

HPE Digital Learner Aruba for SMB Content Pack

HPE course number	CP065
Content Pack length	15 hours
Content Pack Category	Category 1
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The Aruba for SMB content pack includes technical training on Aruba's industry-leading networking technologies. This includes technical training on Aruba's central campus cloud-based management system that allows central management and monitoring of wired and wireless networks. Fundamental eLearning courses cover concepts on Aruba wireless mobility, network security, and wired switching that help prepare students for Aruba Fast Start Badges. Self-directed labs are not included with Aruba eLearning courses but can be purchased separately via [HPE Press](#).

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Audience

This content pack is for IT professionals, network administrators, network engineers and consultants.

Content Pack components

This content pack consists of the following courses:

- Aruba Fundamentals:
 - Aruba Networking Essentials
 - Aruba Mobility Essentials
 - Aruba Network Security Essentials
- Aruba Product Training:
 - Managing Campus Networks with Aruba Central

Prerequisites

Students should be familiar with wired and wireless networking concepts.

Content Pack objectives

After completing the content pack, you should be able to:

- Understand the basics of wired and wireless computer networking
- Understand fundamental Aruba networking concepts related to wireless mobility and wired switching
- Understand how to manage and configure campus networks with Aruba Central

Certifications and related examinations

The Aruba Mobility and Networking Essentials courses prepare students for the HPE Fast Start badge.

Detailed course outline

Aruba Networking Essentials

- Aruba Networking Essentials teaches the basics of a computer network, compares local and wide area networks, explores use cases, and identifies implementation types. Communication over networks relies on protocols. Once you learn about networks, you are well on your way to understanding network communications, and are prepared to learn VLANs and how to configure an Aruba OS Switch.

Course Outline

- Introduction
 - Aruba switching introduction
 - Networking in everyday life
 - Networking layers
 - Basic networking with Aruba OS-CX
- Switching
 - VLANs 802.1Q Edge Access Ports
 - Configuring trunking between multiple switches
 - Watching out for loops
 - Lags
- Network Design and Routing
 - Network design
 - Routing and gateways
 - Static routes
 - Dynamic routing protocols

Aruba Mobility Essentials

- In Aruba Mobility Essentials, you learn how radio frequency (RF) works. You compare wired and wireless networks and learn how communication over wireless networks relies on standards and protocols. Once you learn about these, you are well on your way to understanding what it takes to deploy and manage a WLAN, and are familiar with Aruba's differentiated technology that makes it a leader at the edge.

Course Outline

- Intro to Wireless Networking
 - Wired vs wireless
 - WLAN organizations
 - Data modulation
 - Antennas
 - RF signal propagation, power, and channels
 - Mimo CCI
 - Planning concepts
 - Wireless Architecture
 - Terminology
 - Roaming
 - WLAN architecture
 - WLAN security and access control
 - WLAN usage
 - Redundancy
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Aruba Networking Security Essentials

- In Aruba Network Security Essentials, you explore the threats that pose a risk to a basic computer network and the security technologies available to harden your devices against these attacks. How are messages encrypted? What exactly is malware? What technologies can we deploy that allow networks to defend themselves? Our lives and business rely on having trusted secure access to our networks—but what does it take to ensure that security? The Aruba Network Security Essentials course is a starting point for individuals interested in a career as a security professional, and for anyone who wants to get familiar with Aruba's security technologies. To get deeper technical knowledge with Aruba network security, see the [Aruba Certified Network Security Associate \(ACNSA\)](#) certification and training.

Course Outline

- Part 1: Introduction to Network Security and Aruba's Security Strategy
 - Security threats and threat assessment
 - Malware and viruses
 - Denial of services (DoS) and distributed denial of services (DDoS)
 - Eavesdropping and man-in-the-middle attacks
 - Address resolution protocol (ARP)
 - Regulatory requirements
 - Out-of-band management (OoBM)
 - Remote authentication
 - Securing protocols
 - Physical security
 - Authenticated network time protocol (NTP)
 - Dynamic host configuration protocol (DHCP) snooping
 - ARP protection
 - Lab demo: Aruba Switch hardening
- Part 2: Wireless Security
 - How to harden wireless devices
 - Security protocols
 - Lab demo: Aruba Mobility Controller hardening
 - Secure communications with data encryption technologies
 - Symmetric and asymmetric encryption
 - Hash algorithms
 - DH (Diffie-Hellman) algorithm
 - Certificates
 - Public key infrastructure (PKI)
 - Network authentication methods
 - Lab demo: Prepare clients for 802.1X and EAP-TLS
 - Lab demo: Configure a WPA3-Enterprise WLAN that uses EAP-TLS

Managing Campus Networks with Aruba Central

- This Aruba Central eLearning course covers the central campus cloud-based management system that lets you centrally manage and monitor wired and wireless networks. It covers the Aruba Central management service options for onboarding devices by managing Aruba Instant and Aruba Switches. Participants view the advanced analytics services and connectivity health of devices and clients, providing insights into Wi-Fi analytics for smart business decisions. The course teaches how to simplify visitor access management with fully secure and scalable guest access, including guest cloud services. Through lecture, students discover the comprehensive management, device connectivity, network health, and user account activity with Aruba Central.
- Self-directed labs are available for separate purchase at [HPE Press](#).

Course Outline

- Introduction
- MSP
- Onboarding
- Groups, sites, labels
- IAP and Aruba Switch configuration
- Visual RF
- Monitoring and troubleshooting
- Clarity, presence analytic, AppRF
- UCC
- Administration and maintenance

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