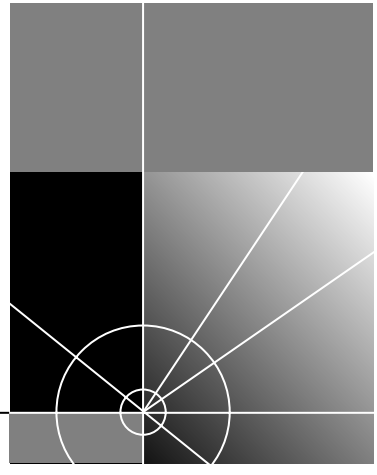
CoreBuilder™ 3500 Software Installation and Release Notes

System Software
Release 2.0.2
December 22, 1998



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COREBUILDER 3500 SYSTEM SOFTWARE RELEASE 2.0.2

CoreBuilder 3500 System Software Release 2.0.2

Overview

These release notes describe Release 2.0.2 of the CoreBuilder™ 3500 system software from 3Com Corporation, dated December 22, 1998. This release supersedes Release 2.0.0, dated November 12, 1998. To load the software, see "Loading Your System Software" on page 12 for instructions.

CAUTION: *Before you install release 2.0.2 of the CoreBuilder 3500 system software, verify that Expansion Memory is installed on your system processor by viewing the* `system display` *menu. If the display shows the following information, Expansion Memory is installed:*

```
AP Memory Size     32 Mb
FP Memory Size     20 Mb
Flash Memory Size  16Mb
```

If your display does not show this information, you must install Expansion Memory (3C35010) before you install Release 2.0.2. Contact your reseller or 3Com sales representative.

CAUTION: *Before you install Release 2.0.2 of the CoreBuilder 3500 system software, be sure to modify the VLAN ID (VID) value to anything less than 4095. Modify the VLAN ID with the* `bridge vlan modify` *command.*

CAUTION: *3Com recommends that RSVP not be used in a production environment at this release.*

Release Highlights for 2.0.2

The CoreBuilder 3500 system software Release 2.0.2 supports the following changes:

- An additional IPX SAP Advertising option on the Administration Console IPX menu
- IPX SAP capacity improvements
- Several software corrections. See "System Software Corrections at Release 2.0.2" later in these release notes.

IPX SAP Advertising

This release introduces the Administration Console option `ipx interface SAPadvertising`, which enables you to control how Service Advertising Protocol (SAP) information is handled by the IPX interfaces on the system. You can use this option to enable or disable the advertising of IPX servers for each IPX interface. By default, the SAP advertising state is enabled for all IPX interfaces that you configure on the system. Disabling the SAP advertising state for individual IPX interfaces is useful if you have a large IPX network with many SAP entries and multiple IPX interfaces.

Example of `ipx interface SAPadvertising`:

```
Select menu option (ipx/interface): SAPadvertising
Select interface index(es) (1-2|all|?): all
Interface 1 – Enter SAP advertising state (disabled, enabled)
[enabled]: disabled
Interface 2 – Enter SAP advertising state (disabled, enabled)
[enabled]: enabled
```

Increased IPX SAP Capacity

To address issues with large IPX environments, Release 2.0.2 introduces modifications that improve IPX SAP broadcasting and provide increased IPX SAP capacity. Previously, large server tables may not have been broadcast over all IPX interfaces. Release 2.0.2 includes improvements for large IPX SAP tables with a high number of IPX interfaces. The system now provides a more efficient method of dealing with large IPX SAP tables.

In a large IPX routed environment, network instability could cause connectivity problems due to the aging out of mass quantities of IPX routes.

Release Highlights for 2.0.0

The CoreBuilder 3500 system software release 2.0.0 supports the following new features, which are described in the *Implementation Guide* on the *Software and Documentation CD*:

- FDDI Module
- IP Fragmentation
- IPX Snap Translation
- Port Trunking over FDDI and Gigabit Ethernet
- New Custom Filters
- IP Route Policies
- ARP Proxy
- IEEE 802.1Q Tagging Enhanced
- RIP Version 2
- FTP
- Increased Number of VLANs
- 1000BASE-SX GBIC Transceiver
- Single Reset Trunk Configuration
- Disabling of ICMP redirect
- Broadcast Address
- Web Management Enhanced Capabilities
- New Documentation

FDDI Module

This release provides support for the FDDI module. The module contains six SC connectors, each providing a 100Mbps FDDI connection over multimode or single-mode fiber-optic cable. The ports support both SAS (single-attached station) and DAS (dual-attached station) modes to provide a maximum of six SAS connections or three DAS connections. To configure the FDDI module into your network, see the *CoreBuilder 3500 Getting Started Guide.* For information on FDDI in your network, see the *Implementation Guide.*

IP Fragmentation

When you enable IP fragmentation, FDDI packets that are larger than the maximum Ethernet frame size are fragmented into smaller packets. IP fragmentation allows FDDI and Ethernet stations that are connected to the system to communicate using IP even if the FDDI stations are transmitting packets that are too large to forward onto Ethernet. See the *Implementation Guide* for details.

IPX Snap Translation

When IPX snap translation is *enabled*, any 802.3_RAW IPX packets that are being forwarded from Ethernet to FDDI are translated to FDDI_SNAP. Likewise, SNAP IPX packets that are being forwarded from FDDI to Ethernet are translated to 802.3_RAW packets. When IPX snap translation is *disabled*, standard (IEEE 802.1H) bridging from 802.3_RAW packets to FDDI_RAW packets is implemented. See the *Implementation Guide* for details.

