Arista Networking
FOUNDATIONS

Arista Academy Foundations Track

The Arista Technology Foundations learning track equips individuals with the essential knowledge and skills to configure, operate, and troubleshoot basic Arista network deployments. Participants will learn core Layer 2 and Layer 3 switching and routing, foundational network security, and the basics of IPv6. The course also introduces network automation using CloudVision. Arista virtual labs reinforce key concepts through hands-on practice in a simulated environment.

Who Should Enroll

Entry-level or new network engineers in roles of network administrators and/or Support

Learning Format

Arista Foundations is available as Self-Paced learning (Academy Digital) or Private live instructor lead class (Academy Live)

Skills Developed

- Fundamental network technologies & protocols
- Entry into Arista EOS and CloudVision
- CLI Navigation and Configuration
- Layer 2 & 3 switching and routing techniques

Prerequisites

- TCP/IP Networking knowledge, understanding basic layer 2 and 3 networking concepts are beneficial but not mandatory

Take the First Step Towards Arista Expertise

The Arista Technology Foundations learning track is your gateway to unlocking the power and flexibility of Arista Networks. Enroll today and build the essential skills you need to succeed in today's dynamic networking landscape.

ARISTA
ACADEMY
DIGITAL

ARISTA
ACADEMY
LIVE

NETWORK ENGINEERING FUNDAMENTALS

Network Introduction
- Introduction to networks
- Network models
- OSI in Action
- Wireshark and TCP/IP

Physical Layer
- Copper and PoE
- Fiber & Wireless

Data Link Layer
- Ethernet and MAC addressing
- L2 Devices Learning and Forwarding

Network layer
- Introduction to IPv4
- What is a subnet mask?
- IPv4 classes
- Default gateways
- Subnetting

Network Protocols
- DHCP, ICMP, DNS, ARP, NTP

Transport and Application Layer
- Transport layer responsibilities
- TCP vs UDP

ARISTA EOS FUNDAMENTALS

EOS Overview
- Consistent networking with EOS
- Introduction to Arista EOS
- What is SysDB
- Introduction to NetDB
- EOS Network Data Lake (NetDL)
- Arista cEOS
- Arista EOS Quality

Getting started with EOS
- Connect to network devices
- EOS booting process
- CLI configuration modes
- CLI basic config
- Interfaces and ports
- Configuration checkpoints
- Configuration sessions
- *LAB – Introduction to EOS CLI*
- *LAB – Setting up management connectivity*

LAYER 2 SWITCHING FUNDAMENTALS

Neighbor discovery
- Introduction to neighbor discovery
- Creating a network diagram using LLDP
- *LAB – Creating a network diagram using LLDP*

Virtual Local Area Networks (VLANs)
- Introduction to VLANs
- Introduction to trunking protocols 802.1q
- Configuring VLANs on a single switch
- Configuring VLANs between switches
- Inter VLAN routing
- Configuring a "router on a stick"
- Configuring inter-VLAN routing with SVIs
- *LAB – Configure VLANs*
- *LAB – Configure Inter VLAN routing*

Spanning Tree Protocol (STP)
- Introduction to spanning tree
- STP operations
- STP port states
- STP modes
- *LAB – Configure STP*

Link Aggregation Protocols
- Introduction to Link Aggregation
- Configuring link aggregation
- Introduction to MLAG
- *LAB – Configuring LACP and MLAG*

LAYER 3 ROUTING FUNDAMENTALS

Introduction to Routers
- Network Design with routers
- *LAB – Configure L3 addresses*

Routing
- Why routing
- Static routing
- *LAB – Configure static routing*
- Dynamic routing
- Classful vs classless routing protocols
- Metric and Admin distance
- Distance vector protocols (RIP)
- RIPv1 vs RIPv2
- Link state routing
- *LAB – Configure routing protocols*

Internet and WAN
- Wide Area Network
- Network Address Translation (NAT)

Advanced Networking Concepts

Security

- Introduction to access lists
- ACL types
- Authentication, Authorization, Accounting (AAA)
- DHCP Snooping
- IP Source guard and ARP inspection
- *LAB – Access lists*
- *LAB – Troubleshooting ACLs*

Quality of Service

- Introduction to QOS
- Classification and marking
- Congestion management
- Policing and Shaping
- *LAB – Configure QOS*

IPv6

- Introduction to IPv6
- IPv6 Address types
- *LAB – Configure IPv6 addresses*

CloudVision

- Why automation
- How to automate your network

CERTIFICATION

Optional 2-hour practical open-book exam.
Participants receive a digital certification badge verifying their knowledge and skill.