a Hospital hybrid workplace giving the flexibility of switching between Work from Home to on Premise work.

Mitigating insider threats and strengthening of policy framework on privacy, encryption, and active monitoring of threats and data governance. Hybrid intelligent cloud to manage the ever growing needs of data storage and policies relating to access controls and provisioning for users.

#### **REDESIGNING IT & SECURITY STRATEGY**

As a health care provider more active engagements are being conducted through social and public platforms in terms of STAY SAFE campaigns against pandemic. It has opened up an avalanche of engagement measures with society at large, patient community besides with the provider community in terms of strengthening of intervention measures and related training and reporting. Discovery tools for new cases and exceptions reporting is enhancing knowledge management framework for internal use and training with newer and modified protocols.

Adoption of Al / ML in terms of disease management reporting and smart coding is being attempted to reduce the clinical workload and improve better data management for smarter decision making.



AJAY YADAV Head- IT & SAP SBL

## Cyber insurance to play critical role in businesses

#### **RESPONSIBILITIES OF THE CIO**

We have been investing in technology for many years and it is time to integrate everything from all IT investment which we have made. We have to move to hybrid cloud so that in addition to our own datacenters we can use Cloud which enables us faster in warehouse and dispatch operations. We are basically reconsidering our all IT investment to get the right technology to cater to our business needs. We are also bringing out RFID, CCTV and QR code based solutions for RM, FG and dispatch process and well connected to dealers and vendors partners.

#### **ADOPTING WORK-FROM ANYWHERE**

COVID-19 induces company's masse to adopt remote working. This seems, at first sight, to be quite successful, but there are also many signals that productivity and work-life balance are coming under pressure. It will only be a real success if companies start tackling remote working structurally. It is not advised to take a wait-and-see approach, because after the corona crisis, remote working will become the new normal.

### **REDESIGNING IT & SECURITY STRATEGY**

Regular Patches Updates in end point and firewalls with frequent penetration testing and cyber insurance will play a larger role in cyber plans from ransomware to BEC, the costs of responding to cyberattacks are relentlessly increasing, and 2020 will be the tipping point for cyber insurance. Many companies, especially smaller ones, are learning the hard way as they do not have the resources to mitigate cyberattacks alone.

The role of cyber insurance will play in businesses that cannot be ignored any longer. Cyber insurance is expanding to mitigate losses that come from anywhere in the supply chain, including outside of it; it does not matter if you have been breached or if your next-door neighbour has been.

#### **AGENDA OF 202**1

The challenge most IT Heads face is that automation, white-collar work must be replaced by robotic process automation (RPA), the growing need of services to support RPA initiatives. We must recognize the right processes to replace with RPA and priorities.

Finding the right talent is always a top concern, finding the right balance of full-time and part-time talent for a company will be key to succeeding in 2021.

Security threats and data privacy is also a concern which is required to make a plan, get it approved and determine the budget to resolve an issue, there's always a lag.





# MEETALI SHARMA Head - Risk, Compliance & Information Security SDG Corporation

# "Transition to remote working was done ensuring all security elements remain intact to keep the organization resilient"

#### KEY PDIODITIES EOD 202

Role of a CIO/CISO/Compliance Head has changed completely from 'doing digital' to 'being digital'. Since the pandemic COVID-19 has struck us, the digital transformation journey for organizations has taken a rapid pace. Organizations who were still in the planning or evaluation phases of going digital or moving to the cloud have accelerated their decisions leading to a boom in cloud as well as digital transformation. A CISO is expected to rapidly adapt to this changing environment and contribute in bringing agility as well as mobility to the organization keeping security and ease of use as the key factors for digital transformation.

#### ADOPTING WORK-FROM ANYWHERE

Our biggest challenge was to ensure business continuity and ensure operations/business can run without much disruptions. Remote working had to be enabled for all users along with all security controls to protect data.

Some of the key best practices that we adopted are as under:

- My team invoked BCP, we created a special task force to manage the pandemic, enabled remote working for all employees with adequate security measures and additional tools over and above the existing tools such as encryption, email monitoring, DLP, EDR Solution and URL Filtering solutions.
- We have been conducting daily stand-up BCP calls of task force to track and monitor the situation.
- Our BCP/DR and incident management plans have been updated to handle pandemic situations.
- All employees have also been trained on the security measures they need to take for securing data residing with them and to secure their wireless routers.

As a result, business was able to proceed as usual without any disruptions. Customers are satisfied and have approved remote working till end of the year and in some cases remote working has been accepted as part of agreements..

#### REDESIGNING IT & SECURITY STRATEGY

Transition to remote working was done ensuring all security elements remain intact to keep the organization resilient. With the changing threat landscape and remote working environment, it becomes imperative to keep reassessing the risks on a periodic basis to ensure the entire threat landscape is covered. Controls need to be relooked and redesigned keeping future workspaces in mind. Risk assessments should now include elements such as social media, cloud computing, smartphone technology, data security (especially in remote environment), digital transformation, ease of operability, collaboration and critical infrastructure. Continuous control monitoring, automation, data analytics and Al/ML based tools would be the key discussion areas in the boardroom.



**DR. KARNIKA SETH**Cyberlaw expert & Founding Partner
Seth Associates

"Organisations need to be better equipped with technology, infrastructure, networks and even regulatory compliance protocols"

#### **RESPONSIBILITIES OF THE CIO**

Role of CTO has seen a significant change. He often leads, motivates, inspires especially non tech personnel to join the digital bandwagon and handholds the transition for the company, protects the assets of a company, its crucial data and functions. He needs to have sound knowledge of data privacy across India, changing matrix in the U.S, Europe and other parts of the world. Advanced training ought to be rendered for incident response and safeguarding technical and legal framework and reporting compliances. He has a major contribution in satisfying regulators that due diligence and monitoring practices are in order in the company and all policies are being adopted and implemented within the company.

#### **KEY PRIORITIES FOR 2021**

As businesses have shifted to online mode, the work culture of organisations has undergone a sea change. Organisations need to be better equipped with technology, infrastructure, networks and even regulatory compliance protocols. Most entities leverage efficiencies of time and productivity but also harbour more risk of managing data and proprietary assets. We advise clients to have a Work from home policy, social media policy and internet usage policy in place. Also every organisation must have a surveillance policy, IPR policy and Non-disclosure agreements in place.

#### **ADOPTING WORK-FROM ANYWHERE**

Work from home, flexible delivery time, purchase of new subscriptions, investing in creating remote access data banks and cloud based services, overhauling business resilience policies, SOPs and HR and internet use policies. Companies had to reinvent their business and operational structures and HR management teams during the pandemic. Most of the supervision was more virtual and software based than physical.

#### REDESIGNING IT & SECURITY STRATEGY

Both technical and legal frameworks have been revised for our clients, including social media usage policy, internet use policy, WFH policy. Deployment of technical tools and software such as antispyware, firewall protection, Virtual Private Network, password managers, network and endpoint security are few measures. Cloud based databanks, dedicated servers, safe hybrid cloud based services are being strengthened in security and legal contract formation.





#### PUNEESH LAMBA CTO Shahi Exports

## "RRP is the new mantra where all repetitive, rule based and predictable processes are the first ones to get automated"

#### RESPONSIBILITIES OF THE CIO

CIO / CTO was always a leadership role and it is upto the individual to do justice. CIO / CTO is most qualified to influence business strategy these days as not only they understand business processes holistically, they also can imagine and implement technology interventions and can help in creating innovative new business models and digital disruptions.

#### **KEY PRIORITIES FOR 2021**

CTO's are becoming more business oriented and have end to end responsibilities to identify, deploy and ensure adoption of technology / digital solutions for solving business problems.

#### **ADOPTING WORK-FROM ANYWHERE**

Converting all eligible physical processes to virtual processes is the first priority so that activities in the processes can move irrespective of physical presence. RRP is the new mantra where all repetitive, rule based and predictable processes are the first ones to get automated.

#### **REDESIGNING IT & SECURITY STRATEGY**

Remaining ahead of threat actors has always been part of IT strategy and focusing on developing abilities to prevent, detect and respond as well as strengthening agility in responding to an attack has become more important than in the past. Zero trust is gaining significance in strategy.

#### **AGENDA OF 2021**

Largely, 2021 will see completion of the agenda set in 2020 as due to the pandemic the plate of CIO/CTO was already more than full and it is more about priorities in terms of what is more important than anything else. Automation and customer experience management will definitely find a place in every CIO/CTO's agenda in 2021 and beyond.



**TEJAS SHAH**Deputy Director-IT
SVKM

# Key technologies like Cloud, IOT, AI/ML, Bots/RPA, online communication tools needed for going digital

#### **RESPONSIBILITIES OF THE CIO**

As a Technology leader, an individual must have a complete sense of business strategy and its needs, so would rather put it as CIBO – Chief Information Business officer. Apart from maintaining the Digital Technology initiatives one should keep exploring different ways to maximize the reach to end users by adding new innovative values and keep existing setup up and running.

#### **KEY PRIORITIES FOR 2021**

It has been a very drastic change to look at the way we serve our customers now. We need to look at the broader terms to design the solution and provide omni channel experience. Focus is now on quick and easy ways of availability. Exploring and implementation of key technologies like Cloud, IOT, AI/ML, Bots/RPA, and online communication tools basis requirements are now the needs for going digital.

#### **ADOPTING WORK-FROM ANYWHERE**

Lots of rapid changes are done to ensure nonstop support to business users. Implementation and adoption of collaboration tools, allowing access to critical data and servers on VPN considering all

security measures in place. Primarily to ensure that all business application access is allowed to required departments to WFH and followed by activation of BCP.

#### **REDESIGNING IT & SECURITY STRATEGY**

Ensuring that current technologies are updated and wherever required introduce new sustainable solutions having compatibility with existing setup keeping in mind the core business requirement. As a part of the Information Technology domain each one should be well versed with new features and emerging solutions along with capability to port the setup if the requirement arises.





# SENDIL KUMAR.V CTO Shriram Capital

# Shriram Capital enhances digital platforms to enable customers to fulfil transactions with greater ease

#### **KEY PRIORITIES FOR 2021**

We have implemented state-of-the-art technologies for all business functions, including but not limited to customer servicing, or new business. We are now focusing heavily on the digital/online platforms and are also looking into automating our key functional areas with more Al and ML platforms.

In the last few months, we enhanced our digital platforms to enable customers to fulfil transactions with greater ease. This has involved augmenting the digital channels like web / mobile / social media. We have a large customer base in Tier2 and Tier 3 locations and rural India. To reach out to them we started the initiative 'Your Mobile Your Branch'. Most of the new business activities which are done at the branch can be done on Mobile. Currently more than 60% of the new business transactions are happening through Mobile. Adoption significantly went up in the last few months.

#### ADOPTING WORK-FROM ANYWHERE

The COVID situation was unexpected and challenging, to say the least. As we have the top-of-the-line technology and infrastructure in place, we were able to quickly shift the entirety of the work to set up the work from home model, thereby ensuring our employees' wellbeing. This did not happen overnight, as we went through the transition in a phased manner. During this process, we learned a lot, and improvements were made to ensure the daily operations, customer services went

learned a lot, and improvements were made to ensure the daily operations, customer services went seamlessly and without any downtime since the lockdown commenced. Our stringent security framework aided us in providing services without compromising the quality.

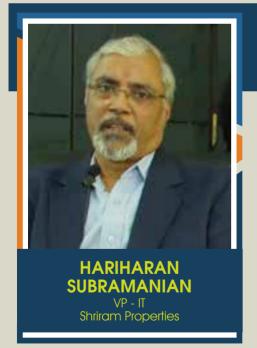
Based on the roles, we have enabled controls through Products, process and policies. Awareness and training are given to employees on a regular basis and collaboration helps us a lot.

#### **REDESIGNING IT & SECURITY STRATEGY**

Deployment of IT Security is an ongoing process in our group and we keep reviewing our security posture on time to time through the stakeholders. As the security needs keep changing we can have only short term strategies. Should reduce the residual risks by mitigating within the time frame will help the application run hassle free.

We have Products like Privileged Access Management (PAM), EDR (Endpoint Detection and Response), SIEM (Security Incident Event Management) etc. As business is more in digital, Digital Threat monitoring Brand monitoring, anti-phishing and malware services are being deployed.

Further, we are focusing more on improving security on Cloud, DNS security, social media access etc.



# Shriram Properties observes that technologies that enable and operationalize Zero Trust model serve as perfect alternative for enterprise security

#### **KEY PRIORITIES FOR 2021**

Of late, strengthening the company's security defences has been one of the major priorities for most organisations. In this backdrop, 2021 presents a challenge like never before. As some part of our workforce prepares to return to work, while a major part is still going to work from home, it becomes paramount to rethink our security approach and design a scalable architecture that not only extends enterprise security to distributed assets, but also enables us to extend security on priority to where it is most needed.

This means that we need to stop dividing security into silos of 'inside the perimeter', 'outside the perimeter' and so on, and instead focus on the singular aspect of 'Security from Anywhere'.

Another major concern that CIOs are having to deal with head on is the fact that security today is a squalid, convoluted affair. We have got multiple security vendors catering to multiple requirements, and having hundreds of secondary integrations to cater to specific use cases. So one of the major responsibilities for CIOs in 2021 has to be the consolidation of their security setup with a view to reduce costs and streamline their security operations.

#### **ADOPTING WORK-FROM ANYWHERE**

COVID-19 has certainly transformed the perspective of companies and their attitude towards security. We were no different in this regard. As with all corporates and enterprises, we had been adopting multi-cloud models. When the pandemic broke out, we anticipated that we had to prepare our security setup for the long haul. What was interesting was that our scalability and remote work security issues were not as pronounced as most of the companies in our space.

This is because along with rapid cloud adoption, we had previously done an assessment of our security setup vis-à-vis neoteric security trends, and found our legacy systems to be inadequate in terms of suitability with the cloud, scalability, and flexibility. After an assessment of modern security solutions, we found that technologies that enable and operationalize the Zero Trust model serve as the perfect alternative for enterprise security. Furthermore, during the pandemic, reorientation of access policies and consideration of BYOD users and remote users had become paramount, but with our new security setup, scale up was done within a matter of three days.





**RAJEEV KHADE** VP - Global IT Sigma Electric Manufacturing Corp.

## CIOs need to work on proactive mode and take initiative to digitalize every process possible

#### **RESPONSIBILITIES OF THE CIO**

In view of the business requirement (post pandemic situation) to accelerate the business process to meet the customer requirements it is very much essential that CIO's should:

- Take an initiative on digitalization drive across the organisation Co-ordinate with various functional heads and find out how each and every process can be automated to enhance process methodology with respect to savings on time and value
- To work as change agent
- To act as business enablers
- To evaluate various latest technologies and evaluate which technology will be most suitable to his organisation and thus become a techno solution provider.

#### **KEY PRIORITIES FOR 2021**

Digitalization, Automation, Industry 4.0 are no more the buzz words in the Industry. It has become an absolute necessity as it helps to speed up the business process acceleration. The CIO / CTO have to come out of their routine task and give focused approach/working to prioritize the digital process in their organisation. They have to work on a proactive basis and take the initiative to digitalize every process possible in various functions. They have to take the ownership along with other functional heads to ensure that digitalization is being done for each and every process as far as possible. This

is mainly for the reason that digitalization has its own benefits and will help the organisation to achieve manufacturing excellence.

#### **ADOPTING WORK-FROM ANYWHERE**

Giving secured remote access to all depending upon the functional requirement.

Virtual Private Network access with double factor authentication.

Remote access monitoring to ensure that only genuine people are allowed to access.

Alert mechanism in case of any attempt by intruders trying to enter the network.

#### **REDESIGNING IT & SECURITY STRATEGY**

We have reevaluated our IT strategy to counter the external threats, for e.g,
• Refreshing the critical infrastructure wherever required

- Upgradation of operating systems of critical servers to latest ones
- Upgradation of end point security to the latest version
- Upgradation of operating systems of end point core layer devices.



Head I Sikkim Manipal University

## COVID-19 compelled organizations to adopt work from anywhere culture

#### **RESPONSIBILITIES OF THE CIO**

CIO can be in the pivot role of "Change Agent" by developing Customer Centric IT / Digital Strategy by touching all customer connecting points and identifying the way of transformation for reducing time to market, enhancing the customer experience and creating the actionability visibility in the customer data apart from addressing all internal business specific area by digitizing them for overall all efficiency.

#### **KEY PRIORITIES FOR 2021**

COVID 19 pandemic scenario created the need of business continuity which is the topmost priority along with a hybrid working environment where some people working from home and rest are in the office connecting remotely on virtual platforms and bridging the gap of a distance irrespective of their location. In view of the above topmost priority addressing the current challenges and opportunity to leverage the technology as well as curbing the increasing threat evolved as a result of enhancing the digital footprints in the organisation.

### ADOPTING WORK-FROM ANYWHERE

COVID-19 has really ramped up the entire culture of the organisation where they are forced to adopt the work from anywhere culture for the employees as a consequence official environment has converted into a hybrid working model, and in such a difficult time it was an opportunity for us

to enable the digital platform with capability of communication with collaboration where all the employees, students, doctors and patients can have virtual meet, chat, Call and collaborate and sharing the data & contents at one place in secure mode,

Whether it is chat, calls, or video, anyone can engage at any time, bringing everyone closer.

Documents, photos, videos, chat history, and meeting notes are always there, so it's easier to work together. This enables all the employees to stay in just one place instead of jumping around.

Under heavy stress of IT Security, SD-WAN technology helped us a lot in supporting the new business needs. The technology makes it easy and costeffective to provide connectivity securely and continuity of business operations interrupted along with central roll out security policies across the networks. Redefined Security Policies, SOP's and strategies that we have enabled in response to the pandemic helped us to create a foundation for Cybersecurity that will sustain in future too.





**VILOO WILLIAMS** CIO Sir HN Reliance Foundation Hospital

"We cannot afford to lose focus on security for the want of accelerated digital adoptions, so blending safety and innovations is the key"

#### **KEY PRIORITIES FOR 2021**

Being digital is the buzz word for every industry vertical today and varies drastically. For Healthcare, the mandate is manifold, with "how to improve the patient experience in the superlative", topping the list. Healthcare organizations who focus on their data (digital or otherwise), build Business Analytics, and derive their insights from these, will be most successful in creating the wow factor for their customers; in turn ensuring steady revenue growths. ClOs/CTOs are kept on their toes 24x7 to enable the organization's digital mandate.

- Organization-wide data made available quickly, accurately, using the correct BI platforms, to create meaningful analytics for business teams. Here predictions are supported by technologies such as AI that need to be implemented.
- Remote monitoring of patients is the next technology-driven area of focus getting wider

#### **ADOPTING WORK-FROM ANYWHERE**

Most industries adopted the 'work-from-home' but this was never possible for healthcare. CIOs are expected to "always be prepared for the unknown" and "give solutions overnight" for every new challenge. We had to make digital platforms available overnight for tele-consultations and home care. The positive outcome of the pandemic was that the entire medical fraternity who shied away from anything digital, became the biggest users of digital platforms successfully.

Putting up fully digital, tele-ICU enabled Covid centres was another adoption where doctors saw the benefits of remotely monitoring patients and yet giving them superior medical care.

#### **REDESIGNING IT & SECURITY STRATEGY**

As a hospital, Data security and confidentiality is most important irrespective of pandemic or otherwise. We cannot afford to lose focus on security for the want of accelerated digital adoptions, so blending safety and innovations is the key. As a CIO the strategies include keeping all infrastructure updated with latest upgrades / patches of OS, Networks, firewalls and all connected equipment, which are in large numbers in hospitals. Mobility platforms go through stringent security tests. Having our own Secure Cloud is a blessing when we need to quickly implement applications during pandemic times.



**VIJAY BHASKAR** Head - IT Srikalahasthi Pipes

Srikalahasthi Pipes leveraged DR Server in cloud environment to provide better protection to data, ensured improvements in IT operations and better services

KEY PRIORITIES FOR 2021
We have recently deployed the intelligent enterprise platform SAP S/4HANA to drive our digital transformation journey across all our process plants to support future growth plans of business with DR systems in the Cloud environment. With this implementation, we have achieved the migration from legacy ERP systems to a nimble, future-ready enterprise platform. As priorities of 2021, we are in the process of deriving the best benefits from S/4 HANA and working on getting the real-time information in Product Costing and Profitability analysis etc., apart from envisaging several other initiatives like RPA and IoT capabilities. Also there are initiatives for amalgamation of group companies this year, which are demanding to handle very highly technical projects with absolute use of Al/ML technology as a core to centralise master data and seamless reporting which will provide us better, more tightly integrated inventory management processes. We are also targeting enhanced cost controls with the ability to compare costs across manufacturing locations and cost centers with this Intelligent Core Capability. Core Capability.

ADOPTING WORK-FROM ANYWHERE

As the pandemic brought a lot of changes in life, approaches and working culture, we are not exceptional from it. "New Normal" will be more tech-driven and bring more challenges to adopt the best practices to embrace new opportunities parallelly arising. Being a manufacturing company with structured policies, we have allowed WFH / WFA by bringing in quick changes in our SSL VPN usage by adapting two factor authentication with FortiTokens concept. Also we have allowed our ERP users to access S/4 HANA systems with secured access methods. Though adopting Work-From Anywhere, demanding more data security measures and changes in authorisations allotment, we were able to achieve the same following the best practices as per our Cyber Security Strategy.

#### **REDESIGNING IT & SECURITY STRATEGY**

Digitalization and growing the WFH/WFA nowadays, there is always an increase in the risk of different compromises and cyberattacks on any organisation. There should be holistic protection for all systems especially for critical infrastructure facilities and other systems like ERP, which is the backbone of business. We had formulated a comprehensive security strategy that clearly defined the current state of the security environment and aligned with business objectives for the next three years. As part of this security strategy, we have leveraged the setting up of Disaster Recovery (DR) Server in a cloud environment to provide better protection to our data and ensured improvements in IT operations and providing better services to our internal customers and other stakeholders.





ANJANI KUMAR
CIO
Strides

# Data Democratization is an important initiative for Strides

#### **RESPONSIBILITIES OF THE CIO**

Business truly has the perception that digital can make a difference and it is important for each CIO to bring differentiation through the digital. There are several ways to bring the turnaround using digital, have clear cut benefits realization and quantify the same post adoption.

#### **KEY PRIORITIES FOR 2021**

While most companies are in the digital journey, there are not too many companies where digital is involved in all phases of digital enablement through technology - Digitization, Automation, Data Democratization and Innovation.

Pharmaceuticals as an industry has picked up digital transformation later than many other industries but for now we have several initiatives that are ongoing for digitization of manufacturing and quality.

Automations are done in pockets and being scaled up or the next level of automations are being planned in multiple areas. Data Democratization is one of the most important initiatives and being touched upon all across the company. Innovation through technology is planned in areas like quality, compliance and manufacturing.

#### **ADOPTING WORK-FROM ANYWHERE**

Like most other manufacturing companies, remote working was scaled up. Several cloud based virtual setups were created. Our cloud footprint has gone up significantly. Multiple applications are enabled for virtual working and newer workflows are being developed for new normal. Equipment integrations in manufacturing and lab have come up as one of the top priorities. Cyber security has been beefed up including SIEM, SOC and XDR solutions.

### **REDESIGNING IT & SECURITY STRATEGY**

Most of the time any type of enablement whether technological or non-technological comes with some risks. With digital the extent of risks are higher and that is where all the projects have cyber security evaluation as part of impact assessment. Relooking at what is legacy and how to renew v/s what is created in a new way has been important to our Path2Digital Strategy.



KARUNANITHI S

GM – IT

Suguna Foods

"The key is alignment of business and IT capability rather than designing IT to address business requirements"

### **RESPONSIBILITIES OF THE CIO**

The CIO role is getting evolved and changed over a period of time. They become not just the connecting point of any business talk but also a party involved in business discussion to add value to the business opportunity. The business leaders started realizing the potential of right CIOs and get them involved in business decisions. Therefore, my opinion is that CIOs are change agent and also Chief Influence Officer.

#### **KEY PRIORITIES FOR 2021**

The very important change is CIOs are becoming change agents in leading the digital journey who is responsible for collaborating and maintaining excellent working relationship with business leaders. Considering the speed of digital, CIOs should think beyond annual planning and find new ways to align IT with business digital objectives. CIOs are to cultivate and articulate a digital strategy that is consistent, aligned with business objectives and clearly understood across the organization. CIOs are to ensure that IT organization must deploy technologies that will serve as a platform for developing innovative solutions. CIOs are also becoming more external-facing like engaging with customers, suppliers to ensure that solutions are provided for the market requirements emerging from digital business ecosystem. CIOs role becoming as not just information officer but also influencing officer.

#### **ADOPTING WORK-FROM ANYWHERE**

Three important changes, one is providing required business users with laptops than desktops. Second is permitting the users to connect to data centers using their personal desktop / laptop in a secured manner. Third is virtual meeting platform used effectively for business discussions.

With a hybrid culture of remote and on premise working, of course the focus also shifted towards security measures for all the end points as well as the cloud landscape.

#### **REDESIGNING IT & SECURITY STRATEGY**

The objective of IT strategy is to create business value to the shareholders or stakeholders. The key is the alignment of business and IT capability rather than designing IT to address business requirements.

Integrating IT strategy and IT security strategy is very important. Assessing the threat landscape and building short and long term security strategy. Evaluating organization's ability to execute that plan. Identifying top security for the business. Understanding the risk tolerance and risk management risks. Understanding and developing risk strategies.





Global IT Head

"The distributed workforce operating from less secure environments has necessitated enhanced endpoint security and DLP solutions to be a mandatory deployment"

#### KEY PRIORITIES FOR 2021

The current developments have forced the digital transformation roadmap of most of the organisations to be advanced by atleast one to two years. The DX initiatives planned for a year ahead had to be hastened in terms of design, prototyping, deployment and pushed to production.

The huge opportunities that have now opened up from a business perspective, are complex and continuously mutating, that calls for quick and agile responses in terms of execution and implementation. Smarter ways of working have become the need of the hour and that's the mandate from business to the ClOs. Technology will just be an enabler for DX, but a strategic holistic leadership vision that encompasses all aspects from a cultural change to providing a fully digitised ecosystem will be an expected mandate.

#### ADOPTING WORK-FROM ANYWHERE

Remote working has become a norm, rather than a wish list or a priority. Organisations which had already embraced flexible, adaptable and dynamic work culture, had to just take care of the systematic aspects of implementing systems and processes to enable remote working. But those

systematic aspects of implementing systems and processes to enable remote working. But those organisations which were alien to this mode of working, also had to cope up with the changed cultural environment and had to devise and take up a whole lot of employee engagement initiatives.

From a systems perspective, providing necessary endpoint systems, strengthening DLP and EndPoint Protection, remote connectivity solutions, virtual desktops became just the base requirements. Enhancing secured connectivity solutions from home like 4G MPLS, MDM solutions, Productivity monitoring tools, thin endpoints like Chromebooks, provided an enhanced UX and greater manageability.

#### REDESIGNING IT & SECURITY STRATEGY

In the changed landscape, Zero day vulnerability has become more than just an academic concern. The distributed workforce operating from less secure environments has necessitated enhanced endpoint security and DLP solutions to be a mandatory deployment.

With stringent regulations for corporate and personal data like the GDPR etc., protecting the enterprise and personal data has gained attention as one of the top priorities. With increased social exposure, the cultural dimension in terms of providing increased awareness to the employees has become as important as the security systems deployments. The workforce vulnerability has prompted a broad spectrum of mischievous elements to lure unsuspecting individuals through a horde of Spam and Phishing emails. Prompting users to regularly check their exposed personal digital footprint is as important as the enhanced monitoring and controls deployed for enterprise security.



VIRENDRA VISHNU VP - Digital Transformation Sysnet Global Technologies

# Sysnet Global Technologies adapting platforms which are API enabled, aware and API able

#### **KEY PRIORITIES FOR 2021**

An organisation in technology services and sales as well as in the process industries, manufacturing, automotive, education is preferring to wear a digital cloak to showcase them to the peer groups as if they are with the times. But in reality, "being digital" and "doing digital" is picked up for a morale boost for the business and its business teams. As being digital and doing digital is taken as an expense; be it the business-as-usual situation or the global pandemic, those who are trying new technology adoptions and failing fast as well as learning fast are the organisations which are beating all the odds in these challenging times in true sense.

Organisation mandates are there to transform but either expecting too much and too fast which may not happen so it has changed the IT leaders' position to a much challenging posture due global pandemic and expectations of the business that IT leadership can bring adaptable solutions in no time as well as within budget.

One of the examples is RPA which is no brainer for doing digital. Being digital a few years ago on RPA adoption and now doing digital using RPA is giving benefits to late adapters as RPA platform is getting democratized and affordable both.

RPA as SaaS model offers no risk of capex or opex sinking, return on investments are positive and offers a transformation road visible to one and all in the organisation but the story is same as cloud from doubtful past to de-facto, so it would be true for RPA, IA, AI etc.

## ADOPTING WORK-FROM ANYWHERE

Work from anywhere is bringing more cost savings and productivity and other challenges too but this is a new normal which is a win-win for both employee and employers, so it is the time to adapt the new normal for pandemic. RPA on the cloud has given a SaaS platform as an example for the work from anywhere as well.

### **REDESIGNING IT & SECURITY STRATEGY**

We are adapting the platforms which are API enabled, aware and API able. This is a new normal for the integration of applications like ERP, CRM, IT Service, HCM and given conformity to the seamless integration of data flow and workflow to achieve business results.





