5G Fixed Wireless Access training

Deep dive into 5G for Fixed Wireless Access (FWA), showcasing its potential to extend wireless connectivity to presently unlinked regions or serve as a viable alternative to conventional broadband and cable technologies. The course elucidates FWA terminology and architecture by highlighting the functionalities associated with Customer Premises Equipment (CPE), offering insights into both Outdoor FWA and Indoor FWA configurations. Additionally, the training comprehensively covers essential radio spectrum elements and explores specific features within 4G and 5G designed to enhance the performance and connectivity of FWA devices.

Audience

Knowledge on 5G

Content of the Training:

1) Introduction to FWA Deployment:

Unraveling the Concept of Fixed Wireless Access.
Exploration of Current Broadband Technologies.
Identifying FWA Market Opportunities.
Understanding the Driving Forces behind FWA.
Navigating the Landscape of FWA Rollout.

2) FWA Base Architecture:

Delving into 3GPP-Based FWA
Decoding FWA Device Architecture.
Exploring External FWA CPE.
Unveiling the 3GPP Architecture for FWA.

3) FWA Radio Dynamics:

Understanding FWA Spectrum from Low-band to High-band.
Illuminating 5G FWA High-band Propagation.
Exploring FWA Radio in FDD and TDD
Breaking down Frequency Bands, Ranges, and Channel Bandwidth.
Distinguishing Indoor vs Outdoor FWA CPEs.

4) Optimizing FWA CPE Performance:

Elevating FWA CPE Performance.
Harnessing the Potential of High Order Modulation.
Embracing FWA MIMO Technology.
Unleashing the Power of FWA Beamforming.
Maximizing Performance through Carrier Aggregation.

Fine-tuning FWA CPE Positioning, Power Class, and Connected Users.

5) Exploring 4G and 5G-Based FWA Networks:

Navigating the Landscape of 4G LTE FWA Networks.
Understanding Packet Data Network (PDN) Connection
Peering into 4G FWA Radio Access Network (RAN) and Core.
Connecting to the 4G FWA Network.
Transitioning into the Realm of Standalone and Non-Standalone 5G FWA.
Demystifying 5G FWA NG-RAN and Core Network.

6) FWA Device Connectivity in Action:

Managing FWA Devices Effectively.
Unpacking the Role of FWA Voice.
Real-world Examples of Indoor and Outdoor FWA Deployments.
Immersing in 5G FWA Data Transfer.
Unraveling the Mechanics of Uplink and Downlink FWA Data Transfer.