

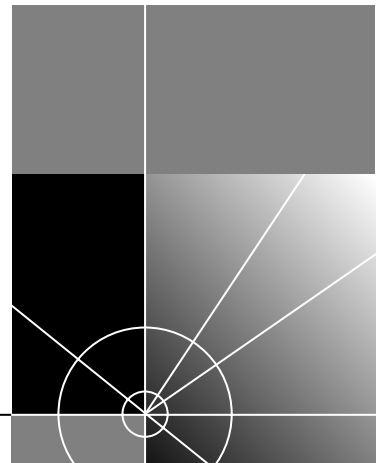


# CoreBuilder® 3500 Software Installation and Release Notes

System Software  
Release 2.1.0  
March 8, 1999

<http://www.3com.com/>

Part Number 10012351  
Published March 1999



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# COREBUILDER 3500 SYSTEM SOFTWARE RELEASE 2.1.0

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## Overview

These release notes describe Release 2.1.0 of the CoreBuilder® 3500 system software from 3Com Corporation, dated March 8, 1999. This release supersedes Release 2.0.2, dated December 22, 1998, and Release 2.0.0, dated November 12, 1998. To install the software, see "Loading Your System Software" on page 18 for instructions.



**CAUTION:** Before you install Release 2.1.0 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   16 MB
```

If your display does not show this information, you must install Expansion Memory (3C35010) before you install Release 2.1.0. Contact your reseller or 3Com sales representative.



**CAUTION:** Before you install Release 2.1.0 of the CoreBuilder 3500 system software, make sure that no VLAN ID (VID) for a VLAN uses the value 4095. Modify the VLAN ID with the `bridge vlan modify` command.

---

## Release Highlights for 2.1.0

The CoreBuilder 3500 system software supports the following changes at Release 2.1.0:

- Performance Improvements for IPX Route Aging
- Diagnostics Functionality on Cold Boots
- New Configurable Timers for ICMP Router Discovery
- IP Policy Change
- IP Static Sink Default Route
- Additional Packet Filtering
- Baseline Statistics for IPX, Trunks, and VLANs
- Display of TTL Values for IP and IPX Routes
- System Display Changes
- VLAN Aware Mode
- Several software corrections: See “System Software Corrections at Release 2.1.0” later in these release notes for details.

### Performance Improvements for IPX Route Aging

In Release 2.0.2, if you had a large, IPX, routed environment, network instability could cause connectivity problems because of the aging out of mass quantities of IPX routes. Release 2.1.0 offers significant performance improvements in this situation.

### Diagnostics Functionality on Cold Boots

This release introduces a modification to the way that the system handles diagnostics on cold boots. A module that fails diagnostics now shows the following behavior:

- The module comes up, but all of its ports are out of service.
- The LEDs indicate a failure. On each port, the E LED (Error - Port Status) lights yellow. The SYS error LED lights yellow.
- The Ethernet or FDDI statistics display for the port indicate that all ports are out of service for the module.

If this situation occurs, replace the module.

## New Configurable Timers for ICMP Router Discovery

You can now configure and display three new timers for ICMP router discovery:

- **MaxAdvInterval** — The maximum interval between advertisements. The default is 600 seconds.
- **MinAdvInterval** — The minimum interval between advertisements. The default is 450 seconds.
- **Holdtime** — The length of time that advertisements are held valid (advertisement holdtime). The default is 1800 seconds.

You can set the timer values with the Administration Console `ip interface icmpRouterDiscovery` command. Display the timer values with the `ip interface detail` command.

When you change the value for MaxAdvInterval, the other values change, as follows:

- MinAdvInterval default = (.75 \* MaxAdvInterval)
- Holdtime default = (3 \* MaxAdvInterval)

You can configure the MinAdvInterval value from 3 up to the MaxAdvInterval value. You can configure Holdtime from the MaxAdvInterval value up to 9000 seconds.

## IP Policy Change

You can now set up an IP RIP or OSPF import or export policy to accept or advertise the default route, as long as the default route exists in the routing table. As of Release 2.1.0, when you define a policy, you are always prompted for the route subnet mask after the route address, regardless of whether you specify the wildcard route address of 0.0.0.0. (Previously, you were prompted for a subnet mask only when the route address was something other than 0.0.0.0.)

Specify a route subnet mask as follows:

- If you want the wildcard subnet mask for all routes, enter 0.0.0.0 for the subnet mask. This is the default subnet mask.
- If you want the default route (not all routes), enter 255.255.255.255.

For more information on IP routing policies, see the *CoreBuilder 3500 Implementation Guide* on the *Software and Documentation CD* that is shipped with your system.

