



Cisco ME 3400 Ethernet Access Switch Debug Commands

Please confirm whether or not the This appendix describes the **debug** privileged EXEC commands that have been created or changed for use with the Cisco ME 3400 Ethernet Access switch. These commands are helpful in diagnosing and resolving internetworking problems and should be enabled only under the guidance of Cisco technical support staff.



Caution

Because debugging output is assigned high priority in the CPU process, it can render the system unusable. For this reason, use the **debug** commands only to troubleshoot specific problems or during troubleshooting sessions with Cisco technical support staff. It is best to use the **debug** commands during periods of lower network traffic and fewer users. Debugging during these periods decreases the likelihood that increased **debug** command processing overhead will affect system use.

debug backup

Use the **debug backup** privileged EXEC command to enable debugging of the Flex Links backup interface. Use the **no** form of this command to disable debugging.

debug backup { **all** | **errors** | **events** | **vlan-load-balancing** }

no debug backup { **all** | **errors** | **events** | **vlan-load-balancing** }

This command is available only when the switch is running the metro access or metro IP access image.

Syntax Description

all	Display all backup interface debug messages.
errors	Display backup interface error or exception debug messages.
events	Display backup interface event debug messages.
vlan-load-balancing	Display backup interface VLAN load balancing.

Command Default

Backup interface debugging is disabled.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.2(25)EX	This command was introduced.
12.2(37)SE	Added vlan-load-balancing keyword.

Usage Guidelines

The **undebug backup** command is the same as the **no debug backup** command.

Related Commands

Command	Description
show debugging	Displays information about the types of debugging that are enabled.

debug dot1x

Use the **debug dot1x** privileged EXEC command to enable debugging of the IEEE 802.1x feature. Use the **no** form of this command to disable debugging.

```
debug dot1x {all | errors | events | packets | registry | state-machine}
```

```
no debug dot1x {all | errors | events | packets | registry | state-machine}
```

Syntax Description

all	Display all IEEE 802.1x debug messages.
errors	Display IEEE 802.1x error debug messages.
events	Display IEEE 802.1x event debug messages.
packets	Display IEEE 802.1x packet debug messages.
registry	Display IEEE 802.1x registry invocation debug messages.
state-machine	Display state-machine related-events debug messages.

Defaults

Debugging is disabled.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.2(25)EX	This command was introduced.

Usage Guidelines

The **undebug dot1x** command is the same as the **no debug dot1x** command.

Related Commands

Command	Description
show debugging	Displays information about the types of debugging that are enabled.
show dot1x	Displays IEEE 802.1x statistics, administrative status, and operational status for the switch or for the specified port.

debug etherchannel

Use the **debug etherchannel** privileged EXEC command to enable debugging of the EtherChannel/PAGP shim. This shim is the software module that is the interface between the Port Aggregation Protocol (PAgP) software module and the port manager software module. Use the **no** form of this command to disable debugging.

debug etherchannel [**all** | **detail** | **error** | **event** | **idb**]

no debug etherchannel [**all** | **detail** | **error** | **event** | **idb**]



Note

PAGP is available only on network node interfaces (NNIs) or enhanced network interfaces (ENIs).

Syntax Description

all	(Optional) Display all EtherChannel debug messages.
detail	(Optional) Display detailed EtherChannel debug messages.
error	(Optional) Display EtherChannel error debug messages.
event	(Optional) Debug major EtherChannel event messages.
idb	(Optional) Display PAgP interface descriptor block debug messages.



Note

Though visible in the command-line help strings, the **linecard** keyword is not supported.

Defaults

Debugging is disabled.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.2(25)EX	This command was introduced.

Usage Guidelines

If you do not specify a keyword, all debug messages appear.

The **undebug etherchannel** command is the same as the **no debug etherchannel** command.

Related Commands

Command	Description
show debugging	Displays information about the types of debugging that are enabled.
show etherchannel	Displays EtherChannel information for the channel.

debug ethernet service

Use the **debug ethernet service** privileged EXEC command to enable debugging of Ethernet customer service instances. Use the **no** form of this command to disable debugging.

debug ethernet service { **all** | **api** | **error** | **evc** [**id** *evc-id*] | **instance** [**id** *id interface-id* | **interface** *interface-id*] | **interface** [*interface-id*] | **oam-mgr** }

no debug ethernet service { **all** | **api** | **error** | **evc** [**id** *evc-id*] | **instance** [**id** *id interface-id* | **interface** *interface-id*] | **interface** [*interface-id*] | **oam-mgr** }

This command is available only if your switch is running the metro IP access or metro access image.

Syntax Description

all	Display all Ethernet customer-service debug messages.
api	Display debug messages about the interaction between the Ethernet infrastructure and its clients.
error	Display Ethernet customer-service error messages occurring in the Ethernet infrastructure subsystem.
evc	Display Ethernet virtual connection (EVC) debug messages
id <i>evc-id</i>	(Optional) Display EVC debug messages relevant to a specific EVC identifier. The EVC identifier can be a string of from 1 to 100 characters.
instance	Display debug messages related to Ethernet customer-service instances.
id <i>id interface-id</i>	(Optional) Display Ethernet service-instance debug messages for a specific Ethernet service instance ID and interface. The service identifier range is 1 to 4294967295. The interface is a physical interface.
interface <i>interface-id</i>	(Optional) When entered after the instance keyword, display service-instance debug messages for the interface. You must enter an interface ID.
interface [<i>interface-id</i>]	Display debugging for Ethernet services on all interfaces or the specified interface.
oam-mgr	Display debug messages for the Ethernet operation, administration, and maintenance (OAM) manager component of the infrastructure.

Command Default

Ethernet service debugging is disabled.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.2(25)SEG	This command was introduced.

Usage Guidelines

The **undebg ethernet service** command is the same as the **no debug ethernet service** command.

debug ethernet service

Related Commands	Command	Description
	show debugging	Displays information about the types of debugging that are enabled.

debug interface

Use the **debug interface** privileged EXEC command to enable debugging of interface-related activities. Use the **no** form of this command to disable debugging.

```
debug interface {interface-id | null interface-number | port-channel port-channel-number |
vlan vlan-id}
```

```
no debug interface {interface-id | null interface-number | port-channel port-channel-number |
vlan vlan-id}
```

Syntax Description		
<i>interface-id</i>		Display debug messages for the specified physical port, identified by type switch number/module number/ port, for example gigabitethernet 0/2 .
null <i>interface-number</i>		Display debug messages for null interfaces. The <i>interface-number</i> is always 0 .
port-channel <i>port-channel-number</i>		Display debug messages for the specified EtherChannel port-channel interface. The <i>port-channel-number</i> range is 1 to 48.
vlan <i>vlan-id</i>		Display debug messages for the specified VLAN. The <i>vlan-id</i> range is 1 to 4094.

Defaults Debugging is disabled.

Command Modes Privileged EXEC

Command History	Release	Modification
	12.2(25)EX	This command was introduced.

Usage Guidelines If you do not specify a keyword, all debug messages appear. The **undebg interface** command is the same as the **no debug interface** command.

Related Commands	Command	Description
	show debugging	Displays information about the types of debugging that are enabled.
	show etherchannel	Displays EtherChannel information for the channel.

debug ip dhcp snooping

Use the **debug ip dhcp snooping** privileged EXEC command to enable debugging of DHCP snooping. Use the **no** form of this command to disable debugging.

debug ip dhcp snooping {*mac-address* | **agent** | **event** | **packet**}

no debug ip dhcp snooping {*mac-address* | **agent** | **event** | **packet**}

This command is available only when the switch is running the metro access or metro IP access image.

Syntax Description

mac-address	Display debug messages for a DHCP packet with the specified MAC address.
agent	Display debug messages for DHCP snooping agents.
event	Display debug messages for DHCP snooping events.
packet	Display debug messages for DHCP snooping.

Defaults

Debugging is disabled.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.2(25)EX	This command was introduced.

Usage Guidelines

The **undebug ip dhcp snooping** command is the same as the **no debug ip dhcp snooping** command.

Related Commands

Command	Description
show debugging	Displays information about the types of debugging that are enabled.

debug ip igmp filter

Use the **debug ip igmp filter** privileged EXEC command to enable debugging of Internet Group Management Protocol (IGMP) filter events. Use the **no** form of this command to disable debugging.

debug ip igmp filter

no debug ip igmp filter

Syntax Description This command has no arguments or keywords.

Defaults Debugging is disabled.

Command Modes Privileged EXEC

Command History	Release	Modification
	12.2(25)EX	This command was introduced.

Usage Guidelines The **undebg ip igmp filter** command is the same as the **no debug ip igmp filter** command.

Related Commands	Command	Description
	show debugging	Displays information about the types of debugging that are enabled.

debug ip igmp max-groups

Use the **debug ip igmp max-groups** privileged EXEC command to enable debugging of Internet Group Management Protocol (IGMP) maximum groups events. Use the **no** form of this command to disable debugging.

debug ip igmp max-groups

no debug ip igmp max-groups

Syntax Description This command has no arguments or keywords.

Defaults Debugging is disabled.

Command Modes Privileged EXEC

Command History	Release	Modification
	12.2(25)EX	This command was introduced.

Usage Guidelines The **undebug ip igmp max-groups** command is the same as the **no debug ip igmp max-groups** command.

Related Commands	Command	Description
	show debugging	Displays information about the types of debugging that are enabled.

debug ip igmp snooping

Use the **debug igmp snooping** privileged EXEC command to enable debugging of Internet Group Management Protocol (IGMP) snooping activity. Use the **no** form of this command to disable debugging.

debug ip igmp snooping [**group** | **management** | **querier** | **router** | **timer**]

no debug ip igmp snooping [**group** | **management** | **querier** | **router** | **timer**]

Syntax Description	
group	(Optional) Display IGMP snooping group activity debug messages.
management	(Optional) Display IGMP snooping management activity debug messages.
querier	(Optional) Display IGMP snooping querier debug messages.
router	(Optional) Display IGMP snooping router activity debug messages.
timer	(Optional) Display IGMP snooping timer event debug messages.

Defaults Debugging is disabled.

Command Modes Privileged EXEC

Command History	Release	Modification
	12.2(25)EX	This command was introduced.

Usage Guidelines The **undebug ip igmp snooping** command is the same as the **no debug ip igmp snooping** command.

Related Commands	Command	Description
	debug platform ip igmp snooping	Displays information about platform-dependent IGMP snooping activity.
	show debugging	Displays information about the types of debugging that are enabled.

debug ip sla error twamp connection

Use the **debug ip sla error twamp connection** command in privileged EXEC mode to enable debugging output of Cisco IOS IP Service Level Agreements (SLAs) Two-Way Active Measurement Protocol (TWAMP) showing exceptions during communication between the TWAMP client and server. Use the **no** form of this command to disable debugging output.

debug ip sla error twamp connection [**source-ip** *ip-address*]

no debug ip sla error twamp connection [**source-ip** *ip-address*]

Syntax Description	source-ip <i>ip-address</i>	(Optional) Debug IP Performance Metrics (IPPM) TWAMP connections for the specified source. Specify the source using the IP address of the client device.
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Command Modes	Privileged EXEC
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Command History	Release	Modification
	12.2(52)SE	This command was introduced.

Usage Guidelines

The **debug ip sla error twamp connection** privileged EXEC command displays messages about the exceptions that occurred during TWAMP communications between the server and reflector.

The **undebug ip sla error twamp connection** command is the same as the **no debug ip sla error twamp connection** command.



