CISCO SYSTEMS

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IPeXchange Internet Gateway Release Notes

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These release notes describe the features and caveats for the IPeXchange Internet Gateway 1000 series software and router hardware for Release 11.0 NA, up to and including Release 11.0(14)NA. The software connects Novell NetWare users to the Internet or other TCP/IP-based network services. IPeXchange allows NetWare client workstations to use TCP/IP-based applications such as Telnet, FTP, and Netscape Navigator without requiring a TCP/IP protocol stack on each workstation.

These release notes discuss the following topics:

Platform Support

This version of the IPeXchange Internet Gateway server software runs on the following router platforms:

- Cisco 1003 and Cisco 1004 ISDN routers
- Cisco 1005 high-speed serial router

Documentation

The IPeXchange Internet Gateway software is documented in the *IPeXchange Internet Gateway User Guide* for 1000 Series software and router hardware.

The Cisco 1003 and Cisco 1004 routers are documented in the *Cisco 1003 and Cisco 1004 User Guide*, and the Cisco 1005 router is documented in the *Cisco 1005 User Guide*.

Electronic documentation is available on the Cisco Connection Documentation CD-ROM.

You can also access Cisco technical documentation on the World Wide Web URL http://www.cisco.com.

Installing the IPeXchange Internet Gateway

To install the IPeXchange Internet Gateway, follow these steps:

Step 1 Install the router hardware. This router is the one that will act as the IPeXchange server. To install the router, follow the hardware installation procedure in the appropriate Cisco 1000 series user guide.

Step 2 Install the IPeXchange server software. This software is the Cisco Internetwork Operating System (Cisco IOS™) software. To install the server software, follow the procedure in the *IPeXchange Internet Gateway User Guide*. Do not use the software installation procedure in the Cisco 1000 series user guide.

Step 3 Install the IPeXchange client software. To do this, follow the procedure in the *IPeXchange Internet Gateway User Guide*.

IPeXchange Internet Gateway Packaging

The IPeXchange Internet Gateway server software is available in different feature sets depending on the number of user licenses you have purchased. lists the software features for the Cisco 1003 and Cisco 1004 ISDN routers, and for the Cisco 1005 router.

Table 1   Cisco 1003, Cisco 1004, and Cisco 1005 Feature Sets

Feature	Cisco 1003 and Cisco 1004 ISDN Routers Software Features		Cisco 1005 Routers Software Features	
	20 User License	50 User License	20 User License	50 User License
AutoInstall	Yes	Yes	Yes	Yes
ClickStart	Yes	Yes	Yes	Yes
Frame Relay (RFC 1490)	—	—	Yes	Yes
HDLC	Yes	Yes	Yes	Yes

Table 1   Cisco 1003, Cisco 1004, and Cisco 1005 Feature Sets (Continued)

| Feature | Cisco 1003 and Cisco 1004 ISDN Routers Software Features | | Cisco 1005 Routers Software Features | |
	20 User License	50 User License	20 User License	50 User License
IP	Yes	Yes	Yes	Yes
IPX	Yes	Yes	Yes	Yes
IPXWAN 2.0	Yes	Yes	Yes	Yes
ISDN	Yes	Yes	—	—
PPP	Yes	Yes	Yes	Yes
Router Monitoring	Yes	Yes	Yes	Yes
SNMP	—	Yes	—	Yes
Telnet	Yes	Yes	Yes	Yes

Memory Requirements

Table 2 lists the IPeXchange memory requirements for each router platform.

Table 2   IPeXchange Memory Requirements

System	20 User License	50 User License
Cisco 1003 or Cisco 1004 router	4 MB RAM	8 MB RAM
Cisco 1005	4 MB RAM	8 MB RAM

Boot ROM Requirements

Boot ROM versions and system images are independent of each other. Table 3 lists the default boot ROM levels that ship with Cisco platforms. These levels contain the latest features and support all current hardware and software features.

Table 3   Boot ROM Levels of Cisco Platforms

Platform	Boot ROM Level
Cisco 1003 and Cisco 1004	10.3(7)
Cisco 1005	10.3(7)

Upgrading the IPeXchange Software

The IPeXchange software includes a remote shell daemon (RSHD) application, which you can use to upgrade the IPeXchange server software. You install the RSHD application on a NetWare client PC, and you use it to retrieve IPeXchange software upgrades from a server located at Cisco Systems.

Install the WinSock RSHD Application

To install the WinSock RSHD application on a client PC, follow these steps:

Step 1   Insert the floppy disk containing the RSHD application into your floppy disk drive.

