

# Managed Wi-Fi Access Points

### Service Description

Conterra will deploy a trusted network, and a guest network (2 SSID's).

Conterra will not perform Wi-Fi availability monitoring and cannot assist with individual wireless client connectivity issues. Monitoring of Wi-Fi Clients and AP's can be performed by customer by accessing the Managed Services Portal.

Customer can change Wi-Fi Policies via the Managed Services Portal. The following defines what is considered to be a Wi-Fi policy change:

- Modification of an SSID
- Modification of a pre-shared key
- Rogue AP suppression
- Broadcast channel modification

Any change request that varies from the default configuration or Wi-Fi change policy listed above may be completed by Conterra on a time and materials basis. Conterra reserves the right to determine, within its reasonable discretion, whether a change falls within the scope of the Customer's service.

### Managed Services Portal User Guide

view available sites and select the applicable one.

Customer-assigned Administrators can make changes to their Managed Wi-Fi environment to support the change definitions identified in the Service Description.

#### Modification of an SSID

Navigate to Managed Wi-Fi Configuration in your Managed Services Portal account.



Use the carrot button to view the available access points and select the applicable one.



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Select the applicable SSID and then select **Edit** on the Edit SSIDs Interface screen.

| SSIDs AP Profiles                                  |                    |
|--|--------------------|
| Site SEDEMOCLTOO   Access Point   FP231GTF23094006 | •                  |
| + Create 🖌 Edit 🍵 Delete                           |                    |
| □ Name <del>**</del>                               | SSID 🖛             |
| Testing  | Rinning/Insing     |
| 🗌 ssid1  | Windows/Phot/(odd) |
| Ssid2  | Windows/Mertipell) |
| ✓ ssid3  | Whether ball?      |
| 20 🖨 entries                                       |                    |

| Edit SSIDs Interface |                           |
|----------------------|---------------------------|
| Name                 | 🗢 terteel justi           |
| Alias                |                           |
| Туре                 | হু WiFi SSID              |
| Traffic Mode         | 🕫 Tunnel                  |
| Address              |                           |
| IP/Netmask*          | 8#2.5#8.55.5/255.255.2554 |

Scroll to the bottom section to view:

- SSID name can be changed here by overriding the existing SSID.
- Select **Save** at the bottom of the screen.



| WiFi Settings          |               |       |               |
|------------------------|---------------|-------|---------------|
| SSID*                  | Rentiment     |       |               |
| Client Limit           |               |       |               |
| Broadcast SSID         |               |       |               |
| Beacon Advertising     | Name          | Model | Serial Number |
| Security Mode Settings |               |       |               |
| Security Mode          | WPA2 Personal |       | ~             |
| Pre-shared Key         |               |       |               |
| Mode                   | Single        |       |               |
| Passphrase*            | ••••          |       |               |

at the top right of the screen. Failure to

**IMPORTANT** – To Implement the SSID Name changes you must select the implement will result in the changes not being implemented.

#### Modification of a pre-shared key

Navigate to Managed Wi-Fi Configuration in your Managed Services Portal account.

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Select **SSIDs** to view all available SSID's for the selected site.



Select the applicable SSID and then select **Edit** on the Edit SSIDs Interface screen.

| SSIDs AP Profiles               |                  |                  |
|---------------------------------|------------------|------------------|
| Site SEDEMOCLT00 V Access Point | FP231GTF23094006 | •                |
| + Create 🖌 Edit 📋 Delete        |                  |                  |
|                                 |                  |                  |
| Testing                         |                  | Riveling/Insting |
| ssid1                           |                  |                  |
| ssid2                           |                  |                  |
| 🕑 ssid3                         |                  | whether half     |
| 20 🖨 entries                    |                  |                  |

Scroll to the bottom section to view:

• Pre-shared key pass phrase can be

|                                |                      | Edit SSIDs Interface   |                |              |               |            |
|--------------------------------|----------------------|------------------------|----------------|--------------|---------------|------------|
| IOCLT00 V Access Point FP231GT | IF23094006 ♥         | Name                   | \$             |              |               |            |
| Edit 📋 Delete                  |                      | Alias                  |                |              |               |            |
|                                |                      | Туре                   | 🕏 WiFi SSID    |              |               |            |
|                                | ResingToring         | Traffic Mode           | 🕪 Tunnel       |              |               |            |
|                                |                      |                        |                |              |               |            |
|                                |                      | Address                |                |              |               |            |
|                                | #1454EB              | IP/Netmask*            | 192.546.33.5/2 | 55.255.255-0 |               |            |
| ntries                         |                      |                        |                |              |               |            |
| Pre-shared key pas             | s phrase can be      | SSID*<br>Client Limit  |                |              |               |            |
|                                | remaing the existing | Broadcast SSID         |                |              |               |            |
| passpnrase                     |                      | Beacon Advertising     | Name           | Model        | Serial Number |            |
| Salaat <b>Sava</b> at the k    | pottom of the coroon | Security Mode Settings |                |              |               |            |
| Select <b>Save</b> at the t    |                      | Security Mode          | WPA2 Personal  |              |               | <b>~</b> ] |
|                                |                      | Pre-shared Key         |                |              |               |            |
| Cancel                         | Save                 | Mode                   | Single         |              |               |            |
|                                |                      | Passphrase*            | ••••           |              |               |            |

**IMPORTANT** – To implement the SSID name change you must select the **Install** at the top right of the screen. Failure to implement will result in the changes not being implemented.

