OYO GOES DIGITAL WITH CRM TO ENHANCE USER EXPERIENCE p. 30

SASKEN – TRANSFORMING FROM 'CHIP TO COGNITIVE' p. 32

BLOCKCHAIN IS THE NEW PROTOCOL FOR 'TRUST' p. 48

₹100

VOL XXXV No 3 I MARCH, 2017

www.dqindia.com

DATAQUEST

CyberMedia

THE BUSINESS OF INFOTECH

VIRTUAL REALITY IS THE NEW REALITY

VR has finally broken the jinx and promises a whole new dimension to customer experience

p. 16

Vehere: Striving for a Safer World

Vehere has strongly emerged in the communication intelligence and cyber defence space.

76 pages including cover

Special Subscription offer on page 60

HUAWEI BIG DATA – SMARTER DATA FOR SMARTER ENTERPRISES

We provide new insights into the way enterprise processes data. Not only are we dealing efficiently with large-scale data mining, we are also optimizing the value of Big Data to help enterprises explore the Blue Ocean opportunities.

For more information, please visit e.huawei.com

For business enquiries, e-mail us at web-ebg@huawei.com

POWERED BY FusionInsight

LEADING new ICT THROUGH BIG DATA

Brightstar™

Technology makes business simpler

We make technology simpler

Brightstar Telecommunications brings you the most innovative and leading technology in business collaboration, voice and video conferencing, unified communications & collaboration, networking & enterprise-grade signages and displays.

OUR PARTNERS

Polycom · AVAYA · SAMSUNG · Panasonic · UNIFY · AMX by HARMAN · Extron

OUR USPs

Pan-India Presence | Design Support | Best Prices | Credit Facility | Multi-Location Billing | Global Deliveries

Brightstar Telecommunications India Limited
With this #InvisiblePartner, you'll always enjoy full support.

enterprisesales@beetel.in +91 124 4823500 brightstarcorp.in
Brightstar Corporate Center, First Floor, B Wing, Plot no.16, Udyog Vihar Phase IV, Gurgaon 122 001, Haryana

Brand Bazooka

CONTENTS

TALKING POINT

Change can open a world of Opportunities

—AMANDEEP SINGH DANG,
Country Manager, Dell Networking, Dell EMC

OYO Goes Digital with CRM to Enhance User Experience

—VISHAL JAIN
Vice President of Growth and Marketing at OYO Rooms

Analytics-as-a-Service is delivered in a centralized off-prem mode

—KAUSHAL MODY
Global Director for Delivery Excellence and Innovation, Accenture

Blockchain is the new protocol for 'trust'

—ROHAN ANGRISH
CTO, Capital Float

10 I
COVER STORY

Virtual Reality is the New Reality

VR has finally broken the jinx and is changing all norms in the tech space. It is likely to grow exponentially as it promises a whole new dimension to customer experience

CONTENTS

INDUSTRY

16 On its Path of Making a Safer World

20 Impact of IT4IT–Reshaping the Future of IT as a Business

32 Sasken – Transforming from 'Chip to Cognitive'

36 Digital India takes the Center Stage in Union Budget 2017-18

38 Aadhaar Card Accelerating the Digital India Drive

45 Enhance Robotic Process Automation Potential with Machine Learning

50 Sify-Cisco CIO Meet Highlights 'Digital Transformation' in a 3-City Event

INDUSTRY

54 Digital Perspective on India's Security Interests

58 Re-imagining E-waste for a Faster #DigitalIndia

62 Caparo Group CIO Bets Big on Security for Mobile Wallets

64 8 Faces of Indian IT

72 How Microsoft Strengthened its CRM Footprint in India

ENTERPRISE

27 BJP's App Lets Workers and Others Know Everything

REGULAR

06 Edit

07 DQ Team

08 **Om Tech**

09 **Short Takes**

Ed Nair
ednair@cybermedia.co.in

The New Rules for the **Indian Tech Industry**

Nasscom's annual leadership summit, Nasscom India Leadership Forum (NILF), is the Indian tech industry's version of the kumbhmela. In its 25th year, NILF 2017, kicked off to very muted and guarded sentiments compared to NILF standards in the past. The mood at Nasscom has always been the barometer of the Indian tech industry's sentiments.

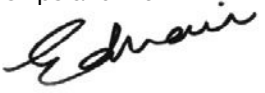
The sentiments are reflective of the waves of uncertainty, the pains of growth, and the specter of technology change and business model evolution that the industry is beset with.

NILF usually kicks off with a review of the market performance in the past year and pronouncement on the outlook of the impending year, complete with a numerical forecast on the industry's growth. This year, the forecast or guidance (as it is called in Wall Street lingo) was missing. Senior officials said that Nasscom had revised its outlook the past November and considering the uncertainties and complexities of the situation they felt that some more time is needed to present the outlook for the next year.

Not that it really mattered much, except that journalists seemed disappointed at not getting their staple feed of numbers they had gotten used to. But the numbers do matter in terms of its impact on the stock prices of IT stocks, market valuation, and the overall buzz about the industry. The point here is that the subjective story this year was more important than the objective facts.

Based on the discussions at the event, here are a few pointers that describe the new context and content for this industry:

- The industry needs to reskill rapidly in response to emerging technologies like IoT, VR, AI, robotics/automation, blockchain, and analytics. Nearly 2 million people would need to be reskilled in the next two years.
- A Nasscom-BCG study states that 55 new job roles would emerge and 155 new job skills are needed.
- Traditional outsourcing market is on the decline. Growth drivers are BPM, products, new technologies, and platforms.
- We are on the cusp of a great digital buildout that would be larger in scale and impact that the industrial buildout in the past century.
- The tech industry needs a total reimagining in terms of new skills, new price points, new sales models, new methods, and new delivery models.
- McKinsey recommends that the Indian tech industry pay attention to the following five things: create new service lines and solutions, invest in new capabilities, create 3-in-1 organization that is capable of executing across three types of businesses— mature declining business, businesses that are growing 5X, and future business, create the next generation of talent stream, and explore opportunities through partnerships and M&A.



Ed Nair
Group Editor-ICT Business

DATAQUEST

THE BUSINESS OF INFOTECH

EDITORIAL

EDITOR AND GROUP EDITOR: **Ibrahim Ahmad**
GROUP EDITOR - IT BUSINESS : **Ed Nair**
GROUP EDITOR - SPECIAL PROJECTS: **Rajneesh De**
OPERATIONS EDITOR: **Onkar Sharma (Gurugram)**
ASSOCIATE EDITOR: **Shrikanth G (Chennai)**
SENIOR ASST EDITOR: **Smita Vasudevan (Bengaluru)**
ASST EDITOR: **Tanya Jain**
CORRESPONDENT: **Malavika Sacchdeva, Sarabjeet Kaur**
MANAGER DESIGN & COVER DESIGN: **Vijay Chand**
MANAGER DESIGN: **Digamber Prasad**

SR VICE PRESIDENT
Rachna Garga (rachnag@cybermedia.co.in)

SALES

NORTH
GENERAL MANAGER: **Harminder Singh, Vandana Chauhan**
MANAGER: **Sudhir Arora, Shoeb Khan**

WEST
GM SALES : **Rajeeb Banerjee**

SOUTH
ASST. MANAGER: **Aparna Tawde**

EAST
SENIOR MANAGER: **Sandeep Roy Chowdhuri**

Marketing & Alliances
SR. VICE PRESIDENT: **Rachna Garga (rachnag@cybermedia.co.in)**
ASST. MANAGER MKTG: **Rajiv Pathak**

Events, Online & Communities
SENIOR MANAGER: **Debabrata T Joshi**
ASST. MANAGER: **Prerna Chauhan**

Operations
GENERAL MANAGER: **CP Kalra**
MANAGER MIS & DATABASE: **Ravi Kant Kumar**
MANAGER: **Ashok Kumar**

Shared Services
HEAD: **Dhaval Gupta**
PRINT SERVICES: **Joydev Chatterjee**
CIRCULATION & SUBSCRIPTION:
C Ramachandran,
Raju Salve
SR MANAGER AUDIENCE SERVICE: **Sarita Shridhar**
SR PRESS COORDINATOR: **Harak Singh Ramola**

OFFICES

GURUGRAM (Corporate Office)
Cyber House
B-35 Sector-32, Gurugram,
Haryana – 122 001
Tel: 0124 - 4822222, Fax: 0124 - 2380694

BENGALURU
205-207, Sree Complex (Opposite RBANMS Ground)
73, St John's Road, Bangalore – 560 042
Tel: +91 (80) 4341 2000, Fax: +91 (80) 2350 7971

CHENNAI
5-B, 6th Floor, Gemini Parsn Apartments
599 Mount Road, Chennai 600 006
Tel: 044 – 28221712, 28229116, 28220360, Fax: 044 – 28222092

KOLKATA
23/54, Gariahat Road, Ground Floor
Near South City College, Kolkata – 700 029
Tel: 033 – 65250117/18, 65341101, 40012906

MUMBAI
103, Andheri Saurabh CHS,
Above Andhra Bank, Andheri Kurla Road,
Andheri (East), Mumbai 400093

PUNE
C/o MM Activ Sci-Tech Communications
Ashirwad, 1st Floor, 36/A/2, Pallod Farms,
Near Bank of Baroda, Baner Road, Pune - 411045

INTERNATIONAL
Cyber Media (Singapore) Pte Ltd
#14-03, High Street Centre, 1 North Bridge Road,
Singapore – 179 094 Mobile: +91 9945723607,
Fax: 00 – 63369145, Email: roshans@cybermedia.co.in

CALIFORNIA
Huson International Media
President, 1999, South Bascom Avenue, Suit 1000,
Campbell, Ca95008, USA
Tel: +1-408-879 6666, Fax: +1-408-879 6669

Dataquest (not affiliated with Dataquest Inc., a division of Gartner Group, USA), is printed and published by Pradeep Gupta, on behalf of Cyber Media (India) Ltd, printed at M/s Karan Printers, F 29/2, Phase II, Okhla Industrial Area, New Delhi, published at D-74, Panchsheel Enclave New Delhi 110017, India. Editor Ibrahim Ahmad. Distributors in India by IBH Books & Magazines Dist. Pvt. Ltd, Mumbai.
Subscription (Inland): ₹2900 (24 issues), ₹3000 (48 issues)
Subscription (Foreign): US $145 (SAARC Countries), US $75 (Rest of the world) By Airmail.
(For subscription queries contact : rsedqindia@cybermedia.co.in)

Dataquest does not claim any responsibility to return unsolicited articles or photographs unless accompanied by adequate returnpostage.
All rights reserved. No part of this publication may be reproduced by any means without prior written permission from the publishers.

Onkar Sharma
onkars@cybermedia.co.in

Onkar Sharma
Operations Editor

Virtual Reality Spells Magic **on Indian Enterprises, Too**

That Indian enterprises are using virtual reality comes as a pleasant surprise to me. In my conversations with a bunch of CIOs from companies such as PNB MetLife, Asian Paints, etc, I discovered how these companies have successfully identified their addressable audience (a challenge for many) for technologies like virtual reality, augmented reality and artificial intelligence. PNB MetLife has a working VR product aimed at enhancing customer experience. Similarly, Asian Paints has manifested leadership and exploring for options to embrace VR as it believes that VR will exponentially enhance the customer experience. Customers would be transported to actual rooms painted with its range of products.

It is hard to forget Volvo's experiment with VR late last year when it started VR test drive for the new SUV in the US. Customers could actually feel and experience the drive. Volvo's experiment manifests how well the automobile industry can leverage VR. Combined with AI and AR, it can take the customer experience to the next level. In the first place, seen as a marketing and advertising tool, VR is expected to save billions of dollars otherwise spent on creating and recreating physically testing products and services.

With limitless usage, VR is set to revolutionize other industries such as real estate, interior design, home décor, e-commerce, retail and healthcare, etc in a big way. I have had the opportunity to witness innovation earlier in San Jose in a conference where start-ups from across the world had come to showcase their products.

However, the biggest challenge which VR faces at present is that of the quality content. While technology has reached masses and has begun to take off at least for gamers in the first place, there is paucity of quality and relevant content. The content dearth can only be minimized if there are simple, easy and handy VR tools which can be used by anyone – and not just by developers. But the pace at which VR is mushrooming, it will not be too long when there are easy VR tools.

Compiled By:
Sarabjeet Kaur
sarabjeetk@cybermedia.co.in

NPCI pilots APBS and UPI tools to **digitize micro finance industry**

National Payments Corporation of India (NPCI) has begun a pilot project to digitize the transactions in Micro Finance Institutions (MFIs). The process has been initiated to bring payments to the last mile by digitizing transactions of Svatantra Micro Finance where in RBL Bank will be disbursing loans and HDFC Bank will be receiving the loan repayments.

A simple innovative use of the Aadhaar Payment Bridge System (APBS) and USSD-based *99# infrastructure has made this possible. The customer's Aadhaar numbers are collected and sent to the disbursing bank for onward direct credit to account using APBS. For repayment, a string of numbers viz. *99*1*4*1# is being saved as a contact number in the MFI customer's feature phone during MFI group meetings. The customer has to dial the contact, enter the amount and Unified Payments Interface (UPI) PIN on the feature phone and the repayment gets done successfully.

NPCI has released a guide booklet titled 'UPI & APBS Digitizing Microfinance – An NPCI Initiative' for the same.

FORM IV (See Rule)

Statement of ownership and other particulars about the newspaper DATAQUEST to be published in the first issue every year after the last day of February

1.	Place of Publication	:	New Delhi
2.	Periodicity of Publication	:	Monthly
3.	Printer's Name	:	Pradeep Gupta
	Whether Citizen of India	:	Yes
	Address	:	D-74, Panchsheel Enclave, New Delhi – 110 017
4.	Publisher's Name	:	Pradeep Gupta
	Whether Citizen of India	:	Yes
	Address	:	D-74, Panchsheel Enclave, New Delhi – 110 017
5.	Editor's Name	:	Ibrahim Ahmad
	Whether Citizen of India	:	Yes
	Address	:	D-74, Panchsheel Enclave, New Delhi – 110 017
6.	Names & addresses of individuals who own the newspaper, and partners or shareholders holding more than one percent of the total paid-up capital	:	Cyber Media (India) Limited D-74, Panchsheel Enclave, New Delhi – 110 017

List of shareholders holding more than 1% of the paid up capital of the company as on 15th February 2017:

Pradeep Gupta, Vimgi Investments Pvt Ltd, Sudha Bala Gupta, Dhaval Gupta, Anuradha Gupta, Deepa Agarwal, Globe Fincap Limited, Sumer Chand And Company LLP, Quantum Securities P Ltd, Kriti Gupta, Kulmohan Singh Mehta, Hemali Prakash Mehta, Archana Saluja, Navin Bhagat, Jagdish Pershad Gupta, Jamsheed Gandhi.

I, Pradeep Gupta, hereby declare that the particulars given above are true to the best of my knowledge and belief.

Sd/-
Publisher

Onkar Sharma
onkars@cybermedia.co.in

Virtual Reality is the **New Reality**

VR has finally broken the jinx and is changing all norms in the tech space. It is likely to grow exponentially as it promises a whole new dimension to customer experience

Excitement around Virtual Reality (VR) has triggered a new revolution in the global market. Interestingly, India is at the forefront of exploiting virtual reality to its best for various industries. Deloitte had predicted in the beginning of 2016 that virtual reality would "have its first billion dollar year in 2016 with $700mn in hardware sales, and the remainder from content." Exact figures are yet not with Dataquest about the global VR headset and content revenues. But it is believed that VR market would be closer to what Deloitte had initially presumed. Statista and Superdata report endorses this claim with relatively larger figure. According to Statista and Superdata report, the VR market is pegged between $3bn and $5bn currently and expected to grow to approximately $40bn by 2020.

The scope for VR is horizontal and widespread as VR promises consumer and enterprise applications in the long run. It is much like the craze for smartphones which began with games and culminated to a whole of industries and professional activities. But VR is a technology that is set to

become far more important to the societal landscape than just gaming. In a mix with augmented reality, virtual reality is believed to transform a number of sectors offering users incredible experience of miles-away locations from their boardroom or drawing room. VR has found its way into the marketing arena as a heavyweight implementation tool. Several use cases surfaced during NVIDIA's GTC conference in San Jose in 2016 where the company had set up a whole VR Village to manifest people how VR can transform industries and human life.

Games are going to complement VR research and innovation greatly. One example has been Pokemon GO which was an augmented reality game and provided small businesses with opportunities to leverage the game for their marketing. Considering the amount of innovation driven by competition, a massive influx of virtual and augmented reality into our everyday lives is expected in the very near future. "Let's start off by saying that Virtual Reality is not just a concept anymore, it's a reality and is here to stay. Virtual Reality can be for everyone," opines Ninad Chhaya, COO – WITS Interactive/Co-Founder and COO – GoPhygital.

CONFLUENCE OF THE VIRTUAL AND PHYSICAL

Content and devices will drive the adoption for VR. Experts believe that content creation is going to be further easy which will bring the virtual and the physical worlds together. Most of the researchers, innovators and experts share one common thought that VR's capability is likely to improve further over the years as processor-power improves, screen resolution increases yet further, and content creators get easy tools to generate more content. It will result in easy fusion of the virtual with physical.

"In 2016, the virtual and physical worlds continued to merge, as everyday objects and entire cities became smart and connected to the cloud. In 2017, we foresee the commercial application of this synergy between hardware and software becoming mainstream, offering novel experiences that take users to new heights of sight, sound and touch. This digital revolution will transform how most industries approach 'experiential' situations," says Sandeep Aurora, Director, Marketing and Market Development, Intel South Asia.

The confluence of virtual and physical is impacting everyone. One such instance emerged last year when

Benefiting Verticals

VR, according to Ninad Chhaya of GoPhygital, has uses across a wide range of verticals ranging from entertainment to education, from travel and tourism to training. Highlighting a few use cases below:

- **Law:** VR could change the way evidence will be presented to the court. For example, imagine experiencing first hand a virtually created simulation of a crime case and analyzing evidence.
- **Education:** VR is already being implemented in this sector. A good example of VR in education is "Google Expeditions." Through the cardboard VR headset, teachers are taking their students on virtual field trips around the world. Another example is the Apollo 11 VR experience (Mans first trip to the moon) by VR Immersive Education. You can experience this historic event through the eyes of those who lived it. Using original archive audio and film, together with accurate recreations of the spacecraft and locations, the experience educates students about the men and women who worked on the Apollo program during NASA's golden era.
- **Training:** Companies in various sectors like insurance, manufacturing, law enforcement, etc. are using VR to train their employees on how to handle various scenarios. Samsung are using VR for their production line training because it not only saves on cost but it is also more efficient. Under the new VR training program, an employee uses a headset and holds a specially designed tool to work through the manufacturing processes. It allows the trainees to physically get used to the most important steps of the manufacturing process.
- **Relaxation & Meditation:** Imagine removing the hassle of packing and driving/flying to your favorite relaxation/meditation spot. VR can not only save you the money, but also get the desired result.
- **Medical:** Not only as a tool to train students, but VR could also change the way your doctor interacts with you. With the help of VR, he/she could show you how a disease/fracture is impacting your body. Life changing factors in my opinion.
- **Tourism:** Visit a country in VR through 360° videos of the touristic hotspots and then book a trip to see them in-person.
- **Real Estate:** See your next home/business and the surrounding area before you decide to buy. Time and money saving, need I say more.

Volvo launched a virtual reality test drive for their XC90 SUV in the US. According to a blogger, the experience took the user down a breathtaking country road with the feeling of being in the leather-preened driver seat of the highly-rated, luxury sports utility vehicle. This is an example of how VR and augmented reality can be used as a great way to overcome several preliminary objections.

RAKING IN THE MULLAH NEEDS DELIBERATION...

