Course Training

HPE Aruba Networking Associated - Switching [ACSA] [HPE6-A86]

Course Content

HPE Aruba Networking- Switching (ACSA) – Aruba OS-CX (AOS-CX) Switching Fundamentals course is designed to provide foundational knowledge and skills for network switching within Aruba's networking solutions. Through a series of modules, learners gain an understanding of Network fundamentals, TCP/IP stack, Basic networking with Aruba solutions, VLANs, Spanning Tree Protocol, Link aggregation, IP routing, Virtual Router Redundancy Protocol (VRRP), Stacking, Secure management and maintenance, as well as Aruba's management tools like NetEdit and the AOS-CX Mobile App.

By completing this ACSA HPE Aruba certification course, individuals will be able to configure and manage Aruba's AOS-CX switches, troubleshoot basic network issues, and ensure secure and efficient network operations. The detailed curriculum equips learners with the practical skills necessary for setting up and maintaining modern network infrastructures, making them valuable assets in the field of network engineering and administration. The ACSA certification can open doors to advanced learning opportunities and enhance career prospects in the rapidly evolving world of networking.

Course Objectives

After taking this course, you should be able to:

- Understand the fundamentals of networking, including the OSI model, encapsulation, and various traffic types (Unicast, Broadcast, Multicast).
- Learn the TCP/IP stack, including Ethernet frames, IPv4 and TCP/UDP headers, and the three-way handshake process.
- Discover Aruba's networking devices and solutions, including AOS and AOS-CX switches, and gain insights into their hardware and software architectures.
- Acquire practical skills in configuring and using VLANs, understanding their benefits, and managing broadcast/collision domains.
- Comprehend the operation and configuration of Spanning Tree Protocol to prevent L2 loops and ensure network redundancy.
- Master link aggregation concepts including Static Aggregation and LACP, and how load balancing works.
- Get introduced to basic IP routing, including understanding default gateways, DHCP helper addresses, and inter-VLAN routing.
- Delve into high availability with VRRP, understanding its operation, failover processes, and integration with other protocols like MSTP.
- Expand knowledge of IP routing with subnetting, CIDR, static and dynamic routing, and learn how to manipulate routes using OSPF.
- Explore switch stacking technologies such as VSF and VSX, including their benefits, requirements, and configuration.
- Learn secure management techniques using AAA, SSH, HTTPS, and SNMP, and understand how to manage and maintain ArubaOS-CX devices securely.
- Get introduced to AOS-CX management tools like NetEdit and the AOS-CX Mobile App for efficient network monitoring and management.

Course Prerequisite

- Fundamental knowledge of network principles and the functions of network equipment like switches, routers, and wireless access points.
- Knowledge of the functions of each layer in the OSI Reference Model as well as its structure.
- An elementary understanding of IP addressing, including IPv4; includes concepts like CIDR notation and subnetting.
- Familiarity with common networking services and protocols, such as DNS, DHCP, TCP, and UDP.
- Knowledge of media, cabling, and Ethernet frames, as well as the Ethernet protocol.
- Basic knowledge of the decimal, hexadecimal, and binary number systems, as well as how to convert between them.
- Awareness of the various forms of network traffic, including multicast, broadcast, and unicast.

Who should attend

- Network Engineers
- System Administrators
- IT Support Technicians
- Network Analysts
- IT Professionals seeking Aruba certification
- Network Designers
- Technical Consultants

Course Outline

- Network Fundamentals
- TCP/IP Stack
- Basic Networking with Aruba Solutions
- LANs
- Spanning Tree Protocol & MSTP
- Link Aggregation
- IP Routing - OSPF
- VRRP
- Stacking
- VSF
- Secure Management and Maintenance
- AOS-CX Management tools