Welcome to Security in 5G

5G_119d | On-Demand | 5G Core | Express
Course Duration: 1 hour

In an all-digital world, 5G wireless is a key enabler for fundamental transformation for many industry segments. Therefore, security is of utmost importance for successful adoption. This training provides a technical overview of vulnerabilities and mitigation mechanisms in 5G networks, end-to-end framework of security in 5G for the device as well as the RAN and core networks in virtualized telco networks.

Intended Audience

This course is designed for a broad audience of personnel working in the wireless industry.

Objectives

After completing this course, the learner will be able to:

- List threats and vulnerabilities in 5G networks
- Match various mitigation measures with vulnerabilities
- Sketch the end-to-end 5G security architecture
- Identify unique security features of 5G networks
- Identify roles of 5G network functions related to security procedures
- Describe security mechanisms for infrastructure and network workload

Course Prerequisites

No Prerequisites

Outline

1. Security in 5G: What and Why?
1.1 5G security challenges and mitigation
1.2 What's new in 5G security

2. 5G Security Architecture
2.1 End-to-end security framework in 5G
2.2 A closer look at 5G security - ZTA, microsegmentation, SASE
2.3 Key network security functions - AUSF, NRF, NEF, NSSAAF, etc.
2.4 Security for interworking and roaming - SEPP

3. 5G Security in a Cloud-Native Environment
3.1 Securing containerized 5G network functions
3.2 Threats in a container lifecycle

Putting It All Together

Final Assessment

Award Solutions