AOS-W 6.0
Quick Start Guide Guide

This document describes the initial setup of an Alcatel-Lucent user-centric network that consists of an Alcatel-Lucent switch and Alcatel-Lucent Access Points (APs). The installation consists of the following steps:

1. Use the Setup Wizard to configure the switch, install software licenses, and configure an internal and a guest WLAN. For more information, see "Run the Startup Wizard" on page 1

2. Connect the switch to the wired network.

    For more information, see "Connect the Switch to the Wired Network" on page 4

3. Ensure that the APs, when installed and powered on, will be able to locate and connect to the switch.

    For more information, see "Ensure APs Can Connect to the Switch" on page 4

4. If you are configuring mesh, define the mesh cluster profile, mesh radio profile, and provision the AP as a mesh portal or mesh point when deploying APs in a mesh networking environment.

NOTE: You must provision and configure the mesh portals on your network *before* you add any mesh points.

    For more information, see "Provision APs for Mesh" on page 6

5. Connect your APs to the network.

    See "Install the APs" on page 6

Before You Begin

1. Review the contents of your switch shipment to ensure that you have received the following:
    - Alcatel-Lucent switch with appropriate power cord and accessories
    - *AOS-W 6.0 Quick Start Guide* (this document)
    - AOS-W End User License Agreement

2. Read the *AOS-W End User License Agreement*.

NOTE: Check the customer support web site for the latest software upgrades and documentation updates: https://support.arubanetworks.com.

Run the Startup Wizard

The WebUI Startup Wizard allows you to configure access to the switch, install software licenses, and configure wireless local area networks (WLANs) for internal or guest users. The Startup Wizard is available the first time you connect to and log into the switch or whenever the switch is reset to its

factory default configuration. After you complete the wizard, the switch reboots using the new configuration information you entered.

> **NOTE** Do *not* connect the switch to your network when running the Setup Wizard. The factory-default switch boots up with a default IP address and both DHCP server and spanning tree functions are enabled. Once you have completed the Setup Wizard and rebooted the switch, you can use either the CLI or WebUI for further configuration before connecting the switch to your network.

Required Information

Table 1 describes the basic information that is *required* for the Setup Wizard.

Table 1 *Prerequisites for the setup wizard*

Requirement	Description
System Name	A user-defined name by which the switch will be referenced. You can specify a name of up to 63 characters.
Country Code	The country in which the switch will operate. The country code determines the 802.11 wireless transmission spectrum. **NOTE:** You cannot change the country code for switchs designated for certain countries, such as the U.S. or Israel. Improper country code assignment can disrupt wireless transmissions. Most countries impose penalties and sanctions for operators of wireless networks with devices set to improper country codes.
admin Password	Password of up to 32 characters for the **admin** user to log in to the switch.
Enable Mode Password	Password of up to 15 characters for the **admin** user to access the Enable mode in the CLI.
Date and Time	You can either manually set the date, time, and GMT time zone or specify the IP address of an NTP server from which the switch will obtain its date and time settings.
Switch Mode	● Standalone: If this is the only switch on the network. ● Master: If this switch will manage other switchs on the network. You are prompted for a key that will be used by all switchs on the network. ● Local: If this switch will be managed by a master switch. You are prompted for a key that will be used by all switchs on the network. (You need to provide the IP address of the master switch.)
VLAN 1	The switch takes its IP address from VLAN 1. The switch uses the configured IP address to communicate with other switchs and with APs.
Default Gateway	This is usually the IP address of the interface on the upstream switch or router to which you will connect the switch. The default gateway and the VLAN 1 IP address need to be in the same network.

> **NOTE** These configurations are not available if you use a serial port connection to the switch to run an initial setup. See "Serial Port Connection" on page 3.

Optional Information

The Setup Wizard also allows you to:

- Create virtual local area networks (VLANs) into which wireless users are placed after authentication
- Modify default port settings
- Install licenses for ArubaOS software modules
- Configure internal and guest WLANs

Running the Setup Wizard

The default IP address of the switch is 172.16.0.254. When you connect a PC or workstation to a line port on the switch, you can connect to this IP address through a Web browser to run the Setup Wizard.

You can use any PC or workstation on which you can run a Web browser. The system must either be configured to obtain its IP address using DHCP or configured to have a static IP address on the 172.16.0.0/24 subnetwork.

To run the Setup Wizard:

1. Make sure that the switch is not connected to any device on your network.
2. Boot up the Alcatel-Lucent switch.
3. Connect your PC or workstation to a line port on the switch.
4. On your PC or workstation, open a Web browser and connect to https://172.16.0.254.
5. The switch contains a default server certificate. At the Security Alert, click **Yes** to proceed with the Setup Wizard.

