



Release Notes for the Cisco 800 Series Routers for Cisco IOS Release 12.2(8)YJ

July 15, 2002

These release notes for the Cisco 800 Series Routers describe the enhancements provided in Cisco IOS Release 12.2(8)YJ1. These release notes are updated as needed. Use these release notes with *Cross-Platform Release Notes for Cisco IOS Release 12.2 T* located on Cisco.com and the Documentation CD.

For a list of the software caveats that apply to Cisco IOS Release 12.2(8)YJ1, see the “Caveats” section on page 6 and *Caveats for Cisco IOS Release 12.2 T*. The caveats document is updated for every maintenance release and is located on Cisco.com and the Documentation CD.

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Memory Requirements

Table 1 provides the memory requirements for the Cisco IOS feature sets supported by Cisco IOS Release 12.2(8)YJ1 on the and Cisco 800 Series Routers. All images are run from RAM.

Table 1 Recommended Memory for the Cisco 800 Series Routers

Platform	Image Name	Feature Set	Image	Flash Memory	DRAM Memory
Cisco 806 Routers	Cisco 806 Series IOS IP Plus FW IPSec 3DES	IP Plus FW IPSec 3DES	c806-k9osy6-mz	8 MB	32 MB
	Cisco 806 Series IOS IP Plus FW	IP Plus FW	c806-o3sy6-mz	8 MB	32 MB
	Cisco 806 Series IOS IP Plus	IP Plus	c806-sy6-mz	8 MB	16 MB
Cisco 826, Cisco 827, and Cisco 827-4V Routers	Cisco 820 Series IOS IP Plus FW/Voice IPSec 3DES	IP Plus FW/Voice IPSec 3DES	c820-k9osv6y6-mz	8 MB	32 MB
	Cisco 820 Series IOS IP Plus FW IPSec 3DES	IP Plus FW IPSec 3DES	c820-k9osy6-mz	8 MB	24 MB
	Cisco 820 Series IOS IP/FW/Voice	IP/FW/Voice	c820-ov6y6-mz	8 MB	32 MB
	Cisco 820 Series IOS IP/FW	IP/FW	c820-oy6-mz	8 MB	20 MB
	Cisco 820 Series IOS IP Plus Voice	IP Plus Voice	c820-sv6y6-mz	8 MB	32 MB
	Cisco 820 Series IOS IP Plus	IP Plus	c820-sy6-mz	8 MB	24 MB
	Cisco 820 Series IOS IP/Voice	IP/Voice	c820-v6y6-mz	8 MB	32 MB
	Cisco 820 Series IOS IP	IP	c820-y6-mz	8 MB	20 MB

Hardware Supported

Cisco IOS Release 12.2(8)YJ1 supports the following Cisco routers:

- Cisco 806 Routers
- Cisco 820 series routers:
 - Cisco 826 Routers
 - Cisco 827 Routers
 - Cisco 827-4V Routers

For detailed descriptions of new hardware features and which features are supported on each router, see the “[New and Changed Information](#)” section on [page 4](#). For descriptions of existing hardware features and supported modules, see the hardware installation guides, configuration and command reference guides, and additional documents specific to SOHO 70 Series Routers and Cisco 800 Series Routers, which are available on Cisco.com and the Documentation CD at the following location:

http://www.cisco.com/univercd/cc/td/doc/product/access/acs_fix/index.htm

This URL is subject to change without notice. If it changes, point your web browser to CCO, and click the following path:

[Cisco Product Documentation: Access Servers and Access Routers: Fixed Configuration Access Routers: <platform_name>](#)

Determining the Software Version

To determine the version of Cisco IOS software running on your Cisco router, log in to the router and enter the **show version** EXEC command. The following sample displays command output from a Cisco 806 router running Release 12.2(8)YJ1:

```
Router> show version
Cisco Internetwork Operating System Software
IOS (tm) C806 Software (C806-SY6-MZ), Version 12.2(8)YJ, EARLY DEPLOYMENT RELEASE SOFTWARE (fc1)
Synched to technology version 12.2(5.4)T
```

Upgrading to a New Software Release

For general information about upgrading to a new software release, see [Software Installation and Upgrade Procedures](#) located at: http://www.cisco.com/warp/public/130/upgrade_index.shtml.

