



## Advanced Campus Access for Switching (AR-ACAS)

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### Course Description

This course covers the highest level of expertise for HPE Aruba Networking wired and wireless solutions, including the ability to implement and optimize enterprise-level HPE Aruba Networking campus access solutions. Attending this training will enable you to interpret complex network architectures and customer requirements to implement, monitor, troubleshoot, and optimize multi-vendor network solutions. The course focuses on switching (80%) and mobility (20%) through approximately 30% of lectures and 70% of hands-on lab scenario-based exercises.

Training attendees are encouraged to use critical thinking skills to resolve complex issues in the environment that are beyond the expertise of the professional-level integrator. While performing primary tasks, candidates will also need to demonstrate the highest level of strategic thinking and problem-solving.

### Course Duration:

5 days

### Prerequisites:

The suggested prerequisites for this course are to attend the Implementing Aruba Campus Access Solutions course or pass the Aruba Certified Professional - Campus Access (ACP - Campus Access) certification exam.

### Objectives:

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

- Describe and execute best practice troubleshooting principles for a give scenario
- 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
- Perform limited implementations and troubleshoot enterprise Aruba campus access wireless networks, remote-access, and multi-tenant environment.
- Configure and validate Aruba WLAN secure employee and guest solutions.
- Implement advanced services and security solutions.

- Manage and monitor Aruba the wireless pieces of the campus access solutions.
- Perform some advanced troubleshooting.

## Course Outline:

- **Troubleshooting overview**
  - Troubleshooting methodologies
  - Debug commands
  - Packet capture
  - IP SLA
  - NAE
- **VSX & L2 Technologies**
  - VSX
  - MC-LAG
  - VSX-MAD
  - VSX Advanced features
  - VSX Troubleshooting
- **L3 Routing - OSPF**
  - Static routing
  - OSPF Single-Area
  - OSPF Multi-Area
  - OSPF Advanced features
  - OSPF Troubleshooting
- **BGP**
  - BGP Concepts
  - BGP Advertisements
  - BGP Metrics and tuning
  - Route Control
  - BGP Troubleshooting
- **IP Multicast**
  - IGMP
  - PIM-SM
  - PIM-DM (only theory)
  - Troubleshooting
- **QoS**
  - Traffic Classification
  - Marking
  - Traffic Scheduling
  - Remarking
- **Gateway Deployment**
  - ZTP
  - OTP
  - Manual Activate

- Forwarding modes
  - Tunneled mixed
  - Local VLANs
  - VLAN decision rules for local forwarding
- **Wired & Wireless Access Control**
  - 802.1X review
  - Describe options for Wired user role configuration
  - MAC authentication
  - Dot1x authentication
  - Concurrent authentication / priority
  - Special Roles
  - Special Cases
  - Troubleshooting
- **UBT**
  - Wired Authentication with the Gateway
  - Wired zones (gws)
  - UBT modes 1.0 / 2.0
- **Security**
  - Authentication caching / survivability
  - Securing and hardening network devices
  - Admin authentication
- **Building a VXLAN tunnel and use GBP**
  - Introduction
  - Static VXLAN (no EVPN)
  - GBP principle
  - Aruba Role configuration with GBP
  - Integration with Aruba Gateway
  - Orchestration with NetConductor
- **Mini-mock & Trouble Tickets**

## Who Should Attend

Typical candidates for this course have 5+ years of experience with complex networks, mastery of configuration, and troubleshooting. They are very familiar with HPE Aruba Networking wired and wireless solutions, including the ability to implement and optimize enterprise-level HPE Aruba Networking campus access solutions.