DHCP Options

DHCP provides a framework for passing configuration information to hosts on a TCP/IP network. Configuration parameters and other control information are carried in tagged data items that are stored in the options field of the DHCP message. The data items themselves are also called options.

DHCP options have a prescribed format and allowed values for their option parameters. Table 1: DHCPv4 Options by Number, on page 1 and Table 3: DHCPv6 Options by Number, on page 17 list each DHCP option and parameter type (in the Validation column). The parameter formats and allowed values come from the DHCP and Internet RFCs. All the DHCP options appear, but clients control only some, and the CLI only others.

The following tables display the DHCP options in various ways. They show the options sorted numerically and by Cisco Prime Network Registrar name.

DHCPv4 Options by Number

The table below shows the DHCPv4 options sorted by option number and includes the validation type. See Table 5: Validation Types, on page 31 for details on the option validation types found in the Validation column. A **0+** in the Validation column means a repeat count of zero or more occurrences, **1+** means one or more occurrences, **2n** means multiple occurrences in multiples of 2.

Tip For the syntax for adding more complex option data values for suboptions, see Adding Complex Values for Suboptions.

Table 1: DHCPv4 Options by Number

No.	Cisco Prime Network Registrar Name	Validation	Description
0	pad	AT_NOLEN	Used to cause subsequent fields to align on word boundaries. See RFC 2132.

No.	Cisco Prime Network Registrar Name	Validation	Description
1	subnet-mask	AT_IPADDR	Specifies the client's subnet mask. See RFC 2132.
2	time-offset	AT_STIME	Specifies the offset of the client's subnet in seconds from Coordinated Universal Time (UTC). See RFC 2132.
3	routers	AT_IPADDR (1+)	Specifies a list of IP addresses for routers on the client's subnet. See RFC 2132.
4	time-servers	AT_IPADDR (1+)	Specifies a list of RFC 868 [6] time servers available to the client. See RFC 2132.
5	name-servers	AT_IPADDR (1+)	Specifies a list of IEN 116 [7] name servers available to the client. See RFC 2132.
6	domain-name-servers	AT_IPADDR (1+)	Specifies a list of Domain Name System (STD 13, RFC 1035 [8]) name servers available to the client. See RFC 2132.
7	log-servers	AT_IPADDR (1+)	Specifies a list of MIT-LCS UDP log servers available to the client. See RFC 2132.
8	cookie-servers	AT_IPADDR (1+)	Specifies a list of RFC 865 [9] cookie servers available to the client. See RFC 2132.
9	lpr-servers	AT_IPADDR (1+)	Specifies a list of RFC 1179 [10] line printer servers available to the client. See RFC 2132.
10	impress-servers	AT_IPADDR (1+)	Specifies a list of Imagen Impress servers available to the client. See RFC 2132.
11	resource-location-servers	AT_IPADDR (1+)	Specifies a list of RFC 887 [11] Resource Location servers available to the client. See RFC 2132.
12	host-name	AT_NSTRING	Specifies the name of the client. See RFC 2132.
13	boot-size	AT_SHORT	Specifies the length in 512-octet blocks of the default boot image for the client. See RFC 2132.
14	merit-dump	AT_NSTRING	Specifies the path-name of a file to which the client's core image should be dumped in the event the client crashes. See RFC 2132.
15	domain-name	AT_NSTRING	Specifies the domain name that client should use when resolving hostnames via the Domain Name System. See RFC 2132.
16	swap-server	AT_IPADDR	Specifies the IP address of the client's swap server. See RFC 2132.
17	root-path	AT_NSTRING	Specifies the path-name that contains the client's root disk. See RFC 2132.

No.	Cisco Prime Network Registrar Name	Validation	Description
18	extensions-path	AT_NSTRING	A string to specify a file, retrievable via TFTP, which contains information which can be interpreted in the same way as the 64-octet vendor-extension field within the BOOTP response, with the following exceptions: • the length of the file is unconstrained; • all references to Tag 18 (i.e., instances of the BOOTP Extensions Path field) within the file are ignored. See RFC 2132.
19	ip-forwarding	AT_BOOL	Specifies whether the client should configure its IP layer for packet forwarding. See RFC 2132.
20	non-local-source-routing	AT_BOOL	Specifies whether the client should configure its IP layer to allow forwarding of datagrams with non-local source routes. See RFC 2132.
21	policy-filters	AT_IPADDR (2n)	Specifies policy filters for non-local source routing. See RFC 2132.
22	max-dgram-reassembly	AT_SHORT	Specifies the maximum size datagram that the client should be prepared to reassemble. See RFC 2132.
23	default-ip-ttl	AT_RANGEBYTE	Specifies the default time-to-live that the client should use on outgoing datagrams. See RFC 2132.
24	path-mtu-aging-timeout	AT_TIME	Specifies the timeout (in seconds) to use when aging Path MTU values discovered by the mechanism defined in RFC 1191 [12]. See RFC 2132.
25	path-mtu-plateau-tables	AT_RANGESHORT (1+)	Specifies a table of MTU sizes to use when performing Path MTU Discovery as defined in RFC 1191. See RFC 2132.
26	interface-mtu	AT_RANGESHORT	Specifies the MTU to use on this interface. See RFC 2132.
27	all-subnets-local	AT_BOOL	Specifies whether or not the client may assume that all subnets of the IP network to which the client is connected use the same MTU as the subnet of that network to which the client is directly connected. See RFC 2132.
28	broadcast-address	AT_IPADDR	Specifies the broadcast address in use on the client's subnet. See RFC 2132.

No.	Cisco Prime Network Registrar Name	Validation	Description
29	perform-mask-discovery	AT_BOOL	Specifies whether or not the client should perform subnet mask discovery using ICMP. See RFC 2132.
30	mask-supplier	AT_BOOL	Specifies whether or not the client should respond to subnet mask requests using ICMP. See RFC 2132.
31	router-discovery	AT_BOOL	Specifies whether or not the client should solicit routers using the Router Discovery mechanism defined in RFC 1256 [13]. See RFC 2132.
32	router-solicitation-address	AT_IPADDR	Specifies the address to which the client should transmit router solicitation requests. See RFC 2132.
33	static-routes	AT_IPADDR (2n)	Specifies a list of static routes that the client should install in its routing cache. See RFC 2132.
34	trailer-encapsulation	AT_BOOL	Specifies whether or not the client should negotiate the use of trailers (RFC 893 [14]) when using the ARP protocol. See RFC 2132.
35	arp-cache-timeout	AT_TIME	Specifies the timeout in seconds for ARP cache entries. See RFC 2132.
36	ieee802.3-encapsulation	AT_BOOL	Specifies whether or not the client should use Ethernet Version 2 (RFC 894 [15]) or IEEE 802.3 (RFC 1042 [16]) encapsulation if the interface is an Ethernet. See RFC 2132.
37	default-tcp-ttl	AT_RANGEBYTE	Specifies the default TTL that the client should use when sending TCP segments. See RFC 2132.
38	tcp-keepalive-interval	AT_TIME	Specifies the interval (in seconds) that the client TCP should wait before sending a keepalive message on a TCP connection. See RFC 2132.
39	tcp-keepalive-garbage	AT_BOOL	Specifies the whether or not the client should send TCP keepalive messages with a octet of garbage for compatibility with older implementations. See RFC 2132.
40	nis-domain	AT_NSTRING	Specifies the name of the client's NIS domain. See RFC 2132.
41	nis-servers	AT_IPADDR (1+)	Specifies a list of IP addresses indicating NIS servers available to the client. See RFC 2132.
42	ntp-servers	AT_IPADDR (1+)	Specifies a list of IP addresses indicating NTP servers available to the client. See RFC 2132.
43	vendor-encapsulated-options	AT_BLOB	See RFC 2132.

