# Aruba Design Fundamentals (AR-ADF)

## Course Description

This course provides you the fundamental knowledge for an Aruba network design. This course will teach you the Aruba product lines to help you design an Aruba network with the assistance of a senior designer.

This course teaches you how to read a customer request and extract information you need to design a wired and wireless network. You'll learn how to use VRF, a tool that helps you determine the wireless coverage needs. You will also learn how to use IRIS to create a BOM for wired and wireless equipment and a basic network diagram.

This course is approximately 50% lecture and 50% hands on lab exercises.

## Course Duration:

3 days

## Prerequisites:

No Prerequisites

## Objectives:

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

- After you successfully complete this course, expect to be able to:
- Show familiarity with the Aruba product line for network design
- Discuss the different WLAN organizations that set wireless network standards
- Explain how RF bands and different channels influence network connectivity & stability
- Speak to RF design basics, antenna usage & antenna network transmission fundamentals
- Speak to RF transmit power levels and WLAN mobility concepts
- Ask the right questions needed to create a new network.
- Decipher relevant information from discussing customer pain points.
- Understand the different frame rack units (RU) and types of equipment racks.
- Understand cable requirements and limitations.
- Choose the correct transceiver for your fiber link types.
- Use and understand the basic concepts of IRIS.
- Use IRIS sites and groups.
- Add, copy, paste new devices in IRIS.
- Connect devices together
- Produce a Bill of Materials (BOM)
- Setup Visual RF and show your network topology
- Understand how to plan a new network in VRF
- Show familiarity with the different types of APs
- Show understanding of the different types of mounting brackets to address different mounting needs.
- Show familiarity with outdoor and ruggedized APs

- Show familiarity with the various mounting options
- Review/explain the list of antennas that can be used for the Aps
- Show familiarity with various types of Mobility Controllers and their capacities
- Explain license requirements
- Show an understanding of cable types and their limitations
- Show familiarity with the different types of switches
- Explain the switches capabilities
- Design a Car Dealership

## Course Outline:

- Basic product line introduction

    - Basic introduction to Aruba products

- Information gathering

    - Review customer information
    - Wireless questionnaire
    - Wired questionnaire
    - User counts and application used
    - Security requirements
    - Physical environment
    - Lab Activity

- Racks and Cables

    - RU specification
    - Rack types
    - Patch panels
    - IDF/MDF
    - Cable limitations
    - Transceivers
    - Fiber limitations
    - Lab activity

- The use of IRIS

    - New projects
    - IRIS sites and groups
    - Adding network devices into IRIS
    - Selecting transceivers
    - Connecting devices
    - Creating a BOM
    - Lab activity

- The use of VRF

    - VRF Navigating
    - Campus, buildings and Floorplans
    - Planning APs
    - Lab activity

- Aruba indoor APs

  - AP types
  - Indoor APs 11ax
  - Indoor APs 11ac wave 2
  - Desk wall mounting
  - Mounts, antennas and accessories
  - IRIS adding APs to BOM
  - Lab activity

- Aruba outdoor APs

  - Outdoor APs tolerances
  - Outdoor AP specifications
  - Point to Point APs
  - Indoor Rugged APs
  - Outdoor ruggedized Mounts
  - IRIS adding outdoor AP to BOM

- MM, MC, VC planning

  - The MM, MC, VC portfolio
  - MM capabilities
  - Mobility controller features
  - Mobility controller specification
  - Licenses
  - IAP clusters
  - Lab activity

- Wired Devices

  - Wired Architecture
  - Aruba OS switches
  - Aruba CX switches
  - HPE office connect switches
  - Lab activity

- Management and AAA

  - Clearpass features
  - ClearPass Design Overview
  - ClearPass Server Sizing and Licensing
  - Airwave and Central Capabilities
  - Airwave Design,
  - Airwave Sizing and Licensing
  - Central subscriptions
  - Central MSP
  - Lab activity

- Mobile Engagement
  - Overview
  - Beacons and Location
  - ALE and Analytics
  - Design
  - Sizing
  - Licensing
  - Lab activity

## Who Should Attend

Typical candidates for this course are IT Associate who want to learn about the Aruba products and the tools used to help design a network.