**YOGESH KUMAR** Head - IT & Business Applications and Tata Advanced Systems

## Factory automation: A key priority of Tata **Advanced Systems**

#### **KEY PRIORITIES FOR 2021**

Nowadays, CIOs/CTOs are not working in isolation, IT functions have become equal partners in the business. They are being consulted not only for IT but for the strategic initiatives of the organization. Few of the key priorities regarding digitalization are as follows:

- Industry 4.0 to be adopted faster. Factory automation is one of the key initiatives.
- Remodel the IT operations to automate maximum so that the IT team can focus on more productive tasks rather than remaining busy with mundane tasks.
- Cybersecurity to be made stronger
- Cloud adoption may be done as far as possible
- Cost saving to be considered as key parameter for evaluation of any technology

ADOPTING WORK-FROM ANYWHERE
Business has undergone operational transformation during COVID times. Mode of operation was forced to be changed from work from office to work from anywhere. Industry other than IT was never tuned to suit work from home or work from anywhere. IT teams faced a lot of challenges to meet the sudden requirement. Few of the changes which were adopted by organization are as follows:

- Maximum workforce was made to operate work from home and further work from anywhere keeping in view of pandemic
- Cybersecurity was considered as one of the key priority for organization to safeguard themselves against cybersecurity threats
- Automation solutions were adopted to carry out maximum work without manual intervention
- Adoption of cloud solutions to scale up/down faster
- Onboarding video collaboration technologies for virtual meetings

#### **REDESIGNING IT & SECURITY STRATEGY**

Every industry is undergoing transformation keeping in view of the business priorities and mode of operations. We have also re-evaluated our IT strategy. Following are few of the initiatives that we have started taking:

- · Being a manufacturing industry, we were not tuned for the WFH or WFA environment, but due to the pandemic, we had to undergo major transformation and in the shortest possible time. Going forward, we have kept WFH solutions always ready under the BCP plan.
- Adoption of cloud solutions as far as compliances are taken care off
- Use of collaboration solutions for virtual meetings rather than encouraging physical meeting to minimize physical contact



**VED PRAKASH NIRBHYA** CIO Tech Mahindra

"Building a robust and strategic infrastructure design based on Zero trust architecture has helped us to improve overall infrastructure security posture"

#### **KEY PRIORITIES FOR 2021**

At Tech Mahindra, we have designed an integrated digital strategy encompassing business models, customer experiences, and talent. We believe in leveraging digital tools to create human-centered experiences driven by innovation, design, and resilience-building technologies, and this is what I will always prioritize in my role as the CIO. Being the digital changemakers, we are here to disrupt old ideas, blaze new trails, and create connected experiences, for a connected world. We are focused on building a sustainable future where everyone can access the benefits and opportunities created by technology.

ADOPTING WORK-FROM ANYWHERE
When the pandemic broke out, we had two key priorities – ensuring the safety and wellbeing of our associates and enabling seamless business continuity for our clients and partner ecosystems. The pandemic changed the workplace dynamics and in response, we rapidly rolled out the required technology infrastructure, creating a suitable environment to help our associates to work from 'anywhere' in the "New Normal". Relentless focus on security and adopting new-age technologies like Artificial Intelligence, Machine Learning, and collaboration tools in place, helped us to facilitate seamless remote working.

#### **REDESIGNING IT & SECURITY STRATEGY**

Today, cyber-threats and attacks are pervasive and so we continue to re-evaluate our IT strategy to secure our digital infrastructure in the wake of these increasing cyber threats.

The surface area of attack has increased with the Work from Home (WFH) model as end points are now everywhere. Our Cyber Security control is not confined to one point or on one vector solution. We have always hardened our desktops and laptops, as per Tech Mahindra's and customer's Security policy. To ensure a safe work from home environment, we have also enabled two-factor authentication with VPN (Virtual Private Network) connection so that complete data traffic movement is encrypted. Additionally, perimeter security and network security has been tightened keeping the Internet as entry point apart from other controls which are already in place. We have significantly increased the frequency of monitoring our internal and external facing assets to ensure a safer and resilient work environment. Building a robust and strategic infrastructure design based on Zero trust architecture has helped us to improve overall infrastructure security posture. Enforcing agile perimeter security has enabled us to detect, mitigate and prevent network threats while maximizing business processes and securing remote workplaces simultaneously.





# **SHOBHANA LELE** Manufacturing Company

## "For a lot of organizations the pandemic brought to realization the importance of technology and diaital connect"

#### **RESPONSIBILITIES OF THE CIO**

TCIO has always been a change agent as technology adoption has always been a key change for organizations for the past several decades. In fact, according to me the CIO now has a better response from business who have realized that the change is not a luxury or good-to-have anymore but more of a mandate and a must-have if the business needs to gain edge over competitors. And business leaders cannot shirk away the responsibility of taking equal stake in this change transformation.

### **KEY PRIORITIES FOR 2021**

The circumstances have changed - first users made use of technology to support business needs and therefore it was "doing" digital. Now the situation is that you can hardly do anything without technology. Hence one needs to "be digital". The responsibility of the CIO is to ensure that business realizes this change and adopts it seamlessly. Digital now needs to be built in the DNA of the organization and at the same time IT needs to mitigate risk and ensure security. This could involve revising SOPs, updating policies and ensuring there are enough control points and at the same time not compromise on agility.

#### ADOPTING WORK-FROM ANYWHERE

The pandemic has taught us that we can still accomplish a lot with less. The typical changes have been acceleration of the journey to cloud, adoption of collaboration tools, keen interest in virtual infrastructure and increased focus on security. The shift is visible where buy-in for IT initiatives is now easier than before. For a lot of organizations the pandemic brought to realization the importance of technology and digital connect in this ever changing environment.

#### **REDESIGNING IT & SECURITY STRATEGY**

Most of the threats are to technologies that have greater exposure to the internet. The challenge for the CIO is to strike the right balance. Build the Risk Mitigation strategy to identify associated security tools for technologies that are required for the business to run and proactively look at the threats and prevent mishaps. Keep measuring the benefit both tangible and intangible to make conscious decisions and mid-way course corrections



**DHANANJAY CHANDRASHEKHAR ROKDE** 

CISO, The Multi-Commodity Exchange of India

## Innovation: A mandate for survival of organizations

#### **KEY PRIORITIES FOR 2021**

"Going Digital" has now become an obsolete statement – the newer mantra is "Exploiting Digital", If any organisation, start-up, or even individuals have made it thus far; clearly, they are thriving on exploiting 'digital', in some or the other form.

And this poses an incredibly unique challenge to any CxO - because there are no limits anymore. To put it simply; it has become a pressure-cooker, because everyone with a connected device is a potential customer. Every transaction missed is an opportunity lost.

Every CxO is going to be challenged with this limitless, new-normal from 2021 onwards. New technology adoption is no longer an option, but a matter of survival. Innovation has become a mandate for survival.

ADOPTING WORK-FROM ANYWHERE
The traditional work from home (WFH), or work from anywhere was always an existing practice.
Typically, this applied to the 'niche' and SME industry segment. And nothing has changed around that. The transformation that has taken place now is that every enterprise has to circumvent technology limitations, alter policy, revise customer expectations and re-look at human resource considerations. This is not a WFH, or a remote connectivity or secure access challenge. It is a drastic change in the nature of doing business itself.

Organisations are now realising the value of human resources – the tables have turned, where once upon a time employees had to extend all flexibility for the organisation. More so the unpredictability of the situation is adding complexity to decision making such as - how long will this last? Should we adopt a perpetual WFH model? What do we do with our office premises / data centres?

### **REDESIGNING IT & SECURITY STRATEGY**

Data is the most precious asset to any organisation. However, the same data is worthless in isolation, and it needs to travel, be processed and rightfully consumed. While the ecosystem around data is constantly changing – principles of data protection at rest, in motion and in process remain the same. A layered-data-centric security strategy is one of the best ways to prepare an organisation for any threat; new or emerging – identify the crown jewels and build the layers around it.

Another particularly important aspect of the emerging threats is "Distance" - to curtail the threats organizations were bust reducing the distance by bringing employees to office, providing the company computers, meeting conducted in-person, having on-premises data centres, and so on. The pandemic has disturbed this equation, and distances have widened again – resulting in loss of control, and weaker policies.





MAN MOHAN GOYAL Advisor IT Corporate, Tide Water Oil Co. (India)

## "Digital transformation makes us come to the conclusion that now technology makes the business"

#### **KEY PRIORITIES FOR 2021**

Businesses are seeing digital transformation being pushed through them, giving rise to newer models of doing business, new and varied constraints, and presenting a need for more focused attention of the organization and its resources in a new perspective. It is also brought in new corporate functions and titles like the Chief Security Officer, Chief Digital Officer and Chief Data Officer. Apparently these new roles pose an existential threat to existing roles like the CIO. Other digital threats potentially affect the CIO role:

This digital transformation makes us come to the conclusion that now technology makes the business, rather than the earlier concept that technology is supporting the business. Therefore, IT and CIO roles are much more vital to growth in sales. The CIO's responsibility has changed owing to competition through new digital models and digital platforms, and focusing on redefining the customer and employee experience to create and deliver newer value, with greater agility and speed.

ADOPTING WORK-FROM ANYWHERE

Work from Home by organizations started in developed countries as perhaps the best way to be accommodative and flexible towards their employees. With the advent of Covid 19, Indian the second property to leave by single-second prope organizations latched on to full-fledged roll out of WFH in a matter of days from the start. It soon became apparent on the great advantages to organizations and employees that WFH entailed. Businesses not only kept moving but also grew in a

significant number of cases, and the employees felt safe from job losses, health and curbing of COVID transmission.

Remote access connectivity from anywhere, use of collaboration tools like cloud based videoconferencing and chats, file share, security were adopted at top speed right through the organizations for people to work in small or large groups as may be required..

**REDESIGNING IT & SECURITY STRATEGY**Recognising that communication is key in a remote work strategy: At the foundation of any successful remote work plan lies a clear communication

Productivity and continuity: Setting SMART goals and other important KPIs are crucial.

Performance Management.

Maintaining company culture

Adopt new technology for security at Edge and Cloud.



SAJITH CHAKKINGAL Head of Global Technology Services & India Technology Centre TMF Group

"Even before Pandemic, our technology roadmap did include - Access from Anywhere, Anytime, Any device securely"

#### **RESPONSIBILITIES OF THE CIO**

A CIO's role is more going towards being manifold. It is as simple as expanding the "I" to see him as an Innovation officer sometimes. While dealing with the Pandemic, he also started playing a big role with his Imaginations. Imagining / predicting / foreseeing the technology related changes which are required for a company to operate better during these pandemic days became very important for a CIO. Overall, he is the one who creates a pathway for an enterprise to be more digital and delivering outcomes.

#### **KEY PRIORITIES FOR 2021**

Simply being technical or digital is not going to give an elevated pitch anymore. Successful companies are looking or working with a digital business strategy, rather than just an IT strategy that are viewed as means of transforming a piece of technology or streamlining some processes. Many of them are looking to make use of technologies wherever it is possible to give away an excellent customer experience. As a global team, we look towards the same as one of our key priorities going forward.

#### ADOPTING WORK FROM ANYWHERE

Even before Pandemic, our technology roadmap did include – Access from Anywhere, Anytime, Any device securely. During the pandemic, we could adopt to the changing needs pretty well and quickly to enable remote working very easily.

#### **REDESIGNING IT & SECURITY STRATEGY**

We have a constant long term strategy. Also we follow and approach the changes to adopt them swiftly, while we progress with our long term strategy.

#### **AGENDA OF 2021**

We are a global company who compliments all what is needed for our customers to achieve the Digital India initiatives.





DR. ASHISH BHARADWAJ CIO Torrens Global Education Services

"Our security approach has always been a layered one, wherein several components are leveraged to protect business operations"

The fundamental role of the CIO as a change agent has not changed. What has changed is the context the role operates in. The environment today, competitive landscape, threat landscape, and customer expectations have all changed significantly. Consequently forward thinking CIOs continue to adapt and drive their organizations to success in this new environment.

From our perspective, key priorities include increasing the engagement of employees through enhanced self-service abilities, ensuring success for our students through 'smart' systems that help the learner succeed, simplify the business by leveraging AI and NLP bots with informational and transactional abilities, and catering to future success through intelligent, personalized web fronts, and a more mature IT governance process.

ADOPTING WORK-FROM ANYWHERE
Our organization was not new to remote working, including learning and teaching. The impact of COVID accelerated and deepened already deployed technologies - effectively making the entire organization reliant on collaboration and communication tools. Support contact centres were spun up leveraging AWS technologies almost overnight to facilitate the 'new normal.' Even now, with

the gradual opening up of the economy, we have chosen to adopt a 'reverse flipped' model whereby each employee has the flexibility to work remotely for all roles that do not require physical presence.

#### REDESIGNING IT & SECURITY STRATEG

Our security approach has always been a layered one, wherein several components are leveraged to protect business operations with multiple levels of security. This approach ensures that by design every individual defense component has a backup to counter any flaws or gaps in other layers of security. These layers work together to tighten security and have a better chance of stopping/limiting impact from malware/threats.

This starts from the user layer – encompassing policies, procedures coupled with regular trainings and awareness, simulated attacks with 'teachable' moments, moves to the network layer and deeper, where controls such as separate authentication domains for staff and students, virtual LANs, comprehensive endpoint (device) protection, stringent application controls, audit logs supporting forensics have been implemented before one can get into the innermost layer – the organization's data.



**PRASHANT KUMAR** CIO Triveni Group

"Leveraging technology without having a sound understanding of people, process and operational gaps can be catastrophic"

#### **RESPONSIBILITIES OF THE CIO**

CIO for sure have to be the change agent, they understand the business and the technology both better than anyone else within the company. CIO/CTO/CDO will always have a bird's eye view of all the process, bottlenecks, business strategy for future, organisation's positioning in the market and how can they work closely with business to influence and change for better that can add value and can be quantified in to some financial gains.

#### **KEY PRIORITIES FOR 2021**

Digital transformation now makes technology "THE" business. Rather than technology supporting the business, technology is the biggest in business today. It is bigger because of the recent progress in all things. Digital is about removing constraints and creating exciting new possibilities that affect every one's life and enterprise. Being digital is the only way to increase profit, productivity, performance, efficiency and customer satisfaction.

With the changing mandate CIO often have a feeling that digital is only about technology, but technology is secondary, it is more about people, process, efficiency, productivity and workforce optimization. When we seek to improve the process and how people work using technology then we

can leverage a true transformation and become a truly digital company. Leveraging technology without having a sound understanding of people, process and operational gaps can be catastrophic.

#### **ADOPTING WORK-FROM ANYWHERE**

Moving to cloud is imminent and making existing infrastructure robust with right scoping for seamless accessibility across the locations. The spending on IT Infrastructure has increased and it is important to make the infrastructure robust. IT operating model needs to change from its historical structures so that it can deliver a seamless operating environment. The waterfall structures that still permeate IT need to change into a DevOps model with persistent teams that do not change, teams that are close to the business and work in a tightly knit environment with business.

#### **REDESIGNING IT & SECURITY STRATEGY**

We do not consider emerging technology as a threat, what is important is choosing the right technology that can add value to the organization. User adoption of these technologies from top to bottom approach is must (CEO to Analyst), educating and training users on how to use the new technology which the organization is introducing is important. Involvement of users as product champions for technology adoption is a must.





**DEEPAK PANDA** 

## "CIOs have become epic centre of organizational change due to the digital transformation need in organisations since last few years"

#### **RESPONSIBILITIES OF THE CIO**

CIOs and IT departments have always been change agents, there were more opponents to the technological change then supporters earlier. But the situation has significantly changed, CIOs have become epicentre of organizational change due to the digital transformation needed in organisations since the last few years. Due to the market disruption and competition, ClOs become indispensable change agents for management. At the same time, CIOs have to work as "Chief Influence Officer's" roll to influence the leadership on business benefit part of a technology adaption by speaking the business language without the technical jargons.

#### **KEY PRIORITIES FOR 2021**

The turmoil of 2020 has taught the CIOs to re-evaluate the IT operation in terms of creating a digital only kind of work place. 2020 should undoubtedly be named as the "year of digital" because, even the organisations never thought of being digital were forced to transform their approach. All the CIOs shouldered a lot of responsibilities to make their organisation afloat during the pandemic, the entire focus was changed towards organising a collaborative digital work platform keeping all innovations and new initiatives on hold. In 2021, more focus would be to make the previous year's

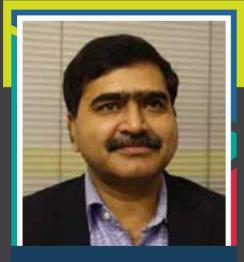
slow transitions back to normal and balancing the remote and in-person operations.

#### **ADOPTING WORK-FROM ANYWHERE**

No company has remained untouched by COVID-19! Whether they implemented safety measures or not, almost all of them either have completely transitioned to remote or hybrid workplace. The new normal would be "the digital readiness of all organisations, regardless of the organisation's size, capacity or location". It is time to go for an end to end digital transformation, it is time to set up cloud based infrastructure and a unified communication platform because now everyone has identified that remote working is essential and sustainable. We should be ready with an environment to switch between remote and in-person operation as and when needed.

#### REDESIGNING IT & SECURITY STRATEGY

As almost all the organisations in existence have adopted at least partially remote operations, securing critical information is a major concern of all CIOs in the current situation. There is a need for re-evaluation of IT security strategies to protect the confidential/critical information from the platform that we hurriedly adapted when the lockdowns started everywhere.



PROF. TRIVENI SINGH IPS SP, Cyber Crimes Uttar Pradesh Police

Offensive techniques need to be adopted to get the actual assessment of an organization's security posture

### **KEY PRIORITIES FOR 2021**

For the organisations to be in the business, one has to get into "Being Digital Mode" and since this has been mandated from top management / board, ClOs / CTOs responsibilities have changed drastically. "Being Digital" means almost all the areas of operations need to be migrated to a digital platform. The actual meaning of Being Digital shall be all the operations need to follow the concept of Manage, Monitor and Measurement digitally. CIOs / CTOs need to work with every department to bring them on the digital platform, especially for those tasks, which are in manual monitoring mode now. It is going to be a total paradigm shift culturally.

ADOPTING WORK-FROM ANYWHERE
The "New Normal" – Work from Anywhere or Telecommuting, earlier it was more confined to IT Sector/BPO/KPO sector only, which has been extended to other departments now. Barring the manufacturing & R&D sector, all of them are now working remotely. To enable this, corporate IT infrastructure and connectivity had to be extended to workstations used by an individual employee in the form of VPNs, Corporate Collaboration Tools.

Companies had to arrange for workstations / laptops for every employee who could use them from home or anywhere. Since now the majority of the workforce working outside the regulated and controlled office infrastructure, appropriate security controls on the individual workstations had also

to be implemented, which was challenging. That's the reason Cyber Attacks have increased drastically since the pandemic globally.

#### **REDESIGNING IT & SECURITY STRATEGY**

New Threats have been a problem from the beginning itself, now it has propelled like anything because earlier there were very few entry points for the threats and vulnerabilities to enter for example adversaries had to target corporate network firewalls but now since the entry points have been multiplied in terms of the number of employees - each employee of the corporate working outside the corporate network are considered as entry points. The basic and foremost priority is to make employees aware of these threats in practical mode. We have been trying to conduct awareness sessions on cyber security, cyber hygiene by giving practical demos of how vulnerable are they. Employees are encouraged to participate in talk shows/webingrs.

As far as medium-term strategy is concerned, there have been efforts to include the RED Teaming exercise mandatorily to check the actual defensive posture of corporate infrastructure in terms of PPT: People, Process & Technology. Currently, methods of defensive controls are more kind of reactive where processes are defined as per ISO or industry standards but the People & Technology area lags. With offensive techniques we shall get the actual assessment – which is the weakest area – If we know this, it shall be easier to put the remediation strategies more effectively.





# ROBIN JOY A VP & CIO V Guard Industries

# "Evolving digital channel as priority over physical channel and merging of the two through a B-T-C channel would be another priority"

#### RESPONSIBILITIES OF THE CIO

In our organization the CIO is a partner in pursuit of progress. Most technical initiatives are driven by the function or business leaders with CIO acting as a guide and facilitator. In a hungry organization which is developing capabilities through people and skills, this is an arduous task. However an overall maturity acquired over long years in stellar organizations help the CIO to drive and help drive change with a smile.

#### **KEY PRIORITIES FOR 2021**

"Anywhere, anytime work, securely" is the mandate coming up. On our side digital employee and digital enterprise had been in vogue and focus is on Digital Partners, enabling connect, interact and interchange information to both sides.

Evolving digital channel as priority over physical channel and merging of the two through a B-T-C channel would be another priority. Looking at opportunities on OT to IT connect with minimal intervention allowing closer monitoring and possible business cases on operational efficiencies.

#### **ADOPTING WORK-FROM ANYWHERE**

The new normal can also be considered as nay-normal meaning never normal! The basic predictability of the way business will be done has changed. Enabling employees to work and collaborate effectively is needed and is in place well in time. It is also important to allow partners like consultants, suppliers and customers also need to be connected more digitally than physically.

#### **REDESIGNING IT & SECURITY STRATEGY**

We are conscious about the changing scheme of backend and frontend in computing. A well thought out hybrid model is in place for cloud adoption. Social media and its intrinsic business value and the attendant risks and vulnerabilities are fully considered in our growth plans. We have initiated a comprehensive cyber security study by global consultants and measured our current cyber maturity score. Post this work is on for process and technology improvements to go higher on score over two years. Required device security systems are a hygiene already in place.



ASHISH MATHUR

Sr. VP

ValueFirst

# Hybrid-remote work environment to be the new normal

#### **RESPONSIBILITIES OF THE CIO**

CIOs responsibilities have radically shifted during this pandemic era. CIOs have become crossfunctional business leaders and key contributors to digital and business strategy. They also play a very important role in the boardroom now. CIOs are also instrumental in creating the digital strategy with business needs, go-to-market strategies, and implementation.

#### **KEY PRIORITIES FOR 2021**

Because of the coronavirus outbreak, technology leaders got enormous responsibility on their shoulders, many of them took it as a challenge and supported their organisation in the pandemic. It has become a critical and most value adding function to a business with a more active voice and strong position within the organisation.

As a biggest responsibility we (CIOs/Technology leaders) have to ensure that our organisation is on track with digital transformation plans. There is a continuous need of optimisation of digital infrastructure, networks and security to ensure the business has high levels of connectivity and can operate efficiently and securely. Now technology leaders have to move from "Doing Digital" to "Being digital" - the mindset that compels to instinctively choose digital solutions first.

#### Key initiatives for 2021 are:

- Cyber Security
- Maintaining Data Privacy & Governance
- Providing a Perfect CX

- Embrace SaaS solutions
- Data and Analytics
- Al & ML

#### ADOPTING WORK-FROM ANYWHERE

For ValueFirst, it was not difficult to adopt from in-office to remote working culture as most of the employees were using laptops and also habitual of flexible working hours. It is likely that hybrid-remote arrangements will become the new normal in most of the organisation now. It is important to design hybrid-remote work arrangements that also allow for geographic flexibility and work-from-anywhere..

### **REDESIGNING IT & SECURITY STRATEGY**

Cyber/data security is always a primary focus for ValueFirst. As a part of the ITsecurity strategy, we have worked on Unified Management and risk visibility which has strengthened our security architecture. It gives us the highest level of visibility and assures the security effectiveness needed to prevent sophisticated cyberattacks.





# Banks forced to roll out more e-channels due to pandemic

#### **KEY PRIORITIES FOR 2021**

In the ever changing digital world and pandemic forced the banking industry to go for major overhaul of the entire functionalities of the banking sector.

Keeping in mind the social distancing banks are moving towards digitizing their products with an ease to give more services to the customers. Like Online deposit schemes, loans on a click of button, Al integration to understand customer needs, RPA process, payment channel integrations and rolling-out more innovative digital payment systems so that customers can do the transactions on their own with a minimal interaction from the Bank.

The pandemic and social distancing forced the banks to roll-out more e-channels like e-Passbook, KIOSK based cash deposit / cheque deposit, ATMs, mobile banking, UPI, FDs through Mobile / Internet Banking, Video KYC etc. to reduce the customers' physical presence in the branch also to give the best services to the customer.

#### **ADOPTING WORK-FROM ANYWHERE**

Since the banks are under the essential service and supposed to cater to the customer needs, the remote activity is restricted to the back office activities, but the front office has to function with the

precautions and social distancing. The pandemic also taught us how to run the branch with less staff at branch.

The branches can be run with minimum staff with full functionalities available digitally, in the future the number of branches will come down, but not the banking and the digital banking power will take-over from the personal banking.

#### **REDESIGNING IT & SECURITY STRATEGY**

The rapid adoption of technology, digitally enabled channels, emergence of new business models, security has been the biggest threat for the entire banking sector, even a single instance in the bank will have a great financial impact, but also tarnish the image and reputation of the bank and the bank will lose the customer's confidence simultaneously.

Hence the banks are deploying sophisticated equipment, AI / ML based analytics, early warning systems, stringent security controls, rule-based, risk-based fraud management system / security system is the need of the hour.



PARVEEN KUMAR SHARMA CTO & Consultant – IT Vianaar Group

"CIOs need to shift focus to building digital competencies of general managers and overseeing implementation and growth of digital strategy"

#### **KEY PRIORITIES FOR 2021**

Moving into the future, CIOs will have to cement that critical inclusion in business leadership as management develops more advanced digital agility.

Taking a more holistic view of business strategy and transformation instead of just IT, CIOs need to shift their focus to building the digital competencies of general managers and overseeing implementation and growth of digital strategy. The key priorities for 2021 are:

- Increase in the Cybersecurity investments
- In new normal, Strengthening remote work (WFH)
- Enabling business process automation
- Technology enabled new business models/Enabling new revenue streams
- Increase cloud adoption.

#### **REDESIGNING IT & SECURITY STRATEGY**

As remote work becomes the new normal, organizations need to ensure that its people, processes and technology are able to function securely with minimal interruption. Therefore, security teams need to revisit their security policies and redesign their digital infrastructure suitable for a remote

workforce. Following are some of the steps taken in our organizations for a robust remote-work security strategy.

Started Running IT operations as a service: Simplify, streamline and standardize the working experience for employees or what devices they are using. Eliminate any technical barriers that hamper employee's productivity. Adopted more off-premises solutions: Adopted resources such as cloud-based services to foster agility and enable employees to easily and securely access the apps and data they need without creating a bottleneck. Limited access to VPN: Create separate VPNs (virtual private networks) for different departments to facilitate access only to employees who need such data or resources.

Single sign-on (SSO) identity management facilitates ease of use and ongoing maintenance, while multifactor authentication provides a much-needed layer of additional security. Encourage adoption of collaborative systems: Distributed workforces require new tools that foster collaboration and communication in place of the social interactions that typically occur within a physical workplace. Increase communications with internal and external peers: Every department relies on an organization's technical infrastructure, therefore it's crucial for IT leaders to regularly communicate with relevant stakeholders to look for ways to improve productivity and security. Keep abreast of new developments: I.T. Team Keep track of the evolving threat landscape to adapt and respond quickly.





DR. SAYED PEERZADE **Executive VP & Chief Cloud Officer** Yotta Infrastructures

## "Digital transformation is no more an optional agenda for any businesses especially after COVID"

KEY PRIORITIES FOR 2021
Digital transformation is no more an optional agenda for any businesses especially after COVID. It is the only way towards business continuity and relevance. We have seen giants collapse because they refuse the heed, the call, stalled innovation of thought, shy to invest in new technology and reluctant to adapt to change.

In a converged environment this acceleration is not for thrill but the critical momentum is required to drive business excellence. One has to note that these transformations should be organisation wide and carry business goals. The key priorities will be:

- More automation of processes and products Making organisation data driven Leveraging Cloud technologies to greater strength.

ADOPTING WORK-FROM ANYWHERE
It will be normal in going forward that at any point of time even after COVID, 50% of the workforce is going to be remotely working. That is how the entire business prospective COVID has brought to organisations.

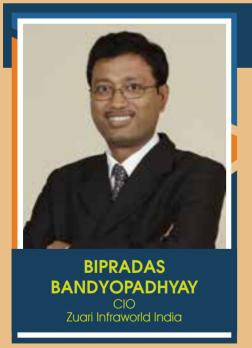
Key changes for WFH going forward will be:

- Maximum adaptations of Cloud technologies
- Maximus use of Collaborative tools
- Desktop or device as a service over the Cloud adoption is going to increase.

### redesigning it & security strategy

For any organisation, we can always summarise the important aspects of this critical topic of innovation by touching upon four essential aspects, which should be knitted together to come to innovation kind of things, Thought, Security, Culture and Team. What is that thought process needed to bring the digital innovations, what is the role of security in these transformations, how to bring culture of innovations, how to build an effective innovative team, and sustain innovative approach in the organisation.

Coming to security aspects of these innovations, I strongly recommend this aspect should be considered during the design phase of the digital project. I have mandated myself this, and believe me it helped me a lot in terms of sustainability of the project and its business outcomes.



## "Security is an attitude rather than a practice that should be prevalent in the organization"

#### KEY PRIORITIES FOR 2021

The mandate of 'being digital' is not a new one; only it has been accelerated across the industries due to the onset of this pandemic where people movement are restricted and organizations are either fully closed or partially allowed to work from office. The responsibilities of CIO/CTO have undergone a paradigm shift in recent times and that gets reflected in the key priorities set for the year 2021 and beyond. Some of the priorities are -a) enabling organization to work online by ensuring effective co-ordination between various functions within the organization through technological interventions and process improvements, b) enabling organization to present itself effectively and efficiently to the outer world, specially to the customers by way of faster "go-to-market" activities for new products/ services and easy to access options provided for existing customers as well.

### ADOPTING WORK-FROM ANYWHERE

COVID-19 has forced many organizations to allow employees to operate remotely from home which in normal times would not have been thought about only. Industries such as construction, manufacturing etc. had to revamp its operating models overnight and allow accesses to all the concerned employees to ensure business continuity is maintained as and when strict restrictions were imposed by the authorities. Major changes were implemented in terms paperless approvals, online handshaking of various functions, use of collaborative tools at an enterprise level to ensure

business operations are performed without any hinderances.