Port Trunking over FDDI and Gigabit Ethernet

Port trunking is now supported over FDDI and Gigabit Ethernet, as well as Fast Ethernet. Trunking allows you to group multiple independent ports under a single logical unit, called a trunk. Trunking of multiple ports allows you to build higher-speed interconnections. See the *Implementation Guide* for details.

New Custom Filters

You can now implement custom filters, as well as predefined filters, over Fast Ethernet, Gigabit Ethernet, and FDDI. See the *Implementation Guide.*

Address group filtering is not supported at this release.

IP Route Policies

IP route policies now enable you to control the flow of routing information among the network, the protocols, and the unified routing table on your system. Routing policies are classified as either *Import* policies or *Export* policies. See the *Implementation Guide* for details.

ARP Proxy

You can now enable or disable ARP proxy, which helps end stations on a subnetwork to reach remote subnetworks that have no routing capability or a default gateway configured. See the *Implementation Guide.*

IEEE 802.1Q Tagging Enhanced

This release supports IEEE 802.1Q tagging. IEEE 802.1Q defines the bridging (ingress and egress) rules for VLANs.The IEEE 802.1Q proposed standard uses a tag format that embeds explicit VLAN membership information in a 12-bit VLAN ID (VID), providing 4094 possible VLANs. See the *Implementation Guide*.

RIP Version 2

This release supports RIP Version 2. You now have the option to use multiple IP routing protocols on each interface. With RIP version 1, RIP version 2, and OSPF support, routes can be imported or exported among all three protocols. Controls can now be applied by means of the addition of route policies. See the *Implementation Guide*.

FTP

You now have the option of configuring the system to use either FTP or TFTP to conduct software updates or to save and restore NV Data.

Increased Number of VLANs

This release supports a maximum of 64 VLANs. For more information on VLAN implementation, see the *Implementation Guide*.

1000BASE-SX GBIC Transceiver

This release provides support for the 1000BASE-SX GBIC transceiver. The 1000BASE-SX GBIC transceiver provides a high-speed connection over fiber to the GBIC ports on your system. The 1000BASE-SX GBIC transceiver supports a direct connection to 62.5 or 50 micron multimode fiber-optic cable. For more information see the *GBIC Transceiver Installation Guide*.

Single Reset Trunk Configuration

This feature allows you to configure multiple trunks before you reboot the system. In previous releases, a system reboot was required following each trunk configuration.

Disabling of ICMP redirect

This release supports the disabling of ICMP redirect per interface.

Broadcast Address

This release supports broadcast address functionality. You can now set a broadcast address to be used on a per-interface basis. The configured broadcast address is the address that is used when the system forwards received directed broadcast and when it advertises RIP packets. Previous releases of the CoreBuilder 3500 software used the subnetted directed broadcast address for RIP. When an IP interface is defined, the default broadcast address is 255.255.255.255. Under the RIP menus, you now see this broadcast address as the advertisement address for the RIP interface.

Web Management Enhanced Capabilities

Web Management software supports these new features at this release:

- **Trunking** — Web Management now supports port trunking over FDDI and Gigabit Ethernet in addition to Fast Ethernet. See "Port Trunking over FDDI and Gigabit Ethernet" on page 8 for a description of port trunking.
- **System snapshot** — This feature, now available as part of Web Management, captures an image of all system display screens. The image shows the current values of all fields and counters at the time that you use the snapshot feature.
- **ICMP redirect** — Support for ICMP redirect functionality is available in Web Management at this release. ICMP redirect optimizes routing by redirecting routing packets to use the best route to a destination.
- **ICMP router discovery** — At this release, Web Management supports the router discovery protocol (ICMP), which allows an appropriately configured end station to locate one or more routers on the LAN to which the end station is attached.
- **Directed broadcast** — Support for directed broadcast functionality is now in Web Management. Directed broadcast specifies whether the forwarding of a directed broadcast packet (all 1s in the host portion of the address) is `enabled` or `disabled`.
- **Added OSPF functionality** — At this release, Web Management supports the configuration of OSPF areas and router ID. Additional OSPF statistics are available through an OSPF General Statistics display.
- **Trusted IP address configuration** — Web Management now supports a security authentication, which allows you to configure trusted IP addresses and prevent unauthorized users from using the WebConsole. The maximum number of trusted IP addresses that may be configured is 5.
- **Performance monitoring** — The new Performance Tab in Web Management has a graphing section that permits real-time monitoring of certain QoS and Ethernet statistics.

For information on the Web Management suite of applications, see the Web Management User Guide*. For details on new Web Management features, see Help.*

New Documentation

The system documentation now includes three new guides on the *Software and Documentation CD*:

- **Implementation Guide** — Information that you need to use the features of the CoreBuilder 3500 system after you install it and attach the system to your network. Use this guide to help you choose the settings and features that best meet your needs in your networking environment. The book is available in PDF format on the CD, in HTML format with the Help system in Web Management, and separately orderable in paper from 3Com.
- **Command Reference Guide** — Information about the commands that you use to configure and manage the system. This multiplatform guide documents commands for the CoreBuilder 3500 as well as other 3Com systems. The book is available in PDF format on the CD and separately orderable in paper from 3Com.
- **Web Management User Guide** — Information about installing, using, and optimizing the Web Management suite of software applications. The book is available in paper in the *Software and Documentation Kit*, in PDF format on the CD, and separately orderable in paper from 3Com.

Before You Start

Before you use your new software, read all of these release notes. Carefully read these sections:

- "System Software Issues at Release 2.0.0" on page 19
- "System Software Known Problems at Release 2.0.0" on page 21

Loading Your System Software

The CoreBuilder 3500 system software is distributed on CD in an ISO 9660 standard format, which is readable by all CD-ROM drives, including drives used with IBM PC compatible systems, Macintosh computers, and Sun and HP UNIX workstations.

