



D Commands

The commands shown in this chapter apply to the Catalyst 8540 MSR, Catalyst 8510 MSR, and LightStream 1010 ATM switch routers. Where an entire command or certain attributes of a command have values specific to a particular switch or switch router, an exception is indicated by the following callouts:

- Catalyst 8540 MSR
- Catalyst 8510 MSR and LightStream 1010



Note

Commands that are identical to those documented in the Cisco IOS software documentation have been removed from this chapter.



Note

Commands that no longer function as expected in ATM environments have also been removed from this chapter.

Refer to Appendix D of this command reference for a detailed list of commands that have been removed, changed or replaced.

debug atm accounting

To enable debugging for ATM accounting, use the **debug atm accounting** EXEC command. To disable debugging, use the **no** form of this command.

debug atm accounting errors | events

no debug atm accounting errors | events

Syntax Description

errors Logs significant errors to the console.

events Logs significant events to the console.

Defaults

Disabled

Command Modes

EXEC



Note

Not all of the **debug** commands are included in this publication. For a complete guide to the debug commands, refer to the *Debug Command Reference* publication.

Command History

Release	Modification
11.1(4)	New command

debug atm conn

To enable debugging for ATM connection management, use the **debug atm conn** privileged EXEC command. To disable debugging, use the **no** form of this command.

debug atm conn { **bitmap** { **errors** | **events** } | **errors** | **events** | **mib** }

no debug atm conn { **bitmap** { **errors** | **events** } | **errors** | **events** | **mib** }

Syntax Description

bitmap	Enables ATM connection bitmap management debugging.
errors	Enables ATM connection management errors debugging.
events	Enables ATM connection management events debugging.
mib	Enables ATM connection management MIB debugging.

Defaults

Disabled

Command Modes

Privileged EXEC



Note

Not all of the **debug** commands are included in this publication. For a complete guide to the debug commands, refer to the *Debug Command Reference* publication.

Command History

Release	Modification
11.2(8.0.1)	New command

debug atm oam-all

To enable all the debug flags for the OAM, use the **debug atm oam-all** privileged EXEC command. To disable the debug flags, use the **no** form of the command.

debug atm oam-all

no debug atm oam-all

Syntax Description This command has no arguments or keywords.

Defaults Disabled

Command Modes Privileged EXEC



Caution

This command can generate a significant amount of output when it is implemented.



Note

Not all of the **debug** commands are included in this publication. For a complete guide to the debug commands, refer to the *Debug Command Reference* publication.

Command History

Release	Modification
11.1(4)	New command

debug atm oam-pkt

To display the transmit and receive OAM traffic, use the **debug atm oam-pkt** privileged EXEC command. This command also decodes individual OAM cells. To disable OAM traffic debugging, use the **no** form of the command.

debug atm oam-pkt

no debug atm oam-pkt

Syntax Description This command has no arguments or keywords.

Defaults Disabled

Command Modes Privileged EXEC



Note Not all of the **debug** commands are included in this publication. For a complete guide to the debug commands, refer to the *Debug Command Reference* publication.

Command History	Release	Modification
	11.1(4)	New command

debug atm pnni

To enable PNNI debugging output, use the following **debug atm pnni** privileged EXEC commands. To disable PNNI debugging output, use the **no** form of these commands.

debug atm pnni adj-events

```
debug atm pnni adj-packet
debug atm pnni aggregation
debug atm pnni all
debug atm pnni api
debug atm pnni election
debug atm pnni flood-packet
debug atm pnni hello-packet
debug atm pnni rm [local-node node-index]
debug atm pnni route-all
debug atm pnni route-errors
debug atm pnni snmp
debug atm pnni svcc-rcc
debug atm pnni topology
```

no debug atm pnni adj-events

```
no debug atm pnni adj-packet
no debug atm pnni aggregation
no debug atm pnni all
no debug atm pnni api
no debug atm pnni election
no debug atm pnni flood-packet
no debug atm pnni hello-packet
no debug atm pnni rm [local-node node-index]
no debug atm pnni route-all
no debug atm pnni route-errors
no debug atm pnni snmp
no debug atm pnni svcc-rcc
no debug atm pnni topology
```