Any company that is considering VR in any regard has to pay a careful look at the likely addressable market. Shooting in the dark might lead nowhere and so result in losses. It was apparent in the mad rush in early 2016 when a number of mobile handset companies rolled out VR headsets with no clear vision and void of any content that could support their marketing strategy. Even Deloitte notes, "Recent breakthrough technologies that required consumers to wear something on their face have not proven to be mass market successes. While VR headsets may sell better than smart glasses or 3D TV glasses, also consider that using the technology may require a set of behavioral changes that the majority of people do not want to make."

> "Let's start off by saying that Virtual Reality is not just a concept anymore, it's a reality and is here to stay. Virtual Reality can be for everyone
>
> —**Ninad Chhaya,** COO – WITS Interactive/ Co-Founder and COO – GoPhygital

Immense potential lies in the VR market. However, it calls for innovation and thought. It is important that companies planning to invest in VR define their objectives and then plan their further moves. "Whether you are a gamer wanting to experience the next level of immersive experience in a game, a medical professional being trained on performing complex surgeries or a teacher, teaching inquisitive

minds about topics ranging from history to science, VR helps across a wide spectrum of uses," further adds Ninad Chhaya.

Indian enterprises are also manifesting leadership in using VR for their commercial purposes. PNB MetLife, an insurance firm, is taking a lead in harnessing the power of VR, AR and blockchain. "Virtual reality offers tremendous customer service possibilities as it will potentially change how one interacts with the service provider. Keeping this mind, we introduced conVRse, an experiential virtual reality platform built in collaboration between MetLife's innovation center – LumenLab in Singapore and PNB MetLife in India," says Samrat Das, CIO, PNB MetLife.

> In 2016, the virtual and physical worlds continued to merge, as everyday objects and entire cities became smart and connected to the cloud
>
> **—Sandeep Aurora,** Director, Marketing and Market Development, Intel South Asia

> We introduced conVRse, an experiential virtual reality platform built in collaboration between MetLife's innovation center – LumenLab in Singapore and PNB MetLife in India
>
> **—Samrat Das,** CIO, PNB MetLife

Having spoken to CIOs from across the verticals, Dataquest realized that many verticals are trying their hands on VR and keenly looking at harnessing it and enhancing the customer experience. Shalimar Paints does have plans to leverage technologies such as AR and VR to augment customer experience. "We'll leverage new technologies such as VR and reach out to the addressable audience. Right now, we are evaluating the usage and reviewing the possibilities," divulges Ashok Jade, CIO, Shalimar Paints. It is probable that the company gives its audience true paint experience as it might look in their homes.

Among other technology firms, Intel is also working hard on innovation for VR solutions. "Last year, at IDF, we unveiled Project Alloy, an all-in-one virtual reality solution made from the ground up. A clear example of the future of merged reality today, the Alloy platform completely redefines what is possible in an all-in-one VR platform, and offers a PC-like VR experience without the need to tether the headset to a computer system. Our goal is to continue making experiences more and more real for consumers without completely blurring out the real environment," reveals Aurora from Intel South Asia.

In order to help enterprises with best VR solutions, a number of start-ups are active globally. Indian start-ups are also putting in their best to innovate and develop products. One such start-up is GoPhygital which is focused on creating immersive, experiential solutions using Augmented Reality, Virtual Reality, and Mixed Reality. Its founder says, "We are currently in advance stages of discussions with leading players across the media and entertainment industry, pharma and healthcare, BFSI to define and execute their VR strategy and to create VR content for providing an immersive user experience for their brands. We are also working on a VR simulator for a theme park ride and a couple of VR games."

NARRATIVE CONTENT TO STEAL THE SHOW

At present scarcity of VR content is one of the biggest challenges. There are barely any content developers for VR. Experts believe that as the technology matures, it would need more content. At the same time, there needs to be easy tools to help users generate VR content. Several start-ups and tech companies are trying at their level to create more content. "Technology firms like Intel are already collaborating with content developers to create ultra-high resolution, six-degrees of freedom, and cinematic live-action VR captures. It is crucial to create content for global, and at a later stage, for local markets, to make VR relevant for varying needs of end users," further says Aurora of Intel.

There are other groups that believe that there is paucity of quality content. VR content being created right now is not of global quality and has to improve. "Globally, there is some fantastic work happening in the Virtual Reality space but it needs to be taken into consideration that creating a quality, immersive experience requires a good amount of investment. Not just in the infrastructure (hardware etc.) but also content creation," adds GoPhygital COO. He further stresses that VR, if executed well, can take the brand and user experience to a completely different level of engagement.

Companies looking to invest in VR as part of their marketing and engagement strategy need to be aware of the investment involved, both in terms of time and money, and then take the plunge. He warns, "A half-hearted attempt, or doing just for the sake of it can actually backfire and be detrimental to the brand."

It is also important to work with the right development partner, who not only understands the technology but also the art of storytelling. VR at its core is storytelling in an immersive format.

MILES TO GO

The tech industry has promoted the prospect of VR for over a few decades. But it is only now that VR has started to bloom all over the world. Interest and innovation shown by global tech giants such as NVIDIA, Google, Facebook and Sony, etc has given it a fresh lease of life. And it is working. However, it is a long way for VR to become truly mainstream and yield results. Only time will tell how VR pans out in the long run.

Simply Connect & Create

*Step into the Light with **ProDot** Peripherals*

Committed to Nation
Committed to make in India

India's first manufacturer of keyboard and mouse

MOUSE

WIRELESS MOUSE

Comfort Design; Battery Saving Mode When Not In Use

Model # WM-175

Model # WM-175

Model # WM-175

COMFORT MOUSE

Comfort design to fit in your hand

Model # MU 257s

Model # MU 213s

Model # MU 273s

MINI MOUSE

Compact & Portable design for easy travel convenience

Model # MU 243r

KEYBOARD

KEYBOARD

Sleek & Smart design with smaller footprint

Model # KB 217m

Model # KB 207s

Model # KB 107m

Contact for:

Sales Enquiries

Lokesh, Ph. # +91 9971956053
Semi Inderpreet Ahuja, Ph. # +91 9953528885
Vineet Gourav Gund, Ph. # +91 9999552782

Follow us on:
/prodotgroup /ProDotGroup /prodotgroup1
www.prodotgroup.com

DATALINK'S ProDot®

Your Trusted IT Partner

On its Path of **Making a Safer World**

Vehere has strongly emerged in the communication intelligence and cyber defence space. While government has been its main client where it continues to grow, the company is now helping enterprises to safeguard their networks

One phone call changed the course of journey for Vehere. It almost changed the very basis of the name `Vehere' which means `relative position' in Latin. And the Latin word was an apt description of the work Vehere initially wanted to be associated with. The chosen path was in the area of GIS and GPS.

But that call of destiny from one of the Indian law enforcement agencies in 2006 had pulled Vehere out of its chosen path and put it firmly in the less trodden area of communications' intelligence and cyber defence.

And the journey began with the ultimate goal of making a safer world.

A JOURNEY OF A THOUSAND MILES

It was a difficult journey for the first six years. But the faith in their core competence kept Naveen and Praveen Jaiswal, the two founders of this technology company focused. Naveen said, ''It took us one year to develop the solution for that particular problem faced by a law enforcement agency, our first client in the field of communications intelligence. But it was an extremely gratifying experience and opened up a new world."

And that new world is throwing up challenges everyday which motivates Vehere to come up with cutting edge technological solutions. In return the company is catapulted into a different league of growth. It is consistently ranked among the fastest growing technology firms. Vehere has featured in the Deloitte list of fastest growing technology companies in India.

STRENGTHENING CYBER INTELLIGENCE PORTFOLIO

Vehere was founded in 2006 to revolutionise the communications and cyber intelligence technology. As Naveen puts it : "We want to enable the national security agencies to make the world safer. So our area of work ranges from ocean to space." He opines that the core principle is simple – no matter how much complex a problem is. Vehere works with the belief that where humanity is out exploring the newer communications platform, it is fundamentally essential to collect, decipher and analyse information from diverse networks and data sources while protecting the privacy rights.

The job of protecting the privacy and security of sensitive customer data dominates the company's policy. So much so that the technology company does not even apply for patents as that would require the company to put up critical information in the public domain. And that may put the country's security at risk. Vehere's solutions help law enforcement and national security agencies to combat crime and terror in the electronic platform. It helps the government agencies to protect critical national infrastructures and data from cyber threats. So Vehere has to remain contented with the publication of research papers in prestigious institutions like IEEE, SPRINGER, IJCN etc. The company publishes a new research on an average every quarter. This has allowed the company to emerge as the thought leader in the cyber intelligence and cyber security space.

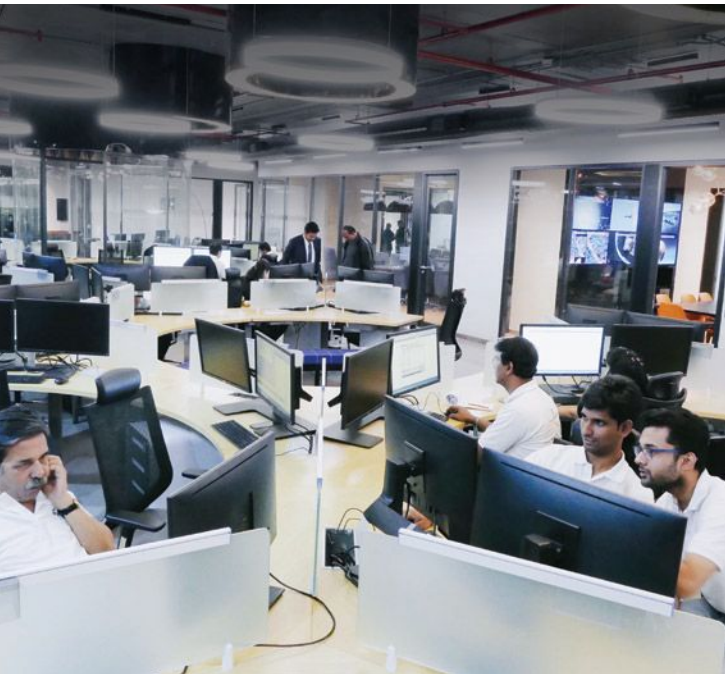
> "It took us one year to develop the solution for that particular problem faced by a law enforcement agency, our first client in the field of communications intelligence. But it was an extremely gratifying experience and opened up a new world
>
> **—Naveen Jaiswal,**
> Co-founder, Vehere

> "We have decided to enter into the enterprise segment in a big way. With the focus on digital economy, cyber defence mechanism needs to be in place
>
> **—Praveen Jaiswal,**
> Co-founder, Vehere

Talking of protecting privacy rights, Naveen says it is a tricky affair.. He believes that the idea is to protect the security of nation without infringing privacy rights of citizens or netizens.

HELPING GOVERNMENT COMBAT CYBER CRIME

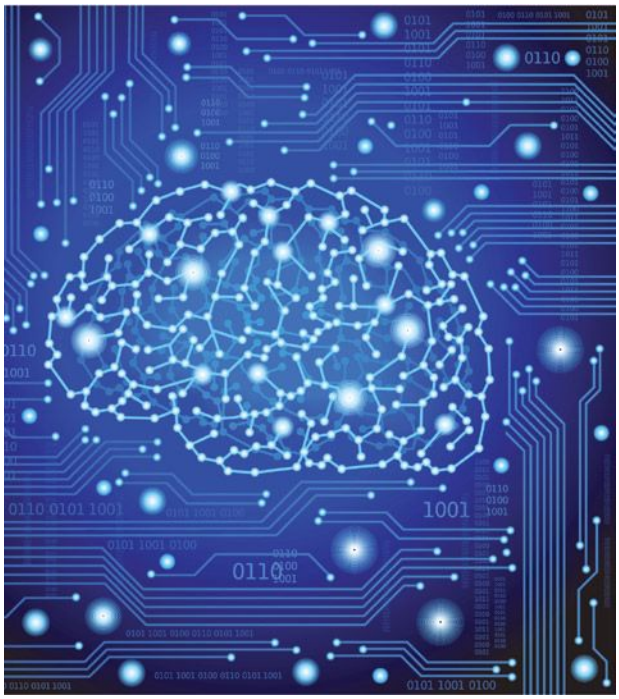
Government remains the main client. Naveen further adds, "No company working in this field can survive without government support. All our researches are primarily aimed at creating solution for the government." He too believes like other experts that post 9/11 the homeland security has got a different dimension. It is not the combats fought at the borders. It is not the weapons are used in face to face battles fought in the terror zones. But it is a war not visible to most of us. The wars are now faught in the cyber space where enemies are active to debilitate critical infrastructure. Naveen, who heads the research and development wing of Vehere speaks from his experience from day-to-day scenarios. He believes that this is an area where no laxity can be allowed. He considers it as an everyday war fought at the government level. This is electronic war. Without revealing much he can only say that it is not about terror groups or criminal lords. Globally countries are spending a hell lot of money to gain supremacy in the electronic warfare.



Located in Kolkata, Vehere's R&D Center actively pursues innovations in Technology and Cyber Security for LENS (Law Enforcement and National Security) Agencies, Intelligence Agencies, Defence and Large Enterprises.

With more and more rise of this tussle among countries, technology which augments Human Intelligence is in a rising demand curve. Hence cyber space which is yielding power to humans has also become a menace. In other words, this is a double edged weapon which needs to be carefully handled so that cyber and communication-related crime could be curtailed, controlled and curbed. Inspite of tremendous technological advancements, predicting a cyber crimeincident is not easy. It needs constant vigil and innovation. And Vehere endorses it due to its dedication and innovation.

Supporting this idea of human interference, Naveen said, "Here comes the need for analysis. It requires getting the right information from the available data, converting it into usable piece of information, finding patterns, applying artificial intelligence, storing it and then finally making predictions in real time." Analysis of data from multiple sources in varied time frames is the name of the game.



ALWAYS ON AND AWAKE

Can anyone be perfect in handling cyber crime incidents? Perhaps the answer lies in the increasing amount of cyber crime incidents globally. Pragmatic and grounded, Naveen clearly states no technology, no device can be fullproof. So what is the way forward? He puts three basic questions on the platter.

a. How much risk one can live with?

b. How quickly one can close the gap?

c. What has been lost?

And these three questions form the base of security needs as well as requirements. For a country. For an enterprise too. Believing this, Vehere is foraying majorly in the enterprise category. Praveen Jaiswal, a Delhi School of Economics alumnus, taking a cue from his partner Naveen's thoughts, stated the future plans for Vehere. He heads the business and business development related activities of the company.

VEHERE DELIVERS CUTTING-EDGE CYBER DEFENCE AND INTELLIGENCE

Broadly speaking, Vehere works in the domain of Communications Intelligence and Cyber defence. Praveen said the expansion plans are made on the basis of strength of the company's ability to deliver cutting edge technical solutions in these fields. He said,"We have decided to enter into the enterprise segment in a big way. With the focus on digital economy, cyber defence mechanism needs to be in place." He adds, "the backbone of the country lies in the patterns of communications and transaction. This makes security an integral part of all the digital platforms. In this regard, Naveen is of the opinion that most of the digital platform fall short of adequate security."

Besides enterprise segment, Vehere plans to be in the foreign markets like US and Europe. In the niche sector of security where Vehere is in, there is no competitor in the domestic market, claims Naveen. Globally, Israel is the major player in this segment.

This is definitely a proud fact to bask in. But this unique position also gives rise to perception problem. Naveen and Praveen, both say how the industry in general and the buyers would react in complete surprise and disbelief when they come to know of the roots of the company. A technology company working in this niche area and having roots in India comes as an incredible information. But more surprise is in store for them when it is disclosed that Vehere is from Kolkata and not from the Indian Silicon Valley City of Bengaluru.

Sandipan Chakraborti
maildqindia@cybermedia.co.in

Impact of IT4IT–Reshaping the **Future of IT as a Business**

The CIOs of today's digital enterprises attempt to find solutions for many of the pain areas of IT. The key is to look at the IT value chain in an integrated manner which can be done through adoption of IT4IT Reference Architecture framework

In today's digital enterprise, the complexity and pace of change is mind boggling. Digital disruptions in the form of cloud, software defined everything, API economy and bi-modal IT has significantly transformed the very business model of IT. It has led to customer demand for continuous value creation through innovative and IP driven products and services. This fact shows that the global trend in IT services industry is shifting from operations and support centric cost center mode to a catalyst for continuous value generation and growth both for the client and service provider ecosystem.

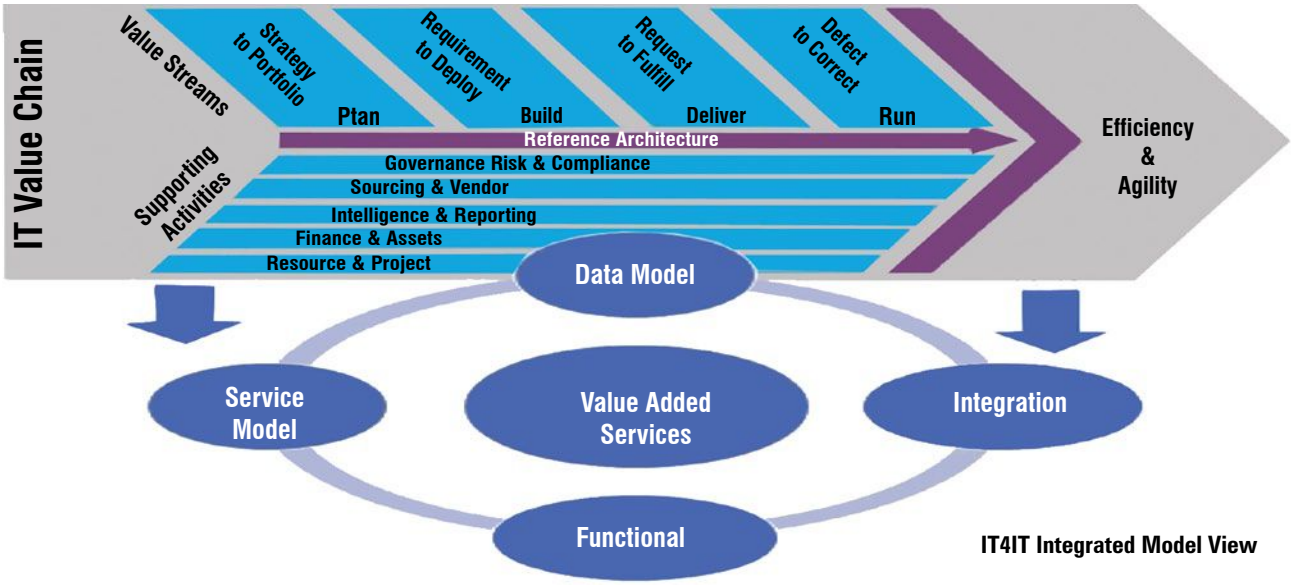
IT4IT Reference Architecture is a vendor and technology neutral IT management framework which looks at the IT value chain activities in an integrated manner. It prescribes a framework that uses data, functional, service and integration models to create value through the service portfolio across its entire lifecycle. It cuts overhead costs, reduces redundancies in process and tools as well as provides business insights for the management.

IT4IT REFERENCE ARCHITECTURE

Based on Michael Porter's Value Chain Concept, the IT4IT identifies four core areas of activities that if well managed would result in optimization and value for the IT business. The four core areas cover the stages of planning, building and running the IT services. The four value streams are Strategy2Portfolio, Requirement2Deploy, Request2Fulfill and Detect2Correct. To orchestrate the different activities across value streams leading to the desired business outcome/ target, there is a need to identify and model the functional, service (conceptual, logical and physical or realizable), information (data) and integration capabilities to attain the target state. These form the four essential pillars of the IT4IT Reference Architecture. In simple terms, functional model captures the technical / architectural capabilities that IT businesses should have.

SOLUTION TO CIO PAIN AREAS

The CIOs of today's digital enterprises are engaged in find-



IT4IT Integrated Model View

ing solutions to returns on IT investments, creating value differentiators for customers, transparency on costs and linkage to the service usages and satisfaction levels. There are strategic level decisions such as forecasting demand for services portfolios, establishment of Enterprise Architecture and governance to ensure seamless benefits realization. Tactical and operational decisions that impact businesses comprise of optimization on sourcing and procurement cycles, contracts management with vendors and suppliers, annual maintenance contracts on HW and SW licenses, and consolidation of tools and applications. Some of the top CIO priorities according to Deloitte CIO Survey 2016-17 are innovation, cost and performance.

