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INSID*e*

Editorial

Making India as the IoT hub

The age-old adage goes "The only thing constant is Change" and we find ourselves right in the middle of it, be it political, financial, economic, climatic or technological. We are living in times when the rate of change is accelerating, especially in the field of technology. Since the development of the internet, today we stand at the cusp of a revolution that is impacting people & processes and also corporations & communities. The Internet of Things (IoT), which is enabling increased connectivity of everyone, everything, everywhere and every time, is causing a fundamental shift in how we do things. IoT, broadly classified into Consumer and Industrial IoT, is expected to be a USD 3 trillion global market by 2020. Consumer IoT, through home automation, infotainment and popular devices like wearables (fitness, lifestyle) etc., is driving volumes growth, and Industrial IoT through initiatives like smart manufacturing (Industry 4.0), smart cities, smart transportation, smart buildings, smart energy, etc. is driving revenue growth. The IoT is not just a technology; it is in fact an ecosystem of things - devices, internet, data, cloud, applications, platforms & products - and thus, offers opportunities for a network of players across hardware, network operators, system integrators and application vendors. India's IoT opportunity is estimated to be at USD 9 billion by 2020 with industrial IoT accounting for 55 per cent share. Utilities, manufacturing, transport & logistics together would account for nearly 60 per cent share of industrial IoT. India, through its Digital India, Smart Cities and Safe Cities initiatives, offers substantial prospects to develop products and services that can then be scaled globally. Prime Minister Mr. Narendra Modi, has also called for making India as the IoT hub for the world. Along these lines, NASSCOM, in partnership with DeitY, ERNET and the industry, has set up the Center of Excellence for IoT to jumpstart India's IoT ecosystem. India's player landscape with ~120 IoT firms, of which >60 per cent are startups, has the necessary technical & technological skills to power the IoT revolution. However, this requires important challenges to be overcome, including unreliable connectivity, privacy & encryption issues, developing relevant skillsets within the industry and enabling interoperability standards. With these points in mind, NASSCOM, in partnership with Deloitte, has put together the "IoT: Revolution in the Making" report. It presents the IoT framework, highlights the global IoT market and adoption trends across industries, India's current and future IoT market size, key use cases across industries and business opportunities for the ecosystem players. Further, the report puts forth a roadmap for the industry to overcome various challenges and to capitalise on the market opportunity. We hope you find the report useful for strategic decision-making. We are also building a dedicated IoT community. To share your feedback on the issue and to participate/contribute to this community, please write to research@nasscom.in.

Sangeeta Gupta
EDITOR
sangeeta@nasscom.in

IOT: REVOLUTION IN THE MAKING

The world is now waking up to Internet of Things (IoT), a concept that has captured the imagination of industry, chambers of commerce as well as academia.

IoT is best described as "a system of interrelated computing devices, mechanical and Digital machines, objects, animals or people that are provided with unique identifiers and the ability to transfer data over a network without requiring human-to-human or human-to-computer interaction". (source: WhatIs.com).

The Internet of Things phenomenon has gained traction at a global level owing to the following factors:

■ Increasing awareness and adoption of the concept owing to the work of various consortiums of corporates as well as industry associations such as IPSO alliance, IIC, OIC etc.

■ Proliferation of the Internet as well as the devices connected to it. In fact, the number

of connected devices is expected to grow 5.5x, reaching 20.8 billion by 2020

■ Increasing revenues generated by the opportunity, which are expected to grow from USD 0.9 trillion in 2014 to USD 3 trillion in 2020

■ Growth in the installed base of IoT devices worldwide, which is expected to increase from 3.8 billion in 2014 to 20.8 billion by 2020

■ The rising demand for information-on-the-go and the emergence of Digital as a way of life for consumers (consumer devices are expected to account for 65 percent of the total IoT installed base by 2020)

■ Availability of innovative IoT apps that are transforming consumer products and business processes

Finally, the growing number of compelling success stories and increasing awareness about its benefits are also leading to a proliferation of IoT. It is being understood that IoT:

- Can help reduce costs through efficient product and asset usage across business processes
- Can spell innovation, helping create differentiated products/ services and improved operations that result in better customer service
- Can add value to business processes and take value creation for industrial applications to the next level, specifically in the case of Manufacturing
- Is perhaps the most crucial element of Industry 4.0, which refers to the Digital Transformation of processes and systems, particularly in sectors such as Manufacturing and Automotive and Transportation and Logistics. The installed base of connected devices in both of these industries is expected to be approximately 0.7 billion each by 2020

IoT and India

Despite its slow start in the IoT arena, India is a rapidly catching up with other developed economies and rapidly emerging as a hub for IoT solutions. The IoT market itself is expected to grow to USD 9 billion (from existing USD 1.3 billion) and installed devices base to 1.9 billion by 2020 (from the current base of 60 million).

