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# User Guide for Cisco Catalyst Wireless Mobile Application, Cisco Wireless Release 1.1

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CHAPTER

### Overview of the Cisco Catalyst Wireless Mobile Application

• Information About the Cisco Catalyst Wireless Mobile Application, on page 1

# Information About the Cisco Catalyst Wireless Mobile Application

The Cisco Catalyst Wireless mobile application helps you to set up and deploy a Cisco Embedded Wireless Controller network easily and conveniently.

This mobile application provides the following key benefits:

- Provision Cisco Embedded Wireless Controller with best practices enabled
- Monitor real-time performance of the Cisco Embedded Wireless Controller network
- · Manage the Cisco Embedded Wireless Controller network

For information on supported devices, operating systems, and compatible versions of Cisco Embedded Wireless Controller software, refer to the *Hardware and Software Interoperability* section of the Release Notes for Cisco Catalyst Wireless Mobile Application, Cisco Wireless Release 1.1.

For more information about the Cisco Embedded Wireless Controller, see the *Cisco Embedded Wireless Controller on Catalyst Access Points Configuration Guide*.



### **Download and Install the Mobile Application**

- Download and Installation, on page 3
- Troubleshooting App Installation, on page 3

### **Download and Installation**

The Cisco Catalyst Wireless mobile application is available for download from the following locations:

- Apple App Store: For iOS devices
- · Google Play Store: For Android devices

Depending on where you download the Cisco Catalyst Wireless mobile app from, follow the instructions given in the Apple App Store or the Google Play Store.

### **Troubleshooting App Installation**

The following are some common installation issues and workarounds:

Issue: The Cisco Catalyst Wireless mobile application repeatedly crashes or malfunctions.

**Solution**: Try restarting the app. If this does not resolve the app malfunction, write to catalyst-wireless-app-feedback@external.cisco.com.



CHAPTER

### **Getting Started with the Cisco Catalyst Wireless Mobile Application**

- Prerequisites for App Usage, on page 5
- Setting Up a Wi-Fi Network, on page 5

### Prerequisites for App Usage

To enable convenient usage and proper functioning of the Cisco Catalyst Wireless mobile app, ensure that the app is granted the following permissions on your mobile device:

- Location permission on your mobile device (all Android devices and Apple devices with iOS Version 13 and later).
- Permission to access the mobile device camera to enable auto provisioning through QR code scanning.

### Setting Up a Wi-Fi Network

Use the Cisco Catalyst Wireless Mobile App to set up the Wi-Fi network for your Cisco Embedded Wireless Controller deployment by performing the procedures provided here, in the same order. The following sections also provide information about connecting to the provisioning SSID:

### **Connecting to the Provisioning SSID**

Figure 1: Landing Screen and Provisioning Screen of the Cisco Catalyst Wireless Mobile App

11 Airtel 🗢 4:52	PM © 45%	( <b>.</b>	K Back	Setup Method
Setup a Wi-Fi Network To setup a Wi-Fi Network, o SETUP button	click on the			
			Manu	ally connect to provisioning SSID
Manage Wi-Fi Network To manage an existing Wi-Fi N on the MANAGE button	etwork, click MANA	AGE	Use Wi-Fi setti	ngs on your device to setup your network
				Scan QR code
Managed Networks	on hour and		Use QR code onetwork	on the back of the Access Point to setup your
SSID : networkpsk Site : Of	an nour ago	>		
IP : 73.170.151.17 Site : Ra	19 hours ago	>		
Powered by	y IOS-XE			Powered by IOS-XE

To connect to the provisioning SSID, use either of the following methods.

#### Scanning the QR code

You can locate the QR code on the back of your Cisco Catalyst Series access point. If the access point is capable of becoming a Cisco Embedded Wireless Controller, you can use the Cisco Catalyst Wireless mobile app to scan this QR code and automatically provision the AP to set up your Wi-Fi network.

Figure 2: Back view of Cisco Catalyst 9120AX Series AP



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 Location of the QR code on the back of the Cisco Catalyst 9120AX Series AP

Figure 3: Scanning the QR code on the AP using the Cisco Catalyst Wireless mobile app



#### Manually Connecting to the Provisioning SSID

Figure 4: Manually Connecting to the Provisioning SSID Using the Cisco Catalyst Wireless Mobile App

Setup Method Setup
Step 1 Go to Wi-Fi in your 'Settings' app
Step 2 Select CiscoAirProvision_XXXX under 'Choose A Network'
Step 3 Return to the Catalyst Wireless App and click on SETUP button again
If you do not see CiscoAirProvision_XXXX SSID under 'Choose A Network' make sure the Access Point is powered up and LED on the Access Point is solid Green.
Goto Settings

- **Step 1** In your mobile device, under **Settings**, go to **Wi-Fi**.
- **Step 2** Under **Choose A Network**, tap CiscoAirProvision-xxxx from the list of available SSIDs.
- **Step 3** In the **Password** field, enter the default password for the CiscoAirProvision-xxxx SSID.
- Step 4 Tap Join.

