

Point-to-Point Relay Topology

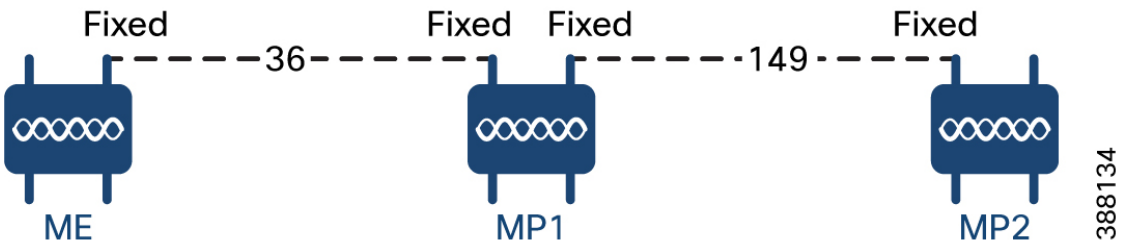
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Configure and validate point-to-point relay topology

This task enables you to implement a point-to-point relay topology using two radio interfaces on a single device to establish effective mesh connectivity between mesh points.

A point-to-point relay topology uses two radio interfaces on a single device (MP1) to establish connectivity. This configuration involves mesh endpoints and mesh points operating on different channels to create the relay connection.

Figure 1: Point to point relay topology



Procedure

Step 1 Configure Mesh End (ME), MP1 on channel 36 and MP2 on the default channel 149.

Step 2 Enable the second slot interface on Mesh Point (MP2) again and wait 30 seconds to implement the point-to-point relay topology for two radio interfaces on a single device.

Configure point-to-point relay topology from CLI

This task configures a point-to-point relay topology for wireless devices to establish communication links between mesh endpoints and mesh points using CLI commands.

Point-to-point relay topology configuration involves setting up wireless interfaces with specific radio configurations, operating modes, and channel assignments for mesh networks.

Procedure

Step 1 Use the **configure dot11Radio** *interface* command to configure the wireless device with radio interface number.

Example:

```
Device# configure dot11Radio 1
```

Step 2 Use the **configure dot11Radio** *interface* {**enable** | **disable**} command to set wireless interface admin state to enable or disable mode.

Example:

```
Device# configure dot11Radio 1 enable
```

Step 3 Use the **configure dot11Radio** *interface* {**enable** | **disable**}**mode** {**fluidity** | **fixed**| **fluidmax**} command to configure an operating mode for the specified interface (fixed or Fluidity or Fluidmax).

Example:

```
Device# configure dot11Radio 1 enable mode fluidity
```

Step 4 Use the **configure dot11Radio** *interface* {**enable** | **disable**}**mode** {**fluidity** | **fixed**| **fluidmax**}**channel** *channel id*Set the operating channel for the specified interface and the operating channel id valid range is between 1 to 256.

Example:

```
Device# configure dot11Radio 1 enable mode fluidity channel 10
```

Step 5 End the configuration.

Example:

```
Device# end
```

Configuration examples

Basic configuration example:

```
Device#configure dot11Radio <2> {enable | disable} mode {fluidity} channel <36>
```

Mesh End (ME) Configuration

```
Device#configure dot11Radio 2 enable
Device#configure dot11Radio 2 mode fixed
Device#configure dot11Radio 2 channel 36
```

Mesh Point (MP1) Configuration

```
Device#configure fluidity id infrastructure
Device#configure dot11Radio 1 enable
Device#configure dot11Radio 1 mode fixed
Device#configure dot11Radio 1 channel 36
Device#configure dot11Radio 2 enable
Device#configure dot11Radio 2 mode fixed
Device#configure dot11Radio 2 channel 149
```

MP2 Configuration

```
Device#configure fluidity id infrastructure
Device#configure dot11Radio 1 enable
Device#configure dot11Radio 1 mode fixed
Device#configure dot11Radio 1 channel 149
```

Validate point to point relay topology from CLI

To validate point-to-point relay topology configuration, use show commands to verify interface settings and wireless parameters across mesh devices.

Use the **show dot11Radio** *interface* **config** command to validate the configuration:

Mesh End (ME) Statistics

```
Device# show dot11Radio 2 config
Interface : enabled
Mode : fixed infrastructure
Frequency : 5180 MHz
Channel : 36
……
Passphrase : Cisco
AES encryption : enabled
AES key-control : enabled
```

Mesh Point (MP1) Statistics

```
Device# show dot11Radio 1 config
Interface : enabled
Mode : fixed infrastructure
Frequency : 5180 MHz
Channel : 36
……
Passphrase : Cisco
AES encryption : enabled
AES key-control : enabled
Device# show dot11Radio 2 config
Interface : enabled
Mode : fixed infrastructure
Frequency : 5745 MHz
Channel : 149
……
Passphrase : Cisco
AES encryption : enabled
AES key-control : enabled
```

MP2 Statistics

```
Device# show dot11Radio 1 config
Interface : enabled
Mode : fixed infrastructure
Frequency : 5745 MHz
Channel : 149
……
```

```
Passphrase : Cisco
AES encryption : enabled
```