Syntax Description

adj-events	Turns on adjacency-related event debugging. The feature can be turned on for a specific PNNI interface.
adj-packet	Turns on database summary and request packet debugging. The feature can be turned on for a specific PNNI interface.
aggregation	Turns on link aggregation debugging.
all	Turns on all PNNI debugging. The feature can be turned on for a specific PNNI interface.
api	Turns on application interface debugging.
election	Turns on PGL PNNI election debugging.
flood-packet	Turns on PTSP and ACK packet debugging.
hello-packet	Turns on Hello packet debugging. The feature can be turned on for a specific PNNI interface.
rm	Turns on resource management debugging. Debugging output can be limited to a single node using the local-node <i>node-index</i> option.

route-all	Turns on all route debugging.
route-errors	Turns on PNNI route errors debugging.
snmp	Turns on debugging of SNMP events (get and set) related to the PNNI MIBs.
svcc-rcc	Turns on debugging for SVCC RCC setup, SVCC Hello processing, and horizontal link extension processing.
topology	Turns on internal topology maintenance debugging.

Defaults

Disabled

Command Modes

Privileged EXEC

**Note**

Not all of the **debug** commands are included in this publication. For a complete guide to the debug commands, refer to the *Debug Command Reference* publication.

Command History

Release	Modification
11.1(4)	New command

debug atm pnni mobility

Prints console messages relating to mobile PNNI status if the **debug atm pnni mobility** command is enabled.

debug atm pnni mobility

no debug atm pnni mobility

Syntax Description

None

Defaults

Disabled.

Command Modes

Privileged EXEC

Command History

Release	Modification
12.1(6)	New command

Usage Guidelines

Debug messages are logged onto the console if console logging is enabled. Debug messages are logged in the syslog buffer if console logging is disabled.

Examples

```
Switch# debug atm pnni mobility
PNNI Mobility debugging is on
Switch#
```

Related Commands

Command	Description
atm address	Used to assign a 20-byte ATM address to the switch router.
atm pnni mobile	Used to specify a PNNI interface as mobile.
atm pnni nodal-hierarchy-list highest-level	Specifies highest level of PNNI hierarchy, within a fixed network, to be advertised to mobile networks.
atm router pnni node	Used to enter PNNI configuration mode.
node	Creates, enables or disables switch nodes as well as specifies or changes node level.
show atm pnni local-node	Displays information about a PNNI logical node running on a switch router.

Command	Description
show atm pnni mobility-info	Displays lowest node and logical node information associated with PNNI mobility.
show atm pnni node	Shows whether PNNI nodes are enabled and running, and shows node configuration information.

debug atm rm

To enable the debug printout messages for ATM resource manager, use the **debug atm rm** privileged EXEC command. To disable the printout message, use the **no** form of this command.

debug atm rm errors
debug atm rm events
debug atm rm pnni-api

no debug atm rm errors
no debug atm rm events
no debug atm rm pnni-api

Syntax Description This command has no arguments or keywords.

Defaults Disabled

Command Modes Privileged EXEC



Caution

This command can generate a significant amount of output and can interfere with other activity on the switch when it is implemented.



Note

Not all of the **debug** commands are included in this publication. For a complete guide to the debug commands, refer to the *Debug Command Reference* publication.

Command History

Release	Modification
11.1(4)	New command

debug atm sig

To debug the ATM signalling module, use the **debug atm sig** privileged EXEC commands. To disable the debugging, use the **no** form of these commands.

debug atm sig-all

```
debug atm sig-error [atm card/subcard/port]
debug atm sig-events [atm card/subcard/port]
debug atm sig-ie [atm card/subcard/port]
debug atm sig-nni [atm card/subcard/port]
debug atm sig-packets [atm card/subcard/port]
```

no debug atm sig-all

```
no debug atm sig-error [atm card/subcard/port]
no debug atm sig-events [atm card/subcard/port]
no debug atm sig-ie [atm card/subcard/port]
no debug atm sig-nni [atm card/subcard/port]
no debug atm sig-packets [atm card/subcard/port]
```

Syntax Description

sig-all	Turns on the debug output for all of the above conditions.
sig-error	Turns on the debug output for the ATM signalling error conditions.
sig-events	Turns on the debug output for the ATM signalling state machine events.
sig-ie	Turns on the debug output for the ATM signalling messages information element encoding.
sig-nni	Turns on the debug output for the ATM signalling NNI state machine events.
sig-packets	Turns on the debug output for the ATM signalling packets.
<i>card/subcard/ port</i>	Specifies the card, subcard, and port number for the ATM interface.

