



MEF-CECP Seminar

In-Depth Seminar – Content

The 5-day seminar will cover the following aspects:

■ Section 1: Services Definitions

- Describe and distinguish between the service attributes of EPL, EVPL, EP-LAN, EVP-LAN, EP-Tree, EVP-Tree, Access EPL, Access EVPL.
- Describe how EPL, EVPL, EP-LAN, EVP-LAN, EP-Tree, and EVP-Tree are used to meet various subscriber needs.

■ Section 2: Transporting Carrier Ethernet Services

- Describe the connectivity properties of bridging, provider bridging, provider backbone bridging (PBB), provider backbone bridging with traffic engineering extensions (PBB-TE), Ethernet over SONET/SDH, Carrier Ethernet over MPLS VPWS, Carrier Ethernet over MPLS VPLS, Carrier Ethernet over MPLS TP, Carrier Ethernet over OTN, and Carrier Ethernet over WDM.
- Describe the capabilities of the bridging, provider bridging, provider backbone bridging (PBB), provider backbone bridging with traffic engineering extensions (PBB-TE), SONET/SDH, MPLS VPWS, MPLS VPLS, MPLS TP, OTN and WDM with regards to delivery of Carrier Ethernet services.
- Describe the advantages of specific Carrier Ethernet transport technologies.
- Describe service protection mechanisms.

■ Section 3: Carrier Ethernet Access Technologies

- Describe the capabilities of Ethernet over PDH, Ethernet over bonded copper, Ethernet over HFC, Ethernet over packet radio, Ethernet over fiber and Ethernet over PON.

- Describe the advantages of specific Carrier Ethernet Access technologies.
- Given a scenario, identify which Carrier Ethernet Access Technology will meet the stated requirements.

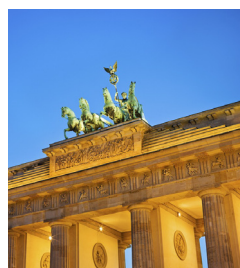
■ Section 4: Basic Definitions

- Define Ethernet User-to-Network Interface (UNI), Ethernet External Network-to-Network Interface (ENNI), Ethernet Virtual Connection (EVC), Service Provider, Operator, and Operator Virtual Connection (OVC).
- Describe the role of Ethernet User-to-Network Interface (UNI), Ethernet External Network-to-Network Interface (ENNI), Ethernet Virtual Connection (EVC), Service Provider, Operator, and Operator Virtual Connection (OVC).

■ Section 5: Key UNI, ENNI, OVC, and EVC Service Attributes

- Define per UNI service attributes (e.g., physical interfaces, Frame format, Ingress/egress Bandwidth Profiles, CE-VLAN ID/EVC Map, UNI protection).
- Define EVC per UNI service attributes (e.g. ingress/egress Bandwidth Profiles).
- Define per EVC service attributes (e.g., CE-VLAN ID Preservation, CoS ID Preservation, Relationship between Service Level Agreement and Service Level Specification, Class of Service).
- Define OVC End Point per UNI and OVC End Point per ENNI service attributes (e.g., ingress/egress bandwidth profiles).

- Describe bandwidth profiles.
 - Given a service scenario, describe relevant service attribute settings/parameters.
 - Define and describe the components of a Service Level Specification and the relationship to Service Level Agreement.
 - Define and describe ENNI attributes (e.g., physical interfaces, Frame format, Ingress/Egress Bandwidth Profiles, End Point Map, ENNI protection).
 - Define and describe OVC attributes (e.g., CE-VLAN ID Preservation, CoS ID Preservation, Relationship between Service Level Agreement and Service Level Specification, Class of Service, hairpin switching).
 - Define and describe the Carrier Ethernet protection mechanisms.
- **Section 6: Certification**
- Describe the Certification process and requirements for networking equipment.
 - Describe the Certification process and requirements for services delivered by a service provider.
 - Describe what is covered by CE 2.0 Certifications.
 - Describe the deliverables of MEF Certification for equipment vendors, service provider, and Carrier Ethernet certified professionals.
- **Section 7: Target Application for Ethernet Services**
- Describe wholesale access services, retail commercial/business services, mobile backhaul services, Ethernet access to IP services, and supporting legacy services over Ethernet.
 - Describe which UNI or ENNI attribute values are selected for a given target application.
 - Describe which EVC or OVC attribute values are selected for a given target application.
- Describe how specific service requirements of a target application (e.g., frame relay, Dedicated Internet Access, DSL or Cable Internet access, TDM Private Lines, WDM private network) are met using Ethernet services.
 - Given a scenario determine appropriate Ethernet services.
- **Section 8: Comparing and Positioning Ethernet Services**
- Compare and contrast Ethernet services with L2, IP, and TDM private line services.
 - Given a scenario, recommend an Ethernet service to meet end user specifications.
- **Section 9: Circuit Emulation over Ethernet**
- Define the purpose and need for Circuit Emulation over Ethernet applications.
 - Define the critical components of circuit emulation over Ethernet service.
 - Define the MEF Service Definitions used to deliver emulated circuits.
 - Define the EVC service attributes required for emulated circuits.
 - Define the three techniques and their uses for delivering synchronized clock over emulated circuits (e.g., Adaptive, 1588v2, Synchronous Ethernet, NTP, PTP).
 - Describe how circuit emulation is used in Mobile Backhaul applications.
- **Section 10: Service Operations Administration and Maintenance (SOAM)**
- Describe the various partitioning of responsibilities for Service Operations Administration and Maintenance (SOAM).
 - Describe the basic mechanisms for fault management.
 - Describe the basic mechanisms for performance management.
 - Describe the basic metrics for performance management.
 - Describe the Service Lifecycle.



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