



Demilitarized Zone (DMZ) Port

The Demilitarized Zone (DMZ) port permits two LAN networks instead of the currently available single LAN network. This feature will enable switch port 4 of the existing four 10/100 switch ports to be optionally used as a Layer 3 LAN port, thereby providing Cisco 830 series routers with one more 10-Mbps Layer 3 LAN port. The new LAN port can be used for DMZ purposes for public access to the customer's web and other servers that are accessible from the Internet. The existing LAN network ports will continue to be used for private internal traffic.

Typically the DMZ port is configured at a lower security level than the other LAN ports on the Cisco 830 series router.

Feature History for Demilitarized Zone (DMZ) Port

Release	Modification
12.3(7)XR1	This feature was introduced.
12.3(14)T	This feature was integrated into Cisco IOS Release 12.3(14)T.

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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Restrictions for Demilitarized Zone (DMZ) Port

- The Ethernet 2 interface of the Cisco 830 series router should be used as a DMZ port for LAN only. Using Ethernet 2 interface for WAN is not supported.
- Because the media-independent interface, which connects the router's LAN interface to the Marvel switch, operates only at 10 Mbps, inter-LAN routing speed between Ethernet 0 and Ethernet 2 interfaces will be limited to a maximum of 10 Mbps.
- Because Ethernet 0 and Ethernet 2 interfaces share the same Tx/Rx rings, buffer pools, and communication controller, the output of some of the commands such as **show controller** and **show buffers** may be similar.
- Because the Ethernet 2 interface uses the existing switch port 4, if switch port 4 is shut down by issuing a **shutdown** command inside the **interface fastethernet 4** command, this action will operationally shut down the Ethernet 2 interface.
- The DMZ interface will reuse the existing Tx/Rx Activity LEDs of the Ethernet 0 interface. There will not be any link LED for the Ethernet 2 interface. When the Ethernet 2 interface is enabled, the Link LED of switch port 4 can be monitored to check whether the line protocol is up.
- The MAC address for the Ethernet 2 interface will be same as that for the Ethernet 0 interface.

Information About Demilitarized Zone (DMZ) Port

To configure the Demilitarized Zone (DMZ) Port feature, you should understand the following concepts:

- [DMZ Networks, page 2](#)

DMZ Networks

A DMZ network enables Internet users to access a company's public servers, including Web and File Transfer Protocol (FTP) servers, while maintaining security for the company's private LAN.

How to Enable DMZ Port

This section contains the following procedure:

- [Enabling DMZ Port, page 2](#)

Enabling DMZ Port

To enable the Ethernet 2 interface on your Cisco 830 series router for the DMZ Port feature, perform the following steps:

SUMMARY STEPS

1. **enable**
2. **configure terminal**
3. **interface ethernet 2**

4. **no shutdown**
5. **end**

DETAILED STEPS

	Command or Action	Purpose
Step 1	<code>enable</code> Example: Router> enable	Enables privileged EXEC mode. • Enter your password if prompted.
Step 2	<code>configure terminal</code> Example: Router# configure terminal	Enters global configuration mode.
Step 3	<code>interface ethernet 2</code> Example: Router# interface ethernet 2	Configures an interface type and enters interface configuration mode.
Step 4	<code>no shutdown</code> Example: Router# no shutdown	Configures switch port 4 as the Ethernet 2 port.
Step 5	<code>end</code> Example: Router# end	(Optional) Exits the configuration mode and returns to privileged EXEC mode.

Configuration Examples for DMZ Port

This section provides the following configuration example:

- [Configuring DMZ Port: Example, page 3](#)
- [Verifying DMZ Port: Example, page 4](#)

Configuring DMZ Port: Example

The following example shows the DMZ Port feature configured on a Cisco 831 router:

Building configuration...

```
Current configuration : 3302 bytes
!
version 12.3
no service pad
service timestamps debug datetime msec
service timestamps log datetime msec
no service password-encryption
!
hostname
```

```

!
boot-start-marker
boot-end-marker
!
memory-size iomem 5
!
no aaa new-model
ip subnet-zero
!
!
!
!
ip inspect audit-trail
!
interface Ethernet0
 ip address 192.168.27.1 255.255.255.0
 ip access-group 101 in
 ip inspect standard in
 no cdp enable
!
interface Ethernet1
 ip address 172.16.2.1 255.255.0.0
 ip access-group 121 in
 duplex auto
 no cdp enable
!
interface Ethernet2          -----> DMZ port
 ip address 192.168.30.1 255.255.255.0
 ip access-group 111 in      -----> Applying access list
 ip inspect standard out    -----> Applying inspect statements
 no cdp enable
!
ip classless
!
ip http server
no ip http secure-server
!
!
access-list 101 permit tcp 192.168.27.0 0.0.0.255 host 192.168.30.3 eq pop3
access-list 101 permit tcp 192.168.27.0 0.0.0.255 host 192.168.30.3 eq telnet
access-list 101 deny ip 192.168.27.0 0.0.0.255 192.168.30.0 0.0.0.255
access-list 101 permit ip 192.168.27.0 0.0.0.255 any
access-list 101 deny ip any any
access-list 111 permit icmp 192.168.30.0 0.0.0.255 any
access-list 111 deny ip any any
access-list 121 permit tcp any host 192.168.30.3 eq www
access-list 121 permit tcp any host 192.168.30.3 eq ftp
access-list 121 permit tcp any host 192.168.30.3 eq smtp
access-list 121 deny ip any any

end

