



DHCP Features Roadmap

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This roadmap lists the features documented in the Dynamic Host Configuration Protocol (DHCP) modules and maps the features to the modules in which they appear.

Feature and Release Support

Table 1 lists the DHCP feature support for the following Cisco IOS software release trains:

- [Cisco IOS Releases 12.2T, 12.3, 12.3T, 12.4, and 12.4T](#)
- [Cisco IOS Release 12.2SB](#)
- [Cisco IOS Release 12.2SR](#)

Only features that were introduced or modified in Cisco IOS Release 12.2(1)T, Cisco IOS Release 12.2(28)SB, Cisco IOS Releases 12.2(33)SRA, or a later release appear in the table. Not all features may be supported in your Cisco IOS software release.

Use Cisco Feature Navigator to find information about platform support and software image support. Cisco Feature Navigator enables you to determine which Cisco IOS and Catalyst OS software images support a specific software release, feature set, or platform. To access Cisco Feature Navigator, go to <http://www.cisco.com/go/cfn>. An account on Cisco.com is not required.



Note

Table 1 lists only the Cisco IOS software release that introduced support for a given feature in a given Cisco IOS software release train. Unless noted otherwise, subsequent releases of that Cisco IOS software release train also support that feature.



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Table 1 **Supported DHCP Features**

Release	Feature Name	Feature Description	Where Documented
Cisco IOS Releases 12.2T, 12.3, 12.3T, 12.4, and 12.4T			
12.4(15)T	DHCP Server Multiple Subnet	This feature enables multiple disjoint subnets to be configured under the same DHCP address pool. This functionality enables the DHCP server to manage additional IP addresses by adding the addresses to the existing DHCP address pool (instead of using a separate address pool). Multiple subnets in a DHCP address pool can occur along with or instead of managing individual client addresses.	Configuring the Cisco IOS DHCP Server
12.4(11)T	DHCP Class Support for Client Identification	The DHCP Class Support for Client Identification feature enhances the DHCP class mechanism to support options 60, 77, 124, and 125. These options identify the type of client sending the DHCP message. The DHCP relay agent can make forwarding decisions based on the content of the options in the DHCP message sent by the client.	Configuring the Cisco IOS DHCP Relay Agent
	DHCPv4 Relay per Interface VPN ID Support	The DHCPv4 Relay per Interface VPN ID Support feature allows the Cisco IOS DHCP Relay Agent to be configured per interface to override the global configuration of the ip dhcp relay information option vpn command. This feature allows subscribers with different relay information option VPN ID requirements on different interfaces to be reached from one Cisco router.	Configuring the Cisco IOS DHCP Relay Agent
12.4(6)T	DHCP Relay Option 82 per Interface Support	This feature enables support for the DHCP relay agent information option (option 82) on a per interface basis. The interface configuration allows different DHCP servers, with different DHCP option 82 requirements, to be reached from one Cisco router.	Configuring the Cisco IOS DHCP Relay Agent
	DHCP Relay Accounting	The DHCP Relay Accounting feature allows a Cisco IOS DHCP relay agent to send a RADIUS accounting start packet when an address is assigned to a client and a RADIUS accounting stop packet when the address is released.	Configuring DHCP Enhancements for Edge-Session Management
12.3(14)T	ARP Auto-logoff	The ARP Auto-logoff feature enhances DHCP authorized ARP by providing finer control and probing of authorized clients to detect a log off.	Configuring DHCP Services for Accounting and Security
	DHCP Enhancements for Edge-Session Management	The DHCP Enhancements for Edge-Session Management feature provides the capability of simultaneous service by multiple Internet Service Providers (ISPs) to customers using one network infrastructure. The end-user customer may change ISPs at any time.	Configuring DHCP Enhancements for Edge-Session Management
	DHCP Subscriber Identifier Suboption of Option 82	This feature enables an ISP to add a unique identifier to the subscriber-identifier suboption of the relay agent information option.	Configuring the Cisco IOS DHCP Relay Agent