To overcome these pain areas, IT4IT Reference Architecture links the critical functional, service and data models across the IT value streams. It thereby, is able to correlate the outcomes from different IT value stream activities with appropriate data and the underlying technical capabilities. There are 32 such key data objects which describe how services need to be created, consumed or disseminated across IT value chain. There are service models which describe what IT delivers to consumers. The IT4IT is a prescriptive framework which doesn't leave the interpretations open ended left to imagination.

WHY IT4IT?

The IT4IT Reference Architecture stands out with respect to other contemporary IT management frameworks or reference architectures in several ways. These are elaborated as below.

- No framework except IT4IT Reference Architecture covers the entire value chain and provides common vocabulary and approach to IT management.
- No single overarching IT management framework can blend multiple best practices that can be adopted for decision making and value delivery as its core principle
- Provides listing of all key and supporting components across IT value chain which if managed well would result in significant cost savings on overall IT cost
- Provides control levers to manage IT risks and disruptions
- Provides standards on Cost Charge Backs and Show Backs
- It is independent of vendor or technology and is process agnostic. It can be used in the context of bi-modal IT.

HOW CAN IT BE ADOPTED?

Enterprises can start their IT4IT journey with current state assessment of business capabilities, processes, IT assets and tools, cost of delivery and quality of services delivered. IT4IT Reference Architectures can be used to identify gaps with respect to current state. Use the information, functional and service models prescribed in the IT4IT Reference Architecture to achieve desired business target state. This can be done by identifying KPIs and other metrics that need to be captured across the value chain activities. The organizations can then use the traceability data across the IT value streams to determine and predict business outcomes in line with the desired target state.

The author is Associate Partner - Global Enterprise Architecture at Wipro Tech

3i Infotech
leads with cutting-edge
Technology Solutions

Today technology is an essential and formidable ally for any organization to navigate towards success. For the BFSI segment, with the necessity to render service to customers quickly and seamlessly, innovative IT solutions provide the differentiator. In this scenario, IT solutions providers with proven capabilities, provide an edge to discerning customers.

3i Infotech is a Global Information Technology company committed to Empowering Business Transformation. A comprehensive set of IP based software solutions, coupled with a wide range of IT services including BPO uniquely positions the company to address the dynamic requirements of **Banking, Insurance, Capital Markets, and Asset & Wealth Management (BFSI)**. The company also provides solutions for other verticals such as **Government, Manufacturing, Retail, Distribution, Telecom and Healthcare**. 3i Infotech has presence in Asia Pacific, South Asia, Middle East & Africa, Kingdom of Saudi Arabia, Western Europe and North America as well as a global presence with over 1000 customers in more than 50 countries across 5 continents.

3i Infotech's banking products are serving more than 130 clients globally. End-to-end banking solutions today offer product innovation, faster time to market, efficient business processes, productivity & cost savings, enhanced customer service and comprehensive risk manage-ment. Coupled with digital banking and analytics, technology has become a force multiplier in evolving new business models.

AMLOCK®, which features in Chartis as a leader in **Anti-Money Laundering** compliance software is patronized by over 70 clients globally thereby offering AML compliance for over 30 countries.

Kastle® ULS – an innovative **universal lending solution** is a comprehensive suite for retail, corporate and Islamic finance companies, encompassing lead management, origination, management, collections and customer service. Kastle® Digital Banking extends to the end-customers, sales force, collections agencies & business partners through an integrated internet portal & mobile app.

Kastle® Factoring enables users to help their customers unlock the potential in open accounts trade receivables and complements it with supplier financing, thereby covering the entire supply chain finance. This suite has been successfully implemented in 40 clients across the world.

Kastle® Treasury is an end-to-end integrated **treasury management solution** with front, mid and back-office support covering domestic treasury, forex, derivatives and commodities, complemented by asset liability management and robust market risk management. The robust Treasury and Risk Management suite is hugely popular boasting of over 30 clients world-wide.

Kastle® ALM is a **multi-currency Asset Liability management** solution that offers a wide variety of powerful risk evaluation and analytical utilities that enable strategic balance sheet management, improved decision-making and profit stability - while ensuring liquidity by means of maturity matching.

Kastle® CBS is a scalable & comprehensive customer-centric **core banking solution** catering to a wide range of banking operations with tools to manage relationships and risks and achieve results. It covers the entire gamut of Customer Information File management, Deposits, Loans, Clearing & Collections, Remittances and Enterprise Financials including Fixed Assets Management.

Premia® Insurance Management Suite empowers 115+ Insurance companies to deliver best in class solutions across Life, General, Health and Takaful Insurance

Premia®'s value propos-itions include an array of powerful solution accelerators which enables efficient **end-to-end management of insurance processes**. Premia® is an

Insurance Solution with strong domain capabilities in **Life, General, Health, Group Life and Islamic Insurance**. Premia® offers powerful and flexible product configuration, enabling businesses to launch new products with a faster go-to-market.

With the help of Premia®, customers can drive new business acquisitions through a digital eco-system. Operational efficiency is improved through automated processes across new business, claims, underwriting, reinsurance, billing, finance, distribution and renewals. The solution helps increase flexibility and scalability with parameterized tariff and calculation tools, resulting in quicker service cycles.

Premia® **Takaful** offers an end-to-end Islamic insurance solution that spans all operations and supports both Mudharabah and Wakalah models across family, general, group, and annuity insurance.

Premia® **Health** is provided to insurers for its capability to quickly launch new products across multiple product lines, and efficiently sell and support them through an array of distribution channels.

Premia® **Insurance Suite** comes with ready integrated B2B and B2C portals and Mobility solutions which help in enhancing the business agility and process efficiency.

3i Infotech has proven expertise in **Investment Management** with **MFund®** and **Quantis® Suite**. The solution caters to several industries such as Asset management, Insurance Fund management, Pension Fund Management, Portfolio Management, Trustee management, Investor Services/ Fund Administration and Wealth Management. MFund® & Quantis® Suite are the market leaders in India & Malaysia and have 100+ customers spanning 10 countries across the globe.

MFund®, is a comprehensive, **multi-currency** enabled web based application designed to provide a powerful automation tool to various financial institutions undertaking **Fund Management** activities. The modularity offers flexibility to clients to choose end to end solution deployment including Front Office (Dealing), Mid Office and Back office along with Investor Services. It's key differentiators include, -Robust dealing Modules with direct connectivity with brokers, -Inbuilt GL module for accounting, -Daily NAV computation, -TWRR methodology for Performance analysis, -Configurable Dashboards and Robust analytics, -MIS reports, -Compliance setup, -Report writer, -Interface and Integration with core insurance systems, -Corporate action providers.

MFund® Suite's Investor services module provides services like KYC, Investor subscription/ redemptions/ switches, Dividend Distribution, Risk categorization along with FATCA compliance, Seamless workflow between Front, Middle and Back Office, Web portal for Investors self service

ORION® ERP is a globally trusted partner to hundreds of customers with over 1,000 installations and 50,000+ users across multiple verticals. It has also played a pivotal role in facilitating 3i Infotech being named one of the 20 Most Promising ERP Solution Providers 2016 by CIOReview Magazine.

ORION® ERP from 3i Infotech is an integrated, cost-effective and cloud-enabled industry solution for growing and mid-sized enterprises. Built on **future-ready technology stack**, it empowers organizations to optimize business processes and make informed decisions through anytime access to dashboards and analytics. ORION® process packs are flexible and scalable solutions that cater to various industries.

The fully integrated ORION® suite includes solutions for: Financials, Procurement, Manufacturing, Contracting, Project Management, HRMS, Payroll, Mobility, B2C and Sales — ORION® integrates them all to fulfill organizational needs across sizes, industries and market sectors. ORION®'s vertical-specific solutions support rapid implementation, thus empowering businesses to continuously enhance productivity and reduce operational costs.

3i Infotech's product offerings are complemented by its **Services Business Unit**, offering a bouquet of service offerings across **Consulting, Infrastructure Management, Testing, Application Development & Maintenance, Business Process Outsourcing (BPO) and Professional Services** equipped with certifications like ISO 9001:2008 for BPO, ADMS, e-GOV, BI & IMS and ISO/IEC 27001:2013 for Data Centre Operations for Mumbai, Chennai, Bangalore & Hyderabad locations.

3i Infotech's Services Business is committed to empowering business transformation to over 200+ clients across the globe using technology to enable clients with powerful capabilities and make their businesses more agile, dynamic and competitive.

Cutting edge service offerings across legacy and modern technologies, extensive domain knowledge in BFSI, Healthcare, Government and Enterprise verticals, IP based offerings and strong automation methodologies, all collectively contributing towards making us a preferred partner.

3i Infotech's objective is to focus on our core competencies spread across Business Domain based Testing, Infrastructure Management Services including platform based offerings, Digital Transformation, BPO services and high-end Professional Services team is facilitated by expert domain & operational intelligence.

3i Infotech's unique proposition is being nimble and flexible to address clients' needs owing to compact size, extensive domain knowledge and extreme hunger to grow with the clients' growth.

3i Infotech®

Innovation • Insight • Integrity

Empowering Business Transformation

Reach us : marketing@3i-infotech.com
Visit us : www.3i-infotech.com

Malavika Sacchdeva
malavikas@cybermedia.co.in

—AMANDEEP SINGH DANG
Country Manager, Dell Networking,
Dell EMC

In an exclusive interaction with Dataquest, Amandeep Singh Dang, Country Manager, Dell Networking, Dell EMC India talks about networking innovation in the industry

CHANGE CAN OPEN A WORLD OF OPPORTUNITIES

What technology challenges (specific to networking) organizations face in the journey towards digital transformation?

2017 is the year when digitization goes mainstream. While enterprises look at digitization as the glue that binds business with functional IT; consumers see it as a way to simplify how they interact with people, machines; or between machines.

Digital Transformation fundamentally brings back networking technologies to the forefront. How networking technology challenges unfold depends on what business the organization is – B2B, B2C or B2B2C. From a B2B standpoint, all digital transformation initiatives are engineered towards workload agility. It is the ability of your IT tools, process and functions to quickly adapt, enable and execute changed business priorities. In this scheme of things, legacy networks with proprietary offerings and inflexibility come across as the biggest hurdle. Digitally transformed businesses need agile IT. Agile IT runs on application-aware, software-defined infrastructure and that's what we take pride in delivering as Dell EMC. B2C and B2B2C businesses, on the other hand, focus on using digital levers to service consumers better, faster and with efficacy.

To top it all, technology trends such as Internet of Everything – what many have called the next industrial revolution – are fundamentally altering the way we live, work and relate to one another, and will transform the way every business across industries.

Dell EMC is well positioned to address the transformative effect of digitization overall. Our new age infrastructures as built using open networking fabric components that are engineered for agile software-defined controls, workload-aware, and speed to business execution.

What are the technological trends that will be relevant in the era of digital era?

Use of technology as a disruptive engine will continue to grab headlines across sectors. Demonetization and the infused demand to go cashless (or less cash) is transforming the way traditional banking has been structured. App based taxis are solving age-old demand-supply-availability agility issues of transportation; while e-commerce is leveraging the best of changed consumer behaviors to set new playing fields in the B2C marketplace.

All this disruption is rendered via agile IT that runs on equally potent infrastructure including new-age networking fabric. At Dell EMC, we believe the following trends will stay relevant in this digital era:

- Software-defined infrastructure will go mainstream. The usage models may vary from "build-on-your-own" to "buy-off-the-shelf" depending on enterprise readiness and planned extent of digitization.
- Infrastructure assets will be intensely virtualized whether in private, public cloud or hybrid clouds for that matter. That's a de facto trend that is emerging to bring about agility to the physical infrastructure layer.
- The rate of change of IT affirms an open standard-based infrastructure. Trends will set for commoditization-of-IT to consumerization-of-IT depending on what business the enterprise is into.

According to a survey conducted by Dell EMC, BDMs' and ITDMs' understanding of current IT, trends are much closer than they are generally perceived to be. The study reveals

a greater sophistication and alignment in the understanding of IT trends between the two groups. The results of the survey reveals ITDMs (62%) and BDMs (51%) agree that cloud computing is the most important technology trend for their companies. 88% of ITDMs and 80% of BDMs say their organization is considering adopting a software-defined data center (SDDC), are in the process of transitioning, or have already completed the transition to one. By a 2:1 margin, both ITDMs and BDMs say they will use more open data center technologies in the future. 86% of ITDMs and 85% of BDMs agree that a computer-centric approach is the best to gain a flexible, scalable and open data center.

What is Dell EMC's view on industry's networking innovation in the coming years?

At Dell EMC, we are absolutely convinced that enterprises at large need to take advantage of software-defined networks. That's the only disaggregated technology approach to align the entire infrastructure stack including the networking element to deliver agile and business-aligned IT. We reckon software-defined systems are best delivered using open networking elements. The networking industry needs to relook at the horizontally aligned market ecosystem with standards based yet choice in hardware, operating systems, and orchestration stacks that best suit business IT demands.

We have seen networks evolve from mere connectivity enablers to communication fabrics; an intense opportunity for completely software defined data centers. While this demand unfolds in front of us as a massive transformation opportunity, we are witnessing the consumer side becoming increasingly wireless-connected with wired connectivity taking prominence in non-compute connectivity elements – building automation systems, IP surveillance systems, IP Machine controls, etc.

At Dell EMC's networking division, we are ready to embrace an era with IoT on the front-end; and, software-defined-infrastructure in the backend.

What are your views on Digital India?

It is a very enticing concept because consumers in India (consumer intense economy- 40% of GDP) are much consumerized and we are at a very unique position when it comes to the entire world economy. The consumer has the power as they are digitalized.

Digital India has a phenomenal opportunity both for consumer and government, institutions and the players like us because that will build a platform where a lot of governance will take advantage of digital assets which are there in the country. India is still a young economy where the medium layer is the people (25-50 years). They adopt the technology very easily.

Digital India is a phenomenal opportunity overall as it puts everything on a common platform, providing opportunity for entrepreneurship. Digitization breaks the barrier and puts everyone on a common platform because digitization and internet gives you a platform where you go and reach anywhere in service and overall.

When we talk of Digital India, we talk about the basic connectivity which is given to masses. Once you connect the masses to a common platform you have the ability to provide more and more service to them. But the basic problem is the infrastructure. If this problem is addressed then there would be immense opportunities for the entrepreneurs, consumers and Government of India.

How can companies cost better than others to become a digital business?

Digitization is a market leveler at this point of time. It gives the ability to a new age start-up to emerge and challenge the status-quo while traditional players get the necessary tools to stay relevant and agile given the changed business environment and competitive play.

When traditional organizations transform themselves to be digital businesses, it opens up a plethora of opportunity which can enable those organizations to be leaders in their respective industries. However, with the business landscape moving so quickly, the risk of missing the next quantum leap in human progress and falling into obscurity are real. As per a report by Vanson Bourne & Dell Technologies exploring the implications of digital disruption around the world, while progress is being made by organizations to digitally transform themselves, evidence suggests that majority of them have a long with to go to completely transform themselves. Organizations, at every stage, will need to couple the latest and greatest in technology with a shift in mindset, an investment in their staff, and a bold approach which includes rethinking business models. Put another way, digital transformation requires a commitment to transform not only people and processes but also the very technology upon which a business is built, from the edge to the core to the cloud. Businesses of every kind still have a chance to leap ahead. Change, if embraced correctly, can open a world of opportunity.

> "We are ready to embrace an era with IoT on the front-end; and, software-defined-infrastructure in the backend"

Malavika Sacchdeva
malavikas@cybermedia.co.in

BJP's App Lets Workers and **Others Know Everything**

The DigitalBJP is a single central source for all related information of the party, right from its day to day activities to its historical background

Digital India initiative program has changed the way our country works today. Political parties now highly depend upon social media campaigns. Apart from using social media, the parties need a platform wherein every kind of information for the party is available to maintain the unity and dignity of the party. Newgen Software Technologies Ltd known for digital transformation space took the initiative and built an application called 'DigitalBJP' in August 2016. It is a cloud based mobile application for the party to connect office-bearers and party workers across the country down to a central information repository platform.

The DigitalBJP is a single central source for all related information of the party, right from its day to day activities

to its historical background. This application is integrated with all social media platforms to quickly spread information and messages. For instance, any press release or a press conference can be uploaded with relevant pictures and this information can be used by the members in future for reference. Similarly, any newspaper clipping pertaining to the party can be tagged or indexed which can help them to gain knowledge on the data collected. With all material available at one place, it ascends the understanding of members in regard to the party's progressive alliance and futuristic plans.

Newgen Software provides a dashboard of information which gives them a real-time view of what is happening on the ground. One of the objective of this app is to record the amount of work karyakartas (volunteers and members) have done, and through this each will be responsible to answer relevant question if asked by the party. Currently, the system has more than 1200 members of BJP. By this app, everything will be monitored from right information at one place to assigned tasks for every worker responsible. This way everyone would be empowered with the digital information.

HOW DID NEWGEN GET THIS PROJECT

"Newgen got this project only on the basis of the content we were offering. Though big names like Oracle and TCS were in the race but it went in our favor due to our content management, business and enterprise process management." quoted Arpan Bansal, Head of Center of Excellence for Enterprise Content Management and Government Vertical at Newgen Software Technologies Ltd. He also added that from technology point of view Newgen was a preferred choice.

DIGITALBJP APP

The app has the capacity to hold confidential data meant to be used only by certain members. So, though all the information is available on public domain, this data is hidden from public view. Apart from this any party member who uploads any information is proofread by a maker checker who ensures the quality of the content so that the information is retained. Next to this is a central team which also keeps an eye on the material uploaded. This way certain checks and balances keep the things moving in a smooth manner with all the latest updates in place.

This app comes in handy to upload any issue which may have come up in a press briefing in some other state but since everyone can see it, it can be addressed and every member would have the information.

The complete server is hosted on cloud with access through mobility and the base is content management technology. This helps in accessing the data on the app from anywhere with safety.

The company has taken all the security measurements for DigitalBJP as it is on the cloud so they have encryptions, firewall, digital signature and password protection. It is the core part of anything that they do for government andare very confident that it is much more secured than paper. To make it more strong, they generally get audits done from third party for every implementation so that there is a security audit and vulnerability audit. All those things are often part of the project. SQL injections, OTP based authentication, single sign, etc are generally taken care of.

"DigitalBJP has given us a lot of experience and it was an adventurous experience as we met Modi ji, Amit Shah, CMs of a couple of states and also the Karya Kartas. It

was a very unique experience as we conducted training mostly with people from blue chip companies like Accenture, Infosys, TCS, etc.These people were volunteers and were working for them so it was a very good experience for us." said Arpan.

NEWGEN'S BROADER PERSPECTIVE

Newgen is not only involved with this project but also handling some big deals in states. They are implementing complete secretariat automation in Jharkhand. They would also be automating all the scholarship schemes right from the students applying for scholarships under various categories to transferring the amount in their account linked to Aadhar Card through public finance system. The company has also done e-office, smart cities, enterprise content management in PSUs, health, education along with handling large scale municipal automation work.

They are also working with semi-government agencies on integrated transport management system. This primarily means that all public mode of transport will be enabled with sensors which will highlight the loops in the system so that they can be rectified and time-saving for commuters. This would not only help in counting the actual tickets sold but also bring down corruption. The system would plug the loopholes and help in its smooth operation.

As of now all these projects are under construction stage and the final blueprint may come out in a couple of months.

"We have done work for Income Tax department, CAG and many other government agencies and the other set of services are for internal processes. The software we are using is Newgen e-governance office. We have the offering which is probably the most successful offering for the government. We have about 40+ implementations in India and this is now being implemented in Secretariat also. So, when it goes to secretariat, it becomes very massive and the user base becomes very large. This is the time when the traditional office becomes e-office paperless office for all government departments. It has a very close resemblance with 'Digital India' initiative where Modi ji is saying go paperless, go cashless. We did some work with DRPG department. It is a department responsible for drafting all the standard operating procedures for any government department. Our software is made on that compliance. So, it becomes very easy for the departments to adopt it because it is almost like a replica of their manual system," he added.