## IP Static Sink Default Route

Release 2.1 introduces support for a static sink default route, which enables the system to advertise itself as a default router. The static sink default route is not used in any of the system's forwarding decisions because it does not have a valid next-hop gateway, but it can be advertised to all of the system's neighbors (unless you establish IP policies to prevent the advertisement).

To define a static sink default route, enter the Administration Console command `ip route default` and specify the value `0.0.0.0` for the gateway. Defining a static sink default route causes the route to be advertised through any IP protocols that you have configured on the system (for example, RIP and OSPF).

To restrict the advertisement of the static sink default route, use IP policies. For example, if the only route that you want advertised using RIP is the static sink default route, you could establish two RIP export policies: one policy that prevents anything from being advertised (a reject policy), and a second export policy that allows only the default route to be advertised. Remember to give the policy for the static sink default route a full 32-bit mask and a higher administrative weight than the other export policy.

Take into account the following considerations when working with a static sink default route:

- Verify that there is no existing routing table entry for the default route.
- Verify that you define an IP interface before you define the static sink default route.
- Unlike all other static routes, this route is associated with the first interface that it finds in the interface table. You *cannot* remove this interface until you remove the static sink default route.
- If a learned default route already exists, configuring a static sink default route causes the system to replace the learned default route.
- The static sink default route is never used to make forwarding decisions.

### Additional Packet Filtering

You can now use the new packet processing path `rxI` (`rxInternal`) to apply custom packet filters to received frames that have internal destinations on the system. This feature allows you to filter frames that are associated with internal traffic (for example, Telnet, ping, and traffic such as SNMP and Web traffic).



*Applying a custom packet filter to the `rxI` path only does not affect the forwarding performance of frames that are bridged or routed through the system.*

On the Administration Console, you configure this feature as part of the `bridge packetFilter assign` command. When you use this command to assign a packet filter to one or more ports, you can now select the packet processing path `rxI`.



*When you select a packet processing path, the `all` option includes the `rxI` (`rxInternal`) path. Do not select `all` unless you want to include the `rxI` path as well as all other paths. For filters defined in a release prior to 2.1.0, the `all` option did not include the `rxI` path. Upon upgrading, the previously defined filters do not include the `rxI` path.*

### Baseline Statistics for IPX, Trunks, and VLANs

This version of the software now supports baseline statistics for IPX, trunks, and VLANs. Previously, the software did not support baselines for these features.

### Display of TTL Values for IP and IPX Routes

The IP and IPX route displays now include a `TTL` (Time-To-Live) field and value that provides a countdown timer for the routes. This value indicates the time remaining before the route expires or is reset.

This new field replaces the `Age` field previously shown in the IPX route display.

### System Display Changes

The system display now includes a `Part Number` field for each module. In addition, the `Rev` field now indicates 3Com's internal top-level assembly revision number.

## VLAN Aware Mode

This release introduces the VLAN aware mode, a mode that accommodates the difference in VLAN resource usage as well as tagged-frame ingress rules between Release 1.2.0 and the 2.x releases. For more information on the 2.x ingress rules, see the *CoreBuilder 3500 Implementation Guide* on the *Software and Documentation CD* that is shipped with your system. (The 1.2 ingress rules in allOpen mode mandate that incoming tagged frames are assigned to one of the configured VLANs if the VID of the frame matches that of the VLAN *and* if a port in that VLAN is tagged.)

The VLAN aware mode, which you set with the new Administration Console command `bridge vlan vlanAwareMode`, reflects the difference in VLAN resource usage and modes of tagging as follows:

- In Release 1.2.0, all bridge ports were *not* VLAN aware (tagging aware) unless they were assigned to a VLAN that has one or more tagged ports.
- As of Release 2.0.0, all bridge ports become VLAN aware after a software update or after an NV data reset and do not have to be explicitly tagged in order to forward tagged frames.

This difference in resource usage and modes of tagging has the following impact: After you upgrade the system from 1.2.0 to 2.x, the 2.x release uses more VLAN resources than did Release 1.2.0 and may cause a decrease in the total number of allowable VLANs.



*VLAN aware mode is currently supported only through the Administration Console, not through Web Management or SNMP.*

Initial installation of Release 2.1.0 provides a default VLAN aware mode of `allPorts`, which is consistent with Release 2.x ingress rules and resource allocation. If you upgrade your system from Release 1.2.0 to 2.1.0 and the VLAN resource limit is reached during a power up with a serial port console connection, the system displays an error message similar to the following one to identify the index of the VLAN that it was unable to create:

```
Could not create VLAN xx - Internal resource threshold
exceeded
```

In this situation, the system removes all bridge ports from the VLAN that it could not restore from NV data, although it does maintain the previously stored NV data.

