ProTech Professional Technical Services, Inc.

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5G Essentials

Course Summary

Description

5G is the next-generation of mobile networks beyond the 4G LTE mobile networks existing today. The vision of 5G is becoming clearer and most experts say 5G will feature network speeds that are blazingly fast at 20 Gbps or higher and have low latency at mere milliseconds. The entire 5G approach takes advantage of containers, virtualization, SDN and NFV.

Students will cover the design motivation and underlying technology of 5G service-based architecture as well as new vocabulary terms. We will cover enough about 5G radio to understand the differences between 4G and 5G, and finally, take a look at the 5G core in action. Sample message flows of typical 5G processes are covered message by message. The goal is to clearly see how 5G accomplishes its goals by observing how it actually works.

Topics

- Introduction
- New Radio
- 5G EN-DC Radio Access Network Architecture
- 5G EN-DC Core Architecture
- IMS Integration
- 5G Stand Alone (SA)
- 5G Stacks
- 5G Mobility management

- 5G Infrastructure
- The 5G Slice
- Using Unlicensed Spectrum
- US Unlicensed Spectrum in the Mid-band
- Multi-Operator Core Networks (MOCN)
- Multi-Access Edge Computing
- EU and PDU Session State
- 5G Flow Diagrams

Audience

This course is designed for anyone wanting to learn the 5G approach which takes advantage of containers, virtualization, SDN and NFV.

Prerequisites

There are no prerequisites for this course.

Duration

Three days