DHCP Server—Option to Ignore All BOOTP Requests

Feature History for DHCP Server—Option to Ignore All BOOTP Requests

<table>
<thead>
<tr>
<th>Release</th>
<th>Modification</th>
</tr>
</thead>
<tbody>
<tr>
<td>12.2(8)T</td>
<td>This feature was introduced.</td>
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<td>This feature was integrated into Cisco IOS Release 12.2(27)SBA.</td>
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</table>

Finding Support Information for Platforms and Cisco IOS Software Images

Use Cisco Feature Navigator to find information about platform support and Cisco IOS software image support. Access Cisco Feature Navigator at http://www.cisco.com/go/fn. You must have an account on Cisco.com. If you do not have an account or have forgotten your username or password, click Cancel at the login dialog box and follow the instructions that appear.

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Feature Overview

The DHCP Server—Option to Ignore all BOOTP Requests feature introduces a new global configuration command: `ip dhcp bootp ignore`. This command allows the Cisco IOS Dynamic Host Configuration Protocol (DHCP) server to selectively ignore and not reply to received Bootstrap Protocol (BOOTP) request packets.
This feature is beneficial when there is a mix of BOOTP and DHCP clients in a network segment, and there is a BOOTP server and a Cisco IOS DHCP server servicing the network segment. The BOOTP server is configured with static bindings for the BOOTP clients and the BOOTP clients are intended to obtain their addresses from the BOOTP server. However, because a DHCP server can also respond to a BOOTP request, an address offer may be made by the DHCP server causing the BOOTP clients to boot with the address from the DHCP server, instead of the address from the BOOTP server. Configuring the DHCP server to ignore BOOTP requests means that the BOOTP clients will receive address information from the BOOTP server.

The Cisco IOS software can forward these ignored BOOTP request packets to another DHCP server if the `ip helper-address` interface configuration command is configured on the incoming interface.

**Benefits**

This feature is beneficial in network segments where BOOTP and DHCP clients coexist and both a BOOTP server and a Cisco IOS DHCP server service the network segment. The feature ensures that a BOOTP client will not inadvertently accept an address from a DHCP server.

**Restrictions**

The `ip dhcp bootp ignore` command applies to all DHCP pools configured on the router. This feature cannot selectively ignore BOOTP requests on a per-DHCP pool basis.

**Related Features and Technologies**

- BOOTP
- Cisco IOS DHCP server

**Related Documents**

- *Cisco IOS IP Configuration Guide, Release 12.2*
- *Cisco IOS IP Command Reference, Volume 1 of 3: Addressing and Services, Release 12.2*

**Supported Platforms**

- Cisco 805
- Cisco 820 series
- Cisco 1751
- Cisco 3620
- Cisco 3640
- Cisco 3660
**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.
To obtain lists of supported MIBs by platform and Cisco IOS release, and to download MIB modules, go to the Cisco MIB website on Cisco.com at the following URL:

**RFCs**
No new or modified RFCs are supported by this feature.

**Configuration Tasks**

See the following section for configuration tasks for the DHCP Server—Option to Ignore all BOOTP Requests feature:

- Configuring the Cisco IOS DHCP Server to Ignore All BOOTP Requests (Required)
- Verifying DHCP Server—Option to Ignore All BOOTP Requests Feature Configuration (Optional)

**Configuring the Cisco IOS DHCP Server to Ignore All BOOTP Requests**

To allow the Cisco IOS DHCP server to selectively ignore and not reply to received BOOTP requests, use the following command in global configuration mode:

<table>
<thead>
<tr>
<th>Command</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Router(config)# ip dhcp bootp ignore</td>
<td>Allows the Cisco IOS DHCP server to selectively ignore and not reply to received BOOTP requests.</td>
</tr>
</tbody>
</table>
Verifying DHCP Server—Option to Ignore All BOOTP Requests Feature Configuration

To verify that the DHCP Server—Option to Ignore all BOOTP Requests feature is configured correctly, use the following command in privileged EXEC mode:

<table>
<thead>
<tr>
<th>Command</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Router(config)# more system:running-config</td>
<td>Displays the running configuration.</td>
</tr>
</tbody>
</table>

Configuration Examples

This section provides the following configuration example:

- **Option to Ignore all BOOTP Requests Example**

Option to Ignore all BOOTP Requests Example

The following example shows two DHCP pools that are configured on the router and that the router’s DHCP server is configured to ignore all received BOOTP requests. If a BOOTP request is received from subnet 10.0.18.0/24, the request will be dropped by the router (because the `ip helper-address` command is not configured). If there is a BOOTP request from subnet 192.168.1.0/24, the request will be forwarded to 172.16.1.1 via the `ip helper-address` command.

```text
! version 12.2
service timestamps debug uptime
service timestamps log uptime
no service password-encryption
!
hostname Router
!
ip subnet-zero
!
ip dhcp bootp ignore
!
ip dhcp pool ABC
  network 192.168.1.0 255.255.255.0
  default-router 192.168.1.3
  lease 2
!
ip dhcp pool DEF
  network 10.0.18.0 255.255.255.0
!
ip cef
!
interface FastEthernet0/0
  no ip address
  shutdown
duplex half
!
interface Ethernet1/0
  ip address 10.0.18.68 255.255.255.0
duplex half
!
```
interface Ethernet1/1
  ip address 192.168.1.1 255.255.255.0
  ip helper-address 172.16.1.1
duplex half
!
interface Ethernet1/2
  shutdown
duplex half
!
interface Ethernet1/3
  no ip address
  shutdown
duplex half
!
interface FastEthernet2/0
  no ip address
  shutdown
duplex half
!
ip route 172.16.1.1 255.255.255.255 e1/0
no ip http server
no ip pim bidir-enable
!
call rsvp-sync
!
mgcp profile default
!
dial-peer cor custom
!
gatekeeper
  shutdown
!
line con 0
line aux 0
line vty 0 4
!
end

Command Reference

This section documents a new command only.

- `ip dhcp bootp ignore`
ip dhcp bootp ignore

To allow the Cisco IOS DHCP server to selectively ignore and not reply to received Bootstrap Protocol (BOOTP) request packets, use the `ip dhcp bootp ignore` command in global configuration mode. To return to the default behavior, use the `no` form of this command.

```
  ip dhcp bootp ignore
  no ip dhcp bootp ignore
```

**Syntax Description**
This command has no arguments or keywords.

**Defaults**
The default behavior is to service BOOTP requests.

**Command Modes**
Global configuration

**Command History**

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**Usage Guidelines**
The Cisco IOS software can forward these ignored BOOTP request packets to another DHCP server if the `ip helper-address` interface configuration command is configured on the incoming interface. If the `ip helper-address` command is not configured, the received BOOTP request will be dropped by the router.

**Examples**
The following example shows that the router will ignore received BOOTP requests:

```
hostname Router
!
ip subnet-zero
!
ip dhcp bootp ignore
```

**Related Commands**

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
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<tr>
<td>ip helper-address</td>
<td>Forwards UDP broadcasts, including BOOTP, received on an interface.</td>
</tr>
</tbody>
</table>
DHCP Server—Option to Ignore All BOOTP Requests

ip dhcp bootp ignore

Cisco IOS Release: Multiple releases (see the Feature History table)
ip dhcp bootp ignore

Cisco IOS Release: Multiple releases (see the Feature History table)