

### **IPv6 Support**

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#### **Overview**

From UIW Release 17.15.1, APs support IPv6 addresses. By default, the IPv6 service is disabled on the AP. You can enable and configure the IPv6 address on the AP using either the CLI or GUI.

#### **IPv6 Address Types**

You can configure the AP with the following IPv6 address types:

- Link-Local
- Unique-Local
- · Global Unicast

#### Link-Local

Link-local addresses are used within the scope of a single link and cannot be routed. These addresses refer specifically, to a particular physical link and are used for addresses on a single link for purposes such as automatic address configuration and the neighbor discovery protocol. Link-local addresses can be used to reach the neighboring nodes attached to the same link.

#### **Unique-Local**

Unique local addresses can be routed within a private organization, but not through the public internet. It is not expected to be routable on the global Internet. However, it is routable inside a limited area, such as a site, and it may route between a limited set of sites.

#### **Global Unicast**

A global unicast address is a routable address in the IPv6 Internet, similar to the public IPv4 address space.

### **IPv6 Limitations on the AP**

- The IPv6 support is limited only to host functionality.
- The Fluidity Layer 3 network does not support IPv6.

#### **Enable or Disable IPv6 using CLI**

By default, IPv6 support is disabled on the AP. When IPv6 is enabled, a link-local address is automatically assigned to the AP.

Use this command to enable or disable the IPv6 address on the AP.

```
Device#configure ipv6 {enable | disable}
```

#### Enable or Disable IPv6 RA Autoconfig using CLI

Use this command to enable or disable the IPv6 RA Autoconfig on the AP.

Device#configure ipv6 enable autoconfig-ra {enable | disable}

• Enable: Enables the autoconfiguration from router advertisement.

• Disable: Disables the autoconfiguration from router advertisement.

# Configure Static IPv6 Address with eui-64, Gateway, and DNS Server Address

Use this command to configure the static IPv6 address with eui-64, gateway, and DNS server address on the AP.

Device#configure ap address ipv6 static fc00::4236:5aff:xxxx:168/64 eui-64 fc00::1
2001:4860:4860::xxxx 2001:4860:4860::xxxx

### Verify Static IPv6 Address with eui-64, Gateway, and DNS Server Address

To verify the static IPv6 address with eui-64, gateway, and DNS server address on the AP, use the following **show** command:

```
Device#show ipv6
IPv6: Enabled
Router Advertisment auto-configuration: Disabled
Static IPv6 config:
Address: fc00::4236:5aff:xxxx:168/64
Gateway: fc00::1
DNS1: 2001:4860:4860::xxxx
DNS2: 2001:4860:4860::xxxx
Currently assigned addresses:
fc00::4236:5aff:xxxx:168/64 global
fe80::4236:5aff:xxxx:168/64 link
```

## Configure Static IPv6 Address without eui-64, Gateway, and DNS Server Address

Use this command to configure the static IPv6 address without eui-64, gateway, and DNS server address on the AP.

```
Device#configure ap address ipv6 static fc00::1234:5678:xxxx:def/64 fc00::1
2001:4860:4860::xxxx 2001:4860:4860::xxxx
```

#### Verify Static IPv6 Address without eui-64, Gateway, and DNS Server Address

To verify the static IPv6 address without eui-64, gateway, and DNS server address on the AP, use the following **show** command:

```
Device#show ipv6
IPv6: Enabled
Router Advertisment auto-configuration: Disabled
Static IPv6 config:
Address: fc00::1234:5678:xxxx:def/64
```

```
Gateway: fc00::1
DNS1: 2001:4860:4860::xxxx
DNS2: 2001:4860:4860::xxxx
Currently assigned addresses:
fc00::1234:5678:xxxx:def/64 global
fe80::4236:5aff:xxxx:168/64 link
```

#### **Configure Static IPv6 Address with eui-64**

Use this command to configure the static IPv6 address with eui-64 on the AP.

Device#configure ap address ipv6 static fc00::4236:5aff:xxxx:168/64 eui-64

#### Verify Static IPv6 Address with eui-64

To verify the static IPv6 address with eui-64 on the AP, use the following **show** command:

```
Device#show ipv6
IPv6: Enabled
Router Advertisment auto-configuration: Disabled
Static IPv6 config:
Address: fc00::4236:5aff:xxxx:168/64
Currently assigned addresses:
fc00::4236:5aff:xxxx:168/64 global
fe80::4236:5aff:xxxx:168/64 link
```

#### **Configure Static IPv6 Address without eui-64**

Use this command to configure the static IPv6 address without eui-64 on the AP.