There is growing realization within the IT services, BPM and ER&D industries about the beneficial impact of deploying IoT. IT services companies in fact, understand the competitive edge they can gain by implementing IoT applications across areas such as IT consulting, custom software, IT Outsourcing, and Support Services. Other non-IT sectors too are expected to join the IoT bandwagon in the near future including verticals such as Manufacturing and Automotives, Healthcare, Retail and Agriculture.

Pitfalls ahead

The positives of IoT notwithstanding, there are certain looming challenges that need to be overcome before the Indian IT-BPM or any other sector can fruitfully leverage the technology. These include:

- Lack of connectivity or inconsistent, unreliable connectivity and Internet access
- Lack of security in sensor technology
- High power consumption of IoT devices
- Privacy of data risks owing to the fact that IoT devices can communicate and relay data to external partners. There is need for standards to ensure interoperability among devices as well as to maintain security and privacy of data
- High cost of IoT technology
- Problems associated with the development of new products especially when profit is dependent on scalability of solutions
- Low awareness among consumers about the benefits of IoT applications in day-to-day life

IoT Benefits

For IT service providers

By integrating IoT based services, IT service providers are expected to increase their portfolio by 10 percent

For BPM service providers

Integration of IoT with BPM can lead to effective real-time communication between devices and processes. This can further enable accelerated solution deployment, streamlined operations and continuous process improvements

For ER&D service providers

IoT in ER&D is expected to empower product engineers and researchers by delivering real-time feedback, enabling quicker design changes to reduce time-to-market and delivering customized products and services

IoT adoption catalysts

- Proliferation of low-cost sensors, declining cost of connectivity as well as reduced cost and time of processing
- Adoption of IPv6 (which will provide 3. 4 x 10 addresses, sufficient for all conceivable IoT devices)
- Growing use of Big Data Analytics and cloud computing, which will enable processing and analysis of unstructured data to move from insights to foresights
- Visible business benefits of IoT such as increase in revenue, reduction in costs and enhancement of customer service will drive organizations to deploy IoT applications
- Growing consumer interest in IoT technologies owing to increased reliance on mobile devices

- Uncertainty among businesses regarding IoT deployments. Many are still trying to figure out viable business models and compelling use-cases to be able to scale these solutions and quantify the returns on investments made

The path forward

Going ahead therefore, Indian industry players will have to work closely with the Government on developments across IoT technologies, manpower skill sets and business models, in order to build a scalable, conducive IoT eco-system. The government has already proposed a multi-dimensional approach in its draft IoT policy, to develop the IoT market in India by 2020. It will now have to further incentivize and invest in the adoption of IoT.

India meanwhile, needs to continue to build capabilities across technology areas of sensors (to adapt to its rugged climate/terrain), while building network infrastructure, standards and augmented intelligence and behavior.

It will have to keep supporting its start-ups through accelerators and incubators, encouraging them build innovative IoT solutions. At the same time efforts will have to be made to narrow the demand-supply gap in the area of cross-functional as well as specialized IoT skills.

Industry players, led by NASSCOM, will need to refine their business models while undertaking technology improvements for effective implementation of IoT.

NASSCOM in fact, is already playing the role of a catalyst in building an innovation-based IoT eco-system and enabling players to capitalize on this market opportunity. The association is helping create awareness about IoT and making focused investments for proliferating the technology.

(In an October, 2016 research on IoT titled 'IoT: Revolution in the Making', conducted in partnership with Deloitte, NASSCOM has discussed in detail the issues highlighted in this article. The report presents the IoT framework, focuses on the global IoT market and adoption trends across industries, India's current and future IoT market size, key use cases across industries and business opportunities for the eco-system players).

Fast Facts

IoT and the Indian market

- IoT solutions deployment for Digital Utilities/Smart Cities and in the Manufacturing, T&L and Automotive industries will drive the demand for Industrial IoT applications
- Rise of tech-savvy consumers along with increasing smartphone and mobile Internet penetration will continue to spur the growth of consumer IoT applications
- Consumer IoT adoption is expected to be slower than industrial IoT adoption owing to the cost of IoT devices and security as well as privacy concerns of consumers
- The Indian IoT eco-system has a diverse set of ~120 players including hardware vendors, application vendors, network operators and system integrators
- Almost 60-65 percent of these players are start-ups
- IoT presents opportunities for players across the value chain, with application vendors expected to garner 50 percent share of the Indian IoT market
- By 2020, industries such as Utilities, Manufacturing, Automotive and Transportation and Logistics are expected to see highest adoption levels in India
- The government of India's planned investment worth USD 1 billion for 100 Smart Cities over the next five years is expected to be a key enabler for IoT adoption across these industries

NASSCOM-Georgia Tech pen MoU to jointly work on IoT space

> "We are happy to be partnering with Georgia Tech, a leading institute with a focus on emerging technologies, leading to a mutually beneficial agreement that will help us combine Georgia Tech's advanced technology research along with the thriving innovation eco-system in India".