Note

Use the **debug ip sla error twamp connection** command before using the **debug ip sla trace twamp connection** command because the **debug ip sla error twamp connection** command generates less debugging output.

The **debug ip sla error twamp connection** command is supported in IPv4 networks.

Related Commands	Command	Description
	debug ip sla error twamp control reflector	Displays exceptions during communication between the IP SLAs TWAMP server and reflector.
	debug ip sla error twamp control server	Displays exceptions during communication between the IP SLAs TWAMP server and reflector.
	debug ip sla error twamp session	Displays exceptions during communication between the IP SLAs TWAMP sender and reflector.
	debug ip sla trace twamp connection	Displays the normal communications between an IP SLAs TWAMP client and server.
	debug ip sla trace twamp control reflector	Displays the normal communications sent by an IP SLAs TWAMP reflector to the TWAMP server.

debug ip sla trace twamp control server	Displays the normal communications sent by an IP SLAs TWAMP server to the TWAMP reflector.
debug ip sla trace twamp session	Displays the normal communications between an IP SLAs TWAMP sender and reflector.
show debugging	Displays information about the types of debugging that are enabled.

debug ip sla error twamp control reflector

Use the **debug ip sla error twamp control reflector** command in privileged EXEC mode to enable debugging output of Cisco IOS IP Service Level Agreements (SLAs) Two-Way Active Measurement Protocol (TWAMP) showing exceptions during communication between the TWAMP server and reflector. Use the **no** form of this command to disable debugging output.

debug ip sla error twamp control reflector

no debug ip sla error twamp control reflector

Syntax Description This command has no arguments or keywords.

Command Modes Privileged EXEC

Command History	Release	Modification
	12.2(52)SE	This command was introduced.

Usage Guidelines The **debug ip sla error twamp control reflector** privileged EXEC command displays messages about exceptions that occurred during communications sent from the TWAMP session reflector to the TWAMP session server.



Note

Use the **debug ip sla error twamp control reflector** command before using the **debug ip sla trace twamp control reflector** command because the **debug ip sla error twamp control reflector** command generates less debugging output.

The **debug ip sla error twamp control reflector** command is supported in IPv4 networks.

The **undebug ip sla error twamp control reflector** command is the same as the **no debug ip sla error twamp control reflector** command.

Related Commands	Command	Description
	debug ip sla error twamp connection	Displays exceptions during communication between the IP SLAs TWAMP client and server.
	debug ip sla error twamp control server	Displays exceptions during communication between the IP SLAs TWAMP server and reflector.
	debug ip sla error twamp session	Displays exceptions during communication between the IP SLAs TWAMP sender and reflector.
	debug ip sla trace twamp connection	Displays the normal communications between an IP SLAs TWAMP client and server.
	debug ip sla error twamp control reflector	Displays the normal communications sent by an IP SLAs TWAMP reflector to the TWAMP server.

debug ip sla trace twamp control server	Displays the normal communications sent by an IP SLAs TWAMP server to the TWAMP reflector.
debug ip sla trace twamp session	Displays the normal communications between an IP SLAs TWAMP sender and reflector.
show debugging	Displays information about the types of debugging that are enabled.

debug ip sla error twamp control server

Use the **debug ip sla error twamp control server** command in privileged EXEC mode to enable debugging output of Cisco IOS IP Service Level Agreements (SLAs) Two-Way Active Measurement Protocol (TWAMP) exceptions during communication between the TWAMP server and reflector. Use the **no** form of this command to disable debugging output.

debug ip sla error twamp control server

no debug ip sla error twamp control server

Syntax Description This command has no arguments or keywords.

Command Modes Privileged EXEC

Command History	Release	Modification
	12.2(52)SE	This command was introduced.

Usage Guidelines The **debug ip sla error twamp control server** privileged EXEC command displays messages about exceptions that occurred during communications sent from the TWAMP session server to the TWAMP session reflector.



Note

Use the **debug ip sla error twamp control server** command before using the **debug ip sla trace twamp control server** command because the **debug ip sla error twamp control server** command generates less debugging output.

The **debug ip sla error twamp control server** command is supported in IPv4 networks.

The **undebug ip sla error twamp control server** command is the same as the **no debug ip sla error twamp control server** command.

Related Commands	Command	Description
	debug ip sla error twamp connection	Displays exceptions during communication between the IP SLAs TWAMP client and server.
	debug ip sla error twamp control reflector	Displays exceptions during communication between the IP SLAs TWAMP server and reflector.
	debug ip sla error twamp session	Displays exceptions during communication between the IP SLAs TWAMP sender and reflector.
	debug ip sla error twamp connection	Displays the normal communications between an IP SLAs TWAMP client and server.
	debug ip sla trace twamp control reflector	Displays the normal communications sent by an IP SLAs TWAMP reflector to the TWAMP server.

debug ip sla trace twamp control server	Displays the normal communications sent by an IP SLAs TWAMP server to the TWAMP reflector.
debug ip sla trace twamp session	Displays the normal communications between an IP SLAs TWAMP sender and reflector.
show debugging	Displays information about the types of debugging that are enabled.

debug ip sla error twamp session

Use the **debug ip sla error twamp session** command in privileged EXEC mode to enable debugging output of Cisco IOS IP Service Level Agreements (SLAs) Two-Way Active Measurement Protocol (TWAMP) showing exceptions during communication between the TWAMP sender and reflector. Use the **no** form of this command to disable debugging output.

debug ip sla error twamp session [**source-ip** *ip-address*]

no debug ip sla error twamp session [**source-ip** *ip-address*]

Syntax Description	source-ip <i>ip-address</i>	(Optional) Debug IP Performance Metrics (IPPM) TWAMP connections for the specified source. Specify the source using the IP address of the client device.
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Command Modes	Privileged EXEC
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Command History	Release	Modification
	12.2(52)SE	This command was introduced.

Usage Guidelines The **debug ip sla error twamp session** privileged EXEC command displays error messages about the communication between the TWAMP sender and reflector.



Note

Use the **debug ip sla error twamp session** command before using the **debug ip sla trace twamp session** command because the **debug ip sla error twamp session** command generates less debugging output.

The **debug ip sla error twamp session** command is supported in IPv4 networks.

The **undebug ip sla error twamp session** command is the same as the **no debug ip sla error twamp session** command.

Related Commands	Command	Description
	debug ip sla error twamp connection	Displays exceptions during communication between the IP SLAs TWAMP client and server.
	debug ip sla error twamp control reflector	Displays exceptions during communication between the IP SLAs TWAMP server and reflector.
	debug ip sla error twamp control server	Displays exceptions during communication between the IP SLAs TWAMP server and reflector.
	debug ip sla trace twamp connection	Displays the normal communications between an IP SLAs TWAMP client and server.
	debug ip sla trace twamp control reflector	Displays the normal communications sent by an IP SLAs TWAMP reflector to the TWAMP server.

debug ip sla trace twamp control server	Displays the normal communications sent by an IP SLAs TWAMP server to the TWAMP reflector.
debug ip sla trace twamp session	Displays the normal communications between an IP SLAs TWAMP sender and reflector.
show debugging	Displays information about the types of debugging that are enabled.

debug ip sla trace twamp connection

Use the **debug ip sla trace twamp connection** command in privileged EXEC mode to display the normal communications between a Cisco IOS IP Service Level Agreements (SLAs) Two-Way Active Measurement Protocol (TWAMP) client and server. Use the **no** form of this command to disable debugging output.

```
debug ip sla trace twamp connection [source-ip ip-address]
```

```
no debug ip sla trace twamp connection [source-ip ip-address]
```

Syntax Description

source-ip <i>ip-address</i>	(Optional) Debug IP Performance Metrics (IPPM) TWAMP connections for the specified source. Specify the source using the client device IP address.
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Command Modes

Privileged EXEC

Command History

Release	Modification
12.2(52)SE	This command was introduced.

Usage Guidelines

The **debug ip sla trace twamp connection** privileged EXEC command displays messages about normal communications between the client and server during a TWAMP session.



Note

Use the **debug ip sla error twamp connection** command before using the **debug ip sla trace twamp connection** command because the **debug ip sla error twamp connection** command generates less debugging output.

The **debug ip sla trace twamp connection** command is supported in IPv4 networks.

The **undebug ip sla trace twamp connection** command is the same as the **no debug ip sla trace twamp connection** command.

Related Commands

Command	Description
debug ip sla error twamp connection	Displays exceptions during communication between the IP SLAs TWAMP client and server.
debug ip sla error twamp control reflector	Displays exceptions during communication between the IP SLAs TWAMP server and reflector.
debug ip sla error twamp control server	Displays exceptions during communication between the IP SLAs TWAMP server and reflector.
debug ip sla error twamp session	Displays exceptions during communication between the IP SLAs TWAMP sender and reflector.
debug ip sla trace twamp control reflector	Displays the normal communications sent by an IP SLAs TWAMP reflector to the TWAMP server.

debug ip sla error twamp control server	Displays the normal communications sent by an IP SLAs TWAMP server to the TWAMP reflector.
debug ip sla trace twamp session	Displays the normal communications between an IP SLAs TWAMP sender and reflector.
show debugging	Displays information about the types of debugging that are enabled.

debug ip sla trace twamp control reflector

Use the **debug ip sla trace twamp control reflector** command in privileged EXEC mode to enable debugging output of Cisco IOS IP Service Level Agreements (SLAs) Two-Way Active Measurement Protocol (TWAMP) normal communications between the TWAMP server and reflector. Use the **no** form of this command to disable debugging output.

debug ip sla trace twamp control reflector

no debug ip sla trace twamp control reflector

Syntax Description This command has no arguments or keywords.

Command Modes Privileged EXEC

Command History	Release	Modification
	12.2(52)SE	This command was introduced.

Usage Guidelines The **debug ip sla trace twamp control reflector** privileged EXEC command displays messages about normal TWAMP session communications sent from the reflector to the server.



Note

Use the **debug ip sla error twamp control reflector** command before using the **debug ip sla trace twamp control reflector** command because the **debug ip sla error twamp control reflector** command generates less debugging output.

The **debug ip sla trace twamp control reflector** command is supported in IPv4 networks.

The **undebug ip sla trace twamp control reflector** command is the same as the **no debug ip sla trace twamp control reflector** command.

Related Commands	Command	Description
	debug ip sla error twamp connection	Displays exceptions during communication between the IP SLAs TWAMP client and server.
	debug ip sla error twamp control reflector	Displays exceptions during communication between the IP SLAs TWAMP server and reflector.
	debug ip sla error twamp control server	Displays exceptions during communication between the IP SLAs TWAMP server and reflector.
	debug ip sla error twamp session	Displays exceptions during communication between the IP SLAs TWAMP sender and reflector.
	debug ip sla trace twamp connection	Displays the normal communications between an IP SLAs TWAMP client and server.

debug ip sla trace twamp control server	Displays the normal communications sent by an IP SLAs TWAMP server to the TWAMP reflector.
debug ip sla trace twamp session	Displays the normal communications between an IP SLAs TWAMP sender and reflector.
show debugging	Displays information about the types of debugging that are enabled.

debug ip sla trace twamp control server

Use the **debug ip sla trace twamp control server** command in privileged EXEC mode to enable debugging output of Cisco IOS IP Service Level Agreements (SLAs) Two-Way Active Measurement Protocol (TWAMP) normal communications between the TWAMP server and reflector. Use the **no** form of this command to disable debugging output.

debug ip sla trace twamp control server

no debug ip sla trace twamp control server

Syntax Description This command has no arguments or keywords.

