



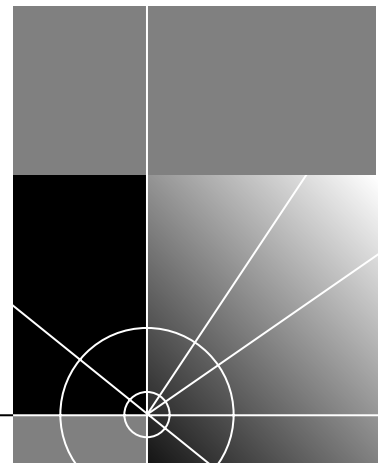
CoreBuilder® 9000 Release Notes

Management Modules, Release 3.0.5

- Enterprise Management Engine (3CB9EME)
- Enterprise Management Controller (3CB9EMC)

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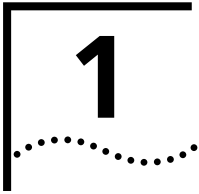
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OVERVIEW

These release notes summarize operational requirements and issues for the CoreBuilder® 9000 Enterprise Management Engine software Release 3.0.5.

Important Notices

Read these important notices before you begin.



CAUTION: CoreBuilder 9000 software Release 3.0.5 requires that the Enterprise Management Engine (EME) have 20 MB of CPU RAM. To determine the CPU RAM size, enter **show eme** from the EME command line interface. The CPU Ram Size (MB) field on the left side of the screen indicates the amount of CPU RAM: 8 or 20.

If your EME has 8 MB of CPU RAM, you must replace one of the 4 MB DRAM cards in your EME with a 16 MB DRAM card. Contact your network supplier or 3Com representative for information about how to obtain a 16 MB DRAM memory card.



CAUTION: Except for the Enterprise Management Controller (EMC) boot and operational files and the Enterprise Management Engine (EME) boot file, you must upgrade all the modules in the CoreBuilder 9000 chassis, including the EME modules, to major software Release 3.0.5. You cannot run Release 3.0.5 software on some modules and not on other modules.

The controller boot file for the EMC remains at software Release 2.1.0. The EME boot file remains at Release 3.0.0.

See "Installation and Upgrade Prerequisites" in Chapter 4 "Software Installation", for information about how to determine the software release on each module in the chassis.



CAUTION: Before you attempt to download any module software, save the configuration file for the software release that you are currently running to an external device using the `EME upload` command. See the CoreBuilder 9000 Enterprise Management Engine User Guide for an explanation of how to use the `EME upload` command.

Supported Modules

This software applies to the following 3Com CoreBuilder 9000 modules:

- 9-port Gigabit Ethernet (GEN) Switch Fabric Module (Model Number 3CB9FG9)
- 24-port Gigabit Ethernet (GEN) Switch Fabric Module, 4 trunks (Model Number 3CB9FG24)
- 24-port Gigabit Ethernet (GEN) Switch Fabric Module, 12 trunks (Model Number 3CB9FG24T)
- 2-port 1000BASE-SX Gigabit Ethernet (GEN) Interface Module (Model Number 3CB9LG2MC)
- 2-port 1000BASE-LX Gigabit Ethernet (GEN) Interface Module (Model Number 3CB9LG2SC)
- 4-port Gigabit Ethernet (GEN) Interface Module (GBIC) (Model Number 3CB9LG4)

Table 1 describes the modules in more detail.

Table 1 Module Descriptions

Module	Model Number	Description
9-port Gigabit Ethernet (GEN) Switch Fabric Module	3CB9FG9	<p>This switch fabric module is designed for use in the CoreBuilder® 9000 7-slot chassis and 8-slot chassis. The module has six non-blocking Gigabit Ethernet ports that connect directly to the chassis backplane to provide high-speed, low-latency connectivity between CoreBuilder 9000 interface modules.</p> <p>Its front panel features three non-blocking Gigabit Interface Converter (GBIC) interface ports that accept SX or LX GBIC transceivers.</p>
24-port Gigabit Ethernet (GEN) Switch Fabric Module, 4 Trunks	3CB9FG24	<p>The 24-port Gigabit Ethernet (GEN) Switch Fabric Module is the central backplane aggregator for the CoreBuilder 9000 Enterprise Switch. The GEN Switch Fabric Module has 24 non-blocking Gigabit Ethernet ports on the backplane for high-speed, low-latency interconnectivity between CoreBuilder 9000 interface modules.</p> <p>Model Number 3CB9FG24 provides up to 4 trunk groups, while Model Number 3CB9FG24T provides up to 12 trunk groups. Both modules support the new Auto Mapping feature for software Release 3.0.</p>
24-port Gigabit Ethernet (GEN) Switch Fabric Module, 12 Trunks	3CB9FG24T	
2-port 1000BASE-SX Gigabit Ethernet (GEN) Interface Module	3CB9LG2MC	<p>These 2-port interface modules for the CoreBuilder 9000 Enterprise Switch have two Gigabit Ethernet, full-duplex, fiber-optic ports on the front panel. Each front panel port connects to a dedicated, non-blocking, redundant, Gigabit Ethernet backplane channel.</p> <p>These modules serve as a 2-gigabit data channel between the Gigabit Ethernet Switch Fabric Module and other 802.3z-compliant Gigabit Ethernet devices. These modules have no software and are supported by the switch fabric module.</p>
2-port 1000BASE-LX Gigabit Ethernet (GEN) Interface Module	3CB9LG2SC	
4-port Gigabit Ethernet (GEN) Interface Module (GBIC)	3CB9LG4	<p>This GEN interface module is a 4-port interface for gigabit rate data between the CoreBuilder 9000 Enterprise Switch chassis backplane and other 802.3z-compliant Gigabit Ethernet devices. The GEN interface module is recommended for the 7-slot chassis and 8-slot chassis with 24-port Gigabit Ethernet (GEN) Switch Fabric Module (Model Number 3CB9FG24 or 3CB9FG24T).</p> <p>The front panel features four Gigabit Interface Converter (GBIC) interface ports that accept SX or LX GBIC transceivers. These GBIC transceivers provide Gigabit Ethernet downlinks into the chassis. This module has no software and is supported by the switch fabric module.</p>

