

使用IoT OD在IW AP上配置点对多点网络

目录

简介

本文档介绍使用IoT操作控制面板中的模板在工业无线(IW) AP上配置点对多点网络。

访问物联网设备

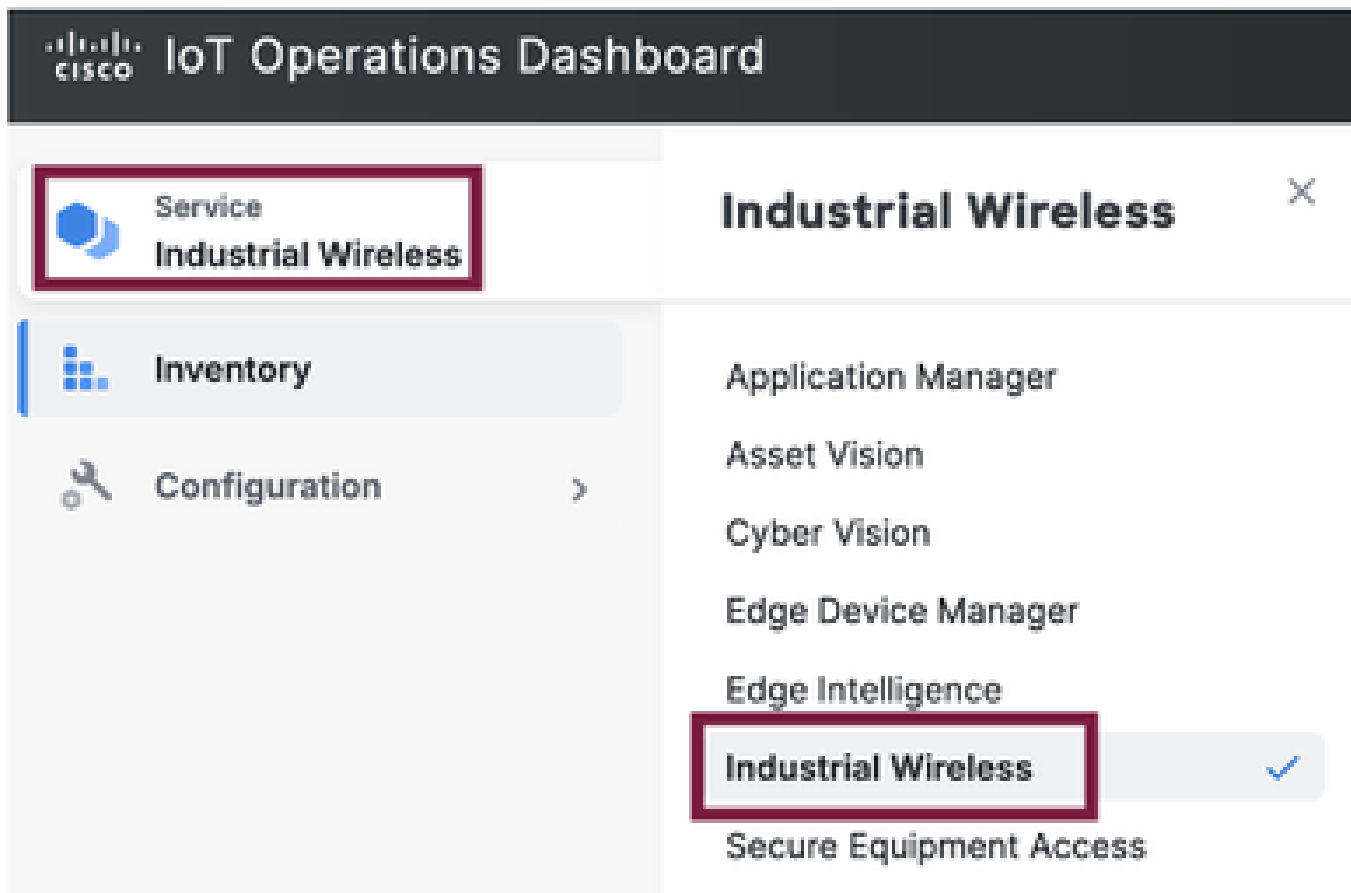
IW接入点(AP) (如IW9165和IW9167) 可以在CAPWAP或URWB模式下配置。