Device#configure ap address ipv6 static fc00::1234:5678:xxxx:def

#### Verify Static IPv6 Address without eui-64

To verify the static IPv6 address without eui-64 on the AP, use the following **show** command:

```
Device#show ipv6
IPv6: Enabled
Router Advertisement auto-configuration: Disabled
Static IPv6 config:
Address: fc00::1234:5678:xxxx:def/128
Currently assigned addresses:
fc00::1234:5678:xxxx:def/128 global
fe80::4236:5aff:xxxx:168/64 link
```

#### **Clear the IPv6 Gateway and DNS Servers Configuration**

Use this command to clear the IPv6 gateway and DNS servers addresses configuration on the AP.

Device#configure ap address ipv6 static fc00::1234:5678:xxxx:def/64 :: :: ::

#### **Verify the Cleared IPv6 Gateway and DNS Servers Configuration**

To verify the cleared IPv6 gateway and DNS server addresses configuration on the AP, use the following **show** command:

```
Device#show ipv6
IPv6: Enabled
Router Advertisment auto-configuration: Disabled
Static IPv6 config:
Address: fc00::1234:5678:xxxx:def/64
Currently assigned addresses:
fc00::1234:5678:xxxx:def/64 global
fe80::4236:5aff:xxxx:168/64 link
```

## Note

While adapting services to work with IPv6, such as TFTP, you must consider that link-local IP addresses might require network interface specifications.

#### **Enable and Configure Static IPv6 using GUI**

```
Procedure
```

Step 1	Launch the computer's web browser and enter the URL to open the configurator login page.
Step 2	Enter the username and password in the respective fields.
Step 3	Click <b>Login</b> . Once you successfully log into the GUI, the URWB configurator displays.
Step 4	In the GENERAL SETTINGS, click general mode to open the General Mode window.

ULTRA RELIABLE WIRELESS BACKHAUL		167EH Configurator ESH POINT MODE	
IOTOD IW Offline	GENERAL MODE		
W-MONITOR Disabled	General Mode		
GENERAL SETTINGS	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		
- general mode	network.		
- wireless radio		<ul> <li>mesh point</li> </ul>	
- antenna alignment and stats	Mode:	mesh end	
NETWORK CONTROL		🔘 gateway	
- advanced tools			
ADVANCED SETTINGS	Radio-off:		
<ul> <li>advanced radio settings</li> </ul>			
- static routes	LAN Para	ameters	
ADVANCED SETTINGS			
advanced radio settings	Local IP:	10.115.11.129	
static routes	Local Netmask:	255.255.255.0	
allowlist / blocklist	Eodal Notifiasi.	200.200.200.0	
- snmp	Default Gateway:	10.115.11.1	
radius			
- ntp	Local Dns 1:	8.8.8.8	
- ethernet filter	Local Dns 2:	4 4 4 4	
- I2tp configuration	Local Dris 2.	4.4.4.4	
- vlan settings	Enable IPv6:		
- Fluidity - misc settings	RA Autoconfig:		
MANAGEMENT SETTINGS			
- remote access	Local IPv6:		
- firmware upgrade	Use EUI-64:		
- status			
- configuration settings	Default Gateway IPv6:		
- reset factory default	Local Dns 1 IPv6:		
- reboot	Looa Dis Fir Vo.		
- logout	Local Dns 2 IPv6:		
	Reset	Save	

NoteIn the GUI, the term "local" refers to the IPv4 or IPv6 addresses that are set up statically. Specifically, the LocalIPv6 accepts all type of IPv6 address, which allows for the static configuration of the device's IPv6 address.

- **Step 5** Check the **Enable IPv6** check box. The system automatically enables the **RA Autoconfig**.
- **Step 6** Enter IPv6 address in the **Local IPv6** field.
- **Step 7** (Optional) Check the Use EUI-64 check box.

**Note** IPv6 addresses differ with and without the eui-64 option.

- **Step 8** (Optional) Enter the gateway IP address in the **Default Gateway IPv6** field.
- **Step 9** (Optional) Enter the DNS server 1 IP address in the Local Dns 1 IPv6 field.
- **Step 10** (Optional) Enter the DNS server 2 IP address in the Local Dns 2 IPv6 field.
- Step 11 Click Save.

## **Verify Static IPv6 using GUI**

Procedure

Step 1	In the MANAGEMENT SETTINGS, click status.
Step 2	On the <b>STATUS</b> page, in the <b>DEVICE SETTINGS</b> section, you can view the IPv6 details.

Verify Static IPv6 using GUI

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