Step 2   From the File menu, choose Run and type **a:setup**.

A program group called WinSock RSHD is created.

Upgrade Procedure

If necessary, you can upgrade the IPeXchange software if you have a support contract and are a registered Cisco Connection Online (CCO) user. Once you register, you will receive an access code that will allow you to retrieve software upgrades.

To upgrade the IPeXchange software that is running on the Cisco 1000 series routers, follow these steps:

Step 1   To retrieve the upgrade software, connect via ftp to cco.cisco.com. (To download files from CCO, you must be running a passive mode capable FTP client.)

- For server software upgrades, change to the directory cisco/internet/ipexchange/1000 or cisco/internet/ipexchange/1005, depending on your platform. Get a copy of the upgraded software image.

- For client software upgrades, change to the directory cisco/internet/ipexchange/client. Get a copy of the upgraded software image.

Step 2   From the PC on which you installed the WinSock RSHD application, connect to the Cisco 1000 series router. You can do this by connecting the PC to the router's console port or by establishing a Telnet session from the PC to the router. Connecting via the console port is the preferred method so that when you reload the router in Step 9, you will not lose your connection to the router.

Step 3   On the PC, start the WinSock RSHD application by double-clicking on the icon. Verify that the Cisco IPeXchange Window has the IPeXchange router as the gateway.

Step 4   At router prompt, enter the following command to copy the IPeXchange software image from the PC to the router:

```
copy rcp flash
```

Step 5   When prompted, enter the IP address or name of the router.

Step 6   When prompted, enter the full path name of the server software to be copied to the router. As an example, you might enter **c:\cisco\image.mz**.

Step 7   Press **Return** to confirm that you want to copy the file.

Step 8   Enter **yes** if you want to erase the old copy of the server software that is in Flash memory.

Step 9   Reload the router:

```
reload
```

IPeXchange Caveats

There are no caveats at this time.

Release 11.0(12)NA Caveats/Release 11.0(14)NA Modifications

The following caveats apply to Release 11.0(12)NA but were fixed in Release 11.0(14)NA:

- Second Telnet session to VTY (virtual terminal) does not echo characters.

  When a user connected to the router through more than one connection with Telnet or the console, the second connection did not echo typed characters. The problem occurred when a second Telnet session to the router was established, or from a console session with a second Telnet session. [CSCdj05366]

- Process thrashing in IPeXchange DNS process.

  If a large amount of DNS traffic from IPX clients simultaneously accessed the Internet, the IPeXchange Gateway displayed the following warning:

  ```
  Feb  6 11:20:53 fake 13: 0:06:02dSCHED-3-THRASHING:
  Process thrashing on watched queu=e 'UDP Socket' (count 1).
  Feb  6 11:20:53 fake 14: -Process= "IpxIpGw Dns", ipl= 4, pid= 35
  Feb  6 11:20:53 fake 15: -Traceback= 2091146 20913E4 221BE42
  ```

  This could be seen by enabling the IPX IP gateway in the router and allowing a significant number of clients to perform DNS queries at the same time. One situation could be many clients using Netscape Navigator to access different sites at the same time.

  The message that appeared was only a warning; the gateway continued to function normally. [CSCdi90482]

- ISDN Line activates without traffic present on LAN.

  When clients accessed remote sites through the ISDN line, sometimes the client application was left in a LASTACK state. This caused the application to retransmit and activate the ISDN line endlessly. [CSCdi81940]

- Name lookups were cached by the router, voiding DNS server rotation.

  When a host was looked up and resolved by DNS, the router cached the response and used the first IP address returned for future lookups. The correct behavior should be that a new lookup is sent to the DNS every time so that IP address rotation by the DNS server takes effect.

  This bug was closed without resolution. [CSCdi69675]

Release 11.0(10)NA Caveats/Release 11.0(12)NA Modifications

The following caveats apply to Release 11.0(10)NA but were fixed in Release 11.0(12)NA:

- The command **no debug all** does not work. And the File Transfer Protocol (FTP) does not work.

  The **no debug all** command does not deactivate the IPX IP Gateway debug commands. Also, the output to the **show debug** command does not show active IPX IP Gateway debug commands. For example, if the following commands are entered,

  ```
  debug ipx ip-gateway socket
  debug ipx ip-gateway dns
  debug ipx ip-gateway netif
  show debug
  ```

  the output does not show active debug information. If the following command is entered,

  ```
  no debug all
  ```

  the IPX IP Gateway **debug** commands are still active.