在URWB模式下配置这些接入点时，可以使用IoT操作控制面板进行配置，也可以在离线模式下本地进行配置。IoT操作控制面板可使用这些链接进行访问，具体取决于租户所在的位置。

<https://us.ciscoiot.com>

<https://eu.ciscoiot.com>

登录并选择适当的租户后，在“服务”下选择“工业无线”以访问CURWB无线电的功能集。



手动注册

可以从资产页面将设备手动注册到IoT OD。

选择Add Devices (添加设备)，选择已添加设备的PID。上传一个CSV文件时可以同时显示其上设备的序列号和MAC地址；每行都有一个条目。

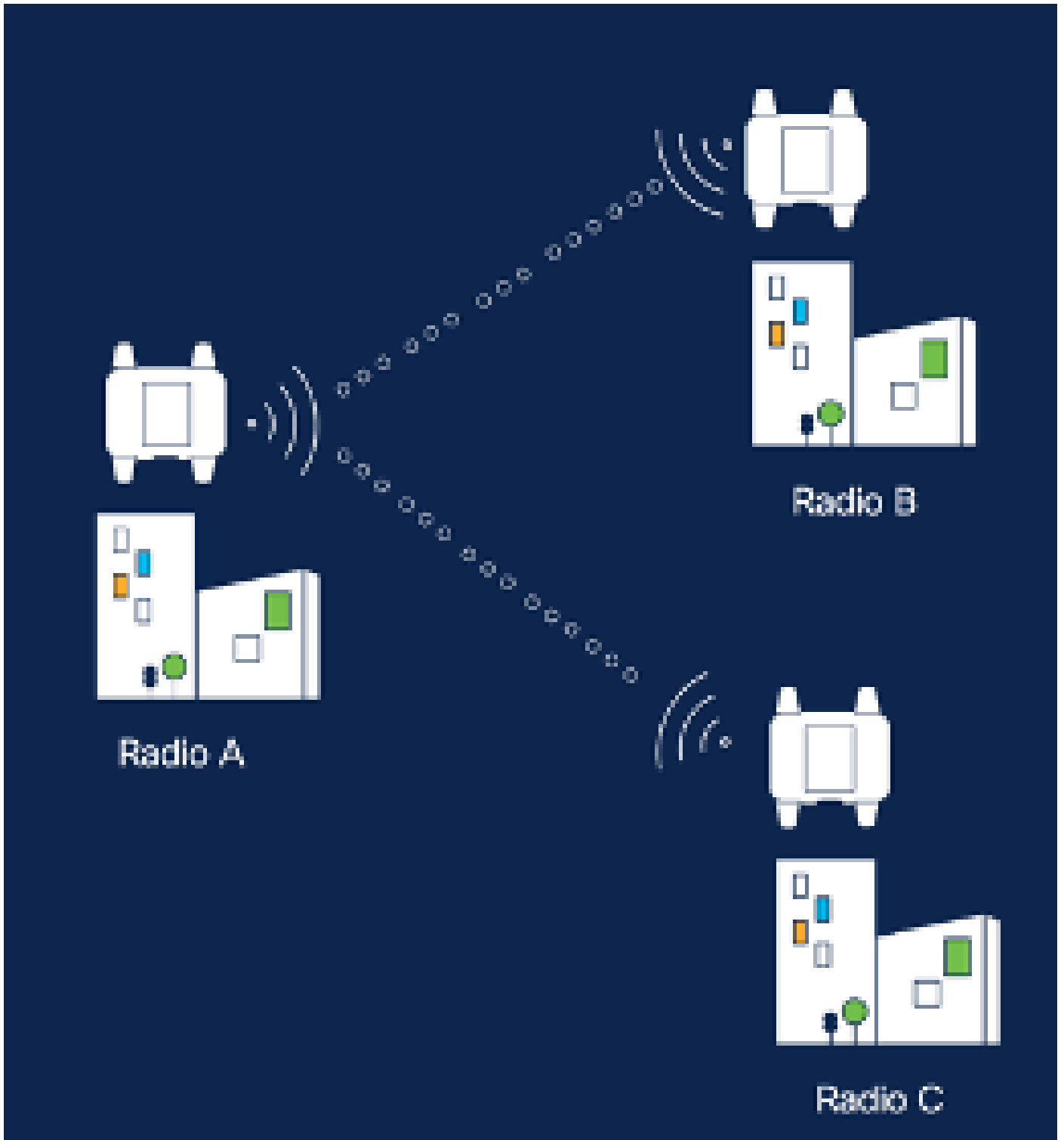
示例：SN001234，00：f1：ca：00:00:01

SN003457，00：f1：ca：00:00:02

上传后，点击底部的Add devices手动将设备导入控制面板。然后，它们会显示在Inventory (资产) 选项卡下。

物联网OD点对多点配置

使用IW916x无线接入点的点对多点设置可以通过物联网设备进行配置，只需几个简单的步骤。考虑三个AP：Radio A作为Mesh End和Radio B和C作为Mesh Points。



1. 设备添加到IoT OD且状态为“联机”后，可以通过选择所需的设备编辑配置。点击设备并导航至“Configuration”（配置）选项卡，选择“Edit”（编辑）按钮更新配置。

Device Configuration [Edit](#) [Push IoT OB Configuration](#)

IoT OB Configuration

ID 0

Saved - 2024-06-24 10:49:38 am

Last heard configuration

ID -

Last heard - 2024-06-26 23:08:22 pm

 Last heard and IoT OB Configuration do not match.

[Review previous configurations](#)

Only show differences

- General
- Wireless Radio
- Advanced Radio Settings
- Key Control
- FastMAN
- Multicast
- SNMP
- Radios
- NTP

General

	IoT OB	Last Heard
Mode	Mesh Point	Mesh End
Radio off	Off	Off
Local IP Address	192.168.0.10	10.122.136.9
Local Netmask	255.255.255.0	255.255.255.192
Default Gateway		10.122.136.1
Local Dns 1		172.18.168.24
Local Dns 2		172.18.168.43

Edit Device Configuration

- General**
- Wireless Radio
- Advanced Radio Settings
- Key Control
- FluidMAX
- Multicast
- SNMP
- Radius
- NTP
- L2TP
- Vlan
