



IP Multicast Commands

The following are Cisco IOS IP Multicast commands.

beacon

To change the frequency, duration, or scope of beacon messages that the Manager sends to Test Senders and Test Receivers during a multicast routing monitor test, use the **beacon** command in manager configuration mode. To restore the default value, use the **no** form of this command.

beacon [*interval seconds*] [*holdtime seconds*] [*ttl ttl-value*]

no beacon [*interval seconds*] [*holdtime seconds*] [*ttl ttl-value*]

Syntax Description	Parameter	Description
	interval <i>seconds</i>	(Optional) Specifies the frequency of beacon messages (in seconds). The default value is 60 seconds, meaning one beacon message sent every 60 seconds.
	holdtime <i>seconds</i>	(Optional) Specifies the length of the test period in seconds. The Test Sender and Test Receiver are respectively sending and receiving test data constantly during the hold time. The default value is 1 day (86400 seconds).
	ttl <i>ttl-value</i>	(Optional) Specifies the time-to-live (TTL) value of the beacon messages. The default value is 32 hops.

Defaults

interval *seconds*: 60
holdtime *seconds*: 86400 (1 day)
ttl *hops*: 32

Command Modes

Manager configuration

Command History

Release	Modification
12.0(5)S	This command was introduced.

Usage Guidelines

The beacon message functions like a keepalive message. The Manager multicasts beacon messages to the Test Sender and Test Receiver. Beacon messages include the sender requests and receiver requests to start the test, thus providing redundancy in case the Test Sender or Test Receiver goes down.

You can increase the default **interval** keyword to reduce beacon traffic.

You can decrease the **holdtime** keyword to shorten the test time.

You can change the default number of TTL hops if your network is large and the beacon needs more than 32 hops to get from the Manager to the Test Sender or Test Receiver.

Examples

The following example customizes the Manager to send beacon messages every 30 minutes (1800 seconds), for a test period of 12 hours (43,200 seconds), with a TTL of 40 hops:

```
Router(config-mrm-manager)# beacon interval 1800 holdtime 43200 ttl 40
```

Related Commands

Command	Description
manager	Specifies that an interface is the Manager for MRM, and specifies the multicast group address the Test Receiver will listen to.

clear ip cgmp

To clear all group entries from the caches of Catalyst switches, use the **clear ip cgmp** command in privileged EXEC mode.

```
clear ip cgmp [interface-type interface-number]
```

Syntax Description	<i>interface-type</i> (Optional) Interface type and number. <i>interface-number</i>
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Command Modes	Privileged EXEC
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Command History	Release	Modification
	11.1	This command was introduced.

Usage Guidelines	This command sends a Cisco Group Management Protocol (CGMP) leave message with a group address of 0000.0000.0000 and a unicast address of 0000.0000.0000. This message instructs the switches to clear all group entries they have cached.
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If an interface type and number are specified, the leave message is sent only on that interface. Otherwise, it is sent on all CGMP-enabled interfaces.

Examples	The following example clears the CGMP cache:
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```
Router# clear ip cgmp
```

Related Commands	Command	Description
	ip cgmp	Enables CGMP on an interface of a router connected to a Catalyst 5000 switch.

clear ip dvmrp route

To delete routes from the Distance Vector Multicast Routing Protocol (DVMRP) routing table, use the **clear ip dvmrp route** command in privileged EXEC mode.

```
clear ip dvmrp route { * | route }
```

Syntax Description	*	Clears all routes from the DVMRP table.
	<i>route</i>	Name of the longest matched route to be cleared. Can be an IP address, a network number, or an IP Domain Name System (DNS) name.

Command Modes	Privileged EXEC
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Command History	Release	Modification
	11.0	This command was introduced.

Examples The following example deletes route 10.1.1.1 from the DVMRP routing table:

```
Router# clear ip dvmrp route 10.1.1.1
```

clear ip igmp group

To delete entries from the Internet Group Management Protocol (IGMP) cache, use the **clear ip igmp group** command in privileged EXEC mode.

