

Advanced AOS-CX Switching (AAXSTS)

ID AAXSTS Price US \$ 4,800.—(excl. VAT) Duration 5 days

Who should attend

The ideal candidate for this course is very familiar with HPE Aruba Networking wired switching solutions, including the ability to implement and optimize enterprise-level HPE Aruba Networking Switching campus LAN solutions. Typical candidates are preparing for the ACX - Switching written and/or ACX - Switching practical exams.

This course is part of the following Certifications

HPE Aruba Networking Certified Expert - Switching (ACX-S)

Prerequisites

The suggested prerequisites for this course are to attend the [Implementing AOS-CX Switching \(ICXS\)](#) course or pass the HPE Aruba Networking Certified Professional - Switching (ACP - Switching) certification exam.

Course Objectives

After you successfully complete this course, expect to be able to:

- Design optimized network architectures using AOS-CX switches.
- Troubleshoot and monitor networks using a variety of tools including Command Line Interface (CLI), port mirroring, HPE Aruba Networking Network Analytics Engine (NAE), IP SLA, and HPE Aruba Networking Central.
- Configure and troubleshoot HPE Aruba Networking Virtual Switching eXtension and other Layer 2 features.
- Configure optimized network routes using PBR, OSPF, and BGP techniques.
- Implement virtual routing and route redistribution for a controlled routing architecture.
- Apply QoS techniques for efficient traffic handling.
- Employ dynamic segmentation for enhanced security and management.
- Improve network security using access control lists, control plane policing, and MACsec.

Course Content

Wired network design

- Requirement analysis
- Two-tier and three-tier network design considerations
- Switching and routing design principles

Troubleshooting

- Troubleshooting principles and methodology
- Logging and debugging
- Diagnostic commands
- Traffic analysis
- Troubleshooting using HPE Aruba Networking Central

Monitoring and automation

- Network automation with AOS-CX
- REST API
- Sending REST API requests
- HPE Aruba Networking Network Analytics Engine
- Other monitoring

VSX and L2 technologies

- VSX
- VSX best practices
- VSX troubleshooting

L3 routing and OSPF

- Policy-based routing
- Single-area OSPF troubleshooting
- Multi-area OSPF

Border Gateway Protocol

- BGP connections
- BGP advertisements
- BGP metrics and tuning
- Route control

Route redistribution

- Redistribution static routes to OSPF
- Tuning static to OSPF route redistribution

- Redistribute OSPF to BGP

VRF and route leaking

- Virtual routing and forwarding
- VRF route leaking

Multicast routing

- IGMP
- PIM-SM build-up process
- Static RP configuration
- Dynamic RP configuration
- VSX and PIM
- Multicast deployment

Quality of Service

- Quality of Service (QoS) overview
- Ingress stage
- Prioritization stage
- Remark QoS
- Queuing stage
- Scheduler stage
- Active queue management

Dynamic Segmentation

- Overview
- Understanding user based tunneling
- Downloadable user roles

Network security

- Access Control Lists
- Classifier policy
- Control Plane Policing
- User group management
- Management access using TACACS+
- DHCP snooping and ARP inspection
- MACsec

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