Your mobile device is now connected to the CiscoAirProvision-xxxx SSID.

#### Troubleshooting the Task of Connecting to the Provisioning SSID

**Problem** During SSID provisioning on your Android device, the login screen is repeatedly displayed in the mobile device browser.

Solution Manually navigate to the Cisco Catalyst Wireless mobile app to continue using it.

**Problem** Your mobile device is connected to the corresponding SSID, but the error message "Please check your Wi-Fi connection and try again" is displayed. This error might also appear during the Day 1 setup.

Solution Switch off your mobile data and connect to the provisioning SSID.

**Problem** In Android 6.0 (Marshmallow) or later versions, you may see the error message "Connection to SSID ssid-name failed" even after repeated attempts to reconnect to the corresponding SSID. For more details, see

https://developer.android.com/about/versions/marshmallow/android-6.0-changes#behavior-network. This error might also appear during Day 1 setup.

Figure 5: Error Message in Android 6.0 and Later Versions While Connecting to the SSID

÷	Start Provisioning	
	Connection to SSID 'testpsk' failed	
	8	
	Next Steps	
	Try Reconnecting	
$\subset$	Goto Settings	
		000000

Solution Navigate to Settings > Wi-Fi > Choose A Network and do one of the following:

- **Solution** Navigate to the corresponding SSID, and tap **Forget**. Wait for a couple of minutes and then return to the Cisco Catalyst Wireless mobile app to continue usage.
- Solution Manually connect to the corresponding SSID and return to the Cisco Catalyst Wireless mobile app.

If your mobile device is compatible with Android 10, you will notice the following behaviour:

- If the device location is disabled, then you will receive a prompt to enable global device location before using the Cisco Catalyst Wireless mobile app instead of app-specific location.
- While using the mobile app, if the Wi-Fi settings on your mobile device is disabled or the mobile device is not connected to any SSID, a Wi-Fi panel is displayed. Depending on the case, this panel either displays an option to enable Wi-Fi or choose from a list of available SSIDs.

The Wi-Fi panel displays a maximum of three SSIDs that are available for connection. To view all available SSIDs, click **See More**. Once the desired SSID is selected, a confirmation dialog box is displayed. Choose **Connect** to proceed with the SSID connection.



If the Cisco Catalyst Wireless mobile app is terminated forcefully, then this connection to the SSID might be lost. However, the next time the mobile app is launched, the client device automatically connects to the same SSID that was used previously with the app.





#### **Provisioning the Network**

The following sections provide information about the tasks involved in provisioning the network.

#### Logging in to the Day 0 Wizard

#### Before you begin

Your mobile device must be connected to the CiscoAirProvision-xxxx SSID.

Step 1 In your mobile device, under Setup a Wi-Fi Network, tap Setup.

The **Provisioning** screen is displayed.

 Step 2
 Tap Continue to proceed with the configuration.

 The Device Login screen for your Cisco Embedded Wireless Controller network is displayed.

#### Figure 7: Logging in to the Day Zero Wizard



- **Step 3** In the **Device Login** screen, enter the default admin credentials. The default **Username** is **webui** and **Password** is **cisco**.
- Step 4 Tap Login.

#### **Overview of the Day Zero Wizard**

The day zero wizard of the Cisco Catalyst Wireless mobile app helps in the initial setup of your Cisco Embedded Wireless Controller network. You can configure certain basic parameters on the controller and network parameters to get your Cisco Embedded Wireless Controller network running.

#### **Initial Network Configuration**

After you log in to the day zero wizard of the Cisco Catalyst Wireless mobile application, perform the following steps to configure the basic settings for your Cisco Embedded Wireless Controller network:

Step 1	In the <b>Configuration</b> screen, under <b>General Configuration</b> , tap the <b>Country</b> drop-down list and select a country.
Step 2	Tap Management Account and enter the required management credentials.