We are implementing a project for Ministry of Health in Dubai, a favor of our paperless office which is managing the office for seven departments in the ministry including minister's office." he added.

According to the business strategy, Newgen Strategy is also focusing on other countries' market. "We are strong in the terms of other customer references. So in terms of Middle east, Africa, Caribbean counties, India of course and some part of APAC region including Singapore. It is again a logical move for us – partner network is ready there, our sales team ready there, we have other customers, we are geared up to deliver the large-scale solutions in those countries. So, right now we are focusing on selected countries, where we already have good in-roads and India being our key focus area. So, everybody is very gung-ho about this digital India hype."

From strategy perspective, the company is heavily focusing on building an ecosystem, so the essential part of their eco-system is its consulting companies PwC and system integrators. So, it does not front-end any deal generally, but bid it through some system integrator.

Onkar Sharma
onkars@cybermedia.co.in

—VISHAL JAIN,
Vice President of Growth and Marketing at OYO Rooms

OYO Rooms has in a very short time emerged as India's leading branded network of hotels offering standardized stay experiences at a competitive price. Millions of web and mobile visitors every month turn to OYO to book a room from more than 7000 hotels in 200+ cities. OYO has raised over $180mn from Softbank, Sequoia, and Lightspeed. The company has grown rapidly beating several challenges. Vishal Jain – Vice President of Growth and Marketing at OYO tells Dataquest how the company plans to go ahead and what types of strategies it has adopted to increase reach. Excerpts:

OYO GOES DIGITAL WITH CRM TO ENHANCE USER EXPERIENCE

What is OYO's strategy to drive sales both in the online and offline channels?

OYO has been using a full 360-degree view of guest-interactions to drive sales in both online and offline channels. For this, OYO has deployed Blueshift, with its advanced ability to ingest and process many data sources from online and offline activity, quickly segment specific audiences and operate in real-time across multiple channels. This has helped us build a better user experience spanning mobile and e-mail. Offline and call center bookings can now be coupled with each customer's online behavior to deliver relevant recommendations as well as price-drop alerts that are customized for the individual.

How does OYO deploy its digital marketing across multiple channels?

We are focused on driving growth and engagement via digital marketing across multiple channels anchored on a unified and personalized customer experience.

The strategy encompasses four key pillars:

- **Data Unification:** Historical online and offline data is unified with up-to-the-moment behavioral data.
- **360-degree Customer View:** A unified view of each customer is created and updated in real time.
- **Cross-channel Engagement:** Multiple cross-channel triggered campaigns that operate across the customer lifecycle are built.
- **Campaign Reporting:** Campaigns are executed quickly with single dashboard reporting.
- Blueshift has helped us scale these ambitions and execute our plans effectively and efficiently.

How do you analyze data and use it to design campaigns for better customer engagement?

This is done by ensuring real-time, 360-degree, and multi-channel customer profiles which are updated with every user interaction, location and channel preferences. We use online, e-mail and offline sources as the foundation to deliver a cross-channel customer experience – from e-mail to mobile push to SMS. Campaigns are built on up-to-the-moment customer behavior, instead of attributes, which creates more relevant customer experiences and drives performance. Real-time data naturally drives better customer experience.

How do you ensure customer-loyalty and repeat?

For customer loyalty and retention, superior service delivery is imperative as it increases trust and reliability. We track our Net Promoter Score metric very closely.

Our data science capabilities help us understand the demand patterns and customer behaviors. These have helped us identify and introduce new features to cater to emerging customer needs. Recently, we launched a first-of-its kind feature of early Sunrise check-in across our network. And, we became the first hotel chain in the world to offer confirmed early check-in. We also introduced a concierge-like service called OYO Captains to create a local assistance network that can take care of on-stay concerns or issues.

Following this renewed focus on service and engagement, our TripAdvisor score increased to 4.3, the highest in the category. Further, over a 100 OYOs are listed in the top ten rankings (for their city) on TripAdvisor including big markets like Noida and Bangalore. Our customer repeat rate is among the highest in the industry.

What has been the impact of your digital marketing strategies?

Following our tie-up with Blueshift, OYO was able to rapidly launch campaigns delivering more than 50 million personalized messages per month, across various channels such as e-mail, mobile notifications and SMS. Additionally, our teams quickly defined hundreds of scalable precise segments that enabled automated personalized content and product recommendations for each segment separately. Dedicated CRM (customer relationship management) has helped us drive effective 1:1 customer engagement across all marketing channels. With Blueshift's precise recommendations and targeted triggers, our bookings from e-mail and mobile channels grew by 5x as travelers responded better to a personalized engagement.

What are the technologies you think can drive change in businesses?

Almost every industry is undergoing technology-driven transformation, and we were the first to usher this in the hospitality industry in India. In the near term, we expect machine learning and natural language processing to influence the ways businesses and customers interact.

Shrikanth G
shrikanthg@cybermedia.co.in

Sasken – Transforming from **'Chip to Cognitive'**

Bengaluru based Sasken Technologies is going forward with a bold new strategy to leverage its competencies to emerging tech areas

It is redemption time for many companies and thanks to the nexus of forcesthat is nudging companies to reinvent and re-imagine their capabilities to the new normal digital economy. One such company is Sasken Technologies,which despite having cutting edge capabilities in the product engineering space has had chequered growth in revenues.

Sasken is a great technology company; it is still an aspirational employer with graduating candidates from Ivy League institutes like IITs vying for employment. But the market needs numbers and consistent growth, that's the pain area. Given this backdrop, during 2016, the company went through an introspection exercise and hired an external consultant to take stock of the existing market scenario, its competencies, potential new growth areas and building newer skill sets for the future.

TIME TO REINVENT: SASKEN 2.0

In line with the new strategy, the company has changed its name to Sasken Technologies from Sasken Communication Technologies. In a media release, the company explained the reason for the name being changed to be in sync with the technology market landscape. "Today, the nexus of forces such as computing, communications, mobility, cloud, social media, and analytics has transformed communications into a core ingredient across all business verticals. Sasken's expertise now serves businesses ranging from automotive, smart devices and wearables, industrials, enterprises, satellite, and retail, among others. Therefore, Sasken's new name is a true reflection of its current vast opportunity landscape."

Reflecting on this Rajiv C. Mody, Chairman, Managing Director & CEO, Sasken Technologies Limited asserts, "We see a whole new world unfolding infront of us where new services are getting launched which were hitherto unheard of. The key drivers that are making this difference are advances in silicon, embedded systems, cloud computing, and cognitive technologies. Sasken has been at the helm of enabling technologies that touches and enhanced lives. Over the past two and a half decades, we have enabled our customers to build cutting-edge solutions that have been breakthroughs intheir respective markets. We are working with technology leaders to enable cognitive technologies that help define the world of tomorrow in areas such as a car, home, wearables, devices, industrials, and retail. We are very proud of our heritage and are continuing to build a new future which is really going to make a difference in the new world we are embarking upon."

Armed with a new strategy, the company has roped

> "The core of the transformation we are embarking at Sasken now is creating more value in terms of our offerings and revenue growth. We have realigned our competencies across five verticals - Automotive, Industrial, Consumer, Semiconductors, Communication and Devices
>
> —**Hari Haran,** President-Global Sales, Marketing and Business Lines, Sasken Communication Technologies

> "I believe we are very much on track to becoming a 'Chip to Cognitive' company and we have all the levers in place. We are already seeing early fruits of this transformation
>
> —**Jagadish Iyengar,** Vice President and Head-Digital Transformation Services

> We are embarking on is all about restructuring our position so that we can leverage our legacy to newer tech areas. We believe firmly that in each of the five verticals, we will be able to redefine our delivery and profitability
>
> **—Srinivas Prasad,** VP and Head-Communications, Devices and Emerging Segments BU

in key executives to drive this change. Hari Haran, President-Global Sales, Marketing and Business Lines is one among the new comers who is translating Sasken's plan into reality along with other top managers. In a conversation with DATAQUEST, Hari Haran together with key executives talked about the future of Sasken and what this transformation is all about.

Says Hari Haran, "The core of the transformation we are embarking at Sasken now is creating more value in terms of our offerings and revenue growth. We have realigned our competencies across five verticals - Automotive, Industrial, Consumer, Semiconductors, Communication and Devices. What we are doing is creating repeatable long term and sustainable business models which the company can leverage for consistent growth, but at the same time be agile to market realities and business conditions in the long term."

Clearly, Sasken Technologies is marrying old with the new. It has a fantastic track record on product engineering services has given it enormous depth and leverage in technology and blending that with new competencies now is the key. It has identified digital transformation, wearables, and analytics among others as new growth areas. According to company sources, it is enabling customers in health and fitness industry to build wearable devices equipped with cloud-based analytics along with industry best low-power technologies such as sensors, connectivity and tracking solutions.

Quips Srinivas Prasad, VP and Head-Communications, Devices and Emerging Segments BU, "This transformation we are embarking on is all about restructuring our position so that we can leverage our legacy to newer tech areas. We believe firmly that in each of the five verticals, we will be able to redefine our delivery and profitability."

KEY TAKEAWAYS

As we look at the evolution of Sasken, it has been through many transitions in the past, and the last being morphing into an IT services company, which did do not yield the desired results. Per se, the current transition the company is going through assumes criticality as it is in dire need to grow its top-line and bottom-line significantly. Interestingly, the company's CMD, Rajiv Mody has set the ambitious revenue target of $250mn by 2021 from its current revenue of over $70mn. With the company strengthening its top management, the success now rests solely on execution and deepening its customer base for new emerging tech engagements.

As Jagadish Iyengar, Vice President and Head-Digital Transformation Services sums it up, "I believe we are very much on track to becoming a 'Chip to Cognitive' company and we have all the levers in place. We are already seeing early fruits of this transformation. For instance, a predictive analytics engagement with a European MVNO leading to cost savings for the client to the tune of €9mn (in Euros) per year is an ample testimony to our competencies."

DATAQUEST

Digital Economy Conclave 2017

...where the digital leaders meet

22 March 2017, New Delhi

XXIV ICT BUSINESS AWARDS

Meet the "Industry Stalwarts" on 22 March 2017

Vijay Shekhar Sharma
Founder, Paytm

Vineet Nayar
Ex. CEO: HCL Technologies
Founder: Sampark Foundation

Sahil Barua
CEO & Co-Founder
Delhivery

Bharat Goenka
Co-Founder & MD
Tally Solutions

Key Theme

Digital Enterprise

Cashless Economy

Smart Infrastructre

Make in India
Digital India

Key Highlights:

Annual meeting of 150+ Key decision makers from the ICT industry, discussing about the changing dynamics of the Industry driving economy.

Leverage the live networking opportunities: Write to us now

Marketing
Name : Rajiv Pathak
Email : rajivp@cybermedia.co.in | +91 8010757100 | +91 7289050151

Sarabjeet Kaur
sarabjeetk@cybermedia.co.in

Digital India takes the Center Stage **in Union Budget 2017-18**

In an encouraging step forward to induce growth in the economy, the Finance Minister presented Union Budget for 2017-18 with an essence of digitalization incorporated in every sector. The digital infra related measures of the budget will help more and more people in joining the digital ecosystem

Finance Minister, Arun Jaitley presented the fourth annual Union Budget for 2017-18 in Lok Sabha on February 01, 2017. Directly or indirectly, the budget focused on the tax administration, IT implementation, rural population, farming sector, health care, infrastructure and other sectors. However, a common theme behind the union budget's highlight was digitization of sectors in one way or another. Arun Jaitley made several references of using data mining to improve the efficiency of various departments with regards to transforming India. The budget clause aimed to transform economy from cash driven to less cash and eventually, into a digital economy using new measures such as Aadhaar Pay. The budget also reflects the commitments of the Indian government to promote digitalization in the country.

The government has placed strong emphasis on Aadhaar enabled payment initiatives in Budget 2017-18. "Aadhaar based merchant payment mechanism, AadharPay will transform digital payments to next level and this is a great boost to all digital enterprises and start-ups and with cashback benefits announced on BHIM app which has been downloaded by over 125 lakhs, could very well mark the beginning of the end of private payment wallets." says Anuraag Saboo, Co-Founder and CEO, Gumption Labs.

A part of the deep-rooted changes introduced in the Union Budget 2017 also focuses on increased allocation under the academic sector which is a good initiative to improve school education. It would act as a concrete step to improve school infrastructure and teacher training. As Finance Minister announced setting up of

350 online processes for students following IT adoption, it is encouraging both technology as well as education through SWAYAM. This online education portal can act as a viable component of the country's ability to expand higher education.

Bipin Preet Singh, Founder & CEO, MobiKwik says, "Big digital push is the thrust of the Budget and is a very welcome and the right move for the future growth of the economy. I commend this progressive budget that invests heavily in technology and digitization. The focus on digital payments will lead to revolutionary transformation in Indians' payment habits. Digital payments will be the new normal in 2017 and we are very excited about this. As we become more digital, India will see new tax payers and better transparency in incomes."

Every person from small shops to consumers is getting a push towards the digital economy. Manufacturers of tech and electronic products will also receive a boost, following the announcement of ₹745 crore funds allocation for the same. The announcements made under the Union Budget 2017-18 are being appreciated as the budget is well rounded. It is covering most important cores of the Indian economy, including rural India, SMEs, promoting digitalization, education and the healthcare sector of India.

It is a good Union budget overall and an extremely positive one for the digital industry. The budget also promoted digital infrastructure to support cashless transactions in rural and semi urban areas. Allocation of over 10,000 crores for the Bharat Net Project to provide Wi-Fi hotspots to more than 150,000 Gram Panchayats will truly democratize digital access and change the cyber landscape in India. This will encourage more merchants and consumers to transact on non-cash and online platforms. The robust focus on promoting a digital economy through various initiatives on the digital payments front is a step in the right direction which will have a relevant impact on national growth and development.

Sarabjeet Kaur
sarabjeetk@cybermedia.co.in

Aadhaar Card Accelerating the **Digital India Drive**

The Indian government's effort to enroll its citizens for Aadhaar has resulted in being very viable for transforming the country's today into a digital tomorrow. The various facets of welfare schemes linked with Aadhaar itself are offering an enormous contribution for the Digital India initiative

Prime Minister Narendra Modi launched the Digital India initiative on July 01, 2015. The initiative aims to digitally empower the people of the country and to bridge the gap amongst the digital segments. To attain transformation of India into a digitally empowered society, the government has laid emphasis on e-governance. As digitization of whole country is a massive task, it requires constituting new policy frameworks and departments. Consequently, the BJP government took command of the UIDAI, a central government agency of India in 2014.

UIDAI (Unique Identification Authority of India) is a government organization constituted in 2009. The objective of establishing UIDAI was to issue Aadhaar, a 12 digit Unique Identity number to all the citizens of India based on their biometric and demographic data. Nandan Nilekani, the co-founder of Infosys, was appointed by the then government to head the project. Considered as world's largest national identification number scheme, Aadhaar enrollment was created to eliminate duplicate and fake identities, and to implement authenticated, easy and cost-effective verification. It also takes a holistic view of the rural payments segment by providing Aadhaar enabled platform for rural merchants.

Initially, importance of Aadhaar card was ambiguous. During the enrolment stage, people also faced a number of difficulties such as technical snags and incorrect data displayed on the cards. But later the issues were resolved and the process moved ahead to a more advanced stage where enrolling became much easier and the card was also made a mandatory document of identity proof at all times. This scheme of Aadhaar gained popularity with 3-4 lakh enrollments per day during March-May 2014. Till October 2016, the trend increased to 5-6 lakh enrollments per day.

IMPACT OF DEMONETIZATION ON AEPS

Since the demonetization of ₹500 and ₹1,000 from November 8, 2016, the citizens have received a digital push and understanding of the benefits of Aadhaar. A comprehensive push towards digital India requires digitizing payments in rural India.

Prior to demonetization, Aadhaar Enabled Payments Systems (AEPS), which enables citizens to carry out transactions through Micro-ATM incentive scheme, was used about ₹2.69 crore times in November 2016. These Micro-ATMS provide the doorstep service of using Aadhaar for banking transactions. It is no doubt that the number gradually increased significantly. From ₹8.39 crore AEPS transactions between November 2017 to January 2017, the total number of AEPS transactions by January 15, 2017 stands at ₹33.87 crore.

As a result, the UIDAI has witnessed a major spurt in the number of authentication requests by triple fold in only 2-3 months after demonetization. The enrollment requests increased 7-8 lakh per day. Before demonetization was announced, the rate of linking Aadhaar to bank accounts was 60 lakh per month. This converted to 1.70-1.90 crore per month post demonetization.

Demonetization indeed has provided a boost to a more paperless economy driven by Aadhaar authentication. However, with only 13% of rural India connected to the

internet, the digital payments revolution has to grow beyond urban centers of India. The challenge in rural market is not the unavailability of apps but the access to data infrastructure and unavailability of affordable digital payment solutions.

IMPLEMENTATION OF AADHAAR

Aadhaar serves as a helping hand when it comes to being a simple solution to various kinds of documentary proofs. For instance, in almost every government department in India and banks as well, various documentary proofs are required for verification process. The Unique Identity number reduces the burden of producing various identity proofs at all stages of the process. Aadhaar also assists in reducing corruption, enhancing national security and in checking illegal migration. Therefore, Aadhaar is used not only for identity verification but for many other purposes too.

AADHAAR BASED DIRECT BENEFIT TRANSFER (DBT OF LPG)

The DBTL scheme is named as PAHAL. In this scheme, Aadhaar card is used to get LPG at subsidized rate to the Indian consumer directly in the bank account through the 12 digit individual identification number given on the card.

DIGI LOCKER

The Government of India launched Digi Locker (online locker) system for secure personal deposits. Citizens can safely deposit their imperative documents, certificates and other paperwork in the locker. The Uniform Resource Identifier (URI) of the locker will be linked to Aadhaar card numbers of the citizens, on the government's server.

The initiative is expected to commence dematerialization process of documents nationwide.

E-KYC

Aadhaar e-KYC (Electronic Know Your Customer) offers organizations to establish authenticated identity of their customers by ratifying their particulars and other information through their Biometric Identity. It makes the process very simple and electronic along with Biometric based validation that eliminates all fake accounts from the system leading to huge savings. DoT even issued a circular allowing telcos to accept Aadhaar e-KYC to issue new sim cards. It is a very important digital service where you can do financial transactions in completely paperless manner.

ESIGN

eSign is an online digital signature service which allows us to have the ability to sign any electronic document

with the help of an open API using physical cryptographic token. It works through an Aadhaar e-KYC based service with Biometric or OTP based authentication. It has made possible to sign a document legally through mobile phone.

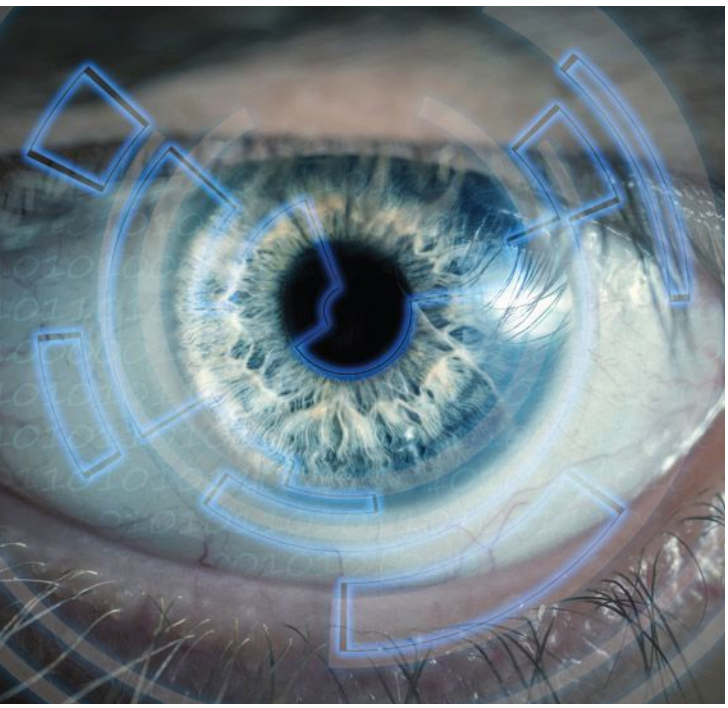
AADHAAR FOR PASSPORT ISSUANCE

Ministry of external affairs also integrated passport system with Aadhaar e-KYC service. It benefits people by issuing passport within a week's time only, opposed to previously taken month's time. The use of Aadhaar has quickened the whole process of passport issuance.