No.	Cisco Prime Network Registrar Name	Validation	Description
44	netbios-name-servers	AT_IPADDR (1+)	Specifies a list of RFC 1001/1002 [19] [20] NBNS name servers listed in order of preference. See RFC 2132.
45	netbios-dd-servers	AT_IPADDR (1+)	Specifies a list of RFC 1001/1002 NBDD servers listed in order of preference. See RFC 2132.
46	netbios-node-type	AT_RANGEBYTE	Allows NetBIOS over TCP/IP clients which are configurable to be configured as described in RFC 1001/1002. See RFC 2132.
47	netbios-scope	AT_NSTRING	Specifies the NetBIOS over TCP/IP scope parameter for the client as specified in RFC 1001/1002. See RFC 2132.
48	font-servers	AT_BLOB (1+)	Specifies a list of X Window System [21] Font servers available to the client. See RFC 2132.
49	x-display-managers	AT_BLOB (1+)	Specifies a list of IP addresses of systems that are running the X Window System Display Manager and are available to the client. See RFC 2132.
50	dhcp-requested-address	AT_BLOB	Used in a client request (DHCPDISCOVER) to allow the client to request that a particular IP address be assigned. See RFC 2132.
51	dhcp-lease-time	AT_TIME	Used in a client request (DHCPDISCOVER or DHCPREQUEST) to allow the client to request a lease time for the IP address. See RFC 2132.
52	dhcp-option-overload	AT_OVERLOAD	Used to indicate that the DHCP 'sname' or 'file' fields are being overloaded by using them to carry DHCP options. See RFC 2132.
53	dhcp-message-type	AT_MESSAGE	Used to convey the type of the DHCP message. See RFC 2132.
54	dhcp-server-identifier	AT_IPADDR	Used in DHCPOFFER and DHCPREQUEST messages, and may optionally be included in the DHCPACK and DHCPNAK messages. See RFC 2132.
55	dhcp-parameter-request-list	AT_INT8 (0+)	Used by a DHCP client to request values for specified configuration parameters. See RFC 2132.
56	dhcp-message	AT_NSTRING	Used by a DHCP server to provide an error message to a DHCP client in a DHCPNAK message in the event of a failure. See RFC 2132.
57	dhcp-max-message-size	AT_SHORT	Specifies the maximum length DHCP message that it is willing to accept. See RFC 2132.

No.	Cisco Prime Network Registrar Name	Validation	Description
58	dhcp-renewal-time	AT_TIME	Specifies the time interval from address assignment until the client transitions to the RENEWING state. See RFC 2132.
59	dhcp-rebinding-time	AT_TIME	Specifies the time interval from address assignment until the client transitions to the REBINDING state. See RFC 2132.
60	dhcp-class-identifier	AT_NSTRING	Used by DHCP clients to optionally identify the vendor type and configuration of a DHCP client. See RFC 2132.
61	dhcp-client-identifier	AT_BLOB	Used by DHCP clients to specify their unique identifier. See RFC 2132.
62	netwareip-domain	AT_NSTRING	Used to convey the NetWare/IP domain name used by the NetWare/IP product. See RFC 2242.
63	netwareip-information	AT_BLOB	Used to convey all the NetWare/IP related information except for the NetWare/IP domain name. See RFC 2242.
64	nis+-domain	AT_NSTRING	Specifies the name of the client's NIS+ [17] domain. See RFC 2132.
65	nis+-servers	AT_IPADDR (1+)	Specifies a list of IP addresses indicating NIS+ servers available to the client. See RFC 2132.
66	tftp-server	AT_NSTRING	Used to identify a TFTP server when the 'sname' field in the DHCP header has been used for DHCP options. See RFC 2132.
67	boot-file	AT_NSTRING	Used to identify a bootfile when the 'file' field in the DHCP header has been used for DHCP options. See RFC 2132.
68	mobile-ip-home-agents	AT_IPADDR (0+)	Specifies a list of IP addresses indicating mobile IP home agents available to the client. See RFC 2132.
69	smtp-servers	AT_IPADDR (1+)	Specifies a list of SMTP servers available to the client. See RFC 2132.
70	pop3-servers	AT_IPADDR (1+)	Specifies a list of POP3 available to the client. See RFC 2132.
71	nntp-servers	AT_IPADDR (1+)	Specifies a list of NNTP available to the client. See RFC 2132.
72	www-servers	AT_IPADDR (1+)	Specifies a list of WWW available to the client. See RFC 2132.

No.	Cisco Prime Network Registrar Name	Validation	Description
73	finger-servers	AT_IPADDR (1+)	Specifies a list of Finger available to the client. See RFC 2132.
74	irc-servers	AT_IPADDR (1+)	Specifies a list of IRC available to the client. See RFC 2132.
75	streettalk-servers	AT_IPADDR (1+)	Specifies a list of StreetTalk servers available to the client. See RFC 2132.
76	streettalk-directory-assistance-servers	AT_IPADDR (1+)	Specifies a list of STDA servers available to the client. See RFC 2132.
77	dhcp-user-class-id	AT_TYPECNT	Used by a DHCP client to optionally identify the type or category of user or applications it represents. See RFC 3004.
78	slp-directory-agent	AT_BLOB	Specifies the location of one or more SLP Directory Agents. See RFC 2610.
79	slp-service-scope	AT_BLOB	Comma delimited list which indicates the scopes that a SLP Agent is configured to use. See RFC 2610.
80	rapid-commit	AT_ZEROSIZE	Used to indicate the use of the two-message exchange for address assignment. See RFC 4039.
81	client-fqdn	AT_BLOB	Client FQDN Option. See RFC 4702.
82	relay-agent-info	AT_BLOB	A "container" option for specific agent-supplied sub-options. For suboptions, see Table 3. See RFC 3046.
83	iSNS	AT_BLOB	Specifies the location of the primary and backup iSNS servers and the iSNS services available to an iSNS client. See RFC 4174.
85	nds-servers	AT_IPADDR (1+)	Specifies one or more NDS servers for the client to contact for access to the NDS database. See RFC 2241.
86	nds-tree	AT_NSTRING	Specifies the name of the NDS tree the client will be contacting. See RFC 2241.
87	nds-context	AT_NSTRING	Specifies the initial NDS context the client should use. NDS contexts are 16-bit Unicode strings.See RFC 2241.
88	bcmcs-servers-d	AT_DNSNAME (1+)	Broadcast and Multicast Service Controller Domain Name List for DHCPv4. See RFC 4280.

