

# **Deep dive into 5G Private Network Training**

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This 5G course deeps dive into 5G Private Network, talking about the drivers, challenges and deployment models, we will also cover 5G private network use cases, exploring scenarios scenarios such as 5G FWA, Industry 4.0, 5G Smart Mine, 5G Smart Ports and More

# Who would benefit:

For Company or Particular, this training is aimed for CTOs, Network Managers, Consultants or even graduates.

# **Type of Training:**

On site or Online training

# **Training description**

### 1) Drivers & challenges for 5G Private Networks

- What is private 5G network
- Advantages of 5G Private Networks.
- Challenges of 5G Private network
- Frequencies for 5G Private network in different bands
- Situation of 5G Private network in several countries



## 2) 5G Private Network deployment models and guidelines

- SNPN: Standalone Non-Public Network
- PNI-NPN: Public Network Integrated Non Public Network
- 5G Hybrid Private Network Architecture
- 5G Virtual Private network Architecture
- Advantages/Disadvantages of deployment options
- How to choose the right 5G Private network deployment

#### 3) Mobile Edge computing in 5G Private Network

- Techniques to reduce latency in 5G
- What is MEC
- MEC Deployment models
- Importance of MEC in 5G Private network
- MEC Architecture 3GPP and ETSI
- MEC and requirements for 5G Private network services

#### 4) 5G Fixed Wireless use case and deployments

- 5G FWA (Fixed Wireless Acess) is a reality
- 4G FWA Vs 5G FWA
- 5G FWA offers in countries
- 5G FWA Use case
- CPE Indoor/Outdoor

#### 5) Industry 4.0 and Smart manufacturing use cases

- 3GPP standard and Industry 4.0
- Performance comparison between 5G, 4G, Wifi, Fiber
- Use case : 5G Real time Monitoring
- Use case : 5G Predictive Maintenance
- Use case : 5G High definition security Surveillance
- How 5G overcome industry challenges

#### 6) 5G AR and VR use cases

- What Augmented reality and Virtual Reality
- AR/VR Development Prediction
- AR/VR Use cases
- 5G to overcome AR/VR Challenges



## 7) Industry 4.0 : Automated Guided Vehicle use cases

- Definition and Types of AGV in Industry 4.0
- Main current Challenges for AGV
- 5G and AI support for next generation AGV

### 8) 5G Drones and NTN use cases with 5G

- What are UAV, Drones and NTN networks ?
- Use case : 5G drones and public Safety
- Use case : 5G drones for connectivity
- How 5G helps overcome challenges

#### 9) 5G Smart mine/ Mine 4.0 use cases

- Global Mine Allocation and Production
- Definition and benefits of Smart Mine
- Use case 1 : 5G Video Surveillance in mine
- Use case 2 : 5G Remote Control in mine
- Use case 3 : AI enabled 5G Robot
- Use case 4 : 5G Precise Positioning
- Use case 5 : 5G for Unmanned Driving
- Smart Mine E2E Architecture

### **10) 5G Smart port Use cases**

- Global Port share worldwide
- Definition and benefits of Smart Port
- 5G Port Mobile Private Architecture
- Use case : Remote Control of Gantry Cranes
- Use case : Remote Control of Quayside Container Crane
- Use case : Intelligent Guided Vehicle (IGV) Control
- Use case : Video Surveillance and AI Recognition
- Use case : Automated logistics with 5G unmanned trucks