

# Arista Cloud Engineer, Level 5

ARISTA

ACE  
Cloud Automation

L5



## SKILLS ACQUIRED

This training will help you automate network configuration and management with Ansible, Jinja, and Python; design and deploy scalable Layer 3 Leaf-Spine architectures using AVD; use CloudVision to efficiently orchestrate and automate tasks; and validate and optimize configurations for complex data center deployments.

## WHO IS IT FOR?

ACE:L5 is most effective for individuals with mid-to-high level experience as network engineers with prior exposure to Python and Ansible basics, making it ideal for senior network engineers, network architects, network automation professionals, and operations staff involved in network automation.



Beginner Expert



## LAB TIME

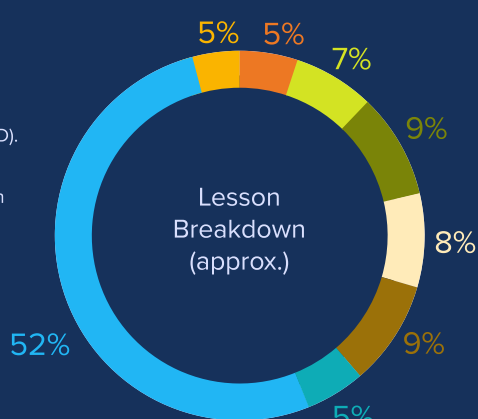
Includes 15 hands-on labs, offering approximately 13 hours of practical experience.



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

## COURSE OVERVIEW

The Arista ACE:L5 course provides a comprehensive and advanced understanding of Arista network automation solutions, focusing on automation with Ansible, Jinja, Python, and Arista Validated Designs (AVD). You will develop essential skills to automate, configure, and manage complex network infrastructures using Arista's leading technologies such as CloudVision and AVD. This course covers key topics like network automation, dynamic configuration generation, and using AVD to design and implement scalable network architectures.



- Introduction to Network Automation
- Tools of Network Automation
- Working with CVP
- Working with Python
- Working with Ansible
- Working with AVD
- Using Ansible with Jinja
- Labs

### Introduction to Network Automation

- Understand the basics of network automation and its importance in modern networks.
- Learn various approaches to automating network configuration and management.
- Explore the historical development of network automation and its intersection with software development.
- Set up a lab environment to practice and experiment with network automation techniques.

### Tools of Network Automation

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

### Working with CVP

- Learn how to onboard devices and deploy configurations using CloudVision Portal (CVP).
- Explore operational features like cluster redundancy, node failures, and backups in CVP.
- Understand how to manage device configurations with Configlets and automate tasks using CVP.
- Utilize Studios to manage tasks, deploy configurations, and ensure network compliance.

### Working with Python

- Gain foundational knowledge of Python for automating network tasks in EOS and CloudVision.
- Use Python to configure devices, extract information using eAPI, and manage network states.
- Automate CloudVision tasks using Python scripting and the cvprac module.

### Labs

- Tools of Network Automation Labs**
  - Lab – Git
- Working with CVP Labs**
  - Lab – Navigating CloudVision Portal
  - Lab – Configlet Management
  - Lab – Using Studios
- Working with Python Labs**
  - Lab – Sample Variables
  - Lab – Working with PyeAPI
  - Lab – Cvprac
- Working with Ansible Labs**
  - Lab – Intro to Ansible\_EOS Directory
  - Lab – Ansible and CVP
- Working with AVD Labs**
  - Lab – Setting up Arista AVD
  - Lab – Add Second Network and Second Host
  - Lab – Validate Configuration
  - Lab – Connect to Outside Network
  - Lab – Adding spine4

- Using Ansible and Jinja Labs**
  - Lab – Ansible Jinja

### Working with Ansible

- Understand Ansible fundamentals and its open-source automation capabilities.
- Use Ansible playbooks and collections to automate network configurations in EOS environments.
- Integrate Ansible with CloudVision for change control and task automation.

### Working with AVD

- Learn how Arista Validated Designs (AVD) supports automation for scalable network designs.
- Design and automate Layer 3 Leaf-Spine architectures using AVD workflows.
- Validate network configurations and automate network tasks with AVD tools.

### Using Ansible and Jinja

- Create dynamic network configurations using Jinja templates for automation.
- Apply configurations using Ansible and integrate them with Arista's CloudVision platform.
- Practice automation techniques in hands-on labs using both Ansible and Jinja.

## 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