N O T E — A digital certificate is a way to validate a device on the network. The default certificate installed in the switch does not guarantee security in production networks. Alcatel-Lucent strongly recommends that you replace the default certificate with a custom certificate issued for your site or domain by a trusted Certificate Authority. See the *AOS-W 6.0 User Guide* for more information about certificates.

6. Enter the information described in Table 1.
7. Click **Continue** to install software licenses on the switch.

Proceed to "Connect the Switch to the Wired Network" on page 4

Serial Port Connection

The serial port is located on the front panel of the switch. When you connect a terminal or PC/workstation running a terminal emulation program to the serial port on the switch, you enter the Initial Setup dialog.

N O T E — The serial port connection allows you to configure the basic configuration required to connect the switch to the network. The browser-based Setup Wizard allows you to also install software licenses and configure internal and guest WLANs (see "Run the Startup Wizard" on page 1). If you use the Initial Setup dialog to configure the switch, the Setup Wizard will not be available unless you reset the switch to its factory default configuration.

To run the Initial Setup dialog from a serial connection:

1. Configure your terminal or terminal emulation program to use the following communication settings:

Table 2 *Terminal Communication Settings*

Baud Rate	Data Bits	Parity	Stop Bits	Flow Control
9600	8	None	1	None

2. Connect your terminal or PC/workstation to the serial port on the switch using an RS-232 serial cable.

    All accessory kits shipped with Alcatel-Lucent switchs contain an RJ-45 cable and DB-9 to RJ-45 adapter. You may need to provide a USB adapter to connect the serial cable to your PC.

3. Boot up the Alcatel-Lucent switch.

    After the switch has booted up, you should see a screen similar to the following:

Figure 1 *Initial Setup for Serial Port Connection*

```
        <<<<<    Welcome to Aruba Wireless Networks - Aruba A200    >>>>>

Performing CompactFlash fast test...  passed.
Reboot Cause: Watchdog timeout or hard reset.
Restoring the database...done.
Reading configuration from factory-default.cfg

***************** Welcome to the Aruba200 setup dialog *****************
This dialog will help you to set the basic configuration for the switch.
These settings, except for the Country Code, can later be changed from the
Command Line Interface or Graphical User Interface.

Commands: <Enter> Submit_input or use [default value], <ctrl-I> Help
<ctrl-B> Back, <ctrl-F> Forward, <ctrl-A> Line begin, <ctrl-E> Line end
<ctrl-D> Delete, <BackSpace> Delete back, <ctrl-K> Delete to end of line
<ctrl-P> Previous question <ctrl-X> Restart beginning

Enter System name [Aruba200]: _
```

4. Enter the information described in Table 1.

5. At the end of the Initial Setup, you are asked to review and confirm your configuration changes. Enter **y** to accept the changes.

    The switch reboots.

> **NOTE**
> There are optional configurations you may want to complete before you connect the switch to your network, for example, disabling spanning tree. In addition, you should set the system clock and install software licenses before connecting to the network. For more information, refer to the *AOS-W 6.0 User Guide*.

Connect the Switch to the Wired Network

Connect a port on the switch to the appropriately-configured port on a Layer-2 switch or router. Make sure that you have the correct cables and that the port LEDs indicate proper connections. Refer to the *Installation Guide* for your Alcatel-Lucent switch for port LED and cable descriptions.

Ensure APs Can Connect to the Switch

Before you install APs in a network environment, you must ensure that the APs will be able to locate and connect to the switch when powered on. Specifically, you need to ensure the following:

*   When connected to the network, each AP is assigned a valid IP address
*   APs are able to locate the switch

IP Addresses for APs

Each Alcatel-Lucent AP requires a unique IP address on a subnetwork that has connectivity to a switch. Alcatel-Lucent recommends using the Dynamic Host Configuration Protocol (DHCP) to provide IP addresses for APs; the DHCP server can be an existing network server or an Alcatel-Lucent switch configured as a DHCP server.

If an AP is on the same subnetwork as the master switch, you can configure the switch as a DHCP server to assign an IP address to the AP. The switch must be the only DHCP server for this subnetwork.

Using the WebUI to Enable DHCP Server Capability on the Switch

1. To use the WebUI, enter the IP address of the switch in the URL of a browser window.

> **NOTE** The WebUI requires Internet Explorer 6.0. Other browsers may work but with limited functionality and are therefore not supported.

