



DHCP Server Options Import and Autoconfiguration

Feature History

Release	Modification
12.1(2)T	This feature was introduced.
12.2(8)T	The Cisco 820 series and Cisco SOHO 70 series were added to supported platforms. The title was changed to “DHCP Server Options Import and Autoconfiguration” from “Autoconfiguring Cisco IOS DHCP Server Options.”

This feature module describes the DHCP Server Options Import and Autoconfiguration feature. This document includes the following sections:

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Feature Overview

The Dynamic Host Configuration Protocol (DHCP) server needed to be able to dynamically configure options such as the Domain Name System (DNS) and Windows Internet Name Service (WINS) addresses to respond to DHCP requests from local clients behind the customer premises equipment (CPE).

Previously, network administrators needed to manually configure the Cisco IOS DHCP server on each device enabled with this feature. After a router is deployed, it is labor-intensive, time consuming, and expensive to go to each location and make modifications.

Consequently, the Cisco IOS DHCP server was enhanced to allow configuration information to be updated automatically. Network administrators can configure one or more centralized DHCP servers to update specific DHCP options within the DHCP pools. The remote servers can request or “import” these option parameters from the centralized servers.

Benefits

Dynamic configuration saves time and speeds the deployment of services to customers.

Related Documents

- *Cisco IOS IP and IP Routing Configuration Guide*, Release 12.1
- *Cisco IOS IP and IP Routing Command Reference*, Release 12.1

Supported Platforms

- Cisco SOHO 70 series (beginning in Cisco IOS release 12.2(8)T)
- Cisco 800 series
- Cisco 820 series (beginning in Cisco IOS release 12.2(8)T)
- Cisco 1000 series
- Cisco 1400 series
- Cisco 1600 series
- Cisco 1700 series (support for the Cisco 1700 series was added in Cisco IOS Release 12.0(2)T)
- Cisco 2500 series
- Cisco 2600 series
- Cisco 3600 series
- Cisco 3800 series
- Cisco MC3810 series
- Cisco 4000 series
- Cisco AS5100 access server
- Cisco AS5200 universal access server
- Cisco AS5300 universal access server
- Cisco 7000 series
- Cisco 7100 series
- Cisco 7200 series
- Cisco MGX 8800 with an installed Route Processor Module
- Cisco 12000 series
- Cisco uBR900 series
- Cisco uBR7200 series

Supported Standards, MIBs, and RFCs

Standards

No new or modified standards are supported by this feature.

MIBs

No new or modified MIBs are supported by this feature.

For descriptions of supported MIBs, see the Cisco MIB web site on CCO at <http://www.cisco.com/public/sw-center/netmgmt/cmtk/mibs.shtml>.

RFCs

- RFC 951, *Bootstrap Protocol (BOOTP)*
- RFC 1542, *Clarifications and Extensions for the Bootstrap Protocol*
- RFC 2131, *Dynamic Host Configuration Protocol*
- RFC 2132, *DHCP Options and BOOTP Vendor Extensions*

Configuration Tasks

None.

Configuration Examples

None.

Command Reference

This section documents new commands. All other commands used with this feature are documented in the Cisco IOS Release 12.1 command reference publications.

- **import all**
- **show ip dhcp import**

import all

To import Dynamic Host Configuration Protocol (DHCP) option parameters into the DHCP server database, use the **import all** DHCP pool configuration command. To disable this feature, use the **no** form of this command.

import all

no import all

Syntax Description This command has no arguments or keywords.

Defaults Disabled

Command Modes DHCP pool configuration

Command History

Release	Modification
12.1(2)T	This command was introduced.

Usage Guidelines

When the **no import all** command is used, the Cisco IOS DHCP server deletes all “imported” option parameters that were added to the specified pool in the server database. Manually configured DHCP option parameters override imported DHCP option parameters.

Examples

The following example allows the importing of all DHCP options for a pool named *pool1*:

```
ip dhcp pool pool1
network 172.16.0.0 /16
import all
```

Related Commands

Command	Description
ip dhcp database	Configures a Cisco IOS DHCP server to save automatic bindings on a remote host called a database agent.
show ip dhcp import	Displays the option parameters that were imported into the DHCP server database.

show ip dhcp import

To display the option parameters that were imported into the Dynamic Host Configuration Protocol (DHCP) server database, use the **show ip dhcp import** EXEC command.

show ip dhcp import

Syntax Description This command has no arguments or keywords.

Command Modes EXEC

Command History	Release	Modification
	12.1(2)T	This command was introduced.

Usage Guidelines Imported option parameters are not part of the router configuration and are not saved in NVRAM. Thus, the **show ip dhcp import** command is necessary to display the imported option parameters.

Examples The following is sample output from the **show ip dhcp import** command:

```
Router# show ip dhcp import

Address Pool Name:2
Domain Name Server(s): 1.1.1.1
NetBIOS Name Server(s): 3.3.3.3
```

The following indicates the address pool name:

```
Address Pool Name:2
```

The following indicates the imported values, which are domain name and NetBIOS name information:

```
Domain Name Server(s): 1.1.1.1
NetBIOS Name Server(s): 3.3.3.3
```

Related Commands	Command	Description
	import all	Imports option parameters into the DHCP database.
	show ip dhcp database	Displays Cisco IOS server database information.

■ show ip dhcp import