#### **REDESIGNING IT & SECURITY STRATEGY**

Security is an attitude rather than a practice that should be prevalent in the organization. As newer threats emerged from various sources, the security strategy had to undergo many changes and improvements such as ensuring BYOD policy comes under the corporate security framework, removal of un-necessary access of key systems to employees, not allowing social media usage inside the organization generally with exceptions being tightly monitored etc. Overall IT strategy must have key focus on security as without this the strategy becomes vulnerable and susceptible to damages from outsiders.

The short-term IT strategy will focus on ensuring all loose ends are tied up as far as organizational security is concerned whereas medium to long term components of the strategy will focus more on enabling digital transformation inside the organization by means of process improvements and appropriate technological interventions.





"ClOs need to focus on Cyber Threat Intelligence; Cloud Security; Privileged Access Management, Encryption and use of Artificial Intelligence"

While 2020 would go down in history as the year of pandemic, it is also true that 2020 was also the year that took the digital and IT interventions in the organizations to a different level. As is 'jokingly' said that what CEOs, ClOs and other CXOs could not do in enhancing the pace of digitization in the organizations, Coronavirus did. Lot of organizations had not imagined at the beginning of 2020 that they would need to digitize so much or completely change their approach towards customers and

employees (from a digital interventions perspective).

This also meant that in 2020, the role of IT and CIO became very crucial in not just the growth of the organization but even survival of the organization. CIO had to not only ensure that employees are able to work smoothly and securely from their homes or any other remote locations, but also with changing customer expectations and emerging business needs, CIOs had to ensure that IT really delivers at a pace that it had not seen earlier.

Now, as we transition into 2021, the expectations from IT, management, employees, customers and partners and other stakeholders today are beyond the traditional run and grow the business to transform the business. Another change I have seen is an expectation to move away from delivery of IT projects to work on outcomes to key business goals like enhancing revenue by xx% through digital channels or reducing costs by xx% using technological interventions. For all this, CIOs and their teams need to work with agility to consolidate the gains of 2020.

With this background, as I see the following should be top five priorities for CIOs in 2021.

- 1. Accelerating the digital transformation efforts: Business resilience and business continuity has been brought back to focus by the COVID-19 pandemic. With a general environment of uncertainty where any such pandemic or disruption could happen again, business leaders across functions now would like to work on digital interventions that could potentially mitigate negative impacts of any such happening. And the expectation is that a project which earlier would be considered reasonable if done 12-18 months should now be done in a few weeks if not in a few days. Some of the technologies that will play a key role in this transformation would include Cloud computing, Internet of Things (IoT); Artificial Intelligence (AI) and Machine Learning; Robotic Process Automation (RPA); Virtual Reality and Augmented Reality, Mobility, Block Chain.
- 2. Working on 'New Normal': It is expected that a significant proportion of employees would continue to work from home or any other remote location in 2021. Companies are also drawing up plans of remodelling their offices (or in many cases even giving up office space). As such CIOs need to work on IT interventions on this new normal where employees smoothly transition between office and home or remote workplace. This will be essentially a hybrid model of working where CIOs will have to work towards systems to enhance productivity, collaboration, monitoring, skilling and information security in case of hybrid working.
- **3. Digitalizing End Customer Interaction:** With customer expectations and priorities changing and a huge customer base wanting to interact with organizations using digital means (apps, websites, chat bots, e-showroom) for sales, service and other requirements, CIOs need to ensure all the customer touch points are digitised and contactless working enabled.
- **4. Focus on Cybersecurity:** We have seen a huge surge in cyber-security crime during the COVID-19 pandemic be it cases of phishing, malware; ransomware, spyware, Trojans, financial fraud; hacking; denial of services or other attacks. While CIOs and IT teams have been doing their best to keep their organizations safe, cyber security would be a key focus area for CIOs in 2021 and would have to include all the facets of policy and procedures, technology and people. From a technology perspective to make organizations cyber safe, CIOs need to focus on Cyber Threat Intelligence; Cloud Security; Privileged Access Management, Encryption and use of Artificial Intelligence.
- **5. Focus on Analytics:** As digitization in the organizations increases, so do the opportunities for data analytics. CIOs need to focus on advanced data analytics capabilities in the organization and also act as a change manager to bring in a data driven culture in the organization.



The responsibility increases when anyone gets the power, It is no difference for a woman. Technology has changed the way people do business, thinking, behaving, communicating and working at different workplaces, at the same time digitization puts the consumer in the driver's seat, making them more informed, more demanding and more vocal about what they want and what they do not want. It is like 3D graphics (Discover, Design and Deliver).

In the BRAND BOOK, we always take a mission to put women technology leaders under the spotlight. As the digital world has changed our daily lives from the way we work, to the way we live, there has been a growing momentum among the women to climb the ladder in the Senior Management in their respective organizations. Women in Tech activities aim to discuss how women could have larger roles in creating success stories in business and technology. Diversity brings business value.

Today we can see a number of women not only entering the technology industry but also paving ways to the top C-suite. Women are playing a crucial role in every sphere of the industry including science and technology. Women today have gone beyond and literally touched the sky.

Today's Women make their presence felt in almost every field, even in the digital space, there are many who have come forward and encashed various opportunities to build new ideas. Today we can witness, women have made their presence across the sectors in the technology sphere including, Blockchain, Digital Assets, Fintech, AI, Women in Space, Global Women's Entrepreneurship & Leadership, Podcasts and Healing and Wellness. We are seeing many innovative ideas come out of developing nations across the globe that deserve more visibility and connectivity with qualified investors and partners who can help them grow and scale.

Women entrepreneurship is gaining importance in India which also is an indication of how men and women see risks and opportunities through a different lens, and this provides a diversity of thinking when combined together. Nowadays woman entrepreneurship contributes a lot to economic growth. They are job creators for themselves and others and also provide society with different solutions to management, organisation and business problems. There are a few reasons for this. For one, multiple studies show that women are better at assessing risks than men, and making decisions accordingly – this is incredibly important given the unpredictable global business environment.

A survey says that businesses that have at least one woman in an executive seat tend to have much higher valuations than companies with all men in C-level positions. In fact, companies with a female executive are worth 64 percent more at first funding and 49 percent more at last funding than their all-male counterparts.

The increasing trend for women in business is growing. It is fueled by women determined to "lean in" and get into the big business game, millennials looking to define their own career paths, and many others who are more entrepreneurial in nature.

Women-owned business enterprises are playing a more active role in society and the economy, inspiring academics to focus on this interesting phenomenon. Today, a good number of women executives are holding strategic positions in big companies. Women already have the job skills to position them for roles in high-growth fields of the future.

Here we have listed out some top women executives from India who have made a path breaking success in the IT industry.



# **WOMEN IN TECHN**



AANANDITA BHATNAGAR

DIRECTOR, CORPORATE
COMMUNICATIONS-NETAPP



AARTI SHAH

SENIOR VP & CIO
ELI LILLY



CMO SIFY



CIO MOTHER DAIRY



CIO HSBC BANK



DOM & COMMUNICATIONS
REDHAT



ARUNA JAYANTHI MD CAPGEMINI



CEO
SALESFORCE INDIA



BIPASHA CHAKRABARTI DIRECTOR COMMUNICATIONS FACEBOOK



MD - Digital Transformation
Office, CISCO



PRESIDENT NASSCOM



DEEPA MADHAVAN
DIRECTOR-GLOBAL DATA
PAYPAL



HARLEEN SACHDEVA
HEAD COMMUNICATIONS



HARMEEN MEHTA

CHIEF DIGITAL & INNOVATION OFFICER - BT



JAYA MAHADEVAN

DIRECTOR, CHANNEL, DISTRIBUTION

SCHNEIDER ELECTRIC



CHIEF EXECUTIVE OFFICER
GLOBUS INFOCOM



KOMAL SOMANI
CHIEF BRAND OFFICER
ESDS SOFTWARE



LATA SINGH

EXECUTIVE DIRECTOR
IBM PARTNER ECOSYSTEM



LATIKA TANEJA

DIRECTOR PUBLIC POLICY

MASTERCARD



MANASI KIRLOSKAR

EXECUTIVE DIR & CEO

KIRLOSKAR SYSTEMS



DIRECTOR
ICICI BANK



NIVRUTI RAI

COUNTRY HEAD

INTEL



PREETI KANWAR

Head

NEC Corporation



PRITI MEHTA

GROUP CEO

ACUUTECH



RADHIKA GHAI Co-Founder SHOPCLUES

# **OLOGY LEADERSHIP**





RITU CHHABRIA

NO INDEPENDENT DIR.
FINOLEX INDUSTRIES



RITU GUPTA
DIRECTOR,MARKETING
DELL TECHNOLOGIES



ROHINI SRIVATHSA

NATIONAL TECHNOLOGY OFFICER
(CTO) MICROSOFT INDIA



CHAIRPERSON
HCL CORPORATION



RUCHIKA BATRA

VP,MARKETING & COMMUNICATIONS

ERICSSON INDIA



CO-FOUNDER
YATRA.COM



SARAH GIDEON SENIOR DIRECTOR FLIPKART



SEEMA SIDDIQUI

DIRECTOR COMMUNICATIONS

MICROSOFT INDIA



HEAD OF MARKETING
JIO BUSINESS



VICE PRESIDENT VODAFONE GLOBAL



SHARMILA KARVE
GLOBAL DIVERSITY LEADER
PWC INDIA



SHAVETA WADHERA
CHIEF DIGITAL OFFICER
HERO CYCLES LTD.



SHEENAM OHRIE
VICE PRESIDENT
DELL DIGITAL



SNEHA HIRANANDANI GLOBAL CIO CIPLA



SHIKHA RAI
VICE PRESIDENT
CANON INDIA



SHIKHA SHARMA

ADVISOR

GOOGLE PLAY



CMO INDIAFIRST



SUCHITA VISHNOI

SR. DIRECTOR MARKETING
COGNIZANT



V.P. & COUNTRY MANAGER WESTERN DIGITAL



CO-FOUNDER
CASHKARO.COM



CO-FOUNDER
MOBIKWIK



VANDANA SHENOY

CORPORATE COMMUNICATION
DIRECTOR-ORACLE



VANI KOLA

MD

KALAARI CAPITAL



VIRGINIA SHARMA
VICE PRESIDENT
JioSaavn



ZARIN DARUWALA
CEO-STANDARD
CHARTERED BANK



# **TECHNOLOGY**



AJAY PRAKASH SAWHNEY
SECRETARY
MEITY



**AKHILESH TUTEJA**GLOBAL CO-LEADER
KPMG



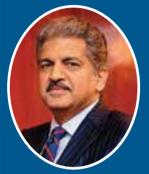
ALOK OHRIE
M.D & PRESIDENT
DELL TECHNOLOGIES



AMIT CHADHA CEO & MD L&T TECHNOLOGY



AMITABH KANT CEO NITI AAYOG



ANAND MAHINDRA CHAIRMAN MAHINDRA AND MAHINDRA



ANANT MAHESHWARI
PRESIDENT
MICROSOFT INDIA



ANSHU PRAKASH SECRETARY TELECOM GOI



ARUN M KUMAR CHAIRMAN & CEO KPMG



**ASHISH KUMAR CHAUHAN**MD & CEO

BSE



ASHOK SOOTA CHAIRMAN HAPPIEST MINDS



BHAVISH AGGARWAL CO -FOUNDER & CEO OLA CABS



**BYJU RAVEENDRAN**Co-Founder
Byju's



C P GURNANI MD & CEO TECH MAHINDRA



**DEBJANI GHOSH**PRESIDENT
NASSCOM



**DEEPINDER GOYAL**FOUNDER & CEO
ZOMATO



DILIP ASBE MD & CEO NPCI



DR. AJAY KUMAR DEFENCE SECRETARY GOV. OF INDIA



**DR. ANAND AGARWAL**GROUP CEO
STERLITE TECHNOLOGIES



DR. OMKAR RAI DIRECTOR GENERAL STPI



DR. R S SHARMA CHAIRMAN NHA



DR. SANJAY BAHL DIRECTOR GENERAL CERT.IN



**GAUTAM ADANI**CHAIRMAN
ADANI GROUP



HARI OM RAI CMD LAVA



KESHAV MURUGESH CEO WNS

# Brand

# ICONS OF INDIA



KUNAL BAHL CO-FOUNDER & CEO SNAPDEAL



LT. GEN RAJESH PANT (RETD)

CHIEF-NATIONAL CYBER

COORDINATION CENTRE



MUKESH D. AMBANI CHAIRMAN & MD RELIANCE INDUSTRIES



NANDAN NILEKANI CO-FOUNDER INFOSYS



NAVEEN TEWARI FOUNDER & CEO INMOBI



PRAKASH MALLYA MANAGING DIRECTOR INTEL INDIA



PROF. N. BALAKRISHNAN
INSA Senior Scientist
IIS



PROF. S. SADAGOPAN
DIRECTOR( PRESIDENT)
IIIT BANGALORE



RAJEEV CHANDRASEKHAR

Minister of State for Skill

Development and MEITY



RAJESH GOPINATHAN
CEO & MD
Tata Consultancy Services



RAVINDER TAKKAR
MD & CEO
VODAFONE IDEA LIMITED



**RAVI SHANKAR PRASAD**FORMER MINISTER OF LAW AND
JUSTICE OF INDIA



RISHAD PREMJI CHAIRMAN WIPRO LIMITED



RITESH AGARWAL FOUNDER & CEO OYO ROOMS



ROSHNI NADAR MALHOTRA CHAIRMAN HCL TECHNOLOGIES



SACHIN BANSAL CEO



M.D.
IBM INDIA



SANJAY BEHL PRESIDENT & COO DELOITTE



SHAILENDER KUMAR MD ORACLE INDIA



SOM SATSANGI MD HP ENTERPRISE



SUNIL BHARTI MITTAL CHAIRMAN BHARTI ENTERPRISES



T.V. MOHANDAS PAI CHAIRMAN MANIPAL GLOBAL EDUCATION



TIGER TYAGARAJAN
PRESIDENT & CEO
GENPACT LLC



VIJAY SHEKHAR SHARMA CEO ONE 97 COMMUNICATIONS



VIJAY THADANI Vice Chairman & MD NIIT





#### **AMIT CHADHA**

Amit is the Chief Executive Officer & Managing Director of L&T Technology Services Limited (LTTS) responsible for providing business & technology leadership, market direction and strategic vision to drive the company's performance. Amit was instrumental in driving the company through a high-profile Initial Public Offering (IPO) in India and successfully listing it on the National Stock Exchange and the Bombay Stock Exchange. passionate about helping global R&D customers and Fortune 500 companies leverage L&T Technology Services' digital engineering offerings for their strategic differentiation and product development. Amit is currently based in Washington DC.

#### **AJAY PRAKASH SAWHNEY**

Ajay Prakash Sawhney is a 1984 batch Indian Administrative Service (IAS) officer of Andhra Pradesh cadre currently the Secretary to the Government of India under the Ministry of Electronics and Information Technology (MeitY). Prior to this he was Additional Secretary in the petroleum ministry, with the charge of Chairman and Managing Director of PSU explorer, Oil India. He has widely been credited for playing a major role in easing policy and encouraging the digital India initiative and the make in India initiative through policy reform, this has helped transform India into an electronics manufacturing hub for the largest mobile and consumer electronics companies of the world.

#### **AMITABH KANT**

Amitabh Kant is the CEO of NITI Aayog (National Institution for Transforming India). He is a Kerala Cadre IAS Officer. He is the author of Branding India - An Incredible Story. He has been a key driver of the "Make in India", Startup India, "Incredible India" and God's Own Country" initiatives that positioned India and Kerala State as leading manufacturing and tourism destinations. Kant was listed as one of the world's 50 most influential people revolutionizing governance by Apolitical, a global government learning platform. Kant is also involved in various initiatives of the World Economic Forum. He is on the Global Advisory Board, Centre for the Fourth Industrial Revolution Network.

#### **AKHILESH TUTEJA**

Akhilesh serves as the Global Cyber Security practice Co-leader and heads the IT Advisory practice for KPMG in India. He also heads the Risk Consulting practice for KPMG in India. Akhilesh is passionate about developments in the area of information technology and how these can help businesses drive smart processes and effective outcomes. Akhilesh has played an instrumental role in the industry, and is widely recognised for his strong blend of business and technical skills. Akhilesh has also played an active part in developing security and privacy frameworks for the banking industry in India.

#### **ANAND MAHINDRA**

Anand Gopal Mahindra is an Indian billionaire businessman, and the chairman of Mahindra Group, a Mumbai-based business conglomerate Anand Mahindra is the third generation scion of the Mahindra clan and chairs the \$19.4 billion (revenue) Mahindra & Mahindra conglomerate. The group's operations span 22 industries from auto to information technology to real estate. Anand Mahindra also owns a small but valuable stake in Kotak Mahindra Bank. The Group has also grown inorganically through acquisitions such as Swaraj Tractors, Reva Electric Car Company, Satyam Computer Services, Peugeot Motorcycles, Aerostaff Australia, Holiday Club Resorts, and Pininfarina S.p.A.

#### **ALOK OHRIE**

Alok Ohrie leads Dell Technologies India and is responsible for Sales, Business Strategy and Development, Operations, Marketing, Manufacturing and Government Engagements. Recognized as the architect of Dell's innovative go-to-market strategy in India, Alok spearheaded the transformation of the company into an end-to-end technology solutions player. Alok plays a critical role in the Government of India's Atal Innovation Mission as 'Super Mentor'. He is also on the Advisory Board of innovative startups in the space of education, reverse supply chain / logistics, consumer retail, to name a few.

### **ANANT MAHESHWARI**

As President of Microsoft India, Anant Maheshwari is responsible for Microsoft's overall business and presence in India, leading engagement with policy makers, customers, business partners, and the industry ecosystem. He is responsible for all of Microsoft's product, service, and support offerings across India. Role of Anant is pivotal as the country focuses on growth themes in the country including Digital India. Anant is committed to ensure that the collective presence of all Microsoft assets in India are helping this digital transformation and support the growth objectives globally and in India.



#### **ANSHU PRAKASH**

Anshu Prakash is a 1986 batch Indian Administrative Service officer of Arunachal Pradesh-Goa-Mizoram-Union Territories cadre. He is currently posted as secretary in the telecom department of the Ministry of Communications. Anshu Prakash has worked in different capacities in the Ministries/ Departments of Tourism, Economic Affairs, Health and Family Welfare, Heavy Industry, Rural Development . In his current assignment, as Secretary Telecom, he is also the Chairman of the Digital Communications Commission. He is responsible for leadership and policy formulation for the growth and development of the Telecom Sector in India.

#### **BHAVISH AGGARWAL**

Bhavish Aggarwal is the co-founder and CEO of Ola Cabs. Bhavish had formed Ola-India's largest mobility platform serving 250+ cities across India, Australia, New Zealand, and the UK. Bhavish Aggarwal is a Co-Founder and serves as Chief Executive Officer & Board Member at OLA Electric. He serves as Board Member at OlaMoney. He also serves as a Board Member at Avail Finance. He is a Co-Founder and serves as Board Member and Chief Executive Officer at Ola. Today, Ola app offers mobility solutions by connecting customers to drivers and a wide range of vehicles across bikes, auto-rickshaws, metered taxis, and cabs, enabling convenience and transparency for hundreds of millions of consumers and over 1.5 million driver-partners.

#### **ARUN M KUMAR**

Arun M. Kumar, Chairman and CEO, KPMG in India is an accomplished global executive with experience spanning multiple sectors from high technology to Government and many geographies from Silicon Valley to India since 2017. Kumar played a key role in strengthening commercial ties between India and the United States by helping establish, working with Commerce Secretary Penny Pritzker, the US-India Strategic & Commercial Dialogue (S&CD) and a renewed US-India CEO Forum. Previously, Arun was a Silicon Valley entrepreneur, founding CEO and CFO of three technology ventures. Over the years, he has been a mentor and advisor to a number of new ventures in Silicon Valley and India.

#### **BYJU RAVEENDRAN**

Byju Raveendran is an Indian entrepreneur who is the co-founder of Byju's. He set up Think & Learn in 2011, to offer online lessons, before launching his main app in 2015. In 2018, Byju Raveendran won the EY Entrepreneur of the Year Award (Startup category). Raveendran's start-up Byju's runs on a freemium model and trains students for Indian examinations like IIT-JEE, NEET, CAT and IAS, as well as international ones such as GRE and GMAT. The Byju's app has become a business case at Harvard Business School. Byju's becomes India's most valued startup after \$340 million funding.

#### **ASHISH KUMAR CHAUHAN**

Ashish Kumar Chauhan is the MD & CEO of BSE (Bombay Stock Exchange), the first stock exchange of Asia. He is one of the founders of India's National Stock Exchange (NSE) where he worked from 1992 to 2000. He is best known as the father of modern financial derivatives in India due to his work at NSE. He was instrumental in setting up India's first fully automated screen based trading system and first commercial satellite communications network. He also created several path breaking frameworks including Nifty index, NSE certifications in financial markets etc.

#### **C P GURNANI**

C.P. Gurnani is the MD and CEO of Tech Mahindra Limited -a USD 5.2 billion digital transformation, consulting and business reengineering services and solutions provider with 125,200+ professionals across 90 countries. A lifelong learner and a disrupter is what best describes CP. An accomplished business leader with extensive experience in international business development, start-ups and turnarounds, joint ventures, mergers and acquisitions. His inimitable style of leadership, combined with his sharp focus on customer experience has helped Tech Mahindra emerge as one of the leading digital IT solution providers of India.

#### **ASHOK SOOTA**

Ashok Soota, Executive Chairman of Happiest
Minds Technologies is widely recognized as
one of the pioneering leaders of the Indian
IT industry. Positioned as 'Born Digital.
Born Agile.' Happiest Minds is a digital
transformation company with business
lines of Product Engineering Services,
Digital Solutions and Infrastructure &
Security. Ashok was earlier founding
Chairman & MD of MindTree, a company
he also led to a very successful IPO. Ashok has
been the President of leading industry association
Confederation of Indian Industry (CII), a member of
the Prime Minister's Task Force for IT and was on the Advisory Council
for the World Intellectual Property Organization, Geneva.

#### **DEBJANI GHOSH**

Debjani Ghosh is the President of the National Association of Software & Services Companies (NASSCOM) since April 2018. A veteran of the technology industry, she is the fifth president of NASSCOM and the first women at the helm. As President of NASSCOM, Debjani is responsible for establishing new growth areas for the technology industry in India and works with governments and industry stakeholders to establish policies and initiatives that help accelerate the growth of the sector in India and across the world.





#### **DEEPINDER GOYAL**

Deepinder Goyal, Founder & CEO, Zomato, is the Founder and CEO of Zomato. Prior to starting Zomato, Deepinder worked as a management consultant with Bain and Company in New Delhi. It was at Bain that Deepinder conceived the idea of an online restaurant information service after seeing the demand for menu cards among his colleagues. He left Bain in 2008 to start Zomato (then foodiebay) out of his apartment and has since overseen strategy and product development. His personal fortune is close to the \$1 billion mark now. The company has officially entered the 'Top 100 Listed Companies' in terms of its value which now stands at over Rs 1 lakh crore in market capitalisation.

#### DR. ONKAR RAI

Dr. Omkar Rai is Director General, Software
Technology Parks of India(STPI) which is the
premier government organisation working for
the promotion of IT/ITES/ESDM industry in
India. Dr. Rai has contributed immensely in
re-positioning STPI with focus on Innovation
and dispersal of IT/ESDM industry beyond
metros. He brings over 25 years of experience
in IT/ESDM sector having unique distinction
of working very closely with government
and IT/ESDM industry. He is working for the
formulation of Incubation program for IT/ESDM
sector to promote entrepreneurship, innovation and
product creation in the country.

#### **DILIP ASBE**

Dilip Asbe is the MD & CEO of National Payments Corporation of India (NPCI). Prior to this he was the Chief Operating Officer (COO) of NPCI. He has played a pivotal role in designing, building, operationalisation and management of large scale innovative payments processing platforms like Unified Payments Interface (UPI), Bharat Interface for Money (BHIM), Immediate Payment Service (IMPS) and India's home grown card network RuPay. Recently, he was awarded the 'Changemaker of the Year' award for the revolutionary product UPI which he spearheaded, by one of the leading business dailies.

#### DR. R S SHARMA

He was the first Director General of the Unique Identification Authority of India and was subsequently appointed as the Chairman of Telecom Regulatory Authority of India (TRAI). After his retirement, he was appointed as the CEO of the National Health Authority of India which administers the Ayushman Bharat Yojana health protection scheme. Dr. Ram Sewak is responsible for implementing India's \$1.43 billion public health insurance / assurance scheme Ayushman-Bharat Pradhan Mantri Jan Arogya Yojaya (AB-PMJAY). Dr. Sharma's philosophy has been to keep the customer at the focus of all regulatory action.

#### DR. AJAY KUMAR

Ajay Kumar (born 2 October 1962) is an IAS officer of 1985 batch. He is presently the Defence Secretary of India. He is an alumnus of IIT Kanpur and University of Minnesota. Dr. Kumar is credited for the manufacturing of electronics and mobile phones in the country ,it also includes for restructuring of several state public undertakings under Asian Development Bank Programs, Dr. Kumar specializes in e-governance, investment promotion and strategic planning. After becoming the Secretary of Defense, Ajay Kumar expressed the hope that by 2025, India will join the 5 major defense hardware producers in the world by boosting production locally.

#### DR. SANJAY BAHL

Dr. Sanjay Bahl is heading as the Director General of the Indian Computer Emergency Response Team. He has been providing consultancy in the area of governance, risk, compliance, security, privacy, forensics, investigation and fraud management to some national level projects in India. Prior to CERT-In, he was the Chief Security Officer (CSO) for Microsoft Corporation (India) Pvt Ltd., where he was responsible for interaction with the government, academia, key strategic accounts and the CxO community with respect to Microsoft's security strategy and helping in the public policy direction.

#### DR. ANAND AGARWAL

Dr. Anand Agarwal is the Group CEO of STL and is passionate about driving technological advancement to impact everyday lives. Recognising the exponential growth in data consumption and shifts in the global technology landscape, Anand has navigated STL from an optical connectivity company to a global leader in end-to-end network solutions. Anand leads STL, a digital networks integrator that is building networks with core capabilities in optical connectivity, virtualised radio, network software and system integration. Anand is a hands-on technologist on advanced photonics and programmable networks. He is a firm believer in empowering and transforming lives through innovations in technology.

#### **GAUTAM ADANI**

Gautam Shantilal Adani is an Indian billionaire industrialist and philanthropist who is the chairman and founder of the Adani Group—an Ahmedabad-based multinational conglomerate involved in port development and operations in India. Adani is a college dropout, who spurned his father's textile shop to set up a commodities export firm in 1988. Ports and infrastructure tycoon Gautam Adani controls Mundra Port, India's largest, in his home state of Gujarat. He founded the Adani Group in 1988 and diversified his business into resources, logistics, energy, agriculture, defence and aerospace, amongst others. Adani has recently expanded into new ventures such as airports and datacenters.



#### **HARI OM RAI**

Hari Om Rai is the Co-founder, Chairman & Managing Director of Lava International Limited - a leading Indian multi-national in the mobile handset industry, with its presence in 13 countries. Hari Om Rai started his entrepreneurial journey in 1992 by founding Biogentek - a venture in the field biotechnology. Lava has shown tremendous growth over the years with its annual turnover crossing \$1.2 Billion. Hari Om Rai is also the Co-Chairman of Government of India's Fast Track Task Force to catalyze and reestablish the mobile handsets manufacturing eco-system in India.

#### MUKESH D. AMBANI

Mukesh Dhirubhai Ambani is an Indian billionaire businessman, and the chairman, managing director, and largest shareholder of Reliance Industries Ltd., a Fortune Global 500 company and India's most valuable company by market value. Mukesh Ambani spearheaded the creation of the world's largest grassroots petroleum refinery at Jamnagar in Gujarat, India. Reliance Retail is the largest organised retail player in India. He has created global records in customer acquisition for Jio, Reliance' digital services initiative. He led and established one of the world's most expansive 4G broadband wireless network offering end-to-end solutions that address the entire value chain across various digital services in key domains of national interest.

#### **KESHAV MURUGESH**

Keshav R. Murugesh is the Group Chief
Executive Officer of WNS Global Services,
a NYSE listed company in the Business
Process Management business. He has been
the Chairman of NASSCOM 2019-2020.
Leader who transforms organisations thru
a focused strategy led approach supported
by strong execution. Turned around two
US listed Companies and created significant
differentiation, billions of dollars of market
capitalisation and wealth for all stakeholders
involved in the journey. Industry evangelist
through NASSCOM and CII and created very powerful Social initiatives
that impacts kids across the world.

#### **NANDAN NILEKANI**

Nandan Nilekani is an Indian entrepreneur. He co-founded Infosys and is the non-executive chairman of Infosys replacing R Seshasayee and Ravi Venkatesan, who were the cochairs of the board, on 24 August 2017. Nandan Nilekani is an Indian entrepreneur, bureaucrat, and politician. He was the Chairman of the Unique Identification Authority of India (UIDAI) in the rank of a Cabinet Minister. Nandan received the prestigious Padma Bhushan. Nandan feels digital is part of economic recovery using aggregator network to enable small biz to get credit. Nandan Nilekani is the author of "Imagining India" and co-authored his second book with Viral Shah, "Rebooting India: Realizing a Billion Aspirations".

#### **KUNAL BAHL**

Kunal Bahl is an Indian entrepreneur, investor, co-founder and CEO of the Indian e-commerce company Snapdeal. India's largest no-frills, value focused marketplace. Previously, he has also worked at companies such as Deloitte Consulting and Microsoft in the US. Kunal is an engineer from the University of Pennsylvania and holds a business degree from The Wharton School. He loves backpacking through remote parts of the world, savoring unique cuisines and studying development politics in India.