Command Modes Privileged EXEC

Command History	Release	Modification
	12.2(52)SE	This command was introduced.

Usage Guidelines The **debug ip sla trace twamp control server** privileged EXEC command displays messages about normal TWAMP session communications sent from the server to the reflector.



Note Use the **debug ip sla error twamp control server** command before using the **debug ip sla trace twamp control server** command because the **debug ip sla error twamp control server** command generates less debugging output.

The **debug ip sla trace twamp control server** command is supported in IPv4 networks.

The **undebug ip sla trace twamp control server** command is the same as the **no debug ip sla trace twamp control server** command.

Related Commands	Command	Description
	debug ip sla error twamp connection	Displays exceptions during communication between the IP SLAs TWAMP client and server.
	debug ip sla error twamp control reflector	Displays exceptions during communication between the IP SLAs TWAMP server and reflector.
	debug ip sla error twamp control server	Displays exceptions during communication between the IP SLAs TWAMP server and reflector.
	debug ip sla error twamp session	Displays exceptions during communication between the IP SLAs TWAMP sender and reflector.
	debug ip sla trace twamp connection	Displays the normal communications between an IP SLAs TWAMP client and server.

debug ip sla trace twamp control reflector	Displays the normal communications sent by an IP SLAs TWAMP reflector to the TWAMP server.
debug ip sla trace twamp session	Displays the normal communications between an IP SLAs TWAMP sender and reflector.
show debugging	Displays information about the types of debugging that are enabled.

debug ip sla trace twamp session

Use the **debug ip sla trace twamp session** command in privileged EXEC mode to enable debugging output of Cisco IOS IP Service Level Agreements (SLAs) Two-Way Active Measurement Protocol (TWAMP) normal session communication between the TWAMP sender and reflector. Use the **no** form of this command to disable debugging output.

```
debug ip sla trace twamp session [source-ip ip-address | source-port port-number]
```

```
no debug ip sla trace twamp session [source-ip ip-address | source-port port-number]
```

Syntax Description	source-ip <i>ip-address</i>	(Optional) Debug IP Performance Metrics (IPPM) TWAMP connections for the specified source. Specify the source using the client device IP address.
	source-port <i>port-number</i>	(Optional) Debug IP Performance Metrics (IPPM) TWAMP connections for the specified port.

Command Modes Privileged EXEC

Command History	Release	Modification
	12.2(52)SE	This command was introduced.

Usage Guidelines The **debug ip sla trace twamp session** privileged EXEC command displays normal session communication between the TWAMP sender and reflector.



Note

Use the **debug ip sla error twamp session** command before using the **debug ip sla trace twamp session** command because the **debug ip sla error twamp session** command generates less debugging output.

The **debug ip sla trace twamp session** command is supported in IPv4 networks.

The **undebug ip sla trace twamp session** command is the same as the **no debug ip sla trace twamp session** command.

Related Commands	Command	Description
	debug ip sla error twamp connection	Displays exceptions during communication between the IP SLAs TWAMP client and server.
	debug ip sla error twamp control reflector	Displays exceptions during communication between the IP SLAs TWAMP server and reflector.
	debug ip sla error twamp control server	Displays exceptions during communication between the IP SLAs TWAMP server and reflector.
	debug ip sla error twamp session	Displays exceptions during communication between the IP SLAs TWAMP sender and reflector.

debug ip sla trace twamp connection	Displays the normal communications between an IP SLAs TWAMP client and server.
debug ip sla trace twamp control reflector	Displays the normal communications sent by an IP SLAs TWAMP reflector to the TWAMP server.
debug ip sla trace twamp control server	Displays the normal communications sent by an IP SLAs TWAMP server to the TWAMP reflector.
show debugging	Displays information about the types of debugging that are enabled.

debug ip verify source packet

Use the **debug ip verify source packet** privileged EXEC command to enable debugging of IP source guard. Use the **no** form of this command to disable debugging.

debug ip verify source packet

no debug ip verify source packet

This command is available only when the switch is running the metro access or metro IP access image.

Syntax Description This command has no arguments or keywords.

Defaults Debugging is disabled.

Command Modes Privileged EXEC

Command History	Release	Modification
	12.2(25)EX	This command was introduced.

Usage Guidelines The **undebug ip verify source packet** command is the same as the **no debug ip verify source packet** command.

Related Commands	Command	Description
	show debugging	Displays information about the types of debugging that are enabled.

debug lacp

Use the **debug lacp** privileged EXEC command to enable debugging of Link Aggregation Control Protocol (LACP) activity. Use the **no** form of this command to disable debugging.

debug lacp [**all** | **event** | **fsm** | **misc** | **packet**]

no debug lacp [**all** | **event** | **fsm** | **misc** | **packet**]



Note

LACP is available only on network node interfaces (NNIs) and enhanced network interfaces (ENIs).

Syntax Description

all	(Optional) Display all LACP debug messages.
event	(Optional) Display LACP event debug messages.
fsm	(Optional) Display LACP finite state-machine debug messages.
misc	(Optional) Display miscellaneous LACP debug messages.
packet	(Optional) Display LACP packet debug messages.

Defaults

Debugging is disabled.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.2(25)EX	This command was introduced.

Usage Guidelines

The **undebug lacp** command is the same as the **no debug lacp** command.

Related Commands

Command	Description
show debugging	Displays information about the types of debugging that are enabled.
show lacp	Displays LACP channel-group information.

debug mac-notification

Use the **debug mac-notification** privileged EXEC command to enable debugging of MAC notification events. Use the **no** form of this command to disable debugging.

debug mac-notification

no debug mac-notification

Syntax Description This command has no arguments or keywords.

Defaults Debugging is disabled.

Command Modes Privileged EXEC

Command History	Release	Modification
	12.2(25)EX	This command was introduced.

Usage Guidelines The **undebbug mac-notification** command is the same as the **no debug mac-notification** command.

Related Commands	Command	Description
	show debugging	Displays information about the types of debugging that are enabled.
	show mac address-table notification	Displays the MAC address notification information for all interfaces or the specified interface.

debug matm

Use the **debug matm** privileged EXEC command to enable debugging of platform-independent MAC address management. Use the **no** form of this command to disable debugging.

debug matm

no debug matm

Syntax Description This command has no arguments or keywords.

Defaults Debugging is disabled.

Command Modes Privileged EXEC

Command History	Release	Modification
	12.2(25)EX	This command was introduced.

Usage Guidelines The **undebug matm** command is the same as the **no debug matm** command.

Related Commands	Command	Description
	debug platform matm	Displays information about platform-dependent MAC address management.
	show debugging	Displays information about the types of debugging that are enabled.

debug matm move update

Use the **debug matm move update** privileged EXEC command to enable debugging of MAC address-table move update message processing.

debug matm move update

no debug matm move update

This command is supported only when the switch is running the metro IP access or metro access image.

Syntax Description This command has no arguments or keywords.

Defaults Debugging is disabled.

Command Modes Privileged EXEC

Command History	Release	Modification
	12.2(25)SEG	This command was introduced.

Usage Guidelines The **undebug matm move update** command is the same as the **no debug matm move update** command.

Related Commands	Command	Description
	mac address-table move update	Configures the MAC address-table move update feature on the switch.
	show debugging	Displays information about the types of debugging that are enabled.
	show mac address-table move update	Displays the MAC address-table move update information on the switch.

debug monitor

Use the **debug monitor** privileged EXEC command to enable debugging of the Switched Port Analyzer (SPAN) feature. Use the **no** form of this command to disable debugging.

debug monitor { **all** | **errors** | **idb-update** | **info** | **list** | **notifications** | **platform** | **requests** | **snmp** }

no debug monitor { **all** | **errors** | **idb-update** | **info** | **list** | **notifications** | **platform** | **requests** | **snmp** }

Syntax Description

all	Display all SPAN debug messages.
errors	Display detailed SPAN error debug messages.
idb-update	Display SPAN interface description block (IDB) update-trace debug messages.
info	Display SPAN informational-tracing debug messages.
list	Display SPAN port and VLAN-list tracing debug messages.
notifications	Display SPAN notification debug messages.
platform	Display SPAN platform-tracing debug messages.
requests	Display SPAN request debug messages.
snmp	Display SPAN and Simple Network Management Protocol (SNMP) tracing debug messages.

Defaults

Debugging is disabled.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.2(25)EX	This command was introduced.

Usage Guidelines

The **undebug monitor** command is the same as the **no debug monitor** command.

Related Commands

Command	Description
show debugging	Displays information about the types of debugging that are enabled.
show monitor	Displays information about all SPAN and remote SPAN (RSPAN) sessions on the switch.

debug mvrdbg

Use the **debug mvrdbg** privileged EXEC command to enable debugging of Multicast VLAN Registration (MVR). Use the **no** form of this command to disable debugging.

```
debug mvrdbg {all | events | igmpsn | management | ports}
```

```
no debug mvrdbg {all | events | igmpsn | management | ports}
```

Syntax Description

all	Display all MVR activity debug messages.
events	Display MVR event-handling debug messages.
igmpsn	Display MVR Internet Group Management Protocol (IGMP) snooping-activity debug messages.
management	Display MVR management-activity debug messages.
ports	Display MVR port debug messages.

Defaults

Debugging is disabled.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.2(25)EX	This command was introduced.

Usage Guidelines

The **undebug mvrdbg** command is the same as the **no debug mvrdbg** command.

Related Commands

Command	Description
show debugging	Displays information about the types of debugging that are enabled.
show mvr	Displays the current MVR configuration.

debug nvram

Use the **debug nvram** privileged EXEC command to enable debugging of NVRAM activity. Use the **no** form of this command to disable debugging.

debug nvram

no debug nvram

Syntax Description This command has no arguments or keywords.

Defaults Debugging is disabled.

Command Modes Privileged EXEC

Command History	Release	Modification
	12.2(25)EX	This command was introduced.

Usage Guidelines The **undebug nvram** command is the same as the **no debug nvram** command.

Related Commands	Command	Description
	show debugging	Displays information about the types of debugging that are enabled.

debug pagp

Use the **debug pagp** privileged EXEC command to enable debugging of Port Aggregation Protocol (PAgP) activity. Use the **no** form of this command to disable debugging.

debug pagp [**all** | **event** | **fsm** | **misc** | **packet**]

no debug pagp [**all** | **event** | **fsm** | **misc** | **packet**]



Note

PAgP is available only on network node interfaces (NNIs) and enhanced network interfaces (ENIs).

Syntax Description

all	(Optional) Display all PAgP debug messages.
event	(Optional) Display PAgP event debug messages.
fsm	(Optional) Display PAgP finite state-machine debug messages.
misc	(Optional) Display miscellaneous PAgP debug messages.
packet	(Optional) Display PAgP packet debug messages.

Defaults

Debugging is disabled.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.2(25)EX	This command was introduced.

Usage Guidelines

The **undebug pagp** command is the same as the **no debug pagp** command.

Related Commands

Command	Description
show debugging	Displays information about the types of debugging that are enabled.
show pagp	Displays PAgP channel-group information.

debug platform acl

Use the **debug platform acl** privileged EXEC command to enable debugging of the access control list (ACL) manager. Use the **no** form of this command to disable debugging.

```
debug platform acl {all | exit | label | main | racl | vacl | vmap | warn}
```

```
no debug platform acl {all | exit | label | main | racl | vacl | vmap | warn}
```

Syntax Description

all	Display all ACL manager debug messages.
exit	Display ACL exit-related debug messages.
label	Display ACL label-related debug messages.
main	Display the main or important ACL debug messages.
racl	Display router ACL related debug messages.
vacl	Display VLAN ACL-related debug messages.
vmap	Display ACL VLAN-map-related debug messages.
warn	Display ACL warning-related debug messages.



