

Preservation of Dynamic Subscriber Interfaces with DHCP External Server Overview

You can configure the DHCP external server application to control whether the router preserves or deletes and re-creates a DHCP client's existing dynamic subscriber interface in certain situations.

The DHCP discovery process assigns an IP address to a DHCP client. A client initiates the discovery process on a primary IP interface in the router. When this process completes successfully, the IP subscriber manager application may create a dynamic subscriber interface for the client that exists with the client's primary interface. A client normally receives broadcast traffic, such as the traffic associated with the DHCP discovery process, on its primary interface. A client normally receives unicast traffic, such as the traffic associated with the DHCP renewal process, on its dynamic subscriber interface if one exists.

A DHCP client that has successfully completed the discovery process and has been assigned an IP address in the DHCP external server application is referred to as a *bound client*. An IP address is leased to a client for a specified period of time. Before the lease period expires, most bound DHCP clients typically use the DHCP renewal process to extend their IP address lease. However, some bound DHCP clients might extend their IP address lease by restarting the DHCP discovery process instead of using the DHCP renewal process.

When a bound DHCP client on a dynamic subscriber interface extends its address lease by restarting the discovery process on its primary IP interface, you can configure the DHCP external server application to control whether the client's existing dynamic subscriber interface is preserved, or deleted and re-created. By default, the DHCP external server preserves the client's existing dynamic subscriber interface in this situation. To configure the DHCP external server to delete and re-create the client's dynamic subscriber interface after the client restarts discovery, you must issue the **ip dhcp-external recreate-subscriber-interface** command from Global Configuration mode.

When a bound DHCP client restarts the discovery process on a different primary IP interface than the interface on which it initiated the original discovery process, the DHCP external server application always deletes and re-creates the existing dynamic subscriber interfaces for that client.

You must use the **ip dhcp-external recreate-subscriber-interface** command within a specific virtual router context. Because you issue this command on a per-virtual router basis, different virtual routers configured in the same router can use different settings for this command.

In some lower-numbered JUNOS software releases, the default behavior for the DHCP external server was to delete and re-create the dynamic subscriber interface after a bound client restarted the discovery process on its primary IP interface. If you are upgrading the JUNOS software on the router from one of these releases to the current release, keep in mind that you must explicitly issue the **ip dhcp-external recreate-subscriber-interface** command to continue to delete and re-create the dynamic subscriber interface. The router no longer deletes and re-creates the dynamic subscriber interface by default in this situation.

See *DHCP External Server* in the *Known Behavior* section of the *JUNOS Release Notes* for a list of the JUNOS releases in which deleting and re-creating the dynamic subscriber interface was the default behavior for the DHCP external server.

- Related Topics**
- Configuring DHCP External Server to Control Preservation of Dynamic Subscriber Interfaces
 - `ip dhcp-external recreate-subscriber-interface`