To restore your VLANs after you see the resource error message, issue the command `bridge vlan vlanAwareMode` and then set the VLAN aware mode to `taggedVLANPorts`. If VLANs are already defined, the system prompts you to reboot the system to put the new mode into effect.

If you do not see the VLAN internal resource error message, maintain the 2.x default VLAN aware mode of `allPorts`. In this case, the system can accommodate the number of Release 1.2.0 VLANs but it now uses different ingress rules for tagged frames.

The `bridge vlan summary` and `bridge vlan detail` commands display the current VLAN aware mode after the VLAN mode (`allOpen` or `allClosed`).



*When you use the VLAN formula to calculate the number of VLANs that you can have on your system ( $No\_of\_VLANs\_supported = [125 / No\_of\_Protocol\_Suites] - 3$ ), keep in mind that the formula provides only an estimate. You may see more or fewer VLANs, depending on your configuration and use of protocol suites. Remember to calculate the total number of protocol suites used on your system, including the type unspecified. For example, IP counts as 1 protocol suite, generic IPX counts as 4 protocol suites (as of Release 2.0.0), and SNA counts as 2 protocol suites.*

---

## Release Highlights for 2.0.2

The CoreBuilder 3500 system software supported the following changes at Release 2.0.2:

- 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 for details.

### IPX SAP Advertising

Release 2.0.2 provided 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. 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 that has 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 that have a high number of IPX interfaces. The system now provides a more efficient method of dealing with large IPX SAP tables.

---

## Release Highlights for 2.0.0

The CoreBuilder 3500 system software at Release 2.0.0 supported the following features, which are described in the *Implementation Guide* on the *Software and Documentation CD* that is shipped with your system:

- 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
- Toggling of Current Logging State
- Web Management Enhanced Capabilities
- New Documentation

### FDDI Module

Release 2.0.0 provided 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* on the *Software and Documentation CD* that is shipped with your system.

**IP Fragmentation**

At Release 2.0.0, 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**

At Release 2.0.0, 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**

At Release 2.0.0, port trunking is 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**

At Release 2.0.0, you can 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**

At Release 2.0.0, IP route policies 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.

You can 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. See the *Implementation Guide* for details.

**ARP Proxy**

At Release 2.0.0, you can 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** Release 2.0.0 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** Release 2.0.0 introduces support for RIP Version 2. RIP-2 is more flexible and efficient than RIP-1. RIP-2 advertises routes using the multicast method, which can advertise to a subset of the network. (RIP-1 uses the broadcast method, which advertises to the whole network.) RIP-2 also supports Variable Length Subnet Masks (VLSMs) and a next hop field. Like RIP-1, RIP-2 allows the system to dynamically configure its own routing table. For more information, see the *Implementation Guide*.
- FTP** At Release 2.0.0, you have the option of configuring the system to use either FTP or TFTP to conduct software updates or to save and restore NV Data. The procedures in these release notes focus on using TFTP.
- Increased Number of VLANs** Release 2.0.0 supports a maximum of 64 VLANs. For more information on VLAN implementation, see the *Implementation Guide*.
- 1000BASE-SX GBIC Transceiver** Release 2.0.0 provides support for the 1000BASE-SX GBIC transceiver, which 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** At Release 2.0.0, you can configure multiple trunks before you reboot the system. In previous releases, a system reboot was required following each trunk configuration.
- Disabling of ICMP Redirect** Release 2.0.0 supports the disabling of ICMP redirect per interface.

- Broadcast Address** Release 2.0.0 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 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 menu, you now see this broadcast address as the advertisement address for the RIP interface.
- Toggling of Current Logging State** At Release 2.0.0, you can use the key combination `Ctrl-L` to enable or disable logging in a Console session. You can check the current logging state by using the `log display` command. By default, logging is enabled to the serial console session and disabled to any Telnet or modem session.
- Web Management Enhanced Capabilities** Web Management software supported these new features at Release 2.0.0:
- **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 14 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 remote users from using the WebConsole and other Web Management applications. The maximum number of trusted IP addresses that may be configured is 5, and you may specify up to 5 subnet masks to allow access by all members of a subnetwork.
- **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**

At Release 2.0, the system documentation included 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 in paper in the *Software and Documentation Kit*, in PDF format on the CD, and separately orderable 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 2.1.0” on page 28
- “System Software Known Problems at Release 2.1.0” on page 31

## Loading Your System Software

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



**CAUTION:** Before you download Release 2.1.0 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	16 MB

*If your display does not show this information, you must install Expansion Memory (3C35010) before you download Release 2.1.0. Contact your supplier or 3Com sales representative. For 3Com contact numbers, see "Technical Support" at the end of these release notes.*

You can install new software from any host that is running a Trivial File Transfer Protocol (TFTP) server. Although the procedures in this section focus on TFTP, you can also use FTP.