- Fluidity
- Fluidity Advanced
- Fluidity Pole Proximity

General

Mode
•

Mesh Point

Radio off

Radio off mode
Select Value

Local IP Address
•
192.168.0.10

Local Netmask
•
255.255.255.0

2. 对于PTMP配置，在“通用模式”部分中，直接连接到物理网络（无线电A）的AP被配置为网状终端，而连接到终端设备（无线电B和无线电C）的两个AP被配置为网状点。

Edit Device Configuration

Search

- General
- Wireless Radio
- Advanced Radio Settings
- Key Control
- FluidMAX
- Multicast
- SNMP
- Radius
- NTP
- L2TP
- Vlan
- Fluidity
- Fluidity Advanced
- Fluidity Pole Proximity

General

Mode
Mesh End

Radio off

Radio off mode
Fixed

Local IP Address
10.122.136.9

Local Netmask
255.255.255.0

无线电A配置

Edit Device Configuration

🔍 Search

- General
- Wireless Radio
- Advanced Radio Settings
- Key Control
- FluidMAX
- Multicast
- SNMP
- Radius
- NTP
- L2TP
- Vlan
- Fluidity
- Fluidity Advanced
- Fluidity Pole Proximity

General

Mode

Mesh Point



Radio off



Radio off mode

Fixed



Local IP Address

10.122.136.10



Local Netmask

255.255.255.0

无线电B配置

Edit Device Configuration

- General**
- Wireless Radio
- Advanced Radio Settings
- Key Control
- FluidMAX
- Multicast
- SNMP
- Radius
- NTP
- L2TP
- Vlan
- Fluidity
- Fluidity Advanced
- Fluidity Pole Proximity

General

Mode

Mesh Point

Radio off

Radio off mode

Select Value

Local IP Address

192.168.0.11

Local Netmask

255.255.255.0

Radio C配置

- 在“Wireless Radio”（无线电）部分下，所有三个无线电必须配置相同的口令。对于此设置，我们仅对每个IW设备启用一个无线电。启用您选择的无线电（无线电1或无线电2），并确保所有无线电的频率和信道宽度相同。连接天线时，必须使用基于所选无线电的正确外部端口。