  This bug has been fixed in this release. The **show debug** command now shows the currently active IPX IP Gateway debug commands which it was not displaying previously. An associated bug, wherein FTP was not working properly, has also been fixed in this release. [CSCdi70669]

- The **terminal monitor** command does not log messages to telnet sessions.

  None of the debug messages from the IPX IP Gateway are displayed in the Telnet session when the **terminal monitor** command is enabled.

  Make sure that the IPX IP Gateway is enabled in the router and that clients are connected to the router gateway. If you enter the following commands during a Telnet session,

  ```
  terminal monitor
  debug ipx ip-gateway socket
  debug ipx ip-gateway dns
  debug ipx ip-gateway netif
  ```

  no debug information is received from the IPX IP Gateway.

  This bug has been fixed in this release. The **terminal monitor** command now logs the IPX IP Gateway debug information to the router Telnet sessions. [CSCdi76274]

Release 11.0(6)NA Caveats/Release 11.0(10)NA Modifications

The following caveats apply to Release 11.0(6)NA but were fixed in Release 11.0(10)NA:

- The IPeXchange gateway does not provide ICMP support. The **ping** command is based on ICMP. [CSCdi71736]

- When a **ping** command (an ICMP echo) is issued to a destination, the gateway does not correctly interpret the IP address of the destination host sending the ICMP echo reply, resulting in an incorrect identification of the destination host IP address. [CSCdi73097]

- The IPeXchange gateway does not provide UDP support. [CSCdi71169]

- A subinterface cannot be bound to the IPeXchange gateway—for example, the command **ipx ip-gateway serial 0.1** is invalid, where **serial 0.1** is a subinterface. Also, the correct gateway IP address is not shown when it is bound to an unnumbered interface with the **ip unnumbered** command.

For example, if the following commands are entered:

```
interface ethernet 0
ip address 201.34.34.145
int Serial 0
ip unnumbered et 0
ipx ip-gateway Serial 0
```

The gateway IP address would be shown as **0.0.0.0** instead of the correct address of 201.34.34.145. [CSCdi71836]

Cisco Connection Online

Cisco Connection Online (CCO) is Cisco Systems' primary, real-time support channel. Maintenance customers and partners can self-register on CCO to obtain additional information and services.

Available 24 hours a day, 7 days a week, CCO provides a wealth of standard and value-added services to Cisco's customers and business partners. CCO services include product information, product documentation, software updates, release notes, technical tips, the Bug Navigator, configuration notes, brochures, descriptions of service offerings, and download access to public and authorized files.

CCO serves a wide variety of users through two interfaces that are updated and enhanced simultaneously: a character-based version and a multimedia version that resides on the World Wide Web (WWW). The character-based CCO supports Zmodem, Kermit, Xmodem, FTP, and Internet e-mail, and it is excellent for quick access to information over lower bandwidths. The WWW version of CCO provides richly formatted documents with photographs, figures, graphics, and video, as well as hyperlinks to related information.

You can access CCO in the following ways:

- WWW: http://www.cisco.com

- WWW: http://www-europe.cisco.com

- WWW: http://www-china.cisco.com

- Telnet: cco.cisco.com

- Modem: From North America, 408 526-8070; from Europe, 33 1 64 46 40 82. Use the following terminal settings: VT100 emulation; databits: 8; parity: none; stop bits: 1; and connection rates up to 28.8 kbps.

For a copy of CCO's Frequently Asked Questions (FAQ), contact cco-help@cisco.com. For additional information, contact cco-team@cisco.com.

Note   If you are a network administrator and need personal technical assistance with a Cisco product that is under warranty or covered by a maintenance contract, contact Cisco's Technical Assistance Center (TAC) at 800 553-2447, 408 526-7209, or tac@cisco.com. To obtain general information about Cisco Systems, Cisco products, or upgrades, contact 800 553-6387, 408 526-7208, or cs-rep@cisco.com.

Cisco Connection Documentation

Cisco documentation and additional literature are available in a CD-ROM package, which ships with your product. The Documentation CD-ROM, a member of the Cisco Connection Family, is updated monthly. Therefore, it might be more up to date than printed documentation. To order additional copies of the Documentation CD-ROM, contact your sales representative or call customer service. The CD-ROM package is available as a single package or as an annual subscription. You can also access Cisco documentation on the World Wide Web at http:/www.cisco.com, http://www-china.cisco.com, or http://www-europe.cisco.com.