### *Installation overview*

To install or upgrade your system software, follow these two general steps:

- 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 CoreBuilder 3500's flash memory. See "Downloading System Software via TFTP" on page 22 for details.

### Loading on the Microsoft Windows Platform

To load the system software using 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 “Downloading System Software via TFTP” on page 22 for instructions.

### **Loading on the Macintosh OS Platform**

To load the system software using 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 “Downloading System Software via TFTP” on page 22 for instructions.

### **Loading on the UNIX Platform**

To load the system software using 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 “Downloading System Software via TFTP” next for instructions.

## Downloading System Software via TFTP

To download the system software image via TFTP, follow the procedures in this section. (You can also use FTP.)



*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 download 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 download 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, which is displayed 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 download procedure again.*

Here is an example of a successful system software download:

```
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: 7385 Kbytes
7385 Kbytes copied
```

After the software has been downloaded 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.*

- 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*. These documents are shipped with your system, and they also appear in PDF format on the *Software and Documentation CD*.

---

## 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 Unpacking Instructions*
- *CoreBuilder 3500 Quick Installation Guide*
- *CoreBuilder 3500 Getting Started Guide*
- *Command Reference Guide* — The *Software and Documentation CD* for this 2.1 release includes the most recent version of this multiplatform guide, which supersedes the 2.0 version of the guide.
- *CoreBuilder 3500 Implementation Guide*
- *CoreBuilder 3500 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* — The *Software and Documentation CD* for this 2.1 release includes the most recent version of this guide, which supersedes the 2.0 version of the 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* — The *Software and Documentation CD* for this 2.1 release includes the most recent version of this guide, which supersedes the 2.0 version of the guide.
- *PCMCIA Flash Card User Guide*
- *Blank Faceplate Installation Guide*

These documents are available in PDF format on the *Software and Documentation CD*.

## System Software Corrections at Release 2.1.0



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

*The reference numbers that appear at the end of some descriptions are for internal 3Com use only.*

- System (Telnet)*

  - If you use Telnet to access the system and terminate the Telnet session before you log in, that Telnet session no longer exists. Previously, the terminated Telnet session remained and used up one of the four Telnet sessions allowed at one time, thereby preventing Telnet access if you performed the action four times. Ref#06074
  - Telnet script terminations no longer halt IP routing because of a timing issue. Ref#06000
- System NVData*

  - The system no longer generates a nonVolatileDataMenuItems.cc, line 1064 assertion when you attempt to restore nvData that was saved from a system running a release prior to 2.0.0. Ref#05970
- System baselines*

  - VLAN statistics are now reset when you set a baseline with the command `system baseline set`. This is now also true for IP, IPX, and TCMP statistics. Ref#03918
- Trunking*

  - The transmission of 1500-byte frames out of a Gigabit Ethernet trunk on which tagging is configured no longer causes a reboot. Ref#06258
- IP*

  - Disabling the directed broadcast option no longer causes reachability problems to routes in the routing table that have a 255.255.255.255 mask. Ref#06359
  - Adding more than 250 IP static routes no longer causes a clearing of the nvData. Ref#05808
  - The system no longer reboots when it receives a partial IP fragment and the reassembly timer has expired waiting for the remaining fragments. Ref#05914
  - ARP replies are now cached when a custom filter is applied to a port. Ref#06318
  - An arp.c, line 1235, assertion no longer occurs. Ref#06142
  - Directed broadcasts now work properly for locally connected subnetworks. Ref#06076
  - RIP-2 responses no longer have incorrect values in the next hop field and no longer cause interoperability issues. Ref#06440
- OSPF*

  - OSPF can now send out Type 4 summaries when it is an area border router (ABR). Ref#06103

- OSPF and RIP have been modified to allow the user to control advertisement of the default routes. See “IP Policy Change” on page 7 in these release notes. Ref#05800
- IPX* ■ The output of the `system snapshot` Administration Console command now includes a display of IPX route and server tables. Ref#06245
- IPX server entries are now cached if they are received with different socket numbers. Ref#06405
- This release improves the performance of deleting IPX routes on a system that has a large number of servers. Ref#06043
- AppleTalk* ■ AppleTalk RTMP update messages are no longer dropped when a packet contains a tuple with a hop count of 15. Ref#06090
- NetBEUI* ■ The system no longer drops NetBEUI LLC Type 2 Polls. Ref#06386
- QoS* ■ RSVP can now be used in a production environment.