Defaults

Disabled

Command Modes

Privileged EXEC



Note

Not all of the **debug** commands are included in this publication. For a complete guide to the debug commands, refer to the *Debug Command Reference* publication.

Command History

Release	Modification
11.1(4)	New command

debug diag online (Catalyst 8540 MSR)

To enable online diagnostic debugging output, use the **debug diag online** command. To disable debugging, use the **no** form of the command.

debug diag online [access | oir | snake]

no debug diag online [access | oir | snake]

Syntax Description

access	<p>The access tests ensure connectivity at a configurable interval between the primary route processor and the following:</p> <ul style="list-style-type: none"> • Active switch processors • Standby switch processor, if it is present • Feature cards • Port adapters • Interface modules <p>Whenever the access test detects a hardware failure, the system issues an error message to the console.</p> <p>If the access test detects a hardware problem with an active switch processor, the standby switch processor, if present, automatically takes over and becomes an active switch processor. The system generates an SNMP trap when the switchover occurs.</p>
oir	<p>Online insertion and removal (OIR) tests check the functioning of the switch fabric and interfaces on a per-port basis. The switch router performs these tests when the system boots up and when you insert a port adapter or interface module into a slot. The OIR test sends a packet to the interface loopback and expects to receive it back within a certain time period. If the packet does not reach the port within the expected time period, or the route processor receives a corrupted packet, the system issues an error message to the console, generates an SNMP trap, and brings the port to an administrative down state.</p>
snake	<p>The snake test establishes a connection across all the active ports in the switch router, originating and terminating at the primary route processor. The route processor establishes a connection by sending a packet to each port in turn, which then terminates at the route processor. If the packet does not reach the route processor within the expected time period, or the received packet is corrupted, further testing is performed to isolate and disable the port causing the problem. The size of the packet and frequency of the test are configurable to minimize the impact on system performance.</p> <p>The snake test supports all ATM interface modules and enhanced Gigabit Ethernet interface modules. It does not support ATM port adapters, Fast Ethernet interface modules, or Gigabit Ethernet interface modules.</p>

Defaults

Disabled.

Command Modes

Privileged EXEC

Command History	Release	Modification
	12.1(6)	New command

Usage Guidelines Debug messages are logged onto the console if console logging is enabled. Debug messages are logged in the syslog buffer if console logging is disabled.

Examples Using the **debug diag online** command in the example shown below will cause diagnostic test results to be displayed at the console.

```
Switch# debug diag online oir
Online Dig OIR Test debugging is on
Switch#
```

Related Commands	Command	Description
	diag online (Catalyst 8540 MSR)	Enables, disables, and configures system diagnostics.
	show diag online (Catalyst 8540 MSR)	Displays test results for any diagnostic test that is enabled.

debug ncdp

To display NCDP errors, events, and packet information, use the **debug ncdp** command. To disable ncdp debugging, use the **no** form of this command.

debug ncdp { **errors** | **events** | **packets** }

no debug ncdp { **errors** | **events** | **packets** }

Syntax Description

errors	Displays NCDP errors, such as “extract-clock failed.”
events	Displays NCDP events, such as a “switch vector update.”
packets	Displays NCDP messages. This option generates significant output.

Defaults

Disabled

Command Modes

Privileged EXEC

Command History

Release	Modification
12.0(3c)W5(9)	New command

debug sgcp errors

To enable the production of debug information on exceptional conditions encountered in the use of SGCP to control the interconnection of CES circuits, use the **debug sgcp errors** privileged EXEC command. To disable debugging, use the **no** form of this command.

debug sgcp errors

no debug sgcp errors

Syntax Description This command has no arguments or keywords.

Defaults Disabled

Command Modes Privileged EXEC

Command History	Release	Modification
	12.0(3c)W5(9)	New command

Usage Guidelines The debug output consists of exceptional events, which should not occur during normal operations. However, these exceptions are not indicative of a software failure.