Sanjeev Malhotra,
Chief Executive Officer,
COE-IoT

The disruptive nature of the Internet of Things (IoT) is expected to have a major impact on all areas of the consumer's life, especially in a nation like India-transforming verticals including industries, healthcare, agriculture and homes. IoT will also be used in these segments to improve productivity with minimum usage of natural resources.

Keeping these factors in mind and with a view to expanding the Indian IoT market, NASSCOM has been working closely with all stakeholders in the IoT eco-system. More recently, it has announced a key initiative to further catalyze the growth of India's IoT industry.

The organization has entered into a strategic partnership with leading US-based University, Georgia Institute of Technology (Georgia Tech), to drive innovation in the Internet of Things.

A Memorandum of Understanding (MoU), in fact was penned by NASSCOM and the American institution in December, 2016, to facilitate the proliferation of IoT and foster innovation through an IoT eco-system.

NASSCOM already has in place a Center of Excellence for the Internet of Things (CoE-IoT), which will collaborate with Georgia Tech's Center for the Development and Application of Internet of Things Technologies (CDAIT).

The CoE-IoT meanwhile, is a joint initiative between the Department of Electronics and Information Technology (DEITY), Education and Research Network (ERNET) and NASSCOM. It features a laboratory that provides IoT focused start-ups the usage of various facilities that help them develop IoT solutions in application areas like Agriculture, Automobile, Telecom, Healthcare and Consumer IoT.

Fast Facts

NASSCOM's COE-IoT

- Through its COE-IoT located in Bengaluru, NASSCOM is focusing on systemically expanding the technology eco-system
- The center is providing a platform to address challenges such as the lack of understanding on IoT that is leading to low adoption levels and security issues faced by the industry

Georgia Tech's CDAIT

- Is a global, non-profit, partner-funded center located at Georgia Tech in Atlanta, Georgia, that fosters interdisciplinary research and education while driving general awareness about the Internet of Things
- It aims at efficiently identifying, understanding and solving for its sponsors the challenges and problems that may arise along the whole IoT value chain
- CDAIT bridges sponsors with Georgia Tech faculty and researchers as well as industry members with similar interests

The partnership will enable the following:

- Combine the mission and vision of NASSCOM's CoE-IoT with that of CCDAIT, in order to create innovative applications and

> **We are honored to collaborate with a premier high tech organization such as NASSCOM to promote the many benefits of the fast-growing Internet of Things. In close cooperation with NASSCOM's IoT center, we intend to explore ways to leverage IoT technologies to accelerate and optimize the pace of Digital Transformation throughout the economy.**
>
> **Alain Louchez,**
> Managing Director, CDAIT

domain capability, and expand and promote the Internet of Things' potential and transformational capabilities

- Allow both organizations to combine their efforts to raise awareness about IoT and showcase their individual initiatives in this space

- Enable the joint hosting of IoT-related events for the purpose of developing a vibrant global IoT eco-system that facilitates the effective and efficient adoption of IoT technologies

- Prompt conversations around IoT that will promote interoperability across industry and geographic markets.

Outlining a roadmap for India's e-commerce growth

E-commerce is on a high growth path globally, and expected to experience staggering escalation, especially in several countries in Asia. According to leading global analysts and research firms, China is expected to scale up its e-commerce industry to USD 1.1 trillion by 2020!

Compared to such rapid growth, India is expected to notch up more modest e-commerce figures. In the same period, the country's e-commerce market is expected to grow to around USD 75-100 billion (according to research by Forrester, PwC and Morgan Stanley). Online sales are expected to expand five- fold by 2020.

India's slower e-commerce growth (particularly with respect to China) is expected to result from challenges such as under-developed logistics, poor last mile connectivity, cash economy, low

smartphone/broadband penetration, and gaps in consumer confidence in e-commerce/e-payments.

In order to overcome these issues, it is important to scale e-commerce revenues, which are expected to be a key metric, rather than just a goal in the emerging Indian Digital economy. The revenues will be a reflection and measure of the Digital India plan, and the benefits arising from Digital transactions.