```
clear ip igmp [vrf vrf-name] group [group-name | group-address | interface-type interface-number]
```

Syntax Description		
vrf	(Optional)	Supports the multicast VPN routing and forwarding (VRF) instance.
<i>vrf-name</i>	(Optional)	Name assigned to the VRF.
<i>group-name</i>	(Optional)	Name of the multicast group, as defined in the Domain Name System (DNS) hosts table or with the ip host command.
<i>group-address</i>	(Optional)	Address of the multicast group. This is a multicast IP address in four-part dotted-decimal notation.
<i>interface-type</i> <i>interface-number</i>	(Optional)	Interface type and number.

Defaults When this command is used with no arguments, all entries are deleted from the IGMP cache.

Command Modes Privileged EXEC

Command History	Release	Modification
	10.0	This command was introduced.
	12.0(23)S	The vrf keyword and <i>vrf-name</i> argument were added.
	12.2(13)T	The vrf keyword and <i>vrf-name</i> argument were added.

Usage Guidelines The IGMP cache contains a list of the multicast groups of which hosts on the directly connected LAN are members. If the router has joined a group, that group is also listed in the cache.

To delete all entries from the IGMP cache, specify the **clear ip igmp group** command with no arguments.

Examples The following example clears entries for the multicast group 224.0.255.1 from the IGMP cache:

```
Router# clear ip igmp group 224.0.255.1
```

Related Commands

Command	Description
ip host	Defines a static host name-to-address mapping in the host cache.
show ip igmp groups	Displays the multicast groups that are directly connected to the router and that were learned through IGMP.
show ip igmp interface	Displays multicast-related information about an interface.

clear ip mrm status-report

To clear the status report cache buffer, use the **clear ip mrm status-report** command in privileged EXEC mode.

clear ip mrm status-report [*ip-address*]

Syntax Description	<i>ip-address</i>	(Optional) Address of the Test Receiver. Clears only those status reports received from the Test Receiver that has this IP address. If no address is specified, all status reports are cleared from the cache buffer.
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Command Modes	Privileged EXEC
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Command History	Release	Modification
	12.0(5)S	This command was introduced.

Usage Guidelines	You typically need not clear this circular cache buffer.
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Examples The following example clears status reports from the Test Receiver at 172.16.0.0:

```
Router# clear ip mrm status-report 172.16.0.0
```

Related Commands	Command	Description
	show ip mrm status-report	Displays MRM status reports of errors in the circular cache buffer.

clear ip mroute

To delete entries from the IP multicast routing table, use the **clear ip mroute** command in privileged EXEC mode.

```
clear ip mroute [vrf vrf-name] { * | group } [source]
```

Syntax Description		
vrf	(Optional)	Supports the multicast VPN routing and forwarding (VRF) instance.
<i>vrf-name</i>	(Optional)	Name assigned to the VRF.
*		Deletes all entries from the IP multicast routing table.
<i>group</i>	Either of the following:	<ul style="list-style-type: none"> Name of the multicast group, as defined in the Domain Name System (DNS) hosts table or with the ip host command. IP address of the multicast group. This is a multicast IP address in four-part dotted-decimal notation.
<i>source</i>	(Optional)	If you specify a group name or address, you can also specify a name or address of a multicast source that is sending to the group. A source need not be a member of the group.

Command Modes Privileged EXEC

Command History	Release	Modification
	10.0	This command was introduced.
	12.0(5)T	The effect of this command was modified. If IP multicast Multilayer Switching (MMLS) is enabled, using this command now clears both the multicast routing table on the MMLS rendezvous point (RP) and all multicast MLS cache entries for all Multicast MLS-Switching Engines (MMLS-SEs) that are performing multicast MLS for the MMLS-RP. That is, the original clearing occurs, and the derived hardware switching table is also cleared.
	12.0(23)S	The vrf keyword and <i>vrf-name</i> argument were added.
	12.2(13)T	The vrf keyword and <i>vrf-name</i> argument were added.

Examples

The following example deletes all entries from the IP multicast routing table:

```
Router# clear ip mroute *
```

The following example deletes from the IP multicast routing table all sources on the 228.3.0.0 subnet that are sending to the multicast group 224.2.205.42. Note that this example deletes all sources on network 228.3, not individual sources.