```

Verifying DMZ Port: Example

The following example shows the sample output from the **show interface ethernet 2** privileged EXEC command used to verify if the Ethernet 2 port is enabled:

```

Router# show interfaces ethernet 2
Ethernet2 is up, line protocol is up
  Hardware is PQUICC_FEC, address is aaaa.0bbb.cccc (bia 000d.2813.53d2)
  Internet address is 10.0.0.1/8
  MTU 1500 bytes, BW 10000 Kbit, DLY 1000 usec,

```

```

    reliability 255/255, txload 1/255, rxload 1/255
Encapsulation ARPA, loopback not set
Keepalive set (10 sec)
Full-duplex, 10Mb/s
ARP type: ARPA, ARP Timeout 04:00:00
Last input 00:00:43, output never, output hang never
Last clearing of "show interface" counters never
Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
Queueing strategy: fifo
Output queue: 0/40 (size/max)
5 minute input rate 0 bits/sec, 0 packets/sec
5 minute output rate 0 bits/sec, 0 packets/sec
 6965 packets input, 2250292 bytes, 0 no buffer
  Received 6910 broadcasts, 0 runts, 0 giants, 0 throttles
  0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
  0 input packets with dribble condition detected
48474 packets output, 4881725 bytes, 0 underruns
  0 output errors, 0 collisions, 2 interface resets
  0 babbles, 0 late collision, 0 deferred
  0 lost carrier, 0 no carrier
  0 output buffer failures, 0 output buffers swapped out

```

Additional References

The following sections provide references related to DMZ port.

Related Documents

Related Topic	Document Title
Cisco IOS Release 12.3 Configuration Guides and Command References	Cisco IOS Release 12.3 Configuration Guides and Command References

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
<p>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.</p>	<p>http://www.cisco.com/public/support/tac/home.shtml</p>

Command Reference

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

interface ethernet 2

To enable the DMZ Port feature, use the **interface ethernet 2** command in interface configuration mode.

interface *type number* [*name-tag*]

Syntax Description		
<i>type</i>		Type of interface to be configured.
<i>number</i>		Port, connector, or interface card number.
<i>name-tag</i>		(Optional) Specifies the logical name to identify the server configuration so that multiple server configurations can be entered.
		This optional argument is for use with the Redundant Link Manager (RLM) feature.

Defaults Interface Ethernet 2 is disabled.

Command Modes Interface configuration mode

Command History	Release	Modification
	10.0	This command was introduced.
	12.3(7)XR1	New Ethernet interface number 2 added for Cisco 830 series routers.
	12.3(14)T	This command was integrated into Cisco IOS Release 12.3(14)T.

Usage Guidelines This command does not have a **no** form.

Examples The following example shows how to enable the DMZ Port feature on Ethernet interface 2:

```
Router# interface ethernet 2
Router# no shutdown
```

show interface ethernet 2

To display information about an Ethernet interface on the router, use the **show interfaces ethernet** command in privileged EXEC mode.

show interfaces ethernet [*number*] [**accounting**]

Syntax Description	
<i>number</i>	(Optional) Port number on the selected interface.
accounting	(Optional) Displays the number of packets of each protocol type that have been sent through the interface.

Command Modes	
	Privileged EXEC

Command History	Release	Modification
	10.0	This command was introduced.
	12.3(7)XR1	New Ethernet interface number 2 added for Cisco 830 series routers.
	12.2(14)T	This command was integrated into Cisco IOS Release 12.2(14)T.

Usage Guidelines	
	If you do not provide values for the <i>number</i> argument, the command displays statistics for all network interfaces. The optional keyword accounting displays the number of packets of each protocol type that have been sent through the interface.

Examples	
	The following is sample output from the show interface ethernet 2 command for Ethernet interface 2:

```
Router# show interfaces ethernet 2
Ethernet2 is up, line protocol is up
Hardware is Lance, address is 0060.3ef1.702b (bia 0060.3ef1.702b)
Internet address is 172.21.102.33/24
MTU 1500 bytes, BW 10000 Kbit, DLY 1000 usec, rely 255/255, load 1/255
Encapsulation ARPA, loopback not set, keepalive set (10 sec)
ARP type: ARPA, ARP Timeout 04:00:00
Last input 00:00:20, output 00:00:06, output hang never
Last clearing of "show interface" counters never
Queueing strategy: fifo
Output queue 0/40, 0 drops; input queue 0/75, 0 drops
5 minute input rate 0 bits/sec, 0 packets/sec
5 minute output rate 0 bits/sec, 0 packets/sec
115331 packets input, 27282407 bytes, 0 no buffer
Received 93567 broadcasts, 0 runts, 0 giants, 0 throttles
0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored, 0 abort
0 input packets with dribble condition detected
143782 packets output, 14482169 bytes, 0 underruns
0 output errors, 1 collisions, 5 interface resets
0 babbles, 0 late collision, 7 deferred
0 lost carrier, 0 no carrier
0 output buffer failures, 0 output buffers swapped out
```

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■ show interface ethernet 2