Table 1 **Supported DHCP Features (continued)**

Release	Feature Name	Feature Description	Where Documented
12.3(11)T	DHCP Static Mapping	Configuring static mapping pools enables the DHCP server to read the static bindings from a separate text file (similar in format to the DHCP database file) that is stored in these special pools.	Configuring the Cisco IOS DHCP Server
12.3(8)T	Configurable DHCP Client	This feature provides the flexibility to include various configuration options for the DHCP client. A DHCP client is defined as an Internet host using DHCP to obtain configuration parameters such as an IP address.	Configuring the Cisco IOS DHCP Client
	DHCP Statically Configured Routes Using a DHCP Gateway	This feature enables the configuration of static routes that point to an assigned DHCP next hop router.	Configuring the Cisco IOS DHCP Server
12.3(4)T	DHCP Address Allocation Using Option 82	The Cisco IOS DHCP server can allocate dynamic IP addresses based on the relay information option (option 82) information sent by the relay agent.	Configuring the Cisco IOS DHCP Server
	DHCP Release and Renew CLI in EXEC Mode	This feature provides the ability to perform two independent operations from the CLI: (1) immediately release a DHCP lease for a DHCP client, and (2) force a DHCP renewal of a lease for a DHCP client.	Configuring the Cisco IOS DHCP Client
12.3(2)T	DHCP Authorized ARP	DHCP authorized ARP enhances the DHCP and ARP components of the Cisco IOS software to limit the leasing of IP addresses to mobile users to mobile users that are authorized. This feature enhances security in PWLANs by blocking ARP responses from unauthorized users at the DHCP server.	Configuring DHCP Services for Accounting and Security
	DHCP Lease Limit per ATM RBE Unnumbered Interface	This feature limits the number of DHCP leases per subinterface offered to DHCP clients connected from an ATM RBE unnumbered interface or serial unnumbered interface of the DHCP server or DHCP relay agent.	Configuring DHCP Services for Accounting and Security
12.2(15)T	DHCP Accounting	DHCP accounting introduces AAA and RADIUS support for DHCP configuration.	Configuring DHCP Services for Accounting and Security
	DHCP ODAP Server Support	This feature introduces the capability to configure a DHCP server (or router) as a subnet allocation server. This capability allows the Cisco IOS DHCP server to be configured with a pool of subnets for lease to ODAP clients.	Configuring the DHCP Server On-Demand Address Pool Manager
	DHCP Secured IP Address Assignment	DHCP secure IP address assignment provides the capability to secure ARP table entries to DHCP leases in the DHCP database.	Configuring DHCP Services for Accounting and Security
	DHCP Server On-Demand Address Pool Manager for Non-MPLS VPNs	This feature was enhanced to provide ODAP support for non-MPLS VPNs.	Configuring the DHCP Server On-Demand Address Pool Manager

Table 1 Supported DHCP Features (continued)

