



Configuring URWB Operation Mode

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Configuring URWB Operation Mode

Catalyst Industrial Wireless access points support multiple wireless technologies, such as Catalyst Wi-Fi (AP), Cisco Ultra-Reliable Wireless Backhaul (URWB), and Workgroup Bridge (WGB). The modes supported vary by specific access point.

The access point OS supports two different software images: Catalyst Wi-Fi (AP) and Unified Industrial Wireless (UIW). Both URWB and WGB are part of the UIW software. The access point mode is determined at boot time based on the mode the access point is configured to operate in.

Determining from CLI

The access point OS supports two different software images: Catalyst Wi-Fi (AP) and UIW. Use the following show command to determine which software is running and look for the indicated platform code:

```
Device# show version
Cisco AP Software, (ap1g6j), C9167, RELEASE SOFTWARE
Technical Support: http://www.cisco.com/techsupport
Copyright (c) 1986-2022 by Cisco Systems, Inc.
Compiled Thu Aug 18 01:01:29 PDT 2022
ROM: Bootstrap program is U-Boot boot loader
BOOTLDR: U-Boot boot loader Version 2022010100
APFC58. 9A16.E464 uptime is 1 days, 3 hours, 58 minutes
Last reload time : Wed Sep 7 11:17:00 UTC 2022
Last reload reason: reload command
```

If the `show version` displays `ap1g6a` or `ap1g6b`, it means that the access point OS is running. If the `show version` displays `ap1g6j` or `ap1g6m`, it means the UIW software is running.

To check if the access point is running in URWB mode, use the following CLI command:

```
Device#show iw-service status
```

If the command exists, then the access point is running in URWB mode, otherwise the access point is running in WGB mode.

Reset Button Settings

The following reset actions are performed in the URWB mode when the LED turns to blinking red (after the boot loader gets the reset signal). Ensure you to press the device's reset button before the device is powering on.

- If you press the reset button for < 20 seconds, it clears the existing configuration.
- If you press the reset button for > 20 seconds and < 60 seconds, it triggers the factory reset.
- If you press the reset button for > 60 seconds, it does not clear the configuration.

Configuring Image Conversion

To convert a Catalyst IW9167E access point either from Wi-Fi mode (CAPWAP AP) to URWB mode or from URWB mode to Wi-Fi mode (CAPWAP AP), follow these steps:

1. To convert from CAPWAP to URWB mode or from WGB/uWGB to URWB mode, use the following CLI command. The access point then reboots and starts up in URWB mode.


```
configure boot mode urwb
```
2. To convert from URWB to CAPWAP mode or from WGB/uWGB to CAPWAP mode, use the following CLI command. The access point then reboots and starts up in CAPWAP mode.


```
configure boot mode capwap
```
3. To convert from CAPWAP to WGB/uWGB mode or from URWB to WGB/uWGB mode, use the following CLI command:

```
configure boot mode wgb
```



Note Image conversion performs a full factory reset which completely erases the configuration and data.

Instructions to Access the GUI

To access the Web UI (Web User Interface), use the following procedure:

1. To access a Web UI, open the web browser and enter the following URL: `https://<IP address of unit>/`
The **IW9167E or IW9165 Configurator** window appears.



Cisco URWB IW9167EH Configurator
5.21.201.112 - MESH END MODE

Login

Username:

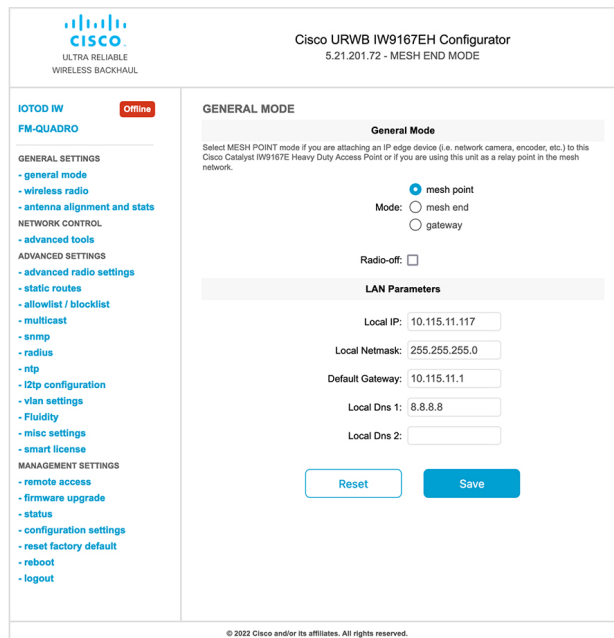
Enable Password:

Show password:

Login

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- To access the configuration page, use the credentials as follows: **Username** and **Enable password**.
- Once you successfully log into the GUI, the URWB configurator displays:



Cisco URWB IW9167EH Configurator
5.21.201.72 - MESH END MODE

GENERAL MODE

General Mode

Select MESH POINT mode if you are attaching an IP edge device (i.e. network camera, encoder, etc.) to this Cisco Catalyst IW9167E Heavy Duty Access Point or if you are using this unit as a relay point in the mesh network.

Mode: mesh point
 mesh end
 gateway

Radio-off:

LAN Parameters

Local IP:

Local Netmask:

Default Gateway:

Local Dns 1:

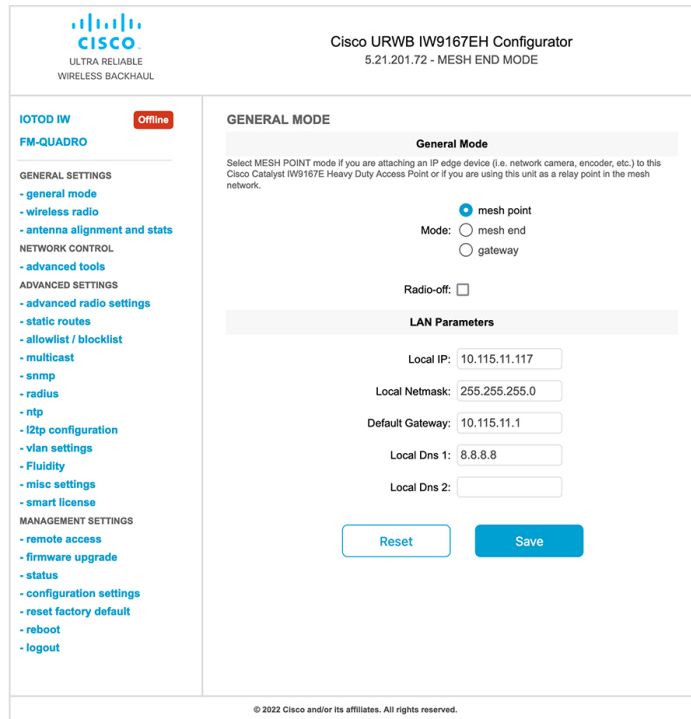
Local Dns 2:

Reset **Save**

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URWB Catalyst IW9167E Configuration from GUI

The following image shows the configuration of the Catalyst IW9167E configurator:



Committing CLI Configuration

To save the current or running configuration settings to local storage or memory, type `write` CLI command. The modified value is in the cache configuration file, once the `write` command is entered, re-boot the device to take effect of the current configuration. To make the configuration effective, use the following CLI commands:

```
Device# write
```

OR

```
Device# wr
```

`write` or `wr`: commit the current configuration settings to memory.

```
Device# reload
```

`reload`: reload the device.

Example:

```
Device# write
```

```
!!! Please reboot to take effect
```

```
Device# reload
```

```
Proceed with reload? [confirm]
```

(enter to confirm)

Configuring IW Service Online and Offline Mode from CLI

IW Service is the cloud management portal, and the device is connected to the online cloud through the network. In offline mode the device is configured in local mode using CLI and GUI, and it is not connected to the cloud.