Feature Set Tables

The Cisco IOS software is packaged in feature sets consisting of software images—depending on the platform. Each feature set contains a specific set of Cisco IOS features. Release 12.2(8)YJ1 supports the same feature sets as Releases 12.2(8)T, but Release 12.2(8)YJ1 can include new features supported by the Cisco 800 Series Routers.

[Table 2](#) through [Table 4](#) list the features and feature sets supported in Cisco IOS Release 12.2(8)YJ1:

- [Table 2](#)—Cisco 806 Series Routers
- [Table 3](#)—Cisco 826, Cisco 827, and Cisco 827-4V Routers
- [Table 4](#)—Cisco 827-4V Routers

The tables use the following conventions:

- Yes—The feature is supported in the software image.
- No—The feature is not supported in the software image.
- In—The number in the “In” column indicates the Cisco IOS release in which the feature was introduced. For example, “12.2(8)YJ” means the feature was introduced in 12.2(8)YJ. If a cell in this column is empty, the feature was included in a previous release or the initial base release.



Note

These feature set tables only contain a selected list of features. These tables are not cumulative—nor do they list all the features in each image.

Table 2 Feature List by Feature Set for the Cisco 806 Series Routers

		Feature Sets		
Features	In	IP Plus FW IPSec 3DES	IP Plus FW	IP Plus
Security				
Easy VPN Client Phase II	12.2(8)YJ	Yes	No	No

Table 3 Feature List by Feature Set for the Cisco 826, and Cisco 827 Routers

		Feature Sets				
Features	In	IP Plus FW/Voice IPSec 3DES	IP Plus FW IPSec 3DES	IP/FW	IP Plus	IP
Quality of Service						
Low Latency Queueing	12.2(8)YJ	No	No	Yes	No	Yes
Security						
Easy VPN Client Phase II	12.2(8)YJ	No	Yes	No	No	No

Table 4 Feature List by Feature Set for the Cisco 827-4V Routers

		Feature Sets			
Features	In	IP Plus FW/Voice IPSec 3DES	IP/FW/ Voice	IP Plus Voice	IP Voice
Quality of Service					
Low Latency Queueing	12.2(8)YJ	No	Yes	No	Yes
Security					
Easy VPN Client Phase II	12.2(8)YJ	Yes	No	No	No

New and Changed Information

The following sections list the new hardware and software features supported by Release 12.2(8)YJ1 for the SOHO 70 Series Routers and the Cisco 800 Series Routers.

New Software Features in Release 12.2(8)YJ

The following sections list the new software features supported by Cisco IOS Release 12.2(8)YJ on the and the Cisco 800 Series Routers.

Easy VPN Client Phase II

Applications for routers (and other forms of broadband access devices) that provide high-performance connections to the Internet often require the security of virtual private network (VPN) connections with a high level of access authentication and the capability to encrypt data between two endpoints. However, establishing a VPN connection between two routers can be complex, and typically requires detailed coordination between network administrators to configure the router VPN parameters.

The Cisco Easy VPN client feature eliminates much of this work by implementing the Cisco Unity Client protocol, which allows most VPN parameters to be defined at a VPN 3000 concentrator, acting as an IPSec server. After network administrators configure the IPSec server, they can create a VPN connection with minimal configuration on an IPSec client (such as a Cisco 800 series router). Note that Cisco 800 series routers are supported as Easy VPN clients of VPN 3000 IPSec servers. When the IPSec client initiates the VPN tunnel connection, the IPSec server transmits the IPSec policies to the IPSec client and creates the corresponding VPN tunnel connection.