#### **Client Suppression**

Navigate to Managed Wi-Fi Monitoring in your Managed Services Portal account.

Select Clients to view all access points at selected location.





Select the Client you are interested in.

In the window, select **Disassociate** 

RG-LT2 192 5480 544 90 c2 mB die 9e H Windows FP23JFTF23021002 R1 4a:d1:9f:61:a1:61 192.548.0.83 444197414141 ios FP23JFTF23021002 R1 d2:25:2c:dd:de:f9 192 5660 156 42:25 3cdd de # iOS FP23JFTF23021002 R1 f2:b4:bf:ed:ae:7d 192 546.0 190 FP23JFTF23027304 R1 (2) M M ref at 74 ios Hunters-iPad FP23JFTF23021002 R1 1912 548-0 130 earth (2 dd) (4 de iOS cc:6a:10:2f:d8:50 992 5480 25 crisia 1930 (2014) (94) FP23JFTF23027304 R1 RoseGraPodtouch 192 5650 19 00111-01154-03340 ios FP23JFTF23021002 R1 10 🖨 RG-IT1 192 5460 111 Sile Daile Ball #3 FP23JFTF23021002 R1 Windows

This action will temporarily disconnect the device from the AP (Access Point), disassociating it from the network. However, this disassociation is not permanent — the user can reconnect by providing the correct credentials for your SSID, at which point the device will be accepted.

#### **Rogue AP Suppression**

Navigate to **Managed Wi-Fi Monitoring** in your Managed Services Portal account. Select **Access Points** to view all access points at the selected location.



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Select the Access Point in question in Monitor Mode.

| Access Point 🖛         | Connect Via   | SSIDs                                      | Band 🖛  | Туре            | Mode    |
|------------------------|---------------|--|---------|-----------------|---------|
| FP23JFTF23021002 R1    | 192.168.38.28 | noografiangeliaite,<br>noografiangegittik: | 2.4 GHz | 802.11ax/n/g    | АР      |
| ● FP23JFTF23027304 R1  | 192.168.38.27 | noograhangeloate,<br>noograhangegiblic     | 2.4 GHz | 802.11ax/n/g    | АР      |
| ● FP23JFTF23021153 R1  | 192.168.38.29 | noograhangnicale,<br>noograhangugililic    | 2.4 GHz | 802.11ax/n/g    | АР      |
| • FP23JFTF23021002 R2  | 192.168.38.28 | All Turnel Mode SSICs                      | 5 GHz   | 802.11ax/ac/n/a | AP      |
| () FP23JFTF23021002 R3 | 192.168.38.28 |  |         |                 | Monitor |
| () FP23JFTF23021153 R2 | 192.168.38.29 | All Tunnel Mode SSIDs                      | 5 GHz   | 802.11ax/ac/n/a | AP      |
| () FP23JFTF23021153 R3 | 192.168.38.29 |  |         |                 | Monitor |
| TP23JFTF23027304 R2    | 192.168.38.27 | All Tunnel Mode SSICs                      | 5 GHz   | 802.11ax/ac/n/a | AP      |
| FP23JFTF23027304 R3    | 192.168.38.27 |  |         |                 | Monitor |

A list of all interfering AP's will be displayed.

• Identify the channel on which the interfering APs are broadcasting.

To remedy, modify your broadcast channels to channels not being used by rogue interfering APs.

In the example to the right, SSID **SpectrumSetup-1D** is broadcasting on Channel 1. If this SSID is interfering with your SSID, change your channel configuration to exclude channel 1 (see Broadcast Modification).

| Access Point - FP23JFTF23021 | 002                        |           |   | ×                    |
|------------------------------|----------------------------|-----------|---|----------------------|
| Base MAC Address             | 38x0+x4376:58              |           |   |                      |
| Status                       | Connected                  |           |   |                      |
| Country                      | N/A                        |           |   |                      |
| IPv4 Addres                  | 192.568.38.28              |           |   |                      |
| Uptime                       | 1 m 23 d 22 hr 19 min 59 s | ec        |   |                      |
| Version                      | FP23JF-v7.0-build0034      |           |   |                      |
| Radio 3 -                    | 12 Interfering SSIDs       | 0 Clients |   | Ochannel Utilization |
| Interfering SSIDs            |                            |           |   |                      |
|                              |                            |           |   |                      |
| roorgrahungugblic            | 38:c0:ea:67:0e:e1          |           |   | -62 dBm              |
| roografiangrivate            | 38:c0:ea:67:0e:e0          |           |   | -61 dBm              |
| roografiumpupblic            | 38:c0:ea:64:0e:01          |           |   | -81 dBm              |
| roografiangrivate            | 38:c0:ea:64:0e:00          |           | 1 | -80 dBm              |
| SpectrumSetup-SD             | 74:37:5f:c9:89:1f          |           |   | -83 dBm              |
|                              | 76:fe:ce:27:2b:37          |           |   | -87 dBm              |
|                              | e6:37:5f:c9:89:1f          |           |   | -81 dBm              |
|                              | 22:ef:bd:74:68:52          |           |   | -80 dBm              |
|                              | da:31:34:88:2c:42          |           |   | -73 dBm              |
| WD down                      | 74:fe:ce:37:2b:37          |           |   | -90 dBm              |
| 10 🖨 entries                 |                            |           |   |                      |
|                              | Clos                       | æ         |   |                      |



