Multi-Access Edge Computing (MEC)

TPR1028d | On-Demand | 5G Core | Expanded
Course Duration: 4 hours

Multi-Access Edge Computing (MEC) pushes cloud computing capabilities closer to the user across multiple access network domains. This course provides an overview of MEC framework, underlying technology and its use cases. The course starts with the definition of MEC, its characteristics, benefits, and business drivers. The MEC architecture defined by ETSI is illustrated. The key components such as Mobile Edge Host (with platform, infrastructure, and applications) and MEC management are described. Technology enablers for MEC such as the cloud infrastructure, NFV, SDN, microservices, and 5G services are discussed. MEC location strategies are summarized. Implementation of MEC in a 5G network is also described. The course concludes with a discussion on challenges faced by MEC.

Intended Audience

A high-level technical overview to personnel involved in product management, marketing, planning, design, engineering, and operating wireless (4G, 5G) and wireline access networks

Objectives

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

- Define Multi-Access Edge Computing (MEC)
- List the key use cases and benefits of MEC
- Illustrate the ETSI reference architecture for MEC
- Identify key technology enablers for MEC
- Describe how MEC interacts with the rest of the 5G network

Course Prerequisites

Welcome to 5G

Outline

1. What and Why MEC?
1.1 What is MEC and Why?
1.2 Benefits of MEC
1.3 Location considerations for MEC deployment
Exercise: Knowledge check

2. Enabling Technologies for MEC
2.1 Enablers for MEC - Edge cloud, NFV, SDN
2.2 5G RAN and 5G Core for MEC
2.3 Role of Service-Based Interface (SBI) and API
Exercise: Knowledge check

3. MEC Architecture
3.1 MEC architecture of ETSI and 3GPP
3.2 MEC and 4G-5G together
Exercise: Design and deploy MEC in 5G
Exercise: Knowledge check

4. MEC Operations and Deployment Scenarios
4.1 MEC operations
4.2 MEC deployment scenarios
Exercise: Step through MEC operations
Exercise: Knowledge check

Putting it all together
Final assessment