Examples The following example enables the debugging of SGCP error events.

```
Switch# debug sgcp errors
Simple Gateway Control Protocol errors debugging is on
```

Related Commands	Command	Description
	debug sgcp events	Enables the production of debug information on significant events encountered in the use of SGCP to control the interconnection of CES circuits.
	debug sgcp packets	Enables the production of SGCP packets received to control the interconnection of CES circuits.

debug sgcp events

To enable the production of debug information on significant events encountered in the use of SGCP to control the interconnection of CES circuits, use the **debug sgcp events** privileged EXEC command. To disable debugging, use the **no** form of this command.

debug sgcp events

no debug sgcp events

Syntax Description This command has no arguments or keywords.

Defaults Disabled

Command Modes Privileged EXEC

Command History	Release	Modification
	12.0(3c)W5(9)	New command

Usage Guidelines The principle debug output includes circuit state changes that occur because of SGCP packet and CES circuit events.

Examples The following example enables the debugging of SGCP events.

```
Switch# debug sgcp events
Simple Gateway Control Protocol events debugging is on
```

Related Commands	Command	Description
	debug ncdp	Displays NCDP errors and/or events.
	debug sgcp packets	Enables the production of SGCP packets received to control the interconnection of CES circuits.

debug sgcp packets

To enable the production of SGCP packets received to control the interconnection of CES circuits, use the **debug sgcp packets** privileged EXEC command. To disable debugging, use the **no** form of this command.

debug sgcp packets

no debug sgcp packets

Syntax Description This command has no arguments or keywords.

Defaults Disabled

Command Modes Privileged EXEC

Command History	Release	Modification
	12.0(3c)W5(9)	New command

Usage Guidelines This command produces the most verbose output of the SGCP debug commands.

Examples The following example enables the debugging of SGCP packets.

```
Switch# debug sgcp packets
Simple Gateway Control Protocol packets debugging is on
```

Related Commands	Command	Description
	debug ncdp	Displays NCDP errors and/or events.
	debug sgcp events	Enables the production of SGCP packets received to control the interconnection of CES circuits.

debug sscop

To debug the ATM signalling SSCOP, use the following **debug sscop** privileged EXEC commands. To return the debug SSCOP to the default, use the **no** form of this command.

```
debug sscop errors [atm card/subcard/port]
debug sscop events [atm card/subcard/port]
debug sscop packets [atm card/subcard/port]
```

```
no debug sscop errors [atm card/subcard/port]
no debug sscop events [atm card/subcard/port]
no debug sscop packets [atm card/subcard/port]
```

Syntax Description		
errors		Turns on the debug output for the SSCOP error conditions.
events		Turns on the debug output for the SSCOP state machine events.
packets		Turns on the debug output for the SSCOP packets.
atm card/subcard/port		Specifies the card, subcard, and port number of the ATM interface.

Defaults Disabled

Command Modes Global configuration
Interface configuration when **atm card/subcard/port** is specified.



Note

Not all of the **debug** commands are included in this publication. For a complete guide to the debug commands, refer to the *Debug Command Reference* publication.

Command History	Release	Modification
	11.1(4)	New command

debug tag-switching

To debug the tag-switching configuration, use the **debug tag-switching** privileged EXEC commands. To disable tag-switching debugging, use the **no** form of these commands.

debug tag-switching adjacency

```
debug tag-switching atm-tdp api
debug tag-switching atm-tdp routes
debug tag-switching atm-tdp states
debug tag-switching packets [if-type] [card/subcard/port]
debug tag-switching tdp advertisements
debug tag-switching tdp bindings
debug tag-switching tdp directed-neighbors
debug tag-switching tdp peer state-machine
debug tag-switching tdp pies {received [all] | sent [all]}
debug tag-switching tdp session {io [all] | state-machine}
debug tag-switching tdp transport {connections | events | timers}
debug tag-switching tsp-tunnels events
debug tag-switching tsp-tunnels signalling
debug tag-switching tsp-tunnels tagging
```

no debug tag-switching adjacency

```
no debug tag-switching atm-tdp api
no debug tag-switching atm-tdp routes
no debug tag-switching atm-tdp states
no debug tag-switching packets [if-type] [card/subcard/port]
no debug tag-switching tdp advertisements
no debug tag-switching tdp bindings
no debug tag-switching tdp directed-neighbors
no debug tag-switching tdp peer state-machine
no debug tag-switching tdp pies {received [all] | sent [all]}
no debug tag-switching tdp session {io [all] | state-machine}
no debug tag-switching tdp transport {connections | events | timers}
no debug tag-switching tsp-tunnels events
no debug tag-switching tsp-tunnels signalling
no debug tag-switching tsp-tunnels tagging
```