AADHAARPAY

A merchant version of AEPS, AadhaarPAY is an android application which is compatible with low cost mobiles too.

Aadhaar is expected to serve both citizens as well as the government. It provides various benefits to government and the people. But it should be considered that every coin has two sides. Some may debate that biometric identification is modern day enslavement. As Aadhaar is linked with numerous online platforms, undoubtedly, the vulnerabilities pertaining to cyber threats and attacks eventually increases.



DRAWBACKS OF AADHAAR

Along with cyber threats and vulnerabilities talked above, Aadhaar card number unwraps some more threats to the economy and citizens such as:

- Breach of privacy as searching personal details of citizens might become easier to track online for attackers.
- The biometric data taken for Aadhaar verification is highly sensitive as it differs from person to person. If data is lost even once through identity theft, the loss will be irrevocable.

The database management system needs to be prepared in such a way that the biometric system does not fall prone to misuse. Although Aadhaar card has become the major document of proof in India, there are a few disadvantages of it which need to be dealt before time.

Due to its high significance, the UIDAI initiative sends out an expectation for a successful tomorrow. Its generation of ₹63.22 crore on May 31, 2014, now stands at ₹111 crore. Over 47.8 crore Aadhaar cards have been generated during from May 2014 to present. The huge number of identities needs to be protected so that the very purpose of Aadhar card does not get defeated.

Onkar Sharma
onkars@cybermedia.co.in

—KAUSHAL MODY
Global Director for Delivery Excellence and Innovation, Accenture

Analytics is driving the digital adoption as it empowers enterprises to get fruitful insights into their business and the industry. However, many businesses are not able to invest upfront in analytics. They can use Analytics-as-a-Service (AaaS), outlines Kaushal Mody, Global Director for Delivery Excellence and Innovation at Accenture Operations. Excerpts:

ANALYTICS-AS-A-SERVICE IS DELIVERED IN A CENTRALIZED OFF-PREM MODE

How does analytics-as-a-service play a vital role in changing business outcomes? Is it more beneficial for mid and large enterprises?

Accenture believes that every business is a digital business. Digitalization is fundamentally changing the way organizations operate—from how they interact with customers, citizens and suppliers; to how they manage their employees; how they differentiate themselves in the market; and how they grow their business to become more profitable and expand their footprint. Analytics is the fuel to the digital world.

Accenture helps clients identify analytics to drive outcomes that matter; employ the right analytical tools, models to support outcomes and embed them into its clients' operating models and more. We are building on our history of innovation in information management and transformative outsourcing, with a global network of analytical talent and innovation centers.

Accenture includes business-outcome-led analytics apps in every outsourcing offering and are rapidly enhancing predictive and prescriptive capabilities. We are embedding big data capabilities into all of our offerings, helping clients garner valuable insight and intelligence from data to achieve better business outcomes.

Analytics-as-a-Service is being considered as an important element for various industries. Does it completely eliminate the need for on-premise analytics?

Large enterprises use analytics to drive insights across functional areas – marketing, supply chain, procurement, HR, customer care and so on. As compared to traditional analytics delivery methods, analytics-as-a-service is typically delivered in a centralized off-premise mode with customers benefiting through:

- Analytics based on deep industry and domain knowledge
- Access to best-in-class technology
- Converting their Capex into Opex,
- Rapid provisioning
- Global 24×7 support

Clients tend to prioritize areas where they need analytics-as-a-service services – both in terms of breath and depth of services – based on multiple considerations such as client priorities, availability of data, regulatory issues and so on. That said if so required by customers, Analytics-as-a-Service can be provided in on-premise mode.

What is Accenture offering to its customers in analytics-as-a-service?

The Accenture Analytics Offering Framework highlights the company's core capabilities of Information & Analytics Strategy, Advanced Analytics and Information Management. Every offering encompasses these capabilities, essential for delivering a successful end-to-end solution to our clients. Offerings include differentiated assets and solutions that can be delivered as-a-service via the Accenture Insights Platform.

We embed big data capabilities into all our offerings, helping clients garner real insight and intelligence from

data to achieve better business outcomes. Offerings are tailored by industry, and Accenture's professionals are aligned by industry and function. This depth is required to deliver solutions and services that are contextually relevant.

In line with the above Accenture Analytics Offering Framework, Accenture's Analytics as-a-Service provides the following enterprise wide functional offerings:

- **Corporate Functions Analytics—Finance and Accounting:** Helps clients optimize working capital, improve cash collection and discount capture and reduces invoice disputes. It empowers decision makers through a blend of analytics, industry expertise, technology and process capabilities in multiple areas.
- **Corporate Functions Analytics—Human Capital Analytics:** Helps clients improve talent sourcing, increase engagement and reduce employee attrition.
- **Corporate Functions Analytics—Customer Care Analytics:** Helps improve customer experience and retention, drive digital adoption, reduce cost and streamline customer care operations. We embed our offerings with Customer Care function specific assets.

> "Our focus is on building powerful behavioral models that look at entities from multiple contexts—account, customer, vendor and intellectual property"

- **Infrastructure Analytics:** Helps clients diagnose issues, predict failures and optimize delivery, lowering costs and increasing customer satisfaction.
- **Customer and Marketing Analytics:** Helps clients acquire and retain customers, improve return on campaigns, increase content effectiveness and optimize cross-channel sales and pricing.
- **Operations Analytics—Supply Chain and Procurement:** Helps clients identify, mitigate and manage supply chain risks, enhance service levels, improve category management and save costs by leveraging analytics to make better decisions across planning, procurement, logistics, distribution and service. We embed our offerings with supply chain function specific assets.
- **Accelerated Research and Development Analytics:** Helps reduce cost and duration of trials and improves regulatory compliance during drug development by Life Sciences clients. We embed our offerings with Accelerated R&D - specific assets.
- **Advanced analytics:** Accenture continues to strengthen its advanced analytics offerings by developing new predictive and prescriptive analytics solutions. Our focus is on building powerful behavioral models that look at entities from multiple contexts—account, customer, vendor and intellectual property—to accurately estimate and predict anomalous or risky behavior in procurement, finance and accounting, infrastructure and security. Results are delivered in real time or near-real-time, allowing corrective actions to be taken before it is too late, thus increasing value. Advanced analytics is embedded into analytics solutions for business functions as well as for industries. Also, advanced analytics is core to most of the apps on the Accenture Insights Platform.
- **Information management:** Accenture's Information Management offerings focus on design, build and run solutions to help clients with data collection, management, integration and information consumption, which is the foundation on which Accenture's analytics business is built.

Can you name some of your customers who are using Analytics-as-a-Service?

Accenture builds trust-based and enduring relationships at the C-suite level with many of the world's leading companies—the Global 2000—and major governments. Accenture Analytics for example serves 70 of the Fortune Global 100 companies; our clients span all industries around the world. Our industry experience is best in class – we have expertise in more than 40 industries across 13 industry groups.

Can you share a successful case study where Accenture has successfully deployed their analytics-as-a-service offerings?

A North American retailer was experiencing softness in sales and loss of market share over several years. The retailer engaged with Accenture to set up a loyalty platform and focus on customer centric marketing strategy. The challenge was to develop an integrated analytics platform utilizing customer-loyalty data to identify and communicate with top and potential shoppers, to drive retention and growth through personalization, and increase promotional efficiency. Accenture set up loyalty platform and used analytics to provide tailor-made offers to shoppers and executed a customer-centric campaign strategy. The pilot resulted in total store sales growth by 2% and retention by 9% through proactive identification of shoppers at risk, and a 30% lift on sales of products on promotion using personalized offers.

Gautam Bhattacharya & Rohit Lotlikar
maildqindia@cybermedia.co.in

Enhance Robotic Process Automation **Potential with Machine Learning**

RPA has evoked significant amount of interest in the Shared Services Delivery and BPO communities, and the production deployments of this technology is growing at an accelerating pace

As Information Technology (IT) advances, manual or labor-intensive work gets progressively automated. However, much of manual labor remains without being automated because it is difficult to get disparate enterprise applications to talk to each other while keeping the end-to-end implementation flexible enough to deal with changes in business requirements. However, Robotic Process Automation (RPA) changes this.

Robotic Process Automation refers to process automation where computer software drives existing applications through their standard user interface in the same way that a human does. In other words, it orchestrates applications via presentation layer integration in contrast to integrating via the application back-end.

RPA is especially suited for situations where the process logic or data formats have not reached a level of stability or standardization that is likely to make backend-based integration feasible or worthwhile.

While the majority of back-office business processes have clear rule-driven nature making them candidates for RPA, we frequently encounter processes either involving free text and/or judgment calls. If the proportion of cases involving free text and/or judgment calls is significant, the use of text analytics and machine learning technologies should be considered.

THE ROLE OF MACHINE LEARNING IN BUSINESS PROCESSES AUTOMATION

Machine Learning is the science of learning from data. It involves processing of historical data records for discovering patterns in the data, and describing the relationship in the form of rules. These rules can be then programmed into RPA to automate the decision making. The machine learning algorithm must be provided with the historical data consisting of decision calls and the snapshot of the relevant data fields at the time of decision making.

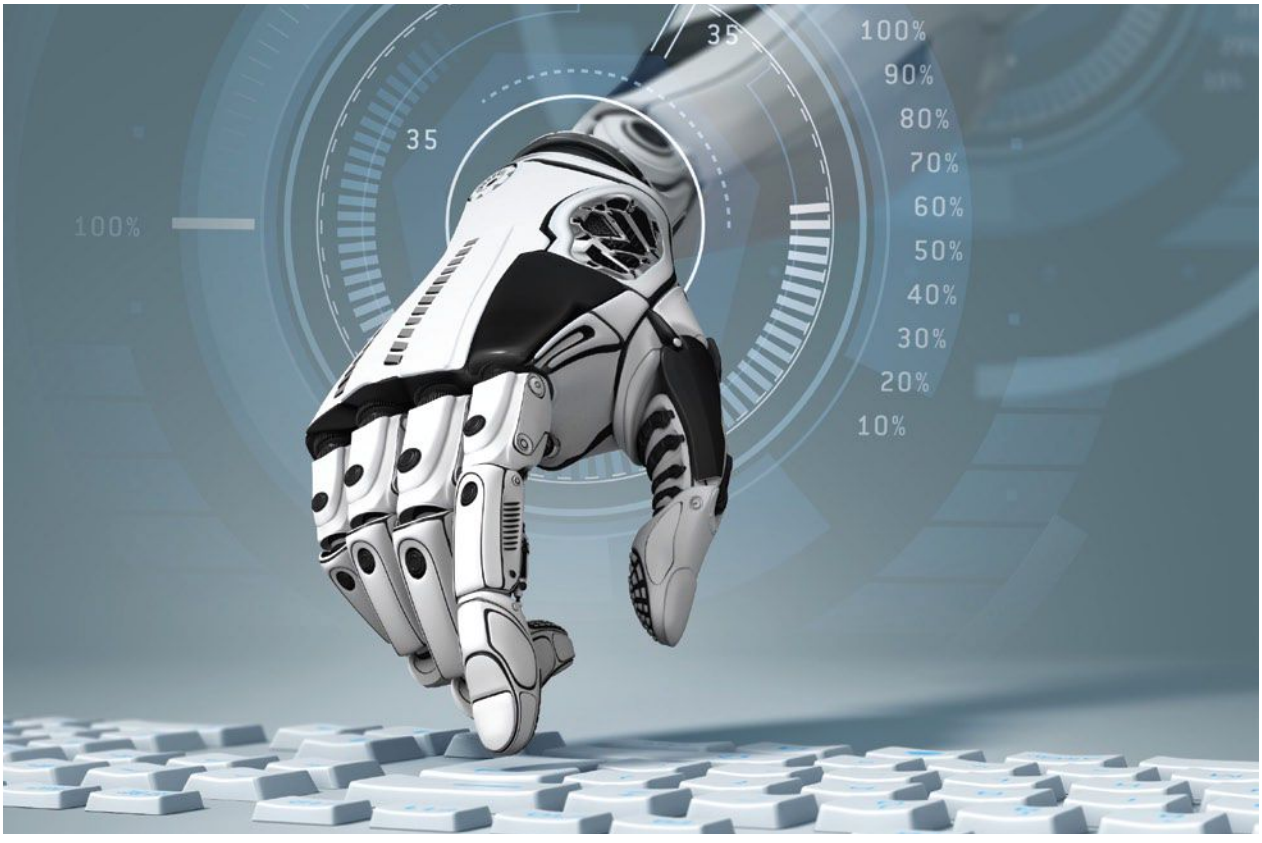
In many situations, the experience and intuition of the human will impact the decision. In such scenarios these algorithms will, in effect, learn the "wisdom-of-the-crowd", which describes combined experience and intuition of the humans.

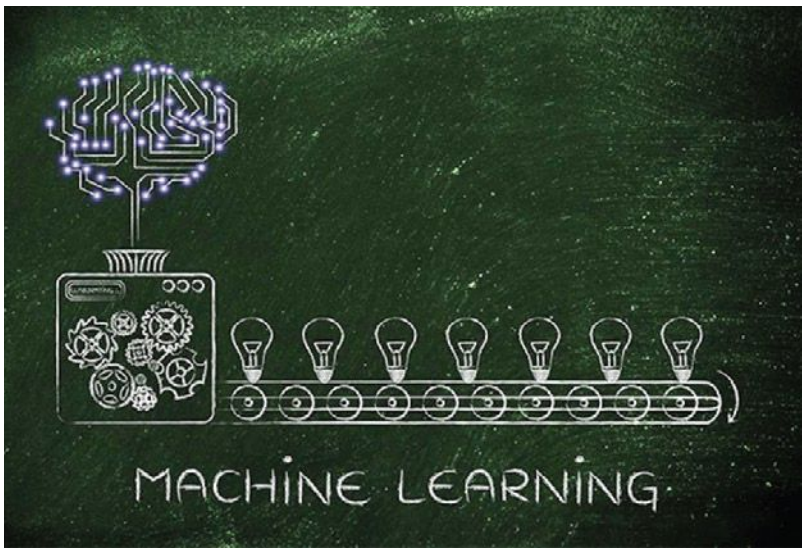
HOW TO APPLY MACHINE LEARNING?

In the context of automation, there are two modes in which machine learning can function:

Decision support: Here, the focus is on improving the quality of decision making while the final decision is taken by humans, considering the guidance from the algorithm. An example of this scenario is guided cross-selling where the product recommendation is made by algorithms, based on discovering how demographic and behavioral attributes of the customer relate to the propensity to purchase a product.

Decision automation: The focus is on productivity gains and makes sense for high volume decisions. For this to work, the algorithm must have a high level of accuracy equal to or better than that of a human on the cases that are processed by it.





DECIDING WHETHER TO APPLY MACHINE LEARNING

For determining whether machine learning is feasible and can add value, we first check on whether it is a 'local' decision or a 'global' decision.

- If a decision on a case involves looking beyond the case at hand to look for trends/patterns across the cases (i.e., a 'global' decision), then using machine learning is essential. Common use cases include credit approval and fraud detection.
- If a decision on a case can be made by looking at the data associated with that case alone (a 'local' decision), then it is easier to start with the reverse question and determine if and how much of the cases can be handled by SME defined rules. If a significant proportion (in the sense of FTE costs) of cases cannot be handled by SME defined rules, then that process makes a good candidate for machine learning. If the rules need to be tuned very finely, which would happen if there are a large number of factors or it involves noisy free text, it becomes difficult for a human to encode the rules accurately and machine learning is likely to be a good prospect.

When a process is very rule driven, automation will ensure consistency, since human error is eliminated. The machine learning algorithms output a set of rules that are then employed in the process, and therefore, machine learning ensures consistency as well. When there are process or policy changes, in how the decisions need to be taken, or new situations are encountered, these must be monitored, i.e. the response of the model should be observed.

CONSIDERATIONS WHEN MACHINE LEARNING IS USED WITH RPA

Since machine learning algorithms infer the logic by observing human responses over a considerable number of cases, they are most ideal when the underlying logic is 'stable'. When there is a change to the underlying logic, the algorithm needs to observe a sufficient number of human responses under the new logic before it can take over from the human. The RPA implementation must include a checkpoint to demarcate those cases to which the new logic must be applied and reroute them to a human until the algorithm has been adequately 'trained'.

When applying machine learning based RPA, it is prudent to be concerned about the correctness of the response that the algorithm would output when it encounters situations that are unlike anything it has observed in the past. This can happen even when machine learning is not employed; say if the RPA programmer has not strictly specified the scope outside of which a robot should throw an exception. In either case, the system needs to be 'stress-tested' on simulated examples, its response observed and compared with the desired response.

In recent years, RPA has evoked significant amount of interest in the Shared Services Delivery and BPO communities, and the production deployments of this technology are growing at an accelerating pace. RPA vendors and partners have been fairly clear in stating that this is a technology for automating standardized, rules-driven, non-judgmental processes. At the same time, they are alerting customers to the next wave of automation — cognitive RPA — which combines RPA with machine learning technology to extend the boundaries of automation even further. While machine learning technology has been around for a while, it has been hard to deploy in service centers due to the need for backend access to the data. The developments in RPA technology has made machine learning technology more amenable to use in shared services centers thanks to the ability of RPA to access data and drive the process via application user interfaces.

The authors are Gautam Bhattacharya, Partner and Leader Analytics, EY and Dr. Rohit Lotlikar, Director and Data Science SME, EY

Onkar Sharma
onkars@cybermedia.co.in

Blockchain has emerged as a new ecosystem within the FinTech category. In order to know what it means in the business sense and how it can impact the FinTech space, Dataquest spoke to Rohan Angrish, CTO, Capital Float. Rohan also runs us through how AI and machine-learning pans out in the present context of cashless India. Excerpts:

—ROHAN ANGRISH,
CTO, Capital Float

BLOCKCHAIN IS THE NEW PROTOCOL FOR 'TRUST'

Can you explain in layman's language what Blockchain means to Indian organizations?

Blockchain is the new protocol for "trust", something absolutely essential in the tech domain. Since, it's not controlled by any single entity, but rather distributed across multiple, observable entities, it can form the backbone of trust-centric operations, basic communication being one such interaction. It's the new buzz word because it has the ability to disrupt technology at a basic level.

How is Blockchain expected to be a big trend in Fintech organizations?

Fintech has created new ecosystems as well as sped up or optimized other existing ecosystems. The ones that

already existed will have a harder time transitioning to the blockchain, as can be expected of any large ecosystem that tries to move from one framework or mind-set to another. Newer ecosystems like fractional lending or fractional insurance will take to blockchain much sooner. What this means is, you'll see new blockchain specialist entities, like smart contract specialists, cropping up all over the place and becoming an integral part of the new age financial services.

Right now, it's not easy to convince investors and management to divert resources and money for building blockchain tech in existing, large companies. This will happen only when the use-cases are compelling from a cost-benefit point of view. This means, it is the start-ups that will bring about the largest spurt in innovation using blockchain, so that space needs to be watched carefully, and with keen interest.

What are the benefits of Blockchain?

Blockchain by nature disintermediates a number of legacy middle-men, leading to higher levels of trust and lower costs, both of which can then percolate into the financial system. A technological framework that boasts of higher trust and lower costs can lead to a quantum jump in the state of financial services.

