Event Report

Industrialisation 4.0 is powered by smartphones

GN Bureau

The first industrial revolution used water and steam power. The second used electric power to create mass production. The third one used electronics and IT to automate production, which started in the middle of the previous century. The fourth industrial revolution is blurring the boundaries between physical, digital and biological worlds, said PP Chaudhary, union minister of state, law & justice, electronics & information technology.

Speaking at the 'Digital Transformation Summit 2017', organised by Governance Now in March, Chaudhary said the fourth revolution is powered by billions of smartphones, which have unprecedented processing power, storage capacity and access to knowledge.

Emerging technologies including artificial intelligence, Internet of Things, 3D printing and quantum computing offer numerous possibilities and Digital India can be a stepping stone for tapping these transformational technologies.

Citing the recent implementation of demonetisation, Chaudhary said that it has given a tremendous push to online transactions and multi-digit growth has been reported across various digital payment platforms.

Also, Digital Saksharata Abhiyan (National Digital Literacy Mission) is underway to educate 50 lakh people across the country in IT, he said. "A new scheme to cover six crore households in rural areas in next three years is also in the offing to make people aware of digital payments," he added.

Aruna Sharma, secretary, ministry of steel, explained how digitisation plays a key role in the steel sector. "It covers the entire process: from production cycle, product sizing, place of manufacturing, to supply and the market. Now, digitisation has been linked to finances too," she said.

Moreover, the entire auction process related to the mines in the steel sector has been automated. "E-auction solution is being provided by Metal Scrap Trading Corporation and Metal Junction. The automation contributes to better management principles, production, management of raw materials and marketing and response to feedback.

"If we are able to link exports- and imports-related information, it will go a long way in import replacement. And that's exactly what the ministry is trying to do," she said.

The steel ministry is promoting

(L to R) Farhana Haque, Vodafone; Anna Roy, NITI Aayog; Neeta Verma, NIC; Sanjay Jaju, NHIDCL; Vikas Aggarwal, EY; AB Pandey, UIDAI; Diptiman Das, EdCIL; Rajkiran Rai G, OBC; Neeraj Mittal, Nxtgen Data Centre & Cloud Technologies; Yog Raj, RailTel

the use of steel in bridges and buildings and digitising project monitoring. "This will help in managing structural issues, contractors, management and comparative cost of quantitative material," she said.

When demonetisation took place, the steel sector was impacted briefly. "What is surprising is that whole sector shifted to cashless – steel manufacturers went 100 percent cashless," she said.

Gaurav Taneja, national leader, government and public sector, Ernst & Young, talked about three aspects of Digital India: digital artery, infrastructure, and emerging technologies. There will be several Wi-Fi hotspots across the country as the government plans to connect 1.5 panchayats by the end of next year under the BharatNet mission. Therefore, there needs to be enough turnaround in security aspects, which is not given enough importance, Taneja said.

Also, the QR-based payment system will make PoS (point of sale) machines

redundant. "The rollout of the QR can be done 10-20 times faster than the speed of PoS deployment," he added.

We need to have right implementation of what we know to actually achieve good governance in the country, said Shyam Aggarwal, president, ICSI.

SN Tripathi, additional secretary & development commissioner, ministry of micro, small and medium enterprises, said that it is important to build trust between the government and businesses and technology can make this happen. "If you [an SME] take a loan from bank upto ₹2 crore and if you haven't given any collateral, then we [the ministry] underwrite to banks that if the person doesn't pay loan, we will give 75 percent repayment guarantee," Tripathi said.

Till December 2016, 27 lakh people in India have taken the advantage of this loan amounting to over ₹1 lakh crore. And this was all done through a digital platform, he added.

On building digital infrastructure, Shekhar Agrawal, senior vice president, Vodafone India, said that the government should utilise universal service obligation fund (USOF) effectively to create fibre optical highway.

Arvind Pani, co-founder and CEO, Reverie Language Technologies, said that China had decided to have internet in their own language which helped its citizens. But in India only 0.1 percent of internet content is in Hindi.