Release	Feature Name	Feature Description	Where Documented
12.2(8)T	DHCP Client on WAN Interfaces	This feature extends the DHCP to allow a DHCP client to acquire an IP address over PPP over ATM (PPPoA) and certain ATM interfaces.	Configuring the Cisco IOS DHCP Client
	DHCP Relay MPLS VPN Support	DHCP relay support for MPLS VPNs enables a network administrator to conserve address space by allowing overlapping addresses. The relay agent can support multiple clients on different VPNs, and many of these clients from different VPNs can share the same IP address.	Configuring the Cisco IOS DHCP Relay Agent
	DHCP Server On-Demand Address Pool Manager	The ODAP manager is used to centralize the management of large pools of addresses and simplify the configuration of large networks. ODAP provides a central management point for the allocation and assignment of IP addresses.	Configuring the DHCP Server On-Demand Address Pool Manager
	DHCP Server Option to Ignore all BOOTP Requests	This feature allows the Cisco IOS DHCP server to selectively ignore and not reply to received Bootstrap Protocol (BOOTP) request packets.	Configuring the Cisco IOS DHCP Server
Cisco IOS Release 12.2SB			
12.2(31)SB2	ISSU and SSO - DHCP High Availability Features	<p>Cisco IOS Release 12.2(31)SB2 introduces the following series of DHCP High Availability features:</p> <ul style="list-style-type: none"> • ISSU—DHCP Server • SSO—DHCP Server • ISSU—DHCP Relay on Unnumbered Interface • SSO—DHCP Relay on Unnumbered Interface • ISSU—DHCP Proxy Client • SSO—DHCP Proxy Client • ISSU—DHCP ODAP Client and Server • SSO—DHCP ODAP Client and Server <p>These features are enabled by default when the redundancy mode of operation is set to Stateful Switchover (SSO).</p>	ISSU and SSO - DHCP High Availability Features
	DHCP Relay Option 82 per Interface Support	This feature enables support for the DHCP relay agent information option (option 82) on a per interface basis. The interface configuration allows different DHCP servers, with different DHCP option 82 requirements, to be reached from one Cisco router.	Configuring the Cisco IOS DHCP Relay Agent

Table 1 **Supported DHCP Features (continued)**

Release	Feature Name	Feature Description	Where Documented
12.2(28)SB	Configurable DHCP Client	This feature provides the flexibility to include various configuration options for the DHCP client. A DHCP client is defined as an Internet host using DHCP to obtain configuration parameters such as an IP address.	Configuring the Cisco IOS DHCP Client
	DHCP Accounting	DHCP accounting introduces AAA and RADIUS support for DHCP configuration.	Configuring DHCP Services for Accounting and Security
	DHCP Address Allocation Using Option 82	The Cisco IOS DHCP server can allocate dynamic IP addresses based on the relay information option (option 82) information sent by the relay agent.	Configuring the Cisco IOS DHCP Server
	DHCP Client on WAN Interfaces	This feature extends the DHCP to allow a DHCP client to acquire an IP address over PPP over ATM (PPPoA) and certain ATM interfaces.	Configuring the Cisco IOS DHCP Client
	DHCP Lease Limit per ATM RBE Unnumbered Interface	This feature limits the number of DHCP leases per subinterface offered to DHCP clients connected from an ATM RBE unnumbered interface or serial unnumbered interface of the DHCP server or DHCP relay agent.	Configuring DHCP Services for Accounting and Security
	DHCP ODAP Server Support	This feature introduces the capability to configure a DHCP server (or router) as a subnet allocation server. This capability allows the Cisco IOS DHCP server to be configured with a pool of subnets for lease to ODAP clients.	Configuring the DHCP Server On-Demand Address Pool Manager
	DHCP Relay MPLS VPN Support	DHCP relay support for MPLS VPNs enables a network administrator to conserve address space by allowing overlapping addresses. The relay agent can support multiple clients on different VPNs, and many of these clients from different VPNs can share the same IP address.	Configuring the Cisco IOS DHCP Relay Agent
	DHCP Release and Renew CLI in EXEC Mode	This feature provides the ability to perform two independent operations from the CLI: (1) immediately release a DHCP lease for a DHCP client, and (2) force a DHCP renewal of a lease for a DHCP client.	Configuring the Cisco IOS DHCP Client
	DHCP Secured IP Address Assignment	DHCP secure IP address assignment provides the capability to secure ARP table entries to DHCP leases in the DHCP database.	Configuring DHCP Services for Accounting and Security
	DHCP Server On-Demand Address Pool Manager	The ODAP manager is used to centralize the management of large pools of addresses and simplify the configuration of large networks. ODAP provides a central management point for the allocation and assignment of IP addresses.	Configuring the DHCP Server On-Demand Address Pool Manager
DHCP Server On-Demand Address Pool Manager for Non-MPLS VPNs	This feature was enhanced to provide ODAP support for non-MPLS VPNs.	Configuring the DHCP Server On-Demand Address Pool Manager	

