

DHCPv6 Client Configuration Mode Commands

The Dynamic Host Configuration Protocol (DHCP) for Internet Protocol Version 6 (IPv6) Client Configuration Mode is used to create and manage DHCPv6 client parameters to support DHCPv6-based address assignment.

Command Modes

Exec > Global Configuration > Context Configuration > DHCPv6 Service Configuration > DHCPv6 Client Configuration

configure > context *context_name* **> dhcpv6-service** *service_name* **> dhcpv6-client**

Entering the above command sequence results in the following prompt:

```
[context_name]host_name(config-dhcpv6-client)#
```

Important The commands or keywords/variables that are available are dependent on platform type, product version, and installed license(s).

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- server-resurrect-time, on page 6

dhcpv6-client-unicast

Enables or disables the DHCPv6 client unicast or multicast mode towards the external DHCP server.

Product

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SAEGW

Privilege

Security Administrator, Administrator

Command Modes Exec > Global Configuration > Context Configuration > DHCP Client Profile Configuration

configure > context *context_name* **> dhcp-client-profile** *profile_name*

Entering the above command sequence results in the following prompt:

`[context_name]host_name(config-dhcp-client-profile)#`

Syntax Description **`{ enable | disable } dhcpv6-client-unicast slot/port`** *`slot_port_number`*

dhcpv6-client-unicast

Enables client to send messages on unicast address towards the server.

Usage Guidelines Use this command to send messages on unicast address towards the server.

slot/port *slot_port_number*

Define the slot or port number for DHCPv6 client profile mulicast mode.

Example

The following command specifies that messages are sent on multicast address to external DHCP servers:

`disable dhcpv6-client-unicastslot/port 1/11`

disable ipv6-validation

Disables the IPv6 address validation received from the DHCPv6 server.

Product UPF

Privilege Security Administrator, Administrator

Command Modes Exec > Global Configuration > Context Configuration > DHCP Client Profile Configuration

configure > context *context_name* **> dhcp-client-profile** *profile_name*

Entering the above command sequence results in the following prompt:

`[context_name]host_name(config-dhcp-client-profile)#`

Syntax Description **`disable ipv6-validation`**

disable ipv6-validation

Disables the IPv6 validation process during DHCP-based IP allocation.

Usage Guidelines Use this command to disable the IPv6 validation process after receiving the IP address from the external DHCP server.

Example

The following command specifies that messages are sent on unicast address to external DHCP servers:

```
disable ipv6-validation
```

end

Exits the current configuration mode and returns to the Exec mode.

Product All

Privilege Security Administrator, Administrator

Syntax Description `end`

Usage Guidelines Use this command to return to the Exec mode.

exit

Exits the current mode and returns to the parent configuration mode.

Product All

Privilege Security Administrator, Administrator

Syntax Description `exit`

Usage Guidelines Use this command to return to the parent configuration mode.

max-retransmissions

Configures the maximum number of times that the system attempts to communicate with an unresponsive DHCPv6 server before it is considered a failure.

Product GGSN

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Privilege Security Administrator, Administrator

Command Modes Exec > Global Configuration > Context Configuration > DHCPv6 Service Configuration > DHCPv6 Client Configuration

configure > **context** *context_name* > **dhcpv6-service** *service_name* > **dhcpv6-client**

Entering the above command sequence results in the following prompt:

```
[context_name]host_name(config-dhcpv6-client)#
```

Syntax Description

max-retransmissions *max_number*
default max-retransmissions

default

Returns the command to its default setting of 20.

max_number

Specifies the maximum number of re-attempts the system tries when no response is received from a DHCPv6 server. *max_number* is an integer from 1 through 20. Default: 20

Usage Guidelines

This command works in conjunction with the **detect-dead-server** DHCPv6 service command to set a limit to the number of communication failures that can occur with a configured DHCPv6 service.

When the value specified by this parameter is met, a failure is logged. The **detect-dead-server** DHCPv6 service parameter specifies the number of consecutive failures that could occur before the server is marked as down.