Note

Though visible in the command-line help strings, the **stack** keyword is not supported.

Defaults

Debugging is disabled.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.2(25)EX	This command was introduced.

Usage Guidelines

The **undebug platform acl** command is the same as the **no debug platform acl** command.

Related Commands

Command	Description
show debugging	Displays information about the types of debugging that are enabled.

debug platform backup interface

Use the **debug platform backup interface** privileged EXEC command to enable debugging of the Flex Links platform backup interface. Use the **no** form of this command to disable debugging.

debug platform backup interface

no debug platform backup interface

This command is supported only when the switch is running the metro access or metro IP access image.

Syntax Description This command has no arguments or keywords.

Command Default Platform backup interface debugging is disabled.

Command Modes Privileged EXEC

Command History	Release	Modification
	12.2(25)EX	This command was introduced.

Usage Guidelines The **undebg platform backup interface** command is the same as the **no platform debug backup interface** command.

Related Commands	Command	Description
	show debugging	Displays information about the types of debugging that are enabled.

debug platform cfm

Use the **debug platform cfm** privileged EXEC command to enable debugging of the Ethernet Connectivity Fault Management (CFM) service. Use the **no** form of this command to disable debugging.

debug platform cfm

no debug platform cfm

This command is supported only when the switch is running the metro IP access or metro access image.

Syntax Description This command has no arguments or keywords.

Defaults Debugging is disabled.

Command Modes Privileged EXEC

Command History	Release	Modification
	12.2(25)SEG	This command was introduced.

Usage Guidelines CFM is an end-to-end, per-service-instance, Ethernet layer operation, administration, and management (OAM) protocol. It provides connectivity monitoring, fault verification, and fault isolation for large Ethernet networks.

The **undebug platform cfm** command is the same as the **no debug platform cfm** command.

Related Commands	Command	Description
	show debugging	Displays information about the types of debugging that are enabled.

debug platform cpu-queues

Use the **debug platform cpu-queues** privileged EXEC command to enable debugging of platform central processing unit (CPU) receive queues. Use the **no** form of this command to disable debugging.

```
debug platform cpu-queues {broadcast-q | cbt-to-spt-q | cpuhub-q | host-q | icmp-q |
  igmp-snooping-q | layer2-protocol-q | logging-q | remote-console-q | routing-protocol-q |
  rpffail-q | software-fwd-q | stp-q}
```

```
no debug platform cpu-queues {broadcast-q | cbt-to-spt-q | cpuhub-q | host-q | icmp-q |
  igmp-snooping-q | layer2-protocol-q | logging-q | remote-console-q | routing-protocol-q |
  rpffail-q | software-fwd-q | stp-q}
```

Syntax Description		
broadcast-q	Display debug messages about packets received by the broadcast queue.	
cbt-to-spt-q	Display debug messages about packets received by the core-based tree to shortest-path tree (cbt-to-spt) queue.	
cpuhub-q	Display debug messages about packets received by the CPU heartbeat queue.	
host-q	Display debug messages about packets received by the host queue.	
icmp-q	Display debug messages about packets received by the Internet Control Message Protocol (ICMP) queue.	
igmp-snooping-q	Display debug messages about packets received by the Internet Group Management Protocol (IGMP)-snooping queue.	
layer2-protocol-q	Display debug messages about packets received by the Layer 2 protocol queue.	
logging-q	Display debug messages about packets received by the logging queue.	
remote-console-q	Display debug messages about packets received by the remote console queue.	
routing-protocol-q	Display debug messages about packets received by the routing protocol queue.	
rpffail-q	Display debug messages about packets received by the reverse path forwarding (RFP) failure queue.	
software-fwd-q	Debug packets received by the software forwarding queue.	
stp-q	Debug packets received by the Spanning Tree Protocol (STP) queue.	

Defaults Debugging is disabled.

Command Modes Privileged EXEC

Command History	Release	Modification
	12.2(25)EX	This command was introduced.

Usage Guidelines The **undebug platform cpu-queues** command is the same as the **no debug platform cpu-queues** command.

Related Commands

Command	Description
show debugging	Displays information about the types of debugging that are enabled.

debug platform dot1x

Use the **debug platform dot1x** privileged EXEC command to enable debugging of IEEE 802.1x events. Use the **no** form of this command to disable debugging.

debug platform dot1x { **initialization** | **interface-configuration** | **rpc** }

no debug platform dot1x { **initialization** | **interface-configuration** | **rpc** }

Syntax Description	initialization	Display IEEE 802.1x initialization sequence debug messages.
	interface-configuration	Display IEEE 802.1x interface configuration-related debug messages.
	rpc	Display IEEE 802.1x remote procedure call (RPC) request debug messages.

Defaults Debugging is disabled.

Command Modes Privileged EXEC

Command History	Release	Modification
	12.2(25)EX	This command was introduced.

Usage Guidelines The **undebg platform dot1x** command is the same as the **no debug platform dot1x** command.

Related Commands	Command	Description
	show debugging	Displays information about the types of debugging that are enabled.

debug platform etherchannel

Use the **debug platform etherchannel** privileged EXEC command to enable debugging of platform-dependent EtherChannel events. Use the **no** form of this command to disable debugging.

debug platform etherchannel {init | link-up | rpc-detailed | rpc-generic | warnings}

no debug platform etherchannel {init | link-up | rpc-detailed | rpc-generic | warnings}

Syntax Description

init	Display EtherChannel module initialization debug messages.
link-up	Display EtherChannel link-up and link-down related debug messages.
rpc-detailed	Display detailed EtherChannel remote procedure call (RPC) debug messages.
rpc-generic	Display EtherChannel RPC generic debug messages.
warnings	Display EtherChannel warning debug messages.

Defaults

Debugging is disabled.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.2(25)EX	This command was introduced.

Usage Guidelines

The **undebg platform etherchannel** command is the same as the **no debug platform etherchannel** command.

Related Commands

Command	Description
show debugging	Displays information about the types of debugging that are enabled.

debug platform forw-tcam

Use the **debug platform forw-tcam** privileged EXEC command to enable debugging of the forwarding ternary content addressable memory (TCAM) manager. Use the **no** form of this command to disable debugging.

debug platform forw-tcam [**adjustment** | **allocate** | **audit** | **error** | **move** | **read** | **write**]

no debug platform forw-tcam [**adjustment** | **allocate** | **audit** | **error** | **move** | **read** | **write**]

Syntax Description

adjustment	(Optional) Display TCAM manager adjustment debug messages.
allocate	(Optional) Display TCAM manager allocation debug messages.
audit	(Optional) Display TCAM manager audit messages.
error	(Optional) Display TCAM manager error messages.
move	(Optional) Display TCAM manager move messages.
read	(Optional) Display TCAM manager read messages.
write	(Optional) Display TCAM manager write messages.

Defaults

Debugging is disabled.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.2(25)EX	This command was introduced.

Usage Guidelines

If you do not specify a keyword, all forwarding TCAM manager debug messages appear.

The **undebg platform forw-tcam** command is the same as the **no debug platform forw-tcam** command.

Related Commands

Command	Description
show debugging	Displays information about the types of debugging that are enabled.

debug platform ip arp inspection

Use the **debug platform ip arp inspection** privileged EXEC command to debug dynamic Address Resolution Protocol (ARP) inspection events. Use the **no** form of this command to disable debugging.

debug platform ip arp inspection {all | error | event | packet | rpc}

no debug platform ip arp inspection {all | error | event | packet | rpc}

Syntax Description

all	Display all dynamic ARP inspection debug messages.
error	Display dynamic ARP inspection error debug messages.
event	Display dynamic ARP inspection event debug messages.
packet	Display dynamic ARP inspection packet-related debug messages.
rpc	Display dynamic ARP inspection remote procedure call (RPC) request debug messages.

Defaults

Debugging is disabled.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.2(25)EX	This command was introduced.
12.2(50)SE	The command was supported in the metro base image.

Usage Guidelines

The **undebug platform ip arp inspection** command is the same as the **no debug platform ip arp inspection** command.

Related Commands

Command	Description
show ip arp inspection	Displays the dynamic ARP inspection configuration and operating state.
show debugging	Displays information about the types of debugging that are enabled.

debug platform ip dhcp

Use the **debug platform ip dhcp** privileged EXEC command to debug DHCP events. Use the **no** form of this command to disable debugging.

debug platform ip dhcp [**all** | **error** | **event** | **packet** | **rpc**]

no debug platform ip dhcp [**all** | **error** | **event** | **packet** | **rpc**]

Syntax Description

all	(Optional) Display all DHCP debug messages.
error	(Optional) Display DHCP error debug messages.
event	(Optional) Display DHCP event debug messages.
packet	(Optional) Display DHCP packet-related debug messages.
rpc	(Optional) Display DHCP remote procedure call (RPC) request debug messages.

Defaults

Debugging is disabled.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.2(25)EX	This command was introduced.

Usage Guidelines

The **undebug platform ip dhcp** command is the same as the **no debug platform ip dhcp** command.

Related Commands

Command	Description
show ip dhcp snooping	Displays the DHCP snooping configuration.
show ip dhcp snooping binding	Displays the DHCP snooping binding information.
show debugging	Displays information about the types of debugging that are enabled.

debug platform ip igmp snooping

Use the **debug platform ip igmp snooping** privileged EXEC command to enable debugging of platform-dependent Internet Group Management Protocol (IGMP) snooping. Use the **no** form of this command to disable debugging.

```
debug platform ip igmp snooping {all | di | error | event | group | mgmt | pak | retry | rpc | warn}
```

```
debug platform ip igmp snooping pak {ip-address | error | ipopt | leave | query | report | rx | svi | tx}
```

```
debug platform ip igmp snooping rpc [cfg | l3mm | misc | vlan]
```

```
no debug platform ip igmp snooping {all | di | error | event | group | mgmt | pak | retry | rpc | warn}
```

Syntax	Description
all	Display all IGMP snooping debug messages.
di	Display IGMP snooping destination index (di) coordination remote procedure call (RPC) debug messages.
error	Display IGMP snooping error messages.
event	Display IGMP snooping event debug messages.
group	Display IGMP snooping group debug messages.
mgmt	Display IGMP snooping management debug messages.
pak { <i>ip-address</i> error ipopt leave query report rx svi tx }	Display IGMP snooping packet event debug messages. The keywords have these meanings: <ul style="list-style-type: none"> • <i>ip-address</i>—IP address of the IGMP group. • error—Display IGMP snooping packet error debug messages. • ipopt—Display IGMP snooping IP bridging options debug messages. • leave—Display IGMP snooping leave debug messages. • query—Display IGMP snooping query debug messages. • report—Display IGMP snooping report debug messages. • rx—Display IGMP snooping received packet debug messages. • svi—Display IGMP snooping switched virtual interface (SVI) packet debug messages. • tx—Display IGMP snooping sent packet debug messages.
private-vlan	Display IGMP snooping private VLAN messages.
retry	Display IGMP snooping retry debug messages.

debug platform ip igmp snooping

rpc [cfg l3mm misc vlan]	<p>Display IGMP snooping remote procedure call (RPC) event debug messages. The keywords have these meanings:</p> <ul style="list-style-type: none"> • cfg—(Optional) Display IGMP snooping RPC debug messages. • l3mm—(Optional) IGMP snooping Layer 3 multicast router group RPC debug messages. • misc—(Optional) IGMP snooping miscellaneous RPC debug messages. • vlan—(Optional) IGMP snooping VLAN assert RPC debug messages.
warn	Display IGMP snooping warning messages.