Note

The Cisco Easy VPN client can establish communication with a single peer (IPSec server).

The Phase II implementation of the Cisco Easy VPN Client provides enhancements and additional capabilities to Phase I features. In Phase II, the Cisco Easy VPN Client can provide the following enhancements and feature capabilities:

- Manual Control of IPSec VPN tunnels—to establish and terminate the IPSec VPN tunnel on demand.
- Restore NAT Configuration when IPSec VPN Tunnel Is Down—automatically restores the NAT configuration when the IPSec VPN tunnel is disconnected.
- Peer Hostname Enhancement

For instructions on configuring Cisco Easy VPN client, refer to the publication [Cisco Easy VPN Client Feature Phase II](#). This document is available on Cisco Connection Online.

Low Latency Queueing

Low Latency Queueing (LLQ) provides a low-latency, strict-priority transmit queue for voice over IP (VoIP) traffic. Strict priority queueing allows delay-sensitive data such as voice to be dequeued and sent first (before packets in other queues are dequeued), giving delay-sensitive data preferential treatment over other traffic. Refer to [Software Enhancements for the Cisco 800 Routers and SOHO Routers](#) for more information on this feature.

New Software Features in Release 12.2 T

For information regarding the features supported in Cisco IOS Release 12.2 T, refer to the Cross-Platform Release Notes and New Feature Documentation links at the following location on Cisco.com and the Documentation CD-ROM:
<http://www.cisco.com/univercd/cc/td/doc/product/software/ios122/index.htm>

This URL is subject to change without notice. If it changes, point your web browser to Cisco.com, and click on the following path:

Service & Support: Technical Documents: Release 12.2 (from the **Cisco IOS Software** drop-down list)

Important Notes

The following sections contain important notes about Cisco IOS Release 12.2(8)YJ1 that can apply to SOHO 70 and Cisco 800 series routers. (Also, see the “[Caveats](#)” section on page 6.)

Changing IP Addresses When Using the Cisco Easy VPN Client Feature

In Cisco 800 series routers, the Ethernet 0 LAN interface defaults to the primary IP address of 10.10.10.0 in a private network. If you need to change this IP address to match the local network configuration, you can use the command **ip address** or the Cisco Router Web Setup (CRWS) web interface.

Using the CRWS interface to change the IP address preserves the existing IP address as the primary address of the interface and assigns the new IP address as the secondary address on the interface. This CRWS interface functionality maintains (does not break) the existing connection between the PC web browser and the Cisco 800 series router and thereby does not interfere with normal router operations for most configurations.

Because of this behavior, the Cisco Easy VPN client feature assumes that if a secondary IP address exists on the Ethernet 0 interface, the secondary address should be used as the IP address for the inside interface for the NAT/PAT configuration. If no secondary address exists, the primary IP address will be used for the inside interface address, as is normally done on other platforms. If this behavior is not desired, use the **ip address** CLI command instead of the CRWS web interface to change the interface address.

Caveats

Caveats describe unexpected behavior in Cisco IOS software releases. Severity 1 caveats are the most serious caveats, severity 2 caveats are less serious, and severity 3 caveats are the least serious of these three severity levels.

Caveats in Cisco IOS Releases 12.2 and 12.2 T are also in Cisco IOS Release 12.2(8)YJ1. For information on caveats in Cisco IOS Release 12.2, see [Caveats for Cisco IOS Release 12.2](#). For information on caveats in Cisco IOS Release 12.2 T, see [Caveats for Cisco IOS Release 12.2 T](#). These two documents list severity 1 and 2 caveats and are located on [CCO](#) and the Documentation CD-ROM.

**Note**

If you have an account with Cisco.com, you can also use the Bug Toolkit to find select caveats of any severity. To reach the Bug Toolkit, log in to Cisco.com and click **Service & Support: Technical Assistance Center: Tool Index: Bug Toolkit**. Another option is to go to http://www.cisco.com/cgi-bin/Support/Bugtool/launch_bugtool.pl.

