



Managed LAN Switch

The Managed LAN Switch feature enables the control of the four switch ports in Cisco 831, 836, and 837 routers. Each switch port is associated with a Fast Ethernet interface. The output of the command **show controllers fastEthernet <1-4>** displays the status of the selected switch port.

The Managed LAN Switch feature allows setting and display of the following parameters for each of the switch ports:

- Speed
- Duplex

It also allows display of the link state of a switch port—that is, whether a device is connected to that port or not.

Feature History for the Managed LAN Switch Feature

Release	Modification
12.3(2)XC	This feature modifies the output of the command show controllers fastEthernet <1-4> to show the status of switch port.

Finding Support Information for Platforms and Cisco IOS Software Images

Use Cisco Feature Navigator to find information about platform support and Cisco IOS software image support. Access Cisco Feature Navigator at <http://www.cisco.com/go/fn>. You must have an account on Cisco.com. If you do not have an account or have forgotten your username or password, click **Cancel** at the login dialog box and follow the instructions that appear.

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Information About Managed LAN Switch

To configure the Managed LAN Switch feature, you should understand the following concept:

- [LAN Switching, page 2](#)

LAN Switching

A LAN is a high-speed, fault-tolerant data network that supplies connectivity to a group of computers, printers, and other devices that are in close proximity to each other, as in an office building, a school or a home. LANs offer computer users many advantages, including shared access to devices and applications, file exchange between connected users, and communication between users via electronic mail and other applications.

For more information about LAN switching, refer to the following URL:

http://www.cisco.com/en/US/tech/tk389/tech_topology_and_network_serv_and_protocol_suite_home.html

How to Enable Managed LAN Switch

This section contains the following procedure:

- Enabling Managed LAN Switch

Enabling Managed LAN Switch

To enable Managed LAN Switch, perform the following steps:

SUMMARY STEPS

1. **enable**
2. **interface fastEthernet**
3. **duplex *auto***
4. **speed *auto***
5. **end**

DETAILED STEPS

	Command or Action	Purpose
Step 1	enable Example: Router> enable	Enables privileged EXEC mode. • Enter your password if prompted.
Step 2	interface fastEthernet <i>interface-number</i> Example: Router(config)# interface fastEthernet	Configures a Fast Ethernet interface and enters interface configuration mode.
Step 3	duplex <i>auto</i> Example: Router(config-if)# duplex auto	Enables LAN switching on the selected port with duplex setting in auto mode.
Step 4	speed <i>auto</i> Example: Router(config-if)# speed auto	Enables LAN switching on the selected port with speed setting in auto mode.
Step 5	end Example: Router(config-if)# end	Ends the current configuration session and returns to privileged EXEC mode.

Verifying Managed LAN Switch

To verify the Managed LAN Switch configuration, enter the **show controllers fastEthernet <1-4>** command in EXEC mode. The following sample output shows the status of switch port 1.

```
Router#show controllers fastEthernet 1
!
Interface FastEthernet1  MARVELL 88E6052
Link is DOWN
Port is undergoing Negotiation or Link down
Speed :Not set, Duplex :Not set
!
Switch PHY Registers:
~~~~~

00 : 3100  01 : 7849  02 : 0141  03 : 0C1F  04 : 01E1
05 : 0000  06 : 0004  07 : 2001  08 : 0000  16 : 0130
17 : 0002  18 : 0000  19 : 0040  20 : 0000  21 : 0000
!
Switch Port Registers:
~~~~~
Port Status Register      [00] : 0800
Switch Identifier Register [03] : 0520
Port Control Register     [04] : 007F
Rx Counter Register      [16] : 000A
```

```
Tx Counter Register      [17] : 0008
!
```

Configuration Examples for Managed LAN Switch

This section provides the following configuration example:

- Enabling Managed LAN Switch: Example

Enabling Managed LAN Switch: Example

The following example shows the Managed LAN Switch configured with duplex set to auto and full, speed set to auto and 100:

```
configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
interface fastEthernet1
no ip address
duplex auto
speed auto
!
interface fastEthernet2
no ip address
duplex full <----- duplex setting of port 2
speed 100 <----- speed setting of port 2
!
interface fastEthernet3
no ip address
shutdown <----- shutting port 3
duplex auto
speed auto
!
interface fastEthernet4
no ip address
duplex auto
speed auto
!
```

Additional References

The following sections provide references related to the Managed LAN Switch feature.

Related Documents

Related Topic	Document Title
Cisco IOS Release 12.3 Configuration Guides and Command References	<i>Cisco IOS Release 12.3 Configuration Guides and Command References</i>

Standards

Standards	Title
None	—

MIBs

MIBs	MIBs Link
<ul style="list-style-type: none"> None 	<p>To locate and download MIBs for selected platforms, Cisco IOS releases, and feature sets, use Cisco MIB Locator found at the following URL:</p> <p>http://www.cisco.com/go/mibs</p>

RFCs

RFCs	Title
None	—

Technical Assistance

Description	Link
Technical Assistance Center (TAC) home page, containing 30,000 pages of searchable technical content, including links to products, technologies, solutions, technical tips, and tools. Registered Cisco.com users can log in from this page to access even more content.	http://www.cisco.com/public/support/tac/home.shtml

Command Reference

This section documents a modified command. All other commands used with this feature are documented in the Cisco IOS Release 12.3 T command reference publications.

- **show controllers fastEthernet <1-4>**

show controllers fastEthernet

To display the status of the switch port, use the **show controllers fastEthernet** command in user EXEC or privileged EXEC mode.

show controllers fastEthernet *port*

Syntax	Description
<i>port</i>	Port numbers 1 through 4.

Command Modes
User EXEC Privileged EXEC

Command History	Release	Modification
	11.2	This command was introduced.
	12.3(2)XC	The output of this command was modified to show the status of switch port.

Examples

The following example shows how to display the status of switch port 1:

```
Router#show controllers fastEthernet 1
!
Interface FastEthernet1  MARVELL 88E6052
Link is DOWN
Port is undergoing Negotiation or Link down
Speed :Not set, Duplex :Not set
!
Switch PHY Registers:
~~~~~

00 : 3100  01 : 7849  02 : 0141  03 : 0C1F  04 : 01E1
05 : 0000  06 : 0004  07 : 2001  08 : 0000  16 : 0130
17 : 0002  18 : 0000  19 : 0040  20 : 0000  21 : 0000
!
Switch Port Registers:
~~~~~
Port Status Register      [00] : 0800
Switch Identifier Register [03] : 0520
Port Control Register     [04] : 007F
Rx Counter Register      [16] : 000A
Tx Counter Register      [17] : 0008
!
```

Related Commands	Command	Description
	show interfaces fastEthernet	Displays information about Fast Ethernet interfaces 1 through 4.

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