Advanced AOS-CX Switching

Category: Networking & Security | **Vendor:** HPE Aruba Networking

Duration: 40.00 hours (5 days) **32.5 CPD Hours** **Rating:** ⭐ 4.6 (5,878 reviews)

Course Information

Delivery Format: Instructor Led - Online

Course Overview

This 5-day course prepares you for the HPE Aruba Networking AOS-CX based ACX - Switching certification exams (Written Exam Code: HPE7-A09 and Practical Exam Code: HPE4-A53). Attending this course will teach you the advanced skills necessary to implement and operate enterprise-level HPE Aruba Networking switching solutions. You will build on the skills you learned at the Professional level to configure and manage modern, open standards based networking solutions using HPE Aruba Networking AOS-CX routing and switching technologies. In this course, you will learn about AOS-CX switch technologies, such as:

- Switch virtualization with HPE Aruba Networking Virtual Switching eXtension (VSX)
- Redundancy technologies such as Multiple Spanning Tree Protocol (MSTP)
- Link aggregation techniques, including Link Aggregation Protocol (LACP)
- Securing port access with HPE Aruba Networking Dynamic Segmentation

This course is approximately 50% lecture and 50% hands-on lab exercises.

About This Course

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

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.

Prerequisites & Entry Requirements

General 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.

Learning Outcomes

Upon successful completion of this course, participants will be able to:

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.

Detailed Course Outline

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

Skills You Will Learn:

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.

Frequently Asked Questions

Q: What delivery options are available for Advanced AOS-CX Switching?

We offer multiple delivery formats:

- Live Instructor-Led Classroom Online (Virtual/Live Online)
- Traditional Instructor-Led Classroom Training (ILT)
- On-site delivery at your offices anywhere in United Kingdom
- Private dedicated courses customized for your team

Q: How many CPD hours does this course provide?

The 5-day Advanced AOS-CX Switching course provides up to 32.5 CPD hours of structured learning. CPD certificates can be provided upon request.

Q: What is the duration of the Advanced AOS-CX Switching training?

The training takes place over 5 day(s), with each day lasting approximately 40.00 hours including breaks for lunch and refreshments.

Q: Do you provide corporate training for Advanced AOS-CX Switching?

Yes, we provide corporate training, dedicated training, and closed classes for Advanced AOS-CX Switching. Training can take place anywhere in United Kingdom including London, Manchester, Birmingham, Edinburgh, or live online allowing teams from across United Kingdom or internationally to attend.

Q: What related terms do people search for?

Popular related searches include: Advanced AOS-CX Switching, Aruba Switching OS CX, AAXSTS

Q: Why choose Nexus Human for Advanced AOS-CX Switching?

Nexus Human is recognized as one of the leading training providers. Our trainers have won multiple awards including:

- Small Firms Best Trainer Award
- National Training Partner of the Year (Ireland) - Multiple Years
- Global Top 30 Instructor Awards (2012, 2019, 2021)
- Tech Excellence Award Nominations
- Learning Performance Institute (LPI) External Training Provider Sponsor 2024

Q: Are there any discount codes available?

Yes! Use discount code **PENPAL5** when booking your Advanced AOS-CX Switching training. Please note that only one discount code can be used per booking and cannot be combined with other special offers.

Nexus Human

Professional Training & Development

Email: info@nexushuman.com

Website: www.nexushuman.com

Phone: +353 1 889 8700 (Ireland) | +44 20 8142 8961 (UK)

© 2026 Nexus Human. All rights reserved. This brochure was generated on 14/11/2026.