Open Caveats-Release 12.2(8)YJ1

This section describes unexpected behavior in Release 12.2(8)YJ1.

CSCin11017

When acting as a PPPoE client, the Cisco 806 router crashes after the DDR idle timeout expires. This problem might be seen only in lab scenarios.

CSCin11192

Dial on Demand Routing (DDR) is triggered by traffic that enters the Cisco 806 router from the WAN interface. Generally, one expects DDR to be triggered only by traffic that enters the router from the LAN interface.

Workaround: Access lists can be configured to block traffic on the WAN interface.

CSCin11465

If the access list at the remote end of a split tunnel is configured to have two entries with the same source address, an Easy VPN client, such as a Cisco 806 router, will try to install the same address twice and will alter the NAT configuration in such a way that NAT translation will not work correctly. This is normal behavior. However, NAT translation seems to work correctly on Cisco 806 routers operating in this type of split tunnel environment.

CSCin11727

With Point-to-Point Protocol over ATM encapsulation, when the permanent virtual circuit (PVC) is removed and configured again, the virtual access interface doesn't come up causing the ping between the UUT and the remote to fail.

Workaround: Save the configuration before you remove the PVC, and reload the router if this problem occurs.

CSCin12124

The HTTP probe does not show the default values.

CSCdw37744

The firewall audit trail test for the trivial file transfer protocol (tftp) fails.

CSCin08502

tftp fails with NAT overload configured when the unit under test listens for tftp traffic on a non-standard port.

CSCin08629

The rttMonEchoAdminCache variable does not show the correct default value.

CSCin09771

The rttMonApplSupportedRttTypesValid.10 is not supported.

CSCin12882

The udpLocalAddress and udpLocalPort objects of the UDP MIB are not populated.

Resolved Caveats- Release 12.2(8)YJ

This section describes unexpected behavior that is fixed in Release 12.2(8)YJ.

CSCin10864

The Easy VPN 806 client crashes when unconfiguring the Dialer interface. This problem has been fixed in this release.

CSCin12086

The router crashes while reconfiguring service policy on the Dialer interface. This problem has been fixed in this release.

CSCin10852

The running configuration does not show if the maximum ssh timeout value is configured. This problem has been fixed in this release.

CSCin11722

The router crashes while configuring PPP encapsulation on the dialer interface. This problem has been fixed in this release.

CSCdw37744

The firewall audit trail test for tftp fails. This problem has been fixed in this release.

Open Caveats- Release 12.2(8)YJ

CSCin08629

The rttMonEchoAdminCache variable doe not show.

CSCin08637

The rttMonEchoAdminPktDataRequestSize shows.

CSCin08536

The DNS probe fails due to a timeout occuring when the domain name is being resolved.

CSCin08549

The rttMonCtrlAdminTimeout value does not show.

CSCin08502

tftp fails with NAT overload when uut listens tftp on a non-standard port.

CSCin12124

The http probe does not show the default values.

CSCin12023

The Cisco 827 router crashes at vtemplate_nvgen while configuring ip add on virtual-t.

CSCin11017

The 806 router client crashes after the idle timeout expires for DDR.

CSCin11373

Ping is not successful when aal5mux ppp encapsulation is used.

CSCin11192

DDR is always triggered when traffic is in opposite direction.

CSCin11465

Easy VPN:split tunneling extended ACL issue.

CSCin11727

Recreating the PVC does not bring the virtual access interface up.

CSCin09643

The 806uut is unable to pass ipsec traffic when NAT is enabled.

CSCin09365

The DHCP is not activated on the interface even when the interface is up.

Related Documentation

The following sections describe the documentation available for the SOHO 70 and Cisco 800 series routers. Typically, these documents consist of hardware and software installation guides, Cisco IOS configuration and command references, system error messages, feature modules, and other documents.

