



# Managed LAN Switch

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**Last Updated: October 24, 2012**

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 **show controllers fastEthernet** command displays the status of the selected switch port.

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

- Speed
- Duplex

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

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## Finding Feature Information

Your software release may not support all the features documented in this module. For the latest caveats and feature information, see [Bug Search Tool](#) and the release notes for your platform and software release. To find information about the features documented in this module, and to see a list of the releases in which each feature is supported, see the feature information table at the end of this module.

Use Cisco Feature Navigator to find information about platform support and Cisco software image support. To access Cisco Feature Navigator, go to [www.cisco.com/go/cfn](http://www.cisco.com/go/cfn). An account on Cisco.com is not required.

## Information About Managed LAN Switch

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## 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, see the “LAN Switching” module of the *Internetworking Technology Handbook*.

## How to Enable Managed LAN Switch

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### Enabling Managed LAN Switch

To enable Managed LAN Switch, perform the following steps:

#### SUMMARY STEPS

1. **enable**
2. **configure terminal**
3. **interface** *type number*
4. **duplex auto**
5. **speed auto**
6. **end**

#### DETAILED STEPS

	Command or Action	Purpose
Step 1	<b>enable</b>  <b>Example:</b> Router> enable	Enables privileged EXEC mode. <ul style="list-style-type: none"> <li>• Enter your password if prompted.</li> </ul>
Step 2	<b>configure terminal</b>  <b>Example:</b> Router# configure terminal	Enters global configuration mode.

Command or Action	Purpose
<b>Step 3</b> <code>interface type number</code>  <b>Example:</b> <pre>Router(config)# interface fastethernet0/0</pre>	Configures a Fast Ethernet interface and enters interface configuration mode. <ul style="list-style-type: none"> <li>Enter the interface type and interface number.</li> </ul>
<b>Step 4</b> <code>duplex auto</code>  <b>Example:</b> <pre>Router(config-if)# duplex auto</pre>	Enables LAN switching on the selected port with duplex setting in auto mode.
<b>Step 5</b> <code>speed auto</code>  <b>Example:</b> <pre>Router(config-if)# speed auto</pre>	Enables LAN switching on the selected port with speed setting in auto mode.
<b>Step 6</b> <code>end</code>  <b>Example:</b> <pre>Router(config-if)# end</pre>	Returns to privileged EXEC mode.

## Verifying the Managed LAN Switch Configuration

To verify the Managed LAN Switch configuration, perform the following steps:

### SUMMARY STEPS

- `enable`
- `show controllers fastethernet number`
- `end`

### DETAILED STEPS

Command or Action	Purpose
<b>Step 1</b> <code>enable</code>  <b>Example:</b> <pre>Router&gt; enable</pre>	Enables privileged EXEC mode. <ul style="list-style-type: none"> <li>Enter your password if prompted.</li> </ul>

Command or Action	Purpose
<b>Step 2</b> <code>show controllers fastethernet <i>number</i></code>  <b>Example:</b>  Router# <code>show controllers fastethernet1</code>	Displays information about initialization block, transmit ring, receive ring, Fast Ethernet interface information, applicable MAC destination address and VLAN filtering tables, and errors for the Fast Ethernet controller chip. <ul style="list-style-type: none"> <li>Enter the port, connector, or interface card number.</li> </ul>
<b>Step 3</b> <code>end</code>  <b>Example:</b>  Router(config-if)# <code>end</code>	Exits privileged EXEC mode.

## Configuration Examples for Managed LAN Switch

- [Enabling the Managed LAN Switch Example, page 4](#)
- [Verifying the Managed LAN Switch Configuration Example, page 4](#)

### Enabling the Managed LAN Switch Example

The following example shows the Managed LAN Switch configured with duplex set to auto and full, with 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 down port 3
duplex auto
speed auto
!
interface fastethernet4
no ip address
duplex auto
speed auto
!

```

### Verifying the Managed LAN Switch Configuration Example

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

```
Router# show controllers fastethernet1
```

```

!
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
!

```

## Additional References

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

### Related Documents

Related Topic	Document Title
IP LAN switching commands: complete command syntax, command mode, defaults, usage guidelines, and examples	<a href="#">Cisco IOS LAN Switching Services Command Reference</a>
LAN switching	“LAN Switching” module of the <i>Internetworking Technology Handbook</i>

### Standards

Standards	Title
No new or modified RFCs are supported by this feature, and support for existing standards has not been modified by this feature.	--

### MIBs

MIBs	MIBs Link
No new or modified MIBs are supported by this feature, and support for existing MIBs has not been modified by this feature.	To locate and download MIBs for selected platforms, Cisco IOS releases, and feature sets, use Cisco MIB Locator found at the following URL: <a href="http://www.cisco.com/go/mibs">http://www.cisco.com/go/mibs</a>

**RFCs**

RFCs	Title
No new or modified RFCs are supported by this feature, and support for existing standards has not been modified by this feature.	--

**Technical Assistance**

Description	Link
<p>The Cisco Support website provides extensive online resources, including documentation and tools for troubleshooting and resolving technical issues with Cisco products and technologies.</p> <p>To receive security and technical information about your products, you can subscribe to various services, such as the Product Alert Tool (accessed from Field Notices), the Cisco Technical Services Newsletter, and Really Simple Syndication (RSS) Feeds.</p> <p>Access to most tools on the Cisco Support website requires a Cisco.com user ID and password.</p>	<p><a href="http://www.cisco.com/cisco/web/support/index.html">http://www.cisco.com/cisco/web/support/index.html</a></p>

## Feature Information for Managed LAN Switch

The following table provides release information about the feature or features described in this module. This table lists only the software release that introduced support for a given feature in a given software release train. Unless noted otherwise, subsequent releases of that software release train also support that feature.

Use Cisco Feature Navigator to find information about platform support and Cisco software image support. To access Cisco Feature Navigator, go to [www.cisco.com/go/cfn](http://www.cisco.com/go/cfn). An account on Cisco.com is not required.

**Table 1** Feature Information for Managed LAN Switch

Feature Name	Releases	Feature Information
Managed LAN Switch	12.3(2)XC	<p>This feature modifies the output of the <b>show controllers fastethernet</b> command to show the status of switch port.</p> <p>The following command was modified: <b>show controllers fastethernet</b></p>

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