NASSCOM's recommendations

As part of its effort to draw up a strategic gameplan for the expansion of e-commerce in India, NASSCOM has suggested that:

- Regulations and enforcement be aligned to the overall government policy objectives (Digital India) and development strategy (technology-enabled development)

- Given its economic and governance benefits, e-commerce transaction be incentivized, or at least not be disadvantaged against physical/offline transactions

- There be a greater focus on consumer and citizens, as well as SMEs, MSMEs and start-ups, who are the foundation and future of the economy and industry and engines of innovation

- The regulatory environment be aimed at encouraging and facilitating the use of Digital and other technology to empower citizens, consumers and businesses

For these plans to be implemented, India will also need to focus on increasing its Internet, especially broadband and smartphone penetration. It will need to get over a billion people online (up from its current 350 million subscriber base), especially broadband users to help e-commerce thrive.

It is also important to move the country from a cash to a Digital/Card Payment economy by providing incentives to people and businesses. For this, the government needs to identify and remove disincentives for Digital and card payments and improve the e-payment experience of customers.

Moreover, there is a need for increasing Consumer Confidence through strong consumer protection laws in services and platforms.

Logistics and related HR issues including skilling need immense focus as well. Since Logistics faces a severe manpower shortage, there is a need for skilling and reskilling in this area. NASSCOM has suggested that the government also invest in 'Express Delivery' infrastructure for India Post.

Additionally, according to NASSCOM, the government must create a friendly tax regime that is conducive to e-commerce growth.

NASSCOM initiatives to boost e-commerce

NASSCOM and its Internet Council have been participating in and driving a range of key policy e-commerce initiatives, activities and outcomes. These include:

- The Cash Mukt Bharat Abhiyan helpline on 14444. This is being supported by NASSCOM member companies including Deloitte, Genpact, Aegis, and Tata BSS, as well as PCI, NITI Aayog, DoT, MeitY, Vodafone and various other telcos

- The Watal Committee report on Digital Payments released in December, 2016. NASSCOM's Internet Council has been working to accelerate Digital payments in the post demonetization era

- Consultations on e-commerce by NITI Aayog. NASSCOM's Internet Council has outlined a roadmap for e-commerce and has been asked by NITI to explore ways to accelerate its growth beyond the projected statistics (USD 80-100 billion by 2020)

- Consultations on FDI in e-commerce. NASSCOM's Internet Council has got together the very competitive e-commerce industry on the same table and to agree on FDI norms. This has resulted in the DIPP Press Note 3, (basically guidelines for FDI on e-commerce)

- TRAI consultations on ramping up Internet penetration and public WiFi. The Internet Council is also part of ongoing MeitY consultations on Blockchain, Sec 67C of the IT Act, etc.

- Government actions/notifications in response to specific incidents that sometimes create crises for start-ups. In such cases NASSCOM has stepped in and has helped resolve the issue

- GST. NASSCOM's Internet Council has been working alongside its policy group to present the views of the Internet, e-commerce and IT-BPM industries on the GST draft. Many of the Council's inputs have been accepted for the second version

Looking back, looking ahead

What made the Indian IT-BPM industry tick in 2016 and what lies ahead

Key tech trends

The year saw the IT industry move up the value chain in India with increased automation, better cyber security awareness, increased IoT deployment and a reskilled workforce that was ready to take challenges head-on.

Technology was no longer just relevant to companies in select industries. With technology becoming a crucial driver of forces shaping the global economy, it continued to get embedded into the fabric of business across sectors. 2016 saw enterprises in different verticals look to technology to facilitate their own transformations, broadening the opportunities for tech organizations. Further, the government's push towards Digital payments gave the much needed boost to e-wallet and e-commerce companies. This also helped the cyber security sector to scale up to tap the new opportunities arising in the emerging Digital economy.

During the year, Big Data continued to become more and more influential. Many companies joined the Big Data league to aggregate, project, visualize, and interpret data on behalf of non-professional data analysts, making Big Data more practical for the business world. There were also many start-ups in India that began working towards building their eco-systems around IoT. Indian IT firms partnered with such start-ups to explore and build innovative and integrated industry solutions.

Major tech disruptions

2016 saw technology disruptions reshape the IT industry. Service providers began focusing on building technology-led platforms that would redefine how their services were being delivered.