Documentation is available as printed manuals or electronic documents, except for feature modules and the Cisco IOS release notes, which are available online on Cisco.com and the Documentation CD-ROM.

Use these release notes with the documents listed in the following sections:

- [Release-Specific Documents](#)
- [Platform-Specific Documents](#)

Release-Specific Documents

The following documents are specific to Release 12.2 and apply to Release 12.2(8)YJ1. They are located on Cisco.com and the Documentation CD-ROM (under the heading **Service & Support**):

- To reach the *Release Notes for the SOHO 70 Series Routers and the Cisco 800 Series Routers for Cisco IOS Release 12.2(8)YJ*, click this path:
Technical Documents: Cisco IOS Software: Release 12.2: Release Notes: Cisco 800 Series Routers: Cisco 800 Series - Release Notes for Release 12.2(8)YJ
- To reach the *Cross-Platform Release Notes for Cisco IOS Release 12.2 T*, click this path:
Technical Documents: Cisco IOS Software: Release 12.2: Release Notes: Cisco IOS Release 12.2 T
- To reach product bulletins, field notices, and other release-specific documents, click this path:
Technical Documents: Product Bulletins
- The *Caveats for Cisco IOS Release 12.2* and *Caveats for Cisco IOS Release 12.2 T* documents contain caveats applicable to all platforms for all maintenance releases of Release 12.2. To reach the caveats documents, click this path:
Technical Documents: Cisco IOS Software: Release 12.2: Caveats



Note

If you have an account with Cisco.com, you can also use the Bug Toolkit to find select caveats of any severity. To reach the Bug Toolkit, log in to Cisco.com and click **Service & Support: Technical Assistance Center: Tool Index: Bug Toolkit**. Another option is to go to http://www.cisco.com/cgi-bin/Support/Bugtool/launch_bugtool.pl.

Platform-Specific Documents

Hardware installation guides, configuration and command reference guides, and additional documents are available for the SOHO 70 and Cisco 800 series routers on Cisco.com and the Documentation CD-ROM.

SOHO 70 and Cisco 800 Series Routers

Documentation specific to the SOHO 70 Series Routers and Cisco 800 Series Routers is available on Cisco.com and the Documentation CD at the following location:

http://www.cisco.com/univercd/cc/td/doc/product/access/acs_fix/index.htm

This URL is subject to change without notice. If it changes, point your web browser to CCO, and click the following path:

Cisco Product Documentation: Access Servers and Access Routers: Fixed Configuration Access Routers: Cisco 1700 Series Routers: <platform_name>

Software Configuration

The document *Cisco Router Web Setup User Guide* is available for the SOHO 70 series routers at the following location:

<http://www.cisco.com/univercd/cc/td/doc/clckstrt/crws/ugcrws30.htm>

This URL is subject to change without notice. If it changes, point your web browser to Cisco.com or the Documentation CD, and click the following path:

Technical Documents: Router Configuration Tools: Cisco Router Web Setup

Obtaining Documentation

These sections explain how to obtain documentation from Cisco Systems.

World Wide Web

You can access the most current Cisco documentation on the World Wide Web at this URL:

<http://www.cisco.com>

Translated documentation is available at this URL:

http://www.cisco.com/public/countries_languages.shtml

Documentation CD-ROM

Cisco documentation and additional literature are available in a Cisco Documentation CD-ROM package, which is shipped with your product. The Documentation CD-ROM is updated monthly and may be more current than printed documentation. The CD-ROM package is available as a single unit or through an annual subscription.

Ordering Documentation

You can order Cisco documentation in these ways:

- Registered Cisco.com users (Cisco direct customers) can order Cisco product documentation from the Networking Products MarketPlace:
http://www.cisco.com/cgi-bin/order/order_root.pl
- Registered Cisco.com users can order the Documentation CD-ROM through the online Subscription Store:
<http://www.cisco.com/go/subscription>
- Nonregistered Cisco.com users can order documentation through a local account representative by calling Cisco Systems Corporate Headquarters (California, U.S.A.) at 408 526-7208 or, elsewhere in North America, by calling 800 553-NETS (6387).