Table 1 **Supported DHCP Features (continued)**

Release	Feature Name	Feature Description	Where Documented
	DHCP Server Option to Ignore all BOOTP Requests	This feature allows the Cisco IOS DHCP server to selectively ignore and not reply to received Bootstrap Protocol (BOOTP) request packets.	Configuring the Cisco IOS DHCP Server
	DHCP Statically Configured Routes Using a DHCP Gateway	This feature enables the configuration of static routes that point to an assigned DHCP next hop router.	Configuring the Cisco IOS DHCP Server
	DHCP Static Mapping	Configuring static mapping pools enables the DHCP server to read the static bindings from a separate text file (similar in format to the DHCP database file) that is stored in these special pools.	Configuring the Cisco IOS DHCP Server
	DHCP Subscriber Identifier Suboption of Option 82	This feature enables an ISP to add a unique identifier to the subscriber-identifier suboption of the relay agent information option.	Configuring the Cisco IOS DHCP Relay Agent
Cisco IOS Release 12.2SR			
12.2(33)SRD	DHCP Relay Option 82 Encapsulation	This feature allows a second relay agent to encapsulate the relay agent information option (option 82) from a prior relay agent, add its own option 82, and forward the packet to the DHCP server. This feature allows the DHCP server to use option 82 information from both relay agents.	Configuring the Cisco IOS DHCP Relay Agent

Table 1 **Supported DHCP Features (continued)**

Release	Feature Name	Feature Description	Where Documented
12.2(33)SRC	DHCP Authorized ARP	DHCP authorized ARP enhances the DHCP and ARP components of the Cisco IOS software to limit the leasing of IP addresses to mobile users to mobile users that are authorized. This feature enhances security in PWLANs by blocking ARP responses from unauthorized users at the DHCP server.	Configuring DHCP Services for Accounting and Security
	DHCP Enhancements for Edge-Session Management	The DHCP Enhancements for Edge-Session Management feature provides the capability of simultaneous service by multiple Internet Service Providers (ISPs) to customers using one network infrastructure. The end-user customer may change ISPs at any time.	Configuring DHCP Enhancements for Edge-Session Management
	DHCP Relay MPLS VPN Support	DHCP relay support for MPLS VPNs enables a network administrator to conserve address space by allowing overlapping addresses. The relay agent can support multiple clients on different VPNs, and many of these clients from different VPNs can share the same IP address.	Configuring the Cisco IOS DHCP Relay Agent
	DHCP Relay Option 82 per Interface Support	This feature enables support for the DHCP relay agent information option (option 82) on a per interface basis. The interface configuration allows different DHCP servers, with different DHCP option 82 requirements, to be reached from one Cisco router.	Configuring the Cisco IOS DHCP Relay Agent
	DHCP Release and Renew CLI in EXEC Mode	This feature provides the ability to perform two independent operations from the CLI: (1) immediately release a DHCP lease for a DHCP client, and (2) force a DHCP renewal of a lease for a DHCP client.	Configuring the Cisco IOS DHCP Client
	DHCP Secured IP Address Assignment	DHCP secure IP address assignment provides the capability to secure ARP table entries to DHCP leases in the DHCP database.	Configuring DHCP Services for Accounting and Security

Table 1 Supported DHCP Features (continued)