Edit Device Configuration

Search

- General
- Wireless Radio**
- Advanced Radio Settings
- Key Control
- Fluidmax
- Multicast
- SNMP
- RADIUS
- NTP
- L2TP
- VLAN
- Fluidity
- Fluidity Advanced
- Fluidity Pole Proximity

Wireless Radio

Passphrase
CiscoFWB123

Radio 1 enabled <input checked="" type="checkbox"/>	Radio 2 enabled <input type="checkbox"/>
Radio 1 role Fluid	Radio 2 role Select Value
Radio 1 Frequency (MHz) 5180 MHz	Radio 2 Frequency (MHz) Select Value
Radio 1 Channel width 80	Radio 3 Channel width Select Value

在PTMP设置的“无线电”部分中，网状终端无线电A的无线电角色配置为Fluidmax Primary，网状点无线电B和C配置为Fluidmax Secondary。

Edit Device Configuration

Search

- General
- Wireless Radio**
- Advanced Radio Settings
- Key Control
- FluidMAX
- Multicast
- SNMP
- Radius
- NTP
- L2TP
- Vlan
- Fluidity
- Fluidity Advanced
- Fluidity Role Proximity

Wireless Radio

Passphrase

CiscoFW0

Radio 1 enabled



Radio 2 enabled



Radio 1 role

Fluidmax primary



Radio 2 role

Select Value



Radio 1 Frequency (MHz)

5180 MHz



Radio 2 Frequency (MHz)

Select Value



Radio 1 Channel width

80



Radio 2 Channel width

Select Value



无线电A配置

Edit Device Configuration

The screenshot shows the 'Edit Device Configuration' interface for a device's 'Wireless Radio' settings. On the left is a navigation menu with options: General, Wireless Radio (selected), Advanced Radio Settings, Key Control, FluidMAX, Multicast, SNMP, Radius, NTP, L2TP, Vlan, Fluidfy, Fluidfy Advanced, and Fluidfy Pole Proximity. The main content area is titled 'Wireless Radio' and contains the following settings:

- Passphrase:** CiscoURWB
- Radio 1 enabled:**
- Radio 2 enabled:**
- Radio 1 role:** Fluidmax secondary
- Radio 2 role:** Select Value
- Radio 1 Frequency (MHz):** Select Value
- Radio 2 Frequency (MHz):** Select Value
- Radio 1 Channel width:** Select Value
- Radio 2 Channel width:** Select Value

无线电B和C配置

- 当级联拓扑中有多个PTMP部分时，可使用Fluidmax Primary/Secondary模式识别各个集群。Fluidmax primary及其相应的Fluidmax secondary radios的每个集群都分配有一个集群ID。此参数在“Fluidmax”部分配置。在此设置中，集群ID在所有三个无线电上都设置为默认“CiscoURWB”。

Edit Device Configuration

The screenshot shows the 'Edit Device Configuration' page for FluidMAX. The left sidebar contains a search bar and a list of configuration categories: General, Wireless Radio, Advanced Radio Settings, Key Control, FluidMAX (selected), Multicast, SNMP, Radius, NTP, L2TP, Vlan, Fluidity, Fluidity Advanced, and Fluidity Pole Proximity. The main content area is titled 'FluidMAX' and is divided into two columns for Radio 1 and Radio 2. The settings are as follows:

Radio 1	Radio 2
Radio 1 FluidMAX™ mode Primary	Radio 2 FluidMAX™ mode Select Value
Radio 1 FluidMAX™ Autoscan <input checked="" type="checkbox"/>	Radio 2 FluidMAX™ Autoscan <input checked="" type="checkbox"/>
Radio 1 FluidMAX Cluster ID CiscoURWB	Radio 2 FluidMAX Cluster ID CiscoURWB
Radio 1 Enable FluidMAX Tower ID <input type="checkbox"/>	Radio 2 Enable FluidMAX Tower ID <input type="checkbox"/>
Radio 1 FluidMAX Tower ID CiscoURWB	Radio 2 FluidMAX Tower ID CiscoURWB
Radio 1 Critical RSSI threshold	Radio 2 Critical RSSI threshold

编辑配置后，点击底部的“保存”。

5. 现在，可使用“Push IoT OD Configuration”（推送物联网OD配置）按钮，将更新的配置从IoT-OD直接推送到无线电。出现提示后，点击Confirm。设备将重新启动，并可从推送的配置通过IP进行访问。

The screenshot shows the bottom of the configuration page. It includes a breadcrumb trail: 'Inventory' > 'Cisco Configuration'. Below this, there are tabs for 'Summary' and 'Configuration'. At the bottom, there are two buttons: 'Device Configuration' and 'Push IoT OD Configuration'.



