

## **Aruba Certified Mobility Associate (ACMA) - Aruba Mobility Fundamentals**

### **Course Description**

This course teaches the knowledge, skills and practical experience required to set up and configure a basic Aruba WLAN utilizing the OS 8.X architecture and features. Using lecture and labs, this course provides the technical understanding and hands-on experience of configuring a single Mobility Master with one controller and AP Aruba WLAN. Participants will learn how to use Aruba hardware and ArubaOS to install and build a complete, secure controller network with multiple SSIDs. This course provides the underlying material required to prepare candidates for the Aruba Certified Mobility Associate (ACMA) certification exam.

### **Objectives**

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

- Explain how Aruba's wireless networking solutions meet customers' requirements
- Explain fundamental WLAN technologies, RF concepts, and 802.11 Standards
- Learn to configure the Mobility Master and Mobility Controller to control access to the Employee and Guest WLAN
- Control secure access to the WLAN using Aruba 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 Aruba ARM and Client Match and Client Insight features
- Learn how to perform network monitoring functions and troubleshooting

### **Candidate**

Typical candidates for this certification are networking IT professionals who deploy small-to-medium scale enterprise network solutions based on Aruba products and technologies.

**Skill level**

Foundational

**Topics****● WLAN Fundamentals**

- Describes the fundamentals of 802.11, RF frequencies and channels
- Explain RF Patterns and coverage including SNR
- Roaming Standards and QOS requirements

**● Mobile First Architecture**

- An introduction to Aruba Products including controller types and modes
- OS 8.X Architecture and features
- License types and distribution

**● Mobility Master Mobility Controller Configuration**

- Understanding Groups and Subgroups
- Different methods to join MC with MM
- Understanding Hierarchical Configuration

**● Secure WLAN configuration**

- Identifying WLAN requirements such as SSID name, encryption, authentication
- Explain AP groups structure and profiles
- Configuration of WLAN using the Mobility Master GUI

**● AP Provisioning**

- Describes the communication between AP and Mobility controller
- Explain the AP booting sequence and requirements
- Explores the APs controller discovery mechanisms
- Explains how to secure AP to controller communication using CPSec
- Describes AP provisioning and operations

**● WLAN Security**

- Describes the 802.11 discovery, authentication and association
- Explores the various authentication methods, 802.1x with WPA/WPA2, Mac auth
- Describes the authentication server communication
- Explains symmetric vs asymmetric Keys, encryption methods
- WIPS is described along with rogue discovery and protection

**● Firewall Roles and Policies**

- An introduction into Firewall Roles and policies

- Explains Aruba's Identity based Firewall
- Configuration of Policies and Rules including aliases
- Explains how to assign Roles to users
- **Dynamic RF Management**
  - Explain how ARM calibrates the network selecting channels and power settings
  - Explores OS 8.X Airmatch to calibrate the network
  - How Client Match and ClientInsight match steers clients to better APs
- **Guest Access**
  - Introduces Aruba'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
- **Network Monitoring and Troubleshooting**
  - Using the MM dashboard to monitor and diagnose client, WLAN and AP issues
  - Traffic analysis using APPrf with filtering capabilities
  - A view of Airwaves capabilities for monitoring and diagnosing client, WLAN and AP issues