Defaults

Debugging is disabled.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.2(25)EX	This command was introduced.

Usage Guidelines

The **undebg platform ip igmp snooping** command is the same as the **no debug platform ip igmp snooping** command.

Related Commands

Command	Description
debug ip igmp snooping	Displays information about platform-independent IGMP snooping activity.
show debugging	Displays information about the types of debugging that are enabled.

debug platform ip multicast

Use the **debug platform ip multicast** privileged EXEC command to enable debugging of IP multicast routing. Use the **no** form of this command to disable debugging.

```
debug platform ip multicast {acl-full-events | all | mdb | mdfs-rp-retry | midb | mroute-rp |
resources | retry | rpf-throttle | snoop-events | software-forward | swidb-events | vlan-locks }
```

```
no debug platform ip multicast {acl-full-events | all | mdb | mdfs-rp-retry | midb | mroute-rp |
resources | retry | rpf-throttle | snoop-events | software-forward | swidb-events | vlan-locks }
```

This command is available only when the switch is running the metro access or metro IP access image

Syntax Description

acl-full-events	Display IP-multicast output ACL full debug messages.
all	Display all platform IP-multicast event debug messages. Note Using this command can degrade the performance of the switch.
mdb	Display IP-multicast debug messages for multicast distributed fast switching (MDFS) multicast descriptor block (mdb) events.
mdfs-rp-retry	Display IP-multicast MDFS rendezvous point (RP) retry event debug messages.
midb	Display IP-multicast MDFS multicast interface descriptor block (MIDB) debug messages.
mroute-rp	Display IP-multicast RP event debug messages.
resources	Display IP-multicast hardware resource debug messages.
retry	Display IP-multicast retry processing event debug messages.
rpf-throttle	Display IP-multicast reverse path forwarding (RPF) throttle event debug messages.
snoop-events	Display IP-multicast IGMP snooping event debug messages.
software-forward	Display IP-multicast software forwarding event debug messages.
swidb-events	Display IP-multicast MDFS software interface descriptor block (swidb) or global event debug messages.
vlan-locks	Display IP-multicast VLAN lock and unlock event debug messages.

Defaults

Debugging is disabled.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.2(25)EX	This command was introduced.

Usage Guidelines

The **undebg platform ip multicast** command is the same as the **no debug platform ip multicast** command.

■ debug platform ip multicast

Related Commands	Command	Description
	show debugging	Displays information about the types of debugging that are enabled.

debug platform ip source-guard

Use the **debug platform ip source-guard** privileged EXEC command to debug IP source guard events. Use the **no** form of this command to disable debugging.

```
debug platform ip source-guard {all | error | event}
```

```
no debug platform ip source-guard {all | error | event}
```

Syntax Description

all	Display all IP source-guard platform debug messages.
error	Display IP source-guard platform error debug messages.
event	Display IP source-guard platform event debug messages.

Defaults

Debugging is disabled.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.2(50)SE	This command was introduced.

Usage Guidelines

The **undebug platform ip source-guard** command is the same as the **no debug platform ip source-guard** command.

Related Commands

Command	Description
show ip verify source	Displays the IP source guard configuration.
show debugging	Displays information about the types of debugging that are enabled.

debug platform ip unicast

Use the **debug platform ip unicast** privileged EXEC command to enable debugging of platform-dependent IP unicast routing. Use the **no** form of this command to disable debugging.

```
debug platform ip unicast {adjacency | all | arp | dhcp | errors | events | interface | mpath | registries | retry | route | rpc | standby | statistics}
```

```
no debug platform ip unicast {adjacency | all | arp | dhcp | errors | events | interface | mpath | registries | retry | route | rpc | standby | statistics}
```

This command is available only when the switch is running the metro access or metro IP access image.

Syntax Description

adjacency	Display IP unicast routing adjacency programming event debug messages.
all	Display all platform IP unicast routing debug messages. Note Using this command can degrade the performance of the switch.
arp	Display IP unicast routing Address Resolution Protocol (ARP) and ARP throttling debug messages.
dhcp	Display IP unicast routing DHCP dynamic address-related event debug messages.
errors	Display all IP unicast routing error debug messages, including resource allocation failures.
events	Display all IP unicast routing event debug messages, including registry and miscellaneous events.
interface	Display IP unicast routing interface event debug messages.
mpath	Display IP unicast routing multi-path adjacency programming event debug messages (present when performing equal or unequal cost routing).
registries	Display IP unicast routing forwarding information database (FIB), adjacency add, update, and delete registry event debug messages.
retry	Display IP unicast routing reprogram FIBs with ternary content addressable memory (TCAM) allocation failure debug messages.
route	Display IP unicast routing FIB TCAM programming event debug messages.
rpc	Display IP unicast routing Layer 3 unicast remote procedure call (RPC) interaction debug messages.
standby	Display IP unicast routing standby event debug messages, helpful in troubleshooting Hot Standby Routing Protocol (HSRP) issues.
statistics	Display IP unicast routing statistics gathering-related event debug messages.
table	Display IP unicast routing IPv4 table debug messages.
vrf	Display IP unicast routing VRF debug messages.

Defaults

Debugging is disabled.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.2(25)EX	This command was introduced.

Usage Guidelines

The **undebug platform ip unicast** command is the same as the **no debug platform ip unicast** command.

Related Commands

Command	Description
show debugging	Displays information about the types of debugging that are enabled.

debug platform ipc

Use the **debug platform ipc** privileged EXEC command to enable debugging of the platform-dependent Interprocess Communication (IPC) Protocol. Use the **no** form of this command to disable debugging.

debug platform ipc {all | init | receive | send | trace}

no debug platform {all | init | receive | send | trace}

This command is available only when the switch is running the metro access or metro IP access image.

Syntax Description

all	Display all platform IPC debug messages. Note Using this command can degrade the performance of the switch.
init	Display debug messages related to IPC initialization.
receive	Display IPC traces each time an IPC packet is received by the switch.
send	Display IPC traces each time an IPC packet is sent by the switch.
trace	Display IPC trace debug messages, tracing the code path as the IPC functions are executed.

Defaults

Debugging is disabled.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.2(25)EX	This command was introduced.

Usage Guidelines

The **undebg platform ipc** command is the same as the **no debug platform ipc**.

Related Commands

Command	Description
show debugging	Displays information about the types of debugging that are enabled.

debug platform led

Use the **debug platform led** privileged EXEC command to enable debugging of light-emitting diode (LED) actions. Use the **no** form of this command to disable debugging.

```
debug platform led {generic | signal}
```

```
no debug platform led {generic | signal}
```

Syntax Description

generic	Display LED generic action debug messages.
signal	Display LED signal bit map debug messages.



Note

Though visible in the command-line help strings, the **stack** keyword is not supported.

Defaults

Debugging is disabled.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.2(25)EX	This command was introduced.

Usage Guidelines

The **undebug platform led** command is the same as the **no debug platform led** command.

Related Commands

Command	Description
show debugging	Displays information about the types of debugging that are enabled.

debug platform matm

Use the **debug platform matm** privileged EXEC command to enable debugging of platform-dependent MAC address management. Use the **no** form of this command to disable debugging.

```
debug platform matm { aging | all | ec-aging | errors | learning | rpc | secure-address | warnings }
```

```
no debug platform matm { aging | all | ec-aging | errors | learning | rpc | secure-address | warnings }
```

Syntax Description

aging	Display MAC address aging debug messages.
all	Display all platform MAC address management event debug messages.
ec-aging	Display EtherChannel address aging-related debug messages.
errors	Display MAC address management error messages.
learning	Display MAC address management address-learning debug messages.
rpc	Display MAC address management remote procedure call (RPC) related debug messages.
secure-address	Display MAC address management secure address learning debug messages.
warning	Display MAC address management warning messages.

Defaults

Debugging is disabled.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.2(25)EX	This command was introduced.

Usage Guidelines

The **undebug platform matm** command is the same as the **no debug platform matm** command.

Related Commands

Command	Description
debug matm	Displays information about platform-independent MAC address management.
show debugging	Displays information about the types of debugging that are enabled.

debug platform messaging application

Use the **debug platform messaging application** privileged EXEC command to enable debugging of application messaging activity. Use the **no** form of this command to disable debugging.

```
debug platform messaging application {all | badpak | cleanup | events | memerr | messages |
usererr }
```

```
no debug platform messaging application {all | badpak | cleanup | events | memerr | messages
| usererr }
```

Syntax Description	all	Display all application-messaging debug messages.
	badpak	Display bad-packet debug messages.
	cleanup	Display clean-up debug messages.
	events	Display event debug messages.
	memerr	Display memory-error debug messages.
	messages	Display application-messaging debug messages.
	usererr	Display user-error debug messages.



Note

Though visible in the command-line help strings, the **stackchg** keyword is not supported.

Defaults Debugging is disabled.

Command Modes Privileged EXEC

Command History	Release	Modification
	12.2(25)EX	This command was introduced.

Usage Guidelines The **undebg platform messaging application** command is the same as the **no debug platform messaging application** command.

Related Commands	Command	Description
	show debugging	Displays information about the types of debugging that are enabled.

debug platform phy

Use the **debug platform phy** privileged EXEC command to enable debugging of PHY driver information. Use the **no** form of this command to disable debugging.

```
debug platform phy {automdix | cablediag | dual-purpose | flcd {configure | ipc | iter | trace} |
  flowcontrol | forced | init-seq | link-status | read | sfp | show-controller | speed | write}
```

```
no debug platform phy {automdix | cablediag | dual-purpose | flcd {configure | ipc | iter | trace}
  | flowcontrol | forced | init-seq | link-status | read | sfp | show-controller | speed | write}
```

Syntax Description

automdix	Display PHY automatic medium-dependent interface crossover (Auto-MDIX) debug messages.
cablediag	Display PHY cable-diagnostic debug messages.
dual-purpose	Display dual-purpose PHY events.
flcd {configure ipc iter trace}	Display PHY FLCD debug messages. The keywords have these meanings: <ul style="list-style-type: none"> configure—Display PHY configure debug messages. ipc—Display Interprocess Communication Protocol (IPC) debug messages. iter—Display iter debug messages. trace—Display trace debug messages.
flowcontrol	Display PHY flowcontrol debug messages.
forced	Display PHY forced-mode debug messages.
init-seq	Display PHY initialization-sequence debug messages.
link-status	Display PHY link-status debug messages.
read	Display PHY-read debug messages.
sfp	Display PHY small form-factor pluggable (SFP) modules debug messages.
show-controller	Display PHY show-controller debug messages.
speed	Display PHY speed-change debug messages.
write	Display PHY-write debug messages.



Note

Although visible in the command-line help, the **xenpak** keyword is not supported.

Defaults

Debugging is disabled.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.2(25)EX	This command was introduced.

Usage Guidelines The **undebg platform phy** command is the same as the **no debug platform phy** command.