- Roving analysis* ■ An analyzer port can now detect internally generated ICMP frames that are transmitted out of the monitor port using the `ip ping`, `ip advancedPing`, `ip traceRoute`, and `ip advancedTraceRoute` commands. Reply frames received at the monitor port can be captured at the analyzer port. Ref#05754.
- RMON* ■ When you try to create RMON V2 tables on the system with the LANsentry® application, you no longer receive the LANsentry error message `Control Table error: SNMP: gen. error.` Ref#06293
- Web Management* ■ The system no longer generates a `systemMimicConfig.cc`, line 174, assertion when you launch DeviceView from the Web Management opening screen. When you configure DeviceView Status Logging, the system no longer reboots when you configure large values for the mail server address and mailing addresses. You can specify a mail server address of up to 85 characters and mailing addresses of up to 256 characters. Ref#06164
- Utilization inaccuracies in WebConsole performance have been fixed. Ref#06069
- When you configure Gigabit Ethernet ports, the Bridge/Trunk/Configuration and Bridge/Trunk/Modify forms now correctly list `TX ON` as the last FlowControl selection option (as in the Administration Console). Ref#06034

- The WebConsole no longer incorrectly returns a success response when you attempt to configure Ethernet autonegotiation on trunked Gigabit Ethernet ports. You cannot configure this parameter on trunked ports. Ref#05553
- Certain PCs running Netscape sometimes send two Web forms on one mouse click. Previously, if you added or removed an analyzer port through the WebConsole using one of these PCs, the second form sometimes caused an erroneous message which indicated that the configuration was unsuccessful, even though the configuration was completed successfully. The erroneous messages are now blocked if a second form is received by the system. Ref#05330



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

---

## System Software Corrections at Release 2.0.2

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

### *SNMP and RMON*

- SNMP get-next requests for three RMON v2 tables (addressMapTable, nIHostTable, and nIMatrixTable) 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 hostTopNControllIndex) 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 reboot 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 Release 1.2 VLAN configuration, the system now removes all ports from the VLANs that it cannot support without causing a system reboot. 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 it did in Release 1.2. This problem has been fixed in Release 2.0.2. If you were unable 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 1.2.0 to 2.0.0, the following 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, at 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 3 protocol suites in generic IPX for Release 1.2 (IPX-II, IPX-802.2, and IPX-802.3) plus the unspecified protocol. At Release 2.0.0, however, the system is able to support a minimum of 22 VLANs because of the addition of the IPX-802.2-SNAP protocol suite to the 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 previously been used to accommodate additional VLANs. It is possible that fewer VLANs may be supported with Release 2.0.0.

---

## 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, for you to use STP or TCMP on the system with allClosed 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 Release 2.0.0, this limitation has been removed.
  - The `noRxbuffers` counter, which incorrectly 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 2.1.0

The following system issues are identified at this release:

- General*
  - To revert from a 2.x release to Release 1.2.0 when you have one or more FDDI modules installed, be sure to remove the FDDI modules.
  - A delay of approximately 30 seconds may occur when you exchange GBIC transceivers.
  - You cannot move a PCMCIA card from one chassis to another without causing a loss of the configuration data on the PCMCIA card. Ref#06217
  - 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.
- System*
  - The **SYS** LED on the system processor no longer lights if the system processor fails at power up.
  - The addressThreshold trap does not respond at this release.
  - The serial port receives error messages from user interfaces at this release (including a 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 is `disabled`.
- System NVData*
  - Do not attempt to restore `nvData` that was saved from a system running a release prior to 2.0.0.
  - You cannot perform an `nvData reset` while you are using Telnet to access the system.
- System baselines*
  - 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`. Ref#06374
- 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.

- 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.
- Packet filtering*
  - When you make multiple port filter assignments through SNMP, you may see an SNMP operation that returns a bad value.
  - When you select a packet processing path, the `all` option includes the `rxl` (`rxInternal`) path. Be careful not to select `all` unless you want to include the `rxl` path as well as all other paths. Ref #06395
- Trunking*
  - When you hot swap modules of different media types, you must first remove trunks that have been configured on the affected module.
  - 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.
- IP*
  - Pinging to or from the CoreBuilder 3500 may take from 5 to over 200 milliseconds.
  - 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. If you have defined an out-of-band interface, you must attach the out-of-band Ethernet port to your network.
- QoS*
  - To add a new QoS nonflow classifier, you must delete one or more (unrequired) nonflow classifiers in the range of 400 through 498.
  - 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.

- 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.