How are you leveraging cell phone penetration to offer customized financial services?

Providing financial services to far-flung regions of India is not cost effective if not provided entirely over a cell phone. This means all the stages of lending need to happen over the cell phone. These include OTP based eKYC, reading cell phone data (SMSs, etc) to get data on which to underwrite, OTP based eSign of loan agreements and a cell phone app to manage your loan. We are live today on an end-to-end, automated, and entirely cell-phone-based loan process at Capital Float.

What is the role of machine learning/AI in Fintech space? Do you have any examples to quote?

Capital Float today has AI and machine learning in all aspects of its business, both internal and external. Internally, we use AI to decide which cases can go through a green-channel. So, to speak and which cases can skip what stages based on their complex profiles. Externally, AI is used to come up with loan offers for borrowers. All the algorithms are based on models built from data we have collected and are then refined based on learning from future data. In the worst case, a process at Capital Float may be machine-assisted. Most things are completely machine driven. Almost nothing is human-only.

How do you see the role of Blockchain and AI in cashless economy?

Financial services are predicated on trust. By design, blockchain brings trust into all transactions conducted in the blockchain paradigm. There are further bells and whistles like smart contracts, cryptocurrencies and ledgers that will add to the allure of blockchain. Today, it is possible to conduct almost all lending operations in the blockchain, the only impediment being regulation. Once regulatory bodies come to terms with the idea of the blockchain, it will greatly speed up the establishment of a cashless economy.

What is the use of APIs to exchange data allowing higher levels of scale, speed and accuracy?

The use of APIs to exchange data is common in the tech world. It is quick and ready to use. It allows us to reach levels of scale, speed and accuracy that cannot be achieved if humans are involved in the process. Data can be crunched and information can be exchanged at extremely fast rates, the results of which can then be displayed to the human being who is expected to act upon the results far down the funnel. The only scalable way of growing a platform is to have API-level integrations that all co-parties can use. If a process involves one human being and takes one day, the only way that process can scale to a 1000 a day is by hiring a 1000 people. Only machines can give exponential growth.

What are the innovative technology initiatives you have taken in your organization?

The 90-second loan is still one of the big wins for the India Stack initiative. Using eKYC and through our collaboration with India Stack and UIDAI, we are disbursing the fastest loans to SMEs in India. Data from third parties is consulted and crunched by machine-driven algorithms. Loan agreements and other regulatory formalities are completed; this entire process is executed using API. No human being, apart from the SME owner is involved in this process. All of this happens over 90 seconds, using a cell phone that is connected to the internet.

Sify-Cisco CIO Meet Highlights **'Digital Transformation' in a 3-City Event**

IT industry has matured over the years and is churning out the best in class from the digital technology. Observing the constant changes in the industry, the CIO Meet conferred about infrastructure optimization, digital transformation and much more

NEW DELHI

By **Malavika Sacchdeva**

Guests at the registration desk, New Delhi

IT industry has matured over the years and is churning out the best in class from the digital technology. It has hitherto witnessed growth in regard to industry, business and economy. The digital transformation plays a vital role for IT business indeed. On the same note, in collaboration with Dataquest, Sify and Cisco Technologies organized a CIO Meet in New Delhi recently. The meet highlighted the need to embrace digital technology for cost reduction and to increase productivity.

The keynote speaker, Dr. Jai Menon, Director Technology, HT Media orchestrated the session addressing how datacenters and IT technology is evolving and its future prospects. He said that there is a framework created called "e to i". The terminology helps practitioners to understand and embrace technology for competitive advantage. This event saw IT leaders across the industry citing their views on the importance of datacenters.

Dr. Menon said, "Organizations follow either enterprise

style or internet style, but they cannot work independently for long. In a chronicle form, we as IT practitioners or even our providers like Cisco, we either think about ourselves as enterprise style or internet style players. But what is happening today is that they are coming together and are being embraced by us as practitioners."

Taking his cue from Dr.Menon, Harish Subramaniam-Lead Datacenter, Cisco also spoke about organizations that are adopting a mixture of both "e and i". He also acknowledged how datacenters have changed over the years and how today most e-commerce applications are on clouds – majorly on public cloud.

Dr. Jai Menon, Keynote Speaker receiving the token of thanks, New Delhi

CHALLENGES FOR IT

The companies need to decide whether to go for an in-house department, take software services or go for infra services. According to Harish Subramaniam, one has to embrace all of these as an IT team may not be equipped with applications at the edge or at the public cloud. The role of datacenter has to expand and only IT is not enough and that is why "e to i" came into picture with ASAP (Analyse, Simplify, Automate and Protect).

Observing the constant changes in the industry, the CIO Meet addressed that infrastructure has to be optimized so that server stays under control. The need of the hour is to plan infrastructure commencing from the network to storage for matching the requirements of the application.

Traditional applications like Oracle Database and SAP may not be enough;hybrid cloud will be a reality soon.

ArvindGautam, Business VP and Head TIS Business, Sify Technologies talked about Sify's approach towards datacenters, how Sify has restructured in the last 5-7 years and play the role of new ICT player. The objectve of Sify is to create hybrid business models.

He also spoke about how the company created datacenter space and what all kind of assets they have created and how do they differentiate their spending on those assets.

According to Sandeep Majumdar, Chief of Operations-North, delivering the datacenter transformation presentation means different things to different people. So, the essence is driving into hybrid infrastructure. It could be on print at the client's premises at the company premises, datacenter or all done on a variety of roads.

Audience during the CIO Meet

CHENNAI

By **Swaminathan**

Digital Transformation is the new kid on the block. As enterprise IT organizations grapple with the plethora of challenges in inking an IT Transformation plan of action, the creation and access to a state of the art data centers play a critical role. It is in this backdrop, Dataquest collaborated with Sify Technologies and Cisco for a CIO event titled "Embarking upon the Future-Ready IT Infrastructure". The meet looked at demystifying the myths surrounding the Data Center transformation and aimed at helping Sify and Cisco's customers' to collaborate more effectively. Dataquest was the knowledge partner of this 3-city CIO event.

Keynote speaker, Mr. Umesh Sachdev addressing the audience

Both Sify and Cisco engaged the leading CIOs across various verticals in Chennai through this meet. The key discussions were around the myths surrounding the datacenter transformation and helping customers to collaborate more effectively.

Setting the context and tone, Arvind Gautam, EVP – TIS BU, Sify Technologies, in his presentation talked about aspects that make Sify the big differentiator in the ICT industry. Discussing on the differences between traditional IT players versus the new age ICT providers like Sify, he pointed out the key challenges any CIO faces in today's enterprise environment- manageability, uptime, unified collaboration, cloud and more.

In his keynote address, Umesh Sachdev, CEO and Co-Founder, Uniphore Software Systems, spoke on the digital leverage with special respect to the contact center industry. He spoke in detail on aspects like the adoption of digital in Indian enterprises, the role played by digital transformation to make life easier, and much more.

Meanwhile, Bhavesh Mathur, VP and Head, DCT and Managed Services, Sify Technologies, on his interaction with the participants said that the services model is directly aligned to the digital journey. He also explained the 'pay-per-use' model of Sify in terms of utility bills, insurances, stocks and more. Sify also showcased their success story on conducting the exams for the more than 37 lakhs candidates in 98 cities in 42 batches across 15 days for recruitment. This was one of the largest online exams to be held anywhere in the globe.

ASAP MODEL

Navaneeth Radhakrishnan, Regional Manager- South, CISCO and Anup Gupta, Data Center Sales Lead, South India and Sri Lanka CISCO in their presentation touched on maximizing application performance, security and economics to accelerate Digital Transformation. Speaking on the impact of digital transformation on data centers and cloud, the Cisco team said that close to half of the fortune 500 companies are expected to no longer exist within 10 years if they fail to re-invent. Quoting an insight from a survey done by Forbes on enterprises, Cisco said that 65% of the respondents discontinued or scaled back from public cloud.

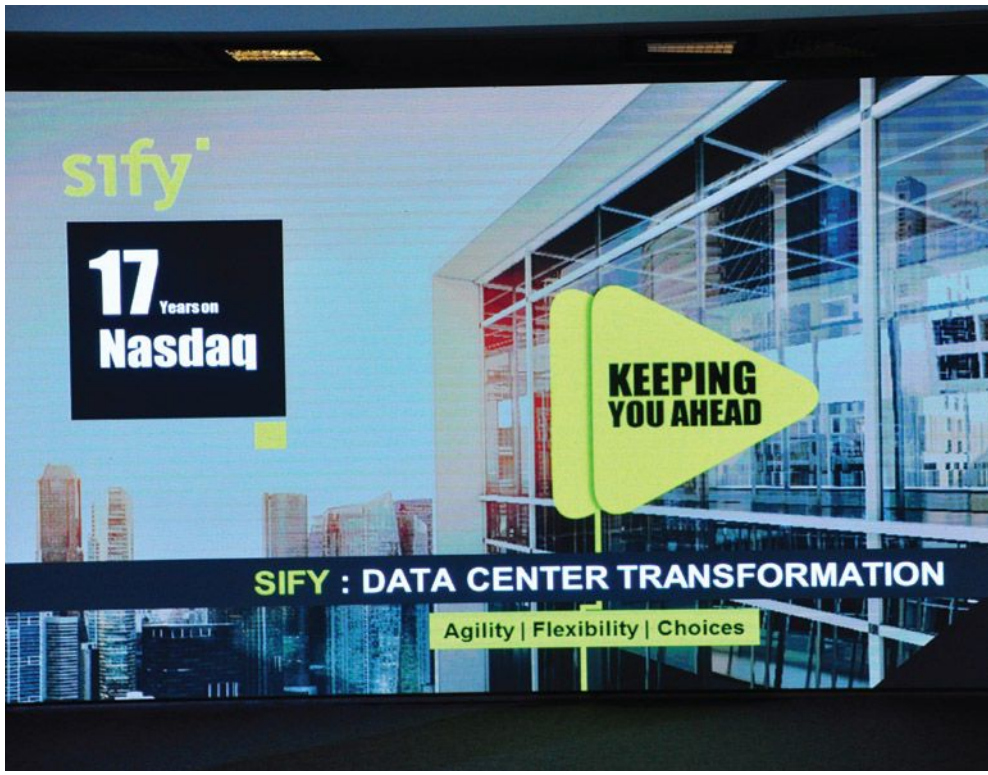
The team described the 'ASAP' data center, which gives emphasis to: Analyze, Simplify, Automate and Protect. The objective isn't just to make today's enterprise faster and more efficient. It is to bring the future closer by helping customers adapt, reinvent, and reimagine their businesses and capture opportunity more quickly than ever before, stated the Cisco team members.

In his closing remarks Pankaj Gupta, Chief of Operations, South region for Sify Technologies, summed up aptly by saying why a pro-active IT infrastructure is vital for digital transformation and how companies like Sify and Cisco are playing a leading role.

HYDERABAD

By **Meghana Lal**

"Smart businesses are embracing digital transformation programs that act as change agents and create business value through technology." This statement by GS Ravi Kumar, CIO of Gati, set the tone and context at the CIO Meet organized in Hyderabad. Held in collaboration between Sify Technologies, Cisco, and Dataquest, the event saw IT leaders across industries citing their opinions on why digital transformation is the need of the hour.



Kumar, who was also the keynote speaker, put the spotlight on how Gati has transformed as an organization, driven by its digital efforts. From implementing a custom-made ERP solution only 13 years ago, to entering the mobile space in 2008, to becoming the first in the country to roll out a comprehensive vehicle monitoring system, technology has always been at the center of their efforts to go digital. "But there are still miles to go on the road to becoming a truly digital organization," he added.

The thought behind the collaboration between Sify and Cisco was to bring out the unique value proposition for businesses on technologies across data centers, and networking collaborations. "Our relationship with Sify is very different from our traditional system integrator partnerships. This alliance is an effort to disrupt the market by offering innovative and unique business models and solutions, like an as-a-Service model, for our customers," said Sumit Pamecha, who drives the Cloud and Managed services Partnerships in India and SAARC for Cisco Systems.

Aravind Gautam, who heads the Transformation and Integration Services at Sify, spoke about several organizations which have benefitted from a digital transformation, including India Post. Also mentioned was the Sify's strategic partnership with Reckitt Benckiser that saw multi tower services across Europe, Latin America and North America. Gautam's presentation highlighted the key concerns of CIOs today around network, vendor management, applications, security, time to market, cloud, unified collaboration and scalability of the solution.

Taking his cue from the Gati CIO, Ashok Shivashankar, Regional Manager – India and SAARC for Cisco, reiterated the importance of technology in digital transformation. "IT has to be at the center of digitalization and has to be supported by a robust and scalable network," he said.

Meanwhile Sridhar Bharadwaj, Specialist- Data Centre, Cloud and Virtualization Business Unit, Cisco also impressed the audience about the IT infrastructure happening and creating an overall change in the IT landscape and how players are part and parcel of this transformation.

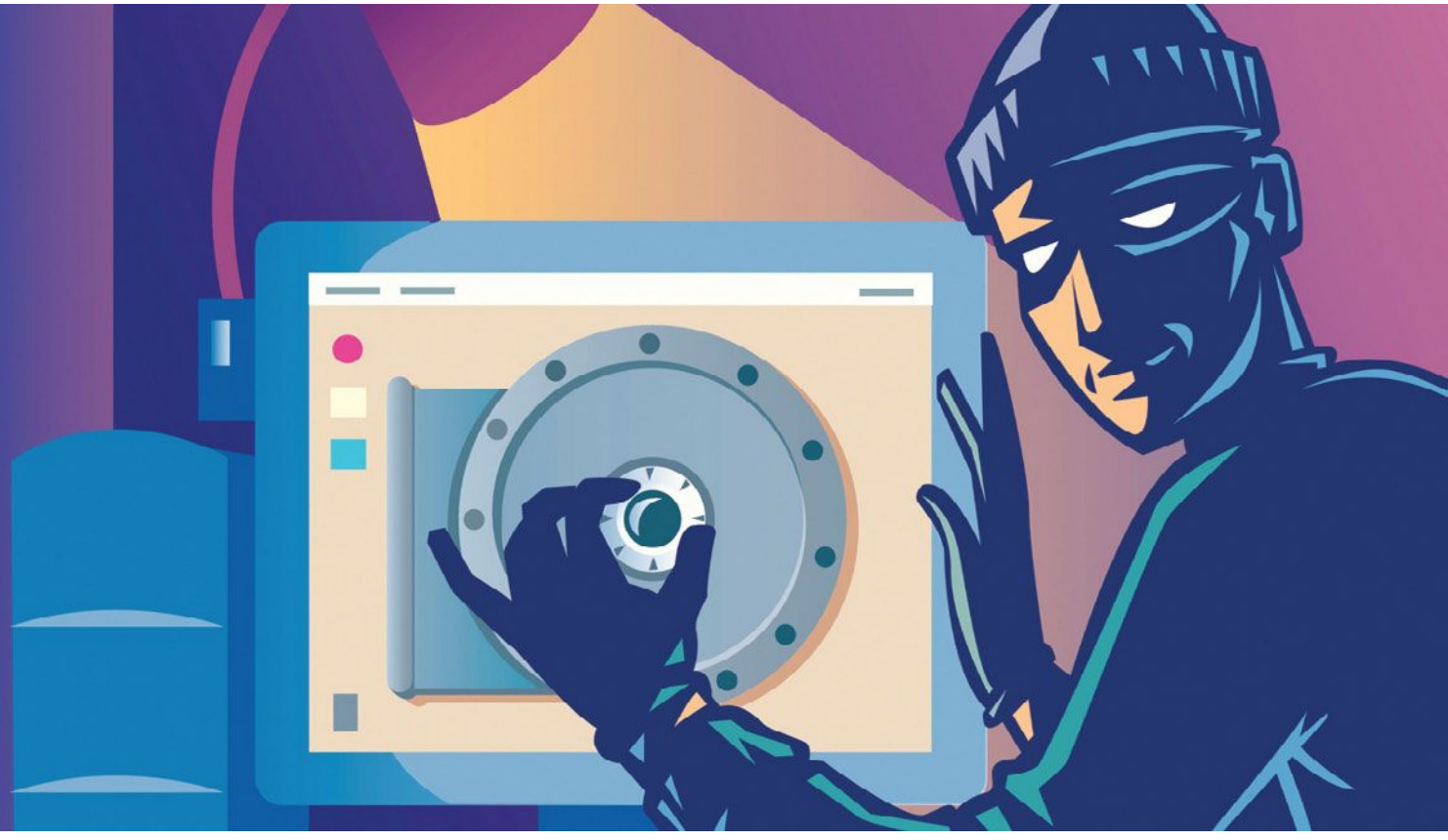
Pankaj Gupta, Chief of Operations, Sify Southern region delivered the closing remarks by observing how data center transformation will play a key role in digital transformation. IT leaders from organizations including ISRO, IFTAS, Andhra Bank, Mylan, and the American Oncology Institute were in attendance.

The events were successfully concluded on the note that datacenters and transformation network is an imperative business call for IT companies. The meet was a part of Sify Technologies' three-city CIO Meet series in New Delhi, Hyderabad and Chennai.

Vinit Goenka
maildqindia@cybermedia.co.in

Digital Perspective on **India's Security Interests**

In 21st century warfare, the best tactic deployed by adversaries is to attack the psychology of the citizens by creating mass disbelieve over their government machinery and a state of panic. What effect this has brought in India and the digital world?



India for years is facing a lot of heat from both its neighbors – China and Pakistan. With a territorial conflict dating over four decades between these nations, digital war has given a new shape and magnitude to the sovereignty of India. China and Pakistan have shaped up as all-weather allies as India makes a diplomatic shift in relations with the United States in recent years – with their primary agencies seeing India as the new friend in the era of developmental politics. In a 21st century warfare, the best tactic deployed by adversaries is to attack the psychology of the citizens by creating mass disbelieve over their government machinery and creating a state of restlessness and panic.

#BANKINGBREACH

In October 2016, as media reports flourished about a financial data breach, the commoner went erratic – dialing their respective bank customer care centers to know if

their money was safe and rushed to change their pass phrases. But, it is worrisome, as I read in Hindustan Times/ Economic Times where it reported similar incidents dating back to February 2016. Our establishment was clueless until the digital adventures of private firms in early September caught other agencies off-guard and pointed out a breach risked 3.2 million cardholders. With a budget of ₹77,383.12 crore for internal security, ₹2.58 lakh crore for defense and ₹24,543.48 crore for telecom and IT infrastructure allocated by the Central Government during the Union Budget 2016, India stood helplessly in front of the data thieves. In this article, I shall express my views about India, as the nation needs to address and rectify to prevent such damage.

In Reuters, it mentions that the issue stemmed from a breach in systems of Hitachi Ltd – a Japanese company, subsidiary Hitachi Payment Services, which manages ATM network processing for Yes Bank Ltd. It will interest you to know that a possible compromise of one of the payment switch (a switch is part of the back-end network aiding ATM operations) provider's systems was responsible for data stolen from 90 ATMs, directly affecting 641 customers with loss of $13 million from 19 Indian banks. As per data available with the World Bank, 0.689 billion people in India today hold a banking account – and most come with an ATM card in name sake of ease of operations. The problem didn't exist at Indian banks but at the switch as pointed by the NPCI Chief Executive A.P. Hota; and the spread to 19 banks was possible because of the convenience we exercise of using our cards at third-party ATMs.

My understanding tells me that to infect all the banks, the hacker doesn't need to, technically, place a malware in all banks – it's like a influenza, you infect one host with the germ – malware, the rest will automatically be done by the carrier agent – ATM customers. Here, to have your details sent out to the identity thieves, the basic requirement was to have the customer make transaction in an ATM connected to the infected switch, and to have fraudulent transactions happen over eight months clearly indicates how seriously Hitachi Payment Services did their security audits and maintain their infrastructure.