The government tech thrust

The government's willingness to make India a Digital Economy was one of the major factors contributing to the growth of the IT sector during 2016. The Digital India plan envisages providing Digital infrastructure as a utility to every individual, delivering governance and services on demand and enabling the Digital empowerment of citizens. Over the past two years, the government initiated measures to advance communication infrastructure, enhance connectivity and drive Internet uptake. The government's 'Make in India' and 'Digital India' were positive initiatives that attracted multinational investments into India and expanded the technology start-up landscape in the country.

NASSCOM worked closely with the government on various initiatives to help it achieve its dream of a Digitally-enabled India.

Start-up and entrepreneurship scenario in India

The start-up landscape in the country became the epitome of innovation, with companies bringing out solutions that were aimed at solving locally relevant issues. Technology start-ups began creating a new identity for India and its technological prowess. Today, many of these companies are changing the way the world operates, making life better and easier for people and businesses.

The contribution of start-ups to the growth of Indian IT industry grew rapidly and during 2016 the start-up eco-system became stronger and showcased business stability, revenue growth and further innovation. Indian entrepreneurs continued to attract global attention and focused funding due to the perfect mix they offered--of talent, technology, and transactions.

Future of the start-up eco-system

According to a report by NASSCOM titled "Indian Start-up Eco-system Maturing-2016", the eco-system is expected to grow by an impressive 2.2x, to reach more than 10,500 start-ups by the year 2020. In terms of vertical growth, investors are looking at domains like health-tech, fin-tech, and edu-tech. With a total funding of approximately ~USD 4 billion, close to 650 start-ups were funded signifying healthy growth of the eco-system.

The number of tech start-ups in India grew to 4,750 at the end of 2016, a jump of 10-12 percent. Interestingly, over 1,400 new start-ups emerged on the scene in 2016 indicating that the eco-system was becoming more prudent, with both investors and start-up founders focusing on profitability and optimizing the overall spend.

With this impetus, India is expected to become home to over 10,500 start-ups by 2020, which will employ over 210,000 people.

India's move towards a Digital economy

India's move to a Digital economy was spurred by the government's efforts, and in particular its Digital India initiative. This focuses on expanding India's Digital infrastructure, improving delivery of government services, and empowering citizens through improved access. Government departments have already committed more than USD 16 billion to the program.

The government's recent step of demonetization, leading to the adoption of new Digital payment methods by citizens, is also expected to catalyze India's transformation into a Digital economy going forward. Demonetization turned into an opportunity for the government and its various agencies to take the country towards a Digital transaction environment. Banks and other financial service providers joined in during the year, to promote cashless transactions.

India as an innovation hub

Going forward, as it looks to become a global center for innovation in Digital technology, India cannot sit passively and watch the market develop. Instead, it needs to take action immediately and create the right environment for the technology and business services industries to flourish.

Development agenda needs to bring government, industry, and academia together. As Digital technologies become more common, providers must create an attractive value proposition for the market. They need to take up the larger role of technology advisors, offering solutions tailored to the local market, sharing risks and capabilities with clients to aid in the seamless migration towards Digital.

The tech scenario by 2025

Over the next decade, five disruptive forces will shake the global economy and touch all aspects of society. These forces, which are being called the great rebalancing, the productivity imperative, the global grid, pricing the planet, and the market state - are expected to create a world that is more interconnected, more interactive, and more aware.

Driven by the adoption of Digital technology, the total addressable market for global technology and business services will possibly expand to about USD 4 trillion by 2025, growing at an average annual rate of about 3.6 percent. As the industry grows over the next decade, however, its mix of technologies and demands will change significantly.

The Digital Transformation that is impacting the global economy will additionally create new imperatives for India's growth, with many companies integrating Digital technologies into their business models. India's move towards the Digital opportunity will also be helped by the government efforts. The industry is expected to march steadily towards its USD 350 billion target by 2025, with Digital revenues spearheading growth.

Digital to remain in focus at 25th NASSCOM India Leadership Forum

Come February, 2017, NASSCOM will host its 25th India Leadership Forum (NILF), its flagship global conclave that brings together the best minds from the world of industry, academia and the government.

As in the past years, NITL will continue to focus on thought leadership, change agents which drive leadership and effective strategies that companies can adopt or adapt to in order to stay relevant.

This time around, and in keeping with the Digital wave that is sweeping across the world, the theme of the conclave is 'Digital Inflection Point: Re-imagine don't Re-engineer'. The aim is to present case studies on how global and Indian companies are leveraging the tech and business shifts, and how technology providers can play the role of disruptive partners in this environment. The conference will not only chalk out an action plan for participants, it will also provide them with valuable insights.

The Summit meanwhile, offers participants an expansive fare of Deep Dive Workshops, Master classes, high impact sessions, powerful keynotes and a glitzy Awards Night.