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You can e-mail your comments to bug-doc@cisco.com.

You can submit your comments by mail by using the response card behind the front cover of your document or by writing to the following address:

Cisco Systems
Attn: Document Resource Connection
170 West Tasman Drive
San Jose, CA 95134-9883

We appreciate your comments.

Obtaining Technical Assistance

Cisco provides Cisco.com as a starting point for all technical assistance. Customers and partners can obtain online documentation, troubleshooting tips, and sample configurations from online tools by using the Cisco Technical Assistance Center (TAC) Web Site. Cisco.com registered users have complete access to the technical support resources on the Cisco TAC Web Site.

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Cisco.com is a highly integrated Internet application and a powerful, easy-to-use tool that provides a broad range of features and services to help you with these tasks:

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- Resolve technical issues with online support
- Download and test software packages
- Order Cisco learning materials and merchandise
- Register for online skill assessment, training, and certification programs

If you want to obtain customized information and service, you can self-register on Cisco.com. To access Cisco.com, go to this URL:

<http://www.cisco.com>

Technical Assistance Center

The Cisco Technical Assistance Center (TAC) is available to all customers who need technical assistance with a Cisco product, technology, or solution. Two levels of support are available: the Cisco TAC Web Site and the Cisco TAC Escalation Center.

Cisco TAC inquiries are categorized according to the urgency of the issue:

- Priority level 4 (P4)—You need information or assistance concerning Cisco product capabilities, product installation, or basic product configuration.
- Priority level 3 (P3)—Your network performance is degraded. Network functionality is noticeably impaired, but most business operations continue.
- Priority level 2 (P2)—Your production network is severely degraded, affecting significant aspects of business operations. No workaround is available.
- Priority level 1 (P1)—Your production network is down, and a critical impact to business operations will occur if service is not restored quickly. No workaround is available.

The Cisco TAC resource that you choose is based on the priority of the problem and the conditions of service contracts, when applicable.

Cisco TAC Web Site

You can use the Cisco TAC Web Site to resolve P3 and P4 issues yourself, saving both cost and time. The site provides around-the-clock access to online tools, knowledge bases, and software. To access the Cisco TAC Web Site, go to this URL:

<http://www.cisco.com/tac>

All customers, partners, and resellers who have a valid Cisco service contract have complete access to the technical support resources on the Cisco TAC Web Site. The Cisco TAC Web Site requires a Cisco.com login ID and password. If you have a valid service contract but do not have a login ID or password, go to this URL to register:

<http://www.cisco.com/register/>

If you are a Cisco.com registered user, and you cannot resolve your technical issues by using the Cisco TAC Web Site, you can open a case online by using the TAC Case Open tool at this URL:

<http://www.cisco.com/tac/caseopen>

If you have Internet access, we recommend that you open P3 and P4 cases through the Cisco TAC Web Site.

Cisco TAC Escalation Center

The Cisco TAC Escalation Center addresses priority level 1 or priority level 2 issues. These classifications are assigned when severe network degradation significantly impacts business operations. When you contact the TAC Escalation Center with a P1 or P2 problem, a Cisco TAC engineer automatically opens a case.

To obtain a directory of toll-free Cisco TAC telephone numbers for your country, go to this URL:

<http://www.cisco.com/warp/public/687/Directory/DirTAC.shtml>

Before calling, please check with your network operations center to determine the level of Cisco support services to which your company is entitled: for example, SMARTnet, SMARTnet Onsite, or Network Supported Accounts (NSA). When you call the center, please have available your service agreement number and your product serial number.

This document is to be used in conjunction with the documents listed in the “[Related Documentation](#)” section.

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