```
Router# clear ip mroute 224.2.205.42 228.3.0.0
```

clear ip mroute

Related Commands	Command	Description
	ip host	Defines a static host name-to-address mapping in the host cache.
	mls rp ip multicast	Enables IP multicast MLS (hardware switching) on an external or internal router in conjunction with Layer 3 switching hardware for the Catalyst 5000 switch.
	show ip mroute	Displays the contents of the IP multicast routing table.

clear ip msdp peer

To clear the TCP connection to the specified Multicast Source Discovery Protocol (MSDP) peer, use the **clear ip msdp peer** command in privileged EXEC mode.

```
clear ip msdp [vrf vrf-name] peer {peer-address | peer-name}
```

Syntax Description	Field	Description
	vrf	(Optional) Supports the multicast VPN routing and forwarding (VRF) instance.
	<i>vrf-name</i>	(Optional) Name assigned to the VRF.
	<i>peer-address</i> <i>peer-name</i>	IP address or name of the MSDP peer to which the TCP connection is cleared.

Command Modes Privileged EXEC

Command History	Release	Modification
	12.0(7)T	This command was introduced.
	12.0(23)S	The vrf keyword and <i>vrf-name</i> argument were added.
	12.2(13)T	The vrf keyword and <i>vrf-name</i> argument were added.

Usage Guidelines This command closes the TCP connection to the peer, resets all the MSDP peer statistics, and clears the input and output queues to and from the MSDP peer.

Examples The following example clears the TCP connection to the MSDP peer at 224.15.9.8:

```
Router# clear ip msdp peer 224.15.9.8
```

Related Commands	Command	Description
	ip msdp peer	Configures an MSDP peer.

clear ip msdp sa-cache

To clear Multicast Source Discovery Protocol (MSDP) Source-Active (SA) cache entries, use the **clear ip msdp sa-cache** command in privileged EXEC mode.

```
clear ip msdp [vrf vrf-name] sa-cache [group-address | group-name]
```

Syntax Description	Parameter	Description
	vrf	(Optional) Supports the multicast VPN routing and forwarding (VRF) instance.
	<i>vrf-name</i>	(Optional) Name assigned to the VRF.
	<i>group-address</i> <i>group-name</i>	(Optional) Multicast group address or name for which SA entries are cleared from the SA cache.

Command Modes Privileged EXEC

Command History	Release	Modification
	12.0(7)T	This command was introduced.
	12.0(23)S	The vrf keyword and <i>vrf-name</i> argument were added.
	12.2(13)T	The vrf keyword and <i>vrf-name</i> argument were added.

Usage Guidelines In order to have any SA entries in the cache to clear, SA caching must have been enabled with the **ip msdp cache-sa-state** command.

If no multicast group is identified by group address or name, all SA cache entries are cleared.

Examples The following example clears the SA entries for the multicast group 224.5.6.7 from the cache:

```
Router# clear ip msdp sa-cache 224.5.6.7
```

Related Commands	Command	Description
	ip msdp cache-sa-state	Enables the router to create SA state.
	show ip msdp sa-cache	Displays (S, G) state learned from MSDP peers.

clear ip msdp statistics

To clear statistics counters for one or all of the Multicast Source Discovery Protocol (MSDP) peers without resetting the sessions, use the **clear ip msdp statistics** command in privileged EXEC mode.