There will be discussions as well on the megatrends shaping the business landscape, the five technologies fuelling these scenarios as well as the five imperatives for the Indian IT-BPM industry moving forward.

The Summit, which will feature a battery of speakers with cross-functional, industry-wide experience, will additionally spotlight the risks and challenges facing the tech sector in India and examine how these can be overcome.

NILF 2017 will remain the perfect place to build professional and personal connects, share experiences, knowledge and ideas and learn from the gurus.

We hope you have registered for the conference.

Log in to:
www.nasscom.in/Indialeadershipforum-2017/ for more details on NILF 2017

NASSCOM reviews proceedings of the USA's Commission on Cyber Security

NASSCOM and its cyber and data security arm, DSCI, have been working closely to improve the security climate in India and ensure that the IT-BPM and other sectors treat security as a priority.

In order to strengthen its own security agenda and chart out the course for the security industry in India, NASSCOM and DSCI have been watching the developments taking place in the cyber security realm in other nations, in particular, the USA.

The DSCI team has in fact been tracking and reviewing the proceedings of the 'Commission on Enhancing National Cyber Security', that was constituted in April, 2016 by the US government, to learn from its research and recommendations on the critical issue of security.

Chaired by Thomas Donilon, former NSA and Sam Palmisano (IBM), the 12-person Commission with representatives from industry, academia and former government officials was given the task of:

- Making detailed recommendations on the actions that could be taken over the next decade to enhance cyber security awareness and protection throughout the private sector and at all levels of government
- Protecting privacy to ensure public safety and economic and national security
- Fostering discovery and development of new technical solutions
- Bolstering partnerships between Federal, State and local governments and the private sector in the development, promotion, and use of cyber security technologies, policies and best practices
- Powering Americans to take better control of their Digital security

Commission members met leaders from different verticals, discussing issues such as addressing security challenges facing the Digital economy, and collaborating and innovating to secure its future. The Commission also discussed the matter of critical infrastructure in the Digital economy, cyber security

opportunities in state and local governments, and assured products and trustworthy technologies.

After multiple interactions, held between April and September, 2016 and extensive consultations and discussions with industry leaders and cyber security experts, the Commission submitted its report to the government on December 1, 2016. In this, the Commission outlined six priority imperatives and 16 recommendations to the government.

The six Priority Imperatives suggested for the US government were as follows:

- Prepare, defend and secure today's information infrastructure and Digital networks
- Innovate and accelerate investment for the security and growth of Digital networks and the Digital economy
- Prepare consumers to thrive in a Digital age
- Build Cyber security workforce capabilities
- Better equip government to function effectively and securely in the Digital age
- Ensure an open, fair, competitive and secure global Digital economy

The recommendations meanwhile, focused on issues such as partnership between the private sector and technology industry, capacity and workforce skills development, building cyber security awareness and practices in SMB organizations, preparing end consumer in the Digital age, and the creation of Standards.

Taking Indian software product industry to the next level

The Indian Software Products industry is estimated to be a USD 6.1 billion entity. The disproportionate balance between domestic and export revenues notwithstanding, (USD 4.2 and USD 1.9 billion respectively), it faces a promising future.

Globally, this market is about USD 411 billion and growing. India's more than 5,000 software product companies can also expect to experience exponential growth, provided the country's government can take appropriate steps and policy measures to boost software product innovation in India. The recent Draft National Software Products Policy is one such step, which can help the software product industry to achieve better results.

There are however, several other measures that the Indian government needs to take in order to improve its 'Ease of Doing Business' and attract investments in the software product development space.

For instance, there is need for:

- A single repository, which contains all applicable laws, compliances and their associated processes
- A Support Framework for Product Development as products are upgraded or even re-launched for long term sustainability
- Investments in test beds, which are critical. Shared resources supported by the government need to be the favoured approach
- Facilitation cell(s) for technology transfer and licensing
- Platforms that facilitate discussions on issues such as interoperability, integration, scalability and cyber security
- Providing assistance to companies, as they build global partnerships and access international best practices
- Talent Accelerator programs, that are conducted in partnership with the industry and build industry-ready professionals from a wide-ranging resource pool of engineers and other graduates
- Country-specific language skills and business communication programs

- A registry of software product start-ups (voluntary) being supported by various programs including DST, NITI Ayog etc., who can then be mentored in a targeted manner
- Incubators and Accelerators that have set up operations across geographies, to provide greater market accessibility to start-ups
- An organization that functions like an export promotion council, but exclusively for products and innovative technologies

Additionally, the Government, along with the Directorate General of Supplies (DGS&D), can evolve a software product purchase method, including a comparison framework, to help it in the task of decision making.