- RMON*
  - To receive RMON-2 updates, you must manually set the VLAN protocol type that you want to monitor on the selected port.
- Roving analysis*
  - An external remote roving analysis port (RAP) is not supported.
- 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 2.1.0



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

*The reference numbers that appear at the end of some descriptions are for internal 3Com use only.*

### General

- 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.

- You cannot restore nvData from the system menu using FTP as the protocol. To restore nvData from the system menu, use TFTP.

### 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.

### Bridging

- If the bridge address table is full, it may take a while to flush the address table. During the flush operation, the Administration Console is temporarily frozen, but once the flush operation is complete, console activity resumes normally. Ref#06126

- Associated bridge port detail statistics do not increment 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.

### Trunking

- Consider the following trunk configuration:
  - `allClosed` is mode enabled on the system.
  - The trunk is tagged.
  - Both Spanning Tree and the trunking protocol TCMP are enabled.

In this configuration, a link state change (for example, when you disconnect and then reconnect a trunk cable between two CoreBuilder 3500 systems) prevents a trunk from coming up until TCMP is disabled. Ref#06170

- Deleting a trunk may cause your system to reboot if you are using SNMP to poll the trunk being deleted. Stop the SNMP polling and try to delete the trunk again. Ref#06489
- If you have FDDI DAS ports that precede any trunk ports on the system (that is, if the FDDI DAS ports have lower port numbers than other trunks), the statistics portion of the trunk detail information may show incorrect port numbering. The correct port numbering is shown in the first portion of the trunk detail display (which displays the trunk state and TCMP state). Ref#06360
- 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.

*VLANs (GVRP and RAP)*

- 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.

*IP*

- The IP interface statistic `inDiscards` is always zero, it never increments. Ref#05990

*IPX*

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

*QoS*

- If you define an IP VLAN and then define a QoS control to block broadcast traffic, broadcast traffic is not blocked if an IP routing interface is bound to that VLAN. Ref#06437
- RSVP might not allow you to utilize the full bandwidth that is available. Ref#06376
- RSVP wildcard filter reservations do not reach the sender. Ref# 06415
- 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*
  - There is no SNMP support for the AppleTalk Interface Count MIB (a3ComSysAppleTalkInterface3ComSysInterfaceCount). Ref#05994.
  - 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.
- Roving analysis*
  - If you define a VLAN *after* you define an analyzer port and monitor port, the following conditions prevent the frames that leave the analyzer port from having the correct tagging information:
    - If the VLAN includes the monitor port but not the analyzer port  
AND
    - The analyzer port has a higher port number than the monitor portTo avoid this problem, remember to include both the monitor port and the analyzer port in the VLAN. Ref#05805
  - When you are monitoring an FDDI port, frames larger than 1520 are not sent out of the analyzer port. Ref#05845
  - When you are monitoring a Gigabit Ethernet port, some of the traffic that is processed by the system software is not sent out of the analyzer port. Ref#05848
- Web Management*
  - The WebConsole system snapshot detail function does not print out all of the required information. To gather the required snapshot information, issue the `system snapshot detail` command from a Telnet or local Administration Console session. Ref#06151
  - If you enter incorrect or incomplete information in a configuration step of the Web Management interface and then attempt to go on to the next configuration step, the system directs you to return to the previous configuration step. In this case, you may lose the information you supplied in the previous configuration step and must reenter all 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 WebConsole IP Route Display option.
- 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.
- 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	<ul style="list-style-type: none"> <li>■ 412 m (half-duplex)</li> <li>■ 2 km (full-duplex)</li> </ul>
1000BASE-SX	1000 Mbps	multimode fiber	SC	62.5 micron: <ul style="list-style-type: none"> <li>■ 200 m @ 160 MHz modal bandwidth</li> <li>■ 260 m @ 200 MHz modal bandwidth</li> </ul> 50 micron: <ul style="list-style-type: none"> <li>■ 525 m</li> </ul>
1000BASE-LX GBIC	1000 Mbps	single-mode fiber	GBIC	9 micron:
		multimode fiber	Duplex SC conditioned launch cable	<ul style="list-style-type: none"> <li>■ 10 km</li> </ul> 62.5 and 50 micron: <ul style="list-style-type: none"> <li>■ 550 m</li> </ul>
1000BASE-SX GBIC	1000 Mbps	multimode fiber	GBIC	62.5 micron: <ul style="list-style-type: none"> <li>■ 200 m @ 160 MHz modal bandwidth</li> <li>■ 260 m @ 200 MHz modal bandwidth</li> </ul> 50 micron: <ul style="list-style-type: none"> <li>■ 525 m</li> </ul>

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

- In the VLAN chapter of the *CoreBuilder 3500 Implementation Guide* (Chapter 9), add or change the following information:
  - 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 currently supported.*

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 lp.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. Any restrictions are listed with the associated compiler.

