

# Arista Cloud Engineer, Level 3

ARISTA

ACE  
Cloud Journeyman

L3



## SKILLS ACQUIRED

This training will help you design and implement robust Layer 3 Leaf-Spine architectures, configure and troubleshoot BGP for both underlay and overlay networks, utilize VXLAN with BGP-EVPN for scalable and efficient network virtualization, and integrate Arista's CloudVision to automate and orchestrate advanced network operations.

## WHO IS IT FOR?

ACE:L3 is designed for senior network engineers, network architects, network operations professionals, and advanced-level network administrators.

Beginner

Expert



## LAB TIME

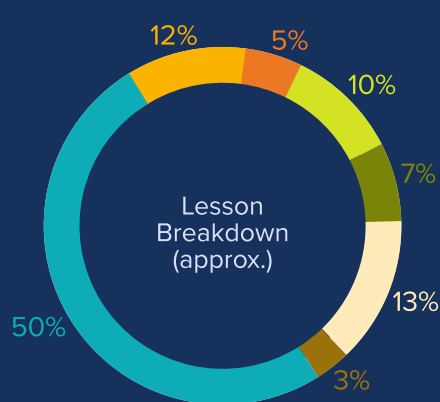
Includes 13 hands-on labs, offering approximately 20 hours of practical experience.



120 hours of cloud-based lab access, available remotely for 90 days once activated

## COURSE OVERVIEW

The Arista ACE:L3 course provides an in-depth understanding and hands-on experience with advanced Arista technologies focusing on Layer 3 networking, underlay and overlay configurations, and VXLAN. You will gain essential skills to configure, troubleshoot, and manage complex network infrastructures using Arista's cutting-edge solutions. This course covers key topics such as BGP in Leaf-Spine architectures, EVPN, and Arista's CloudVision platform.



CloudVision

Layer 3 Leaf-Spine Architecture

Underlay

Overlay - Data Plane

Overlay - Control Plane

Extending VXLAN EVPN to the Server

Labs

### CloudVision

- Onboarding devices with eAPI integration and provisioning.
- Executing Configlet changes, including MLAG configuration.
- Managing network changes with snapshots, action bundles, rollbacks, and reconcile.
- Automating tasks with the Configlet Builder.
- Managing tags, workspaces, and deploying configurations using Studios.
- Monitoring events, dashboards, topology, and ensuring compliance in Day 2 Operations.

### Layer 3 Leaf-Spine Architecture

- Understanding Layer 2 Leaf-Spine architectures, limitations, and MLAG configuration.
- Exploring Layer 3 Leaf-Spine design, including routing, underlay, VXLAN, EVPN, and best practices.

### Overlay - Data Plane

- Understanding the necessity of overlays and the relationships between VXLAN, VNI, VLAN, and the underlay.
- Key VXLAN concepts including terminology, headers, and encapsulation techniques.
- Exploring control plane options for VXLAN, including Head End Replication, VXLAN Controller Service (CVX), and MP-BGP EVPN integration.

### Underlay

- BGP operation in Leaf-Spine architectures, including path selection, route updates, and network reachability.
- Configuring eBGP for underlay networks, focusing on load balancing, peer groups, and dynamic peering.
- Exploring recommended eBGP underlay architectures and variations in Layer 3 Leaf-Spine designs.

### Labs

#### CloudVision Labs

- Lab – Navigating CVP.
- Lab – Configlets.
- Lab – Snapshots.
- Lab – Change Control.
- Lab – Using Studios.
- Lab – Creating Studios.
- Lab – Dashboards.

#### Layer 3 Leaf-Spine Architecture Labs

- Lab – Configuring MLAG.

#### Underlay Labs

- Lab – Configuring eBGP Underlay.

#### Overlay – Data Plane Labs

- Lab – VXLAN Data Plane with HER.

#### Overlay – Control Plane Labs

- Lab – L2EVPN Overlay.
- Lab – L3EVPN Overlay.

#### Extending VXLAN EVPN To the Server Labs

- Lab – Active-Active Multihoming with EVPN.

### Overlay - Control Plane

- Overview and configuration of MP-BGP with EVPN, including underlay and overlay integration.
- Configuring VRFs, route distinguishers (RD), and route targets (RT) for network segmentation.
- Understanding various EVPN route types and their roles in VXLAN EVPN deployment.
- Implementing different routing types (MAC-IP) and their application in EVPN overlays.
- Exploring symmetric and asymmetric Integrated Routing and Bridging (IRB) models within EVPN L3LS architectures.

### Extending VXLAN EVPN to the Server

- Understanding the principles of Active-Active multihoming in EVPN.
- Comparing MLAG with MP-BGP EVPN Active-Active multihoming.
- Configuring Ethernet Segment Identifier (ESI) for redundancy.

## MODALITIES

This course is taught over five days in live Instructor-Led Training (ILT) or Virtual Instructor-Led Training (vILT) formats. For Self-Paced Training (SPT), the total duration of the course is approximately 40 hours.

Instructor-Led Training

Self-Paced Training