It is recommended that the Fund of Funds (the INR 10,000 crore fund earmarked by the current government for start-ups) reside with MeitY and not the Ministry of Finance. This, it is felt, will expedite decision making and deployment.

Encouraged by the early promise demonstrated by domestic software products, the government can even set up an exclusive innovation fund that caters to resident Indians.

Additionally, with assistance from the government, it would be beneficial to set up Help Desks in Indian Embassies and High Commissions in other countries, which will function as advisories for Indian software product players on local laws and critical market information.

It is apparent that India's software product landscape is poised for incremental growth. It is now important that this market be taken to the next level.

Dec. 29, 2016

The Financial Express

GOVT DEMONETISES ₹500, ₹1,000 NOTES

Digital payment: CMs' panel for continuance of service tax waivers

fe Bureau
New Delhi, Dec 28

A PANEL looking into the issue of a shift to a less-cash economy following demonetisation is pitch-

within a week, Naidu said.
Naidu also said one million PoS machines could be imported to enable cashless payments across the country.
He added that two important measures using existing infrastructure — Aadhaar

Dec. 13, 2016

The Economic Times

IMAGE MAKEOVER

Nasscom Plans a US IT Show to Get over Blues

Dec. 22, 2016

Show will mainly have clients talking about innovation rather than IT firms being vendors

NOW ON STAGE

Jochelle.Mendonca@timesgroup.com

Currently, NILF is only a place for companies to meet journalists and analysts.

"Given the recent media chatter that the industry is on life support, we realised that much more had to be done. There was a brand strategy meeting and we are looking at ways to boost the way we are perceived," the executive said. Former Zensar CEO Ganesh Natarajan is spearheading the initiative and the

Hindustan Times

Trump's visa talk, rising oil, falling IIP add to eco woes

GLOOM & DOOM Pres

Suveen Sinha
suveen.sinha@hindustantimes.com

NEW DELHI: At a time when the economy could ill afford a shock it has got three. The United State president-elect, Donald Trum said he won't allow H1B visa h ers to replace US workers. Cr oil prices touched $57 a barre highest in 18 months. And I factory output shrank 1.9

Last year the seven Indian IT companies go 15,000 of the 85,000 H approved by the US, r any other country. A go to work in the US

The rise of oil prio impact, means a rise prices. Indirectly, rise in prices all-ar a lot of goods mov the IIP dip in Oct because the November, th sation, are alr

"The shor ling," says "Already,

The Economic Times

Software Policy Needs Clarity: IT Cos Specifications will Kill Innovation: Govt

Dec. 15, 2016

Surabhi Agarwal & Mugdha Variyar

New Delhi | Bengaluru: Two we eks after the government put out the National Policy on Software Products for public consultation, the industry has rais

not create jobs, busin for that IT services it it is not

back with the ministry, said the ma in bone of contention is the inade quate domestic access for Indian software products.

"Domestic market access is funda mental to building a 'product'-ba sed industry," said Sudhir Singh, policy expert at iSPIRT. "But the go vernment is not able to implement

built like that. Unless we adopt a de finition of 'digital goods' and 'digi tal services' we will have a problem in tax law GST has done the same for the software product industry. The problems remains," Singh po inted out. A government official aware of the matter told ET that the ministry is cognizant of the con cerns and said that in many aspects the policy is "only a sta

tement of intent". The person ad ded that it is a tough task to define digital goods and services. "Too much clarity is also not good. A very specific definition may hurt future innovation." The person added that a definition may end up benefiting some players while hurting others.

"Even the US has sta yed away from such defi nitions and the

Deccan Herald

IT, telecom cos seek ease of doing biz, manufacturing push

Dec. 11, 2016

Reduce safe harbour margin: Nasscom

NEW DELHI, PTI: IT and Tele com industry bodies have sought measures in the up coming Budget to promote ease of doing business, in centives for R&D invest ments and push for domes tic manufacturing.

"Our main focus is on ease of doing business and level playing field. Important back drop of our suggestion was that the industry does face head winds globally because of pro tectionism and anti-globalisa tion forces in different country," Nasscom President R Chandrashekhar told reporters after a meeting with Finance Minister Arun Jaitley.

He said Nasscom has sought reduction in safe harbour mar gin which is very high at 25- 30%, extension of R&D bene fits to IT sector, clarity on cut in corporate taxes from 25% and support f start-ups

Cellular Association proposed differential tax structure fo five co

"We benefi tion. T manuf five mo been ro have to duty. The er, mech pads," IC Pankaj M

Hardwar

Out of 21 s assemblic dressed a and five m omm

which we felt should be re moved," said Chandrashekhar.

