REAL ROI WILL BE VISIBLE WHEN AI-ML-ANALYTICS ARE DEPLOYED

Manjanath Nayak, Senior VP, Strategic Accounts, BU & Global Industrial IoT Business, Microland, explains the status of Industry 4.0 and how we can leverage its benefits to the maximum

Sunil Rajguru
sunilr@cybermedia.co.in

Is India ready for Industry 4.0? How much work is left to be done at the backend? Which sectors are likely to be the early adopters?

Many Indian manufacturers are yet to evolve from Industry 2.5, which represents an opportunity to achieve full automation. Regardless of this, Reserve Bank of India reported that 1,734 manufacturing companies posted Rs 47,100 crores in Q3 FY2019, up 29.4 per cent from the same period last year. Technology adoption is the key driver for growth in this sector. India is geared towards the next industrial revolution that will witness blurring of boundaries between the physical and digital worlds.

We are seeing a lot of traction for Industry 4.0 in India. Most of the manufacturers are looking forward to adopting Industry 4.0 technologies as they will lead to improvements in efficiency and productivity. Our experience so far tells us that the manufacturing and energy sectors will be the early adopters.

What is the status of Industry 4.0 in the West and other parts of the world?

Western countries and few Asian countries are ahead of India when it comes to adoption of technology. However, Industry 4.0 still offers a lot of benefits for these countries as well. The goals for Industry 4.0 in these economies are more towards reducing human intervention than achieving incremental improvements in efficiencies. These countries are taking a more holistic approach towards new age industrial technology implementation by

"Industry 4.0 aims to achieve complete digitisation, bringing unprecedented benefits in efficiency and productivity. Technologies like IoT, AI, analytics and cloud make the businesses more reliable, predictable and scalable. IoT enables collection of all critical data. Analytics and AI transform this data into actionable insights"

embedding AI, ML and predictive intelligence into their operations. Another area of focus for enterprises across these countries is to make their factories or operational hubs extremely intelligent and resilient to cyber threats.

We see a lot of traction for solutions that enable real time visibility and analytics that lead to actionable insights. Eventually connected enterprises will make the process and Quality initiatives such as Just-in-time (JIT), World class manufacturing (WCM), Advanced Parts Quality Process (APQP) etc., a reality.

Can the government adopt the principles of Industry 4.0 given that schemes like Aadhaar have already reached 100%?

The Indian government presents a large opportunity for Industry 4.0 technologies. It will play a pivotal role in the adoption of Industry 4.0. Campaigns like Make in India and Digital India have helped increase the pace of adoption of these technologies. Considering the current trends, the government is keen on adopting and accelerating the adoption of new age technologies to ensure we keep moving ahead on the global competitiveness index. These initiatives hold the potential to transform traditional set ups for improved experiences for all stakeholders involved.

For example, WhatsApp has become a business process work flow form for all sourcing and quotation requests. And the SMB segment has taken this further to invoicing and collectables. The Industry 4.0 principles are designed to enhance Interoperability between systems, virtualisation through concepts such as digital twin to better monitor assets, decentralisation, real time capability to monitor data and take corrective action as well as modularity to ensure operations are able to match with dynamic market demands and that is what the government is encouraging enterprises to adopt.

What about Smart Cities? How much will it be government driven and how much IT-industry driven?

Smart Cities are currently the largest Government led digitization projects in India. Latest data from the Ministry of Housing and Urban Development, which is overseeing the initiative, show that projects worth Rs 50,221 crore are under implementation, out of which projects worth Rs 9,981 crore are complete. It will definitely be led by the Government. The IT industry will continue to be the implementation partners. The industry will continue to bring in the technology best practices to accelerate execution and adoption.

For the common consumer, how would you differentiate between personal IoT and IIoT (Industrial Internet of Things)?