Related Commands

Command	Description
show debugging	Displays information about the types of debugging that are enabled.

debug platform pm

Use the **debug platform pm** privileged EXEC command to enable debugging of the platform-dependent port manager software module. Use the **no** form of this command to disable debugging.

```
debug platform pm {all | counters | errdisable | etherchnl | exceptions | hpm-events | idb-events
| if-numbers | ios-events | link-status | platform | pm-events | pm-vectors [detail] | rpc
[general | oper-info | state | vectors | vp-events] | soutput | sync | vlans }
```

```
no debug platform pm {all | counters | errdisable | etherchnl | exceptions | hpm-events |
idb-events | if-numbers | ios-events | link-status | platform | pm-events | pm-vectors [detail]
| rpc [general | oper-info | state | vectors | vp-events] | soutput | sync | vlans }
```

Syntax Description

all	Display all port-manager debug messages.
counters	Display counters for remote procedure call (RPC) debug messages.
errdisable	Display error-disabled related-events debug messages.
etherchnl	Display EtherChannel related-events debug messages.
exceptions	Display system exception debug messages.
hpm-events	Display platform port-manager event debug messages.
idb-events	Display interface descriptor block (IDB) related-events debug messages.
if-numbers	Display interface-number translation-event debug messages.
ios-events	Display IOS event debug messages.
link-status	Display interface link-detection event debug messages.
platform	Display port-manager function-event debug messages.
pm-events	Display port manager event debug messages.
pm-vectors [detail]	Display port-manager vector-related-event debug messages. The keyword has this meaning: <ul style="list-style-type: none"> detail—Display vector-function details.
rpc [general oper-info state vectors vp-events]	Display RPC related-event debug messages. The keywords have these meanings: <ul style="list-style-type: none"> general—(Optional) Display RPC general events. oper-info—(Optional) Display operational- and informational-related RPC messages. state—(Optional) Display administrative- and operational-related RPC messages. vectors—(Optional) Display vector-related RPC messages. vp-events—(Optional) Display virtual ports related-events RP messages.
soutput	Display IDB output vector event debug messages.
sync	Display operational synchronization and VLAN line-state event debug messages.
vlans	Display VLAN creation and deletion event debug messages.

**Note**

Though visible in the command-line help strings, the **stack-manager** keyword is not supported.

Defaults

Debugging is disabled.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.2(25)EX	This command was introduced.

Usage Guidelines

The **undebg platform pm** command is the same as the **no debug platform pm** command.

Related Commands

Command	Description
show debugging	Displays information about the types of debugging that are enabled.

debug platform policer cpu uni-eni

Use the **debug platform policer cpu uni-eni** privileged EXEC command to enable debugging of the control-plane policer for user network interfaces (UNIs) and enhanced network interfaces (ENIs). This command displays information messages when any changes are made to CPU protection. Use the **no** form of this command to disable debugging.

debug platform policer cpu uni-eni

no debug platform policer cpu uni-eni

Syntax Description This command has no arguments or keywords.

Defaults Debugging is disabled.

Command Modes Privileged EXEC

Command History	Release	Modification
	12.2(25)EX	This command was introduced.
	12.2(44)SE	The command was changed from debug platform policer cpu uni to debug platform policer cpu uni-eni .

Usage Guidelines The **undebug platform policer cpu uni-eni** command is the same as the **no debug platform policer cpu uni-eni** command.

Related Commands	Command	Description
	show debugging	Displays information about the types of debugging that are enabled.
	show platform policer cpu	Displays control plane policer statistics per feature or the indexes and the corresponding feature for the specified port.

debug platform port-asic

Use the **debug platform port-asic** privileged EXEC command to enable debugging of the port application-specific integrated circuit (ASIC) driver. Use the **no** form of this command to disable debugging.

```
debug platform port-asic {interrupt | periodic | read | write}
```

```
no debug platform port-asic {interrupt | periodic | read | write}
```

Syntax Description

interrupt	Display port-ASIC interrupt-related function debug messages.
periodic	Display port-ASIC periodic-function-call debug messages.
read	Display port-ASIC read debug messages.
write	Display port-ASIC write debug messages.

Defaults

Debugging is disabled.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.2(25)EX	This command was introduced.

Usage Guidelines

The **undebg platform port-asic** command is the same as the **no debug platform port-asic** command.

Related Commands

Command	Description
show debugging	Displays information about the types of debugging that are enabled.

debug platform port-security

Use the **debug platform port-security** privileged EXEC command to enable debugging of platform-dependent port-security information. Use the **no** form of this command to disable debugging.

debug platform port-security {add | aging | all | delete | errors | rpc | warnings}

no debug platform port-security {add | aging | all | delete | errors | rpc | warnings}

Syntax Description

add	Display secure address addition debug messages.
aging	Display secure address aging debug messages.
all	Display all port-security debug messages.
delete	Display secure address deletion debug messages.
errors	Display port-security error debug messages.
rpc	Display remote procedure call (RPC) debug messages.
warnings	Display warning debug messages.

Defaults

Debugging is disabled.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.2(25)EX	This command was introduced.

Usage Guidelines

The **undebug platform port-security** command is the same as the **no debug platform port-security** command.

Related Commands

Command	Description
show debugging	Displays information about the types of debugging that are enabled.

debug platform qos-acl-tcam

Use the **debug platform qos-acl-tcam** privileged EXEC command to enable debugging of the quality of service (QoS) and access control list (ACL) ternary content addressable memory (TCAM) manager software. Use the **no** form of this command to disable debugging.

```
debug platform qos-acl-tcam {all | ctcam | errors | labels | rpc | tcam}
```

```
no debug platform qos-acl-tcam {all | ctcam | errors | labels | rpc | tcam}
```

Syntax Description

all	Display all QoS and ACL TCAM (QATM) manager debug messages.
ctcam	Display Cisco TCAM (CTCAM) related-events debug messages.
errors	Display QATM error-related-events debug messages.
labels	Display QATM label-related-events debug messages.
mask	Display QATM mask-related-events debug messages.
rpc	Display QATM remote procedure call (RPC) related-events debug messages.
tcam	Display QATM TCAM-related events debug messages.

Defaults

Debugging is disabled.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.2(25)EX	This command was introduced.

Usage Guidelines

The **undebug platform qos-acl-tcam** command is the same as the **no debug platform qos-acl-tcam** command.

Related Commands

Command	Description
show debugging	Displays information about the types of debugging that are enabled.

debug platform remote-commands

Use the **debug platform remote-commands** privileged EXEC command to enable debugging of remote commands. Use the **no** form of this command to disable debugging.

debug platform remote-commands

no debug platform remote-commands

Syntax Description This command has no arguments or keywords.

Defaults Debugging is disabled.

Command Modes Privileged EXEC

Command History	Release	Modification
	12.2(25)EX	This command was introduced.

Usage Guidelines The **undebbug platform remote-commands** command is the same as the **no debug platform remote-commands** command.

Related Commands	Command	Description
	show debugging	Displays information about the types of debugging that are enabled.

debug platform rep

Use the **debug platform rep** privileged EXEC command to enable debugging of Resilient Ethernet Protocol (REP). Use the **no** form of this command to disable debugging.

debug platform rep

no debug platform rep

Syntax Description This command has no arguments or keywords.

Defaults Debugging is disabled.

Command Modes Privileged EXEC

Command History	Release	Modification
	12.2(40)SE	This command was introduced.

Usage Guidelines The **undebg platform rep** command is the same as the **no debug platform rep** command.

Related Commands	Command	Description
	show debugging	Displays information about the types of debugging that are enabled.

debug platform resource-manager

Use the **debug platform resource-manager** privileged EXEC command to enable debugging of the resource manager software. Use the **no** form of this command to disable debugging.

debug platform resource-manager {all | dm | erd | errors | madmed | sd | stats | vld}

no debug platform resource-manager {all | dm | erd | errors | madmed | sd | stats | vld}

Syntax Description

all	Display all resource manager debug messages.
dm	Display destination-map debug messages.
erd	Display equal-cost-route descriptor-table debug messages.
errors	Display error debug messages.
madmed	Display the MAC address descriptor table and multi-expansion descriptor table debug messages.
sd	Display the station descriptor table debug messages.
stats	Display statistics debug messages.
vld	Display the VLAN-list descriptor debug messages.

Defaults

Debugging is disabled.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.2(25)EX	This command was introduced.

Usage Guidelines

The **undebug platform resource-manager** command is the same as the **no debug platform resource-manager** command.

Related Commands

Command	Description
show debugging	Displays information about the types of debugging that are enabled.

debug platform snmp

Use the **debug platform snmp** privileged EXEC command to enable debugging of the platform-dependent Simple Network Management Protocol (SNMP) software. Use the **no** form of this command to disable debugging.

debug platform snmp

no debug platform snmp

Syntax Description This command has no arguments or keywords.

Defaults Debugging is disabled.

Command Modes Privileged EXEC

Command History	Release	Modification
	12.2(25)EX	This command was introduced.

Usage Guidelines The **undebg platform snmp** command is the same as the **no debug platform snmp** command.

Related Commands	Command	Description
	show debugging	Displays information about the types of debugging that are enabled.

debug platform span

Use the **debug platform span** privileged EXEC command to enable debugging of the platform-dependent Switched Port Analyzer (SPAN) software. Use the **no** form of this command to disable debugging.

debug platform span

no debug platform span

Syntax Description This command has no arguments or keywords.

Defaults Debugging is disabled.

Command Modes Privileged EXEC

Command History	Release	Modification
	12.2(25)EX	This command was introduced.

Usage Guidelines The **undebbug platform span** command is the same as the **no debug platform span** command.

Related Commands	Command	Description
	show debugging	Displays information about the types of debugging that are enabled.

debug platform supervisor-asic

Use the **debug platform supervisor-asic** privileged EXEC command to enable debugging of the supervisor application-specific integrated circuit (ASIC). Use the **no** form of this command to disable debugging.

```
debug platform supervisor-asic {all | errors | receive | send}
```

```
no debug platform supervisor-asic {all | errors | receive | send}
```

Syntax Description

all	Display all supervisor-ASIC event debug messages.
errors	Display the supervisor-ASIC error debug messages.
jumbo	Display the supervisor-ASIC jumbo debug messages.
receive	Display the supervisor-ASIC receive debug messages.
send	Display the supervisor-ASIC send debug messages.

Defaults

Debugging is disabled.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.2(25)EX	This command was introduced.

Usage Guidelines

The **undebg platform supervisor-asic** command is the same as the **no debug platform supervisor-asic** command.

Related Commands

Command	Description
show debugging	Displays information about the types of debugging that are enabled.

debug platform sw-bridge

Use the **debug platform sw-bridge** privileged EXEC command to enable debugging of the software bridging function. Use the **no** form of this command to disable debugging.

```
debug platform sw-bridge { broadcast | control | multicast | packet | unicast }
```

```
no debug platform sw-bridge { broadcast | control | multicast | packet | unicast }
```

Syntax Description

broadcast	Display broadcast-data debug messages.
control	Display protocol-packet debug messages.
multicast	Display multicast-data debug messages.
packet	Display sent and received data debug messages.
unicast	Display unicast-data debug messages.

Defaults

Debugging is disabled.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.2(25)EX	This command was introduced.

Usage Guidelines

The **undebug platform sw-bridge** command is the same as the **no debug platform sw-bridge** command.

