



# Aruba Advanced Switching Troubleshooting and Solutions (AR-ASTS)

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## Course Description

This course is structured to help the candidate gain this highest level of expertise, with Aruba wired switching solutions, including the ability to implement and optimize enterprise level Aruba Switching campus LAN solutions. The course focuses on interpreting complex network architectures and customer requirements to implement, monitor, troubleshoot, and optimize multi-vendor network solutions.

This course is approximately 30% lecture and 70% hands-on lab scenario-based exercises. The candidate is encouraged to use critical thinking skills to resolve complex issues in the environments that are beyond the expertise of the professional level integrator. During the performance of his/her primary tasks, the candidate is encouraged to also demonstrate the highest level of strategic thinking and problem solving.

This will include defining operational plans for desired outcomes for the purpose of satisfying immediate requirements as well as anticipated future growth opportunities.

## Course Duration:

5 days

## Prerequisites:

The suggested prerequisites for this course are to attend the Implementing ArubaOS-CX Solutions course or pass the Aruba Certified Switching Professional (ACSP) certification exam.

## Objectives:

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

- Describe diagnostic principles
- Use a proven problem-solving methodology
- Describe REST API, NAE, IP SLA, SNMPv3 and NetEdit troubleshooting tools
- Configure, validate and troubleshoot Network Virtualization features
- Configure and validate PBR
- Deploy and troubleshoot multi-area OSPF
- Deploy and troubleshoot BGP
- Deploy and troubleshoot Route Redistribution
- Deploy and troubleshoot VRF and Route Leaking
- Deploy and troubleshoot Multicast
- Deploy and troubleshoot QoS
- Deploy and troubleshoot Dynamic Segmentation
- Deploy and troubleshoot Network Security
- Deploy and troubleshoot IPv6

## Course Outline:

- Plan The Wired Network Solutions
  - Gather customer requirements and network design
  - Information gathering steps and questionnaire
  - Create and use a Proof-of-Concept (POC) plan
  - Creating and using a golden configuration
- Troubleshooting
  - Diagnostic Principles
  - Problem-solving methodology
  - Log files and debugging
  - Diagnostic Commands
  - Traffic Analysis
  - Monitoring and Automation Tools
- VSX, VSF, and Layer 2 Technologies
  - VSF
  - VSF Troubleshooting
  - VSX
  - VSX Best Practices
  - VSX Troubleshooting
  - VSX Split Brain
- Layer 3 Routing and OSPF
  - Static Routing
  - Policy Based Routing
  - OSPF Single Area
  - OSPF Multi-area
- BGP
  - BGP Concepts and Peers
  - BGP Advertisement
  - BGP Metrics and Tuning
  - Route Control
- Route Redistribution
  - Intro to Redistribution
  - Redistribute OSPF to BGP
  - Advanced Route Redistribution
- VRF and Route Leaking
  - VRF Overview and Configuration
  - VRF Route Leaking
- Multicast
  - Multicast
  - Network Access and L2 Multicast
  - IP Multicast at Layer 3
  - PIM
  - PIM-SIM

- RP Configuration
- Multicast Deployment
- QoS
  - Quality of Service
  - Ingress Stage
  - Prioritization Stage
  - Scheduler Stage
  - Remark QoS
- Dynamic Segmentation
  - Overview
  - Understanding UBT
  - Deployment Using NetEdit
- Network Security
  - Access Control Lists
  - Classifier Policies
  - Control Plane Policing
- Local User and Group Management
  - TACACS+ Management
  - DHCP Snooping and ARP Inspection
- IPv6
  - IPv6
  - Address Types
  - ICMPv6
  - Manual IPv6 Addressing
  - Dynamic IPv6 Addressing
  - IPv6 Routing
  - IPv6 Access Control Lists

## Who Should Attend

The ideal candidate for this course is very familiar with Aruba wired switching solutions, including the ability to implement and optimize enterprise level Aruba Switching campus LAN solutions.

Typical candidates in the ASTS course are preparing for the ACSX written and/or ACSX practical exams.