#### **Broadcast Channel Modification**

Navigate to Managed Wi-Fi Configuration in your Managed Services Portal account.

Select AP Profiles to view all available profiles for the selected site.



Select the applicable SSID and then select Edit

| SSIDs AP Profiles                     |                    |
|---------------------------------------|--------------------|
| Site SEDEMOCLT00                      | FP231GTF23094006 V |
| 🕂 Create 🌈 Edit 🧻 Delete 🅐 Assign Pro | file               |
| ☑ Name <del>▼^</del>                  | Platform 🗢         |
| ✓ FAP231G-default                     | FAP231G            |



Most APs have dual-band radios. Radio 1 will default to 2.4GHz and Radio 2 will default to 5GHz.

To change channels on 2.4GHz go to Radio 1 and select the channels you wish to broadcast on.

Important: Channel plan must remain as Custom

• Select Save at the bottom of the screen



#### **Channel plan definitions:**

- Three Channels: Automatically selects channels 1, 6, and 11.
- Four Channels: Automatically selects channels 1, 4, 8, and 11.
- Custom: Select custom channels.

To change channels on 5GHz go to Radio 2 and select the channels you wish to broadcast on.

- **Important:** Channel plan must remain as 20MHz. Any request to change this requires approval
- Select **Save** at the bottom of the screen.



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**IMPORTANT** – To implement the SSID name change you must select the *linstall ()* at the top right of the screen. Failure to implement will result in the changes not being implemented.

| lame                        | FAP231G-default  |
|-----------------------------|--|
| omments                     |  |
| latform                     | FAP231G  |
| dministrative access        | HTTPS SNMP SSH   |
| lient load balancing        | Frequency Handoff AP Handoff                                     |
| adio 1                      |  |
| Mode                        | Disabled Access Point Dedicated Monitor                          |
| Radio resource provision    |  |
| Band                        | 2.4 GHz 802.11ax/n/g 🗸   |
| Channel width               | 20MHz  |
| Channel plan                | Three Channels Four Channels Custom                              |
| Channels                    | 1 2 3 4 5 6 7 8 9 10 11  |
| Short guard interval        | 0  |
| Transmit power mode         | Percent  |
|                             | Transmit power is determined by multiplying set percentage with  |
|                             | maximum available power determined by region and WiFi device.    |
|                             | Power is setting using a dBm value                               |
|                             | Auto   |
|                             | Set a range of dBm values and the power is set automatically.    |
| Transmit power              | 100 %  |
| SSIDs                       | Tunnel Bridge Manual   |
|                             | <pre>\$ testing (Testing) X \$ SeDemoOffice2 (ssid1) X X V</pre> |
| Monitor channel utilization |  |

| adio 2                   |  |                       |                                |               |
|--------------------------|--|-----------------------|--------------------------------|---------------|
| Mode                     | Disabled   | Access Point          | Dedicated Monitor              |               |
| Radio resource provision | •  |                       |                                |               |
| Band                     | 5 GHz 802.1  | 1ax/ac/n/a 🗸          |                                |               |
| Channel width            | 20MHz  | 40MHz 80              | MHz                            |               |
|                          | 36 40  | 44 48 52              | 56 60 64 :                     | 100 🗌 104     |
| Channels                 | 108 112  | 116 120               | 124 128 132                    | 136           |
|                          | 140 144  | 149 153               | 157 161 165                    |               |
| Short guard interval     |  |                       |                                |               |
| Transmit power mode      | Percent  |                       |                                |               |
|                          | Transmit power is determined by multiplying set percentage with<br>maximum available power determined by region and WiFi device. |                       |                                |               |
|                          | dBm  |                       |                                |               |
|                          | Power is s   | etting using a dBm va | lue.                           |               |
|                          | Auto   |                       |                                |               |
|                          | Set a range  | e of dBm values and t | he power is set automatically. |               |
| Transmit power           |  |                       |                                | <b></b> 100 % |
| SSIDs                    | Tunnel   | Bridge Man            | ual                            |               |
|                          | SeDemoOffice   | ce5 (ssid2) 🗙         |                                | × ~           |
|                          | _  |                       |                                |               |