Most ATMs are basically PCs running on Windows XP, which makes them vulnerable as Microsoft itself has stopped support for the operating system. Also, most ATMs work on XFS standard – a set of standardization norms for ATM software – which is really old. CEN/XFS or XFS (eXtensions for Financial Services) provides a client-server architecture for financial applications on the Microsoft Windows platform and was last updated in 2011 as XFS v3.20, released by CEN."XFS requires no authorization for the commands it processes, meaning that any app installed or launched on the ATM can issue commands to any other ATM hardware units, including the card reader and cash dispenser," said a spokesperson at Kaspersky Lab, an international software security group. It is a dangerous event as when a malware successfully infects an ATM, it receives almost unlimited control over that ATM.

Given my knowledge on the subject, and as a policy influencer, my foremost suggestions would be that – One: ensure physical safety of the ATM, so that no virus can be planted physically i.e. round clock surveillance of all ATM sites – which the banking players avoid to save costs. Secondly, the XFS standard must be improved to help the software protect itself better – machine learning or AI, at later stage may be implemented to understand and react to transactional behavior. Lastly, "authenticated dispensing" must be implemented to exclude attacks via any counterfeit processing centers that imitate the bank software, and also all data transmitted between hardware units and the PCs inside ATMs must be encrypt with military grade security – as banks and the infrastructures are the targets in digital and economic war.

Now, the thought that worries is that if 90 ATMs can cause this havoc, how much loss can over 1.5 lakh ATMs bring to the Indian economy?

#DYNDNS

As always, I was following news from the cyber world – switching from national happenings to international, ATM cards were sufficient to my national appetite, when I discovered news of the Internet broken by a million automated hackers – IoT devices. According to famed security intelligence firm Flashpoint, 'Mirai' bots were detected driving much, but not necessarily all, of the traffic in the distributed denial of service attacks against DynDNS.

The Domain Name System (DNS) is an entity that associates information with domain names assigned to each of the participating entities – it is like a phone directory that stores the numbers – IP addresses (200.224.192.25), with their concerned holders. In order to understand, we need to what is 'Mirai'? Mirai is a piece of malware that targets IoT devices such as routers, and security cameras, DVRs, and enslaves vast number of these compromised devices into a botnet – one we saw in the franchise series – Terminator. These devices are then used to conduct DDoS attacks. Since, the source code of Mirai Botnet has already made available to the public; anyone can wield DDoS attacks against targets. This type of attack is notable and concerning because it largely consists of unsecured IoT devices, which are growing exponentially with time.

These devices are implemented in a way that they cannot easily be updated and thus are nearly impossible to secure. Manufacturers majorly focus on performance and usability of IoT devices but ignore security measures and encryption mechanisms, which is why they are routinely being hacked and widely becoming part of DDoS botnets used as weapons in cyber-attacks. Foremost users of these devices are engineering students and hobbyists, who will fall prey of attacking their own smart cities in days to come if the issues are not addressed at the right time – which is now.

This massive Distributed Denial of Service attack against Dyn, a major domain name system (DNS) provider, broke large portions, causing a significant outage to a ton of websites and services, including Twitter, GitHub, PayPal, Amazon, Reddit, Netflix, and Spotify. An online tracker of the Mirai botnet suggests there are more than 1.5 million infected devices on the Internet, with over 185,000 devices active right now. In short, botnets like Mirai are growing rapidly, and there is no easy way to stop them until strict policies and firewalls are in place, because cutting of the Internet is no solution.

As you can see, the East Coast of United States has a lot of IoT devices that are often used for DDoS attacks on the strategic assets of the nations as well as multiple highly visible corporate websites with enormous traffic. It will also interest to learn that French internet service and hosting provider OVH, was also targeted by the similar Mirai Botnet. It is a known process that data takes the shortest path, and with India by 2035 having another million devices in form of smart cities, connecting every possible aspect of our daily life is a new threat for DDoS attacks to the Indian establishment. Are we ready to mitigate a 1Tbps scale of traffic on the national Internet backbone? Will we be prepared to disconnect the flood control equipment and lighting from the Internet and yet manage it in 2040, if a then equivalent scale of traffic hits the infrastructure?

With smart cities, autonomous intelligent vehicles will be the new trend in couple of years – and one such hacked vehicle will be no less than an armed aggressor with AK-47 open firing in public places. A rogue nation with many advances in cyber-warfare nearby has already contributed enough pain to the Indian establishment, any delay in seeing these threats will cause widespread havoc when India will have tens of them.

The threat today is from foreign powers, terrorist organizations, criminal syndicates, miscreants and innocent cyber bullies.

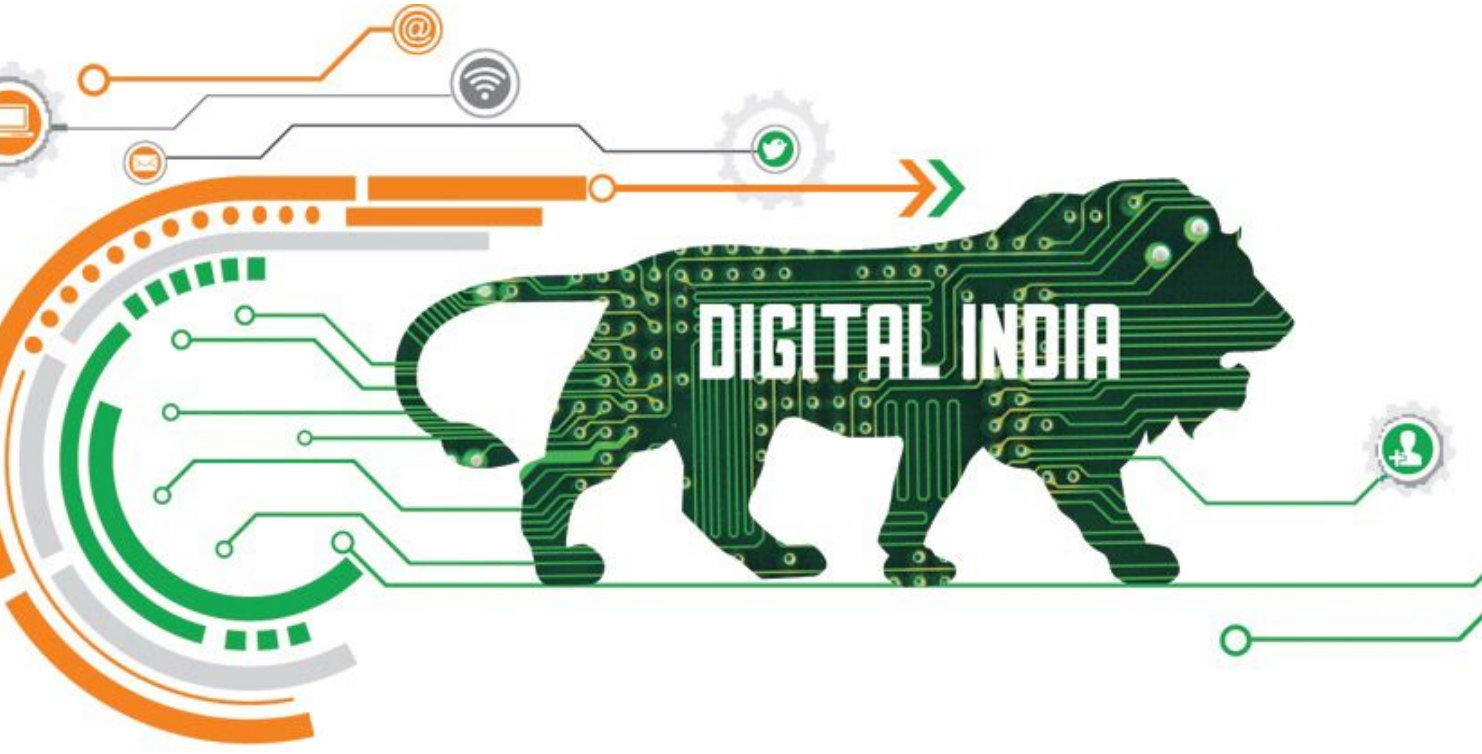
While policy makers are continuously reformulating existing policies and laws to keep a check on anti-social elements and the above-mentioned threats, law enforcing agencies are constantly struggling to match the pace of these challenges. We must actively involve existing academicians and young minds from our schooling system to generate awareness and cohesively counter these cyber threats so that our nation is safe, secure and future-ready.

The author is Chairman, Association of MSMEs, IT (AIM-IT)

Arvind Gupta and Sapan Jain
maildqindia@cybermedia.co.in

Re-imagining E-waste for a **Faster #DigitalIndia**

Digital India will leapfrog India into socio-economically digital empowered society in the next five years. While the government focuses on building this local infrastructure, there is an opportunity to fill the gap by re-deploying the existing functional but financially depreciated IT assets



The 4th Industrial Revolution is taking the world by storm and it has digital technologies at its core. It is the combination of data, internet sensors, cloud computing, analytics, artificial intelligence and virtual reality combined with 3D printing, robotics, advanced materials and energy storage which will have a multiplier effect on economic output and society. Digital India is a holistic vision to harness the energy of its demographic talent and potential of digitization for India. From affordable and ubiquitous connectivity, to locally manufactured devices and consumable content in all languages and forms, the vision is of a digitally empowered society solving problems of financial inclusion, access to healthcare, quality education, clean energy, agriculture information systems amongst others. Digital India will leapfrog India into socio-economically digital empowered society in the next five years by enabling consumers, citizens, small businesses, traders and farmers to harness technology for efficiency and productivity. Today, we stand on the threshold of such a transformation, credits to the vision of Prime Minister Modi.

INDIASTACK REVOLUTION THEORY

Demonetization has given a much required push for

consumption to be digitally driven and payments to go cashless. Every Indian will have access to full financial services through the revolutionary IndiaStack. IndiaStack is an open innovation at its best, with tight integration of Aadhaar-identity, digital locker-paperless and payment systems available to all to build their innovations on top of these platforms.

Banks will open new accounts using Aadhaar-linked e-KYC mechanisms in a few minutes. Consumers will make payments to merchants using the Unified Payments Interface. They will be able to get credit, get all benefits directly credited to their accounts (DBT) and get life insurance, medical insurance and opportunities to invest their savings electronically. Merchants will receive payments digitally at the lowest costs possible. They can raise invoices with GST-enabled software and get appropriate tax credits in their bank accounts.

While the software infrastructure has been well developed, we still have a long road ahead in developing an indigenous hardware industry. We need to move up in the value chain of hardware design, development and manufacturing. Given the importance of semiconductors in every piece of hardware from a laptop to a light combat aircraft, it is important we continue to build out local competence in core hardware technology from semiconductors to storage devices.

E-WASTE AGENDA

While the government focuses on building this local infrastructure for manufacturing hardware, through attracting FDI and the "Make in India" campaign, there is an opportunity to fill the gap by re-deploying the existing IT assets that have been financially depreciated but still have another few years of functional life left. Today, most of these assets are confined to office backrooms lying idle or getting disposed for recycling or landfill as e-waste. Policies and incentives need to be designed to encourage the re-use of assets that can be re-deployed. This will not

only help reduce e-waste generation but will also result in making technology more affordable to those who couldn't have otherwise benefitted from it.

The start-up ecosystem is in place to solve this problem, there needs to be policy clarity to make this happen. General awareness within enterprises and industry organization is also required to re-provision functional assets to village self service kiosks, government schools and panchayats.

The revised e-waste rules released in 2016 has been a significant improvement over the past. However, there is still a significant room for improvement by bringing more clarity in the policies. The e-waste guidelines should be clearer in defining what e-waste is. Ambiguity in e-waste definition is resulting in many companies declaring all used assets as e-waste, even if the asset can be re-deployed or sold for further use. This is not only resulting in value destruction but also converting functional assets into e-waste. Similarly, EOU policies related to disposal of capital goods are unintentionally incentivizing creation of e-waste out of functional machines.

In addition to clarity on the rules, the CSR guidelines should also encourage re-use and reduction of e-waste by allowing enterprises to take CSR credit for the amount of assets that they have re-deployed to other needy causes from certified refurbishers. Creation of Re-Use Index on the lines of Carbon Credits could also be a progressive step taken to spread awareness and branding.

India is leading the world with its frugal and open innovation platforms having ability to operate at scale and affordability. #DigitalIndia is that major accelerator of economic and societal transformation, impacting all stakeholders by enhancing their quality of life. We need all steps possible to make this empowerment reach to every corner of India.

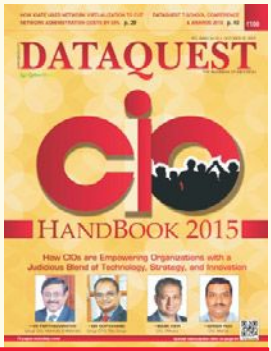
Arvind Gupta is an IITBHU graduate and Eisenhower Global Innovation Fellow. He tweets @buzzindelhi. Sapan Jain is also an IITBHU graduate and CEO of BluBirch.

DATAQUEST

CyberMedia

Giving Readers The Most Influential Technology News Over 3 Decades !

Yes! I want to subscribe to Dataquest



	Period	Issues	Subscription Rate		Benefits
			New	Renewal	
☐	3 months	3	₹ 300/-	₹ 270/-	Save 10% on renewals
☐	1 year	12	₹ 1200/-	₹ 1080/-	Save 10% on renewals
☐	2 years	24	₹ 2400/-	₹ 2160/-	Save 10% on renewals
☐	3 years	36	₹ 3600/-	₹ 3240/-	Save 10% on renewals

or Subscribe online: subscriptions.cybermedia.co.in/dataquest

Please tick your subscription choice above, fill the form below in CAPITAL LETTERS and mail/fax it to us.

☐ I want to avail premium service of receiving my copy by courier. Tick which ever is applicable.

☐ ₹75/- 3 months ☐ ₹300/- 1 year ☐ ₹575/- 2 years ☐ ₹850/- 3 years

Name [•]: Mr/ Ms _____ **Date of Birth:** M M Y Y Y Y

Organisation: _____ **Designation:** _____

Delivery Addess: _____

_____

City: _____ **State:** _____ **Postal Code:** _____

Mob [•]: _____ **Tel:** _____ **Email [•]:** _____

☐ **I am paying ₹** _____ **by DD/Cheque No.:** _____ **Dated:** M M Y Y Y Y

Payable at (specify bank and city) _____

OR

☐ **Please Remit for ₹** _____ **Through RTGS/NEFT to our A/C details given below:**
Bank Name: HSBC Bank A/c No. 054-342050-001, Branch & IFS Code: GURGAON, HSBC0110005

[•] Essential fields

Signature _____ **Date:** M M Y Y Y Y **Subscription No. (for renewal)** _____

Order can be faxed to:
0124-2380694 or mail the form with payment (cheque/DD) to:
Sarita Shridhar, Cyber Media (India) Ltd, Cyber House, B-35, Sector 32, Gurgaon - 122001 Tel: 0124 - 4822222.

Terms & Conditions:

• This special offer is valid for a limited period. • Rates and offer valid only in India. • Please allow 4-6 weeks for delivery of your first copy of the magazine by post. • Send crossed Cheques in favour of Cyber Media (India) Ltd. • Please write your name and address on the reverse side of the cheque or DD. All outstation cheques should be payable at par. • Cyber Media (India) Ltd. will not be responsible for postal delays, transit losses or mutilation of subscription form. • Cyber Media (India) Ltd. reserves the right to terminate or extend this offer or any part thereof. The decision to accept or reject any or all forms received is at the absolute discretion of the publishing company without assigning any reason. • Please include pin code for prompt delivery of your copy. • In case payment is through credit card, date of birth must be mentioned. • All disputes shall be subjected to Delhi jurisdiction only.

Kirtika Chander
maildqindia@cybermedia.co.in

Caparo Group CIO Bets Big on **Security for Mobile Wallets**

While most of the large corporations were not affected by demonetization, their CIOs emphasize on security for digital payment platforms. Amit Kapil, Gruop CIO, Caparo talks to Dataquest and shares his thoughts on digital payment platforms and the need for security in them

Demonetization changed the entire mobile wallet industry. And, suddenly there was a huge demand and acceptance of mobile wallets as everyone was looking for solutions that could help them transact in the paucity of physical currency. Demonetization did also affect businesses and large corporations in one way or the other, though many of them did face least challenges. In its quest to know from CIOs as to how this move impacted their business and lives, Dataquest spoke to Amit Kapil, Group CIO, Caparo.

While everyone was groping for ways to continue business and scrambling for ways that could help them buy and sell without the cash, most of the big organizations did face least of the problems. Caparo has been one such company which was not affected by demonetization. When asked whether or not Caparo embraced any of the mobile wallet solutions during this phase, Kapil said, “No, we didn’t deploy mobile wallets for our organization as our line of business is not the kind where we have drastic need to deploy this solution.”

Amit Kapil's top tips to safely use mobile wallets

In today's world, traditional wallets are changing to digital or e-wallets. These wallets are installed as an app on your phone and you can add money to the wallets from your credit card or debit card. Now, if you are not careful, hackers can steal money from your wallets, so be careful of these e-pickpocketers.

- **Hello, I am from bank**
Cyber thieves may call you on phone claiming to be from your bank. They will have some authentic information about you. They will trick you into giving your account details. NEVER SHARE ACCOUNT DETAILS OVER PHONE. If you do, they can wipe off your money remotely.
- **Click, I am from bank**
Your bank will NEVER email you to ask for your bank details. NEVER click on any link and share your account details. Always enter the URL of your bank manually and login directly. Not via click on any links
- **Know The ATM**
If possible, use your ATM card on an ATM at a secure, well-lit location, one which has a security guard available. Use only a single ATM for cash withdrawal; if you use your card at any ATM which is available, there are high chances that card details are stolen by cyber criminals. Use ATM in your office complex/society.
- **Hide it**
Always hide the ATM/credit card machine keypad while entering the PIN. There may be cameras recording your ATM PIN, which can later be used by cyber thieves.
- **Watch it**
Never let your ATM/credit card leave your sight. In restaurants and other places, ask the vendor to bring machine in front of you and enter the PIN yourself. NEVER handover the PIN to vendor, irrespective of reason they give.
- **Strong password**
Ensure to have strong password for your phone/tablet/PC, where you use Digital wallets. Don't keep easy to guess passwords like 1234 or simple unlock patterns. Don't share your password with anyone
- **Trusted App store**
Install digital wallet app from trusted source; avoid installing all junk apps along with apps that have your money. It is never a good idea to keep trash and money at same place.
- **Free Wi-Fi, Nah….**
Never use free Wi-Fi to conduct any financial transaction. Hackers can easily capture information travelling over free WiFi networks. Turn off WiFi on your phone when not in use.
- **Logout from wallet**
You may logout from your digital wallet when not using it, even if you lose your phone, hackers will still not be able to use wallet as they won't have login details.
- **Contact number**
Keep digital wallet merchant contact number handy, just in case you need to report theft or unauthorized transaction. Notify them immediately to contain the damage.

THE RISKS OF USING MOBILE WALLETS

But it does not mean that the company did not face any challenges. Caparo did have its share of challenges due to demonetization. Although these challenges are not directly associated, Kapil outlines and tells about the practical challenges and risks associated with mobile wallets. Here are the common challenges related to mobile wallets (as Kapil sees):

- By interception of traffic between over the air transmission (OTA) phone and point of sale (POS), hacker can hack identity or information
- User can download malicious software on mobile which can lead to leakage of data
- Configuration and setup complexity when user changes his/her phone
- Non availability of digital rights management (DRM) on mobile devices can lead to the risk of theft of content and digital piracy
- Weakness of GSM encryption can lead to theft of service or content or loss of revenue or illegal transfer of funds

SECURE PAYMENT PLATFORM

Kapil further tells how his organization and team will resort to a mobile-based payment solution if the need arises in the future. His utmost priority while selecting a mobile wallet solution would be security. "We are open to adopt mobile wallet technology if the business need arises but with ZERO compromise on security. Absence of appropriate security can lead organizations to financial losses," added Kapil.