No.	Cisco Prime Network Registrar Name	Validation	Description
89	bcmcs-servers-a	AT_IPADDR (1+)	Broadcast and Multicast Service Controller IPv4 Address Option for DHCPv4. See RFC 4280.
90	authentication	AT_BLOB	DHCP authentication option. See RFC 3118.
91	lq-client-last-transaction- time	AT_TIME	Allows the receiver to determine the time of the most recent access of the client. See RFC 4388.
92	lq- associated-ip	AT_IPADDR (1+)	Used to return all of the IP addresses associated with the DHCP client specified in a particular DHCPLEASEQUERY message. See RFC 4388.
93	pxe-client-arch	AT_SHORT	Client System Architecture Type Option Definition. See RFC 4578.
94	pxe-client-network-id	AT_BLOB	Client Network Interface Identifier Option Definition. See RFC 4578.
95	ldap-url	AT_NSTRING	LDAP Servers. See RFC 3679.
97	pxe-client-machine-id	AT_BLOB	Client Machine Identifier Option Definition. See RFC 4578.
98	user-auth	AT_NSTRING	Specifies a list of URLs, each pointing to a user authentication service that is capable of processing authentication requests encapsulated in the User Authentication Protocol (UAP). See RFC 2485.
99	geoconf-civic	AT_BLOB	DHCP Civic Location Option. See RFC 4776.
100	posix-timezone	AT_NSTRING	IEEE 1003.1 TZ String. See RFC 4833.
101	tzdb-timezone	AT_NSTRING	Reference to the TZ Database. See RFC 4833.
108	ipv6-only-preferred	AT_INT	IPv6-Only Preferred Option. See RFC 8925.
109	dhcp4o6-s46-saddr	AT_IP6ADDR	DHCP 4o6 Softwire Source Address Option. See RFC 8539.
112	netinfo-parent-server-addr	AT_IPADDR	Netinfo Address. See RFC 3679.
113	netinfo-parent-server-tag	AT_NSTRING	Netinfo Tag. See RFC 3679.
114	captive-portal	AT_NSTRING	DHCP Captive-Portal Option. See RFC 8910.
116	auto-configure	AT_RANGEBYTE	Used to ask whether, and be notified if, auto-configuration should be disabled on the local subnet. See RFC 2563.
117	name-service-search	AT_SHORT (1+)	Name Service Search Option. See RFC 2937.
118	subnet-selection	AT_IPADDR	Subnet Selection Option. See RFC 3011.

No.	Cisco Prime Network Registrar Name	Validation	Description
119	domain-search	AT_DNSNAME (1+)	Domain Search Option. See RFC 3397.
120	sip-servers	AT_BLOB	SIP Server DHCP Option. See RFC 3361.
121	classless-static-route	AT_BLOB	Classless Route Option. See RFC 3442.
122	cablelabs-client-configuration	AT_BLOB	CableLabs Client Configuration Option (see the Table 3). See RFC 3495.
123	geo-conf	AT_BLOB	DHCPv4 GeoConf Option. See RFC 6225.
124	v-i-vendor-class	AT_VENDOR_CLASS	Vendor-Identifying Vendor Class Option. See RFC 3925.
125	v-i-vendor-opts	AT_VENDOR_OPTS	Vendor-Identifying Vendor-Specific Information Option. See also the cablelabs-125 suboptions in Table 3. See RFC 3925.
128	mcns-security-server	AT_IPADDR	DOCSIS "full security" server IP address. See RFC 4578.
136	pana-agent	AT_IPADDR (1+)	PANA Authentication Agent DHCPv4 Option. See RFC 5192.
137	lost-server	AT_DNSNAME	LoST Server DHCPv4 Option. See RFC 5223.
138	capwap-ac-v4	AT_IPADDR (1+)	CAPWAP AC DHCPv4 Option. See RFC 5417.
139	mos-address	AT_BLOB	MoS IPv4 Address Option for DHCPv4. See RFC 5678.
140	mos-fqdn	AT_BLOB	MoS Domain Name List Option for DHCPv4. See RFC 5678.
141	sip-ua-cs-domains	AT_DNSNAME (0+)	DHCP SIP User Agent Configuration Service Domains Option. See RFC 6011.
142	andsf-v4	AT_IPADDR	ANDSF IPv4 Address Option for DHCPv4. See RFC 6153
143	sztp-redirect	AT_TYPECNT (0+)	Used to provision the client with one or more URIs for bootstrap servers that can be contacted to attempt further configuration. See RFC 8572.
144	geoloc	AT_BLOB	DHCPv4 GeoLoc Option. See RFC 6225.
145	forcerenew-nonce-capable	AT_INT8 (1+)	Forcerenew Nonce Protocol Capability Option. See RFC 6704.
146	rdnss-selection	AT_BLOB	Used to inform resolvers which RDNSS can be contacted when initiating forward or reverse DNS lookup procedures. See RFC 6731.

No.	Cisco Prime Network Registrar Name	Validation	Description
147	dots-ri	AT_DNSNAME	DHCPv4 DOTS Reference Identifier Option. See RFC 8973.
148	dots-address	AT_IPADDR (1+)	DHCPv4 DOTS Address Option. See RFC 8973.
150	tftp-server-address	AT_IPADDR (1+)	TFTP Server Address Option Definition. See RFC 5859.
151	status-code	AT_BLOB	Allows a machine-readable value to be returned regarding the status of a DHCPBULKLEASEQUERY request. See RFC 6926.
152	base-time	AT_DATE	Current time the message was created to be sent by the DHCPv4 server to the requestor of the Bulk Leasequery. See RFC 6926.
153	start-time-of-state	AT_TIME	Allows the receiver to determine the time at which the IP address made the transition into its current state. See RFC 6926.
154	query-start-time	AT_DATE	Specifies a start query time to the DHCPv4 server. See RFC 6926.
155	query-end-time	AT_DATE	Specifies an end query time to the DHCPv4 server. See RFC 6926.
156	dhcp-state	AT_INT8	Allows greater detail to be returned than allowed by the DHCPLEASEACTIVE and DHCPLEASEUNASSIGNED message types. See RFC 6926.
157	data-source	AT_INT8	Contains information about the source of the data in a DHCPLEASEACTIVE or a DHCPLEASEUNASSIGNED message. See RFC 6926.
158	v4-pcp-server	AT_BLOB (1+)	Used to configure a list of IPv4 addresses of a PCP server. See RFC 7291.
159	v4-portparams	AT_BLOB	DHCPv4 Port Parameters Option. See RFC 7618.
160	captive-portal-old	AT_NSTRING	Captive-Portal DHCPv4 Option. See RFC 7710.
161	mud-url	AT_NSTRING	IPv4 MUD URL client option. See RFC 8520.
162	cisco-client-requested-host-name	AT_NSTRING	Cisco Client Requested Host Name. See RFC 3942.
163	cisco-client-last-transaction-time	AT_INT	Cisco Client Last Transaction Time. See RFC 3942.

No.	Cisco Prime Network Registrar Name	Validation	Description
185	vpn-id	AT_BLOB	VPN Identifier. See RFC 3942.
209	pxelinux-config-file	AT_NSTRING	Configuration File Option. See RFC 5071.
210	pxelinux-path-prefix	AT_NSTRING	Path Prefix Option. See RFC 5071.
211	pxelinux-reboot-time	AT_TIME	Reboot Time Option. See RFC 5071.
212	6rd	AT_BLOB	6rd DHCPv4 Option. See RFC 5969.
213	access-domain	AT_NSTRING	Access Network Domain Name DHCPv4 Option. See RFC 5986.
220	subnet-alloc	AT_TIME	Subnet Allocation Option. See RFC 6656.
221	cisco-vpn-id	AT_NSTRING	DHCPv4 Virtual Subnet Selection Option. See RFC 6607.
251	cisco-auto-configure	AT_RANGEBYTE	Cisco Autoconfiguration Option.
255	end	AT_NOLEN	Marks the end of valid information in the vendor field. See RFC 2132.

DHCPv4 Options by Cisco Prime Network Registrar Name

The table below lists the DHCPv4 options by Cisco Prime Network Registrar name. For each option validation type, cross-reference it by number to DHCPv4 Options by Number, on page 1 and check the Validation column.