#### **NAVEEN TIWARI**

Naveen Tewari is an Indian entrepreneur and the founder and CEO of InMobi, a global provider of enterprise platforms for marketers. He is a Board member of Paytm. His philosophy of constant innovation and disruption is embedded deep into the DNA of InMobians and is resonated across InMobi. His dream is to re-imagine advertising in a truly 'user-first' way and unlock the true potential of the mobile ecosystem. Naveen is involved in the fueling of around 30 start-ups as yet in India and has personally invested and supported several start-ups like NestAway.

#### LT. GEN. RAJESH PANTH

National Cyber Security Coordinator,
Prime Minister's Office Government of
India. Lt General (Dr) Rajesh Pant is an
internationally recognised Cyber Security
expert, who is presently tenanting the
prestigious appointment of National Cyber
Security Coordinator in the National
Security Council Secretariat of India.
The National Cyber Coordination Centre
is a classified project of the Government of
India, which functions as a cyber security as
well as e-surveillance agency in India. The centre
coordinates various sources and strands of cyber security
intelligence and is instrumental in mitigating online threats. It is therefore
an integral part of national security.

#### **PRAKASH MALLYA**

Prakash Mallya is Vice President in the Sales, Marketing, and Communications Group and India country manager at Intel Corporation. He is responsible for developing new growth areas for the company in the region across Southeast Asia, one of the world's most dynamic markets for computing products. Mallya also focuses on establishing strategic engagements with the government and Intel's customers and business partners in the region to enable marketplace expansion and help accelerate India's technology-led transformation.



#### PROF. N. BALAKRISHNAN

Prof. Narayanaswamy Balakrishnan is an Indian aerospace and computer scientist. He is a Professor of the Department of Aerospace Engineering and Supercomputer Education Research Centre of Indian Institute of Science and a Visiting Professor of Jawaharlal Nehru Centre for Advanced Scientific Research. Balakrishnan was honored by the Government of India, in 2002, with the fourth highest Indian civilian award of Padma Shri. India's supercomputer program was started in late 1980s because Cray supercomputers could not be imported into India due to an arms embargo imposed on India.



#### PROF. S. SADAGOPAN

Professor Sadagopan is currently the Director (President) of IIIT-Bangalore (a PhD granting University). IIIT's represent a set of new generation universities started in India in late 90's with special focus on IT; IIIT-Bangalore is one of the first such Institutes; as the first Director of IIIT-Bangalore he is involved in the visioning, planning and executing the growth of this Institute that is counted as one of the premier Institutes in India. His research interests include OR, Multi-criteria optimization, Simulation and Enterprise computing.



#### **RAJEEV CHANDRASEKHAR**

Rajeev Chandrasekhar is an Indian politician from Bangalore and Minister of State for Skill Development and Entrepreneurship and Electronics and Information Technology of India and a Member of Parliament in the upper house from BJP representing Karnataka. Rajeev has repeatedly shown that he is unafraid to speak his mind and even take on the government on policy issues. A strong votary of good governance through institutional reforms, he has been vocal and articulate on issues of reforms, governance, and economy inside and outside Parliament.



#### **RAJESH GOPINATH**

Rajesh Gopinathan is the CEO and MD of TCS, a global IT services, consulting and business solutions organization. He was elevated to the role of Chief Executive in February 2017 after serving as the Chief Financial Officer since 2013. He has played a key role in helping TCS become a USD 22 billion global company. With over 446,000 consultants, TCS is one of the largest private sector employers globally and was recognized as a Global Top Employer for the fifth consecutive year, with the highest retention rate in a competitive industry.



#### **RAVINDER TAKKAR**

Vodafone Idea (VIL) CEO and MD Ravinder Takkar, who was appointed for a period of three years with effect from August 2019, will get nil remuneration for this service to the company. Takkar has over 27 years of experience in the telecom secor, of which 22 years with Vodafone. Prior to this, he was CEO of Vodafone Romania. In January 2012, he was appointed as CEO Partner markets and operated from United Kingdom. He holds a Bachelors degree in Science from Loyola Marymount University, USA in 1991.



#### **RAVI SHANKAR PRASAD**

Ravi Shankar Prasad is an Indian politician and a lawyer. He served as Union Minister holding the Law and Justice, Electronics and Information Technology and Communications portfolios between 2014 and 2021. He is a member of parliament in (Rajya Sabha) and represents Bihar state. He has been spearheading the task of reviving India's telecom sector. He is also actively leading the task of developing India into a global electronics manufacturing hub. India is sitting at the cusp of a Digital Revolution. The flagship program of Digital India, which aims to bring about good governance by extensive use of Information Technology, is being implemented under his leadership.

#### **RISHAD PREMJI**

Rishad Premji is the son of the Wipro head Azim Premji and was named as the successor of his father. He was until recently the Chief Strategy Officer at Wipro and has taken over as Chairman of Wipro in July 2019. He was the Chairman of NASSCOM for the year 2018–19. Rishad is on the boards of Wipro Enterprises Ltd. - a leading player in FMCG and infrastructure engineering - and Wipro-GE - a joint healthcare venture between Wipro and General Electric. He is also on the Board of the Azim Premji Foundation, one of the largest not-for-profit initiatives in India. The Foundation, which is focused on improving public school education, works with over 350,000 government schools across seven states in India.

#### **RITESH AGARWAL**

Ritesh Agarwal Founder & CEO of OYO Hotels & Homes-World's fastest growing and India's largest hotel chain. He is known as the second youngest billionaire in 2021 in India. However, Agarwal is not on either Forbes or Business Insider billionaires list. Agarwal is also a recipient of the Business World Young Entrepreneur Award. OYO grew from 1 hotel to 23,000+ hotels, 1,000,000+ rooms and 125,000+ holiday homes. OYO is spread across 800 cities in 80 countries, Headquartered in Gurgaon. Globally, we are known for transforming spaces into comfortable and stylish spaces with 70% - 85% occupancy rates.



#### **ROSHNI NADAR MALHOTRA**

Roshni Nadar Malhotra is the CEO and Executive Director of the \$9.9 billion HCL Corporation, and is responsible for providing strategic guidance to the organization. She is also the Chairperson of HCL Technologies, a leading global technology organization with a market capitalization of \$32 billion, and the Chairperson of its CSR Board Committee. In 2019, she is ranked 54th on the Forbes World's 100 Most Powerful Women list. Roshni is a Trustee of the Shiv Nadar Foundation, which is committed to the process of nation building by driving transformational leadership through education.

#### **SACHIN BANSAL**

Sachin Bansal is an Indian entrepreneur. He is best known as the co-founder of Flipkart, that was acquired by Walmart at \$16 billion in 2018. During his over 11 year career at Flipkart, Bansal was CEO and chairman. In 2018, Bansal exited Flipkart following the Walmart deal. A few months after his exit from e-commerce major Flipkart, Bansal had turned his attention to the financial services space with Navi. He strongly feels that, by bringing a consumer tech thought process into the financial services space, it'll be something new we can try...it could be a large business opportunity.





#### **SANDIP PATEL**

Sandip Patel, is the MD for IBM India/South Asia region. He is responsible for all of IBM's sales, marketing, services and delivery operations in the region, including Bangladesh, Nepal and Sri Lanka. In addition, Sandip also plays a key role in enabling capabilities across IBM's global missions in India, including research and innovation labs. Sandip took up this role in 2020 with a mandate to make IBM the number one Cloud and Cognitive solutions company in India/South Asia. Sandip has managed and participated in a variety of multidisciplinary organization-wide transformation projects, addressing enterprise strategy, operations and technology transformation, in different regions around the world.

#### **SANJAY BEHL**

Sanjay has 19 years of consulting experience where he has worked on Corporate, Business Unit & Core Functional strategies. Sanjay is currently the President and COO of Deloitte India's Consulting Division, a collaboration between the US and Indian Consulting Member Firms. Sanjay has also authored more than 15 peer reviewed articles and has more than 10 US Patents. Sanjay's work has included helping companies design new business & operating models, understanding healthcare environments, driving growth & innovation and post-merger integrations in the US, Europe, and the emerging markets.



Shailender Kumar is MD for Oracle India. His primary responsibility is to grow Oracle's business in India, increase Oracle's market share across all product lines and solutions, ensure customer satisfaction, and drive Oracle's corporate citizenship initiatives in the country. As managing director, Kumar leads a team of sales and sales consulting professionals from all lines of business-including technology, applications, middleware, and systems-that is focused on delivering Oracle solutions to more than 7,000 customers in India.



#### **SOM SATSANGI**

Som Satsangi is the present MD India at HPE. Prior to this he was the VP & GM for the Enterprise Group during which he was responsible for revenues and profitability. Som feels that technology was never a bigger change agent than it is now. Som is passionate about the creation of an Inclusive Digital Ecosystem in India that benefits all citizens and transforms the ways they live and work. He is responsible for delivering on the vision of leveraging technology to advance the way we live and work, ensuring excellence to our customers; and fostering a culture of collaborative innovation.



#### **SUNIL BHARTI MITTAL**

Sunil Bharti Mittal is an Indian billionaire entrepreneur, philanthropist and the founder and chairperson of Bharti Enterprises, which has diversified interests in telecom, insurance, real estate, education, malls, hospitality, Agri and food besides other ventures. Sunil is one of India's first generation corporations, with interests in Telecom, Space, Insurance, Real Estate, Hospitality and Food. Bharti has joint ventures with several global leaders: SingTel, SoftBank, AXA, Del Monte, the UK Government, amongst others. Bharti Airtel, the flagship company of Bharti Enterprises, is a global telecommunications company with operations in 20 countries across South Asia and Africa. Sunil was awarded the Padma Bhushan.

#### T.V. MOHANDAS PAI

T. V. Mohandas Pai is a Padma Shri Awardee and current Chairman of Manipal Global Education. He was a former director of Infosys, and Head – Administration, Education and Research, Financial, Human Resources of Infosys Leadership Institute. He is also the co-founder of Akshaya Patra, the world's largest midday meal program, and works actively with government and regulators on policy recommendations and guidelines. Mohan has served as the Chairman of the Board of SEBI, and is now a Board Member of the National Stock Exchange in India. He has emerged as one of India's most prolific angel investors.

#### **TIGER TYAGARAJAN**

Tiger Tyagarajan is Chief Executive Officer of Genpact. He is one of the industry leaders who pioneered a new global business model and transformed a division of General Electric (GE Capital International Services) into Genpact, a global professional services firm delivering digital transformation solutions for clients. Tiger was appointed as Genpact's Chief Executive Officer in 2011 after serving as Chief Operating Officer. Tiger is especially passionate about diversity, and serves on the Board of Catalyst, a global non-profit organization working with some of the world's most powerful CEOs to help build workplaces that work for women.

#### **VIJAY SHEKHAR SHARMA**

Vijay Shekhar Sharma is an Indian billionaire businessman and is the founder of mobile payments company Paytm.

Sharma was ranked as India's youngest billionaire in 2017 by Forbes with a net worth of \$2.3 billion. He is the founder of One97 Communications, the parent company of Paytm. Vijay as the Indian billionaire is one of the highest paid heads of a 'unicorn' in India. The man draws a Rs. 4 crore compensation annually, according to a filing with the Ministry of Corporate Affairs. A unicorn — in startup parlance — is a private firm valued at \$1 billion or more. At the centre of his success is the digital payments provider, Paytm.

#### **VIJAY THADANI**

Vijay K. Thadani is an Indian businessman who co-founded NIIT along with Rajendra S. Pawar in 1981. He is currently the Managing Director of the company. He is an alumnus of Indian Institute of Technology, Delhi. He has been actively engaged with many industry associations. Vijay is the co-founder of the not-for-profit, NIIT University established in 2009 and is a Founder Director on the Board of NIIT Technologies Limited, a leading SEI-CMMi Level 5 assessed IT Solutions organization. He chairs the Board of Governors of Indian Institute of Technology (IIT), Delhi. He also chairs CII's National Committee on Higher Education and serves on the Governing Council of All India Management Association (AIMA).

# **GOVERNMENT BODIES AND AUTHORITIES**

Technological progress is essential for economic growth and development. The more advanced the technology available, the more quickly the local and global economy can improve. Technology's role in economic development is further broken down. The role of government becomes prominent when adopting any type of technology.

Technology has a huge effect on the ability of businesses and governments to access natural resources and use them in the most effective ways possible to benefit both the business and the economy. Digital transformation becomes that digital transformation will act as a catalyst for India Inc's dream of a \$5 trillion economy.

Technology, as always, is the key driver of innovation and is at the heart of enabling business to evolve and maintain a commercial advantage. The rise of technologies, such as cloud, mobile and social, have had a significant business outcomes. The various sectors of the industry are represented by the Government bodies that are responsible for the development of standards (International and Indian) of the industry.

Information technology is the single most important element in the success and growth of international trade and job market growth, allowing businesses to share information and conduct trade in less time than the blink of an eye. Digital technologies and trends are redefining our world every day.

Secondly, Digital transformation (DX or DT) leverages technologies to create value and new services for various stakeholders (customers in the broadest possible sense), innovate and acquire the capabilities to become future-ready, agile, and resilient in an increasingly digital

COVID-19 forced organizations around the globe to speed up digital business transformation initiatives to drive their response to the crisis. Now, the c-suite is focused on prioritizing investments in the right initiatives that will fuel future growth.

Digital transformation is not just about disruption or technology. It's about value, people, optimization and the capability to rapidly adapt when such is needed through intelligent use of technologies and information.

Digital transformation puts people and strategy before technology. Let's look into these organizations that have pioneered to achieve the target being set by the Government.

#### **BUREAU OF ENERGY EFFICIENCY**

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#### **CELLULAR OPERATORS' ASSOCIATION** OF INDIA (COAI)

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#### **CSC E-GOVERNANCE SERVICES INDIA** LIMITED

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#### **CONTROLLER OF CERTIFYING AUTHORITIES (CCA)**

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#### **DIGITAL INDIA CORPORATION (DIC)**

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#### **FEDERATION OF INDIAN CHAMBERS OF COMMERCE AND INDUSTRY (FICCI)**

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#### **INTERNET AND MOBILE ASSOCIATION OF INDIA**

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#### **INTERNET SERVICE PROVIDERS ASSOCIATION OF INDIA**

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#### **INVEST INDIA**

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#### ISA-INTERNATIONAL SOLAR ALLIANCE

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## NATIONAL CYBER SECURITY CENTRE (NCSC)

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# UNIQUE IDENTIFICATION AUTHORITY OF INDIA (UIDAI)

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#### **ANDHRA PRADESH**

Andhra Pradesh Technology Services Limited (APTSL)

Shri. Nanda Kishore Mullangi, IIS

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#### **ARUNACHAL PRADESH**

Arunachal Pradesh State Council for Science and Technology

Sri Ajay Chagti, IAS

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Assam Electronics Development Corporation Ltd

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#### **CHANDIGARH**

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#### CHATTISGARH

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#### **JAMMU AND KASHMIR**

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#### **JHARKHAND**

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#### **KARNATAKA**

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Kerala State Electronics Development Corporation

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#### **MADHYA PRADESH**

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Sri Manoj Kumar Mishra, IRTS

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#### **RAJASTHAN**

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#### **TAMIL NADU**

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## **UTTAR PRADESH**

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#### **WEST BENGAL**

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# **INDUSTRY BODIES IN INDIA**

Industry bodies are the organizations founded and funded by businesses that operate in a specific industry. An industry trade association participates in public relations activities such as advertising, education, publishing, lobbying, and political donations, but its focus is collaboration between companies.

Indian Economy has been contributing significantly by playing a catalytic role in shaping up the Trade, Commerce and Industrial environment of the country. India has the world's sixth largest economy in measures of GDP. It has the third largest purchasing power in the world. When we talk about the global economy, India is one of its fastest emerging players. Since our liberalization in 1991, the economy has opened up and given us plenty of opportunities to succeed.

India is the fourth-largest unicorn base in the world with over 21 unicorns collectively valued at US\$ 73.2 billion. By 2025, India is expected to have ~100 unicorns by 2025 and will create ~1.1 million direct jobs according to the Nasscom-Zinnov report 'Indian Tech Start-up'. According to data from the RBI, as of the week ended on June 04, 2021, the foreign exchange reserves in India increased by US\$ 6.842 billion to reach US\$ 605 billion.

Lastly, India is expected to be the third largest consumer economy as its consumption may triple to US\$ 4 trillion by 2025, owing to shift in consumer behaviour and expenditure pattern, according to a Boston Consulting Group (BCG) report. It is estimated to surpass USA to become the second largest economy in terms of purchasing power parity (PPP) by 2040.

## ASSOCIATION OF SYSTEM INTEGRATORS & RESELLERS IN TECHNOLOGY (ASIRT)

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#### **BICSI**

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## CONFEDERATION OF ALL INDIA TRADERS

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#### **DIGITAL INDIA FOUNDATION (DIF)**

Co-Founder : Arvind Gupta
Tel : 011 -0120-4568926
Website :www.digitalindiafoundation.org

#### **ELECTRONIC COMPONENT INDUSTRIES**

#### **ASSOCIATION (ELCINA)**

 President
 : Paresh Vasani

 Tel
 : (91 11) 26928053

 Fax
 : (91 11) 26923440

 Website
 : www.elcina.com

## ELECTRONIC & COMPUTER SOFTWARE EXPORT PROMOTION COUNCIL (ESC)

Executive Director : D K Sareen
Tel : (91 11) 2696 5103
Fax : (91 11) 2685 3412
Website : www.escindia.in

## FEDERATION OF ALL INDIA INFORMATION TECHNOLOGY ASSOCIATIONS (FAIITA)

President : Kaushik Pandya
Tel : +91-9845353629
Website : www.faiita.org

#### FIRE AND SECURITY ASSOCIATION OF INDIA

National President : Sandeep Goel Contact : 8767373515 Website : www.fsai.in

### INDIA ELECTRONICS AND SEMICONDUCTOR

#### **ASSOCIATION**

Chairman :Dr. Satya Gupta
Phone :+91 80 4147 3250/51
Website : www.iesaonline.org

#### INDIA MOBILE CONGRESS

President : Shri. P Ramakrishna
Phone : 011- 23440236
Website :www.indiamobilecongress.com

#### INTERNET AND MOBILE ASSOCIATION OF

#### <u>INDIA</u>

Chairman : Amit Agarwal Website : www.iamai.in

#### INTERNET SERVICE PROVIDERS ASSOCIATION

#### **OF INDIA**

President : Rajesh Chharia
Tel : 011 - 26424001
Fax : 011 - 41608472
Website : www.ispai.in

#### INDIA TRADE PROMOTION ORGANISATION

#### (HPO)

Chairman & MD : L C Goyal
Tel : 91-11-23371540
Fax : 91-11- 23371492
Website : www.indiatradefair.com

#### **INFOTECH SOFTWARE DEALERS ASSOCIATION**

#### (ISODA)

Chairman : Amarnath Shetty
Tel. : +91-9821243881
Website : www.isoda.in

## MANUFACTURERS' ASSOCIATION FOR IT

#### (MAIT)

 President
 : Nitin Kunkolienker

 Tel
 : +91-11-2685 5487

 Fax
 : +91-11-2685 1321

 Website
 : www.mait.com

#### **NASSCOM**

 President
 : Debjani Ghosh

 Tel
 : +91-120-4990111

 Fax
 : +91-120-4990111

 Website
 : www.nasscom.org

#### OTHER SERVICE PROVIDERS ASSOCIATION OF

#### INDIA (OSPAI)

President : **S.V. Ramana**Phone : 0120 4319797
Website : www.ospai.in

# PROGRESSIVECHANNELS ASSOCIATION OF INFORMATION TECHNOLOGY (PCAIT)

President : Alok Gupta
Phone : +91- 9810198881
Website : www.pcait.in

### TRADE ASSOCIATION OF INFORMATION

#### **TECHNOLOGY (TAIT)**

President : Samir Parekh Phone : 022-23861101 Website : www.tait.in





Technology companies expand their market reach through the Value Added Distributors (VADs). The sales funnel can include value-added distributors or resellers. To expand the market reach, Vendors partner with a value-added distributor or the channel sales arms.

Value-added distributors exist because they represent an important distribution channel for manufacturers, particularly those in the IT sector. A value-added reseller takes a core hardware or software product or an entire system and customizes a package of additional system add-ons for a customer.

The majority of VAR's margins comes from the value-added products and services, but not from the products themselves, which usually are marked up only a small amount. There is no such thing as a standardized VAR program. Every company has a unique business climate and terms, conditions, and methods.

Technology Partners cover every aspect of the business and their network brings a crucial role to play in the industry in terms of wider reach. For most major technology vendors, distribution is their principal route to market, typically representing as much as 90% of their revenues, with distributors playing a key role in providing extensive market reach and coverage. The value of this role grows exponentially in fragmented markets, even more so in emerging markets which may be new to vendors.

Distributors serve a huge range of customers (OEMs/Partners) on behalf of vendors. These customers range in size from small, independent resellers to large multinational retailers, but all have the common requirement of a "one-stop shop," where they can source products and services from the hundreds of suppliers whose products are part of their own offering to end customers.

The distributor plays a critical role in selecting the right vendors and products to enable this one-stop shopping to facilitate customers' business growth. IT distribution is particularly strong in this domain, providing same-day shipping of thousands of SKUs to customers who are widely dispersed across geographies.

Channel partners are integral to the overall success of the corporate go-to-market strategy for delivering an excellent customer experience. Distributors and Value Added Distributors (VADs) play an important role in the promotion and availability of a product. They are highly

instrumental in highlighting and educating the customers about the latest products, and complement the product.

Value Added Distributors (VADs) add fuel in the competitive IT market by adding value to the products and services. At the same time VADs align their business models more closely with their tech vendors by providing highly-skilled technical support to offer deep expertise for world-class customer satisfaction. VADs also offer training, educate and help resellers understand the customer requirements to deliver appropriate solutions and understand the requirements that they should go out to create a more compelling demand generation.

There are distribution companies including Ingram, Redington, Savex, Techdata, Compuage, Supertron, Fortune Marketing, Iris Global and Beetel who have gone very aggressive in promoting various offerings to the channel through their traditional channels and some are through their cloud services. This year's Brand Book looks at the current dynamics in the technology distribution space where the role of VADs is also getting extremely important in terms of business leading to improve productivity, efficiency and collaboration.

#### **ADITYA INFOTECH LTD.**

#### ADITYA KHEMKA CEO & Director

Core competency: Core competency:
Aditya Infotech is the technical
arm of the Aditya Group delivering
technology driven security solutions
with special expertise in Electronic
Video Surveillance Products and
Solutions. Aditya Infotech Limited has
the unique distinction of securing more
than a million locations across a wide
spectrum of varied industries, government

establishments, retail chains, educational institutions, financial institutions, public spaces and infrastructure projects.

**ADDRESS**: A-12, Sector 4, Noida, Delhi NCR, India - 201301 Telephone: 0120-4555666

Website: www.adityagroup.com



#### BEETEL TELETECH LTD.

#### **SANJEEV CHHABRA** Managing Director

**CORE COMPETENCY:** Beetel Teletech Ltd. manufactures and supplies landline phones. The Company offers fixed line phones, modems, memory devices, and IT peripheral products, as well as provides consumer products, including memory and storage devices. It has its own line of products, including landlines and IoT solutions, under our iconic



brand, Beetel. It processes over 100 million devices every year, providing innovative end-to- end services seamlessly integrated with its customers' businesses. It has a customer base of more than 50,000 across 100 countries.

ADDRESS: Beetel Corporate Center, First Floor, B Wing, Plot No.16, Udyog Vihar Phase IV, Gurgaon-122001, Haryana Telephone: 0124-4823500 | www.brightstarcorp.in

## CREATIVE PERIPHERALS AND DISTRIBUTION LTD.

#### **KETAN C PATEL** Chairman & Managing Director

**CORE COMPETENCY** : Creative pan-India Peripherals is a distribution specialist which was founded in the year 1992. With an employee strength of more than 135+ people, it distributes more than 3000 products and works with 5000 dealers. It operates as a retail and

e-commerce distribution company.



Creative Peripherals and Distribution Limited operates as a retail and e-commerce distribution company. The Company offers technology, lifestyle, imaging, and telecom products. Creative Peripherals and Distribution serves customers in India.

ADDRESS: Unit No. 3rd & 4th Floor, Plot

No. 137AB, Charkop, Kandivali, (West), Mumbai-400067 Telephone: 022-50612700 | www.ecreativeindia.com

### **ELEMENT14 INDIA PRIVATE LIMITED**

#### **VINESH ASHOK PULSE** Director

**CORE COMPETENCY**: Part of the Premier Farnell Group, element14 is the Development Distributor and a global partner that supports the technology community at every stage. From developing the dreams of students and makers to helping professional engineers develop their ideas and products, it builds a community that benefits from its



technology. element14 is a powerful e-community, technical portal and store offering digitally connected electronic design engineers and busy electronics professionals a collaborative way to access all electronic components purchase options and solutions securely from multiple channels (phone, fax and online).

ADDRESS: D Block, 11th Floor, IBC Knowledge Park, 4/1, Bannerghatta Main Rd, Bhavani Nagar, Bangalore - 560029 Telephone: 1800-300038 | www.in.element14.com

## **ELCOM TRADING COMPANY PVT. LTD.**

#### **SUNIL NARANG** Director

CORE COMPETENCY : Delhi-based Elcom Trading Company is one of the leading names in the IT distribution market in India that supplies, supports and maintains IT products through its branches in the country by offering its wide range of solutions. Operating Since 1993 as a distribution house for Computers, IT Components, Peripherals, Mobile



Phones & Smart Devices. Currently the company is into Distribution of Laptops, Desktops, Smart Devices, Mobiles , Tablets Software & Surveillance Devices. The company has 3 different offices in and around Delhi and a partner network of 1500.

ADDRESS: 302, Madhuban Building 55, Nehru Place,

New Delhi, Delhi 110019 Telephone : 011- 2646 9059

## EMBEE SOFTWARE PVT. LTD.

#### SUDHIR KOTHARI Managing Director & CEO

**CORE COMPETENCY**: Embee is a frontrunner in the technology services industry. With expertise built over decades, Embee seeks to make IT easier for organizations. From enterprises to start-ups, our customers are our partners, whom we help to achieve business outcomes by leveraging technology. Over the years, Embee has also become the leading



Cloud solution provider with one of the highest Cloud mix and active Cloud usage in India. Till date, it has migrated over 500+ customers and 300,000+ users to the Cloud.

ADDRESS: 8 A.J.C Bose Road, 2nd Floor Circular Court, Kolkata - 700017 | Telephone : 1800 120 1644

Website: www.embeee.co.in

#### COMPUAGE INFOCOM LIMITED

## ATUL H MEHTA

Chairman & Managing Director

**CORE COMPETENCY** : Compuage Infocom Ltd acts as a strategic link between vendors and partners, thus readying them for unprecedented levels of business performance by catering to SOHO, SMB, Mid size, Large Enterprises and Government Organizations across industry verticals. It has 46 offices and 69 service centers, across the



country lets our 12000+ online & offline partners, partners and system integrators enjoy doing business at ease. It's global infrastructure consists footprints in 7 countries across SAARC nations, coupled with a direct focus on Enterprise solutions, Cloud computing, PC & Components and Mobility.

ADDRESS: D 601 Lotus Corporate Park, Ram Mandir Lane, Western Express, Highway, Goregaon (East), Mumbai Telephone: 022-67114444 | www.compuageindia.com



#### FORTUNE MARKETING PRIVATE LIMITED

MANOL GLIPTA Director

**CORE COMPETENCY**: Delhi based Fortune Marketing a Delhi-based IT-trading company has expanded into an out-and-out distribution company for electronic security and computer hardware products with a solid pan-Indian presence and appeal. Fortune today distributes more than 1000 products, provided



by some top-tier global brands, through its channel literally becoming a one-stop-source for different security-surveillance and IT-requirements with an absolute supremacy in IP CCTV-products, Biometric products, Access Control, Computer Hardware and Peripherals, Data Storage Solutions, Networking, Mobile Accessories, Audio and Multimedia products, Storage and Software products.

ADDRESS: D-1/2, Pocket D, Industrial Area, Okhla Phase -2, New Delhi- 110020 | Telephone : 011-30890000/30823345-47 Website: www.fortune-it.com

### IRIS GLOBAL SERVICES PVT. LTD.

SANJIV KRISHEN Chairman

**CORE COMPETENCY**: Iris Global services is one of India's top 10 distribution houses that distributes and markets a large variety of electronics which it sources from manufacturers such as Dell, Lenovo, Western Digital, Samsung, Acer Inc., Hewlett-Packard, IBM and others. Headquartered in New Delhi, Iris has over 35 billing locations across the country, all of which are full -



fledged offices with sales, operations and finance team to support Iris' channel partners. Iris supplies high end server and storage products all the way to individual desktop hard drives through a robust network of over 6000 channel partners, aggregators, regional distributors, large format retailers & large SI partners. The company also has project management capabilities.

**ADDRESS**: 1 Bypass Road, Mahipalpur, New Delhi 110 037 | Telephone: 011 26782505 Website: www.iriscomputers.net

#### INTEGRA MICRO SYSTEMS PVT. LTD.

**MAHESH KUMAR JAIN** CEO & MD

**CORE COMPETENCY:** Integra is a leading provider of innovative hitech products and solutions in the Government, BFSI and Telecom space, with a focus on India and Africa. Integra has been at the forefront of innovation and has brought out several class leading products to the domestic and international markets. These include



office automation products on UNIX, WAP Gateway and browser, products for billing, communications and several utility software products in the telecom space, particularly for wireless Internet. Recently, Integra has been engaged in building a technology and services ecosystem for financial inclusion and digital payments.