Release	Feature Name	Feature Description	Where Documented
12.2(33)SRC	DHCP Server Import All Enhancement	The feature is an enhancement to the import all global configuration command. Before this feature was introduced, the options imported through the import all command were overwritten by those imported by another subsystem. Through this feature, options imported by multiple subsystems can co-exist in the DHCP address pool. When the session is terminated or the lease is released, the imported options are cleared.	Configuring the Cisco IOS DHCP Server
	DHCP Server On-Demand Address Pool Manager	The ODAP manager is used to centralize the management of large pools of addresses and simplify the configuration of large networks. ODAP provides a central management point for the allocation and assignment of IP addresses.	Configuring the DHCP Server On-Demand Address Pool Manager
	DHCP Server On-Demand Address Pool Manager for Non-MPLS VPNs	This feature was enhanced to provide ODAP support for non-MPLS VPNs.	Configuring the DHCP Server On-Demand Address Pool Manager
	DHCP ODAP Server Support	This feature introduces the capability to configure a DHCP server (or router) as a subnet allocation server. This capability allows the Cisco IOS DHCP server to be configured with a pool of subnets for lease to ODAP clients.	Configuring the DHCP Server On-Demand Address Pool Manager
	DHCP Per Interface Lease Limit and Statistics	This feature limits the number of DHCP leases offered to DHCP clients on an interface. DHCP server statistics reporting was enhanced to display interface-level statistics.	Configuring DHCP Services for Accounting and Security
	DHCP Server MIB	The DHCP Server MIB feature provides SNMP access to and control of Cisco IOS DHCP server software on a Cisco router by an external network management device.	DHCP Server MIB
	DHCP Statically Configured Routes Using a DHCP Gateway	This feature enables the configuration of static routes that point to an assigned DHCP next hop router.	Configuring the Cisco IOS DHCP Server
	DHCP Static Mapping	Configuring static mapping pools enables the DHCP server to read the static bindings from a separate text file (similar in format to the DHCP database file) that is stored in these special pools.	Configuring the Cisco IOS DHCP Server

Table 1 Supported DHCP Features (continued)

Release	Feature Name	Feature Description	Where Documented
12.2(33)SRC cont	ISSU and SSO - DHCP High Availability Features	<p>Cisco IOS Release 12.2(33)SRC introduces the following series of DHCP High Availability features:</p> <ul style="list-style-type: none"> • ISSU—DHCP ODAP Client/Server • SSO—DHCP ODAP Client/Server • ISSU—DHCP Relay on Unnumbered Interface • ISSU—DHCP Proxy Client • SSO—DHCP Proxy Client • ISSU—DHCP Server <p>These features are enabled by default when the redundancy mode of operation is set to Stateful Switchover (SSO).</p>	ISSU and SSO - DHCP High Availability Features
12.(33)SRB	DHCP Accounting	DHCP accounting introduces AAA and RADIUS support for DHCP configuration.	Configuring DHCP Services for Accounting and Security
	DHCP Address Allocation Using Option 82	The Cisco IOS DHCP server can allocate dynamic IP addresses based on the relay information option (option 82) information sent by the relay agent.	Configuring the Cisco IOS DHCP Server
	DHCP Server Multiple Subnet	This feature enables multiple disjoint subnets to be configured under the same DHCP address pool. This functionality enables the DHCP server to manage additional IP addresses by adding the addresses to the existing DHCP address pool (instead of using a separate address pool). Multiple subnets in a DHCP address pool can occur along with or instead of managing individual client addresses.	Configuring the Cisco IOS DHCP Server
	DHCP Subscriber Identifier Suboption of Option 82	This feature enables an ISP to add a unique identifier to the subscriber-identifier suboption of the relay agent information option.	Configuring the Cisco IOS DHCP Relay Agent
	SSO—DHCP Relay on Unnumbered Interface	The DHCP relay on unnumbered interface that is SSO aware adds high availability support for host routes to clients connected through unnumbered interfaces. The DHCP relay agent can now detect when a router is failing over to the standby route processor and keep the states related to unnumbered interfaces.	ISSU and SSO - DHCP High Availability Features
	SSO—DHCP Server	The DHCP server that is SSO aware is able to detect when a router is failing over to the standby route processor route processor and preserve the DHCP lease across a switchover event.	ISSU and SSO - DHCP High Availability Features

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