

IPv6 Neighbor Information Definition on 200/300 Series Managed Switches

Objective

An IPv6 neighbor is a node that is linked to an IPv6 interface. The IPv6 neighbors table contains all of the statically configured and dynamically detected IPv6 neighbors. Also known as the IPv6 neighbor discovery cache, the neighbors table is used by the switch to communicate with the neighbor nodes. The switch uses the table to discover a desired MAC address based off of a known IPv6 address.

This article explains how to configure and view the IPv6 Neighbor Table on the 200/300 Series Managed Switches.

Applicable Devices

- SF/SG 200 and SF/SG 300 Series Managed Switches

Software Version

- 1.3.0.62

IPv6 Neighbors

Step 1. Log in to the web configuration utility and choose **Administration > Management Interface > IPv6 Neighbors** when the switch is in layer 2 mode or **IP Configuration > Management and IP Interface > IPv6 Neighbors** when the switch is in layer 3 mode. The *IPv6 Neighbors* page opens:

IPv6 Neighbors

Clear Table: Static Only
 Dynamic Only
 All Dynamic & Static

Apply Cancel

IPv6 Neighbor Table

<input type="checkbox"/>	Interface	IPv6 Address	MAC Address	Type	State
0 results found.					

Add... Edit... Delete

Step 2. (Optional) Click the radio button that corresponds to the desired option in the Clear Table field and click **Apply**. This clears the desired IPv6 address from the IPv6 Neighbor Table.

- Static Only — Only clear the static IPv6 entries.

- Dynamic Only — Only clear the dynamic IPv6 entries.
- All Dynamic & Static — Clear both static and dynamic IPv6 entries.

Step 3. Click **Add** to add a neighbor which is to be monitored. The *Add IPv6 Neighbors* window appears.

Interface: GE1

IPv6 Address: FE80::DB81

MAC Address: 1000000C15C0

Apply Close

Note: The Interface field displays the neighbor IPv6 interface to be added.

Step 4. Enter the desired IPv6 address that is to be configured to the interface.

Step 5. Enter the MAC address that corresponds to the specified IPv6 address.

Step 6. Click **Apply**. The IPv6 Neighbor is statically configured.

IPv6 Neighbors

Clear Table: Static Only
 Dynamic Only
 All Dynamic & Static

Apply Cancel

Interface	IPv6 Address	MAC Address	Type	State
GE1	fe80::db81	10:00:00:0c:15:c0	Static	Reachable

Add... Edit... Delete

The IPv6 Neighbor Table area displays the following fields.

- Interface — The interface of the IPv6 neighbor.
- IPv6 Address — The IPv6 address of the neighbor.
- MAC address — The MAC address that corresponds to the IPv6 address.
- Type — The entry type of the neighbor.
 - Static — The neighbor was statically configured.
 - Dynamic — The neighbor was dynamically detected.
- State — The status of the IPv6 neighbor.
 - Incomplete — The address resolution is functional, but the neighbor has not yet

responded to it.

– Reachable — It has been identified that the neighbor is reachable.

– Stale — It has been identified that the neighbor is unreachable and no action will be taken to verify the reachability of the neighbor until traffic must be sent.

– Delay — It has been identified that the previously known neighbor is unreachable. The interface remains in the delay state until a predetermined delay time has passed, after which the state changes to Probe.

– Probe — The neighbor is not known to be reachable. This prompts unicast neighbor solicitation probes to be sent to verify reachability.