Syntax Description		
	adjacency	Displays changes to tag switching entries in the adjacency database. Use this option to monitor instances when entries are updated or added to the adjacency database.
	atm-tdp api	Displays information about the VCI allocation of TVCs, free, and cross-connect requests. Use the debug tag-switching atm-tdp api command with the debug tag-switching atm-tdp states command to display more complete information about a TVC.
	atm-tdp routes	Displays information about the state of the routes for which VCI requests are being made. See also “Usage Guidelines.”
	atm-tdp states	Displays information about TVC state transitions as they occur. See also “Usage Guidelines.”

packets	Displays tagged packets switched by this system. The optional <i>if-type</i> (atm , atm-p , cbr , ethernet , or null) and <i>card/subcard/port</i> arguments restrict the display to those packets received or transmitted on the specified interface type or number. This command should be used with care because it generates output for every packet processed. Furthermore, enabling this command causes fast and distributed tag switching to be disabled for the selected interfaces. Use this command only when traffic on the network is low, so other activity on the system is not adversely affected.
tdp advertisements	Displays information about the advertisement of tags and interface addresses to TDP peers.
tdp bindings	Displays information about changes to the TIB used to keep track of tag bindings learned from TDP peers through TDP downstream tag distribution.
tdp directed-neighbors	Displays information about TDP directed-neighbor events.
tdp peer	Displays information about state transitions at the tag distribution level. See also “Usage Guidelines.”
tdp pies	Displays information about TDP PIEs received from (received) or sent to (sent) TDP peers. TDP requires periodic transmission of keepalive PIEs. If you do not specify the all option, periodic keepalive PIEs are not displayed.
tdp session	Displays TDP session information. See also “Usage Guidelines.”
tdp transport	Used with the connections keyword, this command displays information about the TCP connections used to support TDP sessions. Used with the events keyword, this command displays information about the events related to the TDP peer discovery mechanism, which is used to determine the devices with which to establish TDP sessions. Used with the timers keyword, this command displays TDP discovery and transport timer activity. See also “Usage Guidelines.”
tsp-tunnels events	Displays TSP tunnels events.
tsp-tunnels signalling	Displays TSP tunnels signalling.
tsp-tunnels tagging	Displays TSP tunnels tagging.

Defaults	Disabled
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Command Modes	Privileged EXEC
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Command History	Release	Modification
	11.3(3a)	New command

Usage Guidelines

When there are a large number of routes and a number of system activities (shutting down interfaces, learning new routes, and so on), the **debug tag-switching atm-tdp routes** and **debug tag-switching atm-tdp states** commands display a lot of information that might interfere with system timing. Most commonly, this affects the normal operation of TDP. You should increase the holdtime value of the TDP by using the **tag-switching tdp holdtime** command.

TDP sessions are supported by data structures and state machines at three levels:

- Transport—TCP connections used to support TDP sessions are established and maintained at the transport level.
- Protocol—The protocol level implements the TDP session setup protocol, and deals with constructing and parsing TDP PDUs and PIEs.
- Tag distribution—The tag distribution level uses TDP sessions to exchange tags with TDP peers.

The **debug tag-switching tdp transport** commands provide visible activity at the transport level, the **debug tag-switching tdp session** commands at the protocol level, and the **debug tag-switching tdp peer state-machine** command at the tag distribution level.

diag online (Catalyst 8540 MSR)

To enable switch router online diagnostic tests, use the **diag online** command. To disable the online diagnostic tests, use the **no** form of the command.

diag online [access | oir | snake]

