

MEF Carrier Ethernet Certified Professional (CECP)

Duration: 04 Days (32 HRS)

Day 1 - Foundations of Carrier Ethernet

- Module Objectives Overview & Introduction to MEF CECP Blueprint
- Ethernet Basics (History, IEEE Standards, Frame Format)
- 5 Attributes of Carrier Ethernet
- MEF Overview, Organization, and Role in Standards
- MEF Certifications: Equipment, Service, Professional
- Carrier Ethernet Generations, Stakeholder Value, Opportunities
- MEF 3.0 Global Services Framework & CE Scope/Reach
- Carrier Ethernet Architecture & Packet Formats
- Ethernet Frame Delivery, Bridge Operations, and Key Terminologies

Day 2 - Services & Traffic Management

- Carrier Ethernet Basic Service Model
- Access Media: Delivering Services over Various Access Technologies
- EVC Concepts: Types, Attributes, UNI, ENNI
- Service Types: E-Line, E-LAN, E-Tree
- Service Attributes: UNI, EVC per UNI, EVC Attributes
- Service Multiplexing, Bundling, and All-to-One Bundling
- CE-VLAN ID Preservation and Translation Use Cases
- Traffic Classification & Delivery of Service Frames
- Bandwidth Profiles & Traffic Management
- Operator Virtual Connections and OVC-Based Service Attributes

Day 3 - Service OAM (SOAM)

- Introduction to SOAM (Operations, Administration, Maintenance)
- OAM Domains, Maintenance Entities, and MEG Levels
- Fault Management Functions: CCM, Loopback, Linktrace
- Advanced Fault Tools: RDI, AIS, LCK, TST
- Performance Management: Delay, Loss, IFDV
- SOAM PM Process, Framework, and SLA Verification
- Measurement Tools and Methods: Single vs Dual-Ended, Synthetic Frames
- NETCONF & YANG: Configuration and Monitoring Tools
- Group Availability, Resiliency, and SLA Metrics
- PM Solutions Recap and Summary

Day 4 - Infrastructure & Applications

- Carrier Ethernet over Transport Technologies
- Optical Transport Technologies & WDM
- Ethernet Bridging, Provider Bridges, PBB-TE
- MPLS, VPWS, VPLS, MPLS-TE & Protection Mechanisms
- Access Technologies: Fiber, PON, HFC, SONET/SDH
- Access over Bonded Copper, Packet Microwave
- Service Lifecycle & Service Activation Test (SAT)
- Circuit Emulation & Synchronization Methods
- Mobile Backhaul & e-Services
- Implementation Agreements & Final Wrap-Up