CAUTION: *Before you install release 2.0.2 of the CoreBuilder 3500 system software, verify that Expansion Memory is installed on your system processor by viewing the* `system display` *menu. If the display shows the following information, Expansion Memory is installed:*

```
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```

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You can install new software from any host that is running a Trivial File Transfer Protocol (TFTP) server.

Installation overview

To install or upgrade your system software, you must:

1. Load the software image file from the CD-ROM to the TFTP host, as described next for the three supported platforms.
2. Download the system software from the TFTP host to the system's flash memory. See "Installing System Software via TFTP" on page 14 for details.

Loading on Microsoft Windows

To load the system software from the Microsoft Windows platform, follow these steps:

1. Insert the CD into the CD-ROM drive and open *File Manager* or *Explorer*.
2. Select the drive that represents your CD-ROM and verify that you are able to view the contents of the CD.
3. Configure your TFTP server on this system to allow TFTP file transfers from the CD, if possible. If this configuration is not possible, copy the system software image to a directory from which your TFTP server allows file transfers.
4. You are now ready to download the system software onto the system. See "Installing System Software via TFTP" on page 14 for instructions.

Loading on Macintosh OS

To load the system software from the Macintosh OS platform, follow these steps:

1. Insert the CD into the CD-ROM drive.
2. Double-click the icon that represents your CD-ROM drive and verify that you are able to view the contents of the CD.
3. Configure your TFTP server on this system to allow TFTP file transfers from the CD, if possible. If this configuration is not possible, copy the system software image to a directory from which your TFTP server allows file transfers.
4. You are now ready to download the system software onto the system. See "Installing System Software via TFTP" for instructions.

Loading on UNIX

To load the system software from the UNIX platform, follow these steps:

1. Insert the CD into the CD-ROM drive.
2. Mount the CD as required by your UNIX system.

For information on mounting the CD, see the documentation for your UNIX system.

3. To verify that you are able to view the contents of the CD, enter the appropriate "ls" command.
4. Configure your TFTP server on this computer to allow TFTP file transfers from the CD, if possible. If this configuration is not possible, copy the system software image to a directory from which your TFTP server allows file transfers.
5. You are now ready to download the system software onto your system. See "Installing System Software via TFTP" next for instructions.

Installing System Software via TFTP

To download the system software image via TFTP, follow the procedures in this section.

You can load the system software into flash memory while the system is operating on the network. You do not need to bring the system down.

Before you begin this procedure, verify that the TFTP server software is running on the device from which you will be installing the software.

Loading software into flash memory takes approximately 10 to 15 minutes to complete, depending on your network load.

Before you load the new software, verify that you have defined an IP address on the system. See the CoreBuilder 3500 Quick Installation Guide *or the* CoreBuilder 3500 Getting Started Guide *for information.*

To install the new software:

1. From the top level of the Administration Console, enter:

   `system softwareUpdate`

   You are prompted for the host IP address and Install file name. At any prompt, press Return or Enter to accept the default or current value, shown in brackets [ ].

2. For `Host IP address`, enter the IP address of the host machine (such as a Macintosh computer, Sun workstation, or PC) from which you are installing the software.

   In the example in step 3, the IP address of the host is **`192.9.200.96`**.

3. For `Install file name`, enter the complete path and filename of the system software image.

Some TFTP servers do not accept the full path. If that is the case for your server, enter only the filename of the image. See your server's documentation for more information.

CAUTION: *If the installation stops (that is, if you see no activity for more than 2 minutes), wait for the TFTP session to time out.* ***Do not reboot the system****. When the session has timed out, perform the installation procedure again.*

Here is an example of a successful system software installation:

```
Select menu option: sys softwareUpdate
Host IP address [192.9.200.96]:
Install file name {?}: cb3500/cb3500E
Copying sysBoot image from network to system - total size: 84
Kbytes
84 Kbytes copied

Copying diagnostic image from network to system - total size:
509 Kbytes
509 Kbytes copied

Copying operational image from network to system - total
size: 7345 Kbytes
7345 Kbytes copied
```

After the software has been loaded successfully, this message appears:

```
Installation completed
```

If the software image stored in flash memory is corrupted (for example, when a power failure occurs while you are installing the software), contact 3Com Technical Support. See "Technical Support" at the end of these Release Notes for information on where to call.

4 To reboot the system to use the newly loaded software, enter:

```
system reboot
```

The system prompts you with the following message:

```
Are you sure you want to reboot the system (n,y) [y]:
```

5 At the prompt, enter **y** for (yes).

You are now ready to configure management access for your system.

For a quick reminder of setup and management tasks, see the *CoreBuilder 3500 Quick Installation Guide*. For more detailed information about setting up your system and configuring management access, see the *CoreBuilder 3500 Getting Started Guide*.

User Documentation

This release of software is compatible with the documentation listed here. These release notes describe any changes and additions to this documentation:

- *CoreBuilder 3500 Quick Installation Guide*
- *CoreBuilder 3500 Getting Started Guide*
- *Command Reference Guide*
- *CoreBuilder 3500 Implementation Guide*
- *Web Management User Guide*
- *FDDI Module Installation Guide*
- *10/100BASE-TX Fast Ethernet Module Installation Guide*
- *100BASE-FX SMF Fast Ethernet Module Installation Guide*
- *100BASE-FX MMF Fast Ethernet Module Installation Guide*
- *1000BASE-SX Gigabit Ethernet Module Installation Guide*
- *1000BASE GBIC Module Installation Guide*
- *GBIC Transceiver Installation Guide*
- *System Processor Removal and Replacement Guide*
- *System Processor Memory Upgrade Installation Guide*
- *Power Supply Assembly Removal and Replacement Guide*
- *Fan Tray Removal and Replacement Guide*
- *PCMCIA Flash Card User Guide*
- *Blank Faceplate Installation Guide*

System Software Corrections at Release 2.0.2

The following system issues and known problems have been corrected at this release:

SNMP/RMON

- SNMP *get-next* requests for three RMON v2 tables (addressMapTable, nlHostTable, and nlMatrixTable) no longer generate a condition that could tie up the SNMP agent for a period of time.
- Previously, an SNMP *get-next* request for the RMONv1 hostTopNControlEntry (using only the hostTopNControlIndex) would not find the control entry for the specified index. This problem has been corrected.

IP

- Previously, an IP reassembly problem concerning packets bound for an IP address on the system caused a reboot if the reassembly timer timed out before all fragments were received. This problem has been corrected.

VLANs

- In Release 2.0.0, during the NV data conversion process from Release 1.2, the system could assert after it determined that it supported fewer VLANs than the previous Release 1.2 configuration. This problem has been corrected in Release 2.0.2. If the system supports fewer VLANs than a previous VLAN 1.2 configuration, the system now removes all ports from the VLANs that it cannot support without causing a system assertion. This process deactivates any VLANs that the system cannot support but preserves the router interfaces for those VLANs.
- In Release 2.0.0, a VLAN resource issue prevented the system from supporting as many Layer 3 IP VLANs as in Release 1.2. This problem has been fixed in Release 2.0.2. If you were not able to have as many Layer 3 IP VLANs after you moved to Release 2.0.0, upgrading to 2.0.2 may allow you to regain some of your Layer 3 IP VLANs.

  In general, if you are moving from Release 1.2 to 2.0.0, the following two VLAN changes may have resulted in the system being able to support fewer VLANs:

  - IPX-802.2-SNAP joined the list of protocols that can be recognized by a VLAN and became a member of the generic IPX family. If you have generic IPX VLANs on the system, the addition of this protocol to the generic IPX protocol family could affect the formula for the minimum number of VLANs supported on the system (125 divided by the number of protocol suites, minus 3). For example, for Release 1.2, the system can support at least 28 VLANs if all of the VLANs are generic IPX. In this example, the formula requires 4

protocol suites: the three protocol suites in generic IPX for Release 1.2 (IPX-II, IPX-802.2, and IPX-802.3) and the unspecified protocol. For Release 2.0.0, however, the system would be able to support a minimum of 22 VLANs, because of the addition of the IPX-802.2-SNAP protocol suite to generic IPX family.

- For Release 2.0.0, the system accepts IEEE 802.1Q tagged frames into a VLAN whose port is not tagged. This change requires the use of system resources that had been previously used to accommodate additional VLANs. It is possible that fewer VLANs may be supported with Release 2.0.0. However, the number of VLANs is still at least the number determined from the previously defined VLAN formula.

System Software Corrections at Release 2.0.0

The following system issues and known problems have been corrected at this release:

IP

- The `ip arp flush` command now removes all ARP entries, including static ARP entries.
- The issue that stopped some IP multicast traffic after an STP Topology change has been corrected.

QoS

- To define AppleTalk QoS controls and an IP VLAN for the same port, you previously had to define the AppleTalk VLAN *before* you defined the IP VLAN. If the IP VLAN was defined first, the AppleTalk QoS controls did not work. This known problem has been corrected.

VLANs

- Previously to use STP or TCMP on the system with closed VLAN mode, every port had to belong to at least one untagged, unspecified VLAN (for example, the default VLAN). That is, you could have many unspecified, untagged VLANs, as long as each port is part of one of them. At this release, this limitation has been removed.
- The `noRxbuffers` counter, which incremented after you modified an AppleTalk VLAN and updated AARP, has been corrected.

Web Management

QoS

- In Web Management at previous releases, port numbering was incorrect when you viewed QoS statistics for trunked ports.

DeviceView

- DeviceView now includes support for the 1000BASE SX module.

For more information about the Web Management software, see the Web Management User Guide.

System Software Issues at Release 2.0.0

The following system issues are identified at this release:

General

- When you boot the system from the PCMCIA card and then remove the card, the system reboots.
- The first time that you attempt to access the modem, the screen alignment is incorrect. On subsequent attempts, the screen alignment is correct.

IP

- The Administration Console displays `poisonReverse` and `advertisementAddress` fields for `management IP RIP display`, although the management IP port cannot act as a router.
- The system does not report an error if you assign the same IP address to an IP interface that is associated with the *out-of-band* Ethernet port and to an IP routing interface that is associated with an *in-band* Ethernet port. However, if you make such an assignment, attempts to modify or remove IP interfaces may hang the other interface on the same subnetwork or cause the system to reboot.
- If an IP interface is assigned to the out-of-band Ethernet port and you do not have a network link, the system can experience problems with DNS, traceRoute, ping, and software updates through your in-band IP interface. You must attach the out-of-band Ethernet port to your network.