ADDRESS: #4, Bellary Road, 12th KM, Jakkur, Bangalore - 560064, India. | Telephone : 80 28565801 | Website : www.integramicro. com

### INGRAM MICRO INDIA PVT. LTD.

**NAVNEET SINGH BINDRA** M.D. & Country Chief Executive

**CORE COMPETENCY**: Ingram Micro helps businesses fully realize the promise of technology—helping them maximize the value of the technology that they make, sell or use. Ingram Micro has officially closed its \$7.2 billion acquisition by private equity powerhouse Platinum Equity in a blockbuster deal that frees the distributor from financially



troubled Chinese conglomerate HNA Group. The deal-which was expected to be finalized by the second quarter of 2021--took seven months to complete. The company has its presence in 160 countries and a customer base of approximately 200,000 worldwide, including retailers and IT resellers.

ADDRESS : 5th Floor, Block B, Godrej IT Park, Pirojshanagar LBS Marg, Vikhroli West, Mumbai 400079 Telephone: 22-39894645 | www.imonline.co.in

#### INFLOW TECHNOLOGIES PVT. LTD.

RYILI PILI AI President & CEO

**CORE COMPETENCY:** Inflow Technologies is a niche player in the Distribution Services industry providing Value Added Distribution in Cyber Security, Networking, UC and Collaboration, AIDC & POS. Infrastructure & Application Software, Storage Management and Electronic Security products & related Services in South Asia with revenue run



rate of USD 370+ Million. Headquartered in Bangalore, It has a presence in 15 locations. Having direct relationships with 40+ Global Technology vendors. Inflow Technologies does business through its 2300+ channel partners globally, & one or more solutions is offered to 7000+ end customers.

ADDRESS:: Inflow House, # 33 & 34, Indiranagar 1st Stage, Off 100 Feet Road, Bangalore - 560038 Telephone: 080-41265151 | www.inflowtechnologies.com

#### iValue InfoSolutions

**SUNIL PILLAI Managing Director** 

CORE COMPETENCY InfoSolutions is a value added distributor, provides solutions and associated services around data, network and application to Indian enterprises. iValue comes with rich and experience having created the largest VAD focusing around Security and Storage offerings during their previous stint. It was



founded in 2008 with an intent to create tangible value for all its stakeholders namely OEM, Partner, Customer and Employees. iValue chose to focus around Data, Network and Application, (DNA of every business) availability, performance, security and scalability needs of enterprise and corporate customers.

ADDRESS: #1140, 3rd Floor, 17th Cross Road, VGR Essor, 6th Main Road, Sector 7, HSR Layout, Bengaluru - 560102 | Telephone 080-46131804 | www.ivalue.co.in



#### M.TECH PRODUCTS PTE. LTD.

#### **BHAVIN BHATT**

Regional Director (India & SAARC)

**CORE COMPETENCY:** The M.Tech companies are part of the Singapore Exchange-listed Multi-Chem Group. M.Tech is a leading cyber security and network performance solutions provider. It works with leading vendors to bring optimal solutions to the market through a channel of reseller partners. Established in May 2002, M.Tech is headquartered



in Singapore and has a network of 32 offices in 16 countries. Its regional presence allows it to provide strong on-site sales, technical, logistics and marketing support to its reseller partners.

**ADDRESS**: #201, Indraprastha Equinox, (2nd Floor), 100 Feet Inner Ring Road, Koramangala, Bengaluru - 560095 | Telephone: 080-4302 2146 | www.mtechpro.com

#### **RP TECH INDIA**

#### SURESH PANSARI Director

CORE COMPETENCY: Incepted in 1989, RP tech India (a division of Rashi Peripherals Pvt Ltd) is the fastest-growing B2B technology solutions provider in India. RP tech India is recognised as the most preferred B2B partner of 25+ renowned global technology brands. RP tech India has a strong network of 50 Branches and 50 Service centres that cater to 9000+ immensely satisfied B2B



customers and millions of end-users in 750+ locations across India. It has strong and robust business model spread across four business verticals: Component, Peripherals, Networking & Personal Computing and market verticals: Retail, Online & Enterprise. RP tech India is an ISO 9001: 2015 compliant company.

**ADDRESS**: Ariisto House, 5th Floor, Junction of, N.S. Phadke Road, Telli Gali, Andheri, (E), Mumbai- 400 069

<u>Telephone</u>: 022-61771771/72 | http://www.rptechindia.com

#### SATCOM INFOTECH PVT. LTD

#### VINOD KUMAR

Managing Director

CORE COMPETENCY: Satcom Infotech was established in 2003 with a focus on providing end-to-end Security solutions for all business users. SATCOM Infotech has been consistently providing world class IT solutions to a large number of channel partners and corporates in India. Headquartered in Mumbai, Satcom Infotech has presence across



the country in Delhi, Kolkata, Chennai, Bangalore, Coimbatore, Hyderabad, and Pune.

ADDRESS: 303, Arenja Corner, Sector 17, Vashi, Navi Mumbai –

Telephone: 022-67911039/40/42 Website: www.satcominfotech.com

#### RAH INFOTECH PVT. LTD.

#### **ASHOK KUMAR**

Founder & Managing Director

core competency: India's fastest growing technology value added distributor with a mission to provide the most advanced technological solutions to its channel partners and customers. RAH Infotech is amongst the country's top value added distributors with an extensive portfolio of information management solutions. Headquartered in Gurgaon,



RAH Infotech has presence across the country with International presence in Netherlands, Singapore, UAE, UK and USA. As a VAD, RAH Infotech is focused on adding value to its partners and customers.

ADDRESS: 6 A/B/C, Tower B-4, Spaze I-Tech, Park, Sohna Road,

Sector-49, Gurgaon- 122018

Telephone: 80-10855000 | www.rahinfotech.com

#### **REDINGTON (INDIA) LIMITED**

#### RAMESH NATARAJAN

CORE COMPETENCY: Redington (India) Limited operates in the IT product distribution business, supply chain solutions and after sales services of IT products. The Company and its subsidiaries operate in India, the Middle East, Turkey, Africa and South Asia countries. Its IT products include Personal Computing & Printing; Commercial, Enterprise



& Infrastructure; Cloud Services, and Software & Security. The incredible journey has seen it emerge from one brand, one product category, and one market into a US \$7.7 billion distribution and supply chain solutions provider to over 235+ international brands in IT and Mobility spaces, serving 37 emerging markets.

**ADDRESS**: SPL Guindy House, 95 Anna Salai, Guindy, Chennai - 600032 | Telephone: 044-33673353,

Website: www.redingtongroup.com

#### SAVEX TECHNOLOGIES PVT. LTD.

**ANIL JAGASIA**Founder & Chairman

CORE COMPETENCY: Savex Technologies is the 3rd largest Information & Communication Technology Distributor in India. Its role as an ICT distributor is to imbibe the knowledge of its products & solutions in its partners and act as a consultant to its customers to bring solutions to the market. Savex has 107 Sales offices and 42



Stocking locations across the country, catering to over 12000 customers every month in over 750+ cities. The Company offers consulting, technical support, market place, logistics, online store, and warranty management services. Savex Technologies serves customers worldwide.

ADDRESS: 124, Maker Chambers III, 12th Floor, Nariman Point,

Mumbai - 400021 | Telephone : 022 - 22799999

Website: www.savex.in



#### **SONATA SOFTWARE**

P SRIKAR REDDY Managing Director & CEO

**CORE COMPETENCY:** Sonata Software Limited is a Global IT Services company that provides services in business intelligence and analytics, application development management, mobility, cloud, social media, testing, enterprise services, and infrastructure management services. Sonata's domestic business has two parts-services and



remarketing products and services for global companies. The company is among the biggest partners for Microsoft in India and has been reselling the products for about 25 years

ADDRESS: APS Trust Building, Bull Temple, Rd., N. R. Colony,

Bangalore - 560 019, Telephone : 080-6778 1999

Website: www.sonata-software.com

#### SUPERTRON ELECTRONICS PVT. LTD.

**V K BHANDARI** CMD

**CORE COMPETENCY** : Supertron laptops, in servers, deals components, accessories and is a leading IT & Telecom distribution Supertron boasts of a wide and deep national network of over 9000 retail points, robust 24x7 logistics support, safe warehousing and an immense wealth of goodwill earned through



years of ethical business practices. The company also boasts of an unparalleled network and support system in place to cater to all formats of the business – be it traditional retail, modern trade or the online marketplace. It leads the way in Enterprise IT Solutions with Networking & Systems Integration, Hardware support and Cloud Computing.

ADDRESS: 2, Cooper Lane, Kolkata-700001

Telephone: 033-40371000 | Website: www.supertronindia.com

#### **TECH DATA INDIA**

**SUNDARESAN KANAPPAN** Country General Manager

**CORE COMPETENCY**: Tech Data connects the world with the power of technology. Synnex, Tech Data Merge To Create \$57B Distribution Titan. The merger is expected to close in the second half of 2021. For more than 40+ years, Tech Data has provided the logistics capabilities and value-added services that enable resellers to efficiently and



cost-effectively support the diverse technology needs of end users in more than 100 countries. Two of the world's largest IT distributors will join forces to create a \$57 billion giant with more than 150,000 customers and 22,000 employees.

ADDRESS: A 301, 3rd Floor, Supreme Business, Park, Hiranandani Business Park, Powai, Mumbai - 400076

Telephone: 022-44200200 | https://in.techdata.com

#### **TEXONIC INSTRUMENTS**

NITESH BHANDARI CEO

**CORE COMPETENCY :** Texonic is Importer & Independent Distributor for a wide range of Industrial & Professional grade Electronic Components, Plastic & Aluminum Enclosures and Test & Measuring Instruments in India. Texonic represents few overseas manufacturers & many domestic manufacturers. It is a pioneer in



the High Technology industry and high speed communication market in India. As a leader in Information Technology, Texonic has developed close relationships with major vendors for value added distribution. It is an integral value adding partner that specialize in IT Distribution & Services.

ADDRESS: No.1150, 12th Main, HAL 2nd Stage, Indra Nagar,

Bangalore - 560038 | Telephone : 080-25036600

Website: www.texonicinstruments.com

#### TECHNOBIND SOLUTIONS PVT. LTD.

PRASHANTH GJ Co-Founder & Ceo

**CORE COMPETENCY:** TechnoBind's business model is focused on identifying and partnering with vendors who are focused on plotting the future. This means taking into the market best of breed disruptive technologies based on its use-case based approach and defining the next-gen IT deployments. Technobind has instituted the knowledge and



skills to meet market disruption challenges, providing customers with the competitive-edge of demonstrable use-case scenarios where a certified technical staff spearheads the expert deployment of diverse data infrastructure on to a Cloud environment, be it Data Storage, Data Backup & Recovery or Cyber Protection.

ADDRESS: Amar Plaza, No.19, Krishnanagar, Industrial Layout, Hosur Road, Koramangala, Bangalore - 560029 Telephone: 080-42154512 | www.technobind.com

#### WPG C&C COMPUTERS & PERIPHERALS (INDIA) PVT. LTD.

RAJEEV BAJPAI President

**CORE COMPETENCY**: WPG C&C Computers & Peripherals (India) was incorporated in 2008 and is a subsidiary of WPG Holdings. The Company distributes computer hardware and peripherals. Headquartered in Taipei, Taiwan, WPG Holdings is one of the largest Semiconductor Distributor and electronics distributors in Asia.

With 5,000 staff in about 100 sales offices around the world,



WPG achieved US\$20. 65 billion in 2020 revenue. WPG, the first holding company in the semiconductor components industry, has the global operation, local flexibility and long-term development in Asia-Pacific Market.

ADDRESS: D-112,3rd Floor, Okhla I, Okhla Industrial Estate,New Delhi- 110020 | Telephone : 91-9899224444 | Website : www. wpgholdings.com

# INDIAN START-UPS PAVING THE WAY FOR FUTURISTIC INNOVATIONS

Indian start-ups are spearheading businesses primarily through new technologies. The COVID-19 crisis caught the world by surprise, causing a global slowdown and impacting businesses across industries. Many companies were unprepared to quickly and effectively adapt to the new normal, exposing fundamental gaps in their business resilience. However, the real journey of a new product development starts with an innovative idea, forming the foundation for further development. The newer ideas from the Indian start-up ecosystem are still flourishing and will bring a positive impact on the nation. The Indian start-up ecosystem has taken the lead in mobilising resources to battle the ongoing Covid-19 crisis.

VARINDIA brings you a list of 50 start-up companies that are disrupting the way businesses used to operate. These start-ups are addressing the pain points starting from Agri-tech, Cyber security, Fintech, SaaS solutions and also in the hospitality & healthcare segments. These start-ups are making a mark in the market with their unique business models and product offerings. We have noticed Cybersecurity products, services and professionals have never been in higher demand. In fact, there remains a huge shortage of experienced security professionals available to fill open positions. A contributing factor to the cybersecurity skills gap is the large number of security start-ups that have been founded in recent years. According to a joint study by CBInsights and PwC, Cybersecurity start-ups received over \$10.7 billion in funding in 2020.

Overall cybercrime costs are expected to reach \$10.5 trillion annually by 2025. As a result, security is expected to more than double in size to \$300 billion by 2025. As attack methodologies evolve due to AI, machine learning and nation-state hackers, security start-ups are receiving a lot of funding to develop products that can secure application access for remote workers, provide real-time visibility into cyber attacks and protect data as it travels from the cloud to IoT devices. In this article, we'll cover the top cybersecurity start-ups to watch in 2021. Secondly, as consumers are embracing more on the financial technologies, digital payments firms are fast disrupting the hegemony of traditional players in the payment value chain globally, a trend which is more prevalent in Asia-Pacific (APAC) markets such as China and India. Against this backdrop, payment segment is emerging as a lucrative investment avenue for venture capitalists (VCs), according to GlobalData. The report states, the number of VC deals in banking & payments (B&P) industry globally grew from 461 in Q4 2020 to 620 in Q1 2021, much higher than the previous three quarters. Payments remain popular, with online payments driving five of the top 10 VC deals during the quarter.

The founders of these Disruptive Start-ups are using technology to create a deep impact and change lives for the better and some of the companies are on the frontlines of these initiatives have been listed here. Indian start-ups have already raised more than a third of the money they netted last year. India is minting start-up unicorns at a record pace in 2021. The year 2021 has already seen 12 start-up has received the status if Unicorn.

	Startups and their losses in FY 2020								
Startup	Bevenue	Expense	Loss	Startup	Revenue	Expense	Loss		
CIND	52 Loan	378 Ci.	360 CI	Udlaten	478 Cz	3466 Cz	2616 Ct		
Rhafabook	.0	127 Ct.	126 Ct.	Ungoodeny	66 CH	387 CH	301 Ct.		
Roytm	3281 CI	A226 CH	2942 Cr	Con24	2000	3350 Cr.	365 CH.		
Nig Rosent	3787 CI	4611 C.	610 Ct.	1MG	356 Cr.	387 OL	BIR CI.		
liviggy	2649 CI	4641 Oc	3908 Cr	Duratei	27 (3)	860 CI	AMI CIL		
Phonepe	372 Ct	2200 Oc	1771 Ct	Foreste	858 CH.	1005 CI.	446.01		

#### VARINDIA Indian Startup Valued at one billion and more



 $^{\star}\text{The Year}$  2021 brings fortune to these 20 companies to join the Unicorn club

\$2.85

\$1

#### **OCKO**

August

**Auaust** 

BharatPe

Bluecore



VARUN DUA

Industry:

DIGITAL INSURANCE

Funding Received:

\$107 MILLION

#### ACKO TECHNOLOGY AND SERVICES PRIVATE LIMITED

Fintech

B2B Retail Technology



USP: Acko a digital insurance firm provides personalized policies based on user behaviour and offer great prices, extreme convenience, and stress-free claims.

www.acko.com

#### → PharmEasy



Founder's Name:
DHARMIL SHETH
Industry:
HEALTHTECH
Funding Received:
\$ 651.5 MILLION

#### AXELIA SOLUTIONS PRIVATE LIMITED

"

**USP:** The company is into electronic Pharmacy, is a healthtech startup offering services such as teleconsultation, medicine deliveries, and diagnostic test sample collections. It also operates an online pharmacy that helps patients connect with local pharmacy stores and diagnostic centers in order to fulfill their extensive medical needs.

www.pharmeasy.in







Founder's Name:

ASHNEER GROVER

Industry:

FINTECH

Funding Received:

\$108 MILLION

#### DIGICARD SERVICES PVT. LTD

66

USP: The company's primary purpose was to offer the merchants and business organisations a platform to ensure financial inclusion by helping offline merchants accept digital payments and secure working capital. Bharatpe empowers shop owners to accept payments from any payment app for FREE. Merchants can sign up instantly and start accepting payments directly into their bank account and have the flexibility to earn upto 12% interest on those payments and even take loans whenever they need.

www.bharatpe.com

## b bigbasket



Founder's Name:
HARI MENON
Industry:
COMMERCE & SHOPPING
Funding Received:
\$1.1 BILLION

#### SUPERMARKET GROCERY SUPPLIES PVT. LTD

"

**USP:** BigBasket is an online food and grocery store. Bringing daily shopping to Indians' home in an easy and convenient experience, BigBasket offers and delivers a wide range of products including fruits and vegetables, meat, rice and dals, packaged products, beverages, and personal care products.

www.bigbasket.com



## **E**

Founder's Name:
M.N. SRINIVASU
Industry:
FINANCIAL SERVICES
Funding Received:
\$241.4

#### **INDIAIDEAS.COM LTD.**

"

USP: Billdesk is an electronic payments service, operating as part of the Indialdeas company. Founded in 2000, Billdesk is a pioneer online payment gateway operator that enables banks, businesses, and other institutions to deliver invoices to customers so as to receive payments in India.

www.billdesk.com

#### BYJU'S The Learning App



Founder's Name:
BYJU RAVEENDRAN
Industry:
EDUCATION
Funding Received:
\$1.4 BILLION

#### THINK & LEARN PVT. LTD.

44

USP: BYJU'S is an online educational platform and education services provider. It offers an array of online video courses for children of all ages and students preparing exams including CBSE, GMAT, GRE, etc. together with study material and education counseling.

www.byjus.com

#### E CAPITAL FLOAT



GAURAV HINDUJA
Industry:
FINTECH
Funding Received:
\$143.6 MILLION

Founder's Name

#### CAPFLOAT FINANCIAL SERVICES PRIVATE LIMITED

44

USP: Capital Float is India's leading Buy Now Pay Later and credit platform serving a mix of salaried & self-employed individuals. From offering innovative checkout credit solutions for consumers to financing the business and personal needs of individuals, we are leading the charge in addressing the country's enormous credit problem.

www.capitalfloat.com

#### Chargebee



Founder's Name:
KRISH SUBRAMANIAN
Industry:
SAAS PRODUCT
Funding Received:
\$230 MILLION

#### CHARGEBEE, INC.



USP: Chargebee helps individuals, small and medium-sized businesses, and businesses set up, manage, and automate subscriptions, billing, billing, and payments. One of Chargebee's key strengths is that it can help even large companies switch to a subscription model in 10 days.

www.chargebee.com

#### CleverTap

Founder's Name:
SUNIL THOMAS
Industry:
CUSTOMER LIFECYCLE
MANAGEMENT
Funding Received:
\$77 MILLION

#### **CLEVER TAP**

"

USP: CleverTap syncs user insights from your online and offline channels and uncovers untapped behavior. Identify where your users are in the customer lifecycle so you can run personalized campaigns. The AI-powered segmentation engine identifies the key user groups that are most likely to convert.

www.clevertap.com

## CRED



Founder's Name: KUNAL SHAH Industry: FINTECH Funding Received: \$215 MILLION

#### DREAMPLUG TECHNOLOGIES PVT. LTD.

USP: CRED's main feature is allowing users to make credit card payments through its app for which they get rewarded. Later, CRED added features to allow users to make house rent payments and introduced short-term credit lines. CRED's business model and valuation has received criticism for being overvalued and lacking a solid monetization plan.

www.cred.club



#### **EUNZO**



Founder's Name:

KABEER BISWAS

Industry:

HYPER-LOCAL DELIVERY

Funding Received:

\$45 MILLION

#### **DUNZO DIGITAL PRIVATE LIMITED**

"

USP: The company's core competency is delivery of parcels from point A to B besides grocery, staples, food and medicine through tie-ups with small and large merchants. In hyper-local (including grocery, medicine and food) and parcel delivery segment, foodtech Unicorn Swiggy has been eating up a significant market share of Dunzo through its newly launched products – Swiggy Go and Swiggy Stores.

www.dunzo.in

#### DELHIVERY



Founder's Name:
SAHIL BARUA
Industry:
LOGISTICS & SUPPLY CHAIN
Funding Received:
\$934.6 MILLION

#### SSN LOGISTICS PVT. LTD.



**USP:** Delhivery is a logistics and supply chain services company. It provides a dedicated supply chain platform and logistics services including lastmile delivery, parcel transportation, warehousing, freight, reverse logistics, cross-border, and technology services.

www.delhivery.com

#### 🗣 DREAM11



Founder's Name:
HARSH JAIN
Industry:
FANTASY SPORTS
Funding Received:
\$400 MILLION

#### **DREAM SPORTS**

66

USP: It has introduced freemium fantasy sports in India for cricket fans. Dream11 is an Indian fantasy sports platform that allows users to play fantasy cricket, hockey, football, kabaddi, and basketball. It is an online game where users create a virtual team of real-life players and earn points based on the performances of these players in real matches. In April 2019, Dream11 became the first Indian gaming company to become a unicorn.

www.dream11.com

#### ERUDITUS EXECUTIVA RESISCACION



Founder's Name:
ASHWIN DAMERA
Industry:
EDUCATION
Funding Received:
\$163.5 MILLION

#### ERUDITUS LEARNING SOLUTIONS PTE. LTD.

66

USP: Eruditus collaborates with top universities to make executive education accessible globally. Eruditus has partnered with more than 30 universities to date, including MIT, Columbia, Harvard, Cambridge, INSEAD, Wharton, UC Berkeley, INCAE, IIT, IIM, NUS, and HKUST, launching more than 100 courses and serving students from more than 80 countries

www.eruditus.com

### Faasos

#### **REBEL FOODS PVT. LTD.**



Founder's Name:

JAYDEEP BARMAN

Industry:

INTEGRATED FOOD

Funding Received:

\$125 MILLION

66

USP: Fassos delivers food on-line .It operates in more than 15 major cities in India. For a fact, it is the only company that works on all the three stages of food on-demand business namely – ordering, distribution and order fulfillment in the sector of online food ordering business in India. It operates ghost kitchens in 35 cities in India.

www.faasos.com

#### GGROFERS



Founder's Name:
SAURABH KUMAR
Industry:
COMMERCE & SHOPPING
Funding Received:
\$597.1 MILLION

#### GROFERS INTERNATIONAL PVT. LTD.



**USP:** Grofers is an online supermarket. Offering a range of low-priced products including groceries, beauty and wellness products, household care, baby care, or pet care, Grofers simplifies everyday retail through a simple online shopping experience and express delivery around India

www.grofers.com

### Groww

Founder's Name: LALIT KESHRE Industry: FINTECH Funding Received: \$142.3 MILLION

#### NEXTBILLION TECHNOLOGY PVT. LTD.

"

USP: Millennial-focused company, Groww is an investment platform that offers a new way of investing money with stockbroking and direct mutual funds. The platform provides insights about mutual funds, systematic investment planning, equity-linked savings, and everything from the personal finance world, which helps new investors make investing simple by maintaining a simplified user interface to make investing easy, accessible, transparent, and paperless, enabling users to invest in mutual funds without any hassles.

www.groww.in

#### gupshup



Founder's Name:
BEERUD SHETH
Industry:
ENTERPRISE MESSAGING
PLATFORM
Funding Received:
\$ 144.1 MILLION

#### GUPSHUP TECHNOLOGY INDIA PVT. LTD.

"

USP: Gupshup enables its users to communicate and share their short messages privately and publicly. HDFC and ZeeTV to engage and retain consumers. Gupshup's platform handles over 4 billion messages per month and has delivered over 150 billion messages in total. Gupshup also developed a smart-messaging app, Teamchat, which introduced patent-pending "smart" messages in 2014, only now being offered by other messaging apps.

www.gupshup.me





Founder's Name:

ASHISH SONONE

Industry:

FINTECH

Funding Received:

\$ 111.5 MILLION

#### KHATABOOK INC.

44

USP: Khatabook is India's fastest growing SaaS company that enables micro, small and medium businesses to increase efficiency and reduce costs through safe and secure business and financial solutions. Khatabook today is available in 11+ languages and has more than 20+ Million registered users.

www.khatabook.com

## InCred



Founder's Name:
BHUPINDER SINGH
Industry:
FINANCIAL SERVICES
Funding Received:
\$ 254.4 MILLION

#### INCRED FINANCIAL SERVICES PRIVATE LIMITED

**USP:** InCred is an online credit provider for personal and business loans. It relies on data analytics to ease and accelerate lending and provides a range of financial products including home loans, car and vehicle loans, education loans, and loans for SMEs.

www.incred.com

#### INMOBI



Founder's Name:
NAVEEN TEWARI
Industry:
ENTERPRISE SOFTWARE
Funding Received:
\$320.6 MILLION

#### INMOBI TECHNOLOGY SERVICES PRIVATE LIMITED

"

USP: InMobi is a company dedicated to providing cloud-based marketing services. It hosts a mobile-first platform that supports a range of services including market analytics, marketing campaign performance management, in-app marketing, and monetization for brands, developers, and publishers.

www.inmobi.com





Founder's Name:
SANDIP PANDA
Industry:
NEXT-GEN CLOUD
SECURITY SOLUTIONS
Funding Received:
\$2.2 MILLION

#### INSTASAFE TECHNOLOGIES PRIVATE LIMITED

66

USP: InstaSafe is a security solutions organisation that has been redefining cloud based security by introducing disruptive and cost effective solutions that seek to alter the cybersecurity spectrum altogether. As a ZeroTrust Network Access solutions provider, InstaSafe seeks to leverage ZTNA based concepts to ensure a seamless, secure internet experience for all users in an organisation, irrespective of the device or location from which they use these

www.instasafe.com

## Frazy Bee



Founder's Name:
KARTHIKEYAN
KRISHNASWAMY
Industry:
E-COMMERCE WEB APP
Funding Received:
\$27.3 MILLION

#### KRAZYBEE SERVICES PRIVATE LIMITED



USP: KrazyBee is an India-based e-commerce web app, enabling its users to order products from online retailers on different pay schemes. KrazyBee operates 24x7 and has tied up with the financial technology platform to cater the various needs of the borrowers. With the strength of continuous innovation and raising the benchmark through the years, KrazyBee has provided credit to more than 2.2 million satisfied borrowers with the disbursement of more than INR 43 billion.

www.kbnbfc.in

#### LENDINGKA®T Minde Kash, Thatal Condington (Knop)



Founder's Name:
HARSHVARDHAN LUNIA
Industry:
FINANCIAL SERVICES
Funding Received:
\$242.5 MILLION

#### **LENDINGKART FINANCE LIMITED**



USP: Lendingkart is an online lending provider dedicated to entrepreneurs and small businesses. Through its online platform and advanced data analytics, it evaluates and scores businesses to quickly approve loans and deliver working capital and financial solutions throughout India.

www.lendingkart.com

## # Lucideus.

Founder's Name:
RAHUL TYAGI
Industry:
CYBERSECURITY
Funding Received:
\$16.2 MILLION

#### **SAFE SECURITY**

USP: Its platform, SAFE, allows an organization to get an Enterprise-Wide, Objective, Consistent & Real-Time Visibility of it's overall Cyber Risk Posture. SAFE gives an output both in the form of a breach likelihood score (between 0-5) and the \$ value Risk the organization is sitting on, along with providing prioritized actionable insights based on technical cybersecurity signals, external threat intelligence, and business context of what and where are the "weakest links" across

people, process and technology.

www.lucideus tech.com

#### Mobikwik



Founder's Name:
BIPIN PREET SINGH
Industry:
FINTECH
Funding Received:
\$140 MILLION

#### ONE MOBIKWIK SYSTEMS PVT. LTD.



USP: MobiKwik is one of the pioneer Indian mobile wallet companies, that despite much competition has carved a niche for itself. The digital wallet that provides DTH, mobile recharging, electricity bill payment and money transaction solutions for individuals and businesses.

www.mobikwik.com





## G M RIAT - CC

Founder's Name:
SAI SRINIVAS KIRAN G
Industry:
MOBILE E-SPORTS
PLATFORM
Funding Received:
\$ 225.5 MILLION

#### GALACTUS FUNWARE TECHNOLOGIES PVT. LTD.

44

**USP:** Mobile Premier League (also known as MPL) is a mobile e-Sports platform. It is the platform where the users can compete in multiple skill based mobile gaming tournaments on MPL. It was launched in September 2018 and as of February 2021, the app has a user base of more than 60 million. Users can choose to play from three different formats of games.

www.mpl.live

#### swipe.



Founder's Name:

MANISH PATEL

Industry:
FINTECH

Funding Received:
\$ 97.5 MILLION

#### MSWIPE TECHNOLOGIES PRIVATE LIMITED

"

USP: Mswipe is India's leading mobile PoS machine provider. The company equips merchants with mobile PoS machines to enable them to accept payments through credit and debit card or other payment methods like UPIs. It offers POS solutions for all types of payment acceptance - cards, wallets, mobile payment apps and bank apps, contactless and QR payments.

www.mswipe.com

#### 📅 navi



Founder's Name:
SACHIN BANSAL
Industry:
FINTECH
Funding Received:
\$ 582 MILLION

#### NAVI TECHNOLOGIES PVT. LTD.

"

USP: Navi is building consumer-centric and technology-driven businesses in the BFSI (Banking, Financial Services & Insurance) space. Navi Technologies uses 10 technology products and services including Google Analytics, Google Fonts, and Vimeo, according to G2 Stack.Navi Technologies is actively using 4 technologies for its website, according to BuiltWith. These include Google Apps for Business, Amazon, and GoDaddy

www.navi.com

## moglix



Founder's Name:
RAHUL GARG
Industry:
INDUSTRIAL B2B
COMMERCE PLATFORM
Funding Received:
\$220 MILLION

