IPv6 Support on Flex and Mesh

IPv6 Support on Flex + Mesh Deployment

IPv6 is the backhaul transport of the Service Provider. The IPv6 support over flex + mesh feature is now supported on the Cisco Catalyst 9800 Series Wireless Controller . WLAN accepts IPv6 clients and forward the traffic.

Configuring IPv6 Support for Flex + Mesh

Follow the procedure given below to enable the IPv6 routing on the controller :

Procedure

	Command or Action	Purpose
Step 1	**configure terminal** **Example:** `Device# configure terminal`	Enters global configuration mode.
Step 2	**interface vlan** *vlan-interface-number* **Example:** `Device(config)#interface vlan 89`	Creates an interface and enters the interface configuration mode.
Step 3	**shutdown** **Example:** `Device(config-if)#shutdown`	Disables the interface configuration.
Step 4	**ipv6 enable** **Example:** `Device(config-if)#ipv6 enable`	Optional. Enables IPv6 on the interface.

	Command or Action	Purpose
Step 5	**ipv6 address** *X:X:X:X::X/<0-128>* **Example:** `Device(config-if)#ipv6 address 1:1:1:1::1/64`	Configures IPv6 address on the interface using the IPv6 prefix option.
Step 6	**no shutdown** **Example:** `Device(config-if)#no shutdown`	Enables the IPv6 address.
Step 7	**no shutdown** **Example:** `Device(config-if)#no shutdown`	Enables the PIM dense-mode operation.
Step 8	**end** **Example:** `Device(config-if)#end`	Returns to privileged EXEC mode.
Step 9	**show ipv6 interface brief** **Example:** `Device#show ipv6 interface brief`	Verifies your entries.
Step 10	**ping ipv6** *destination-address or hostname* **Example:** `Device#ping ipv6 1:1:1:1::10`	Checks the gateway connectivity.

Configuring Preferred IP Address as IPv6 (GUI)

Procedure

Step 1 Choose **Configuration** > **Tags & Profiles** > **AP Join**.

Step 2 Click the AP Join Profile Name. The **Edit AP Join Profile** window is displayed.

Step 3 Choose **CAPWAP** > **Advanced**.

Step 4 From the **Preferred Mode** drop-down list, select **IPV6**.

Step 5 Click **Update & Apply to Device**.

Configuring Preferred IP Address as IPv6

Procedure

	Command or Action	Purpose
Step 1	**Configure Terminal** **Example:** `Device# configure terminal`	Enters global configuration mode.
Step 2	**ap profile** *default-ap-profile* **Example:** `Device(config)# ap profile default-ap-profile`	Enters AP profile configuration mode.
Step 3	**preferred-mode ipv6** **Example:** `Device(config-ap-profile)# preferred-mode ipv6`	Uses IPv6 to join the controller .
Step 4	**end** **Example:** `Device(config-ap-profile)# end`	Exits the configuration mode and returns to privileged EXEC mode.

Verifying IPv6 on Flex+Mesh

To verify the IPv6 configuration on the controller , use the following **show** command:

```
Device#show ip interface brief
Interface              IP-Address      OK? Method Status                Protocol
GigabitEthernet2       unassigned      YES unset  up                    up
GigabitEthernet0       unassigned      YES NVRAM  administratively down down
Capwap1                unassigned      YES unset  up                    up
Capwap2                unassigned      YES unset  up                    up
Vlan1                  unassigned      YES NVRAM  administratively down down
Vlan89                 9.10.89.90      YES NVRAM  up                    up
Ewlc-9.10.89.90#show running-config interface vlan 89
Building configuration...

Current configuration : 120 bytes
!
interface Vlan89
 ip address 9.10.89.90 255.255.255.0
 ip helper-address 9.1.0.100
 no mop enabled
 no mop sysid
end
```