Bridging

- The list of selectable bridge ports on the Administration Console includes ports that have already been designated as an analyzer port. The display is corrected when you attempt to use the port.
- Bridged IP multicast frames are not counted in the bridge statistics.

Remote monitoring

- To receive RMON-2 updates, you must manually set the VLAN protocol type that you want to monitor on the selected port.
- An external remote roving analysis port (RAP) is not supported.
- An analyzer port does not detect internally generated ICMP frames that are transmitted out of the monitor port using the **`IP ping, IP advanced ping, IP traceroute,`** or **`IP advanced traceroute`** commands. Reply frames received at the monitor port can be captured at the analyzer port.

System

- The **SYS** LED on the system processor no longer lights if the system processor fails at power up.
- You cannot perform an `nvData reset` while you are using Telnet to access the system.
- The addressThreshold trap does not respond at this release.
- The serial port receives error messages from user interfaces at this release (including Telnet session, Web Management, and SNMP).
- To enable the timeout of remote sessions to the system, verify that `system consoleTimeout` is set to `enabled`. The factory default for `system consoleTimeout` is `disabled`.

Packet filters

- Multiple port filter assignment requests using SNMP results in a PDU that returns a bad value.

QoS

- To add a new QoS nonflow classifier, you must delete one or more (unrequired) nonflow classifiers in the range of 400 through 498.

Ethernet

- 802.3x flow control is not supported for 10/100BASE-TX Ethernet ports.
- If the autonegotiation feature for a 100 Mbps Ethernet link does not function properly, disable autonegotiation and manually set the port speed and duplex mode (*half-duplex* or *full-duplex*). Also, on a 1000 Mbps link, autonegotiation must match on both sides of the link.

SNMP

- There is no SNMP support for creating or deleting trunks.
- To prevent time-outs of SNMP requests, 3Com recommends that you increase the default timeout for your network management station or browser.

Trunking

- Each installed Gigabit Ethernet module consumes one of the four trunk resources in the system. However, when you trunk two or more Gigabit Ethernet ports, only one trunk resource is used.

Web Management

- The PCMCIA card is not supported through the Web Management software. Use the Administration Console for PCMCIA support.
- After you first set the Help Configuration URL, choose another menu item and then select the item that you want to configure in order for the Help link to work.

For more information about the Web Management software, see the Web Management User Guide.

System Software Known Problems at Release 2.0.0

The following system software known problems are identified at this release:

CAUTION: *3Com recommends that RSVP not be used in a production environment at this release.*

System

- Do not attempt to restore NVData that was saved from a system running a release prior to 2.0.0. Doing so will cause a system assertion.
- If you revert from a 2.0 release to the 1.2.0 release and you have one or more FDDI modules installed, be sure to remove the FDDI modules.
- You cannot restore NVData from the system menu using FTP as the protocol. To restore NVData from the system menu, use TFTP.
- The IPX, VLAN, TCMP, and QoS statistics, as well as the Ethernet detail statistics for peak bytes and frame rates, are not reset when you set a baseline with the command `system baseline set`.
- A delay of approximately 30 seconds may occur when you exchange GBIC transceivers.
- If an analyzer is configured on a module that is then replaced with a new module of a different media type (for instance, if a Fast Ethernet module is replaced with an FDDI module), the new module is incorrectly configured with an analyzer port.

IPX

- IPX OddLengthPadding does not function at this release. Enabling this mode does not pad IPX packets that have an odd number of bytes.

Ethernet

- The Ethernet detail display may erroneously report a flow control value for a 10/100 port.
- If you insert a GBIC transceiver into a 1000BASE GBIC module while the Administration Console is in the `ethernet` menu, you are not able to change the autonegotiation mode of the newly inserted port until you leave the `ethernet` menu and then enter it again.

QoS

- You can no longer define an IP multicast rate limit from the IP menu. You could previously use `ip multicast interface enable` and specify a rate limit. Now, use `bridge port multicastLimit` or QoS to set this type of rate limit.
- If you are using the system as a one-armed router with IEEE 802.1Q tagging, QoS rate limits and flow filters do not work.

- Repeatedly modifying a QoS control to change one or more classifiers subject to the control results in undesirable behavior. This problem is specific to nonflow classifiers (classifiers 400 through 498).

SNMP

- For SNMP management, the ipDefaultTTL object cannot be set, that is, no write is allowed.
- You cannot configure more than one routing interface on a multiprotocol VLAN using SNMP. Instead, configure the routing interface through the Web Management software or the Administration Console.

Trunking

- When you hot swap modules of different media types, you must first remove trunks that have been configured on the affected module.
- When you modify a trunk to add to a port, the `bridge vlan modify` command does not move the port to the VLANs that contain the anchor port. The result is that a single trunked port can exist in two different VLANs.

GVRP

- If GVRP is enabled on a port being used as a RAP analyzer port, GVRP sends frames out on this port. Normally, only frames transmitted out of the port that is being mirrored should be sent out of the analyzer port. In this case, additional GVRP frames appear on this port in addition to those frames from the mirrored port.

Bridging

- Bridging statistics may not be increased when routed frames are filtered using custom or port group filters.
- When you connect a CoreBuilder 3500 10/100 Ethernet port to a 10BASE-T Ethernet port, the system does not revise the default path cost to reflect the 10BASE-T Ethernet LAN segment. The 10BASE-T Ethernet port defaults to 100.

Roving analysis

- When you are monitoring an FDDI port, frames larger than 1520 are not sent out of the analyzer port.
- When you are monitoring a GE port, some of the traffic processed by the system software is not sent out of the analyzer port.

Web Management

- When you are configuring Gigabit Ethernet ports, the Bridge/Trunk/Configuration and Bridge/Trunk/Modify forms incorrectly list `RX OFF` as the last FlowControl selection option. This should be `TX ON` (as in the Administration Console); `TX ON` is configured when `RX OFF` is selected and applied on these forms.