#### **MOGLILABS PRIVATE LIMITED**

44

**USP:** Moglix provides a B2B commerce platform for the industrial & MRO procurement space. The company is building an operating system for manufacturing that provides its customers a full stack service covering procurement, packaging, supply chain financing and highly integrated software. Moglix has a supply chain network of 16,000+ suppliers, 35+ warehouses and logistics infrastructure.

www.mogilix.com

#### MyGate



Founder's Name:
VIJAY ARISETTY
Industry:
SECURITY
MANAGEMENT SERVICE
Funding Received:
\$67.2 MILLION

### VIVISH TECHNOLOGIES PRIVATE LIMITED

44

**USP:** MyGate is a company that makes a security and community management app. The features include real time domestic help management, vehicle tracking, automated visitor authentication, staff attendance etc. MyGate is not a replacement for a physical barrier and CCTV. It has an integrated attendance module that is readily available for the community as part of overall solution without any extra cost.

www.mygate.com

#### ninjacart



Founder's Name:
THIRUKUMARAN
NAGARAJAN
Industry:
B2B SUPPLY CHAIN
PLATFORM
Funding Received:
\$194.2 MILLION

#### 63IDEAS INFOLABS PRIVATE LIMITED



**USP:** Ninjacart connects vegetables and fruit farmers directly with businesses. They source fresh produce from farmers and deliver them to businesses(Just in time supply chain) around 200 tones of fresh produce from farm to retailers in less than 12 hours -every day. The food supply chain company claims to have helped farmers boost agricultural income by up to 15-20%. Consumers can also order from Ninjacart's partner grocery store through Swiggy, Zomato, Dunzo, and other online platforms, to view the Footprint data.

www.ninjacart.in

#### one 97

### ONE97 COMMUNICATIONS LIMITED



Founder's Name:
VIJAY SHEKHAR SHARMA
Industry:
COMMERCE & SHOPPING
Funding Received:
\$4.4 BILLION

#### . .

USP: One97 Communications is the company operating Paytm, a digital goods and mobile commerce platform providing a number of products and services including mobile recharge, bill payments, transport tickets, hotel reservations, games, and much more. It also operates Paytm Mall which sells products ranging from men and women fashion to electronics and home products, groceries and cosmetics, kids and family as well as cars and other vehicles.

www.one97.com

#### (t) PhoneRe



Founder's Name:
SAMEER NIGAM
Industry:
FINANCIAL SERVICES
Funding Received:
\$1.4 BILLION

#### SOLVY TECH SOLUTIONS PRIVATE LIMITED

"

USP: PhonePe is a mobile payment application that enables users to transfer money instantly to anyone, by using just their mobile number. PhonePe strives to make commerce a seamless experience for both customers and businesses. The company aims to make digital payments so easy, safe, and universally accepted that people never feel the need to carry cash or cards again.

www.phonepe.com



#### ₹ Pine Labs



Founder's Name:
LOKVIR KAPOOR
Industry:
FINANCIAL SERVICES
Funding Received:
\$285 MILLION

#### **PINE LABS**

66

USP: Pine Labs has rapidly transformed from a single product company offering retail acceptance of payments to a broader payments platform. The company now serves hundreds of thousands of merchants for payments through cards and UPI, processing tens of billions of payment volume. Through the acquisitions of Qwikcilver and Fave, Pine Labs is now the number one pre-paid issuing platform as well as the top consumer loyalty product in this market. In the shortest time, Pine Labs hits \$3 billion valuation

www.pinelabs.com

#### POCKET ACES



Founder's Name:

ADITI SHRIVASTAVA

Industry:

DIGITAL ENTERTAINMENT

Funding Received:

\$19.8 MILLION

#### POCKET ACES PICTURES PRIVATE LIMITED



USP: Pocket Aces is India's digital entertainment company focused on mobile video. The company operates three socially distributed content channels: FilterCopy (short videos), Dice Media (long-form videos), and Gobble (food and lifestyle videos) as well as a direct-to-consumer platform: Loco (live and interactive esports app.

www.pocketaces.in

#### policy bazaar 🍪



Founder's Name:
YASHISH DAHIYA
Industry:
FINANCIAL SERVICES
Funding Received:
\$496.6 MILLION

#### POLICYBAZAAR INSURANCE BROKERS PRIVATE LIMITED

"

USP: PolicyBazaar is an insurance aggregator. It allows users to compare health insurance, car insurance, two-wheeler insurance, travel insurance policies based on price, quality, and key benefits together with solutions for financial security and competitive returns.

www.policybazaar.com

#### practo



Founder's Name:
ABHINAV LAL
Industry:
HEALTHCARE SERVICES
Funding Received:
\$ 228.2 MILLION

#### PRACTO TECHNOLOGIES PRIVATE LIMITED



USP: Practo is an mhealth platform that connects patients with healthcare providers through booking appointments, checkups, and consultations. The company's platform provides automated appointment scheduling and storage of healthcare records including X-rays, files, prescriptions and billing, enabling users to take good care of themselves and their family members by consulting with doctors online without going to the clinic.

www.practo.com

#### Quikr



Founder's Name:
PRANAY CHULET
Industry:
COMMERCE & SHOPPING
Funding Received:
\$424.2

"

USP: Quikr is a free classifieds ads and marketplace operating across India. Connecting the offer and demand through its platform, Quickr helps users sell, buy, rent, and discover a wide range of products including mobile phones, furniture, and household goods, cars, real estate properties, jobs, services, and education.

**SEQURETEK IT SOLUTION** 

**QUIKR INDIA PRIVATE LIMITED** 

www.quikr.com

#### ■Razorpay



Founder's Name:
HARSHIL MATHUR
Industry:
FINTECH
Funding Received:
\$366.6 MILLION

#### RAZORPAY SOFTWARE PRIVATE LIMITED



USP: Razorpay is a platform that enables businesses to accept, process, and disburse payments. Razorpay is a platform that enables businesses to accept, process, and disburse payments with its product suite. It gives access to all payment modes including credit card, debit card, net banking, UPI and popular wallets including JioMoney, Mobikwik, Airtel Money, FreeCharge, Ola Money, and PayZapp.

www.lendingkart.com

#### SEQURETEK

#### PRIVATE LIMITED



Founder's Name:
ANAND NAIK
Industry:
CYBERSECURITY
Funding Received:
\$5 MILLION

#### "

**USP:** Sequretek focuses on building intellectual property in the security solutions segment and offering security-linked services, according to its website. Its products include digital identity management, threat protection platform and security analytics.

www.sequretek.com

#### shadowfax



Founder's Name:

ABHISHEK BANSAL

Industry:

ON-DEMAND LOGISTICS

NETWORK

Funding Received:

\$119.7 MILLION

#### SHADOWFAX TECHNOLOGIES PRIVATE LIMITED



USP: Shadowfax is an on-demand logistics network that provides tech-enabled one stop delivery solutions. The unique app enables delivery of food, pharmac,y and e-commerce for businesses and helps them create customer delight using technology. With a focus on engineering pleasant experiences for the customers, Shadowfax envisions to become a desirable and trustworthy delivery platform for customers

www.shadowfax.in







Founder's Name:
ANKUSH SACHDEVA
Industry:
SOCIAL NETWORK
Funding Received:
\$222.8 MILLION

#### **SHARECHAT**

44

USP: ShareChat is a social networking and regional content platform, allowing Indians to use the Internet in their mother tongue. ShareChat aims at bringing local, relevant content to smartphone users across India in Indian languages including Hindi, Telugu, Marathi, and Malayalam.

www.we.sharechat.com

## Skillmatics



Founder's Name:
DHVANIL SHETH
Industry:
EDTECH/EDUCATION
Funding Received:
\$1.5 MILLION

#### GRASPER GLOBAL PRIVATE LIMITED

44

USP: It provides child education products and games intended to provide knowledge through engaging content. The company focuses on developing core cognitive skills and reinforce key learning concepts in children through its creative learning content, enabling kids to get a holistic development through fun learning methodologies.

www.skillmaticsworld.com

#### snapdeal



Founder's Name:

KUNAL BAHL

Industry:

COMMERCE & SHOPPING

Funding Received:

\$1.8 BILLION

#### **SNAPDEAL PRIVATE LIMITED**

"

**USP:** Snapdeal is a diversified online shopping platform, offering products ranging from electronics and fashion to home and appliances. Backed by famous investors, including Alibaba, Foxconn, and SoftBank, Snapdeal is gearing towards competition with the very top e-commerce sites of India.

www.snapdeal.com

#### SWIGGY



Founder's Name:
NANDAN REDDY
Industry:
FOOD & BEVERAGE
Funding Received:
\$1.6 BILLION

#### BUNDL TECHNOLOGIES PRIVATE LIMITED

44

**USP:** Swiggy is a food ordering and delivery platform. It provides a curated list of restaurants to choose from and a delivery fleet to bring orders to customers. Thanks to its app, restaurants have access to a new source of customers, and people can get food from their favorite restaurants or new discoveries delivered at their doorstep.

www.swiggy.com

#### **3**udaan



Founder's Name:
SUJEET KUMAR
Industry:
E-COMMERCE
Funding Received:
\$899.9 MILLION

### HIVELOOP TECHNOLOGY PRIVATE LIMITED

46

**USP:** Udaan is a business-to-business marketplace and trading platform. It allows small and medium businesses in India to discover products, customers, and suppliers, connect with them, buy and sell. Udaan regroups Indian traders, wholesalers, retailers, and manufacturers on a single platform.

www.udaan.com

## 🛫 unacademy



Founder's Name:
GAURAV MUNJAL
Industry:
E-LEARNING
Funding Received:
\$398.5 MILLION

#### SORTING HAT TECHNOLOGIES PRIVATE LIMITED



**USP:** Unacademy is a learning platform that provides content for major competitive examinations as well as offers short lectures in the form of videos on different subjects which can be accessed for free. It allows aspiring students to better prepare for their competitive examinations and promote self-learning.

www.unacademy.com

### Vedantu



Founder's Name:

VAMSI KRISHNA

Industry:

ONLINE TUTORING
PLATFORM

Funding Received:
\$190.9 MILLION

#### VEDANTU INNOVATIONS PRIVATE LIMITED

"

USP: Vedantu is an online e-learning platform that features real-time personalized learning

features real-time personalized learning. It provides a software platform connects tutors and student which provides real-time one to one teaching to students online.

www.vedantu.com

#### zomato



Founder's Name:
DEEPINDER GOYAL
Industry:
FOOD & BEVERAGE
Funding Received:
\$914.6 MILLION

#### **ZOMATO MEDIA PRIVATE LIMITED**



USP: Zomato is a restaurant search and reservation app. It is used by consumers to discover, rate, and review restaurants. Zomato also offers services including online ordering, table reservation, white-label platform, and point-of-sale system to connect restaurants to customers and ease their operations. Since its creation in 2008, Zomato has expanded to more than 20 countries. Zomato has acquired 12 startups globally.

www.zomato.com



## 50 POWERED CMO's OF INDIA

**NAME** 

A L Jagannath

Amit Doshi Amit Marwah Amol Gaikwad

And Subbiah

Ankesh Kumar Anupam Saha

Arpita Sengupta

Arvind Saxena Ashima Mathur

B S Rao

Debjani Gupta Deepali Naair

Deepti Singh

Dev Prabhu Govindarai Avasarala

Jagadish M N

Jaganathan Chelliah

Jessica D'cruz

Kaustubh Patki

Kunal Aman

Maya Culas

Mukesh Bajpei

Nikhil Dudwadkar

Nikhil Sharma

Nivedita Mukheja Pavan Sachdeva

Prabhjeet Singh Prasenjit Roy

Prashant jain

Priyanak Chatterjee Rahul Singh Rajesh Kumar Riddhi Adlakha

Rimi Das

Rishi Prasad Roshni Das

Sailajanandan Nayak

Sanjeev Nikore Sarika Naik Satya Upadhaya Shanker Sareen Shashwat Sharma

Shirish Aggarwal
Sumit Virmani

Sunder Madakshira

Tushad Talati Vaishali B.Shivshankar Vinny Sharma Vishal Joshi DESIGNATION

**Head Of Marketing** 

Director Marketing-India & South Asia Head Of Marketing & Corporate Affairs Head Marketing - India & SAARC

Director, Marketing & Communication-India & South Asia Qualcomm India Pvt. Ltd.

**General Manager-Marketing** 

**DGM-Marketina** 

**Director-Marketing & Communications** 

**Head Marketing & Corporate Communications** 

**Country Marketing Manager** 

**Vice President-Marketing & Communications** 

**Head of Marketing** 

СМО

**Head-Marketing & Communications** 

**Director - Marketing** 

Head Enterprise Marketing Head Marketing-India & Saarc

**Director Marketing** 

Regional Marketing Director-India & Saarc

**Country Marketing Manager** 

Head- Marketing & Communications- India & Japan

Marketing Director Marketing Head

Marketing Manager-Indai & South Asia

**Marketing Head** 

Head of Marketing (India & Saarc)

Marketing Head Head of Marketing

Sr. Executive Vice President & CMO

Chief Marketing Officer
Head of Marketing
V.P & Head Of Marketing
V.P-Marketing (India & Saarc)
Head Digital Marketing
Head of Marketing

Marketing Lead, South Asia

Director-Marketing
DGM, Marketing-CMO
Chief Marketing Officer
EVP & Chief Marketing Officer
Country Marketing Manager
Head Marketing (India & Saarc)
Chief Marketing and Brand Officer

**Head Marketing Communications & Brand** 

**Chief Marketing Officer** 

**Head Marketing** 

Director-Brand & Communication India & Asia marketing Leader Head Of Marketing- India/SAARC Head of Media & Alliances COMPANY

**ThoughtWorks Technologies** 

Lenovo India Pvt. Ltd.

Nokia India

Check Point Software

Qualcomm India Pvt. Ltd.

Schneider Electric India Pvt. Ltd.

Aditya Infotech Pvt. Ltd. Red Hat India Pvt. Ltd. Nec Technologies India

Pitney Bowes Mapinfo India Pvt. Ltd.

Ctrls Datacenters Ltd.

**Zoom Video Communication** 

IBM India & South Asia Vertiv Energy India Pvt. Ltd. Vmware Software Pvt. Ltd.

Vodafone Idea Ltd. Forcepoint India Pvt. Ltd.

**Western Digital** 

Fortinet Technologies India Pvt. Ltd.

Microfocus India Pvt. Ltd.

SAS Research & Developmentindia Pvt. Ltd.

Hitachi Vantara India Pvt. Ltd.

AMD India Pvt. Ltd. Kaspersky Lab Veeam Software

Nutanix Technologies India Pvt. Ltd. Lenovo Infrastructure Solutions Group

Cisco Systems India Pvt.Ltd.

**NTT Datacentre** 

**HP India** 

Infor India Pvt. Ltd. SAP India Pvt. Ltd. Ui Path India

Tata Consultancy Services
Pure Storage India Pvt. Ltd.

Seagate India Intel India Pvt. Ltd.

Ingram Micro India Pvt. Ltd.

Tech Mahindra India Capgemini India Fitbit India Pvt. Ltd.

Tenable Network Security India Pvt. Ltd.

Bharti Airtel Ltd.

Panasonic India Pvt. Ltd.

Infosys India Adobe India

Epson India Pvt. Ltd. Rackspace Technology

Infoblox India

ESDS Software Solution Pvt. Ltd.





Payment Gateway Platform



Smart Pay-Out Platform



Wallet Platform



Business **APP** 

FenexaTechnology is a leading and globally accepted IT Solution Provider and currently at the forefront of Digital Transformation & Emerging Technologies to serve the customers across the world. The founders of the company have been in the IT & Financial inclusion industry for more than 20 years.

**PayDesk** Fenexa Technology Pvt. Ltd. 519, IndraPrakash Building, Barakhamba Raod, New Delhi - 110001 India info@fenexamail.com



## TOP 50 POWERED











































**KUNAL AMAN** 











## CMO'S OF INDIA



**NIVEDITA MUKHEJA** 



**PAVAN SACHDEVA** 



PRABHJEET SINGH



PRASENJIT ROY



PRASHANT JAIN



PRIYANAK CHATTERJEE



RAHUL SINGH



**RAJESH KUMAR** 



**RIDDHI ADLAKHA** 



RIMI DAS



**RISHI PRASAD** 



**ROSHNI DAS** 



SAILAJANANDAN NAYAK



**SANJEEV NIKORE** 



**SARIKA NAIK** 



**SATYA UPADHAYA** 



**SHANKER SAREEN** 



SHASHWAT SHARMA



SHIRISH AGGARWAL



**SUMIT VIRMANI** 



**SUNDER MADAKSHIRA** 



**TUSHAD TALATI** 



VAISHALI B. SHIVSHANKAR



**VINNY SHARMA** 



**VISHAL JOSHI** 



## TOP 100 SOLUTION



#### Brancy (-)

## PARTNERS IN INDIA







































































































#### 1. ADIT MICROSYS Pvt. Ltd.

Name : **BIREN SELARKA**Designation : **Managing Director**City : **Ahmedabad** 

Website : www.aditmicrosys.com

Focus Verticals : Infrastructure, Government and IT/ITeS, Finance,

Real estate, Retail and e-commerce.

Key Vendors : Microsoft, Amazon Web Services, CtrlS, Adobe,

HPE, Dell, Symantec, VMware

#### 2. ACPL Systems Pvt. Ltd.

Name : VISHAL BINDRA

Designation : CEO
City : Gurgaon
Website : www.acpl.com

Focus Verticals : Telecom, Government, IT/ITeS, Manufacturing BFSI

and Cyber Security

Key Vendors : AWS, McAfee, RSA, Fortinet, Cisco, Citrix, Aruba

Networks, VMware, PaloAlto, Check Point, Juniper, F5

and Altova.

#### 3. AGC Networks Ltd.

Name : N JAYANTHA PRABHU

Designation : **CEO**City : **Mumbai** 

Website : www.agcnetworks.com

Focus Verticals : BFSI, Healthcare, Education, IT/ITeS, Unified

Communications, Data Center and EdgelT.

Key Vendors : Avaya, Cisco, Juniper, HPE, Fortinet, Commscope,

NEC ,Aruba,Citrix, Check Point,F5,Jabra ,Oracle and

RingCentral.

#### 4. Agmatel India Pvt Ltd.

Name : V K MALHOTRA

Designation : **Director**City : **New Delhi** 

Website : www.agmatel.com

Focus Verticals : Defence, Education, Government, Automobile

and Retail

Key Vendors : Apple, HP, Panasonic Toughpad , Samsung, Acer,

Microsoft, SOTI, Sony, BenQ, Viavi, Keysight, Poly

and APC.

#### 5. Allied Digital Services Pvt. Ltd.

Name : NITIN SHAH

Designation : Chairman & Managing Director

City : Mumbai

Website : www.allieddigital.net

Focus Verticals :Government, BFSI, Healthcare, Construction,

Automobile and IT-as-a- services.

Key Vendors : Intel, IBM, Lenovo, Dell EMC, Cisco, Microsoft,

Oracle, VMware and Amazon Web Services.

#### 6. Ambisure Technologies Pvt. Ltd.

Name : AJAY C BHAYANI

Designation : **Director** City : **Mumbai** 

Website : www.ambisure.com

Focus Verticals : Secured data, VPAT services, Phishing Protection,

Website security and application security

Key Specialization : Specialize in Identity based Security

Solutions for the companies with IT infrastructure for Enterprises, Consumers,

Governments and E-Commerce.

#### 7. Arrow PC Network Pvt. Ltd.

Name : **GURPREET SINGH**Designation : **Managing Director** 

City : New Delhi

Website : www.arrowpcnetwork.com

Focus Verticals : Hospitality, Manufacturing, Education, Healthcare

and Media

Key Vendors : VMware, Sonicwall, Netmagic, Aruba, Dell EMC,

Cisco, Amazon Web Services and Commvault

#### 8. Ashtech Infotech Pvt. Ltd.

Name : **SAURIN SHAH**Designation : **Managing Director** 

City : Mumbai

Website : www.ashinfo.com

Focus Verticals: BFSI, IT/ITES, Infrastructure, Manufacturing,

Telecom, Big data analytics, data backup and

recovery

Key Vendors : Dell EMC, HP Asset and VMWARE.

#### 9 . Aujas Cyber Security Ltd. Part of NSE Group, a subsidiary of NSEIT

Name : DR. N MURALIDARAN

Designation : **Chairman**City : **Gurugram**Website : **www.aujas.com** 

Focus Verticals : Identity & Access Management, Risk advisory,

Security Engineering and Cloud Security

Key Vendors : PALM, Saksham, Codesign and IBM

#### 10. Bahwan Cybertech Group

Name : S DURGAPRASAD

Designation : Co-founder, Director & Group CEO

City : Chennai

Website : www.bahwancybertek.com

Focus Verticals : Government, Telecom, BFSI, Retail, IT, logistics

and engineering projects.

Key Vendors : IBM, Oracle, Midle are, IVMS, Geodatafy

and Procure 360



#### 11. Bloom Electronics

Name : **S. KARTHIKEYAN**Designation : **Managing Director** 

City : Coimbatore

Website : www.bloomcomputers.in

Focus Verticals : Retail, IT/ITeS, Manufacturing, Govt, E-commerce

and IT Infrastructure

Key Vendors : Cisco, HPE, DELL, F5, Array Networks, Microfocus,

Huawei, Zenital, Commend, Delta, Barco, APC, ESDS, Panasonic, Dauha, Hikvision, D-Link, Epson,

HP, Lenovo and Intel.

#### 12. B M Infotrade Pvt. Ltd.

Name : DR. MUKUL GUPTA

Designation : **Director**City : **Jaipur** 

Website : www.bminfotrade.com

Focus Verticals: Consulting, Workload Mitigation, Security,

Database and RPA

Key Vendors : Oracle, IBM, VMware, Redhat, Commvault, McAfee,

NetMagic, Automation Anywhere, HP, Dell, Lenovo, Cisco, Aruba, Ruckus, Juniper, CheckPoint,

Commscope.

#### 13. Cache Infotech Pvt. Ltd.

Name : ALOK GUPTA
Designation : Director
City : New Delhi

Website : www.cacheinfotech.com

Focus Verticals: Healthcare, Retail and Education

Key Vendors : HP, Dell, Cisco, IBM, Paloalto, Lenovo, Acer, Oracle,

Citrix, Check Point, Apple, Fortinet, Commvault,

F5, RSA and Airtel.

#### 14. C.I. Infotech

Name : IRVINDER SINGH

Designation : **Director** City : **New Delhi** 

Website : www.ciinfotech.net

Focus Verticals : Mining/Oil/Gas, Infrastructure managed

services, Cloud service and Digital Transformation HPE, DELL, Sophos, Veritas, Symantec, HP Inc.,

Key Vendors : HPE, DELL, Sophos, Veritas, Symantec, HP Inc Nutanix, Juniper, Microsoft, Azure and Fortinet

#### 15. Capricot Technologies Pvt. Ltd.

Name : CHAKRESH JAIN
Designation : Chairman
City : New Delhi
Website : www.capricot.com

Focus Verticals : Government, Infrastructure, Education,

Manufacturing and Media

Key Vendors : Autodesk, RIB, Bentley, Adobe, HP, Oracle and

Makerbot 3D Printers, Mathworks and ONYX

#### 16. Central Data Systems Pvt. Ltd.

Name : KOTA SUBRAMANYA

Designation : **Director**City : **Bangalore**Website : **www.cdspl.com** 

Focus Verticals : IT/ITeS, Media, BFSI, Healthcare, E-commerce

Key Vendors : Cisco, Riverbed, Dell EMC, NetApp, HP, Microsoft,

IBM

#### 17. Choice Solutions Ltd.

Name : K.V. JAGANNATH
Designation : CEO & MD
City : Hyderabad

Website : www.choice-solutions.com

Focus Verticals: IT Infrastructure, Data center, Cloud, Networking,

Power technology, PowerSense and Education sector

Key Vendors : Adobe, Dell EMC, Microsoft, VMware, Kaspersky,

Oracle, Veeam and Veritas.

#### 18. Comprompt Solutions LLP

Name : MANISH B. SANGHRAJKA

Designation : **Director** City : **Mumbai** 

Website : www.comprompt.co.in

Focus Verticals: Cyber security, Server Consolidation/

virtualization, Dat backup and Recovery.

Key Vendors : Microsoft, eScan, Kaspersky, Bitdefender, McAfee,

Check Point, Gajshield, WatchGuard, Juniper Networks, Sophos, Checkpoint, Tally and

Sequirite.

#### 19. Corporate Infotech Pvt. Ltd.

Name : VINOD KUMAR
Designation : Director
City : New Delhi
Website : www.cipl.org.in

Focus Verticals : Defence, Education, Ministries, Government &

PSUs

Key Vendors : Microsoft, HPE, NetApp, Acer, Sonicwall, Cisco,

Huawei, Schneider Electric, Samsung, NEC, Panasonic, Fujitsu, Epson, Lenovo, VMware, Sophos, Forcepoint, IBM, Veeam, Commvault,

Citrix, Brocade and Veritas.

## 20. Costacloud Appolo Computers Pvt. Ltd.

Name : M K GAUR
Designation : Managing Director

City : Delhi

Website : www.costacloud.com

Focus Verticals : IBusiness Process management, Cloud Services,

Business Analytics and Enterprise content

management.

Key Vendors : IBM, Opentext, Documentum, Amazon, Microsoft,

RASA Al and UlPath



#### 21. D M Systems Pvt. Ltd.

Name : **D K BAJAJ**Designation : **Managing Dir** 

Designation : Managing Director
City : New Delhi

Website : www.dmsystems.in

Focus Verticals : IT/ITeS, Manufacturing, Government

Key Vendors : Sophos, Sonicwall, Commvault, Rutjie, Fileago,

Pinelabs and Bitdefender.

#### 22. Deltakraft Solutions Pvt. Ltd.

Name : **DNYANESH KULKARNI**Designation : **Founder & Director** 

City : Mumbai

Website : www.deltakraft.com

Focus Verticals: Hospitality, Education, Construction, E-commerce,

IT Infrastructure and Facility management

Key Vendors : HP Inc., Dell, Microsoft, Adobe, Corel, Autodesk,

eScan, Bitdefender, Quick Heal, IceWarp,

Retrospect and Novastor

#### 23. DEV Information Technology Pvt. Ltd.

Name : **DEVAANG BHATT** 

Designation : **Director**City : **Ahmedabad**Website : **www.devitpl.com** 

Focus Verticals : Enterprise application & Mobility, Infrastructure

management and Cloud Computing

Key Vendors : Microsoft, Adobe, Azure, AWS and IBM Cloud.

#### 24. Diamond Infotech Pvt. Ltd.

Name : MANOJ RATHI
Designation : Director
City : Kolkata
Website : www.dipl.co.in

Focus Verticals : Government, BFSI, Education, SME

Key Vendors : Dell, Microsoft, Intel, IBM, Tally, Hikvision and

Sophos.

#### 25. Dimension Data India

Name : SHARAD SANGHI

 $Designation \ : \ \textbf{CEO}$ 

City : Mumbai

Website : www.dimensiondata.com

Focus Verticals : Education, Financial Services, Healthcare,

Manufacturing, Media and Communications,

Intelligent Infrastructure,

Key Vendors : Cisco, Dell EMC, Microsoft, NetApp, SAP, VMware,

Aruba Networks, Avaya, Intel, Check Point, Citrix, Commvault, Juniper Networks, Oracle, Palo Alto

#### 26. Dynacons Systems & Solutions Ltd.

Name : SHIRISH M ANJARIA

Designation :

City : Chennai

Website : www.digitaltrack.in

Focus verticals : IT Infrastructure, Manufacturing, BFSI, Government,

Healthcare and Data management and availability

Key vendors: Cisco, Fortinet, Symantec, McAfee, Sonicwall,

Check Point, NetApp, VMware, F-Secure

#### 27. Ecaps Computer India Pvt. Ltd.

Name : GUNASEGHARAN KRISHNAN

Designation : **Director**City : **Coimbator**Website : **www.caps.in** 

website : www.caps.in

Focus Verticals : Network Infrastructure, Security, Surveillance

and Storage

Key Vendors: Netfox, Sophos, Sonicwall, Kaspersky, Honeywell,

CISCO, CP Plus and HikVision

#### 28. Envision Enterprise Solutions Pvt. Ltd.

Name : RAMA RAJU

Designation : Founder & CEO

City : Hyderabad

Website : www.envisionesl.com

Focus verticals : Manufacturing, Metro Rail and Rail, Oil & Gas,

Telecom and Smart Cities

Key vendors : IBM, Oracle, Wipro, Tech Mahindra, Hitachi

Consulting and Cyient

#### 29. E Square System & Technologies Pvt. Ltd.

Name : DHIRENDRA KUMAR KHANDELWAL

Designation : Managing Director
City : Bhubaneshwar

Website : www.estpl.in

Focus Verticals : Public sector, Education, Manufacturing, Health,

Hospitality, Energy, Mines & Metal, IT/ITeS, Banking

& Finance, Transport

Key Vendors : Cisco, D-Link, Dell, HP, IBM, Lenovo, Microsoft,

Oracle, Samsung, SAP, SAS, Symantec, Trend Micro,

Veritas

#### 30. EDEN Infosol

Name : ROMIL SHETH
Designation : Director
City : Mumbai

Website : www.edeninfosol.com

Focus Verticals : Compute, Storage, Virtualisation and Cloud Key Vendors : Cisco, Dell EMC, Microsoft and Lenovo



#### 31. Embee Software Pvt. Ltd

Name : SUDHIR KOTHARI

Designation : Managing Director & CEO

City : Kolkata

Website : www.embee.co.in

Focus Verticals : BFSI, E-commerce, Education, Healthcare,

Media, Logistics, Retail, Manufacturing

Key Vendors : Microsoft, Adobe, Cisco, HPE, Citrix, Symantec,

VMware, IBM, Oracle, SAP, HP Inc.