no diag online

Syntax Description

access	<p>The access tests ensure connectivity at a configurable interval between the primary route processor and the following:</p> <ul style="list-style-type: none"> • Active switch processors • Standby switch processor, if it is present • Feature cards • Port adapters • Interface modules <p>Whenever the access test detects a hardware failure, the system issues an error message to the console.</p> <p>If the access test detects a hardware problem with an active switch processor, the standby switch processor, if present, automatically takes over and becomes an active switch processor. The system generates an SNMP trap when the switchover occurs.</p>
oir	<p>Online insertion and removal (OIR) tests check the functioning of the switch fabric and interfaces on a per-port basis. The switch router performs these tests when the system boots up and when you insert a port adapter or interface module into a slot. The OIR test sends a packet to the interface loopback and expects to receive it back within a certain time period. If the packet does not reach the port within the expected time period, or the route processor receives a corrupted packet, the system issues an error message to the console, generates an SNMP trap, and brings the port to an administrative down state.</p>
snake	<p>The snake test establishes a connection across all the active ports in the switch router, originating and terminating at the primary route processor. The route processor establishes a connection by sending a packet to each port in turn, which then terminates at the route processor. If the packet does not reach the route processor within the expected time period, or the received packet is corrupted, further testing is performed to isolate and disable the port causing the problem. The size of the packet and frequency of the test are configurable to minimize the impact on system performance.</p> <p>The snake test supports all ATM interface modules and enhanced Gigabit Ethernet interface modules. It does not support ATM port adapters, Fast Ethernet interface modules, or Gigabit Ethernet interface modules.</p>

Defaults

Enabled.

Command Modes

Global configuration

Command History

Release	Modification
12.1(6)	New command

Usage Guidelines

Use the **diag online** command to enable or disable specified diagnostic tests and set test variables. To enable a diagnostic test, use the **diag online access**, **diag online snake**, or **diag online OIR** command. Use test defaults by running the **diag online access freq**, **diag online OIR pktsize** or **diag online snake timer** commands.

Examples

The following example shows how to enable the access diagnostic test.

```
Switch(config)# diag online access
Enabling Access test
Switch(config)#
```

Related Commands

Command	Description
debug diag online (Catalyst 8540 MSR)	Enables or disables system debugging.
show diag online (Catalyst 8540 MSR)	Reports diagnostic test results.
diag online access freq (Catalyst 8540 MSR)	Tests proper functionality of all ATM port adapters, ATM and layer 3 interface modules, switch processors and daughter cards.
diag online oir pktsize (Catalyst 8540 MSR)	Tests are performed on all ATM and Layer 3 interface modules. The OIR test occurs at system boot-up and when a new interface module is inserted into a slot.
diag online snake timer (Catalyst 8540 MSR)	The snake test establishes a connection, which includes all the active ports in the switch router, originating and terminating at the primary route processor. The route processor sends a packet through this connection. If the packet does not reach the route processor within the expected time period, or the received packet is corrupted, then further testing is performed to isolate and disable the port causing the problem.

diag online access freq (Catalyst 8540 MSR)

To enable the access diagnostic test and set the test variable, use the **diag online access freq** command. To disable the access diagnostic test, use the **no** form of the command.

diag online access freq [*seconds*]

no diag online access freq

Syntax Description	<i>seconds</i>	Sets the frequency of how often the diag online access freq test should run. Valid frequency range is 10 to 600 seconds. Results are stored and can be displayed with the show diag online command.
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Defaults	10 seconds.
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Command Modes	Global configuration
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Command History	Release	Modification
	12.1(6)	New command

Usage Guidelines	Tests proper functionality of all ATM port adapters, ATM and Layer 3 interface modules, switch processors and daughter cards.
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Examples	The following example shows how to use the diag online access freq command to set the access test to run at the default interval of 10 seconds.
-----------------	--

```
Switch(config)# diag online access freq
ONLINE-DIAG: Online Access Test Frequency set to default value of 10 sec
Switch(config)#
```

The following example shows how to use the **diag online access freq** command to set the access test to run at 100 second intervals.

```
Switch(config)# diag online access freq 100
ONLINE-DIAG: Online Access Test Frequency set to 100 sec
Switch(config)#
```

Related Commands	Command	Description
	debug diag online (Catalyst 8540 MSR)	Enables or disables system debugging.
	show diag online (Catalyst 8540 MSR)	Reports online diagnostic test results.
	diag online (Catalyst 8540 MSR)	Enables or disables switch router diagnostic tests.