Transforming governance

Vikas Aggarwal, executive director, advisory services, government & public sector, Ernst & Young, highlighted the importance and role of the word 'digital' that can transform lives. He also said that Aadhaar has become the symbol of transformation because of the way things are worked, developed on it. It is providing digital identity to 100 crore people who have no identity.

The Unique Identification Authority of India (UIDAI) is enrolling five lakh people every day. "We have crossed 112-crore mark for Aadhaar enrollment. There was an impression that once we cross the 100-crore mark, the

PP Chaudhary, union minister of state, law & justice, electronics & information technology

rate of enrollment will come down. But even today enrollments are crossing five-lakh mark every day," said AB Pandey, CEO, UIDAI.

AadhaarPay, a payment mechanism launched by the UIDAI, is benefiting people who are semi and ill-literate to do banking services, Pandey added.

Anna Roy, advisor, NITI Aayog, said, that the Aayog is working to bring more people on digital payments platform. "It is planning to bring more merchants on this platform by organising district level campaigns. MeitY is already working on a plan to scale the transactions from 200 crore to 2,500 crore. A major effect would be to bring the large informal sector on the platform, which will in turn have bearing on tax collection", she said.

Neeta Verma DG, national informatics centre (NIC), said that adoption of the government's cloud by the user department has received an overwhelming response. A key attraction towards adopting the cloud was the less time taken in the rollout of projects. "The time to go live has effectively reduced from years to months and sometimes to a few weeks now," she said.

Talking about the huge potential

of the cloud, she said, "Today, around 800 different government projects are hosted on the cloud with over 8,000 virtual servers around it.

"Many of the new projects being launched under Digital India like DigiLocker, MyGov and Jeevan Pramaan have been hosted on cloud since the beginning."

Moreover, in the last three years, lakhs of tenders have been processed via e-procurement platform developed by the NIC. At present, whatever direct benefit transfers the government is making to the beneficiaries are being made through a common platform, she added.

Explaining how merchants can be brought into the digital payment ecosystem, Rajkiran Rai G, executive director, Oriental Bank of Commerce, said, "Operating through PoS devise results in high cost. Bharat QR is a solution waiting to happen. It is a low cost mechanism for merchants."

On linking government services to Aadhaar, Rai said that Jan-Dhan, Aadhaar and Mobile (JAM trinity) together are playing a key role in identifying people for disseminating government services without pilferage.

Sanjay Jaju, director, National Highways and Infrastructure Development

Aruna Sharma, secretary, ministry of steel

SN Tripathi, additional secretary & development commissioner, ministry of MSME

Gaurav Taneja, national leader, government & public sector, Ernst & Young

Shekhar Agrawal, senior vice president, Vodafone India

Anand Venkatraman, regional business head, Akamai India

Corporation Limited (NHIDCL), said that information technology is helping the infrastructure sector in many ways. "We have launched Inam-Pro website that sorts out a lot of asymmetric information about the infrastructure sector."

The website, an online marketplace for infrastructure material providers, has also helped in cutting down the cost of procurement. So far, 265 metric tonnes of material has been transacted through this portal, he added. Diptiman Das, chairman & managing director, EdCIL India Limited, spoke of how India is going for digitisation in examinations. He highlighted their plan to increase the number of people taking online examination from 1.5 million last year to 2.5 million. "Most of the maharatna companies, large government bodies, and various

autonomous bodies are asking us to take care of their recruitment and examination part," Das added. He also said that around four lakh students go outside India and we get only 50,000. "This is the area we want to work on," he said.

Highlighting its role in digital transformation, Yograj, GM, RailTel Corporation, said that they are not directly into digitisation but acting as an enabler with their infrastructure, massive coverage, and wide OFC network. "We are providing internet to various remote locations through our Wi-Fi coverage all over the stations," he said.

Securing digital infrastructure

As digital payments are making inroads into the economy, there is no legal framework to help people who

lose their money during digital transactions. Also, the 17-year-old legislation, the Information Technology Act of 2000, is not adequate enough to deal with the current ecosystem. Therefore, there is an urgent need for an action plan to deal with cyber attacks, said Pawan Duggal, advocate, supreme court and a cyber law expert.

He also said that the current Aadhaar Act is inadequate in terms of security and corporate handling.