#### 32. Enrich Data Services Pvt. Ltd.

Name : NARINDER SINGH MANRAL

Designation : Managing Director

City : **Noida** 

Website : www.edspl.net

Focus Verticals : Government, PSUs, Transport, Telecom, Power,

IT/ITeS, Education

Key Vendors : Juniper Networks, Cisco, Brocade, Dell, Arista,

Fortinet, Palo Alto, Burracuda, Symantec, Cambium Networks, Ruckus Wireless, Avaya,

Aruba Networks, F5, Poly

#### 33. Esconet Technologies Pvt. Ltd.

Name : SUNIL GGARWAL

Designation : Director
City : New Delhi
Website : www.esc.co.in

Focus Verticals : Data Storage, Cloud computing, Virtualisation

Key Vendors : HP, Microsoft, DELLEMC, VMware, Netapp, IBM,

Cisco and Intel

#### 34. ESSI Integrated Technologies Pvt. Ltd.

Name : **ABHAY JHA**Designation : **CEO** 

City : New Delhi Website : www.essi.co.in

Focus Verticals : Government, PSU, Education, BFSI, Vehicle

management system and Boom barriers

Key Vendors : HID, HP, IBM, Advantech, Axis Communications,

SONY, SAMSUNG, MOBOTIX, CISCO, Honeywell

#### 35. Essen Vision Software Pvt. Ltd.

Name : NITYANAND SHETTY

Designation : **CEO**City : **Mumbai** 

Website : www.essenvision.com

Focus Verticals : IT/ITeS, Manufacturing, BFSI, Healthcare/ Pharma Key Vendors : Sonicwall, Symantec, McAfee, Websense, Hitachi,

RSA, IBM, Check Point, Juniper Networks

#### 36. Fenexa Technologies Pvt. Ltd.

Name : AMALENDU MUKHERJEE

Designation : **CEO**City : **New Delhi** 

Website : www.fenexaindia.com

Focus Verticals : Government, Corporate, Defence

Key Vendors : Cisco, CA Technologies, Juniper Networks,

Microsoft, Dell EMC, HP, Dell Lenovo, Acer, Cisco, Microsoft, Seagate, Kaspersky, Intel, Oracle and

Honeywell

#### 37. Frontier Business Systems Pvt. Ltd.

Name : RAVI VERDES

Designation : Founder & Managing Director

City : Bangalore Website : www.frontier.in

Focus Verticals : ITInfrastructure Solutions, Enterprise Computing and

Networking Solutions, Virtualization and Application

Delivery

Key Vendors : Cisco, Citrix, Dell EMC, Amazon Web Services, Red

Hat, Microsoft, HPE, Nutanix, Palo Alto, Vertiv,

CommScope, SaS, NVIDIA, VMware

#### 38. Futurenet Technologies India Pvt. Ltd.

Name : L. ASHOK

Designation : Managing Director

City : Chennai

Website : www.futurenet.in

Focus Verticals : Education/Nonprofit, IT/ITeS, Manufacturing,

Media, BFSI, Healthcare/Pharma

Key Vendors: IBM, Cisco, Citrix, Amazon Web Services, Microsoft,

Check Point, NVIDIA, Dell, Sophos, Google, Fortinet, VMware, Veritas, Vertiv, Hitachi, Dell EMC

#### 39. FutureSoft Solutions Pvt. Ltd.

Name : VIPUL DATTA

Designation : CEO
City : New Delhi
Website : www.fspl.co.in

Focus Verticals : IT/ITeS, Power, BFSI, BPO

Key Vendors : Huawei, Cisco, Dell EMC, Citrix, Lenovo, IBM,

Microsoft, VMware, Symantec, Arcserve, Red Hat, Oracle, Citrix, Check Point, Google, Adobe, Commvault, Veritas

and Gemalto

#### 40. Galaxy Office Automation Pvt. Ltd.

Name : **SANJAY PATODIA**Designation : **CEO** 

City : Mumbai
Website : www.goapl.com

Focus Verticals : Government, IT/ITES, Automotive, Enterprise

Mobility BFSI, Entertainment, Healthcare and

Process automation

Key Vendors : Microsoft, VMware, IBM, Dell EMC, Cisco, HPE,

Lenovo, Juniper Networks, Citrix, CommScope



#### 41. Gowra Bits & Bytes Pvt. Ltd.

Name : SUBBARAM GOWRA
Designation : Managing Director

City : Hydrabad

Website : www.gbb.co.in

Focus Verticals : Education, Government, Healthcare, IT/ITeS,

Manufacturing and Defence.

Key Vendors: Dell EMC, Lenovo, IBM, Veeam, Veritas, Amazon Web Services, Netgear, Cambium Networks, Cisco, Microsoft,

NetApp, Sophos, Aruba Networks, Oracle, Red

Hat, Netmagic and ESDS

#### 44. Hitachi Systems Micro Clinic Pvt. Ltd.

42. Groovy Communications India Pvt. Ltd.

: ASHOK GROVER

: www.groovyindia.in

: New Delhi

Focus Verticals: Hardware maintenance.

Key Vendors : Epson, HP, AOC and Philips

Name : ANUJ GUPTA

Designation : CEO

Designation : Director

City

Website

City : New Delhi

Website : www.hitachi-systems-mc.com

Focus Verticals : Government, PSUs, Hospitality, Healthcare,

Manufacturing & Retail, BFSI, Eductaion, Media &

**Entertainment** 

Key Vendors : VMware, Microsoft, HPE, Dell EMC, Check Point,

Forcepoint, Veeam, Symantec, Nutanix, Lenovo, Palo Alto, Brocade, Cisco, Samsung, Huawei,

Commvaul

#### 43. Gurusons Communication Pvt. Ltd.

Name : **SOAMI BHATIA**Designation : **Director** 

City : New Delhi

Website : www.gurusons.com

Focus Verticals : Government, PSUs, Telecom, Automobile, IT/

ITeS, Hospitality, BFSI

Key Vendors : Poly, Cisco, UNIFY, Canon, Juniper Networks,

Ruckus Wireless, Sophos, Samsung, Impluse,

Epson, CommScope, Siemens

#### 45. Inspira Enterprise India Pvt. Ltd.

Name : MANOJ KANODIA

Designation : CEO City : Mumbai

Website : www.inspiraenterprise.com

Focus Verticals : Government, BFSI, PSU, IT/ITes, Healthcare,

**E** Governance

Key Vendors : HP, Juniper, Sophos, Safenet, Dell, Poly, Schneider

Electric, Array Networks, Websence, Bluecoat, Sanovi, Intel Security, Lenovo, Cisco, Palo Alto,

VMware, Red Hat

#### 46. InspiriSYS Solutions Ltd.

Name : MALCOLM F. MEHTA

Designation : Chairman & CEO

City : Chennai

Website : www.inspirisys.com

Focus Verticals: BFSI, Government, PSUs, Manufacturing, Telecom,

Enterprise security and Cloud

Key Vendors : Forcepoint, FireEye, Check Point,

Gemalto, Fortinet, RSA, Symantec, Trend Micro, Sophos, Palo Alto, Microsoft Azure, Amazon Web Services, VMware, HPE, IBM, Dell EMC, NetApp, Lenovo, Hitachi Vantara

#### 47. Intellicon Pvt. Ltd.

Name : SAMEER PARIKH Designation : Director & CEO

City : Mumbai

Website : www.intellicon.in

Focus Verticals : Enterprise Communication, Automatic Data

capture, BFSI, Security and Surveillance

Key Vendors : It is mostly into Data capture, Video conferencing

and Unified Communications etc.

#### 48. Intensity Global Technologies Pvt. Ltd.

Name : ADITYA NARAIN KAKKAR

Designation : CEO
City : New Delhi
Website : www.igtpl.in

Focus Verticals : Education, Manufacturing, Data center and

Cloud

Key Vendors : HP Pointnext and HP Server

#### 49. ITCG SOLUTIONS P LTD.

Name : NILESH KUVADIA
Designation : Founder Director

City : Vadodra

Website : www.itcgindia.com

Focus Verticals : Backup & Storage, Security Solutions

Key Vendors: N Computing, QNAP, Autodesk, Adobe, Microosft,

Redhat, Mcafee and Retrospect

#### 50. ITS Technology Solution Pvt. Ltd.

Name : KAMAL GULATI
Designation : Managing Director

City : Noida

Website : www.itsimple.in

Focus Verticals : Telecommunication, Hospitality, PSUs, Back-up,

Archive and security

Key Vendors : Atempo, Faronics and itSimple Cloud back-up



#### 51. JNR Management Resources Pvt. Ltd.

Name : PRASHANT JAIN

Designation : CEO City : New Delhi Website : www.jnrmr.com

Focus Verticals: Corporate, Education, Financial, Government,

Healthcare, Telecom

Key Vendors : Google, Microsoft, SonicWall, Fortinet, Sophos,

Watchguard, ZSoho, IceWrap, Symantec, Veritas, Commvault, Barracuda, Gemalto, Forcepoint,

Kaspersky

#### 53. Kplus Infotech

Name : YOGESH JAIN

Designation :

City : Mumbai Website : www.kplus.co.in

Focus Verticals :SD-W and SD-WAN, Managed printing, Cloud

Migration and Hyperconverged Infrastructure

Key Vendors : DELL Technologies ,CISCO,HPE, Microsoft, Cisco

Meraki, VMware, HP and sonicwall

#### 52. Johnson Controls India Pvt. Ltd.

Name : GURMEET SINGH
Designation : Chairman & CEO
City : New Delhi

Website : www.johnsoncontrol.com

Focus Verticals : HVAC Equipment, Building automation and

Controls, Security and Digital Solutions

Works with a Vision: Our holistic technology convergence approach unifies building, business, and vertical market systems on a secure, intelligent infrastructure to deliver desired outcomes for the building's occupants.

#### 54. Lauren Information Technologies Pvt. Ltd.

Name : RAWLIN PINTO
Designation : Chairman
City : Mumbai
Website : www.lauren.co.in

Focus Verticals : Government, Real Estate, BFSI, Healthcare/

Medical Services

Key Vendors : Amazon Web Services, Microsoft Azure, Veritas,

Citrix, Cisco, IBM and HPE

#### 55. LDS Infotech Pvt. Ltd.

Name : AMARNATH SHETTY

Designation : Manging Director City : Mumbai

Website : www.ldsinfotech.com

Focus Verticals : Government, PSUs, Education, Real Estate,

Transportation

Key Vendors : Microsoft, Oracle, Adobe, Red Hat, Symantec, IBM,

Sophos, SonicWall, Veeam, Palo Alto, Barracuda,

**VMware** 

#### 56. Locuz Enterprise Solutions Ltd.

Name : VIJAY WADHI

Designation: Managing Director & CEO

City : Hyderabad Website : www.locuz.com

Focus Verticals : Healthcare, IT/ITeS, Defence, Engineering,

Education

Key Vendors : Amazon Web Services, Microsoft Azure, VMware,

Openstack, Citrix, Microsoft, Cisco, Palo Alto, CA

Technologies, Barracuda, Brocade

#### 57. Macaws Infotech

Name : MANASI SHAH
Designation : Director
City : Kolkata

Website : www.macawainfotech.com

Focus Verticals : Advance threat Protection, Security and Cyber

Security, Mobile Security and RPA

Key Vendors : Symantec, Mcafee, Fortinet, Forcepoint, CISCO,

Sophos, Paloalto and Fireeye.

#### 58. Magnamious Systems Pvt. Ltd.

Name : JITEN MEHTA
Designation : Director
City : Mumbai

Website : www.magnamious.com

Focus Verticals: BFSI, Construction, Pharmaceuticals, Automobile Key Vendors: Microsoft, Nutanix, VMware, HPE, Citrix, Lenovo,

Dell EMC, SonicWall, Dell, Cisco

#### 59. Mayank's IT Solution Pvt. Ltd.

Name : **NEHA BATRA**Designation : Executive Director

City : Noida

Website : www.mayanks.in

Focus Verticals : Government, Defence, Telecom, IT/ITeS, Retail &

Distribution, BFSI, Hospitality, Manufacturing,

Transport, Education

Key Vendors : Dell EMC, Lenovo, IBM, Samsung, Microsoft,

Oracle, VMware, Commvault, Aruba Networks, Huawei, Symantec, Poly, CP Plus, Acer and Infoblox.

#### 60. Microgensis Cadsoft

Name : THOMAS JACOB Designation : Director City : New Delhi

Website : www.mgenindia.com

Focus Verticals: Product Design & Manufacturing (PD&M),

Architecture, Engineering, Construction (AEC) and

Media & Entertainment (M&E).

Key Vendors : Autocad, Autodesk, Adobe, SketchUp and

Formlabs



#### 61. Netcon Technologies India Pvt. Ltd.

Name : MAHALINGAM RAMASAMY

Designation : Managing Director City : Coimbatore

Website : www.netcon.in

Focus Verticals : Education, Transport, Education, Manufacturing

and Smart Cities.

Key Vendors : Cisco, Fortinet, Aruba Networks and AWS.

#### 62. New Wave Computing Pvt. Ltd.

Name : ANAND ARAVAMUDHAN

Designation : Director City : Chennai

Website : www.newwavecomputing.com

Focus Verticals : Storage virtualization, Security, Network

Virtualisation, Hyper Converged Infrastructure and

Public Cloud services

Key Vendors : IBM, Microsoft, Samsung, Lenovo, Dell, Nutanix and

Vmware

#### 63. Orbit Techsol India Pvt. Ltd.

Name : SUSHIL JAIN
Designation : CEO
City : New Delhi

Website : www.orbitindia.net

 $\label{prop:constraints} \textit{Focus Verticals } : \textit{Security, System Integration, Solution Support}$ 

Key Vendors : HPE, Microsoft, Veeam, HP, Veritas, VMware, Oracle,

Citrix, Adobe, Cisco

#### 64. Orient Technologies Pvt. Ltd.

Name : AJAY SAWANT
Designation : Managing Director
City : Mumbai

Website : www.orientindia.com

Focus Verticals :BFSI, Government, Healthcare, IT/ITeS,

Manufacturing

Key Vendors: Dell EMC, HPE, Cisco, Citrix, Microsoft, VMware,

SAS, Veritas, Amazon Web Services, Fortinet,

Lenovo

#### 65. P C Solutions Pvt. Ltd.

Name : **DEVENDRA TANEJA**Designation : Founder & CEO
City : New Delhi
Website : www.e-pspl.com

Focus Verticals : Telecom, Manufacturing, IT/ITES, BFSI, Government,

PSUs, Media, Hospitality

Key Vendors : HPE, Microsoft, Cisco, Citrix, Veritas, Symantec,

Palo Alto, Red Hat, Trend Micro

#### 66. Park Network Pvt. Ltd.

Name : AJAYA KUMAR
Designation : Director
City : New Delhi

Website : www.computerparkindia.com

Focus Verticals :PSUs, IT/ITeS, Aviation Key Vendors :Acer, HP Inc., Lenovo

#### 67. Pentacle IT Solutions Pvt. Ltd.

Name : TILAK RAJ RATRA

Designation : MD
City : Lucknow
Website : www.pentacle.in

Focus Verticals : PSUs, Education, Telecom, BFSI

Key Vendors : Microsoft, Intel, Dell, IBM, VMware, Adobe,

Symantec, Cisco, Netgear, D-Link, Red Hat, Samsung,

Schneider Electric

#### 68. Pentagon System and Services

Name : SAIRAMAN MUDALIAR
Designation : Co-Founder & Director

City : Mumbai

Website : www.pentagon.co.in

Focus Verticals :Telecom, IT/ITeS, Manufacturing, Media, BFSI

Key Vendors : IBM, Dell EMC, NetApp, VMware, Microsoft, Netmagic,

Cisco, HPE, Amazon Web Services, Oracle, D-Link, Brocade, Juniper Networks, Nutanix, Lenovo

#### 69. Presto Infosolutions Pvt. Ltd.

Name : KRISHAN GIRDHAR
Designation : Managing Director

City : NewDelhi Website : www.presto.co.in

Focus Verticals : Infrastructure management, Video Collaboration,

System Integration and facility Managemnet

Key Vendors : CISCO, Radwin, Rittal, Radware, Global Media,

Silverpeak and Revolabs

## 70. Printlink Computer and Communication Pvt. Ltd.

Name : RAJESH KUMAR DORA
Designation : Managing Director
City : Bhubaneswar

Website : www.printlinkindia.com

Focus Verticals :Government, Education, Mining Key Vendors :Canon, Dell, Nikon, HP, Acer, Cisco



#### 71. Proactive Data Systems Pvt. Ltd.

: RAJIV KUMAR

Designation: Managing Director & CEO

City : New Delhi

Website : www.proactive.co.in

Focus Verticals : Government, Defence, Retail, Manufacturing,

Education, Healthcare, Hospitality, Media

**Kev Vendors** :Cisco, Dell EMC, NetApp, CommScope, Commvault,

#### 72. Progility Technologies Pvt. Ltd.

ANIL JAIN

Designation: Chairman & Managing Director

City : Mumbai

Website : www.progilitytech.com

Focus Verticals : BFSI, Government, PSUs, Defence, Healthcare,

Hospitality, IT/ITeS, Manufacturing, Automobiles,

SMBs

: Dell, Check Point, Aruba Networks, Ruckus Wireless, **Key Vendors** 

Barco, Avaya, Extreme Networks, Poly, Samsung, Juniper Networks, Cisco, Barco, Panasonic, UNIFY

#### 73. Progressive Infotech Pvt. Ltd.

PRATEEK GARG Designation: Founder & CEO

: Noida City

Website : www.progressive.in

Focus Verticals : Healthcare, E-commerce, BFSI. BPO. Cloud

Migration

**Key Vendors** :Microsoft and Amazon Web Services

#### 74. Pronteff IT Solutions

: VISWANATH VUNDI

Designation: Founder City : Hyderabad Website : www.pronteff.com

Focus Verticals : Media & Advertisements, Banking and Healthcare

:IBM, BM Aspera, IBM Cloud Private, IBM Middleware **Kev Vendors** 

& IBM Watson

#### 75. Quadrasystems.net (India) Pvt. Ltd.

Name : S PRASHANTH

Designation: Co-Founder & Director

City : Bangalore

: www.quadrasystems.net Website

Focus Verticals : BFSI, Manufacturing, IT/ITeS, Retail, Healthcare,

Oil & Refinary, FMCG, Telecom, Pharmaceuticals

Trend Micro

**Key Vendors** :Microsoft, IBM, Adobe, Citrix, Red Hat, Symantec, Oracle, Amazon Web Services, VMware, Autodesk, SAP, Barracuda, McAfee, CommVault, Palo Alto,

Technologies, SonicWall

#### 76. Quadsel Systems Pvt. Ltd.

Name : GIRISH MADHAVAN

Designation: Director City : Chennai Website : www.quadsel.in

Focus Verticals : Managed Infrastructure, Cloud services

Data center solutions

: APC, Quest, HPE, Microsoft, Riverbed, Oracle, Key Vendors

VMware and Citrix

#### 77. Raksha Technologies Pvt. Ltd.

: V. ANAND Name Designation: CEO & Director : Chennai City

Website : www.rakshatech.com

Focus Verticals : IT/ITeS, Manufacturing, E-commerce, Healthcare,

**Kev Vendors** :Trend Micro, Fortinet, NetApp, SonicWall, IBM,

Symantec, Cisco, McAfee, IBM, Kaspersky, Check Point, Fire Eye, Dell EMC, Hitachi, Commvault,

Microsft, Citrix, VMware

#### 78. Sanghvi Infotech Pvt. Ltd.

Name : JIGAR SANGHVI

Designation: CEO

: Ahmedabad City

Website : www.sanghviinfo.com

Focus Verticals : FMCG, Hospitality, BFSI, Media, Education, Telecom

and Facility management

Key Vendors : Cambium, Enginus, Garmin, Ruckus, Ubiquiti,

Motorola, Wavion and Radwin.

#### 79. Secure Network Solutions India

N K MFHTA Name

Designation: CEO & Managing Director

: Chennai City Website : www.snsin.com

Focus Verticals :IT/ITeS, BFSI, Manufacturing. Government.

Healthcare

**Key Vendors** :Fortinet, Check Point, VMware , HPE, Barracuda,

Sonicwall , IBM, VMware, Sophos, Symantec, Trend

Micro, Juniper Networks

#### 80. Shro Systems Pvt. Ltd.

: ANIRUDH SHROTRIYA Name Designation: Managing Director

: Pune City

Website : www.shrosystems.com

Education/ Focus Verticals : Infrastructure. Auto/Logistics

> Nonprofit, Telecom, Government, IT/ITeS

Manufacturing, BFSI, Healthcare/Pharma

Key Vendors :HPE. Cisco. D-Link. Brocade. Riverbed. Aruba

CommScope Schneider Flectric Networks. Microsoft, VMware, Citrix, Adobe, Red Hat and Suse



#### 81. Silver Touch Technologies Ltd.

Name : VIPUL THAKKAR

Designation: Chairman & Managing Director

City : Ahmedabad

Website : www.silvertouch.com

Focus Verticals : Digital Transformation, Enterprise software

service, E-governance solutions, RPA and ERP

solutions

Key Vendors : Microsoft, MongoDB, Automation anywhere, AWS,

Azure, IBM Cloud, Google Cloud and UI Path.

#### 82. Softline Services India Pvt. Ltd.

Name : VINOD NAIR
Designation : Director
City : Mumbai

Website : www.softline.co.in

Focus Verticals : It Infrastructure, Cloud Solutions, Information

security and Software licensing

Key Vendors :Barracuda, Microsoft, Kaspersky lab and Zyfra

#### 83. SoftwareOne India Pvt. Ltd.

Name : VARUN PALIWAL
Designation : Managing Director

City : Gurgaon

Website : www.softwareone.com

Focus Verticals : Education, IT/ITeS, Manufacturing, BFSI

Key Vendors : IBM, Microsoft, Oracle, SAP, VMware, Amazon Web

Services

#### 84. Sonata Software Ltd.

Name : P. SRIKAR REDDY

Designation: Managing Director & CEO

City : Bangalore

Website : www.sonata-software.com

Focus Verticals : Travel, Retail, Distribution, Manufacturing and

Platform services

Key Vendors :SAP, Microsoft, IBM, Oracle

#### 85. Spark Technologies Pvt. Ltd.

Name : SEWAK NAUTIYAL

Designation: Founder & Managing Director

City : New Delhi

Website : www.sparkindia.com

Focus Verticals : IT, Communication, Audio, Video, Digital Signage,

Electronic security & Surveillance, Internet Security,

UPS and Power Management Audit

Key Vendors : CommScope, D-Link, Ritaal, Sophos, Samsung, LG,

AOC, Exide, Vertiv

#### 86. Sterling Infoways Pvt. Ltd.

Name : RAJESH KALRA

Designation : Director City : New Delhi

Website : www.sterlinginfoways.com

Focus Verticals :Infrastructure, Auto/Logistics, Education/

Nonprofit, IT/ITeS, Manufacturing, Mining/Oil/Gas,

Media, BFSI, Healthcare/Pharma

Key Vendors : IBM, Lenovo, Cisco, Microsoft, Dell, Symantec, APC

#### 87. Sujata Computers Pvt. Ltd

Name : PARESH LODHA

Designation : CEO City : Ghaziabad

Website : www.sujataindia.com

Focus Verticals : Education, BFSI, Pharmaceutical, Transport, IT/ITeS

and Real Estate

Key Vendors :IBM, Redhat, Cisco, Intel, Vmware, HP, Hikvision,

Microsoft, Oracle, Symantec, Fortinet, Apple, Asus

and Adobe

#### 88. Symmetrix Computer Systems Pvt. Ltd.

Name : DINESH DHANAPATHI Designation : Managing Director

City : Bengalore

Website : www.symmetrix.in

Focus Verticals :IT/ITeS, Manufacturing, Automotive Transportation,

BFSI, Healthcare

Key Vendors : Tally, VMware, Seagate, Red Hat, Western Digital,

Oracle, NComputing, Poly, NVIDIA, IBM, Intel, Dell

EMC, D-Link, Canon, Adobe, Cisco

## 89. Syntel Telecom A division of Arvind Limited

Name : VIPIN MALHOTRA
Designation : President & CEO

City : Pune

Website : www.synteltelecom.com

Focus Verticals :: Government & Public Sector, Hospitality,

Education,BFSI, IT & Consulting, Manufacturing

Key Vendors :CISCO, ALCATEL-Lucent, NEC and Yealink

#### 90. Targus Technologies Pvt. Ltd.

Name : COL. BALWINDER SINGH Designation : Managing Director

City : Gurgaon

Website : www.targustech.com

Focus Verticals : Telecom, Media, Government, Automotive, IT/ ITeS,

Manufacturing

Key Vendors :HPE, Lenovo, Cisco, Microsoft, Juniper Networks,

IBM, Oracle, VMware, Dell EMC, CommScope, Red

Hat, Citrix, Riverbed, Sophos, Samsung



#### 91. Team Computers Pvt. Ltd.

RANJAN CHOPRA

Designation: Chairman & Managing Director

City : New Delhi

Website : www.teamcomputers.com

Focus Verticals : BFSI, Automotive, Manufacturing, Government,

FMGC, Oil & Gas, Consturction

**Kev Vendors** : Dell Technologies, HP, Lenovo, D-Link, Netgear, HPE,

> Qlik, Google, Amazon Web Services, Microsoft, Cisco, Apple, Samsung, Poly, AWS, Epson and Schneider

#### 92. Umbrella Infocare Pvt. Ltd.

: SANJAY AGARWAL Designation: Founder Director

City : Noida

Website : www.umbrellainfocare.com

Focus Verticals : Retail, BFSI, Media, Heathcare, E-commerece, Travel : Amazon Web Services, Clouhealth, Citrix, Qlik, **Kev Vendors** 

**Vmware** 

#### 93. Value Point Systems

R S SHANBHAG

Designation: Founder, Chairman & Ceo

City : Bangalore

Website : www.valuepoint.co.in

Focus Verticals : IT/ITeS, Government /PSUs, Healthcare, BFSI,

E-commerce

:HPE, Red Hat, Dell, VMware, Avaya, Brocade, **Kev Vendors** 

CommScope, Cisco, Palo Alto, Microsoft, Symantec

#### 94. vCentric Technologies Pvt. Ltd.

: SANJEEV DESHPANDE Name Designation: Managing Director & CEO

City : Hyderabad

Website : www.vcentric.com

Focus Verticals : ERP, Server/System Admin, IMS, BW-DW-BI, Core

App Development and Microsoft Solutions

:SAP, Microsoft, Oracle, Blue Prism, UiPath **Kev Vendors** 

#### 95. VDA Infosolutions Pvt. Ltd.

Name : DEEPAK JADHAV

Designation : Director

City : Mumbai

: www.vdainfosolutions.com Website

Focus Verticals : BFSI, IT/ITeS, Manufacturing, Healthcare, Hospitality

**Key Vendors** :IBM, Dell EMC, Micro Focus, Palo Alto, Red Hat, Cisco,

Microsoft, CA Technologies

#### 96. Velocis Systems Pvt. Ltd.

Name : ATUL BANSAL Designation: Co-Founder & MD

: Noida City

Website : www.velocis.in

Focus Verticals : Enterprise security, Unified Network and

communication and collaboration, Industry 4.0

solutions, Managed services and Datacenter.

**Key Vendors** :Cisco, Microsoft, IBM, Netapp, Commscope, Dell,

and HP

#### 97. Versatile Infosecurity Pvt. Ltd.

: SUDHIR SHARMA Name

Designation : Director

: New Delhi City

Website : www.vipl.co.in

Focus Verticals : Media, Education, Healthcare, Manufacturing,

Consulting

:Sophos, Trend Micro, Cisco, Barracuda, GFI, McAfee, **Key Vendors** 

F5, Riverbed

#### 98. VIBS Infosol Pvt. Ltd.

: VIBHORE SHRIVASTAVA Name

Designation: Co-Founder & MD : Mumbai

Citv

Website : www.vibsinfosol.com

Focus Verticals : Perimeter Security, End Point Security & Forensics,

Application Delivery Controllers, Infrastructure Optimization, Wireless Security, Audit Compliance, Enterprise Backup & Archival, Technology Consulting, Service Oriented Offerings

Key Vendors :Tuffin, Exinda, Winmagic, Sophos, Check Point, Dell,

HP, Cisco, Thales

#### Wysetek Systems Technologists Pvt. Ltd.

: CHERIAN THOMAS Name

Designation : Director : Mumbai City

Website : www.wysetek.com

Focus Verticals : IT/ITeS, Media, BFSI, Healthcare, Hospitality

:IBM, VMware, HPE, Dell EMC, Trend Micro, Veritas, Kev Vendors

Cisco

#### 100. Xpress Computers Ltd.

: CHETAN SHAH Name

Designation: MD City : Mumbai

Website : www.xpress.co.in

Focus Verticals : Education, Manufacturing, Media, Healthcare

:Inte, Microsoft, Google, Cisco, Netgear, D-Link, Kev Vendors

Symantec , Mcafee, Trend Micro, eScan, Ruckus

Wireless61

## ATMANIRBHAR BHARAT ABHIYAAN: 'MAKE FOR THE WORLD'



Atmanirbhar means 'self-reliant'. On May 12, 2021 Prime Minister Narendra Modi announced in his address to the nation an economic package of Rs 20 trillion to tide over the coronavirus crisis under the Atmanirbhar Bharat Abhiyan.

The economic crisis triggered by the coronavirus pandemic in 2020 gave birth to the Atmanirbhar Bharat Abhiyan. While the idea was first proposed by Prime Minister Narendra Modi, some of its features are similar to the Swadeshi movement launched on August 7, 1905, to take on the British regime of the time

Make in India is a major national programme of the Government of India designed to facilitate investment, foster innovation, enhance skill development, protect intellectual property and build best in class manufacturing infrastructure in the country. The primary objective of this initiative is to attract investments from across the globe and strengthen India's manufacturing sector. It is being led by the Department for Promotion of Industry and Internal Trade (DPIIT), Ministry of Commerce and Industry, Government of India.

