

## 5G WIRELESS

### Wireless Secure Factory

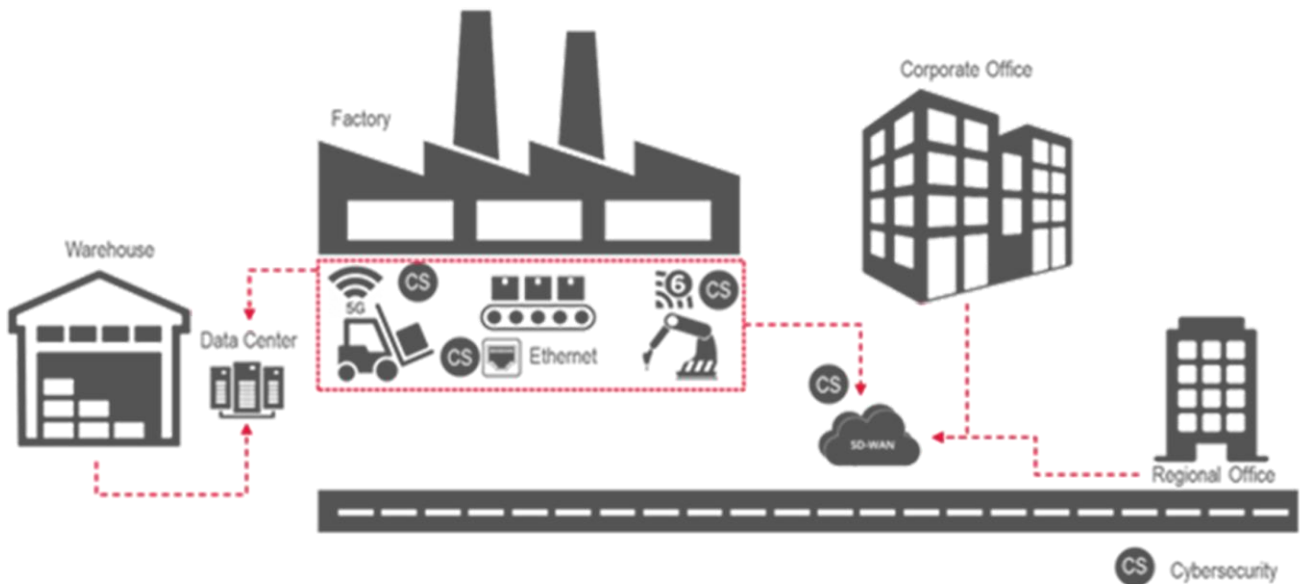
There are 14.5 million industrial establishments worldwide. They include 10.7 million factories, 3.3 million warehouses, 500,000 oil and gas fields, 50,000 transport organizations and ports, 10,000 military bases, 54,000 mines, and 263,000 hospitals and labs. Industry 4.0 is creating an opportunity to optimize these assets. However, only 3 percent of the factory data is used for Industry 4.0 use cases. One of the top reasons for this underuse of data is a lack of an adequate and reliable industrial network infrastructure.

**Customer's Ask :** Upgrade factory infrastructure, give future proof architecture, reduce cost of network (Ethernet, MPLS), Make it wireless & clean technology, Should reach remote places, Should sustain industrial environment of factory.

The factory of the future, Industrial Internet of Things (IIoT), robotics, remote monitoring and diagnostics, edge analytics, and traceability solutions have already started to transform the manufacturing supply chain. The next key step in the journey toward Industry 4.0 and smart manufacturing is to industrialize these solutions. We believe that the millions of industrial establishments becoming network enabled will move toward wireless networking technology (Wi-Fi, 4G LTE, 5G), together with deploying better wired networks across different layers in the manufacturing IT/OT space. Factory equipment holds a great deal of meaningful data. This data is key to any successful Industry 4.0 project.

# Tech Mahindra's solution for wireless secure factory

Wired/ 5G / Wi-Fi 6 + SD WAN + Cybersecurity + Edge



## Tech Mahindra's POV : Factory use cases mapping to network characteristics

*Technology for these use cases is ready and can help to get started*

*Start with LTE & Next two years roadmap to scale up with 5G*



### Process Monitoring & Quality

- Machine Communication & IoT
- CO2 sensors, pressure sensors, humidity sensors, and thermometers.
- Visualization & Process Monitoring

Multiple wireless sensor networks

**WiFi- LTE**

### Closed loop Control use-cases

- Motion Control & Process Automation
- M2M/ C2C communication
- IT-OT Integration

Highest requirements in terms of latency and service availability.

**Ethernet+ WiFi**

### Mobility Use cases

- In Plant logistics
- Warehousing

Low latency & utmost mobility needs

**LTE/5G**

### Asset Management

- Remote Access & Maintenance
- Plant Asset Management
- AR VR
- Predictive Analytics

High Bandwidth Communication for asset management

**LTE/5G**

TechM can possibly do 2-3 weeks assessment and suggest an architecture and roadmap for its Factory network architecture & roadmap of deployment aligning with business use cases

Contact Us : [connect@techmahindra.com](mailto:connect@techmahindra.com)