Hewlett Packard Enterprise

Configuring Mobility with AOS-8 Level 1 (0001202564)

H37YPS

Course ID	H37YPS
Duration	3 days
Format	ILT/VILT
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This course teaches the knowledge, skills and practical experience required to set up and configure a basic HPE Aruba Networking WLAN utilizing the AOS-8 architecture and features. Using lecture and labs, this course provides the technical understanding and hands-on experience of configuring a single Mobility Conductor with one controller and AP HPE Aruba Networking WLAN. Participants will learn how to use HPE Aruba Networking hardware and AOS-8 to install and build a complete, secure controller network with multiple SSIDs.

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Audience

Typical candidates for this course are IT Professionals who deploy small-to-medium scale enterprise network solutions based on HPE Aruba Networking products and technologies.

Course objectives

After completing this course, you should be able to:

- Explain how HPE Aruba Networking's wireless networking solutions meet customers' requirements
- Explain fundamental WLAN technologies, RF concepts, and 802.11 standards
- Learn to configure the Mobility Conductor and Mobility Controller to control access to the Employee and Guest WLANs
- Control secure access to the WLAN using HPE Aruba Networking firewall policies and roles

- Recognize and explain radio frequency bands and channels, and the standards used to regulate them
- Describe the concept of radio frequency coverage and interference and successful implementation and diagnosis of WLAN systems
- Identify and differentiate antenna technology options to ensure optimal coverage in various deployment scenarios
- Describe RF power technology including, signal strength, how it is measured, and why it is critical in designing wireless networks
- Learn to configure and optimize HPE Aruba Networking ARM and Client Match and Client Insight features
- Learn how to perform network monitoring functions and troubleshooting

Detailed course outline

Module 1: WLAN Fundamentals	• Describes the fundamentals of 802.11, RF frequencies and channels	• Explain RF Patterns and coverage including SNR • Roaming standards and QOS requirements
Module 2: Mobile First Architecture	• An introduction to HPE Aruba Networking products, including controller types and modes	• AOS-8 architecture and features • License types and distribution
Module 3: Mobility Conductor Mobility Controller Configuration	• Understanding groups and subgroups • Different methods to join Mobility Controller with Mobility Conductor	• Understanding hierarchical configuration
Module 4: Secure WLAN configuration	• Identifying WLAN requirements such as SSID name, encryption, authentication • Explain AP groups structure and profiles	• Configuration of WLAN using the Mobility Conductor GUI
Module 5: AP Provisioning	• Describes the communication between AP and mobility controller • Explain the AP booting sequence and requirements • Explores the AP's controller discovery mechanisms	• Explains how to secure AP to controller communication using CPSec • Describes AP provisioning and operations
Module 6: WLAN Security	• Describes the 802.11 discovery, authentication and association • Explores the various authentication methods, 802.1x with WPA/WPA2, and MAC auth • Describes the authentication server communication	• Explains symmetric vs asymmetric keys, andencryption methods • WIPS is described along with rogue discovery and protection
Module 7: Firewall Roles and Policies	• An introduction into Firewall Roles and policies • Explains HPE Aruba Networking's Identity based firewall	• Configuration of policies and rules including aliases • Explains how to assign roles to users
Module 8: Dynamic RF Management	• Explain how ARM calibrates the network selecting channels and power settings • Explores AOS-8 Airmatch to calibrate the network	• How Client Match and Client Insight match steers clients to better APs
Module 9: Guest Access	• Introduces HPE's solutions for guest access and the captive portal process • Configuration of secure guest access using the internal captive portal	• The configuration of captive portal using ClearPass and its benefits • Creating a guest provisioning account • Troubleshooting guest access
Module 10: Network Monitoring and Troubleshooting Describe guest access	• Using the Mobility Conductor dashboard to monitor and diagnose client, WLAN, and AP issues • Traffic analysis using APPrf with filtering capabilities	• A view of AirWave's capabilities for monitoring and diagnosing client, WLAN and AP issues

Learn more at

hpe.com/ww/learnnetworking

H37YPS A.02,23.22, November 2024

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