Figure 8: Day Zero Wizard - General Configuration

← Configuration	
General Configuration 🕛	~
Country	
US Management Account	,
Username*	
Password*	8
Confirm Password*	8
IP Configuration	
DHCP IP address 30.30.30.105	•
Wireless Networks ①	>
Deploy	
III O <	

Step 3 Under IP Configuration, do one of the following:

- DHCP: Enable the DHCP option to get a dynamic management IP address.
- IP Address: Enter the static management IP address for the controller interface.
- **Step 4** Under Wireless Networks, tap the + icon to add a network SSID.

#### Figure 9: Day Zero Wizard – Wireless Network Configuration

← Configuration			
General Configurati	on 🕛		>
Wireless Networks	0		~
× Network 1			+
Network Name*			
Network Type			
● Employee 🔵 Gues	st		
Security			
Personal			*
Passphrase*			0
Confirm Passphrase	•		0
Dep	oloy		
III C	)	<	

- **Step 5** In the **Network Name** field, enter a name.
- **Step 6** Under the **Network Type**, tap either the **Employee** or the **Guest** radio button.
- **Step 7** From the **Security** drop-down list, choose the required security type.
  - If you selected Employee in the previous step, the available options are Personal or Enterprise.

The default security type is **Personal**. For more information about configuring **Enterprise** security, see the Configuring the AAA Server section.

- If you selected Guest in the previous step, the security type is fixed as Consent. Go to Step 10.
- If you selected **Employee** in the previous step, then continue from Step 8.
- **Step 8** In the **Passphrase** field, enter a passcode.
- **Step 9** In the **Confirm Passphrase** field, re-enter the passcode.
- Step 10 Tap Deploy.

A confirmation message is displayed.

**Step 11** (Optional) Tap **Review** to review the configured network settings.

The **Summary** screen is displayed. Here, you can view and edit the **General Configuration** and **Wireless Network** settings.

#### Step 12 Tap Deploy.

A confirmation screen is displayed. Here, you can enter the site name and opt to Remember the configured site.

Figure 10: Day Zero Wizard – Confirmation Screen

Configurat	ion	
Co	onfiguration is pushed	
Pl	ase enter the site name for future use.	
Er	iter site name	
	Remember 🗨	
	Go to Home	
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### **Feedback and Support**

To submit feedback or to receive support for the Cisco Catalyst Wireless mobile application, write to catalyst-wireless-app-feedback@external.cisco.com or navigate to **Help** > **Contact Us**.

Figure 11: Cisco Catalyst Wireless mobile app - Help Page (Day 0)

11:30 🕲	091
	0
Setup a Wi-Fi Network To setup a Wi-Fi Network, click on the SETUP button	SETUP
Manage Wi-Fi Network To manage an existing Wi-Fi Network, click on the MANAGE button	MANAGE
Managed Networks	
Click 'MANAGE' to add new cont	roller
Powered by IOS-XE	
<	



Figure 12: Cisco Catalyst Wireless mobile app - Help Page (Day 1)



### **Managing the Wi-Fi Network**

Under **Manage Wi-Fi Network** > **Manage**, you can add, modify, or delete a previously configured employee or guest network. You can also modify AP details.

Under **Managed Networks**, you can find your list of configured embedded wireless controllers that are being managed by the Cisco Catalyst Wireless mobile app. You can edit or delete an existing controller, by sliding the desired controller to the left and clicking the appropriate icon.

Figure 13: Edit and Delete an ExistingEmbedded Wireless Controller Using the Cisco Catalyst Wireless Mobile Application



Also, if you enable the **Remember** toggle button in the **Confirmation Screen** of the Day Zero wizard (Figure 10: Day Zero Wizard – Confirmation Screen), the corresponding controller is added to the **Managed Networks** list.

You can add a new embedded wireless controller to be managed by the Cisco Catalyst Wireless mobile app using one of the the following options. These controllers are listed under **Managed Networks**.

- Domain Name
- IP Address
- SSID



Figure 14: Add an Embedded Wireless Controller Using the Cisco Catalyst Wireless Mobile Application

11:30 🕲 🕕 9	₽ 1	Add Controller X
Setup a Wi-Fi Network	0	SSID
To setup a Wi-Fi Network, click on the SETU SETUP button	P	Domain Name
Manage Wi-Fi Network To manage an existing Wi-Fi Network, click on the MANAGE button	GE	Personal
Managed Networks		Password* 🔌
		Confirm Password* 🛛 🕸
Click 'MANAGE' to add new controller		Site*
		Add to List
Powered by IOS-XE		

Figure 15: Add an Embedded Wireless Controller Using the Cisco Catalyst Wireless Mobile Application

The following sections provide details about managing your Embedded Wireless Controller network and associated devices:

- Manage, on page 20
- Controller Details, on page 25
- Monitoring, on page 26
- Security, on page 28
- Administration, on page 29
- License, on page 30
- Logout, on page 30

### Manage

Using the Cisco Catalyst Wi-Fi mobile application, you can:

- Manage the controller and AP in an Cisco Embedded Wireless Controller network.
- Create, modify, or delete the configurations by following the instructions provided in the following sections.