```
clear ip msdp [vrf vrf-name] statistics [peer-address | peer-name]
```

Syntax Description		
vrf	(Optional)	Supports the multicast VPN routing and forwarding (VRF) instance.
<i>vrf-name</i>	(Optional)	Name assigned to the VRF.
<i>peer-address</i> <i>peer-name</i>	(Optional)	Address or name of the MSDP peers whose statistics counters, reset count, and input/output count are cleared.

Command Modes	
	Privileged EXEC

Command History	Release	Modification
	12.0(7)T	This command was introduced.
	12.0(23)S	The vrf keyword and <i>vrf-name</i> argument were added.
	12.2(13)T	The vrf keyword and <i>vrf-name</i> argument were added.

Examples The following example clears the counters for the peer named peer1:

```
Router# clear ip msdp statistics peer1
```

clear ip multicast limit

To clear IP multicast limit exceeded counters, use the **clear ip multicast limit** command in privileged EXEC mode.

clear ip multicast limit [*interface type number*]

Syntax Description	interface <i>type number</i> (Optional) An interface that has been limited by the ip multicast limit command.
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Command Modes	Privileged EXEC
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Command History	Release	Modification
	12.3(14)T	This command was introduced.

Usage Guidelines	Use this command to clear limit exceeded counters for IP multicast limits.
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Examples	The following example shows how to delete the limit exceeded counters for FastEthernet interface 1: <pre>clear ip multicast limit interface FastEthernet 1</pre>
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Related Commands	Command	Description
	ip multicast limit	Configures an interface to be limited to a maximum number of entries in multicast state for all groups and channels matched by an access list.

clear ip pgm host



Note

Support for the PGM Host feature has been removed. Use of this command is not recommended.

To reset Pragmatic General Multicast (PGM) Host connections to their default values and to clear traffic statistics, use the **clear ip pgm host** command in privileged EXEC mode.

```
clear ip pgm host { defaults | traffic }
```

Syntax Description

defaults	Resets all PGM Host connections to their default values.
traffic	Clears all PGM Host traffic statistics.

Defaults

No default behavior or values

Command Modes

Privileged EXEC

Command History

Release	Modification
12.1(1)T	This command was introduced.

Usage Guidelines

This command should be used only in rare cases or during debugging. A reason to reset all PGM Host connections to their default values is to eliminate configuration errors in one step. A reason to clear traffic statistics is to make diagnostic testing easier.

Examples

The following example resets all PGM Host connections to their default values:

```
Router# clear ip pgm host defaults
```

The following example clears all PGM Host traffic statistics:

```
Router# clear ip pgm host traffic
```

Related Commands

Command	Description
ip pgm host	Enables PGM Host.
show ip pgm host defaults	Displays default values for PGM Host traffic.
show ip pgm host traffic	Displays PGM Host traffic statistics.

clear ip pgm router

To clear Pragmatic General Multicast (PGM) traffic statistics, use the **clear ip pgm router** command in privileged EXEC mode.

```
clear ip pgm router [traffic [interface-type interface-number] | rtx-state [group-address]]
```

Syntax Description		
traffic <i>[interface-type interface-number]</i>	(Optional) Specifies the interface type and number whose PGM traffic statistics are cleared. If no interface type and number are provided, all traffic statistics are cleared.	
rtx-state <i>[group-address]</i>	(Optional) Specifies the IP address of the multicast group whose PGM resend state is cleared. If no group address is provided, all resend state is cleared. Clearing resend state means the router will not forward any retransmissions corresponding to that state.	

Command Modes	Privileged EXEC

Command History	Release	Modification
	12.0(5)T	This command was introduced.

Usage Guidelines

This command should be used only in rare cases or during debugging. Normally, the resend state memory is freed automatically when the information is no longer useful. Also, using this command briefly affects the normal PGM behavior.

A reason to clear traffic statistics is to make diagnostic testing easier.

A reason to clear state might be to free the memory consumed by such state. PGM resend state times out if no traffic keeps it alive.

Examples

The following example clears all PGM resend state from the router:

```
Router# clear ip pgm router rtx-state
```

Related Commands	Command	Description
	ip pgm router	Enables PGM Router Assist and thereby allows PGM to operate more efficiently on the router.
	show ip pgm router	Displays PGM Reliable Transport Protocol state and statistics.

clear ip pim auto-rp

The **clear ip pim auto-rp** command is replaced by the **clear ip pim rp-mapping** command. See the **clear ip pim rp-mapping** command for more information.

clear ip pim rp-mapping

To delete group-to-rendezvous point (RP) mapping entries from the RP mapping cache, use the **clear ip pim rp-mapping** command in privileged EXEC mode.