IIoT is usually not visible to a common consumer. It drives the industries to manufacture smarter

As we see the industry moving towards intelligent Industrial IoT, our strong data science team is enabling our clients derive value out of their IIoT ventures. Our global presence and strong technical expertise across the IT and OT domains enable us to help our clients achieve true digital transformation. Microland is making digital happen

products of better quality and at lower prices. IIoT goes into improving efficiencies for creation of goods commonly used by the end consumer. With the rise of smart homes and wearable technologies, the end consumer is now well initiated into the world of IoT. The scale and impact of IIoT is going to be much larger than consumer IoT. It will also positively impact the experience of end consumers.IIoT will enable availability of better-quality goods in lesser time. For example, the waiting times for new and customized models of cars will go down. IIoT will benefit the industry and these benefits will in turn help the end consumer

What role will AI-ML, Cloud and Data Analytics play in Industry 4.0?

Data is the new oil as we have all heard multiple times. IIoT enables collection of this data for deriving actionable insights. The real ROI of Industry 4.0 will be visible when AI-ML and analytics are deployed to make sense of the vast amounts of data generated from large scale IIoT implementations. With advances in cybersecurity and a need for aggregation of data, the adoption of cloudby the industrial customers is slated for a growth.

Will 5G make any difference towards implementation?

Connectivity and data interoperability have always been the biggest challenges in any IIoT projects. The advent of 5G will alleviate these issues to a large extent. With the next generation of the industrial revolution being triggered by the combination of emerging technology, the impact that 5G has on Industry 4.0 will be unique. While 5G won't redesign the production line but it will enable new operating models. With network characteristics that are essential for manufacturing (greater speed, greater capacity and lower latency), 5G will offer manufacturers the chance to build smart factories.

What specific things is Microland doing to bring India and the world on to Industry 4.0?

For 30 years Microland has focused on ensuring that the infrastructure that distributes, supports, and enables technology is reliable, predictable, and secure. We enable enterprises access the power of nextgen technologies to cut costs, streamline operations, increase productivity and innovate new products and services.

Microland's time-tested software engineering skills and deep industrial capabilities put enterprises on an accelerated path to transformation.We provide IIoT services ranging from connectivity to analytics. On one hand, our connected enterprise solution aims to enable our clients aggregate useful data from across varied systems. On the other hand, our integrated smart factory solution transforms traditional industries to digital production hubs. Our experts build remote monitoring centers for industries with geographically spread out assets like energy and utilities. For instance, we are managing more than 1500+ windfarms across 39 countries for a large Fortune 500 conglomerate.

The platform engineering services that we deliver help increase the reliability and scalability of IIoT platforms. Considering the huge market potential for IIoT and secure operations, we have started our foray into OT security solutions. Apart from proven capabilities in widely accepted IIoT technologies, Microland is also exploring avenues like Augmented Reality and Digital Twins to deliver future ready solutions and services. □

Transformation of Processes and Services

4.0: The next Industrial Revolution is here. Smart factories are factories of the future. The machines and the computers, which are connected to each other, communicate with each other and start making decisions by themselves ultimately. It's also going to generate enormous amount of data has to be putting into use via an AI powered automation platform.

IT/OT: Connected enterprises aggregate all the data from various computers and systems, bringing in the IT and OT convergence: The Information Technology which exists, which addresses the enterprise systems today, and the Operations Technology, which existed in the Industrial Revolution 1.0.

IIoT: Industrial IoT is embraced by industries, governments and by consumers in their daily lives. The data it generates is helping businesses and industry make the right decisions and get insight into their business processes. Some industries such as energy, manufacturing and transportation are embracing this at a faster pace. In the future, critical assets like big buildings, oil and gas stations, windmills and wind turbines could be connected all over the globe. They could be monitored by driverless cars and drones.

With an IIoT implementation, an integrated smart factory will transform a traditional factory or a manufacturing or a transportation or a logistics operation into a digital hub. This will generate the data and put an application service on top of it to give a real time insight into the business processes and methodologies to take the right information. All these integrated smart connected machines and applications are going to transform the way we produce products and services.