Push Configuration

You're about to push the latest IoT CG device configuration (Conf. ID: 2) to the device Cisco (Serial Number EWC2702000K). This operation will take up to 5 minutes. Your device will reboot automatically.

[Cancel](#)

[Confirm](#)



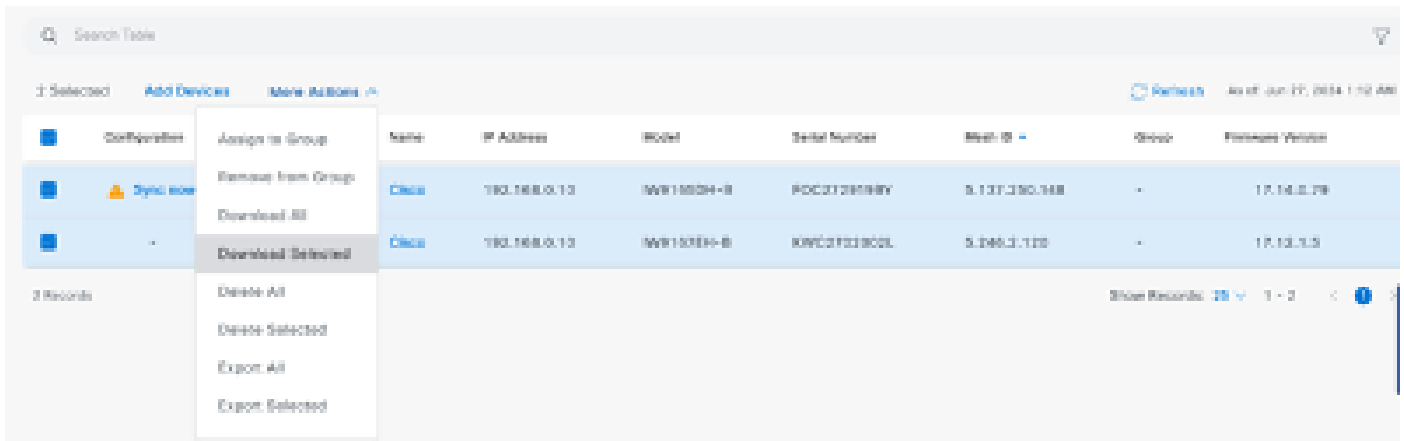
Push Configuration

You're about to push the latest IoT CG device configuration (Conf. ID: 2) to the device Cisco (Serial Number EWC2702000K). This operation will take up to 5 minutes. Your device will reboot automatically.