- HP Openview (version 3.1)
- SunNet Manager (version 2.0)
- SMIC (version 1.0.9)
- MOSY (version 7.1)
  - For the MIB file 3cfdi.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 provides the release history of the CoreBuilder 3500 system software.

**Table 1** Release History for System Software

Release Number	Description of Release
2.1.0	<p>Seventh release of the CoreBuilder 3500 system software.</p> <p><b>Release features:</b></p> <ul style="list-style-type: none"><li>■ Performance improvements for IPX route aging</li><li>■ Diagnostics functionality on cold boots</li><li>■ New configurable timers for ICMP router discovery</li><li>■ IP policy change</li><li>■ IP static sink default route</li><li>■ Additional packet filtering</li><li>■ Baseline statistics for IPX, trunks, and VLANs</li><li>■ Display of TTL values for IP and IPX routes</li><li>■ System display changes</li><li>■ VLAN aware mode</li><li>■ Software corrections</li></ul>
2.0.2	<p>Sixth release of the CoreBuilder 3500 system software.</p> <p><b>Release features:</b></p> <ul style="list-style-type: none"><li>■ IPX SAP advertising (per interface)</li><li>■ Increased IPX SAP capacity</li><li>■ Software corrections</li></ul>

**Table 1** Release History for System Software (continued)

Release Number	Description of Release
2.0.0	<p>Fifth release of the CoreBuilder 3500 system software.</p> <p><b>Release features:</b></p> <ul style="list-style-type: none"><li>■ FDDI module</li><li>■ IP fragmentation</li><li>■ IPX SNAP translation</li><li>■ Port trunking over FDDI and Gigabit Ethernet</li><li>■ New custom filters</li><li>■ IP route policies</li><li>■ ARP proxy</li><li>■ IEEE 802.1Q tagging enhanced</li><li>■ RIP Version 2</li><li>■ FTP</li><li>■ Increased number of VLANs</li><li>■ 1000BASE-SX GBIC transceiver</li><li>■ Single reset trunk configuration</li><li>■ Disabling of ICMP redirect</li><li>■ Broadcast address</li><li>■ Toggling of current logging state (using Ctrl + L)</li><li>■ Web Management enhanced capabilities</li><li>■ New documentation</li><li>■ Software corrections</li></ul>
1.2.0	<p>Fourth release of the CoreBuilder 3500 system software.</p> <p><b>Release features:</b></p> <ul style="list-style-type: none"><li>■ Support for the 1000BASE GBIC module (LX support)</li><li>■ Support for configuring multiprotocol 802.1Q VLANs</li><li>■ Additional IPX options:<ul style="list-style-type: none"><li>– ipx NetBIOS</li><li>– ipx secondary</li><li>– ipx route secondary</li><li>– ipx server secondary</li></ul></li><li>■ Software corrections</li></ul>

**Table 1** Release History for System Software (continued)

Release Number	Description of Release
1.1.1	<p data-bbox="648 317 1205 341">Third release of the CoreBuilder 3500 system software.</p> <p data-bbox="648 357 1258 381"><b>Base Plus Extended System Software Release features:</b></p> <ul data-bbox="648 397 1236 487" style="list-style-type: none"> <li data-bbox="648 397 1236 449">■ Read/Write access and Administer password no longer available through the SNMP MIB variable</li> <li data-bbox="648 465 891 487">■ Software corrections</li> </ul>
1.1.0	<p data-bbox="648 513 1229 538">Second release of the CoreBuilder 3500 system software.</p> <p data-bbox="648 553 1093 578"><b>Base System Software Release features:</b></p> <ul data-bbox="648 593 1143 1100" style="list-style-type: none"> <li data-bbox="648 593 936 618">■ IP routing (OSPF support)</li> <li data-bbox="648 633 986 657">■ IPv4 multicast DVMRP routing</li> <li data-bbox="648 673 936 697">■ IGMP version 2 snooping</li> <li data-bbox="648 713 768 737">■ RMON-1</li> <li data-bbox="648 753 1079 777">■ Gigabit Ethernet 1000BASE-SX module</li> <li data-bbox="648 793 815 817">■ Port trunking</li> <li data-bbox="648 833 951 857">■ Port group packet filtering</li> <li data-bbox="648 873 1143 897">■ IEEE 802.1Q tagging for bridging and routing</li> <li data-bbox="648 913 1072 937">■ Address table per VLAN (closed VLAN)</li> <li data-bbox="648 953 951 977">■ Simplified port numbering</li> <li data-bbox="648 992 836 1017">■ Roving analysis</li> <li data-bbox="648 1032 936 1057">■ Web-based management</li> <li data-bbox="648 1072 891 1097">■ Software corrections</li> </ul> <p data-bbox="648 1112 1258 1137"><b>Base Plus Extended System Software Release features:</b></p> <p data-bbox="648 1152 1068 1177">Everything in Base System Software, plus:</p> <ul data-bbox="648 1192 1272 1447" style="list-style-type: none"> <li data-bbox="648 1192 772 1216">■ RMON-2</li> <li data-bbox="648 1232 793 1256">■ IPX routing</li> <li data-bbox="648 1272 865 1296">■ AppleTalk routing</li> <li data-bbox="648 1312 943 1336">■ RSVP for 10/100 Ethernet</li> <li data-bbox="648 1352 1272 1404">■ Quality of Service: Static bandwidth reservation (RSVP) for 10/100 Ethernet</li> <li data-bbox="648 1420 891 1444">■ Software corrections</li> </ul>