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### Manage the Network

Under **Manage** > **Networks**, you can create, edit, or delete a network in a Cisco Embedded Wireless Controller deployment.

Figure 16: Manage Networks Using the Cisco Catalyst Wireless Mobile Application



The following details of each available network can also be viewed in the Networks screen:

- SSID
- Security
- Broadcast SSID
- SSID Status

#### **Create a WLAN**

You can create and manage the following types of network in a Cisco Embedded Wireless Controller deployment:

- Employee Network
- Guest Network

#### Adding an Employee Network

Step 1 Navigate to Manage > Networks.

The **Networks** screen is displayed.

- **Step 2** Tap the + icon to add a new user.
- **Step 3** In the **Network Name** field, enter a name for the network.

Figure 17: Add a New Network



- **Step 4** Tap the **Employee** radio button.
- Step 5 From the Security drop-down list, choose the security level-Personal or Enterprise.
- **Step 6** In the **Passphrase** field, enter a passcode.
- **Step 7** In the **Confirm Passphrase** field, re-enter the passcode.
- **Step 8** From the **Radio** drop-down list, choose a radio.
- **Step 9** Slide the **Status** toggle button to enable the network.
- **Step 10** Slide the **Broadcast** toggle button to broadcast the name of the network.

After successful completion of the task, the newly added employee network is listed under **Manage** > **Network**, from where you can view the status. You can also modify (using the pencil icon) or delete (using the trash icon) the employee network from this screen.

#### Configuring the AAA Server

Step 1	In the Network Name field (Figure 17: Add a New Network, on page 22), enter a name for the network.
Step 2	Tap either the <b>Employee</b> or <b>Guest</b> radio button.
Step 3	From the Security drop-down list, choose the security level, as Enterprise.
	The <b>Radius</b> screen is displayed.
Step 4	Under the Primary Radius section, in the IP Address field, enter the IP address of the primary RADIUS server.
Step 5	In the <b>Port Number</b> field, enter the port number.
Step 6	In the <b>Secret</b> field, enter a password.
	Configuring the secondary RADIUS server is optional. To configure the secondary RADIUS server, go to the <b>Secondary Radius</b> section.
Step 7	(Optional) In the IP Address field, enter the IP address of the secondary RADIUS.
Step 8	In the <b>Port Number</b> field, enter the port number.
Step 9	Tap Save.
	A confirmation message is displayed indicating that the AAA server is configured.

#### **Adding a Guest Network**

Step 1 Navigate to Manage > Networks (Figure 16: Manage Networks Using the Cisco Catalyst Wireless Mobile Application, on page 21).

The Networks screen is displayed.

- **Step 2** Click the + icon to add a new user (Figure 17: Add a New Network, on page 22).
- **Step 3** In the **Network Name** field, enter a name for the network.
- **Step 4** Click the **Guest** radio button.
  - **Note** The security protocol for the guest network is **Consent**. After successful completion of the task, the newly added guest network is listed under **Manage** > **Network**, from where you can view the status. You can also modify (using the pencil icon) or delete (using the trash icon) the guest network from this screen.

#### Manage the AP

You can add, modify, or view the AP details by completing the following steps:

 Step 1
 Navigate to Manage > Access Points.

 All the available access points in the network are listed on the screen.

 Step 2
 Click an access point to view its details.

 Step 3
 Tap the pencil icon adjacent to the AP Name field, to edit the AP name.

#### Figure 18: Edit Access Point Details

Manage				← AP	
works		>		Details	
ess Points		>		AP Name AP7069.5A74.8DC4	1
6331 01113				Admin State:	
				Location default	1
				LED state:	
			-	Make as Preferred master:	
				General Info	
				Country Code:	US
				Software Version:	16.12.3.2
				AP Mac:	7069.5a74.8dc4
				Actions	
				🔿 Convert As Controller	
				🗘 Restart	
				• Factory Reset	
111 (	D	<		III O	<

- **Step 4** Slide the **Admin State** toggle button to switch the status of the admin.
- **Step 5** Tap the pencil icon adjacent to the **Location** field, to edit the location.