Related Commands

Command	Description
show debugging	Displays information about the types of debugging that are enabled.

debug platform tcam

Use the **debug platform tcam** privileged EXEC command to enable debugging of ternary content addressable memory (TCAM) access and lookups. Use the **no** form of this command to disable debugging.

```

debug platform tcam {log | read | search | write}

debug platform tcam log l2 {acl {input | output} | local | qos}

debug platform tcam log l3 {acl {input | output} | local | qos | secondary}

debug platform tcam read {reg | ssram | tcam}

debug platform tcam search

debug platform tcam write {forw-ram | reg | tcam}

no debug platform tcam {log | read | search | write}

no debug platform tcam log l2 {acl {input | output} | local | qos}

no debug platform tcam log l3 {acl {input | output} | local | qos | secondary}

no debug platform tcam read {reg | ssram | tcam}

no debug platform tcam search

no debug platform tcam write {forw-ram | reg | tcam}

```

Syntax Description

log l2 {acl {input output} local qos}	<p>Display Layer 2 field-based CAM look-up type debug messages. The keywords have these meanings:</p> <ul style="list-style-type: none"> • acl {input output}—Display input or output ACL look-up debug messages. • local—Display local forwarding look-up debug messages. • qos—Display classification and quality of service (QoS) look-up debug messages.
l3 {acl {input output} local qos secondary}	<p>Display Layer 3 field-based CAM look-up type debug messages. The keywords have these meanings:</p> <ul style="list-style-type: none"> • acl {input output}—Display input or output ACL look-up debug messages. • local—Display local forwarding look-up debug messages. • qos—Display classification and quality of service (QoS) look-up debug messages. • secondary—Display secondary forwarding look-up debug messages.

read {reg ssram tcam}	Display TCAM-read debug messages. The keywords have these meanings: <ul style="list-style-type: none"> • reg—Display TCAM-register read debug messages. • ssram—Display synchronous static RAM (SSRAM)-read debug messages. • tcam—Display TCAM-read debug messages.
search	Display supervisor-initiated TCAM-search results debug messages.
write {forw-ram reg tcam}	Display TCAM-write debug messages. The keywords have these meanings: <ul style="list-style-type: none"> forw-ram—Display forwarding-RAM write debug messages. reg—Display TCAM-register write debug messages. tcam—Display TCAM-write debug messages.

**Note**

Though visible in the command-line help strings, the **log l3 ipv6 {acl {input | output} | local | qos | secondary}** keywords are not supported.

Defaults

Debugging is disabled.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.2(25)EX	This command was introduced.

Usage Guidelines

The **undebug platform tcam** command is the same as the **no debug platform tcam** command.

Related Commands

Command	Description
show debugging	Displays information about the types of debugging that are enabled.

debug platform udd

Use the **debug platform udd** privileged EXEC command to enable debugging of the platform-dependent UniDirectional Link Detection (UDLD) software. Use the **no** form of this command to disable debugging.

```
debug platform udd [all | error | rpc {events | messages}]
```

```
no debug platform udd [all | error | rpc {events | messages}]
```

Syntax Description

all	(Optional) Display all UDLD debug messages.
error	(Optional) Display error condition debug messages.
rpc {events messages}	(Optional) Display UDLD remote procedure call (RPC) debug messages. The keywords have these meanings: <ul style="list-style-type: none"> events—Display UDLD RPC events. messages—Display UDLD RPC messages.

Defaults

Debugging is disabled.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.2(25)EX	This command was introduced.

Usage Guidelines

The **undebug platform udd** command is the same as the **no debug platform udd** command.

Related Commands

Command	Description
show debugging	Displays information about the types of debugging that are enabled.

debug platform vlan

Use the **debug platform vlan** privileged EXEC command to enable debugging of the VLAN manager software. Use the **no** form of this command to disable debugging.

```
debug platform vlan {errors | mvid | rpc}
```

```
no debug platform vlan {errors | mvid | rpc}
```

Syntax Description

errors	Display VLAN error debug messages.
mvid	Display mapped VLAN ID allocations and free debug messages.
rpc	Display remote procedure call (RPC) debug messages.

Defaults

Debugging is disabled.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.2(25)EX	This command was introduced.

Usage Guidelines

The **undebug platform vlan** command is the same as the **no debug platform vlan** command.

Related Commands

Command	Description
show debugging	Displays information about the types of debugging that are enabled.

debug pm

Use the **debug pm** privileged EXEC command to enable debugging of port manager (PM) activity. The port manager is a state machine that controls all the logical and physical interfaces. All features, such as VLANs, UniDirectional Link Detection (UDLD), and so forth, work with the port manager to provide switch functions. Use the **no** form of this command to disable debugging.

```
debug pm {all | assert | card | cookies | etherchnl | hatable | messages | port | registry | sm | span
| split | vlan | vp}
```

```
no debug pm {all | assert | card | cookies | etherchnl | hatable | messages | port | registry | sm |
span | split | vlan | vp}
```

Syntax Description

all	Display all PM debug messages.
assert	Display assert debug messages.
card	Display line-card related-events debug messages.
cookies	Display internal PM cookie validation debug messages.
etherchnl	Display EtherChannel related-events debug messages.
hatable	Display Host Access Table events debug messages.
messages	Display PM debug messages.
port	Display port related-events debug messages.
registry	Display PM registry invocation debug messages.
sm	Display state-machine related-events debug messages.
span	Display spanning-tree related-events debug messages.
split	Display split-processor debug messages.
vlan	Display VLAN related-events debug messages.
vp	Display virtual port related-events debug messages.



Note

Though visible in the command-line help strings, the **scp** and **pvlan** keywords are not supported.

Defaults

Debugging is disabled.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.2(25)EX	This command was introduced.

Usage Guidelines

The **undebug pm** command is the same as the **no debug pm** command.

■ debug pm

Related Commands	Command	Description
	show debugging	Displays information about the types of debugging that are enabled.

debug port-security

Use the **debug port-security** privileged EXEC command to enable debugging of the allocation and states of the port security subsystem. Use the **no** form of this command to disable debugging.

debug port-security

no debug port-security

Syntax Description This command has no arguments or keywords.

Defaults Debugging is disabled.

Command Modes Privileged EXEC

Command History	Release	Modification
	12.2(25)EX	This command was introduced.

Usage Guidelines The **undebg port-security** command is the same as the **no debug port-security** command.

Related Commands	Command	Description
	show debugging	Displays information about the types of debugging that are enabled.
	show port-security	Displays port-security settings for an interface or for the switch.

debug rep

Use the **debug rep** privileged EXEC command to enable debugging of Resilient Ethernet Protocol (REP) functions. Use the **no** form of this command to disable debugging.

debug rep {all | bpa-event | bpasm | epasm | error | failure-recovery | lsism | packet | prsm}

no debug rep {all | bpa-event | bpasm | epasm | error | failure-recovery | lsism | packet | prsm}

Syntax Description

all	Display all REP debug messages.
bpa-event	Display blocked port advertisement (BPA) debug messages.
bpasm	Display BPA state machine debug messages.
epasm	Display end port advertisement (EPA) state machine debug messages.
error	Display REP protocol error debug messages.
failure-recovery	Display REP switchover event debug messages.
lsism	Display Link State Layer (LSL) state machine debug messages.
packet	Display protocol PDU debug messages.
prsm	Display REP port role state machine debug messages.

Defaults

Debugging is disabled.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.2(46)SE	This command was introduced.

Usage Guidelines

The **undebug rep** command is the same as the **no debug rep** command.

Related Commands

Command	Description
show debugging	Displays information about the types of debugging that are enabled.
show interfaces rep	Displays REP configuration and status for a specified interface or for all interfaces.

debug qos-manager

Use the **debug qos-manager** privileged EXEC command to enable debugging of the quality of service (QoS) manager software. Use the **no** form of this command to disable debugging.

debug qos-manager {all | event | verbose}

no debug qos-manager {all | event | verbose}

Syntax Description	all	Description
	all	Display all QoS-manager debug messages.
	event	Display QoS-manager related-event debug messages.
	verbose	Display QoS-manager detailed debug messages.

Defaults Debugging is disabled.

Command Modes Privileged EXEC

Command History	Release	Modification
	12.2(25)EX	This command was introduced.

Usage Guidelines The **undebg qos-manager** command is the same as the **no debug qos-manager** command.

Related Commands	Command	Description
	show debugging	Displays information about the types of debugging that are enabled.

debug spanning-tree

Use the **debug spanning-tree** privileged EXEC command to enable debugging of spanning-tree activities. Use the **no** form of this command to disable debugging.

```
debug spanning-tree {all | bpdu | bpdu-opt | config | etherchannel | events | exceptions | general
                    | mstp | pvst+ | root | snmp | switch | synchronization}
```

```
no debug spanning-tree {all | bpdu | bpdu-opt | config | etherchannel | events | exceptions |
                       general | mstp | pvst+ | root | snmp | switch | synchronization}
```

Syntax Description

all	Display all spanning-tree debug messages.
bpdu	Display spanning-tree bridge protocol data unit (BPDU) debug messages. See the debug spanning-tree bpdu command.
bpdu-opt	Display optimized BPDU handling debug messages. See the debug spanning-tree bpdu-opt command.
config	Display spanning-tree configuration change debug messages.
etherchannel	Display EtherChannel-support debug messages.
events	Display spanning-tree topology event debug messages.
exceptions	Display spanning-tree exception debug messages.
general	Display general spanning-tree activity debug messages.
mstp	Debug Multiple Spanning Tree Protocol events. See the debug spanning-tree mstp command.
pvst+	Display per-VLAN spanning-tree plus (PVST+) event debug messages.
root	Display spanning-tree root-event debug messages.
snmp	Display spanning-tree Simple Network Management Protocol (SNMP) handling debug messages.
switch	Display switch shim command debug messages. This shim is the software module that is the interface between the generic Spanning Tree Protocol (STP) code and the platform-specific code of various switch platforms. See the debug spanning-tree switch command.
synchronization	Display the spanning-tree synchronization event debug messages.



Note

Though visible in the command-line help strings, the **backbonefast**, **csuf/csrt**, and **uplinkfast** keywords are not supported.

Defaults

Debugging is disabled.

Command Modes

Privileged EXEC

Command History	Release	Modification
	12.2(25)EX	This command was introduced.

Usage Guidelines The **undebg spanning-tree** command is the same as the **no debug spanning-tree** command.

Related Commands	Command	Description
	show debugging	Displays information about the types of debugging that are enabled.
show spanning-tree	Displays spanning-tree state information.	

debug spanning-tree bpdu

Use the **debug spanning-tree bpdu** privileged EXEC command to enable debugging of sent and received spanning-tree bridge protocol data units (BPDUs). Use the **no** form of this command to disable debugging.

debug spanning-tree bpdu [receive | transmit]

no debug spanning-tree bpdu [receive | transmit]

Syntax Description

receive	(Optional) Display the nonoptimized path for received BPDU debug messages.
transmit	(Optional) Display the nonoptimized path for sent BPDU debug messages.

Defaults

Debugging is disabled.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.2(25)EX	This command was introduced.

Usage Guidelines

The **undebg spanning-tree bpdu** command is the same as the **no debug spanning-tree bpdu** command.

Related Commands

Command	Description
show debugging	Displays information about the types of debugging that are enabled.
show spanning-tree	Displays spanning-tree state information.

debug spanning-tree bpdu-opt

Use the **debug spanning-tree bpdu-opt** privileged EXEC command to enable debugging of optimized spanning-tree bridge protocol data units (BPDUs) handling. Use the **no** form of this command to disable debugging.

debug spanning-tree bpdu-opt [detail | packet]

no debug spanning-tree bpdu-opt [detail | packet]

Syntax Description	
detail	(Optional) Display detailed optimized BPDU-handling debug messages.
packet	(Optional) Display packet-level optimized BPDU-handling debug messages.