**Table 1** Release History for System Software (continued)

Release Number	Description of Release
1.0.0	<p>First release of the CoreBuilder 3500 system software.</p> <p><b>Release features:</b></p> <ul style="list-style-type: none"><li>■ 10/100BASE-TX module</li><li>■ 100BASE-FX module</li><li>■ IP routing (RIP support)</li><li>■ Multicast packet firewall to limit broadcast storms</li><li>■ SNMP MIB management</li><li>■ Spanning Tree Protocol</li><li>■ Protocol-based VLANs</li><li>■ traceRoute</li><li>■ DNS client</li></ul>

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## Technical Support

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

Information contained in this section is correct at time of publication. For the most recent 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 Knowledgebase Web Services
- 3Com FTP site
- 3Com Bulletin Board Service (3Com BBS)
- 3Com Facts<sup>SM</sup> Automated Fax Service

### World Wide Web Site

To access the latest networking information on the 3Com Corporation World Wide Web site, enter this URL into your Internet browser:

<http://www.3com.com/>

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

### **3Com Knowledgebase Web Services**

This interactive tool contains technical product information compiled by 3Com expert technical engineers around the globe. Located on the World Wide Web at <http://knowledgebase.3com.com>, this service gives all 3Com customers and partners complementary, round-the-clock access to technical information on most 3Com products.

### **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**
- 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 5977 7977
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, call the following number:

**1 847 262 6000**

### **3Com Facts Automated Fax Service**

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

Call 3Com Facts using your Touch-Tone telephone:

**1 408 727 7021**

**Support from Your Network Supplier**

If you require additional assistance, 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, 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

Here is a list of worldwide technical telephone support numbers:

Country	Telephone Number	Country	Telephone Number
<b>Asia Pacific Rim</b>			
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:	00798 611 2230
Malaysia	1800 801 777	From Seoul:	3455 6455
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		
<b>Europe</b>			
From anywhere in Europe, call: +31 (0)30 6029900 phone			
+31 (0)30 6029999 fax			
From the following countries, you may use the toll-free numbers:			
Austria	0800 297468	Netherlands	0800 0227788
Belgium	0800 71429	Norway	800 11376
Denmark	800 17309	Poland	00800 3111206
Finland	0800 113153	Portugal	0800 831416
France	0800 917959	South Africa	0800 995014
Germany	0800 1821502	Spain	900 983125
Hungary	00800 12813	Sweden	020 795482
Ireland	1800 553117	Switzerland	0800 55 3072
Israel	1800 9453794	U.K.	0800 966197
Italy	1678 79489		
<b>Latin America</b>			
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
<b>North America</b>			
Enterprise Customers:			
1 800 876-3266			

## Returning Products for Repair

Before you send a product directly to 3Com for repair, you must first obtain an authorization number. Products sent to 3Com without authorization numbers will be returned to the sender unopened, at the sender's expense.

To obtain an authorization number, call or fax:

Country	Telephone Number	Fax Number
Asia, Pacific Rim	65 543 6500	65 543 6348
Europe, South Africa, and Middle East	+ 31 30 6029900	+ 31 30 6029999
From the following countries, you may call the toll-free numbers; select option 2 and then option 2:		
Austria	0800 297468	
Belgium	0800 71429	
Denmark	800 17309	
Finland	0800 113153	
France	0800 917959	
Germany	0800 1821502	
Hungary	00800 12813	
Ireland	1800553117	
Israel	1800 9453794	
Italy	1678 79489	
Netherlands	0800 0227788	
Norway	800 11376	
Poland	00800 3111206	
Portugal	0800 831416	
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	Enterprise Customers: 1 800 876-3266	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>