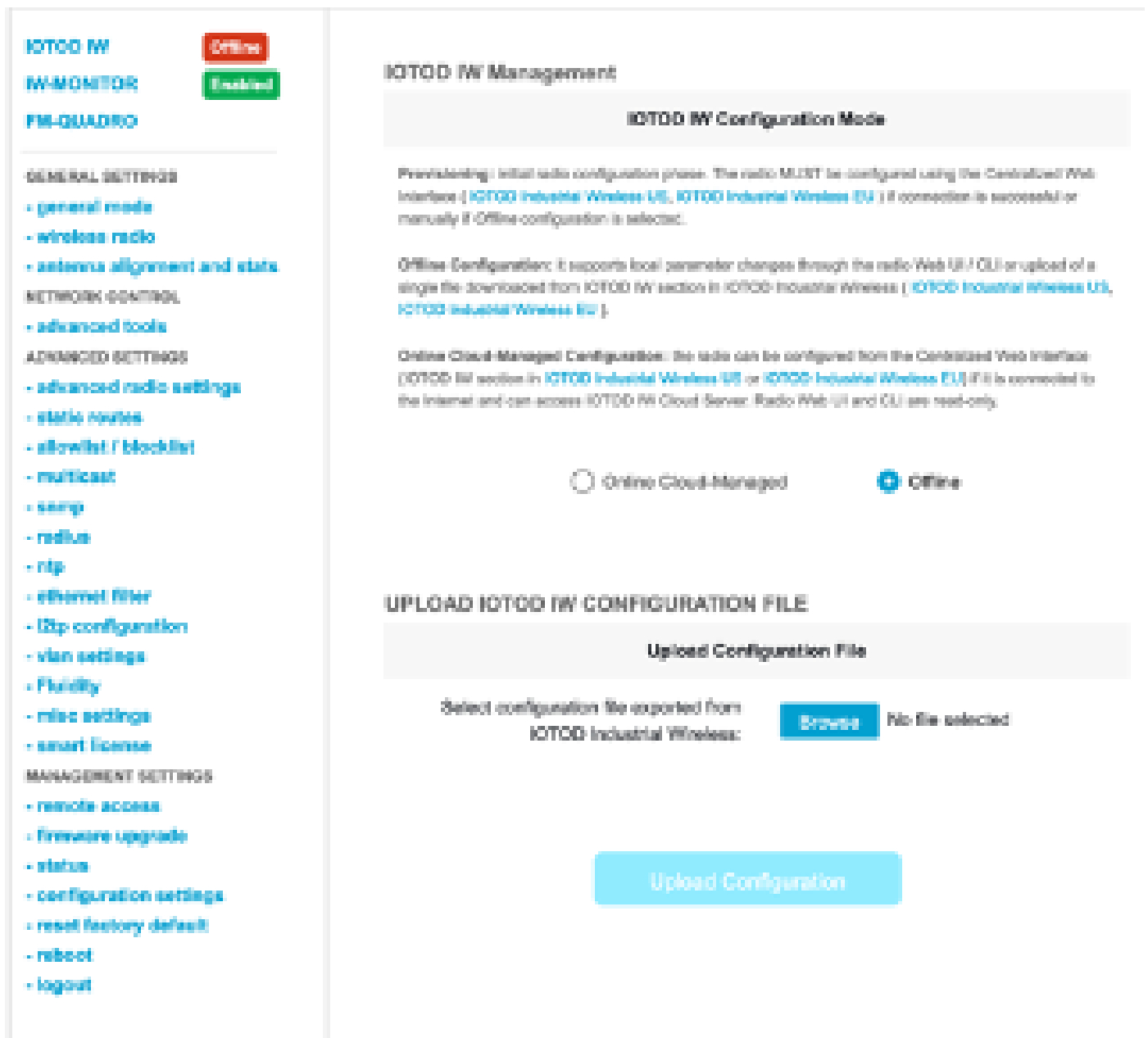
[Cancel](#)

[Confirm](#)

- 如果无线电处于“脱机”状态，另一个推送配置的选项是下载配置文件。从Inventory (资产) 选项卡中选择一个或多个设备，然后从More Actions (更多操作) 下拉菜单中选择Download Selected (下载选定内容) 按钮。



下载扩展名为 .iwconf 的文件。相同的文件可以从 IoT-OD 选项卡上传到设备的 GUI。



可以在Status页面上检查配置。

The screenshot displays the Cisco URWB IW9167EH Configurator interface. The top left features the Cisco logo with the tagline 'ULTRA RELIABLE WIRELESS BACKHAUL'. The top right identifies the device as 'Cisco URWB IW9167EH Configurator' with IP '5.246.226.200 - MESH END MODE'. The left sidebar contains navigation menus for 'IOTOD IW' (Offline), 'IW-MONITOR' (Disabled), and 'FM-QUADRO'. Below these are sections for 'GENERAL SETTINGS', 'NETWORK CONTROL', 'ADVANCED SETTINGS', and 'MANAGEMENT SETTINGS', each with a list of sub-options. The main content area is titled 'STATUS' and provides detailed information about the device, including its name, ID, serial number, operating mode, uptime, and firmware version. It also lists 'DEVICE SETTINGS' such as IP, netmask, MAC address, and MTU. Under 'WIRED0' and 'WIRED1', it shows the status (up/down), speed, duplex, and MTU. The 'WIRELESS SETTINGS' section includes the operating region and details for 'Radio 1' and 'Radio 2', such as interface status, mode, frequency, channel, channel width, and current transmit power.