Agreeing with Duggal, Mukesh Arora, general manager, cyber security and information technology, BHEL, said that impacts of cyber attacks can be minimised if correct steps are taken in time to secure the data. "It is important to have a mechanism in place that helps in identifying a cyber attack in time and then restore the situation effectively," he added.

Talking about data security, Amogh Ranade, senior solutions consultant, Thales E-Security, said that unified payments interface (UPI) and Aadhaar-based authentication are good, only if they are implemented in a proper way. "There is a heavy penalty for data breach in Europe. The consumers need to be faster than the attackers," he said.

AM Deshpande, technical director & join secretary, department of information technology and communication, Rajasthan, talked about how the robust security infrastructure in the state has addressed the challenges of data breach with additional layers of security and regular audits.

Milan Narendra, partner, advisory services, government & public sector, Ernst & Young, spoke of how the fear

(L to R) Jasdeep Kaur Dhanoa, IGDTUW; Amogh Ranade, Thales e- Security; Mukesh Arora, BHEL; Milan Narendra, EY; Pavan Duggal, advocate, SC; Alok Khanna, IOCL; AM Deshpande, department of IT &C, Rajasthan; Shashi Kumar, Evolute Systems

(L to R) Neeraj Mittal, Nxtgen Datacenter & Cloud Technologies; Rajesh Patel, BSNL; Golok Simli, Passport Seva; Uday Shankar Roy, former MD & CEO, SBI Life Insurance; Arvind Pani, Reverie Language Technologies

of data breach keep IT professionals, who manage infrastructure and create digital assets in departments and organisations, on toes.

"We have been ensuring fast, secure and safe internet for the last 19 years efficiently. In fact, 30 percent of the global internet today runs through Akamai," said Anand Venkatraman, regional business director, Akamai India.

Innovations for a cashless economy

Golok Kumar Simli, chief technology officer & CDO, Passport Seva, ministry of external affairs (MEA), said that under the passport seva project every stakeholder is connected digitally. "When a file is within the MEA fold it is traceable and when it goes to other departments, for example, the state police, even then it can be tracked," Simli said.

ICT projects usually involve huge capex. "Under the passport seva project entire investment was made by the service provider and the payment is done on a transaction basis. The government will pay to the service provider as per service levels defined in the project," he added.

The problem with the government ICT projects is that once a project is outsourced to the private service provider the government officials think

that their job is over. "Don't outsource the responsibility matrix," Simli advised.

Neeraj Mittal, vice president, Nxtgen Datacenter & Cloud Technologies, said, "We have partnered with BSNL. Currently, we have nine data centres and six of them are with the BSNL."

"We are keeping in touch with major technologies and have recently ventured into new technology area. We provide all kinds of services like wireline, GSM mobile services, the internet and broadband services including FTTH, enterprise data services, WLL limited mobility services, Wi-Fi and national long distance services among others. That apart, we have got huge infrastructure and have 103.02 million customer base," said Rajesh Patel, AGM-enterprise business, Bharat Sanchar Nigam Limited.

On technology development, Shashi Kumar JV, vice president – technology, Evolute Systems Pvt Ltd, said the company is providing transaction capability to the rural segment and aims to provide devices in rural areas as a corporate social responsibility activity. "Earlier, the banks used to carry a laptop, smartcard reader, fingerprint scanner and bar code reader, but we came out with a small device comprising all the features. Inventions can become innovations only if they become

useful for people", he said.

Direct benefit transfer of LPG is one of the biggest projects to bring transparency and terminate pilferage of funds. Sharing Indian Oil's initiatives under DBTL and other innovations done for the cashless economy, Alok Khanna, executive director - IS, Indian Oil Corporation Limited, talked about how Aadhaar has transformed DBTL in the country. "Aadhaar has become the basis of direct benefit transfer for most of the customers." Going towards digital transformation, IOCL has developed mobile apps, SMS, call centre, IVRS-based systems to stay connected with customers.

Pointing out the security challenges, he said, "We have the responsibility of crores of our customers. Therefore, we have ensured secured mechanism for the exchange of data with banks and other payment systems to avoid any data breach." He also shared that apart from providing cashless subsidies, the oil industry is now using DigiLocker for issuing gas connection papers. ∎

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