Defaults Debugging is disabled.

Command Modes Privileged EXEC

Command History	Release	Modification
	12.2(25)EX	This command was introduced.

Usage Guidelines The **undebg spanning-tree bpdu-opt** command is the same as the **no debug spanning-tree bpdu-opt** command.

Related Commands	Command	Description
	show debugging	Displays information about the types of debugging that are enabled.
	show spanning-tree	Displays spanning-tree state information.

debug spanning-tree mstp

Use the **debug spanning-tree mstp** privileged EXEC command to enable debugging of the Multiple Spanning Tree Protocol (MSTP) software. Use the **no** form of this command to disable debugging.

```
debug spanning-tree mstp {all | boundary | bpdu-rx | bpdu-tx | errors | flush | init | migration |
  pm | proposals | region | roles | sanity_check | sync | tc | timers}
```

```
no debug spanning-tree mstp {all | boundary | bpdu-rx | bpdu-tx | errors | flush | init | migration |
  pm | proposals | region | roles | sanity_check | sync | tc | timers}
```

Syntax Description		
all	Enable all the debugging messages.	
boundary	Debug flag changes at these boundaries:	<ul style="list-style-type: none"> An multiple spanning-tree (MST) region and a single spanning-tree region running Rapid Spanning Tree Protocol (RSTP) An MST region and a single spanning-tree region running IEEE 802.1D An MST region and another MST region with a different configuration
bpdu-rx	Debug the received MST bridge protocol data units (BPDUs).	
bpdu-tx	Debug the sent MST BPDUs.	
errors	Debug MSTP errors.	
flush	Debug the port flushing mechanism.	
init	Debug the initialization of the MSTP data structures.	
migration	Debug the protocol migration state machine.	
pm	Debug MSTP port manager events.	
proposals	Debug handshake messages between the designated switch and the root switch.	
region	Debug the region synchronization between the switch processor (SP) and the route processor (RP).	
roles	Debug MSTP roles.	
sanity_check	Debug the received BPDU sanity check messages.	
sync	Debug the port synchronization events.	
tc	Debug topology change notification events.	
timers	Debug the MSTP timers for start, stop, and expire events.	

Defaults Debugging is disabled.

Command Modes Privileged EXEC

Command History	Release	Modification
	12.2(25)EX	This command was introduced.

Usage Guidelines

The **undebg spanning-tree mstp** command is the same as the **no debug spanning-tree mstp** command.

Related Commands

Command	Description
show debugging	Displays information about the types of debugging that are enabled.
show spanning-tree	Displays spanning-tree state information.

debug spanning-tree switch

Use the **debug spanning-tree switch** privileged EXEC command to enable debugging of the software interface between the Spanning Tree Protocol (STP) software module and the port manager software module. Use the **no** form of this command to disable debugging.

```
debug spanning-tree switch {all | errors | flush | general | helper | pm | rx {decode | errors |
interrupt | process} | state | tx [decode]}
```

```
no debug spanning-tree switch {all | errors | flush | general | helper | pm | rx {decode | errors |
interrupt | process} | state | tx [decode]}
```

Syntax Description

all	Display all spanning-tree switch debug messages.
errors	Display debug messages for the interface between the spanning-tree software module and the port manager software module.
flush	Display debug messages for the shim flush operation.
general	Display general event debug messages.
helper	Display spanning-tree helper-task debug messages. Helper tasks handle bulk spanning-tree updates.
pm	Display port-manager event debug messages.
rx	Display received bridge protocol data unit (BPDU) handling debug messages. The keywords have these meanings: <ul style="list-style-type: none"> • decode—Display decoded received packets. • errors—Display receive error debug messages. • interrupt—Display interrupt service request (ISR) debug messages. • process—Display process receive BPDU debug messages.
state	Display spanning-tree port state change debug messages;
tx [decode]	Display sent BPDU handling debug messages. The keyword has this meaning: <ul style="list-style-type: none"> • decode—(Optional) Display decoded sent packets.



Note

Though visible in the command-line help strings, the **uplinkfast** keyword is not supported.

Defaults

Debugging is disabled.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.2(25)EX	This command was introduced.

Usage Guidelines

The **undebg spanning-tree switch** command is the same as the **no debug spanning-tree switch** command.

Related Commands

Command	Description
show debugging	Displays information about the types of debugging that are enabled.
show spanning-tree	Displays spanning-tree state information.

debug sw-vlan

Use the **debug sw-vlan** privileged EXEC command to enable debugging of VLAN manager activities. Use the **no** form of this command to disable debugging.

```
debug sw-vlan { badpmcookies | cfg-vlan { bootup | cli } | events | ifs | management | notification
| packets | registries }
```

```
no debug sw-vlan { badpmcookies | cfg-vlan { bootup | cli } | events | ifs | management |
notification | packets | registries }
```

Syntax Description		
badpmcookies		Display debug messages for VLAN manager incidents of bad port manager cookies.
cfg-vlan { bootup cli }		Display config-vlan debug messages. The keywords have these meanings: <ul style="list-style-type: none"> bootup—Display messages when the switch is booting up. cli—Display messages when the command-line interface (CLI) is in config-vlan mode.
events		Display debug messages for VLAN manager events.
ifs		See the debug sw-vlan ifs command.
management		Display debug messages for VLAN manager management of internal VLANs.
notification		See the debug sw-vlan notification command.
packets		Display debug messages for packet handling and encapsulation processes.
registries		Display debug messages for VLAN manager registries.

Defaults Debugging is disabled.

Command Modes Privileged EXEC

Command History	Release	Modification
	12.2(25)EX	This command was introduced.

Usage Guidelines The **undebug sw-vlan** command is the same as the **no debug sw-vlan** command.

Related Commands	Command	Description
	show debugging	Displays information about the types of debugging that are enabled.
	show vlan	Displays the parameters for all configured VLANs or one VLAN (if the VLAN name or ID is specified) in the administrative domain.

debug sw-vlan ifs

Use the **debug sw-vlan ifs** privileged EXEC command to enable debugging of the VLAN manager IOS file system (IFS) error tests. Use the **no** form of this command to disable debugging.

```
debug sw-vlan ifs {open {read | write} | read {1 | 2 | 3 | 4} | write}
```

```
no debug sw-vlan ifs {open {read | write} | read {1 | 2 | 3 | 4} | write}
```

Syntax Description

open {read write}	Display VLAN manager IFS file-open operation debug messages. The keywords have these meanings: <ul style="list-style-type: none"> read—Display VLAN manager IFS file-read operation debug messages. write—Display VLAN manager IFS file-write operation debug messages.
read {1 2 3 4}	Display file-read operation debug messages for the specified error test (1, 2, 3, or 4).
write	Display file-write operation debug messages.

Defaults

Debugging is disabled.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.2(25)EX	This command was introduced.

Usage Guidelines

The **undebug sw-vlan ifs** command is the same as the **no debug sw-vlan ifs** command.

When selecting the file read operation, Operation **1** reads the file header, which contains the header verification word and the file version number. Operation **2** reads the main body of the file, which contains most of the domain and VLAN information. Operation **3** reads type length version (TLV) descriptor structures. Operation **4** reads TLV data.

Related Commands

Command	Description
show debugging	Displays information about the types of debugging that are enabled.
show vlan	Displays the parameters for all configured VLANs or one VLAN (if the VLAN name or ID is specified) in the administrative domain.

debug sw-vlan notification

Use the **debug sw-vlan notification** privileged EXEC command to enable debugging of the activation and deactivation of VLAN IDs. Use the **no** form of this command to disable debugging.

```
debug sw-vlan notification { accfwdchange | allowedvlanfgchange | fwdchange | linkchange |
modechange | statechange }
```

```
no debug sw-vlan notification { accfwdchange | allowedvlanfgchange | fwdchange |
linkchange | modechange | statechange }
```

Syntax Description		
accfwdchange	Display debug messages for VLAN manager notification of aggregated access interface spanning-tree forward changes.	
allowedvlanfgchange	Display debug messages for VLAN manager notification of changes to the allowed VLAN configuration.	
fwdchange	Display debug messages for VLAN manager notification of spanning-tree forwarding changes.	
linkchange	Display debug messages for VLAN manager notification of interface link-state changes.	
modechange	Display debug messages for VLAN manager notification of interface mode changes.	
statechange	Display debug messages for VLAN manager notification of interface state changes.	



Note

Though visible in the command-line help strings, the **pruningfgchange** keyword is not supported.

Defaults Debugging is disabled.

Command Modes Privileged EXEC

Command History	Release	Modification
	12.2(25)EX	This command was introduced.

Usage Guidelines The **undebg sw-vlan notification** command is the same as the **no debug sw-vlan notification** command.

Related Commands	Command	Description
	show debugging	Displays information about the types of debugging that are enabled.
	show vlan	Displays the parameters for all configured VLANs or one VLAN (if the VLAN name or ID is specified) in the administrative domain.

debug udd

Use the **debug udd** privileged EXEC command to enable debugging of the UniDirectional Link Detection (UDLD) feature. Use the **no** form of this command to disable UDLD debugging.

debug udd {events | packets | registries}

no debug udd {events | packets | registries}

Syntax Description

events	Display debug messages for UDLD process events as they occur.
packets	Display debug messages for the UDLD process as it receives packets from the packet queue and tries to send them at the request of the UDLD protocol code.
registries	Display debug messages for the UDLD process as it processes registry calls from the UDLD process-dependent module and other feature modules.

Defaults

Debugging is disabled.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.2(25)EX	This command was introduced.

Usage Guidelines

The **undebug udd** command is the same as the **no debug udd** command.

For **debug udd events**, these debugging messages appear:

- General UDLD program logic flow
- State machine state changes
- Program actions for the set and clear ErrDisable state
- Neighbor cache additions and deletions
- Processing of configuration commands
- Processing of link-up and link-down indications

For **debug udd packets**, these debugging messages appear:

- General packet processing program flow on receipt of an incoming packet
- Indications of the contents of the various pieces of packets received (such as type length versions [TLVs]) as they are examined by the packet reception code
- Packet transmission attempts and the outcome

For **debug udd registries**, these categories of debugging messages appear:

- Sub-block creation
- Fiber-port status changes

- State change indications from the port manager software
- MAC address registry calls

Related Commands

Command	Description
<code>show debugging</code>	Displays information about the types of debugging that are enabled.
<code>show udd</code>	Displays UDLD administrative and operational status for all ports or the specified port.

debug vqpc

Use the **debug vqpc** privileged EXEC command to enable debugging of the VLAN Query Protocol (VQP) client. Use the **no** form of this command to disable debugging.

debug vqpc [**all** | **cli** | **events** | **learn** | **packet**]

no debug vqpc [**all** | **cli** | **events** | **learn** | **packet**]

Syntax Description

all	(Optional) Display all VQP client debug messages.
cli	(Optional) Display the VQP client command-line interface (CLI) debug messages.
events	(Optional) Display VQP client event debug messages.
learn	(Optional) Display VQP client address learning debug messages.
packet	(Optional) Display VQP client packet information debug messages.

Defaults

Debugging is disabled.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.2(25)EX	This command was introduced.

Usage Guidelines

The **undebug vqpc** command is the same as the **no debug vqpc** command.

Related Commands

Command	Description
show debugging	Displays information about the types of debugging that are enabled.