CISCO
ULTRA RELIABLE
WIRELESS BACKHAUL

Cisco URWB IW9167EH Configurator
5.246.226.200 - MESH END MODE

IOTOD IW Offline
IW-MONITOR Disabled
FM-QUADRO

GENERAL SETTINGS
- general mode
- wireless radio
- antenna alignment and stats

NETWORK CONTROL
- advanced tools

ADVANCED SETTINGS
- advanced radio settings
- static routes
- allowlist / blocklist
- multicast
- snmp
- radius
- ntp
- ethernet filter
- l2tp configuration
- vlan settings
- Fluidity
- misc settings
- smart license

MANAGEMENT SETTINGS
- remote access
- firmware upgrade
- status
- configuration settings
- reset factory default
- reboot
- logout

STATUS

Device: Cisco Catalyst IW9167E Heavy Duty Access Point
Name: ME_Primary
ID: 5.246.226.200
Serial: KXKC280208AS
Operating Mode: Mesh End
Uptime: 3 min
Firmware version: 17.14.0.79

DEVICE SETTINGS
IP: 10.122.136.50
Netmask: 255.255.255.192
MAC address: 40:36:5a:76:e2:c8
Configured MTU: 1530

WIRED0
Status: up
Speed: 5000 Mb/s
Duplex: full
MTU: 1530

WIRED1
Status: down

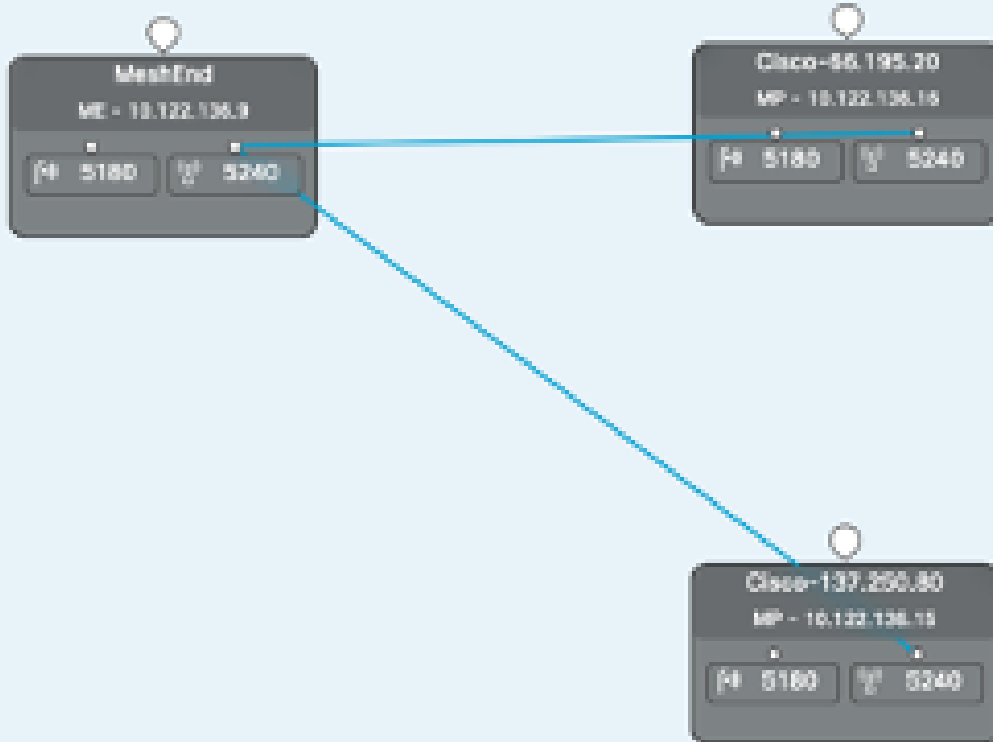
WIRELESS SETTINGS
Operating region: B

Radio 1
Interface: enabled
Mode: fluidmax primary
Frequency: 5180 MHz
Channel: 36
Channel Width: 80 MHz
Current tx power: 22 dBm
Current tx power level: 1
Antenna gain: not selected
Antenna number: 2
Radio Mode: primary
Maximum link length: 3 km

Radio 2
Interface: disabled
Mode: fixed infrastructure
Frequency: 5180 MHz
Channel: 36
Channel Width: 80 MHz
Current tx power: 19 dBm

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7. 可以访问Mesh End无线电上的FM-Quadro页面来检查PTP设置的布局。



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