PM Modi said the economic package would play an important role in making India 'self-reliant' and that it would benefit labourers, farmers, honest tax payers, MSMEs and the cottage industry. He said making the country self-reliant was the only way to make the 21st century belong to India.

Corporate India has a critical role to play in this story, not only by creating value by addressing key societal needs, but in supporting a vibrant entrepreneurial sector, additionally the strong support of the government to enhance newer developmental approaches. India has 504 million active Internet users and becomes the 3rd largest economy in the world with a size of US\$ 8.6 trillion by purchasing power parity (PPP) and is expected to rise to US\$ 20 trillion in size by 2025.

The focus of the Make in India programme is on 25 sectors. Indian IT firms have delivery centres across the world. The global sourcing market in India continues to grow at a higher pace compared to the IT-BPM industry. India is the leading sourcing destination across the world. In this section, "Made in India Brands", we have positioned technology companies who have not only made their products available in India but the world over. VARINDIA is saluting the companies for their role played in India's Winning Leap.







































































































#### **AERO 360**

- MARK VINCENT VILLAFLOR Name

Designation - Founder

Website - www.aero360.co.in

- The company builds state-ofthe-art High performance autonomous Drones Public Safety, Homeland Security & surveillance,

Industrial Survey & Inspections and Search & Rescue applications. The drones are designed to help professionals to cover larger areas quicker and safer.

#### AMARA RAJA POWER SYSTEMS LIMITED

- VIJAYANAND SAMUDRALA

Designation - CEO

Website - www.amararajapowersystems.

com

- Battery Chargers, LT Panels, **Products** C&R Panels, Integrated Power

Supply, PCB Assembly, Electronic products Assembly and Testing, Design and development of Power Electronic products, Magnetics Manufacturing and Power electronics

Systems Integration and testing.

#### **ALPHA MAX- AGGRESSIVE ELECTRONICS**

- ANIRUDH BHARARA Designation - Managing Director www.agressiveems.com Website

- Inhouse SMT, PCB Assembly, Box Products Build, Alpha Tablets, Power Bank

and cables, a leader in providing Contract Electronic Manufacturing Services in specialist high technology, high reliability sectors to customers who are market leaders in their

respective field.

#### **AMERICAN MEGATRENDS (AMI)**

Name - SANJOY MAITY

Designation - CEO

- www.amiindia.co.in Website

- Leader in Embedded Services. Products BIOS Customization & Porting,

Mobility, IP SAN/NAS Data storage solutions, Infrastructure

Asset Management, Telematics, IoT, Healthcare IT solutions, Platform Validation Services, Android

Services and Firmware developments.

#### **BEETEL TELETECH LIMITED**

- SANJEEV CHHABRA Name

Designation - Managing Director

Website - www.brightstarcorp.in **Products** 

- The product line including landlines and IoT solutions, under the iconic brand, Beetel. Landline and Modems, Data Cards, Memory devices, Mobile handsets, Enterprise solutions (Board room solutions, Voice & Data solutions and Network solutions), IT peripherals and distribution services.

#### **BHARAT ELECTRONICS LIMITED (BEL)**

- MRS ANANDI RAMALINGAM

Designation - Managing Director

Charge)

Website - www.bel-india.in

- It designs electronic voting Products

machines, Voter-verified paper audit trail, Traffic signals, Radars. BEL Weapon Locating

Radar. BEL Battle Field Surveillance Telecommunications, Sound and

broadcasting and Opto-electronics.

#### BEML LTD.

- M V RAJASEKHAR

Designation - Chairman & Managing Director

Website - www.bemlindia.in

**Products** 

- BEML is India's leading defence equipment manufacturer and also leading Mining & Construction

Equipment manufacturer, BEML comprehensive and diverse range of mining machinery for both opencast and underground

#### **BUSY INFOTECH PVT. LTD.**

- DINESH KUMAR GUPTA

Designation - Managing Director

- www.busy.in Website

- Accounting Software. **Products** Inventory Software and billing software. The company is the

developer of BUSY, integrated accounting and management

software for MSMEs. BUSY is offered in four different editions mainly Express, Basic, Standard

and Enterprise for different businesses.

#### C-DOT (CENTRE FOR DEVELOPMENT OF TELEMATICS)

- DR RAJKUMAR UPADHYAY Name

Designation - Executive Director Website www.cdot.in

**Products** - Optical solutions including GPON, switching and routing solutions, Set-Up Box, 4G LTE,

Broadband wireless terminal, ATM, circuit switches, Rural Broadband Wireless Solutions, Terrestrial & Satellite, Shared GSM Radio Access Network, Switching and Routing solutions and Next Generation Networks.

#### CITADEL INTELLIGENT SYSTEMS PVT. LTD.

- K K SHETTY Designation - Managing Director

- www.cintellisys.com Website

- Citadel **Products** brings Interconnectivity solutions for Aerospace, Defence & Marine

Communication & Surveillance networks; Telecom Networks (FTTA, FTTx, GPONs); Hyperscale & Enterprise Data Center

networks.







#### C P PLUS INDIA PVT. LTD.

- ADITYA KHEMKA Designation - Managing Director - www.cpplusworld.com Website

**Products** - Offers a range of advanced security and surveillance solutions to meet the ever-changing requirements of different industries.

The company serves many different verticals comprising defence, government, hotels, hospitals, educational institutes, homes, infrastructure, and transportation among others.

#### **DESKERA INDIA**

- SHASHANK DIXIT Name

Designation - CEO

**Products** 

Website www.deskera.com

> - Integrated ERP, CRM, HRMS, Project, Auto Invoice Generation and education cloud, it is an integrated cloud-based suite to support the start-up ecosystem.

The company offers three main product modules that optimize all the critical needs of a small

business.

#### **DIGISOL SYSTEMS LTD**

Name - KRNAIK

Designation - Executive Chairman

Website www.digisol.com **Products** 

- Router, switching solutions for Enterprise Networks and structure cabling solutions. It also provides Smart PoE Managed,

Fully Managed, Chassis & Unmanaged switches. Digisol's Switching Solutions offers includes wide range of Industrial Switches & Transceivers.

#### **DRONES TECHLAB**

- BISWAJIT DEY

Designation - CEO

- www.dronestechlabs.com

- Based out of Kolkata, the company is dealing with Surveillance Drones, Agricultural Drones, Survey & Mapping Drones and

Drone based services, Drone Software and Drone Components. Being a service provider, they have gained expertise in offering Drone Manufacturing, Aerial Photography, Surveillance Drone and Digital Photography services to the customers.

#### **DRUVA SOFTWARE**

- JASPREET SINGH Name

Designation - Founder & CEO Address

- The pavilion, 8th & 9th Floor, The Pavilion, Senapati Bapat Rd, Model Colony, Shivajinagar, Pune, Maharashtra 411016

Website - www.druva.com

**Products** 

- Data Protection, Endpoint, back-up and Archival, Cloud data protection, Cloud App Backup and secure File Access, Data loss prevention and

Enterprise security etc.

#### ESCAN- MICROWORLD SOFTWARE SERVICES PVT. LTD.

- GOVIND RAMMURTHY Name Designation - CEO & Managing Director

- www.escanav.com Website

- eScan Anti-Virus. **Products** 

Universal Security Suite (Multidevice License) eScan Anti-Virus Security for Mac. eScan Anti-Virus for Linux Desktops.

eScan Mobile Security for Android. eScan Tablet Security for Android. eScan Internet Security

Suite (Version 11).

#### **EXIDE INDUSTRIES LTD.**

- GAUTAM CHATTERJEE

Designation - CEO & MD

Website - www.exideindustries.com **Products** 

Automotive **Batteries** (Four-Wheeler Ratteries Three-Wheeler Batteries Batteries. Two-Wheeler

E-Ride Batteries), BatMobile, Industrial Batteries, Genset Batteries, Solar Batteries, Inverter Batteries, Submarine Batteries, Home UPS System, E-Rickshaw Vehicles

and EXIDE Neo.

#### FINOLEX CABLES LTD.

- DEEPAK CHHABRIA Name

Designation - Managing Director www.finolex.com Website

- PVC insulated electrical cables, **Products** 

Flameguard-FRLS cables. PVC winding wires, Jelly filled telephone cables, PVC foam sheets,

CFL, PVC single core flexible cables and PVC

corrugated sheets.

#### **HAVELLS INDIA LTD**

- ANIL RAI GUPTA Name Designation - Chairman & CEO

- www.havells.com Website

**Products** 

- Havells India is a Fast Moving Electrical Goods (FMEG) with wide spectrum of products, including Industrial & Domestic Circuit Protection Devices, Cables & Wires, Motors,

Fans, Modular Switches, Home Appliances, Air Conditioners, Electric Water Heaters, Power

Capacitors etc.

#### **HCL TECHNOLOGIES**

- C VIJAYAKUMAR Name

Designation - CEO

Website - www.hcltech.com

Products: HCL Software products on a cloud, Dryice, Banking Transformation Platform and Industry Software. It

helps enterprises reimagine their businesses for the digital age. HCL provides modernized software products to global clients for their technological

and industry-specific requirements.







#### HFCL- HIMACHAL FUTURISTIC COMMUNICATIONS LTD

- MAHENDRA NAHATA Name

Designation - CEO

- www.hfcl.com Website

- Indian **Products** manufacturer optical fiber cables, optical transport, power electronics

and broadband equipment for the telecommunication industry. The Company has

state of the art modern production facilities at Solan (Himachal Pradesh), Goa, and Chennai (Tamil Nadu) and caters to both Indian and

global markets

#### **INFOSYS**

- SALIL PAREKH Designation - CEO & MD - www.infosys.com

- Global leader in next-generation digital services and consulting, Finacle is a core banking product developed by Infosys that provides universal Digital banking functionality to banks, that includes direct banking solution, Mobile Banking Solution, Rural Banking Solution, GST Technology, Payments Solution, Panaya Cloud Suite Skava and Infosys SocialEdge Solution.

#### **ITI LIMITED**

- RAKESH MOHAN AGARWAL Name Designation - Chairman & Managing Director

- www.itiltd-india.com Website

Products - Switching, Transmission (Satellite, Optical, Microwave, VHF /UHF), Broadband Equipment (ADSL, WiMAX, G-PON, EDW AS), Customer Premises Equipment, (IFWT, ADSL Modem,

CLI Phones), GSM-FCT (Fixed Cellular Telephones), WiMAX CPE, Smart energy meters, Mini personal computers, 3D Printing, Bank automation products.

#### GAJSHIELD INFOTECH INDIA PVT LTD.

- SONIT JAIN Designation - Founder & CEO - www.gajshield.com

- Firewall, Features, CMS, Virtual **Products** Firewalls, nu/dc Series Data

Security hardware appliances are purpose-built with the latest multi-core Intel

technology, generous RAM provisioning, and

solid-state storage.

#### IDEA FORGE TECHNOLOGY PVT. LTD.

- ANKIT MEHTA Designation - Co-Founder & CEO www.ideaforge.co.in Website

- Ryno UAV, Megaphone Drone, Products Ninja UAV, Q Series UAV, Netra

V Series UAV, Netra Pro UAV and

Switch UAV

#### INTUIT TECHNOLOGY SERVICES PRIVATE LIMITED

- SAURABH SAXENA Designation - VP and India Site Leader

Website www.intuit.com

QuickBooks, Products - Intuit Intuit Money Manager, Payroll and

small Business Center. TurboTax, ProConnect, and provides Personal Finance

Management Solutions in India.

#### JIO INFOCOMM LIMITED

- SUNIL DUTT Name

Designation - President - Devices

- www.jio.com Website

- Operator of a national LTE Products network with coverage across all

22 telecom circles. The company Giga offers Jio Giga Fiber, Jio Vo Wi-Fi, Jio TV, Smart Phone, JIO 5G and Enterprise solutions,

4G/5G gear and many more.

#### KRATIKAL TECH PVT. LTD.

- PAVAN KUSHWAHA Designation - Co-founder & CEO - www.kratikal.com Website

Products Threatcop, KDMARC, Threat Alert button, KPMonitor, provider of security solutions including cyber attack simulation and awareness tool, email authentication and anti-spoofing solution; anti-phishing, fraud monitoring & take-down solution; phishing incident response, Risk detection & threat analysis and code

risk review.

#### LAVA INTERNATIONAL LTD.

- HARI OM RAI Name

Designation - Chairman & Managing Director

Website - www.lavamobiles.com

- Maker of Smart Phones, Feature **Products** Phones, Tablet & Accessories,

the only Mobile handset company that makes truly "Make in India" phones with complete control on design and

manufacturing within India.

#### LUMINOUS POWER TECHNOLOGIES (P) LTD.

- VIPUL SABHARWAL Designation - Managing Director

Website - www.luminousindia.com

Products - Maker of sustainable and energy efficient products builds Home UPS, Batteries, UPS, Fans, Clear

Modular Switches, Wires, Solar Power Products and on-line UPS. A powerful and trustworthy brand with a wide range of innovative products

in the power backup,

























#### **TECHMAHINDRA LIMITED**

- C P GURNANI Designation - MD & CEO

 www.techmahindra.com Website

- Tech Mahindra has built Products pioneering systems, processes, and solutions, for enterprise clients across the globe. It provides information technology (IT) and business process outsourcing (BPO) services, introducing TechM NXT. NOW, Counterfeit Detection, and Smart IOT Devices. TechMNxt is a strategic transformation approach, powered by disruptive technologies, non-linear growth with platforms, collaborative disruption with new age partners, and FutureSkilling

#### MATRIX COMSEC PVT. LTD.

- GANESH JIVANI Name Designation - Managing Director Website www.matrixcomsec.com

- Matrix has launched cutting-Products edge products like Video

> Surveillance Systems - Video Network Management System, Recorder and IP Camera, Access Control and Time-Attendance Systems as well as Telecom

Solutions.

#### **MICROMAX INFORMATICS LTD**

Name - RAHUL SHARMA Designation - Co-Founder

Website

**Products** 

- www.micromaxinfo.com

- India's home grown consumer electronics brand, makes SmartPhones, Mobile Phones, LED TV, Monitors, Tablets, laptops

and consumer electronics. The company offers affordable innovations through their product offerings and removing barriers for large scale adoption of advanced technologies.

#### MICROTEK INTERNATIONAL PRIVATE LTD.

- SUBODH GUPTA Designation - Managing Director

- www.microtekdirect.com Website

- Interactive UPS, Online UPS, Products Digital and Sinewave Inverters, UPS EB batteries, UPS E2, UPS

24x7, Hi-end Inverter Series, Home

inverter, External battery UPS and voltage

stabilizer.

#### NUMERIC POWER SYSTEMS LTD.

- PALASH NANDY Name

Designation - CEO

- WWW.NUMERICUPS.COM WEBSITE

PRODUCTS - UPS SYSTEMS (LI SW SERIES, LI SERIES, 600 EX), HOME POWER PRODUCTS (HPH HR SERIES), SPECIAL POWER SYSTEMS (VOLT SAFE, ISO SAFE), THREE PHASE UPS AND MODULAR UPS. The company enabling its clients to optimize their business with top notch power solutions that promise seamless and clean

power with controlled environmental footprints.

#### **PAYTM- ONE97 COMMUNICATIONS LTD**

- VIJAY SHEKHAR SHARMA Name

Designation - Founder & CEO Website - paytm.com

Products Pavment systems, digital wallets, mobile payments,

banking, Paytm Money, Paytm First Games, Paytm Insurance and online shopping. The company is enabling innovations

to Financial services & products.

#### QUICK HEAL TECHNOLOGIES (P) LTD.

- KAILASH KATKAR Designation - Chief Executive Officer

- 603, Mayfair Address Towers-II, Wakdewadi, Shivajinagar, Pune

- 411005

- www.quickheal.co.in Website **Products** 

- Simplified IT security solutions including, Quick Heal Total security, Quick Heal Internet security, Quick Heal Antivirus Pro, Quick Heal Total Security for Mac, Quick Heal Anti Virus for Server, Quick Heal Total Security for Android, Quick Heal Mobile Security.

**RAMCO SYSTEMS LIMITED** 

- VIRENDER AGGARWAL

Designation - CEO

Website - www.ramco.com

- Aviation, Aerospace & Defense Maintenance, Repair and Overhaul, Maintenance & Engineering, Defense Asset Management, Flight

Operations, Fleet Technical Management, ERP, Enterprise Asset Management, Production. Finance, Supply Chain Management, Project Management, Global Payroll & HR, Payroll Software, Managed Payroll Services, Core HR, Time & Attendance, Oracle

HCM Integration, Pandemic Control System etc.

#### RDP WORKSTATIONS PVT. LTD.

- VIKRAM REDLAPALLI Name Designation - Founder & CEO - www.rdp.in Website

**Products** - Laptop (ThinBook, ThinBook

1110, 2-in-1 Detachable Laptops), Tablets (Ultra Slim Tablets, Gravity Tablet PC's), Thin Clients (Zero Clients), Desktops (Commercial Desktop PC)

#### SECLORE TECHNOLOGY PVT. LTD.

- VISHAL GUPTA Name Designation - Founder and CEO Website - www.seclore.com

**Products** - Secure Enterprise Digital Rights Management and Transforming Right Management, that includes

data Protection, Data Privacy, Cloud data Security

and securing remote workers.







#### **SECUREYE**

Name - MANOJ GUPTA
Designation - Managing Director

Address – D-1/2, Okhla Industrial Area,

Phase-II, New Delhi-110020

Website - www.secur-eye.com

Products - Deploys Analogue CCTV, IP Camera,

Biometric Products, Access Control, Home Automation and Video Door Phones etc. Upgrades security & surveillance domain with FALCON & IBIS series of CCTV Cameras with outstanding features and specifications where as the Wi-Fi based cameras.

#### STERLITE TECHNOLOGIES LTD.

Name - DR. ANAND AGARWAL

Designation - GROUP CEO
Website - www.stl.tech

Products - Specialized in optical fiber and

cables, hyper-scale network design, and deployment and

network software and offer bespoke integrated solutions for global data networks of CSPs, Telcos

and OTTs.

#### TALLY SOLUTIONS (P) LTD.

Name - **TEJAS GOENKA**Designation - Managing Director

Address - 331 336, Raheja Arcade, Koramangala Industrial Layout,

5th Block Koramangala,

Bengaluru, 560095
Website - www.tallysolutions.com

Products – Recently launched tally Prime, Tally Prime Server, Shoper 9 and Powerful Business Management Software for your growing business. Tally. Server 9. Enterprise Class Product to

improve your business efficiencies.

#### TATA CONSULTANCY SERVICES

Name - RAJESH GOPINATHAN

Designation - Managing Director

Address - 4th & 5th Floors, PTI Bldg, 4 Parliament St, New Delhi -110

001

Website - www.tcs.com

Products - TCS Solution Business Process as a

Service (BPaaS), Business 4.0, TCS Ion, Chroma, Quartz- The smart ledger, ERP on cloud, TCS BFSI Platforms and on-demand, ready-to use, cloud-based delivery model. Digitization solutions leveraging our TRAPEZE™ suite of solution accelerators and

transformation solutions.

#### **TEJAS NETWORKS LTD.**

Name - SANJAY NAYAK

Designation - CEO & MD

Address

 Plot No. 25, JP Software Park, Electronics City, Phase-1, Hosur Road, Bangalore - 560 100

Website - www.tejasnetworks.com

Products – Converged packet optical, POTP (packet optical transport platform), PTN, MSPP, Carrier ethernet, DWDM, GPON based fiber broadband access. Applications. Carrier of carriers. 5g mobile backhaul, Fronthaul AND Utility communications.

#### TVS ELECTRONICS LIMITED

Name - **SRILALITHA GOPAL** Designation - Managing Director

Website – www.tvs-e.in

Products – Dot Matrix Printers, Point-ofsale terminals (Electronics cash register, Barcode scanners, Receipt

printers), keyboards, mouse, Barcode Scanner, Thermal receipt Printers, Keyboards and Mice, Touch pos systems and specialty printers.

#### **VERSA NETWORKS**

Name - **KELLY AHUJA** 

Designation - CEO

Website – www.versa-networks.com

Products – Versa SASE, ZTNA, SWG, RBI,

CASB, NGFWaaS, SD-WAN, Routing, Analytics, Deployment

Options, Multi-tenancy, Automation, SASE Components, Endpoints, Appliances, Control &

Management, Cloud Gateways

#### **WIPRO-CBS**

Name - **RISHAD PREMJI**Designation - Chairman
Website - www.wipro.com

Products - Core Banking Solution to Computerize Banks and Help Them Provide the Latest e-banking Facilities to Rural Customers in

Remote Areas of the Country, Digital Core Banking, Core Banking As-a-Service and specialised into managed services, Mobility, IoT, Open sources, Business process and Analytics.

#### ZICOM ELECTRONIC SECURITY SYSTEMS LTD.

Name - **PRAMOUD RAO**Designation - Managing Director
Website - www.zicom.com

Products - Specializes in e

 Specializes in electronic security technology, as well as designing, manufacturing, distribution, sales and service support for a full-line of innovative CCTV and video surveillance products

and solutions.

and solutions

#### 50. ZOHO CORPORATION PVT. LTD.

Name - SRIDHAR VEMBU

Designation - CEO Website - www.z

Website – www.zoho.com Products – The operatin

ucts - The operating system for business, E-mail & Collaboration, Zoho One, Zoho CRM Plus, Zoho Workplace, Zoho Finance Plus,

Zoho IT Managemnet, Business process, Zoho Enterprise Business Solutions (EBS) is an end-to-end consulting and ManageEngine Products.







## Unlocking The Potential Of Digital Transformation Through 5G

5G network is the perfect backbone for IoT—supporting increase in device numbers, facilitating growing data transfers, and improving response time among connected devices.



## **INDIAN ORIGIN TITANS IN THE**

We are familiar with the names like Google's parent company Alphabet CEO Sundar Pichai or Microsoft CEO Satya Nadella, who are Indian in origin technology leaders leading the two most important technology companies of the world. But apart from these two executives, there are few more India born leaders who with their abilities, capabilities, hard work etc. have reached the pinnacle and made us proud as an Indian with their achievements irrespective of the verticals. Let's take a look at the most important executive leaders who are Indian in origin.



#### AJAYPAL SINGH BANGA Executive Chairman, Mastercard



Padma Shri awardee, Ajaypal Singh Banga is an Indian-American business executive. At present he is the Executive Chairman of the Board of Directors of Mastercard. Before this, he served the company as President and CEO. He served as a member of President Obama's Commission on Enhancing National Cybersecurity.

He is a past member of the U.S. President's Advisory Committee for Trade Policy and Negotiations. He is a graduate of Delhi University and the Indian Institute of Management, Ahmedabad.



#### AJIT JAIN Vice Chairman, Berkshire Hathaway



Ajit Jain, an Indian American executive, is the Vice Chairman of Insurance Operations for Berkshire Hathaway.

He started his career as a salesman in IBM for their data-processing operations in India. He was also associated with McKinsey & Co. In 1986 he joined Berkshire Hathaway. He holds an MBA degree from Harvard University.



#### AMAN BHUTANI CEO, GoDaddy









In 2019, Aman Bhutani joined GoDaddy as CEO. Before joining GoDaddy, he served Expedia. He held different senior positions there. Bhutani did his bachelor's degree from Delhi University and MBA from Lancaster University.



With Dave Duffield, the founder of PeopleSoft, Aneel Bhusri co-founded Workday in 2005. Earlier he held positions at PeopleSoft. He has a bachelor's degree from Brown University and completed his MBA at Stanford University.



**ANJALI SUD** CEO, Vimeo







Anjali Sud holds the position of Vimeo's CEO and she has been serving this position since 2017. Vimeo is an open video platform. Prior to this she has worked with Amazon and Time Warner. She holds an MBA from Harvard Business School.



In 2018 Anirudh Devgan was appointed as President of Cadence Design. He was also associated with Magma Design Automation and IBM. He has a bachelor's degree from the Indian Institute of Technology, Delhi, and did his master's and PhD from Carnegie Mellon University.



ARVIND KRISHNA





An Indian- American business executive, Ashok Vemuri is Chairman of the Board at OSG Connect. He also holds the position of Board of Director for Financial Policy and Public Responsibilities at Kroger. Prior to this he was associated with IGATE and Conduent as CEO. He has done PGDM from IIM, Ahmedabad.

**ASHOK VEMURI** Chairman of the Board at OSG Connect



Arvind Krishna is associated with IBM for almost 30 years and played several senior-level positions in the company. He became the CEO of the company in 2020. Arvind is an electrical engineer from IIT Kanpur and completed his PhD from the University of Illinois at Urbana-Champaign.





JAYASHREE ULLAL president and CEO, Arista Network



George Kurian in the year 2015 took up the position of CEO and President of NetApp. Before NetApp, he also served companies like Cisco Systems, Akamai Technologies and McKinsey & Company. He holds a bachelor's degree in electrical engineering from Princeton University

and went on to receive his MBA from Stanford University.



Since 2008, Arista Networks has been under the able leadership of Jayshree Ullal. She is the President and CEO of the company. Ullal led the company to IPO on the New York Stock Exchange in 2014. Apart from Arista, she has also served companies like Cisco and AMD. She studied BS in electrical

engineering from San Francisco State University and completed her master's in engineering management from Santa Clara University.

## **ELM OF GLOBAL TECH INDUSTR**



#### LAXMAN NARASIMHAN CEO. Reckitt Benckiser



**NIKESH ARORA** CEO. Palo Alto Networks





Laxman Narasimhan presently assumes the position of CEO at Reckitt Benckiser. Earlier, he was associated with PepsiCo and held various roles. He was previously Global Chief Commercial Officer, with responsibility for R&D, categories, e-commerce, design, go-to-market, global customers and strategy.

He holds a degree in Mechanical Engineering from the College of Engineering, Savitribai Phule Pune University and did his MBA in Finance from the Wharton School at the University of Pennsylvania.



In 2018, Nikesh Arora became the CEO of Palo Alto Networks. Before this, he served Google and Soft Bank. He has a bachelor's degree from the Institute of Technology at Banaras Hindu University, MBA from Northeastern University, and master's of science from Boston College.



#### PARAG AGRAWAL CTO, Twitter







From 2011, Parag Agrawal was positioned as Chief Technology Officer of Twitter. Before joining Twitter, Parag was associated with Microsoft, AT&T and Yahoo's research teams. He holds a bachelor's degree from Indian Institute of Technology, Bombay.



Revathi Advaithi is the CEO of Flex Ltd., an American Singaporean-domiciled multinational electronics contract manufacturer. She became CEO in the year 2019. Earlier, she was associated with Eaton's electrical sector business as the President and COO. She holds a degree from the Birla Institute of

Technology and Science, Pilani, and MBA from the Thunderbird School of Global Management.



#### SAMIR KAPURIA President, NortonLifeLock









Samir Kapuria holds the position of President at NortonLifeLock. In 2004, he got associated with Symantec and was also head of the company's Cyber Security Services business including its global security operations centers. He has done his bachelor's degree in Finance from the University of Massachusetts.



After Steve Ballmer, Satya Nadella became the CEO of Microsoft in February 2014. He started his career with Microsoft in the year 1992 as a developer of Windows NT operating system. He did his engineering at Manipal Institute of Technology and did MS from

the University of Wisconsin-Milwaukee, and MBA

from the University of Chicago Booth School of Business.



SHANTANU NARAYEN CEO, Adobe



SIVA SIVARAM





Shantanu Narayen, the CEO of Adobe joined the company in the year 1998 as the Senior Vice-President of Worldwide Product Research. He took over as COO in the year 2005 and became CEO in 2007. Prior to Adobe, he was associated with Apple and Silicon Graphics. He is a Bachelor of Science from

Osmania University, an MBA from the University of California, Berkeley, and an MS from Bowling Green State University.



President, Western Digital

Siva Sivaram holds the position of President at Western Digital. Before this, he worked at Intel, Matrix Semiconductors and Sandisk. From 2008 to 2012, he founded and served as CEO of Twin Peaks Technologies. Sivaram received his bachelor's degree from the National Institute of Technology, Triuchi. He did his master's

and doctorate degrees from the Rensselaer Polytechnic Institute.



STEVE SANGHI CEO and Chairman, Microchip Technology



SUNDAR PICHAL CEO, Alphabet



Microchip Technology was founded in 1989 by Steve Sanghi and he assumed the position of CEO in 1991. He was also associated with Intel. Sanghi holds a bachelor's degree from Punjab University and completed his master's in Electrical and Computer Engineering from the University of Massachusetts.



In 2019, Indian origin techie Sundar Pichai became the CEO of Alphabet Inc., the parent company of Google. He also became the Google head in August 2014. He has served the company for more than 15 years and he spearheaded key businesses like Android, Chrome, Maps, and more. He did his BTech from IIT

Kharagpur, MS from Stanford (MS) and MBA from Wharton.







In 2019, Thomas Kurian assumes the position of Chief Executive Office of Google Cloud. Prior to this, he was associated with Oracle and served the company for 22 years. He led product development as a Member of Oracle's Executive Committee for 13 Years. He also led a 35,000-person software development team in 32 countries; 53 cities; R&D Budget of \$4.0 Billion for Oracle. He holds a Bachelor's degree in Electrical Engineering and Computer Science from Princeton University. He also has a master's degree in Business Administration from Stanford University Graduate School of Business.



With sophisticated & complex technologies, the role of CIO is increasing importantly with popularity

OF THE ROLE

OF A CIO

Digital transformation is the integration of digital technology into all areas of a business, as more and more companies undertaking the journey of digital transformation, the role of the CIO has become critical. The increased demand for experienced IT leaders has made the space extremely dynamic.

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