Deep dive into 5G Core and 5G Slicing

5G Core and 5G Slicing Training

The objective of this course is to focus on the functionalities of the 5G core (5GC) network for the 5G Standalone, with deeping dive into 5G Network Slicing, which is an important feature and functionality of the 3GPP 5G System.

You will be having a very good understanding on 5G Service Based Architecture, Network functions, and 5G Slicing which are very important concepts in 5G Standalone to provide better end to end customer experience

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) Benefits and design of 5G Core network

- 3GPP Update
- 5G Architectures and 5G Options
- Core Network definition
- Benefits of 5G Core Network
- Main principles of 5G Core network transformation (CUPS, SBA …)

2) 5G Service based Architecture and 5G Core protocols

- 4G Core Vs 5G Core
- 5G SBA Network function details (SMF, UPF,NRF, AUSF ….)
- Mapping of 5GC to EPC functions
- Service based Interface Protocols (HTTPv2, REST, TLS, X509)

3) Network Slicing & Technical slice components

- What is Network Slicing (3GPP, NGMN, 5G PPP)
- Benefits of Network slicing
- Technical components of Slice (NSSAI, SST, SD, NSI …)
- Different Types of NSSAI
- Slice selection procedure & Call Flow

4) Types of slicing and features from end to end

- 5G Slice attributes and slice evolution
- 5G pre-slicing 5G Static slice & 5G dynamic slice
- NFV, SDN and Orchestration
- Slice Management: Life cycle
- Slicing features in RAN, in Transport & Core network
- Comparison QoS for 5G NSA vs 5G SA

5) 5G Slicing use cases

- Industries with strong need to network slicing
- Automotive industry
- Healthcare industry
- Public sector industry
- Government emergency industy
- Manufacturing industry
- Gaming industry

6) Focus on 5G NRF

- NRF Role and Service Framework Engine
- NF Service mechanisms
- AMF journey using NRF (registration, discovery …)

7) 5G Signaling in 5G Core

- Introduction to Mobile Signalling
- the Evolution of Mobile Signalling in 2G/4G/4G/5G
- Main items of 5G Signaling

8) Migration Scenarios from EPC to 5GC

- Moving from 5G NSA to 5G SA
- Interworking between EPC and 5GC
- 4G to 5G Migration strategy
- Migration Scenarios from 4G Core to 5 Core