Table 2: DHCPv4 Options by Cisco Prime Network Registrar Name

Cisco Prime Network Registrar Name	No.	Option Name
6rd	212	IPv6 Rapid Deployment on IPv4 Infrastructures (6rd)
access-domain	213	Access Network Domain Name
all-subnets-local	27	All Subnets Are Local
andsf-v4	142	ANDSF IPv4 Address for DHCPv4
arp-cache-timeout	35	ARP Cache Timeout
authentication	90	Authentication
auto-configure	116	Auto-Configuration
base-time	152	base-time

Cisco Prime Network Registrar Name	No.	Option Name
bcmcs-servers-a	89	BCMCS Address
bcmcs-servers-d	88	BCMCS Controller Domain
boot-file	67	Bootfile Name
boot-size	13	Boot File Size
broadcast-address	28	Broadcast Address
cablelabs-client-configuration	122	CableLabs Client Configuration
captive-portal	114	Captive-Portal DHCPv4
captive-portal-old	160	Captive-Portal DHCPv4
capwap-ac-v4	138	CAPWAP AC
cisco-auto-configure	251	Cisco Autoconfiguration
cisco-client-last-transaction-time	163	Cisco Client Last Transaction Time
cisco-client-requested-host-name	162	Cisco Client Requested Host Name
cisco-vpn-id	221	Cisco VPN Identifier
classless-static-route	121	Classless Static Route
client-fqdn	81	DHCP Client FQDN
cookie-servers	8	Cookie Server
data-source	157	data-source
default-ip-ttl	23	Default IP Time-to-Live
default-tcp-ttl	37	TCP Default TTL
dhcp-class-identifier	60	Vendor Class Identifier
dhcp-client-identifier	61	Client-Identifier
dhcp-lease-time	51	IP Address Lease Time
dhcp-max-message-size	57	Maximum DHCP Message Size
dhcp-message	56	Message
dhcp-message-type	53	DHCP Message Type
dhcp-option-overload	52	Option Overload
dhcp-parameter-request-list	55	Parameter Request List
dhcp-rebinding-time	59	Rebinding (T2) Time Value

Cisco Prime Network Registrar Name	No.	Option Name
dhcp-renewal-time	58	Renewing (T1) Time Value
dhcp-requested-address	50	Requested IP Address
dhcp-server-identifier	54	Server Identifier
dhcp-state	156	State of IP Address
dhcp-user-class-id	77	User Class ID
dhcp4o6-s46-saddr	109	DHCP 4o6 Softwire Source Address
domain-name	15	Domain Name
domain-name-servers	6	Domain Name Server
domain-search	119	Domain Search
dots-address	148	DHCPv4 DOTS Address
dots-ri	147	DHCPv4 DOTS Reference Identifier
end	255	End
extensions-path	18	Extensions Path
finger-servers	73	Finger Server
font-servers	48	X Window System Font Server
forcerenew-nonce-capable	145	Forcerenew Nonce Authentication
geo-conf	123	GeoConf
geoconf-civic	99	Civic Addresses Configuration
geoloc	144	Geospatial Location with Uncertainty
host-name	12	Host Name
ieee802.3-encapsulation	36	Ethernet Encapsulation
impress-servers	10	Impress Server
interface-mtu	26	Interface MTU
ip-forwarding	19	IP Forwarding Enable/Disable
ipv6-only-preferred	108	IPv6-Only Preferred
irc-servers	74	IRC Server
iSNS	83	iSNS

Cisco Prime Network Registrar Name	No.	Option Name
ldap-url	95	Lightweight Directory Access Protocol (LDAP) Servers
log-servers	7	Log Server
lost-server	137	LoST Server DHCPv4
lpr-servers	9	LPR Server
lq-associated-ip	92	Leasequery Associated IP Address
lq-client-last-transaction-time	91	Leasequery Client Transaction Time
mask-supplier	30	Mask Supplier
max-dgram-reassembly	22	Maximum Datagram Reassembly Size
mcns-security-server	128	DOCSIS "full security" server IP address
merit-dump	14	Merit Dump File
mobile-ip-home-agents	68	Mobile IP Home Agent
mos-address	139	MoS IPv4 Address
mos-fqdn	140	MoS Domain Name List
mud-url	161	IPv4 MUD URL
name-servers	5	Name Server
name-service-search	117	Name Service Search
nds-context	87	NDS Context
nds-servers	85	NDS Servers
nds-tree	86	NDS Tree Name
netbios-dd-servers	45	NetBIOS over TCP/IP Datagram Distribution Server
netbios-name-servers	44	NetBIOS over TCP/IP Name Server
netbios-node-type	46	NetBIOS over TCP/IP Node Type
netbios-scope	47	NetBIOS over TCP/IP Scope
netinfo-parent-server-addr	112	NetInfo Parent Server Address
netinfo-parent-server-tag	113	NetInfo Parent Server Tag
netwareip-domain	62	NetWare/IP Domain Name
netwareip-information	63	NetWare/IP Information

Cisco Prime Network Registrar Name	No.	Option Name
nis+-domain	64	NIS+ Domain
nis+-servers	65	Network Information Service (NIS+) Servers
nis-domain	40	NIS Domain
nis-servers	41	Network Information Service (NIS) Servers
nntp-servers	71	NNTP Server
non-local-source-routing	20	Non-Local Source Routing
ntp-servers	42	NTP Servers
pad	0	Pad
pana-agent	136	PANA Authentication Agent DHCPv4
path-mtu-aging-timeout	24	Path MTU Aging Timeout
path-mtu-plateau-tables	25	Path MTU Plateau Table
perform-mask-discovery	29	Perform Mask Discovery
policy-filters	21	Policy Filter
pop3-servers	70	POP3 Server
posix-timezone	100	IEEE 1003.1 String
pxe-client-arch	93	Client System Architecture Type
pxe-client-machine-id	97	Client Machine Identifier
pxe-client-network-id	94	Client Network Interface Identifier
pxelinux-config-file	209	Configuration File
pxelinux-path-prefix	210	Path Prefix
pxelinux-reboot-time	211	Reboot Time
query-end-time	155	query-end-time
query-start-time	154	query-start-time
rapid-commit	80	Rapid Commit
rdnss-selection	146	RDNSS Selection DHCPv4
relay-agent-info	82	DHCP Relay Agent Information
resource-location-servers	11	Resource Location Server
root-path	17	Root Path

Cisco Prime Network Registrar Name	No.	Option Name
router-discovery	31	Perform Router Discovery
router-solicitation-address	32	Router Solicitation Address
routers	3	Router
sip-servers	120	SIP Servers
sip-ua-cs-domains	141	SIP UA Configuration Service Domains
slp-directory-agent	78	SLP Directory Agent
slp-service-scope	79	SLP Service Scope
smtp-servers	69	SMTP Server
start-time-of-state	153	start-time-of-state
static-routes	33	Static Route
status-code	151	Status Code
streettalk-directory- assistance-servers	76	STDA Server
streettalk-servers	75	StreetTalk Server
subnet-alloc	220	Subnet Allocation
subnet-mask	1	Subnet Mask
subnet-selection	118	Subnet Selection
swap-server	16	Swap Server
sztp-redirect	143	DHCPv4 SZTP Redirect
tcp-keepalive-garbage	39	TCP Keepalive Garbage
tcp-keepalive-interval	38	TCP Keepalive Interval
tftp-server	66	TFTP Server Name
tftp-server-address	150	TFTP Server Address
time-offset	2	Time Offset
time-servers	4	Time Server
trailer-encapsulation	34	Trailer Encapsulation
tzdb-timezone	101	TZ Database String
user-auth	98	User Authentication
v-i-vendor-class	124	Vendor Identifying Vendor Class

Cisco Prime Network Registrar Name	No.	Option Name
v-i-vendor-opts	125	Vendor Identifying Vendor Options
v4-pcp-server	158	DHCPv4 PCP server
v4-portparams	159	DHCPv4 Port Parameters
vendor-encapsulated-options	43	Vendor Specific Information
vpn-id	185	VPN Identifier
www-servers	72	WWW Server
x-display-managers	49	X Window System Display Manager

DHCPv6 Options by Number

The table below lists the DHCPv6 options sorted by option number and includes the validation type. See Table 5: Validation Types, on page 31 for details on the option validation types found in the Validation column. All the option packets include at least an option length (option-len) and a variable length data field. There can also be additional parameter settings, as described in the table. Many of these options are described in RFC 8415.