Command	Description
diag online oir pktsize (Catalyst 8540 MSR)	Tests are performed on all ATM and Layer 3 interface modules. The OIR test occurs at system boot-up and when a new interface module is inserted into a slot.
diag online snake timer (Catalyst 8540 MSR)	Tests the integrity of each port and interface, and reports results.

diag online oir pktsize (Catalyst 8540 MSR)

To enable the OIR diagnostic test and to set the test variable, use the **diag online oir pktsize** command. To disable the OIR diagnostic test, use the **no** form of this command.

diag online oir pktsize [*bytes*]

no daig online oir pktsize

Syntax Description	<i>bytes</i>	Sets the network packet size for the OIR test. Valid packet size range is 200 to 1000 bytes.
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Defaults	1000 bytes.
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Command Modes	Global configuration
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Command History	Release	Modification
	12.1(6)	New command

Usage Guidelines	The OIR test sends a packet to the interface loopback and expects to receive it back within a certain time period. If the packet does not reach the port within the expect time period, or the received packet is corrupted, then an error is registered and the port is brought to an administrative down state.
-------------------------	---

Examples	The following example shows how to use the diag online oir pktsize command to enable the OIR test using the default packet size of 1000 bytes.
-----------------	---

```
Switch(config)# diag online oir pktsize
ONLINE-DIAG: OIR Pkt Size set to default value of 1000 bytes
Switch(config)#
```

The following example shows how to use the **diag online oir pktsize 200** command to enable the OIR test using a packet size of 200 bytes.

```
Switch(config)# diag online oir pktsize 200
ONLINE-DIAG: OIR Pkt Size set to 200 bytes
Switch(config)#
```

Related Commands	Command	Description
	debug diag online (Catalyst 8540 MSR)	Enables or disables system debugging.
	show diag online (Catalyst 8540 MSR)	Reports online diagnostic test results.
	diag online (Catalyst 8540 MSR)	Enables or disables switch router diagnostic tests.

Command	Description
diag online access freq (Catalyst 8540 MSR)	Tests proper functionality of all ATM port adapters, ATM and Layer 3 interface modules, switch processors and daughter cards. The network clock module is not tested because it does not have a diagnostics test register.
diag online snake timer (Catalyst 8540 MSR)	Tests integrity of each port and interface, and reports results.

diag online snake timer (Catalyst 8540 MSR)

To enable the snake diagnostic test and to set the test variable, use the **diag online snake timer** command. To disable the snake diagnostic test, use the **no** form of this command.

diag online snake timer [*seconds*]

no diag online snake timer

Syntax Description	<i>seconds</i>	Sets the test interval of the snake timer test. Valid timer range is 4 to 1800 seconds
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Defaults	10 seconds.
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Command Modes	Global configuration
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Command History	Release	Modification
	12.1(6)	New command

Usage Guidelines	The snake test establishes a connection, which includes all the active ports in the switch router, originating and terminating at the primary route processor. The route processor sends a packet through this connection. If the packet does not reach the route processor within the expected time period, or the received packet is corrupted, then further testing is performed to isolate and disable the port causing the problem.
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Examples	The following example shows how to set the snake timer test to run at the default of 10 seconds.
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```
Switch(config)# diag online snake timer
ONLINE-DIAG: Snake timer set to default of 10 seconds
Switch(config)#
```

The following example shows how to set the snake timer test to run at 4 second intervals.

```
Switch(config)# diag online snake timer 4
ONLINE-DIAG: Snake timer set to 4 seconds
Switch(config)#
```

Related Commands	Command	Description
	debug diag online (Catalyst 8540 MSR)	Enables or disables system debugging.
	show diag online (Catalyst 8540 MSR)	Reports online diagnostic test results.
	diag online (Catalyst 8540 MSR)	Enables or disables switch router diagnostic tests.

Command	Description
diag online access freq (Catalyst 8540 MSR)	Tests proper functionality of all ATM port adapters, ATM and Layer 3 interface modules, switch processors and daughter cards.
diag online oir pktsize (Catalyst 8540 MSR)	Tests are performed on all ATM and Layer 3 interface modules. The OIR test occurs at system boot-up and when a new interface module is inserted into a slot.

disable

To return to the EXEC mode by exiting the privileged EXEC mode, use the **disable** EXEC command.

disable [*level*]

Syntax Description	<i>level</i> You can specify up to 16 privilege levels, using numbers 0 through 15. Level 1 is normal EXEC-mode user privileges. If this argument is not specified, the privilege level defaults to level 15 (traditional enable privileges).
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Defaults	15
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Command Modes	EXEC
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Command History	Release	Modification
	11.1(4)	New command

Examples In the following example, the user is logging out from privilege level 5.

```
Switch# disable 5
```

Related Commands	Command	Description
	enable (EXEC)	Cisco IOS command removed from this manual.