2. At the WebUI login page, enter the **admin** user name and the password you entered during the Initial Setup.
3. Navigate to the **Configuration > Network > IP > DHCP Server** page.
4. Select the **Enable DHCP Server** checkbox.
5. In the Pool Configuration section, click **Add**.
6. Enter information about the subnetwork for which IP addresses are to be assigned. Click **Done**.
7. If there are addresses that should not be assigned in the subnetwork:
    a. Click **Add** in the Excluded Address Range section.
    b. Enter the address range in the Add Excluded Address section.
    c. Click **Done**.
8. Click **Save Configuration** at the top of the page to save this configuration to the switch's flash memory.

Switch Discovery

An Alcatel-Lucent AP can discover the IP address of the switch in one of several ways. The Alcatel-Lucent Discovery Protocol (ADP) is enabled by default on all Alcatel-Lucent APs and switchs. To use ADP, all Alcatel-Lucent APs and switchs must be connected to the same Layer-2 network.

> **NOTE** If the devices are on different networks, a Layer-3 compatible discovery mechanism, such as DNS, DHCP, or IGMP forwarding, must be used instead. See "Deploying a Basic User-Centric Network" in the *AOS-W 6.0 User Guide* for information.

With ADP, APs send out periodic multicast and broadcast queries to locate the master switch. If the APs are in the same broadcast domain as the master switch, the switch automatically responds to the APs' queries with its IP address. If the APs are not in the same broadcast domain as the master switch, you need to enable multicast on the network — see "Deploying a Basic User-Centric Network" in the *AOS-W 6.0 User Guide* for information. If multicast is not an option, then the APs can be configured to use DNS or DHCP based provisioning to contact the switch.

Provision APs for Mesh

> **NOTE**
>
> The information in this section applies only if you are configuring and deploying APs in a mesh networking environment. If you are not, proceed to "Install the APs" on page 6.

Before you install APs in a mesh networking environment, you must do the following:

- Define and configure the mesh cluster profile and mesh radio profile before configuring an AP to operate as a mesh node. An AP configured for mesh is also known as a mesh node.
- Provision one of the following mesh roles on the AP:
  - Mesh portal—The gateway between the wireless mesh network and the enterprise wired LAN.
  - Mesh point—APs that can provide traditional Alcatel-Lucent WLAN services (such as client connectivity, intrusion detection system (IDS) capabilities, user roles association, LAN-to-LAN bridging, and Quality of Service (QoS) for LAN-to-mesh communication) to clients on one radio and perform mesh backhaul/network connectivity on the other radio. Mesh points provides LAN-to-LAN bridging through their Ethernet interfaces. It can now provide backhaul and access BSSIDs on the same radio.

> **NOTE**
>
> See Chapter 24, "Software Licenses" in the *AOS-W 6.0 User Guide* for license requirements.

For detailed provisioning guidelines, caveats, and instructions, see the "Configuring Secure Enterprise Mesh" chapter in the *AOS-W 6.0 User Guide*.

Install the APs

Use the AP placement map generated by RF Plan to install APs. You can either connect the AP directly to a port on the switch, or connect the AP to another switch or router that has Layer-2 or Layer-3 connectivity to the switch.

If the Ethernet port on the switch is an 802.3af Power over Ethernet (PoE) port, the AP automatically uses it to power up. If a PoE port is not available, you need to obtain an AC adapter for the AP from Alcatel-Lucent Networks. For more information, see the *Installation Guide* for the specific AP.

Once an AP is connected to the network and powered up, it attempts to locate the switch using ADP.

On the switch, you can view the APs that have connected to the switch in the WebUI. Navigate to the **Configuration > Wireless > AP Installation** page.

Figure 2 *APs Connected to Switch*

After you have installed a basic Alcatel-Lucent user-centric network, the Alcatel-Lucent AP by default advertises **aruba-ap** SSID. Wireless users can connect to this SSID but because you have not yet configured authentication. The default policies and user roles do not allow wireless users to have access to network.

The, "Configuring Access Points" chapter in the *AOS-W 6.0 User Guide* describes how to configure APs. See the other section and chapters in the *AOS-W 6.0 User Guide* for more information on configuring and using features of the Alcatel-Lucent user-centric network.

Contacting Alcatel-Lucent

Table 3 *Alcatel-Lucent Contacts*

Contact Center Online	
● Main Site	http://www.alcatel-lucent.com/enterprise
● Support Site	https://service.esd.alcatel-lucent.com/
● Email	esd.support@alcatel-lucent.com
Service & Support Contact Center Telephone	
● North America	1-800-995-2696
● Latin America	1-877-919-9526
● Europe	+33 (0) 38 855 6929
● Asia Pacific	+65 6240 8484
● Worldwide	1-818-878-4507

Copyright

Legal Notice

www.alcatel-lucent.com

26801 West Agoura Road
Calabasas, CA 91301