Note RFC 8415 incorporated and obsoleted earlier RFCs: RFC 3315, RFC 3633, RFC 3736, RFC 4242, and RFC 7083.

Table 3: DHCPv6 Options by Number

No.	Cisco Prime Network Registrar Name	Validation	Description
1	client-identifier	AT_BLOB	DUID identifying a client between a client and a server. See RFC 8415.
2	server-identifier	AT_BLOB	DUID identifying a server between a client and a server. See RFC 8415.
3	ia-na	AT_BLOB	Nontemporary Addresses option with the associated parameters and addresses. Parameters are the unique ID, time the client contacts the addresses in the IA to extend the lifetime, and time the client contacts any available server to extend the lifetime of the addresses. See RFC 8415.
4	ia-ta	AT_BLOB	Temporary Addresses option with the associated parameters and addresses. See RFC 8415.

No.	Cisco Prime Network Registrar Name	Validation	Description
5	iaaddr	AT_BLOB	IPv6 addresses associated with an IA_NA or IA_TA. (The IAADRR must be encapsulated in the options field of an IA_NA or IA_TA option.) The IAADDR option includes preferred and valid lifetime fields, and the options field that encapsulates the options specific to this address. See RFC 8415.
6	oro	AT_SHORT (0+)	Option Request option (ORO) that identifies a list of options in a message between a client and a server. A client can include this option in a Solicit, Request, Renew, Rebind, Confirm, or Information-request message to inform the server about options the client wants from the server. A server can include this option in a Reconfigure message to indicate which option updates the client should request. See RFC 8415.
7	preference	AT_INT8	A server sends this option to a client to affect what server the client selects. See RFC 8415.
8	elapsed-time	AT_SHORT	A client sends this option to a server to indicate how long the client has been trying to complete a message exchange. See RFC 8415.
9	relay-message	AT_BLOB	DHCP message in a Relay-forward or Relay-reply message. See RFC 8415.
11	auth	AT_BLOB	Authenticates the identity and contents of a DHCP message. The parameters are the authentication protocol, the authentication algorithm, the replay detection method (RDM), and the authentication information. See RFC 8415.
12	server-unicast	AT_IP6ADDR	The server sends this option to a client to indicate that the client can unicast messages to the server. See RFC 8415.
13	status-code	AT_BLOB	Returns a status indication related to the DHCP message or option in which it appears. The parameters are the status code and status message. See RFC 8415.
14	rapid-commit	AT_ZEROSIZE	Signals use of the two-message exchange for address assignment. See RFC 8415.
15	user-class	AT_TYPECNT	Clients use this option to identify the type or category of user or applications it represents. A zero type count value field followed by user data (as a blob). See RFC 8415.

No.	Cisco Prime Network Registrar Name	Validation	Description
16	vendor-class	AT_VENDOR_CLASS	Clients use this option to identify the vendor that manufactured the hardware on which they are running. See RFC 8415.
17	vendor-opts	AT_VENDOR_OPTS	Clients and servers use this option to exchange vendor-specific information. The enterprise ID for the CableLabs vendor is 4491; the suboptions for CableLabs are listed in Table 4. See RFC 8415.
18	interface-id	AT_BLOB	Relay agents use this option to identify the interface on which the client message is received. See RFC 8415.
19	reconfigure-message	AT_INT8	The server includes this in a Reconfigure message to indicate whether the client should respond with a Renew or Information-request message. See RFC 8415.
20	reconfigure-accept	AT_ZEROSIZE	Clients use this option to announce to the server whether the client is willing to accept Reconfigure messages. See RFC 8415.
21	sip-servers-name	AT_DNSNAME (0+)	Domain names of the SIP outbound proxy servers for the client. See RFC 3319.
22	sip-servers-address	AT_IP6ADDR (0+)	IPv6 addresses of the SIP outbound proxy servers for the client. See RFC 3319.
23	dns-servers	AT_IP6ADDR (1+)	IPv6 addresses of DNS recursive name servers. See RFC 3646.
24	domain-list	AT_DNSNAME (0+)	Domain names in the domain search list. See RFC 3646.
25	ia-pd	AT_BLOB	IPv6 prefix delegation identity association and its associated parameters and prefixes. Parameters are the unique ID, time the client contacts the addresses in the IA to extend the lifetime, and time the client contacts any available server to extend the lifetime of the addresses. See RFC 8415.
26	iaprefix	AT_BLOB	IPv6 prefixes associated with an IA_PD. The prefix must be encapsulated in the options field of an IA_PD option. Parameters are the valid and preferred lifetimes, prefix length, and the prefix. See RFC 8415.

No.	Cisco Prime Network Registrar Name	Validation	Description
27	nis-servers	AT_IP6ADDR (1+)	List of IPv6 addresses of Network Information Service (NIS) servers available to the client. See RFC 3898.
28	nisp-servers	AT_IP6ADDR (1+)	List of IPv6 addresses of NIS+ servers available to the client. See RFC 3898.
29	nis-domain-name	AT_DNSNAME (1+)	Conveys the NIS domain name to the client. See RFC 3898.
30	nisp-domain-name	AT_DNSNAME (1+)	Conveys the NIS+ domain name to the client. See RFC 3898.
31	sntp-servers	AT_IP6ADDR (1+)	List of Simple Network Time Protocol (SNTP) servers available to the client. See RFC 4075.
32	info-refresh-time	AT_TIME	Sets an upper bound for how long a client should wait before refreshing DHCPv6 information. See RFC 8415.
33	bcmcs-server-d	AT_DNSNAME (1+)	List of BCMCS controller domains. See RFC 4280.
34	bcmcs-server-a	AT_IP6ADDR (1+)	List of IPv6 addresses for the Broadcast and Multicast Service (BCMCS) controller. See RFC 4280.
36	geoconf-civic	AT_BLOB	DHCP civic addresses configuration. See RFC 4776.
37	remote-id	AT_BLOB	Relay agents that terminate switched or permanent circuits can add this option to identify remote hosts. See RFC 4649.
38	relay-agent-subscriber-id	AT_BLOB	Allows assignment and activation of subscriber-specific actions. See RFC 4580.
39	client-fqdn	AT_BLOB	DHCP client FQDN. See RFC 4704.
40	pana-agent	AT_IP6ADDR (1+)	Carries a list of 32-bit (binary) IPv4 addresses indicating PANA Authentication Agents (PAAs) available to the PANA client (PaC). See RFC 5192.
41	new-posix-timezone	AT_NSTRING	POSIX time zone, for example, EST5EDT4, M3.2.0/02:00,M11.1.0/02:00. See RFC 4833.
42	new-tzdb-timezone	AT_NSTRING	POSIX time zone database name, for example, Europe/Zurich. See RFC 4833.
43	ero	AT_SHORT (0+)	Relay agent Echo Request option to inform the server of the list of relay agent options to echo back. See RFC 4994.