When the device is configured in offline mode, choose following options:

- Configure the device manually using CLI and GUI.
- Configure the device on IW Service cloud service and select the configuration file exported from IW Service and upload the configuration file using upload configuration button at the end of IW Service management page.

To activate or deactivate IW Service configuration capability, use the following CLI command:

```
Device#configure iw-service {offline | online}
```

Online - To set up IW Service mode to online. The device can be managed from IW Service cloud server (if it is connected to the network).

Offline - To set up IW Service mode to offline. The device is disconnected from IW Service and must be manually configured using the CLI, or offline configurator interface.

Configuring Password (after first login) using CLI

Once the device switches to offline mode (after the initial login), you need to set up new login credential. To configure login credentials using GUI or CLI, the login credentials should follow these criteria:

- The username length must be between 3 to 32 characters long.
- The password length must be between 8 to 32 characters long.
- The password must include the following:
 - At least one uppercase letter
 - At least one lowercase character,
 - At least one digit
 - At least one special character
- The password can contain alphanumeric characters and special characters (ASCII decimal code from 33 to 126), but the following special characters are not allowed:
 - " [double quote]
 - ' [single quote]
 - ? [question mark]
- The password must not contain:
 - Three sequential characters or digits (ABC/ CBA)
 - The same three characters or digits consecutively (AAA) or (666)

- Same as the current or existing password
- Same as or the reverse of the username

Example:

Default credentials:

```
username: Cisco
password: Cisco
enable password: Cisco
```

To reset the credentials, use the following sample credentials:

```
username: demouser
password: DemoP@ssw0rd
enable password: DemoE^aP@ssw0rd
```

Example of configuring password using CLI:

```
Device#configure iw-service {offline}
Switching to IW Service Offline mode...
Will switch from Provisioning Mode to IW Service offline Mode, device need to reboot:Y/N?
Y
User access verification.
[Device rebooting...]

User Access Verification:
Username: Cisco
Password: Cisco
```

After first login, reset the credentials:

```
Current Password:Cisco
Current Enable Password:Cisco
New User Name:demouser
New Password:DemoP@ssw0rd
Confirm New Password:DemoP@ssw0rd
New Enable Password:DemoE^aP@ssw0rd
Confirm New Enable Password:DemoE^aP@ssw0rd
```

Once the credentials are changed, re-login:

```
User access verification
Username: demouser
Password: DemoP@ssw0rd
Device> enable
```

Password: DemoE^aP@ssw0rd

Device#



Note In the above example, all passwords are in plain text. This is for demo purposes (sample credential). In the real scenario, they are hidden behind asterisks (*).

Configure IW Service using GUI

This image shows the configuration of IW Service:

IOTOD IW Management

IOTOD IW Configuration Mode

Provisioning: initial radio configuration phase. The radio **MUST** be configured using the Centralized Web Interface ([IOTOD Industrial Wireless US](#), [IOTOD Industrial Wireless EU](#)) if connection is successful or manually if *Offline* configuration is selected.

Offline Configuration: it supports local parameter changes through the radio Web UI / CLI or upload of a single file downloaded from IOTOD IW section in IOTOD Industrial Wireless ([IOTOD Industrial Wireless US](#), [IOTOD Industrial Wireless EU](#)).

Online Cloud-Managed Configuration: the radio can be configured from the Centralized Web Interface (IOTOD IW section in [IOTOD Industrial Wireless US](#) or [IOTOD Industrial Wireless EU](#)) if it is connected to the Internet and can access IOTOD IW Cloud Server. Radio Web UI and CLI are read-only.

Online Cloud-Managed Offline

UPLOAD IOTOD IW CONFIGURATION FILE

Upload Configuration File

Select configuration file exported from IOTOD Industrial Wireless: Browse No file selected

Last configuration ID 34

Upload Configuration

