

# Arista Cloud Engineer, Level 1

ARISTA

ACE  
Cloud Novice

L1



## SKILLS ACQUIRED

This training will equip you with the skills to configure, troubleshoot, and manage fundamental network devices and protocols, apply essential Layer 2 and Layer 3 switching and routing techniques, implement foundational network security measures to protect data and ensure compliance, understand the basics of IPv6 to prepare your network for the future, and gain an introduction to network automation using CloudVision.

## WHO IS IT FOR?

ACE:L1 is designed for entry-level network engineers, network administrators, network support technicians, and IT professionals who are new to networking.

Beginner

Expert



## LAB TIME

Includes 16 hands-on labs, offering approximately 21 hours of practical experience.

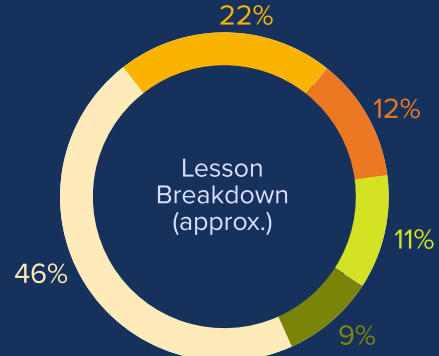


120  
Hours

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

## COURSE OVERVIEW

The Arista ACE:L1 Cloud Novice course provides comprehensive foundational knowledge and skills necessary to configure, troubleshoot, and manage network devices. This course covers essential topics such as Network Engineering Fundamentals, Layer 2 Switching, Layer 3 Routing, and Advanced Networking Concepts. It is designed to prepare you to effectively implement and maintain network infrastructures in Campus and Datacenter environments.



Network Engineering Fundamentals

Layer 2 Switching Fundamentals

Layer 3 Routing Fundamentals

Advanced Networking Concepts

Labs

### Network Engineering Fundamentals

- Learn the basics of network structures, components, and OSI model applications.
- Understand different cabling types and Power over Ethernet (PoE) technology.
- Explore Ethernet, MAC addresses, and Layer 2 switching operations.
- Get an overview of Arista EOS, its architecture, and basic CLI configuration.
- Delve into IPv4 addressing, subnet masks, and subnetting techniques.
- Gain insights into protocols like DHCP, ICMP, DNS, ARP, and NTP.
- Learn the Transport Layer's role in data transmission, focusing on TCP and UDP.

### Layer 2 Switching Fundamentals

- Understand LLDP for device discovery and creating network diagrams.
- Learn VLAN segmentation, trunking protocols, and inter-VLAN routing.
- Understand STP's role in preventing loops in Layer 2 networks.
- Explore Link Aggregation, LACP, and MLAG for increased bandwidth and redundancy.

### Layer 3 Routing Fundamentals

- Understand the role of routers in directing data across various network environments.
- Learn about static and dynamic routing, RIP, OSPF, and route selection methods.
- Understand WAN concepts and how NAT translates IP addresses for network communication.

### Advanced Networking Concepts

- Learn to configure ACLs, AAA, DHCP Snooping, and ARP Inspection for network security.
- Understand QoS for traffic management, including classification, marking, and shaping.
- Explore IPv6 addressing and configuration for modern network environments.
- Get introduced to CloudVision for basic network automation and management.

### Labs

#### Network Engineering Fundamentals Labs

- Lab – Introduction to EOS CLI.
- Lab – Management.
- Lab – Understanding and Working with Network Protocols.

#### Layer 2 Switching Fundamentals Labs

- Lab – Create a Network Diagram using LLDP.
- Lab – Configure VLANs.
- Lab – Configure Inter-VLAN Routing.
- Lab – Spanning Tree Protocol.
- Lab – LACP and MLAG.

#### Layer 3 Routing Fundamentals Labs

- Lab – Configure L3 Addresses.
- Lab – Configure Static Routing.
- Lab – Configure Routing Protocols.

#### Advanced Networking Concepts Labs

- Lab – ACL.
- Lab – Troubleshooting ACL.
- Lab – QoS.
- Lab – Configure IPv6 Addressing.
- Lab – Navigating CVP.

## 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 45 hours.



Instructor-Led Training



Self-Paced Training