DQ Bureau
maildqindia@cybermedia.co.in

8 Faces of **Indian IT**

They have powers, they can lead you to the peak, and they are called Channel Heads. No company can flourish without them. We here present eight super channel heads of India who are dedicated to transform lives of consumers and give them more freedom to live a better life. There is no comparison scale for them; you can give your own ratings

IT'S THE BIGGEST MERGER IN THE HISTORY OF THE IT INDUSTRY

ANIL SETHI
Dell-EMC

2016 witnessed the biggest merger in the tech industry history - the Dell-EMC Milan. Integration done, structure changed, roles redefined—the new Dell-EMC entity, like everywhere else in the world, is ready to run now in India. The jumbo combo of Dell-EMC with 4000 partners base in India, now has the ability to deal with each and every type of IT needs of consumers and partners. The overall product and solutions portfolio has enlarged and as a consequence the channel is more prominent now.

Following the announcement, Anil Sethi is the leading name for Channel on the Dell-EMC block; reporting into the Tian Beng Ng, Senior Vice President and General Manager, Channels Asia Pacific and Japan (APJ), Dell EMC.

Commenting on the merger, Sethi said, "It's the biggest merger in the history of the IT Industry. And the biggest advantage of this merger is that the entire product portfolio is strong and most of the products are number one in their respective categories. Not a single OEM other than Dell possesses this. For a customer, it's a win-win situation, as it will ease his buying process."

The new entity brings new roles and structure with the company segmenting markets into two parts. The commercial segment is headed by Alok Ohrie (the erstwhile head of EMC India) and the enterprise segment is headed by Rajesh Janey (the erstwhile head of EMC India). There is a common channel team, headed by Anil Sethi, which will pitch into both segments. Dell-EMC has a separate organization called CSB, i.e Client Solution Business, where the entire consumer line of products is handled under the leadership of P. Krishna Kumar.

There are few points where Dell-EMC will be focusing on distribution channel, service to large accounts, and developing market and acquiring new partners.

Though Dell-EMC right now covers the entire country, in the upcoming days there will be a further geo expansion plan rolling out too.

THERE ARE A LOT OF GOVERNMENT PROJECTS IN PIPELINE

GURPREET BRAR
HP Inc.

As technology is shifting rapidly, HP Inc. is consistently innovating new products. This is just one thing a successful organization has, a backbone, called channel organization.

Gurpreet Brar is the man behind HP Inc's. Channel Management in India. A veteran in channel sales, Gurpreet Brar is currently the Director, SMB and Commercial Channel at the Printing and Personal Systems Group (PPS) at HP Inc. India. He has the country wide responsibility for strategizing, planning and expanding the SMB in the company and managing the commercial channel. Under his aegis, HP has built the largest partner network in India to offer innovative products and solutions in every nook and corner of the country.

Post the split with HPE, HP Inc. has focused on reinventing itself. HP offers the best-in-class commercial print and personal computing devices. With a focus on Government initiatives like Digital India, the company is working towards bridging the digital divide in the country. "We are really seeing growth in government projects, for example, GST and CBEC. We had fairly good visibility around government initiatives. Our game plan was built around that." HP is ensuring sustained growth for its partners focusing on the three key pillars of simplicity, innovation and profitability.

Nowadays, Government is investing in smart solutions for different verticals. So, for robust growth in government led projects, HP Inc. channel team has been designed in a way to give consumers the whole package. "There is a pre-sales team and a solution team, to go to large customers with the solution driven products. For 2017, there are lots of government projects in pipeline and hopefully 2017 will be a lot better than 2016," said Brar.

On profitability side, HP Inc. restructured the channel part. "What we did is we restructured our RD model in run rate business to retain margins. We ensured to make exclusive category based RD in a particular region. The objective of this exercise was marginal retention for the partners," informed Gurpreet Brar.

DaaS is another area, where HP Inc. is tightening its thread. Large accounts like HPFS are there, it is a challenge for HP Inc. to grab interest of mid markets which will be a focus area in 2017. There are other focus areas like IT services to SMEs, cloud services which the company is looking upon. The company plans to continue to grow the business while helping partners to scale and adapt in this dynamic market.

CISCO IS FOCUSED ON DIVERSIFYING THEIR BUSINESS

DAISY CHITTILAPILLY
Cisco India

Daisy Chittilapilly is the name for Cisco in India and SAARC. With more than 20 years of experience, her role is to build and evolve Cisco's partner base, and work with team to direct investments at right market opportunities.

India is one of the fastest growing markets for Cisco India. The company is also investing about $1.8bn a year to fund its research and pay for its 30,000-odd employees.

Cisco has also seen a lot of early success in the smart city arena by winning projects in over a dozen cities, including Jaipur, Navi Mumbai, Pune, Lucknow, and Nagpur. Talking about this, Daisy says, "From India standpoint, from 12 to 18 months Cisco is totally focused on Digital India. Cisco is highly into government's Skill India, Digital India, Start-up India, Make in India and Cyber-Security. It also gives us an opportunity to new public partnerships and to establish in the country. And, now with manufacturing, we have set up a manufacturing unit in Pune but over time, we would love to use it as a hub to deliver products in other countries as well."

Cisco Channel Organization focusses on five aspects; diversification, distribution, ISVs, start-ups and developer community. "94% of our revenue comes from channel led motion. It's equally important that channel fraternity should also transition along with company." Daisy concludes, "As we are transitioning, channel is also changing. Cisco is focused on diversifying their business from building it around software and solutions service. We always were a company which invests a lot in channel enablement so we are retraining them and investing lots of resources onto them."

DIGITAL INTELLIGENCE IS THE DAWN OF A NEW ERA

MUKUL MATHUR
IBM India

"Digital is the wires, but digital intelligence, or artificial intelligence as some people call it, is much more than that. This next decade is about how you combine those and become a cognitive business. It is the dawn of a new era." With these words of Virginia M. Rometty, CEO, IBM; IBM is constantly evolving to align with new business models and technology. With these changes, channel structure of IBM is also transforming.

Mukul Mathur, Vice President, Global Business Partners and System Integrators at IBM India and South Asia says, "Industry, marketplace, channel landscape and IBM is going through a rapid transformation to align to new technology models that clients and new companies are expecting for their businesses. IBM India is pretty much into it and is changing internally as well as externally. We are helping our clients and channel ecosystem to go through digital transformation. We have seen tremendous success over last two years in nature of solutions and work partners are providing, as they are more appropriate in Digital India".

IBM is watching the market closely for what is new in business world. According to Mathur, the trends which are occurring in channel organization including channel partners are modifying their orientation and business structure. Lots of partners are moving their solutions towards cloud, SaaS, analytics, cognitive offerings like Watson, storage and data etc. They are basically rebuilding or enhancing their value proposition across the new era.

Secondly, channel partners are also bringing in a lot of innovations around the business models that they can take to the customers. "Partners are trying to offer and engaging client, whether it is consumption based model or a cloud SaaS type model, they try to deploy and test quickly. There are partners, who have commerce portfolio and now delivering outcome based marketing activities rather than trying to sell hardware or software. They have completely oriented their solutions to deliver outcome," says Mukul.

In this whole transformation exercise, IBM has added a new set of partners with new capabilities and is solution oriented. Right now, IBM partner base consist of cloud and cognitive based partners, start-ups, ISVs etc. which are categorized based on a system.

OUR PARTNERS PLAY A CRITICAL ROLE IN DRIVING BUSINESS SUCCESS AND CONTRIBUTING POSITIVELY TO CUSTOMERS

GANESHAN ARUMUGAM
Symantec India

With sell off of Veritas and acquisition of Blue Coat, Symantec is totally dedicated for the future of cyber-security in India. Ganeshan Arumugam is Director-Partner and Commercial Sales for Symantec in India. He joined Symantec in 2015. According to Ganeshan, "2016 was a great year, especially last quarter, thanks to increased awareness on the security of our customers across the country as various types of threats are coming up. Customers are now aware of their impacts and security solutions they need to implement."

Cyber-security is one of the main vertical of technology today. "2016 witnessed many attacks. There were numerous loopholes which reinforced multiple levels of cracks and enabled threats including targeted ransomware attacks. Now that awareness has been spread, there is great demand of Symantec services and solutions, especially in banking and government sector." commented Ganeshan.

"Our partners play a critical role in driving business success and contributing positively to customers across the country. As a total security solution provider, we are keen to build more security solutions so that partner will have broader spectrum of products to offer to the customers." he stated.

Symantec deals with all security solutions and this helps partners to stay focused on one vendor. According to Ganeshan, "We are the only company which offers almost all security solutions per our customer needs. We are also focusing on cloud security. It gives the confidence to partners to do business with us."

Talking about strategies and plans for 2017, Ganeshan told us, "Momentum has been built up at the end of 2016. We have fantastic pipeline and lots of projects are going on whether it is smart city or government or the banking sector."

HPE HAVE DECIDED TO THRIVE MORE IN 2017

JOYBRATA MUKHERJEE
HPE India

Joybrata Mukherjee is the new Channel Chief for the Channels, SMB and Service Provider at HPE India. This role was earlier handled by Barun Lala. Nowadays, partners are not just mere sales enablers, they are bringing up new opportunities and business for a company.

Joybrata explained the channel structure of HPE India, "80% of HPE India business is through indirect channel. We have 350 active channel partners in the country categorized into various status and certification. There are 15 platinum partners about 45 gold partners and 100+ silver partners. Apart from that, we have 150 emerging partners who are managed between our tier 1 cities partner. We also have dedicated team for smaller partners who are focused towards micro verticals solutions."

HPE India is also focusing on SMBs. Partners align with micro vertical addresses HANA based solutions, small banks, telco based solutions etc. Company GTM strategy is to divide its partners on vertical basis. "Manufacturing, banking and finance, telco, and public sector, our partners are around these four major verticals, whereas micro vertical solutions are for smaller partners." said Joybrata.

HPE India partner strategy is driven by partner ready framework. Under this framework, company is following four initiatives for 2017. "HPE have decided that transformation, hybrid cloud, on-prem data center, Aruba strategy and empowering end users, these are the areas around which partner community will thrive in 2017." explained Mukherjee.

More importantly, ease of doing business is the target for company. "Last year, for partners we have started an automated online registration system-Be Aware. We want the process to be very easy, they could calculate compensation. Completely all our partners are covered under this framework. It eases the process of dealing."

2017 IS FULL OF OPPORTUNITIES

AMIT KUMAR
Microsoft

Indians love technology, so do Microsoft India. Describing India as a great market, Channel Head Amit Kumar talks about vision and channel organization of company. "Indian market is booming with SMBs and entrepreneurship. Secondly, government is also pushing initiatives like digital transformation, so there is lots of scope for us. People are solving real business solutions through our technologies." said Amit Kumar. He leads Microsoft's Small and Medium Solutions and Partners Segment in India. He is responsible for overall revenue and business strategy.

Microsoft is looking for newer possibilities this year, "2017 is full of opportunities, SMBs are growing, there is a huge opportunity in the market due to love of technology, and digital transition is going on and fact that Microsoft has right solutions and focus areas, and we have very strong and vibrant partner ecosystem. This combo gives us huge package of opportunities." said Amit.

Microsoft provides the technologies and tools to enable enterprises to embrace a cloud culture. "Business is shifting towards cloud. My job is to build best cloud sales team, not just in Microsoft but with our partners too. We also learn from our partners. It is a two way process." Amit said. Microsoft tries to modernize partner style of working, enable them through the digital transformation.

As one of the largest cloud operators in the world, Microsoft has invested more than $15bn in building a resilient cloud infrastructure and cloud services that deliver higher availability and security, while lowering overall costs. Microsoft cloud infrastructure currently includes more than 100 data centers located in over 40 countries, and the company is continuing to rapidly build capacity to serve customers worldwide.

WE HAVE TAKEN MANY STEPS TO BUILD A STRONG SI CHANNEL

C. SUKUMARAN
Canon

Canon recently marked its 20th anniversary in India with a steadfast plan for the country across its enterprise, commercial, consumer and social initiatives. Canon India's Vision 2020 charts its next phase of growth in India.

With a vision of accelerating growth and secure profits, under C. Sukumaran leadership, the CSP division is continuing to focus on government and enterprise business making, Canon the industry leader in the printing domain.

Assistant Director, C. Sukumaran is leading CSP division's Laser and Inkjet printer business in India and is accountable to take the marketing-sales of the products to the next level. He has been associated with Canon for over 15 years.

The company, in the next three years, aims to penetrate further in the country with its offerings, augment the photography culture in India and introduce technological advancements across business and consumer products. Vision 2020 sets a growth target of Rs. 3500 crore for Canon India to be achieved by consistently attaining a year on year double digit growth.

Canon GTM strategy focuses on expansion of inkjet and laser market expansion in IT reseller segment in India. "We believe channel partners are integral to the division's growth prospects. Hence, we will be looking forward to work closely with the partners to create the required reach. We endeavor to penetrate intensely into Tier-2 and Tier-3 markets to create a wider and stronger customer base." said Sukumaran.

Lastly, "Canon has lot of new models in laser segment which cater to large enterprise, government and especially banking. So here we have taken many steps to build a strong SI channel." explained Sukumaran.

All the content of this article oraginailly belongs to the DQ Channel

Onkar Sharma
onkars@cybermedia.co.in

How Microsoft Strengthened its **CRM Footprint in India**

Microsoft has moved up the ladder against traditional counterparts like Oracle and SAP in the CRM space. However, it is a long way for the company to become a leader in the market dominated by Oracle in the first place and SAP in the second place

If an industry figure has to be believed, businesses that embrace digital transformation generate an average of $100mn (or 8% points) more operating income each year than those who do not. There is a new speed of business that companies must adapt to, along with the rapidly evolving customer engagement mechanisms. There is a critical need to innovate in real-time, and all of this, with the resources at their disposal. Digital transformation becomes critical in the digital age when customers face innumerable choices. Most of the organizations have traditionally used CRM solutions to manage their customers and serve them. SAP and Oracle, among others have successfully led the market with their CRM applications.

STEPPING INTO DIGITAL ERA

But these two companies have led the on-premise space. In the digital era, the competition has emerged strongly. While there is Salesforce.com and others, Microsoft did not leave any stone unturned to capitalize on the digital

era. Microsoft pitched its Dynamics offering as the solution that helps customers go digital easily. “Handling customers in the digital age is one of the biggest challenges that organizations face. Dynamics 365 offers a cost-effective, agile and easy-to-implement solution that enables personalization and greater productivity, allows real-time innovation, delivers deeper insights, and adapts to business needs,” says Samik Roy - Director and Country Head (Dynamics) at Microsoft India.

Hence, Microsoft has gradually enhanced its footprint in the mid and large segments in India, especially through its range of enterprise applications. Especially with their Dynamic CRM, the company has registered great wins in the Indian market. There are a number of notable customers who are using its CRM offering to enhance visibility and sales. The company has tried to become a healthy competitor to its traditional counterparts such as Oracle and SAP, among others. At the same time, it has offered customers various choices on the security and data residency side.

VERTICAL APPROACH

The users are spread across verticals. The company claims to help its customers in various ways and believes that its CRM offering is unmatched on many parameters when compared with Oracle and SAP.

In conversation with Siddharth Sood, MD and Co-founder of Wildcraft, it is learnt that Microsoft CRM has built a different brand image. Wildcraft uses Dynamics AX end to end, all the way from manufacturing to retail stores. “Without boasting big things, I would admit that Microsoft Dynamic solution has helped the company at various stages. Right from the beginning till today, Wildcraft has increased its base and strengthened its brand image. I’ve no harm saying that digital technology has been a critical partner in our growth.”

Anup Purohit, Chief Information Officer, Yes Bank shares, “Since inception, we have believed in using the power of technology to offer a superior banking experience to our customers, and through Microsoft Dynamics, we have been able to improve processes, get real-time business intelligence and make it easier for people to work together through collaboration across multiple devices. We see huge potential in Microsoft’s latest innovative solution, Dynamics 365, in terms of enabling banks to enhance their end-customer experience by leveraging real time insights and intelligence.”

Microsoft has got inroads into various verticals. Healthcare is yet another where the company has emerged

as a successful player. ”We believe that with Dynamics 365, Microsoft is taking the innovation paradigm to a higher notch, in terms of integrating CRM and ERP, and adding in advanced features of analytics and intelligence which treads very well into our efforts of providing the best engagement and delight throughout our parent experience journey,” reveals Rohit M.A., Co-founder and Managing Director, Cloudnine Group of Hospitals.

VLCC is yet another Microsoft customer which has gone digital and is using cloud-based CRM for quite some time now. Meenakshi Vajpai, Group Chief Technology Officer, VLCC Group says “We have been using Microsoft Dynamics CRM Online to generate actionable steps from data to improve service delivery to our end-consumers. We believe that Microsoft Dynamics 365 is the next paradigm of cloud solutions that can help businesses enhance the end-consumer experience by providing better insights and intelligence.”

WIDENING ITS WINGS WITH MORE CHOICES

Realizing that SMBs, start-ups and enterprises are looking at a CRM solution that gives them true insights into what their customers want and may want, Microsoft recently announced the availability of new services that can aid businesses in India, transform their business with intelligent applications. The company has added Dynamics CRM to Office 365. This new cloud service from Microsoft can address specific business needs (like sales automation, operations or customer service) and usher in a new era of business agility.

In essence, Microsoft has emerged strongly in the CRM space. However, it has to compete further with SAP, Oracle, Salesforce.com and other start-up players in the market. SAP and Oracle are already all out with their cloud-based offerings. Innovation is going to be the key now.

DATAQUEST

XXIV TH

ICT BUSINESS AWARDS

DATAQUEST AWARD WINNERS 2016

The Dataquest IT Person of the Year

Vijay Shekhar Sharma

Founder, Paytm

The Dataquest Lifetime Achievement

Vineet Nayar

Founder: Sampark Foundation, Ex. CEO: HCL Technologies

The Dataquest Pathbreaker

Sahil Barua

CEO & Co-Founder, Delhivery

The Dataquest Special Recognition

Bharat Goenka

Co-Founder & MD, Tally Solutions

Event Highlights:

250+ eminent personalities, comprising of decision makers from IT and Telecom Industry, Enterprise Users, Regulators & Policy Makers

FOR MORE DETAILS: Onkar Sharma, Editor, Dataquest, M: +91 9910452787

For Strategic Partnerships/Opportunities Contact:
Rajiv Pathak, M: +91 7289050151, marketing@cybermedia.co.in

eScan™
Anti-Virus & Content Security

#1 Choice of DIGITAL INDIA

TOTAL NETWORK PROTECTION

for Small Business, Corporates & Enterprises

eScan Security Solutions

- Anti-Virus • Data Theft Prevention • Mobile Device Management • Asset Management
- Enhanced Multi-layered Protection • Network Outbreak Prevention, Live Events & Reports
- Enhanced Endpoint Security • Print Activity Monitoring • One-Time Password
- Monitors Devices Connected Within the Network

Toll Free: **1800 267 2900** | Email: ask@escanav.com

MicroWorld Software Services Pvt. Ltd.
CIN No.: U72200MH2000PTC127055
Plot No. 80, Road No. 15, MIDC, Marol, Andheri (E), Mumbai - 400 093

www.escanav.com

India • USA • Germany • Malaysia • Mexico

RNI No. 40432/82. Published on 1st of every month. DL(S)17/3159/2015-17. Licensed to Post WPP. U(SE)26/2016-2017.
Posting Date: 3&4 of every month. Posted at Lodi Road HPO.

sify keeping you ahead

SELECTED BUSINESS Superbrand INDIA Industry Validated

opens up **opportunities**

Unboxing world-class transformation solutions for your business

Our new paradigm: Sify Now opens up a world of opportunities to help transform your vision into benchmarks of excellence. We offer the unique advantage of a consultative approach to empower you with business-aligned solutions. Our single-window partnership keeps you ahead and lets you explore new horizons, today and tomorrow.

SIFY Now - more of everything

- Opens up opportunities
- Brings together the best
- Makes business sense
- Uncomplicates the way you do business

marketing@sifycorp.com
www.sifycorp.com
+ 91 8750442233

Our end-to-end ICT services
• telecom services • data center services • cloud & managed services
• applications integration services • transformation integration services

ideascreative.net/Sify/38