LTIMindtree

POV

Revisiting Enterprise Mobility in **Process Industries in a Pandemic World**

There is perhaps no better time to discuss enterprise mobility than in a pandemic world. As social distancing becomes part of the new normal, the spotlight is on the role of real-time connectivity through mobile applications. While enterprise mobility is not a new concept, it has gained momentum recently as enterprises are focusing on investing in capabilities that facilitate remote connectivity. When it comes to the process industry, enterprise mobility is key to transforming the contact-intensive nature of the business for ensuring business continuity.

Enterprise mobility can be defined as the deployment of mobile solutions across an organization to connect people and processes by leveraging technologies like cloud and the Internet of Things (IoT). Key benefits of an enterprise mobility solution implementation include improved productivity, cost reduction, faster decision-making, and increased customer satisfaction.


Let us take a closer look at how enterprise mobility solutions can empower different personas in the process industry in following areas:

Connected Field

Centralized Monitoring

Customer Delight

LTIMindtree

Connected Field

Field technicians: According to research conducted by Field Service USA, almost all major field service companies (89%) provide their technicians with mobile tools to carry out their day-to-day work activities [2]. Some of the key activities field technicians perform are field inspection, preventive and breakdown maintenance, equipment data collection, and reporting. Use of mobile tools can greatly boost productivity for such activities. Instead of the traditional method of job allocation through a paper-based permit system, field technicians can get job allocations in real-time through their mobile devices. This enables them to "self-manage" their work and meet operational KPIs. GPS-enabled mobile tools also help field personnel to navigate to their field locations quickly and safely. Mobility solutions help in quality improvement as manual processes such as data collection and data entry can be automated, minimizing human errors.

Big Data

Software

Analytics

Infrastructure

Sensors IoT

Devices

Industry 4.0
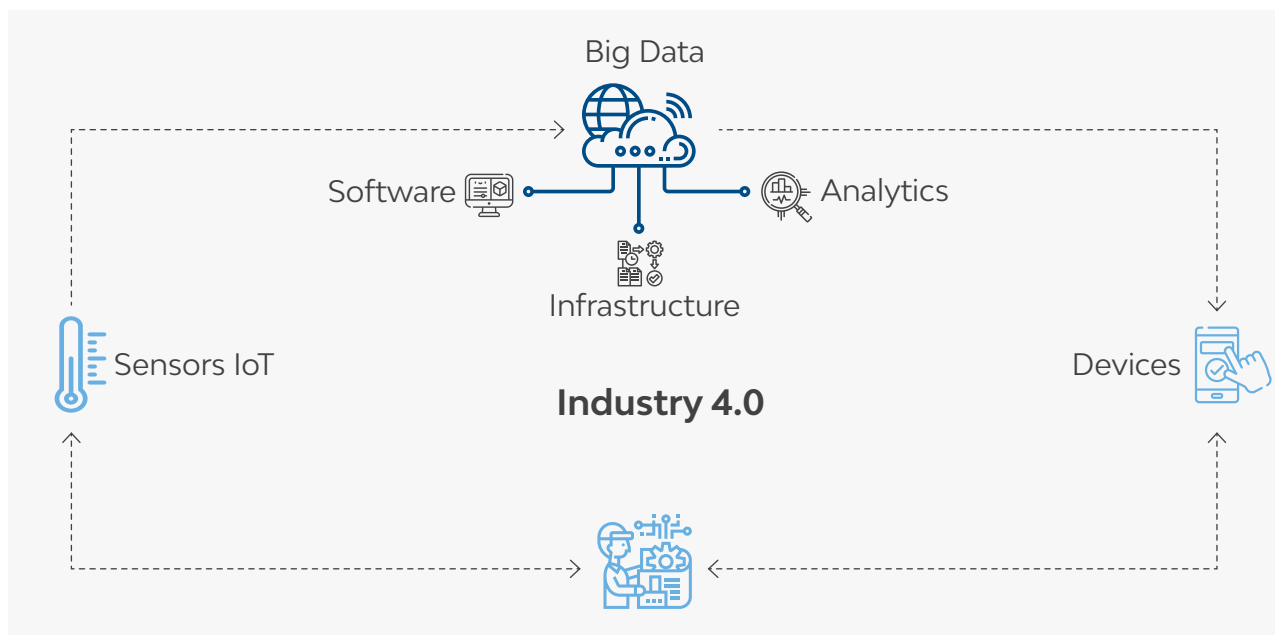
Use case: A leading US-based oil and gas major operating 10+ refineries, was struggling with poor productivity due to lack of field coordination and delays in logging equipment parameters during plant inspections. LTIMindtree developed a mobility solution to digitize the daily operator rounds and inspection process, enabling faster logging of captured data and effective tracking of operator tasks. This solution rollout achieved 40% increase in productivity due to improved measuring and data logging mechanisms during inspections, and 20% decrease in operating costs. Click here to know more.