- If you enter incorrect information in the Web Management interface, the system reports an error and you must reenter previous information.

- WebConsole incorrectly accepts a value outside of the valid range for the QoS statistical interval. The valid range is *0* to *4294967295*.
- When you are running installable Web Management applications, the JAVA Console in Internet Explorer and Netscape Navigator incorrectly displays exceptions.
- Setting the system baseline does not reset the IP interface statistics in the WebConsole.
- WebConsole does not support the new Administration Console `password` menu item in IP RIP.
- IP routes cannot be displayed per subnetwork using the Web Console IP Route Display option.
- The WebConsole incorrectly returns a success response when you configure Ethernet autonegotiation on trunked Gigabit Ethernet ports. You cannot configure this parameter on trunked ports in Web Management.
- When you attempt to modify or remove Gigabit Ethernet trunks through the WebConsole, you may receive an erroneous message that additional trunk resources are required to complete the configuration. Use the Administration Console to complete the configuration.
- When you add or remove an analyzer port through the WebConsole, you may receive an erroneous message that the configuration was unsuccessful even though the configuration has been completed successfully. You can confirm your configuration by checking the Roving Analysis Display in Web Management.
- You cannot remove a control rate limit using the WebConsole Remove Control form when only one rate limit has been configured for the control.

For more information about the Web Management software, see the Web Management User Guide.

Documentation

- The *CoreBuilder 3500 Implementation Guide* incorrectly displays information in Table 9 (page 83) and Table 13 (page 138). The correct tables are displayed here:

Type	Speed	Media	Connector	Recommended Distance (max)
10/100BASE-TX	10/100 Mbps	Category 5 UTP	RJ-45	100 m
100BASE-FX	100 Mbps	single-mode fiber	SC	20 km
		multimode fiber	SC	■ 412 m (half-duplex) ■ 2 km (full-duplex)
1000BASE-SX	1000 Mbps	multimode fiber	SC	62.5 micron: ■ 200 m @ 160 MHz modal bandwidth ■ 260 m @ 200 MHz modal bandwidth 50 micron: ■ 525 m
1000BASE-LX GBIC	1000 Mbps	single-mode fiber	GBIC	9 micron:
		multimode fiber	Duplex SC conditioned launch cable	■ 10 km 62.5 and 50 micron: ■ 550 m
1000BASE-SX GBIC	1000 Mbps	multimode fiber	GBIC	62.5 micron: ■ 200 m @ 160 MHz modal bandwidth ■ 260 m @ 200 MHz modal bandwidth 50 micron: ■ 525 m

Comparison Point	Gigabit Ethernet	Trunked Fast Ethernet
Max burst rate	1000 Mbps	100 Mbps
Max aggregate rate	1000 Mbps	800 Mbps (over 8 links)
	(2000 Mbps full duplex)	1600 Mbps full duplex)
Standards compliance	IEEE 802.3z	In progress

- In VLAN chapter of the *CoreBuilder 3500 Implementation Guide* (Chapter 9), the following changes need to be added:
  - Under "Network-based IP VLANs," add the following Important Consideration:

    The network information is used only in situations where there are multiple network-based VLANs defined on a particular port. In situations where there is only one network-based VLAN defined on a port, the VLAN is treated as an ordinary IP protocol-based VLAN, and network-based information is ignored.
  - Under "Ingress Rules for Network-based (Layer 3) VLANs," ARP and RARP have different ingress rules. RARP frames are assigned to the *All IP Subnets* (Multicast) VLAN.
  - Under "Examples of Flooding and Forwarding Decisions," in example 3, the RARP response frame should be as follows:

RARP Response Frame (Protocol 0x8035), IP DA = 158.101.102.2, MAC DA is known on port 6	Frame will be assigned to the All IP Subnets VLAN and transmitted on port 6 untagged

  - Under "Examples of Flooding and Forwarding Decisions," in example 4, the information for one network-based VLAN should be as follows:

Frame received on Port 1	**Action**
IP Frame (Protocol 0x0800), IP destination address (DA) 158.101.103.1, MAC DA is known on port 6	Frame will be assigned to the IP_100 VLAN and transmitted on port 6 tagged.
RARP Response Frame (Protocol 0x8035), IP DA = 158.101.103.2, MAC DA is unknown	Frame will be assigned to the IP_100 VLAN and transmitted on port 6 tagged.

SNMP MIB Files

SNMP MIB files are shipped with the system software as ASN.1 files. Copies of ASN.1 files are provided for each of the supported compilers described in "Compiler Support" next.

Supported Versions

The SNMP MIB file names and the currently supported version of each MIB are listed here.

- **bridge.mib** — Bridge MIB, RFC 1493

  Unsupported groups and tables in this MIB:

  - **dot1dSr** group
  - **dot1dPortPair**
  - **dot1dStatic** group
- **ethernet.mib** — Ethernet MIB, RFC 1398
- **3cFddi.mib** — LANplex Optional FDDI MIB, version 1.2.1
- **fddiSmt7.mib** — FDDI SMT 7.3 MIB, RFC 1512

  Unsupported groups and tables in this MIB:

  - **dot3CollTable**
  - **dot3Test** group
  - **dot3Errors** group
  - **dot3ChipSets** group
- **if.mib** — IF MIB, RFC 1573

  Unsupported counters and tables in this MIB:

  - **ifTestTable**
  - **ifRcvAddressTable**
  - **ifHC** 64-bit counters
- **mib2.mib** — MIB-II MIB, RFC 1213

  Unsupported group in this MIB:

  - **egp** group
- **rmon.mib** — RMON MIB, and RFC 1757

RMON statistics for Gigabit Ethernet are not supported at this release.

Supported groups in this MIB:

- **statistics**
- **history**
- **alarm**
- **hosts**
- **hostTopN**
- **matrix**
- **event**

A maximum of four different ports can be configured for the following RMON groups at any given time:

- **hosts**
- **hostTopN**
- **matrix**
- **nlHost**
- **nlmatrix**
- **addressMap**

- **fddiRmon.mib** — AXON RMON MIB
  - **axFddiStatistics**
  - **axFddiHistory**
- **rfc2021.mib** — RMONv2 MIB, RFC 2021
  - **protocolDir**
  - **protocolDist**
  - **addressMap**
  - **nlHost**
  - **nlMatrix**
  - **probeCapabilities object of probeConfig group**
- **trunk.mib**
- **vlan.mib** — 3Com VLAN MIB
- **3cFilter.mib**
- **3cQos.mib**
- **3cProd**

- **3cSys.mib** — Replaces s2System.mib, swSystem.mib, and Ip.mib

  Unsupported groups in this MIB:

  - **a3ComSysSlot**
  - **a3ComSysControlPanel**
  - **a3ComSysSnmp**
  - **a3ComSysTokenRingPort**
- **3cWeb.mib**
- **3cPolicy.mib**
- **3cPoll.mib**

Compiler Support

ASN.1 MIB files are provided for each of these MIB compilers:

- HP Openview (version 3.1)
- SunNet Manager (version 2.0)
- SMIC (version 1.0.9)
- MOSY (version 7.1)
  - For the MIB file 3cfddi.mib, the MOSY compiler reports warnings for counter names that do not end in "s." This report has no effect on the output produced by the MOSY compiler.
  - The MIB file fddiSmt7.mib produces the following warning messages when it is compiled using the SunNet Manager compiler:

```
Translating....
Warning: The following INDEX entries in
fddimibMACCountersTable are not resolved:
   fddimibMACSMTIndex
   fddimibMACIndex
Translation Complete.
Schema file in "fddiSmt7.mib.schema"
Oid file in "fddiSmt7.mib.oid"
```

These warning messages have no effect on the ability of SNM to use the schema file generated with SNM version 2.0 or later.

Release History

Table 1 describes the release history of the CoreBuilder 3500 system software.

Table 1 Release History for System Software

Release Number	Description of Release
2.0.2	Sixth release of the CoreBuilder 3500 system software. ■ Per-interface IPX SAP Advertising, IPX SAP capacity improvements, and software corrections
2.0.0	Fifth release of the CoreBuilder 3500 system software. **Release features**: ■ FDDI Module ■ IP Fragmentation ■ IPX Snap Translation ■ Port Trunking over FDDI and Gigabit Ethernet ■ New Custom Filters ■ IP Route Policies ■ ARP Proxy ■ IEEE 802.1Q Tagging Enhanced ■ RIP Version 2 ■ FTP ■ Increased Number of VLANs ■ 1000BASE-SX GBIC Transceiver ■ Single Reset Trunk Configuration ■ Disabling of ICMP redirect ■ Broadcast Address ■ Web Management Enhanced Capabilities ■ New Documentation

Table 1 Release History for System Software (continued)

Release Number	Description of Release
1.2.0	Fourth release of the CoreBuilder 3500 system software. ■ Support for the 1000BASE GBIC module (LX support) ■ Support for configuring multi-protocol 802.1Q VLANs ■ Additional IPX options: - ipx NetBIOS - ipx secondary - ipx route secondary - ipx server secondary ■ Software corrections
1.1.1	Third release of the CoreBuilder 3500 system software. **Base Plus Extended System Software Release changes:** ■ Read/Write access and Administer password no longer available through the SNMP MIB variable

Table 1 Release History for System Software (continued)

Release Number	Description of Release
1.1.0	Second release of the CoreBuilder 3500 system software. **Base System Software Release features:** ■ IP routing (OSPF support) ■ IPv4 multicast DVMRP routing ■ IGMP version 2 snooping ■ RMON-1 ■ Gigabit Ethernet 1000BASE-SX module ■ Port trunking ■ Port group packet filtering ■ IEEE 802.1Q tagging for bridging and routing ■ Address table per VLAN (closed VLAN) ■ Simplified port numbering ■ Roving analysis ■ Web-based management **Base Plus Extended System Software Release features:** Everything in Base System Software, plus: ■ RMON-2 ■ IPX routing ■ AppleTalk routing ■ RSVP for 10/100 Ethernet ■ Quality of Service: Static bandwidth reservation (RSVP) for 10/100 Ethernet
1.0.0	First release of the CoreBuilder 3500 system software. **Release features**: ■ 10/100BASE-TX module ■ 100BASE-FX module ■ IP routing (RIP support) ■ Multicast packet firewall to limit broadcast storms ■ SNMP MIB management ■ Spanning Tree Protocol ■ Protocol-based VLANs ■ traceRoute ■ DNS client

Technical Support

3Com provides easy access to technical support information through a variety of services. This appendix describes these services.

Information contained in this appendix is correct at time of publication. For the latest information, 3Com recommends that you access the 3Com Corporation World Wide Web site.

Online Technical Services

3Com offers worldwide product support 24 hours a day, 7 days a week, through the following online systems:

- World Wide Web site
- 3Com FTP site
- 3Com Bulletin Board Service (3Com BBS)
- 3ComFacts℠ automated fax service

World Wide Web Site

Access the latest networking information on the 3Com Corporation World Wide Web site by entering the URL into your Internet browser:

`http://www.3com.com/`

This service provides access to online support information such as the technical documentation and software library, as well as support options ranging from technical education to maintenance and professional services.

3Com FTP Site

Download drivers, patches, software, and MIBs across the Internet from the 3Com public FTP site. This service is available 24 hours a day, 7 days a week.

To connect to the 3Com FTP site, enter the following information into your FTP client:

- Hostname: **`ftp.3com.com`** (or **`192.156.136.12`**)
- Username: **`anonymous`**
- Password: **`<your Internet e-mail address>`**

You do not need a user name and password with Web browser software such as Netscape Navigator and Internet Explorer.

3Com Bulletin Board Service

The 3Com BBS contains patches, software, and drivers for 3Com products. This service is available through analog modem or digital modem (ISDN) 24 hours a day, 7 days a week.

Access by Analog Modem

To reach the service by modem, set your modem to 8 data bits, no parity, and 1 stop bit. Call the telephone number nearest you:

Country	Data Rate	Telephone Number
Australia	Up to 14,400 bps	61 2 9955 2073