No.	Cisco Prime Network Registrar Name	Validation	Description
44	lq-query	AT_BLOB	Used only in a LEASEQUERY message; identifies the query being performed. The option includes the query type, link-address (or 0::0), and options to provide data needed for the query. See RFC 5007.
45	client-data	AT_CONTAINER6	Encapsulates the data for a single client on a single link in a LEASEQUERY-REPLY message. See RFC 5007.
46	clt-time	AT_TIME	Client last transaction time encapsulated in the *client-data* option; identifies how long ago the server last communicated with the client (in seconds). See RFC 5007.
47	lq-relay-data	AT_BLOB	Used only in a LEASEQUERY-REPLY message; provides the relay agent data used when the client last communicated with the server. See RFC 5007.
48	lq-client-links	AT_IP6ADDR (1+)	Used only in a LEASEQUERY-REPLY message; identifies the links on which the client has one or more bindings. It is used in reply to a query when no link-address was specified and the client is found to be on more than one link. See RFC 5007.
49	mip6-hnidf	AT_DNSNAME	Defines the Home Network ID FQDN option. See RFC 6610.
50	mip6-vdinf	AT_CONTAINER6	Defines the Visited Home Network Information option. See RFC 6610.
51	lost-server	AT_DNSNAME	A DHCPv6 client will request a LoST server domain name in an Options Request Option (ORO) (see RFC 8415). This option contains a single domain name and must contain precisely one root label. See RFC 5223.
52	capwap-ac-v6	AT_IP6ADDR (1+)	Carries a list of 128-bit (binary) IPv6 addresses indicating one or more Control and Provisioning of Wireless Access Point (CAPWAP) Access Controllers (ACs) available to the Wireless Termination Point (WTP). Ssee RFC 5417.
53	relay-id	AT_BLOB	A DHCPv6 server MAY associate Relay-ID options from Relay-Forward messages it processes with prefix delegations and/or lease bindings that result. See RFC 5460.
54	mos-address	AT_IP6ADDR	Mobility Sever (MoS) IPv6 Address for DHCP v4. See RFC 5678.

No.	Cisco Prime Network Registrar Name	Validation	Description
55	mos-fqdn	AT_BLOB	Mobility Sever (MoS) Domain Name List for DHCPv6. See RFC 5678.
56	ntp-server	AT_BLOB	Serves as a container for server location information related to one Network Time Protocol (NTP) server or Simple Network Time Protocol (SNTP) server. This option can appear multiple times in a DHCPv6 message. Each instance of this option is to be considered by the NTP client or SNTP client as a server to include in its configuration. The option itself does not contain any value. Instead, it contains one or several suboptions that carry NTP server or SNTP server location. See RFC 5908.
57	access-domain	AT_DNSNAME	Defines the domain name associated with the access network. This option contains a single domain name and, as such, must contain precisely one root label. See RFC 5986.
58	sip-ua-cs-domains	AT_DNSNAME (0+)	Defines the list of domain names in the Session Initiation Protocol (SIP) User Agent Configuration Service Domains. See RFC 6011.
59	bootfile-url	AT_NSTRING	Informs the client about a URL to a boot file. See RFC 5970.
60	bootfile-param	AT_TYPECNT (0+)	Sent by the server to the client. It consists of multiple UTF-8 (see RFC 3629) strings for specifying parameters for the boot file. See RFC 5970.
61	client-arch-type	AT_SHORT (1+)	Provides parity with the Client System Architecture Type option (option 93) defined for DHCPv4. See RFC 5970.
62	nii	AT_BLOB	Provides parity with the Client Network Interface Identifier option (option 94) defined for DHCPv4. See RFC 5970.
63	geoloc	AT_BLOB	Specifies the coordinate-based geographic location of the client, to be provided by the server. See RFC 6225.
64	aftr-name	AT_DNSNAME	Defines a fully qualified domain name of the AFTR tunnel endpoint. See RFC 6334.
65	erp-local-domain-name	AT_DNSNAME	Contains the name of the local ERP domain. See RFC 6440.

No.	Cisco Prime Network Registrar Name	Validation	Description
66	rsoo	AT_CONTAINER6	Encapsulates whatever options the relay agent wishes to provide to the DHCPv6 server. See RFC 6422.
67	pd-exclude	AT_BLOB	Used to exclude exactly one prefix from a delegated prefix. See RFC 6603.
68	vpn-id	AT_BLOB	Used to identify a VPN. See RFC 6607.
69	mip6-idinf	AT_CONTAINER6	Used by relay agents and DHCP servers to provide information about the home network identified. See RFC 6610.
70	mip6-udinf	AT_CONTAINER6	Provides information about a home network specified by the DHCP server administrator. See RFC 6610.
71	mip6-hnp	AT_BLOB	Defines the prefix for a home network. See RFC 6610.
72	mip6-haa	AT_IP6ADDR	Used by DHCP servers and relay agents to specify the home agent IP address. See RFC 6610.
73	mip6-haf	AT_DNSNAME	Specifies the Home Agent FQDN to look up one or more A or AAAA records containing IPv4 or IPv6 addresses for the home agent, as needed. See RFC 6610.
74	rdnss-selection	AT_BLOB	Informs resolvers which RDNSS can be contacted when initiating forward or reverse DNS lookup procedures. See RFC 6731.
75	krb-principal-name	AT_BLOB	Sent by the client to the DHCPv6 server, which uses it to select a specific set of configuration parameters, either for a client or for a Kerberos application server. See RFC 6784.
76	krb-realm-name	AT_NSTRING	Specifies to a DHCPv6 server which realm the client wants to access. See RFC 6784.
77	krb-default-realm-name	AT_NSTRING	Specifies a default realm name for the Kerberos system (clients and Kerberos application servers). See RFC 6784.
78	krb-kdc	AT_BLOB	Provides configuration information about a KDC. See RFC 6784.
79	client-linklayer-address	AT_BLOB	Indicates the client link layer address. See RFC 6939.
80	link-address	AT_IP6ADDR	Indicates to the server the link on which the client is located. See RFC 6977.

No.	Cisco Prime Network Registrar Name	Validation	Description
81	radius	AT_BLOB	Provides a mechanism to exchange authorization and identification information between the DHCPv6 relay agent and DHCPv6 server. See RFC 7037.
82	sol-max-rt	AT_TIME	Overrides the default value of sol-max-rt. See RFC 8415.
83	inf-max-rt	AT_TIME	Overrides the default value of inf-max-rt. See RFC 8415.
84	addrsel	AT_BLOB	Provides the policy table and some other configuration parameters. See RFC 7078.
85	addrsel-table	AT_BLOB	Provides the Address Selection Policy Table options. See RFC 7078.
86	v6-pcp-server	AT_IP6ADDR (1+)	Configures a list of IPv6 addresses of a PCP server. This option supports only single instance. See RFC 7291.
87	dhcpv4-msg	AT_BLOB (0+)	Carries a DHCPv4 message that is sent by the client or the server. Such messages exclude any IP or UDP headers. See RFC 7341.
88	dhcp4-o-dhcp6-server	AT_IP6ADDR (0+)	Carries a list of DHCP 4o6 servers' IPv6 addresses that the client should contact to obtain IPv4 configuration. See RFC 7341.
89	s46-rule	AT_BLOB	Conveys the Basic Mapping Rule (BMR) and Forwarding Mapping Rule (FMR). See RFC 7598.
90	s46-br	AT_IP6ADDR	Conveys the the IPv6 address of the Border Relay. See RFC 7598.
91	s46-dmr		Conveys values for the Default Mapping Rule (DMR). See RFC 7598.
92	s46-v4v6bind	AT_BLOB	Specifies the full or shared IPv4 address of the CE. The IPv6 prefix field is used by the CE to identify the correct prefix to use for the tunnel source. See RFC 7598.
93	s46-portparams	AT_BLOB	Specifies optional port set information that MAY be provided to CEs. See RFC 7598.
94	s46-cont-mape	AT_CONTAINER6	Specifies the container used to group all rules and optional port parameters for a specified domain (Softwire46 MAP-E domain). See RFC 7598.

