Arista Networking - Foundations (FDN)

ID FDN **Price** CHF 4,995.—(excl. VAT) **Duration** 5 days

Who should attend

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

This course is part of the following Certifications

ACE - Associate Network Foundations (AN-FN-OP)

Prerequisites

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

Course Objectives

At the end of the course, you should have a better understanding of :

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

Course Content

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

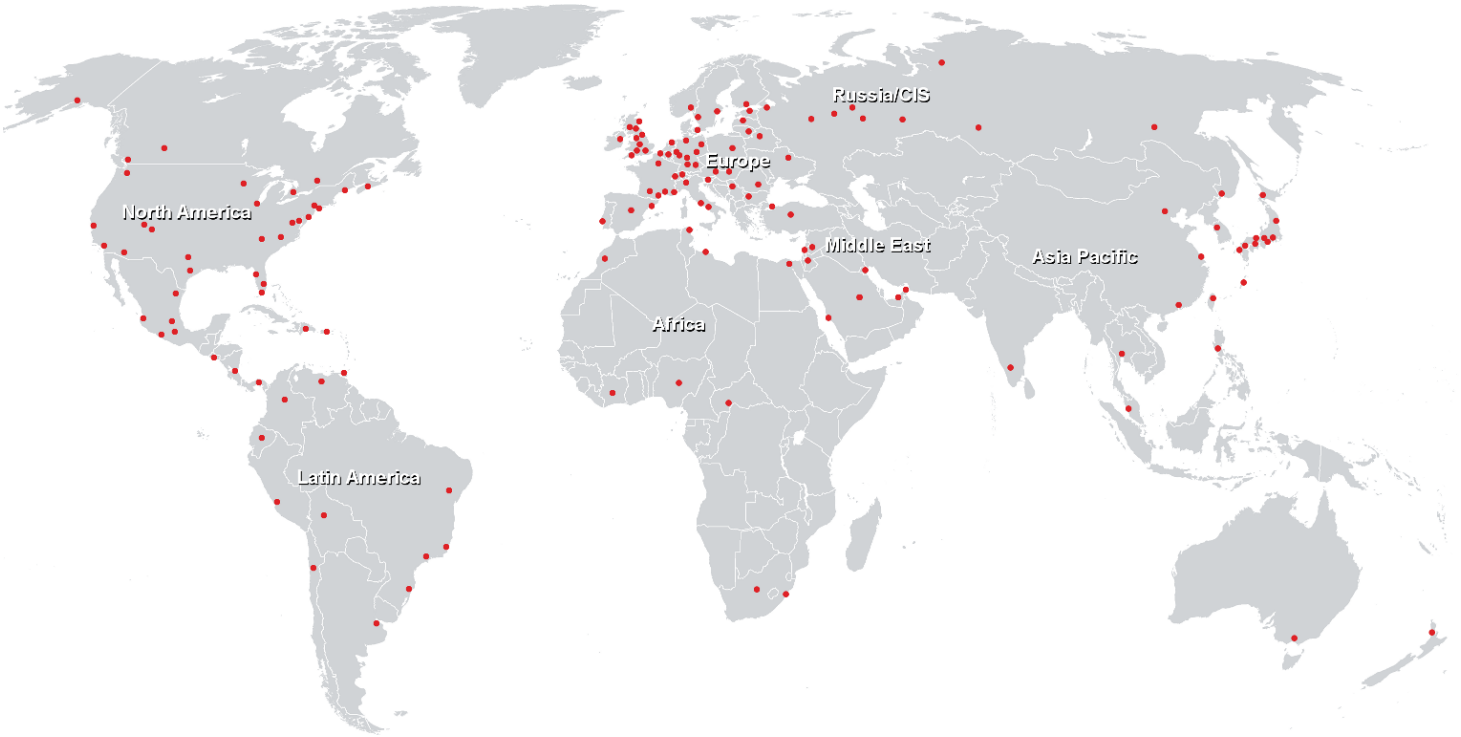
- Why routing
- Static routing
- LAB – Configure static routing
- Dynamic routing
- Classful vs classless routing protocols
- Metric and Admin distance
- Distance vector protocols (RIP)
- RIPv1 vs RIPv2
- Link state routing
- LAB – Configure routing protocols

Internet and WAN

- Wide Area Network
- Network Address Translation (NAT)

Arista Networking - Foundations (FDN)

Training Centres worldwide



Fast Lane Institute for Knowledge Transfer (Switzerland) AG

Husacherstrasse 3
CH-8304 Wallisellen
Tel. +41 44 832 50 80

info@flane.ch, https://www.flane.ch