Centralized Monitoring

Subject matter experts: While mobility applications can help people on the ground better manage their day-to-day jobs, they also help subject matter experts (SMEs) to collaborate better with field technicians. The SME team, which is largely centralized, can provide "on-the-job guidance" to technicians through mobility applications—reducing turnaround time and production outages. Mobility solutions built on technologies such as IoT, augmented reality, and virtual reality can facilitate such on-site collaboration by a centralized team of experts.

Field managers: Field managers can do better governance through continuous communication with their technicians through integrated mobility solutions. They can monitor the status of allocated jobs in real-time and keep track of quality and performance metrics. They can also leverage accumulated data from the mobility solution to generate insights on equipment and plant performance.
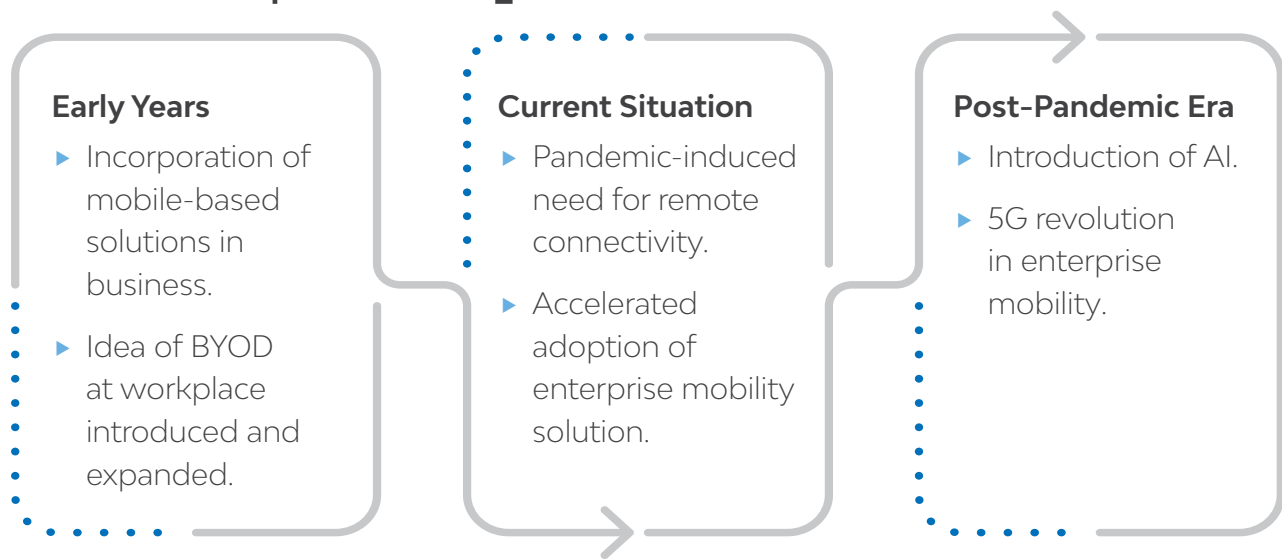
Training and development team: Training teams can analyze historical data from the mobility solutions to perform skill gap analysis for field technicians. They can then plan for upskilling and training programs for the field workforce to improve overall productivity.