No.	Cisco Prime Network Registrar Name	Validation	Description
95	s46-cont-mapt	AT_CONTAINER6	Specifies the container used to group all rules and optional port parameters for a specified domain (Softwire46 MAP-T domain). See RFC 7598.
96	s46-cont-lw	AT_CONTAINER6	Specifies the container used to group all rules and optional port parameters for a specified domain (Softwire46 Lightweight 4over6 domain). See RFC 7598.
97	4rd	AT_CONTAINER6	Indicates the DHCPv6 option for 4rd (IPv4 Residual Deployment). See RFC 7600.
98	4rd-map-rule	AT_BLOB	Indicates the Mapping-Rule Parameters of 4rd domains. See RFC 7600.
99	4rd-non-map-rule	AT_BLOB	Indicates the Non-Mapping-Rule Parameters of 4rd domains. See RFC 7600.
100	lq-base-time	AT_INT	Current time the message was created to be sent by the DHCPv6 server to the requestor of the Active or Bulk Leasequery if the requestor asked for the same in an Active or Bulk Leasequery request. See RFC 7653.
101	lq-start-time	AT_INT	Specifies a query start time to the DHCPv6 server. See RFC 7653.
102	lq-end-time	AT_INT	Specifies a query end time to the DHCPv6 server. See RFC 7653.
103	captive-portal	AT_NSTRING	Informs the client that it is behind a captive portal and provides the URI to access an authentication page. See RFC 7710.
104	mpl-parameters	AT_BLOB (0+)	Provides a means to distribute a configuration of an MPL Domain or a default value for all MPL Domains (a wildcard) within the network managed by the DHCP server. See RFC 7774.
105	ani-att	AT_BLOB	Used for exchanging the type of access technology the client uses to attach to the network. See RFC 7839.
106	ani-network-name	AT_NSTRING	Name of the access network to which the mobile node is attached. See RFC 7839.
107	ani-ap-name	AT_NSTRING	Name of the access point (physical device name) to which the mobile node is attached. See RFC 7839.

No.	Cisco Prime Network Registrar Name	Validation	Description
108	ani-ap-bssid	AT_BLOB	48-bit Basic SSSID (BSSID) of the access point to which the mobile node is attached. See RFC 7839.
109	ani-operator-id	AT_BLOB	Variable-length Private Enterprise Number (PEN) encoded in a network byte order. See RFC 7839.
110	ani-operator-realm	AT_NSTRING	Realm of the operator. See RFC 7839.
111	s46-priority	AT_SHORT (1+)	Conveys a priority order of IPv4 service continuity mechanisms. See RFC 8026.
112	mud-url	AT_NSTRING	Identifies the type of Thing to the network in a structured way such that the policy can be easily found with existing toolsets. See RFC 8520.
113	prefix64	AT_BLOB	Conveys the IPv6 prefix(es) to be used (for example, by an mB4) to synthesize IPv4-embedded IPv6 addresses. See RFC 8115.
135	relay-port	AT_SHORT	Relay Source Port Option for DHCPv6. This requires specialized server processing and is not a "configurable" option - the option is added by a relay agent and must be echoed by the server in the Relay-Reply, and requires specialized processing in the server to return the response to the relay via the relayed packet's source port. See RFC 8357.
136	sztp-redirect	AT_TYPECNT (0+) (list of URI strings)	Used to provision the client with one or more URIs for bootstrap servers that can be contacted to attempt further configuration. See RFC 8572.
137	s46-bind-ipv6-prefix	AT_VPREFIX	DHCPv6 Softwire Source Binding Prefix Hint option. See RFC 8539.
141	dots-ri	AT_DNSNAME	DHCPv6 DOTS Reference Identifier Option. See RFC 8973.
142	dots-address	AT_IP6ADDR (1+)	DHCPv6 DOTS Address option. See RFC 8973.
143	ipv6-address-andsf	AT_IP6ADDR (1+)	Allows the mobile node (MN) to locate an ANDSF server. See RFC 6153.

DHCPv6 Options by Cisco Prime Network Registrar Name

The table below lists the DHCP options by Cisco Prime Network Registrar name. For each option validation type, cross-reference it by number to DHCPv6 Options by Number, on page 17 and check the Validation column.

Table 4: DHCPv6 Options by Cisco Prime Network Registrar Name

Cisco Prime Network Registrar Name	No.	Option Name
4rd	97	IPv4 Residual Deployment via IPv6 (4rd)
4rd-map-rule	98	4rd Map Rule
4rd-non-map-rule	99	4rd Non Map Rule
access-domain	57	Access Network Domain Name
addrsel	84	Address Selection
addrsel-table	85	Address Selection Policy Table
aftr-name	64	AFTR tunnel endpoint domain name
ani-ap-bssid	108	DHCPv6 Access-Point-BSSID
ani-ap-name	107	DHCPv6 Access-Point-Name
ani-att	105	DHCPv6 Access-Technology-Type
ani-network-name	106	DHCPv6 Network-Name
ani-operator-id	109	DHCPv6 Operator-Identifier
ani-operator-realm	110	DHCPv6 Operator-Realm
auth	11	Authentication
bcmcs-server-a	34	BCMCS Address v6
bcmcs-server-d	33	BCMCS Controller Domain v6
bootfile-param	60	Boot File Parameters
bootfile-url	59	Boot File Uniform Resource Locator (URL)
captive-portal	103	Captive-Portal DHCPv6
capwap-ac-v6	52	CAPWAP AC
client-arch-type	61	Client System Architecture Type
client-data	45	Leasequery Reply Client Data
client-fqdn	39	DHCP Client FQDN
client-identifier	1	Client Identifier
client-linklayer-address	79	DHCPv6 Client Link-Layer Address
clt-time	46	Leasequery Client Last Transaction Time
dhcp4-o-dhcp6-server	88	DHCP 4o6 Server Address

Cisco Prime Network Registrar Name	No.	Option Name
dhcpv4-msg	87	DHCPv4 Message
dns-servers	23	DNS Recursive Name Server
domain-list	24	Domain Search List
dots-address	142	DHCPv6 DOTS Address
dots-ri	141	DHCPv6 DOTS Reference Identifier
elapsed-time	8	Elapsed Time
ero	43	Relay Agent Echo Request Option
erp-local-domain-name	65	Local ERP domain name
geoconf-civic	36	Civic Addresses Configuration
geoloc	63	Geolocation
ia-na	3	Identity Association for Nontemporary Addresses
ia-pd	25	Prefix Delegation
ia-ta	4	Identity Association for Temporary Addresses
iaaddr	5	IA Address
iaprefix	26	IA Prefix
inf-max-rt	83	Max Information-Request Timeout
info-refresh-time	32	Information Refresh Time
interface-id	18	Interface Identifier
ipv6-address-andsf	143	ANDSF IPv6 Address
krb-default-realm-name	77	Kerberos Default Realm Name
krb-kdc	78	Kerberos KDC
krb-principal-name	75	Kerberos Principal Name
krb-realm-name	76	Kerberos Realm Name
link-address	80	Link Address
lost-server	51	Location-to-Service Translation (LoST) Server DHCPv6
lq-base-time	100	Leasequery Base Time
lq-client-links	48	Leasequery Client Link Reply