```
clear ip pim [vrf vrf-name] rp-mapping [rp-address]
```

Syntax Description	Parameter	Description
	vrf	(Optional) Supports the multicast VPN routing and forwarding (VRF) instance.
	<i>vrf-name</i>	(Optional) Name assigned to the VRF.
	<i>rp-address</i>	(Optional) IP address of the RP about which to clear associated group-to-RP mappings. If this argument is omitted, all group-to-RP mapping entries are cleared.

Command Modes Privileged EXEC

Command History	Release	Modification
	11.3	This command was introduced.
	12.1	The clear ip pim auto-rp command was deprecated and replaced by the clear ip pim rp-mapping command.
	12.0(23)S	The vrf keyword and <i>vrf-name</i> argument were added.
	12.2(13)T	The vrf keyword and <i>vrf-name</i> argument were added.
	12.2(14)S	This command was integrated into Cisco IOS Release 12.2(14)S.
	12.2(27)SBC	This command was integrated into Cisco IOS Release 12.2(27)SBC.

Usage Guidelines

The **clear ip pim rp-mapping** command replaces the **clear ip pim auto-rp** command.

The **clear ip pim rp-mapping** command deletes group-to-RP mapping entries learned by Auto-RP or by a bootstrap router (BSR) from the RP mapping cache.

Use the **show ip pim rp** command to display active RPs that are cached with associated multicast routing entries.

Examples The following example shows how to clear all group-to-RP entries from the RP mapping cache:

```
Router# clear ip pim rp-mapping
```

Related Commands	Command	Description
	show ip pim rp	Displays active RPs that are cached with associated multicast routing entries.

clear ip rtp header-compression

To clear Real-Time Transport Protocol (RTP) header compression structures and statistics, use the **clear ip rtp header-compression** command in privileged EXEC mode.

```
clear ip rtp header-compression [interface-type interface-number]
```

Syntax Description

<i>interface-type</i>	(Optional) Interface type and number.
<i>interface-number</i>	

Command Modes

Privileged EXEC

Command History

Release	Modification
11.3	This command was introduced.

Usage Guidelines

If this command is used without an interface type and number, it clears all RTP header compression structures and statistics.

Examples

The following example clears RTP header compression structures and statistics for serial interface 0:

```
Router# clear ip rtp header-compression serial 0
```

Related Commands

Command	Description
ip rtp header-compression	Enables RTP header compression.

clear ip sap

To delete a Session Announcement Protocol (SAP) cache entry or the entire SAP cache, use the **clear ip sap** command in privileged EXEC mode.

```
clear ip sap [group-address | "session-name"]
```

Syntax Description	
<i>group-address</i>	(Optional) Deletes all sessions associated with the IP group address.
" <i>session-name</i> "	(Optional) Session name to be deleted by the SAP cache entry. The session name is enclosed in quotation marks (" ") that the user must enter.

Command Modes	
	Privileged EXEC

Command History	Release	Modification
	11.1	The clear ip sdr command was introduced.
	12.2	The clear ip sdr command was replaced by the clear ip sap command.

Usage Guidelines	
	If no arguments or keywords are used with this command, the system deletes the entire SAP cache.

Examples	
	The following example clears the SAP cache:

```
Router# clear ip sap "Sample Session"
```

Related Commands	Command	Description
	ip sap cache-timeout	Limits how long a SAP cache entry stays active in the cache.
	ip sap listen	Enables the Cisco IOS software to listen to session directory announcements.
	show ip sap	Displays the SAP cache.

clear ip sdr

The **clear ip sdr** command is replaced by the **clear ip sap** command. See the description of the **clear ip sap** command in this chapter for more information.