Customer Delight

Enterprise mobility can play a significant role in building a strategic partnership with the customers.

In today's challenging business environment, real-time connectivity through mobility solutions gives competitive advantage to organizations. A mobility solution enables end users, for example, to see the prices of all products on the go. The application can also provide location-based alerts for marketers and distributors. Features such as customized search option with provision for bookmarking frequently used products can result in enhanced customer satisfaction. Such customer experiences are especially relevant in a pandemic world where personal selling remains a challenge for organizations.

Future of Enterprise Mobility

Early Years
▶ Incorporation of mobile-based solutions in business.
▶ Idea of BYOD at workplace introduced and expanded.

Current Situation
▶ Pandemic-induced need for remote connectivity.
▶ Accelerated adoption of enterprise mobility solution.

Post-Pandemic Era
▶ Introduction of AI.
▶ 5G revolution in enterprise mobility.

Enterprise mobility is inevitable for organizations of the future that wish to adopt an agile and entrepreneurial culture at their workplace. Organizations in process industries are no exception.

In process plants, rapid response to breakdowns is critical and this require seamless coordination among field workers. Artificial intelligence (AI) can play a crucial role here to foster hyper-connectivity in the field team. AI-based mobility solutions can also augment the core operations in process plants such as field audits, equipment health and performance checking, sample data collection, etc. AI has the power to analyze a vast set of field, data which can help in predictive maintenance of equipment.

The 5G wireless revolution will greatly impact the enterprise mobility space as it will enable faster mobile communication, increased productivity among remote workers, and improved performance of IoT-based mobility solutions. 5G will also push for smart devices (AR-VR glasses, wearables, etc.) adoption helping process industries to move to a BYOD (Bring Your Own Device) business model in future.

Safety Concerns

Data security: A discussion on enterprise mobility will remain incomplete unless one of the key concerns in deploying mobility solutions is addressed: data security. Data is a key intangible asset for an organization. Since mobile devices can get lost or stolen, data residing in any mobility application are vulnerable. This issue can be addressed by password protection, user authentication, and encryption. There should also be provision for the central administrator team to erase all data from a missing mobile device.

Intrinsic safety: Process industries are bound to have a potentially explosive atmosphere in the workplace. While deploying mobility solutions in such an environment, utmost care needs to be taken to ensure intrinsic safety. Mobile devices in use, particularly by field technicians, must adhere to safety standards such as NEC (National Electrical Code, USA) and EN (Europe) standards.

While adoption of enterprise mobility has its own challenges, they are outweighed by the benefits it offers in the long run. Process organizations need to come up with innovative solutions to address challenges such as data security and intrinsic safety. As these organizations emerge from the pandemic-induced disruption, they need to focus on strategic areas such as remote working, productivity improvement, and business continuity. Enterprise mobility can be an effective tool to accomplish these strategic business goals in the current pandemic situation and beyond.

References

1. www.techedgegroup.com/blog/achieving-real-time-visibility-in-field-operations-with-mobility-solutions

2. www.fieldserviceusa.wbresearch.com/downloads/digital-disruption-in-proactive-and-service-driven-manufacturing?-ty-m

3. www.mckinsey.com/business-functions/operations/our-insights/how-lean-is-your-field-force-really

4. www.bartec.de/en/solutions/assets/white_paper_EM_en.pdf

5. www.linkedin.com/pulse/what-future-enterprise-mobility-gaurav-sabharwal/

6. www.42gears.com/blog/impact-of-5g-on-enterprise-mobility/

About the Author

Ayan Mukherjee
Specialist - Business Analysis, LTIMindtree

Ayan has nine years of experience in consulting, business analysis, and project management in the energy sector. Presently he is engaged in delivering data and machine learning solutions for global oil and gas clients, driving their digital transformation initiatives. He also holds an MBA from IIM Bangalore.