Example

The following command configures the maximum number of times the system re-attempts communication with a DHCPv6 server that is unresponsive to *5*:

max-retransmissions 5

server-dead-time

Configures the amount of time that the client attempts to communicate with an unresponsive DHCPv6 server. DHCPv6 server is considered to be dead if it doesn't respond after given tries from client.

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Command Modes

Exec > Global Configuration > Context Configuration > DHCPv6 Service Configuration > DHCPv6 Client Configuration

configure > context *context_name* **> dhcpv6-service** *service_name* **> dhcpv6-client**

Entering the above command sequence results in the following prompt:

```
[context_name]host_name(config-dhcpv6-client)#
```

Syntax Description

server-dead-time *dead_time*
default server-dead-time

default

Returns the command to its default setting of 5.

dead_time

Specifies the maximum amount of time (in seconds) that the client attempts to communicate with an unresponsive DHCPv6 server.

dead_time must be an integer value from 1 through 1932100.

Default: 5

Usage Guidelines

Use this command to specify the maximum amount of time (in seconds) that the client attempts to communicate with an unresponsive DHCPv6 server.

This command works in conjunction with the **max-retransmissions** command to set a limit to the number of times that the system attempts to communicate with an unresponsive DHCPv6 server before it is considered a failure.

Example

The following command configures the client to continue trying to communicate with an unresponsive DHCPv6 server for no more than *10* seconds:

```
server-dead-time 10
```

server-ipv6-address

Configures DHCPv6 server(s) with which the DHCPv6 client is to communicate.

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Command Modes

Exec > Global Configuration > Context Configuration > DHCPv6 Service Configuration > DHCPv6 Client Configuration

configure > context *context_name* **> dhcpv6-service** *service_name* **> dhcpv6-client**

Entering the above command sequence results in the following prompt:

```
[context_name]host_name(config-dhcpv6-client)#
```

Syntax Description

server-ipv6-address *ipv6_address* **[port** *port_number* **] [priority** *priority* **] [-noconfirm]**
no server-ipv6-address *ipv6_address*

no

Deletes a previously configured DHCPv6 server.

ipv6_address

Specifies the IP address of the DHCPv6 server expressed in IPv6 colon-separated-hexadecimal notation.

Default: FF02::1:2

port *port_number*

Specifies the port used for communicating with the DHCPv6 server.

port_number must be an integer from 1 through 65535. If unspecified, the default port is 547.

priority *priority*

Specifies the priority of the server if multiple servers are configured.

priority is an integer from 1 through 1000. 1 is the highest priority.

-noconfirm

Executes the command without prompting for further input from the user.

Usage Guidelines

Use this command to configure the DHCPv6 server(s) that the client is to communicate with. Multiple servers can be configured, each with their own priority.

Example

The following command configures a DHCPv6 server with an IP address of *1234:245:3456:4567:5678:6789:7890:8901*, a port of *300*, and a priority of *1*:

```
server-ipv6-address 1234:245:3456:4567:5678:6789:7890:8901 port 300
priority 1
```

server-resurrect-time

Configures the amount of time that a DHCPv6 client waits before considering a dead DHCPv6 server alive again.

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Command Modes

Exec > Global Configuration > Context Configuration > DHCPv6 Service Configuration > DHCPv6 Client Configuration

configure > context *context_name* **> dhcpv6-service** *service_name* **> dhcpv6-client**

Entering the above command sequence results in the following prompt:

```
[context_name]host_name(config-dhcpv6-client)#
```

Syntax Description

```
server-resurrect-time revive_time
default server-resurrect-time
```

default

Returns the command to its default setting of 20.

revive_time

Specifies the maximum amount of time (in seconds) that a DHCPv6 client waits before considering a dead DHCPv6 server alive again.

*revive_time*must be an integer value from 1 through 1932100.

Default: 20

Usage Guidelines

Use this command to specify the amount of time that a DHCPv6 client waits before considering a dead DHCPv6 server alive again.

Example

The following command configures the client to wait *25* seconds before considering a dead DHCPv6 server alive again:

```
server-resurrect-time 25
```