Nasscom also flagged con cerns over the procedural as pects in GST with regard to valuation, place of provision of service ny supply of s was ne

The Economic Times

Nasscom, Georgia Tech to Collaborate on IoT

Dec. 06, 2016

Neha.Alawadhi
@timesgroup.com

New Delhi: In order to encour age innovation in interne things, software i

The Hindu Business Line

Start-up landscape maturing as people with experience come in: Nasscom

Dec. 22, 2016

Mean age of founders has gone up to 33 years from 26

KV KURMANATH
Hyderabad, Decem

Tha

rector of Nasscom 10,000 Startup Programme

in the city in he launch of rm for the said the ight have eir under hallenges Moreover, will also

without much difficulty," he said.

There is a shift in the quality and diversity of start-ups too. "More and more business-to- business start-ups are coming up. They are focussing on small and medium businesses. Unlike in the past, the focus is more on

"There are about 200 start ups in the warehouses we set up in different parts of the country. Of them, 30-35 start-ups received funding to the tune of $30 million and another 10 ventures were acquired."

said. He said there won't be any big change in the mortality rates.

"There are about 6,000 re gistered start-ups in the coun try. But we have received over 15,000 applications from people that have not registered their ventures," he said.

Slowdown

Ashok admitted that there was a slowdown in investments. "There is a slowdown of 8-10 per cent in investments. But the number of start-ups that got funded has gone up," he said. He said the start-up ecosys tem was getting stronger as even corporates such as Cisco, IBM, Microsoft and SAP are be ginning to device specific pro grammes for start-ups. Several

Dec. 12, 2016

The Economic Times

IT Meets Jaitley for a Non-taxing Budget

Nasscom & MAIT ask for better taxation policies and solutions to issues such as equalisation levy in their meeting ahead of budget

Neha.Alawadhi
@timesgroup.com

New Delhi: The technology sector, in a meeting with finan ce Minister Arun Jaitley on Saturday, asked for better tax ation policies and norms this budget, in the software and hardware, including addres sing the issue of credits rela ted to the equalisation levy that has been a cause of con cern for startups in the last budget.

ADDING IT UP

NASSCOM IS FOCUSING ON

- Improving ease of do ing busi ness
- Increased incentives for R&D
- Issues sur

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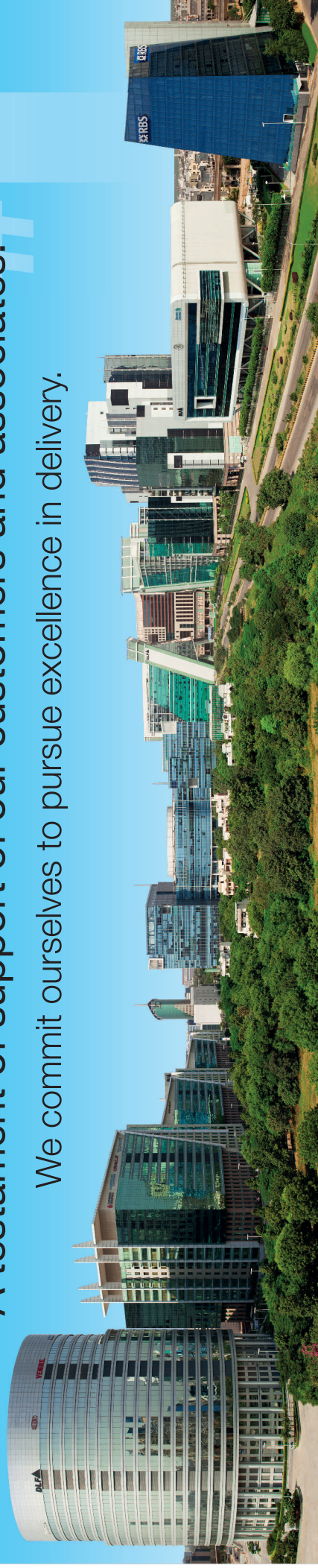
Other Awards & Certifications

Smartest Building of India
DLF Epitome (Bldg#5), Gurgaon
The Times of India & Honeywell
2015-16

LEED GOLD Certification
14 DLF Office Buildings in Gurgaon
US Green Building Council
2014-15

Sword of Honour & 5 Star Rating
DLF Offices, Gurgaon
British Safety Council
2014-15

Best Commercial Project in NCR
DLF iQ (Bldg #14), Gurgaon
CNBC Awaaz Real Estate Awards
2013-14

For further information, please contact:

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