Training: Aruba
HPE Networking Instant On Implementation and Configuration

TRAINING GOALS:

The lab-intensive Aruba Instant AP(IAP) course is designed to provide students the knowledge, skills, and practical experience required to set up and configure an IAP cluster with WLAN. Using lecture and labs, the class provides the technical understanding and hands-on experience of configuring a WLAN with a cluster of IAPs. Candidates will also learn to configure with 802.1X and Captive portal authentication, and Firewall settings. The class also provides troubleshooting skills. Other topics covered are advanced services such as ARM, Mesh setup, VPN to a controller, roaming between clusters, IDS/IPS and, configuring IoTs. This IAP class can be coupled with an AirWave or Central class for management and configuration purposes.

Objectives

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

- Be familiar with IAP types
- Describe how to form an IAP cluster
- Be familiar with different installation methods
- Connect, reset and set up an IAP (including VC)
- Be familiar with types of WLAN settings
- Describe methods for assigning a VLAN to a WLAN
- Describe different security options while configuring the WLAN
- Describe how to set up zones in IAP
- Configure authentication & security and set up an IAP/ WLAN in a zone
- Be familiar with various captive portal authentication options
- Know how to configure internal and external captive portal pages
- Be familiar with types or Roles and Rules that you can set up.
- Describe different options for Role derivation
- Describe limitations that can be applied to IAP uplink ports
- Summarize features/ advantages IAPs provide in an AirGroup
- Be familiar with the different AirGroup settings
- Use AirGroup Dashboard to monitor servers
- Be familiar with the dashboard and its monitoring capabilities

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- Invoke spectrum analysis to view spectrum
- Look at applications used by clients on the network
- Be familiar with ARM functions and it’s features
- Describe ClientMatch features
- Describe RF Optimization methods for improving network performance
- Be familiar with the mesh options and mesh monitoring commands.
- Describe how to configure an IAP’s wired port for connectivity
- Describe how to manage different uplink Options
- Be familiar with roaming clients in an L2/L3 environment
- Client roaming in an L2 and L3 environment
- Be familiar with IAP VPN setup
- Learn the configuration steps for configuring VPN between IAP and MC (Mobility Controller)
- Examine the troubleshooting commands
- Be familiar with the different deployment options of IAPs
- Understand the different options for configuring the DHCP
- Look at the BID process for subnet distribution
- Troubleshoot client and IAP issues
- Be familiar with the possible network attacks.
- Learn how rogue APs are detected and contained
- Monitoring and securing your network for intrusion by using IDS/IPS
- Be familiar with managing firmware and update procedures
- Learn how to backup and restore your configuration
- Learn how to convert IAPs into RAPS or CAPS
- Be familiar with IoT
- Learn how to configure and interface an IoT with the Aruba IAP
- Ne familiar with IoT Device authentication and filtering
- Learn how to configure the IAP for the Zigbee communication

Target Audience

This course is ideal for technical personnel who want to deep-dive into Aruba Instant Access Points.

CONSPECT:

- IAP Introduction
  - Description and features

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- IAP clusters
- VC election
- Country codes
- GUI interface
- Initial setup
- Dynamic installation

- WLAN
  - WLAN wizard
  - WLAN VLAN selection
  - WLAN authentication
  - Instant SSID
  - Zones
- Captive Portal
  - Configuring Captive portal
  - VLAN assignment and Guest Roles
  - CP Page
  - Splash page
  - External CP
- Firewall
  - Access Rules
  - Unrestricted, network based Role based Rules
  - Extended actions
  - Role Derivation
- AirGroup
  - AirGroup features
  - Configuration of AirGroup in an IAP cluster
  - AirGroup between Clusters
  - Monitoring AirGroups
- Monitoring & Troubleshooting
  - Client GUI page
  - Client view
  - Support commands
  - IAP logs
  - IAP GUI view
  - IAP Network View (WLAN)
  - Spectrum Analysis

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- AppRF
- ARM
  - Introduction
  - Scanning
  - Indices
  - Band steering
  - Airtime Fairness
  - Client match
  - RF Neighborhood
  - Support Commands
- Mesh, Wired Access & Uplink
  - Mesh Setup
  - Outdoor mesh
  - Wired access Options and configuration
  - Uplink Options and Configuration
- Roaming
  - Roaming within a cluster
  - HAP table
  - Roaming between clusters
  - Roaming back home
  - Roaming load balancing
- VPN
  - VPN deployments
  - VPN tunneling
  - Controller IAP VPN configuration
  - DHCP L2 Options (L2 Distributed, Centralized)
  - DHCP L3 Options (L3 Distributed, Centralized)
  - VPN troubleshooting
- DHCP
  - DG, DHCP options
  - Local
  - Centralized
  - WLAN & Infrastructure
  - Troubleshooting
- IDS/IPS
  - Classification

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- Attacks
- Rogue Detection
- Containment
- IDS monitoring and commands

- Administrative Tasks
  - Backup and Restore
  - Configuration Reset and IAP reset
  - Converting IAP to RAP / CAP Admin User Roles
  - Certification
  - Centralized Management Options
- Configuring IoT
  - Enabling IAP for IoT communications
  - Supported Vendors
  - IoT Radio types, radio and modes

REQUIREMENTS:

No prerequisites.

Difficulty level

CERTIFICATE:

The participants will obtain certificates signed by Aruba Networks.

TRAINER:

Aruba Networks Certified Trainer

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