Cisco Prime Network Registrar Name	No.	Option Name
lq-end-time	102	Leasequery End Time
lq-query	44	Leasequery
lq-relay-data	47	Leasequery Relay Agent Reply
lq-start-time	101	Leasequery Start Time
mip6-haa	72	MIPv6 Home Agent Address
mip6-haf	73	MIPv6 Home Agent FQDN
mip6-hnidf	49	MIPv6 Home Network ID FQDN
mip6-hnp	71	MIPv6 Home Network Prefix
mip6-idinf	69	MIPv6 Identified Home Network Information
mip6-udinf	70	MIPv6 Unrestricted Home Network Information
mip6-vdinf	50	MIPv6 Visited Home Network Information
mos-address	54	MoS IPv6 Address
mos-fqdn	55	MoS Domain Name List
mpl-parameters	104	MPL Parameters
mud-url	112	IPv6 MUD URL
new-posix-timezone	41	POSIX time zone string
new-tzdb-timezone	42	POSIX time zone database name
nii	62	Client Network Interface Identifier
nis-domain-name	29	NIS Domain Name
nis-servers	27	NIS Servers
nisp-domain-name	30	NIS+ Domain Name
nisp-servers	28	NIS+ Servers
ntp-server	56	Message
oro	6	Option Request Option
pana-agent	40	PANA Authentication Agent DHCPv6
pd-exclude	67	Prefix Exclude
preference	7	Preference
prefix64	113	Prefix64

Cisco Prime Network Registrar Name	No.	Option Name
radius	81	DHCPv6 RADIUS
rapid-commit	14	Rapid Commit
rdnss-selection	74	RDNSS Selection DHCPv6
reconfigure-accept	20	Reconfigure Accept
reconfigure-message	19	Reconfigure Message
relay-agent-subscriber-id	38	Relay Agent Subscriber ID
relay-id	53	Relay ID
relay-message	9	Relay Message
relay-port	135	Relay Source Port
remote-id	37	Relay Agent Remote ID
rsoo	66	Relay-Supplied Options
s46-br	90	Softwire46 (S46) Border Relay (BR)
s46-cont-lw	96	S46 Lightweight 4over6 Container
s46-cont-mape	94	S46 MAP-E Container
s46-cont-mapt	95	S46 MAP-T Container
s46-dmr	91	S46 Default Mapping Rule (DMR)
s46-portparams	93	S46 Port Parameters
s46-priority	111	S46 Priority
s46-rule	89	S46 Rule
s46-v4v6bind	92	S46 IPv4/IPv6 Address Binding
s46-bind-ipv6-prefix	137	DHCPv6 Softwire Source Binding Prefix Hint
server-identifier	2	DHCPv6 Server Identifier
server-unicast	12	Server Unicast
sip-servers-address	22	SIP Servers IPv6 Address List
sip-servers-name	21	SIP Servers Domain Name List
sip-ua-cs-domains	58	SIP User Agent Configuration Service Domains
sntp-servers	31	SNTP Configuration
sol-max-rt	82	SOL_MAX_RT

Cisco Prime Network Registrar Name	No.	Option Name
status-code	13	Status Code
sztp-redirect	136	DHCPv6 SZTP Redirect
user-class	15	User Class
v6-pcp-server	86	DHCPv6 PCP Server
vendor-class	16	Vendor Class
vendor-opts	17	Vendor Specific Information
vpn-id	68	VPN Identifier

Option Validation Types

The table below defines the DHCP option validation types. Note that you cannot use some of them to define custom options.

Table 5: Validation Types

Validation	Description—Web UI Equivalent
AT_BLOB	List of binary bytes—binary
AT_BOOL	Boolean—boolean
AT_CONTAINER6	DHCPv6 Option Container (not usable for custom options)
AT_DATE	Bytes representing a date—date
AT_DNSNAME	DNS name—DNS name
AT_INT	Unsigned 32-bit integer—unsigned 32-bit
AT_INT8	8-bit integer—unsigned 8-bit
AT_INTI	Unsigned 32-bit integer (Intel)—unsigned 32-bit (Intel)
AT_IPADDR	32-bit IP address—IP address
AT_IP6ADDR	128-bit IPv6 address—IPv6 address
AT_MACADDR	Bytes representing a MAC address—MAC address
AT_MESSAGE	Unsigned 8-bit message (not usable for custom options)
AT_NOLEN	No length (used for PAD and END only)
AT_NSTRING	Sequence of ASCII characters—string
AT_OVERLOAD	Overload bytes (not usable for custom options)

Validation	Description—Web UI Equivalent
AT_RANGEBYTE	Range of bytes (not usable for custom options)
AT_RANGESHORT	Range of shorts (not usable for custom options)
AT_RDNSNAME	Relative DNS name—relative DNS name
AT_SHORT	Unsigned 16-bit integer—unsigned 16-bit
AT_SHRTI	Unsigned 16-bit integer (Intel)—unsigned 16-bit (Intel)
AT_SINT	Signed 32-bit integer—signed 32-bit
AT_SINT8	8-bit integer—signed 8-bit
AT_SINTI	Signed 32-bit integer (Intel)—signed 32-bit (Intel)
AT_SSHORT	Signed 16-bit integer—signed 16-bit
AT_SSHRTI	Signed 16-bit integer (Intel)—signed 16-bit (Intel)
AT_STIME	Signed 32-bit signed integer representing time—signed time
AT_STRING	Unrestricted sequence of ASCII characters—string
AT_TIME	Unsigned 32-bit integer representing time—unsigned time

AT_TYPECNT	Type requiring two child definition: size of the type field, and type of data—counted-type:
	For the DHCPv4 dhcp-user-class-id option (77), the repeating pattern is:
	`[ len (1 byte) ] [ data, of single type ]`
	For the DHCPv6 user-class option (15), the repeating pattern is:
	`[ len (2 byte) ] [ data, of single type ]`

AT_VENDOR_CLASS	Vendor-class option (enterprise ID followed by opaque data; if DHCPv4, enterprise ID is followed by EID length)—vendor-class
AT_VENDOR_OPTS	Vendor-specific options data (enterprise ID followed by TLVs of vendor-specific data; if DHCPv4, enterprise ID is followed by EID length)—vendor-opts
AT_VPREFIX	IPv6 variable-length prefix
AT_ZEROSIZE	32 bits of zero size (no longer used for PAD and END)

Note AT_TIME takes the value entered in seconds, by default. For example, if you enter 60, it is taken as 60 seconds. If you enter 60s, 60m, 2h, 3d, 4w, or 1y, it is taken as 60 seconds, 60 minutes, 2 hours, 2 days, 4 weeks, or 1 year respectively and displayed as 60s, 60m, 2h, 2d, 4w, or 1y respectively. You can also use values such as 10m30s which results in the value 630 seconds and is displayed as 10m30s.