Arista Cloud Engineer, Level 4

ARISTA
ACE
Cloud Professional
L4

SKILLS ACQUIRED

Focus on the Enterprise edge, Service Provider WAN and Large Enterprise Transport networks.

WHO IS IT FOR?

ACE:L4 is best suited for individuals with at least a mid-level network engineering background, and are comfortable with layer 2 and 3 architectures and concepts such as EVPN and MP-BGP. This course is suitable for candidates who are in, or would like to find, mid-to-senior level network engineer or operation positions related to enterprise edge networking.

Beginner — Expert

LAB TIME

This course includes hands-on virtual labs built on current versions of EOS and CloudVision.

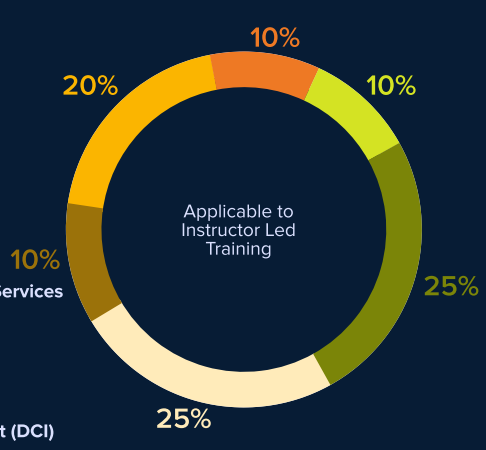
3 weeks access to Labs

1 week
Instructor Led

2 weeks
Work on labs independently to refine skills

COURSE OVERVIEW

ACE:L4 is a 5-day course that is focused on the Enterprise edge, Service Provider WAN and Large Enterprise Transport networks. Candidates will explore the advanced routing capabilities available within Arista hardware and EOS. Topics such as MPLS, Segment Routing, EVPN, Traffic Engineering, and Data Center will be discussed at length.



- MPLS Concepts
- MPLS Architecture and Services
- MPLS Transport Models
- MPLS Services
- MPLS Optimization
- Data Center Interconnect (DCI)
- Appendix: CloudVision
- Labs

MPLS Concepts

- MPLS Today
- Essential Terminology
- Migration Considerations
- Label Actions and Distribution Protocol
- Signaling
- Segment Routing
- MPLS Services
- MPLS Deployment Scenarios

MPLS Transport Models

- MPLS Transport with Label Distribution Protocol (LDP)
- MPLS Transport with Segment Routing (SR)
- MPLS Transport SR Options: IS-IS-SR, BGP-SR
- MPLS Transport with IS-IS-SR
- Segment Routing: IS-IS SR Configuration
- MPLS Transport with BGP-SR
- Traffic Engineering, RSVP Traffic Engineering (RSVP-TE), and Segment Routing Traffic Engineering (SR-TE)
- RSVP-TE
- SR-TE
- Segment Routing: IS-IS TE Configuration
- Segment Routing: TE Policy and Steering Traffic into a TE Policy
- Using BGP to Bind MPLS Labels to Address Prefixes
- MPLS Feature Support Matrix

MPLS Optimization

- Nexthop Group
- User-defined Tunnel RIBs
- BGP Next-Hop Resolution RIBs
- Static Flow Aware Transport (FAT) Support on EVPN VPWS
- Traffic Steering and Service Mapping

Appendix: CloudVision

- Intro to CloudVision
- Automation Landscape
- CloudVision Deployment Options
- CVP Communication
- Zero Touch Provisioning
- Deployment
- Bug Alerts EOL Lifecycle
- Configlets
- Tasks and Change Control
- Snapshots
- Rollback Overview
- Image Management
- Devices, Labels and Tags
- CloudVision Telemetry
- Using Studios

MPLS Architecture and Services

- MPLS Transport
- 3 VPN Services
- Layer 2 EVPN Services
- Point to Point Layer 2 Services
- Multipoint Layer 2 VPN Services

MPLS Services

- MP-BGP
- Virtual Routing & Forwarding (VRF)
- MP-BGP Label Advertisement
- L3VPN Control Plane Processing
- L3VPN Data Plane Processing
- E-Line with LDP Pseudowire
- E-Line with EVPN VWPS (Virtual Private Wire Service)
- E-Line with EVPN Type-2
- L3 EVPN (Route-type 5)

Data Center Interconnect (DCI)

- DCI Architecture
- Layer 2 & 3 Connectivity over MPLS-SR WAN
- Case Study

Labs

- Lab Access
- Assigning Interface IP addresses using Static Configlets
- Configuring Provider Network Reachability
- Enable MPLS and LDP
- IS-IS Segment-Routing Traffic Engineering
- Configuring SR-TE Policy
- Steering Traffic into a TE Policy
- Configuring MP-BGP and L3VPN
- Configuring E-Line with LDP Pesudowire
- E-Line with EVPN VPWS
- E-LAN with EVPN Type-2 (L2 EVPN)
- Configuring L3EVPN - Route - type 5
- Troubleshooting L3EVPN Data Plane
- System-Tunnel-RIB
- Tunnel RIB Path Selection
- Color Steering with SR-TE Policy
- Data Center Interconnect (DCI)

MODALITIES

Our aim is to provide high quality training that is flexible and accessible for modern needs.

Instructor-led Training

Arista Academy
PRO

ADDITIONAL INFORMATION

Verification from an official Arista training partner is required to register and take an exam. Instructor-led and self-study options are available. Look for these badges prior to purchasing your training.

ARISTA TRAINING PARTNER AUTHORIZED
ARISTA TRAINING PARTNER ELITE
ARISTA TRAINING PARTNER ELITEPLUS
ARISTA Training and Certification Official Curriculum