Brazil	Up to 14,400 bps	55 11 5181 9666
France	Up to 14,400 bps	33 1 6986 6954
Germany	Up to 28,800 bps	4989 62732 188
Hong Kong	Up to 14,400 bps	852 2537 5601
Italy	Up to 14,400 bps	39 2 27300680
Japan	Up to 14,400 bps	81 3 3345 7266
Mexico	Up to 28,800 bps	52 5 520 7835
P.R. of China	Up to 14,400 bps	86 10 684 92351
Taiwan, R.O.C.	Up to 14,400 bps	886 2 377 5840
U.K.	Up to 28,800 bps	44 1442 438278
U.S.A.	Up to 53,333 bps	1 847 262 6000

Access by Digital Modem ISDN users can dial in to the 3Com BBS using a digital modem for fast access up to 64 Kbps. To access the 3Com BBS using ISDN, use the following number:

1 847 262 6000

3ComFacts Automated Fax Service

The 3ComFacts automated fax service provides technical articles, diagrams, and troubleshooting instructions on 3Com products 24 hours a day, 7 days a week.

Call 3ComFacts using your Touch-Tone telephone:

1 408 727 7021

Support from Your Network Supplier

If additional assistance is required, contact your network supplier. Many suppliers are authorized 3Com service partners who are qualified to provide a variety of services, including network planning, installation, hardware maintenance, application training, and support services.

When you contact your network supplier for assistance, have the following information ready:

- Product model name, part number, and serial number
- A list of system hardware and software, including revision levels
- Diagnostic error messages
- Details about recent configuration changes, if applicable

If you are unable to contact your network supplier, see the following section on how to contact 3Com.

Support from 3Com

If you are unable to obtain assistance from the 3Com online technical resources or from your network supplier, 3Com offers technical telephone support services. To find out more about your support options, please call the 3Com technical telephone support phone number at the location nearest you.

When you contact 3Com for assistance, have the following information ready:

- Product model name, part number, and serial number
- A list of system hardware and software, including revision levels
- Diagnostic error messages
- Details about recent configuration changes, if applicable

Below is a list of worldwide technical telephone support numbers:

Country	Telephone Number	Country	Telephone Number
Asia Pacific Rim			
Australia	1 800 678 515	P.R. of China	10800 61 00137 or
Hong Kong	800 933 486		021 6350 1590
India	61 2 9937 5085	Singapore	800 6161 463
Indonesia	001 800 61 009	S. Korea	
Japan	0031 61 6439	From anywhere in S. Korea:	82 2 3455 6455
Malaysia	1800 801 777	From Seoul:	00798 611 2230
New Zealand	0800 446 398	Taiwan, R.O.C.	0080 611 261
Pakistan	61 2 9937 5085	Thailand	001 800 611 2000
Philippines	1235 61 266 2602		
Europe			
From anywhere in Europe, call:	+31 (0)30 6029900 phone +31 (0)30 6029999 fax		
From the following European countries, you may use the toll-free numbers:			
Austria	06 607468	Netherlands	0800 0227788
Belgium	0800 71429	Norway	800 11376
Denmark	800 17309	Poland	0800 3111206
Finland	0800 113153	Portugal	05 05313416
France	0800 917959	South Africa	0800 995014
Germany	0130 821502	Spain	900 983125
Hungary	00800 12813	Sweden	020 795482
Ireland	1 800 553117	Switzerland	0800 55 3072
Israel	177 3103794	U.K.	0800 966197
Italy	1678 79489		
Latin America			
Argentina	AT&T +800 666 5065	Mexico	01 800 CARE (01 800 2273)
Brazil	0800 13 3266	Peru	AT&T +800 666 5065
Chile	1230 020 0645	Puerto Rico	800 666 5065
Colombia	98012 2127	Venezuela	AT&T +800 666 5065
North America	1 800 NET 3Com (1 800 638 3266)		

Returning Products for Repair

Before you send a product directly to 3Com for repair, you must first obtain a Return Materials Authorization (RMA) number. Products sent to 3Com without RMA numbers will be returned to the sender unopened, at the sender's expense.

To obtain an RMA number, call or fax:

Country	Telephone Number	Fax Number
Asia, Pacific Rim	65 543 6500	65 543 6348
Europe, South Africa, and Middle East	+ 44 1442 435860	+ 44 1442 435718
From the following European countries, you may call the toll-free numbers; select option 2 and then option 2:		
Austria	06 607468	
Belgium	0800 71429	
Denmark	800 17309	
Finland	0800 113153	
France	0800 917959	
Germany	0130 821502	
Hungary	00800 12813	
Ireland	1800553117	
Israel	177 3103794	
Italy	1678 79489	
Netherlands	0800 0227788	
Norway	800 11376	
Poland	00800 3111206	
Portugal	05 05313416	
South Africa	0800 995014	
Spain	900 983125	
Sweden	020 795482	
Switzerland	0800 55 3072	
U.K.	0800 966197	
Latin America	1 408 326 2927	1 408 326 3355
U.S.A. and Canada	1 800 NET 3Com (1 800 638 3266)	1 408 326 7120

Year 2000 Compliance

For information on Year 2000 compliance and 3Com products, visit the 3Com Year 2000 Web page:

http://www.3com.com/products/yr2000.html