By default, your current country is selected as the location.

- **Step 6** Slide the **LED State** toggle button to switch the status of the LED.
- Step 7 Slide the Make as Preferred Master toggle button to switch the status of the preferred primary AP.
   Additionally, you can view the general information of the AP, such as Country Code, Software Version, and AP MAC address.
- **Step 8** Perform the following AP management tasks:
  - a) Convert As Controller: Makes the Cisco Catalyst AP Series function as a controller.

This option is available only if the AP is capable of becoming a master AP in a Cisco Embedded Wireless Controller network.

b) **Restart**: Restarts the AP.

If the selected AP is the master AP in a Cisco Embedded Wireless Controller network, then there is a network outage and clients are not served.

c) Factory Reset: Removes all the configuration from the AP.

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### **Controller Details**

In the collapsible side pane, click the name of the Primary AP to view the following details of your Cisco Embedded Wireless Controller:

- System Name: You can edit the System Name in the Controller Info page.
- Model Number
- Management IP
- Software Version
- Country
- System Up Time
- Memory Usage
- Maximum APs
- Maximum Clients

#### Figure 19: Controller Details Page



You can also perform the following tasks:

- Restart
- Factory Reset

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System Name:	WLC7069.5A74.8DC4
Model Number:	C9115AXI-B
Management IP:	30.30.30.105
Software Version:	16.12.20191204
Country:	US
System Up Time:	22 hours, 59 minutes
Memory Usage:	59%
Max AP's:	50
Max Client's:	1000
Restart	Factory Reset

#### Figure 20: Controller Restart and Reset on the Controller Details Page

### Monitoring

You can monitor your Cisco Embedded Wireless Controller network, by navigating to the **Dashboard** screen in the side pane of the Cisco Catalyst Wireless mobile app GUI.

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#### Figure 21: Cisco Catalyst Wireless Mobile Application Dashboard

Here, you can view the following details:

- Summary
- APs
- Clients
- Applications

#### **Summary**

Choose **Dashboard** > **Summary**, to view the count and status of the following elements in your Cisco Embedded Wireless Controller network:

- WLAN
- Access Point
- Wireless Clients
- Wired Clients
- Rogues
- Interferers

#### APs

The top 10 access points in your Cisco Embedded Wireless Controller network are listed under **Dashboard** > **AP**. Here you can also view the following details for each AP:

- MAC address
- AP model
- IP address
- Channels
- Mode
- UP time

### **Client List**

Choose **Dashboard** > **Clients**, to view the **Client List**. This list can display upto a maximum of 2000 clients. Here you can also view the following details for each client:

- Client Identity
- SSID
- Device Type
- Usage

#### **Top Applications**

Choose **Dashboard** > **Applications**, to view a list of the various applications running on a specific WLAN. Choose the desired WLAN from the **WLAN** drop-down list.

Here you can also view the following details for the various applications:

- Application name
- Usage %
- Bytes

### Security

In the **Security** page of the Cisco Catalyst Wireless mobile app, you can view available 802.1x configurations of the primary and secondary RADIUS servers in your Cisco Embedded Wireless Controller network.

Here you can view the following details of the AAA server:

- Name
- IP Address

- Accounting Port
- Authorization Port
- Status

### Administration

Under **Dashboard** > **Administration**, you can find a listing of the various user accounts with associated privilege (admin or user) configured for your Cisco Embedded Wireless Controller network. You can also add new users or delete existing users here.

To add a new user, follow the procedure given below:

**Step 1** Choose Administration, click the + icon to add a new user.

Figure 22: Cisco Catalyst Wireless Mobile ApplicationAdministration Page



- **Step 2** In the **Username** field, enter the username.
- **Step 3** In the **Password** field, enter a password.
- **Step 4** In the **Confirm Passphrase** field, enter the same password entered in the previous step.
- **Step 5** From the **Privilege** drop-down list, select the privilege, as either **User** or **Admin**.

A confirmation message is displayed. Click Okay to dismiss the message.

### License

Under **License**, you can find the following licensing details for your Cisco Embedded Wireless Controller network.

- Under General Information, the following information is displayed:
  - Smart License Status
  - Authorization Status
  - Registration Status
  - Evaluation Period Remaining
  - Unique Device Identifier (UDI)
- Under Used Licenses, the following information is displayed:
  - License
  - Count
  - Status

### Logout

Click **Logout** to end the current controller session and switch to another session by logging in to desired controller.