System Requirements

Each CoreBuilder 9000 Enterprise Switch has the following minimum system requirements:

- One switch fabric module installed in the CoreBuilder 9000 chassis with appropriate software:
 - For all CoreBuilder 9000 chassis: One 24-port Gigabit Ethernet Switch Fabric Module (Model Number 3CB9FG24 or Model Number 3CB9FG24T)
 - For the CoreBuilder 9000 7-slot chassis or 8-slot chassis: One 9-port Gigabit Ethernet Switch Fabric Module (Model Number 3CB9FG9)
- One Enterprise Management Engine (Model Number 3CB9EME) installed in the CoreBuilder 9000 chassis with appropriate software



CAUTION: Except for the Enterprise Management Controller (EMC) boot and operational files and the Enterprise Management Engine (EME) boot file, you must upgrade all the modules in the CoreBuilder 9000 chassis, including the EME modules, to major software Release 3.0.5. You cannot run Release 3.0.5 software on some modules and not on other modules.

Boot Code and Operational Code

Table 2 lists the minimum compatible software releases for the switch fabric modules and management modules that are required for operation with any other modules that have software Release 3.0.5 installed.

Table 2 Software Compatibility Requirements for Switch Fabric Modules

Module Name	Model Number	Minimum Software Requirements	Filename
24-port Gigabit Ethernet Switch Fabric Module, 4 trunks	3CB9FG24	3.0.5	fga2430005.all
24-port Gigabit Ethernet Switch Fabric Module, 12 trunks	3CB9FG24T	3.0.5	fga24t30005.all
9-port Gigabit Ethernet Switch Fabric Module	3CB9FG9	3.0.5	fg930005.all
Enterprise Management Engine (EME)	3CB9EME	Management boot code 3.0.0	eme30000.bt
		Management operational code 3.0.5	eme30005.op
		Controller boot code 2.1.0	emcv20100.bt
		Controller operational code 3.0.0	emc30000.op
Enterprise Management Controller (EMC)	3CB9EMC	Controller boot code 2.1.0	emcv20100.bt
		Controller operational code 3.0.0	emc30000.op

Optional Switch Fabric Module Redundancy

In the CoreBuilder 9000 8-slot chassis and 16-slot chassis, you can install two identical Gigabit Ethernet Switch Fabric Modules to provide high availability operation.



CAUTION: *If you install a second Gigabit Ethernet Switch Fabric Module for redundancy, it must be the identical type of module as the one that is currently installed and must be running the same version of software. For more information about switch fabric module high availability, see the 9-Port Gigabit Ethernet Switch Fabric Module Quick Start Guide for the CoreBuilder 9000 Enterprise Switch, and the 24-Port Gigabit Ethernet Switch Fabric Module Quick Start Guide for the CoreBuilder 9000 Enterprise Switch.*

Optional Management Redundancy

The required Enterprise Management Engine (EME) provides both management and controller functions in the chassis. To have high availability management and controller functions in any chassis type (7-slot chassis, 8-slot chassis, and 16-slot chassis), install a second EME. To have only high availability controller functions in any chassis type, install an Enterprise Management Controller (EMC) in addition to the required EME.



2

RELEASE HIGHLIGHTS

This chapter describes new features introduced in software releases 3.0.5 and 3.0.0. Software Release 3.0.5 includes all new features introduced in Software Release 3.0.0.

This chapter contains the following sections:

- New Features in Software Release 3.0.5
- New Features in Software Release 3.0.0

New Features in Software Release 3.0.5

In Software Release 3.0.5, the command interface for managing SNMP traps has changed and new features have been added for filtering (enabling or disabling) link state, topology change, and authentication traps.

Trap Filtering

In Software Release 3.0.5, the command interface for managing SNMP traps has changed and new features have been added for filtering (enabling or disabling) link state, topology change, and authentication traps.

Trap Filters

These trap filters are available:

- `set snmp trap filter link_state`

Enables or disables the generation of link state traps. A bridge sends a link state trap when one of its configured ports transitions from the Up state to the Down state, or from the Down state to the Up state.
- `set snmp trap filter topology_change`

Enables or disables the generation of topology change traps, which are sent by a bridge when one of its ports moves from the Learning State to the Forwarding state, or from the Forwarding state to the Blocking state.

The trap is not sent if a newRoot trap is sent for the same transition. If you disable topology change traps, you will still see newRoot traps which indicate that the sending agent has become the new root of the Spanning Tree.

n `set snmp trap filter authentication`

Enables or disables the feature that sends an alert to the management workstation when someone tries to gain access to the EME, and the IP address or community name is not valid for the attempted read or write operation.

Managing Traps

In Software Release 3.0.5, the command interface for managing SNMP traps has changed. These commands are affected:

- n `set snmp trap`
- n `show snmp`
- n `clear snmp`

The `set snmp trap` command enables you to configure trap destinations, filters, and trap receive settings.

```
set snmp trap
```

<code>destination</code> <code><community></code>	Set the trap destination. The system prompts for an IP address.
<code>filter</code>	
<code>link_state</code> <code>enable</code> <code>disable</code>	Enables or disables the generation of link state traps.
<code>topology_change</code> <code>enable</code> <code>disable</code>	enables or disables the generation of topology change traps.
<code>authentication</code> <code>enable</code> <code>disable</code>	enables or disables the generation of authentication traps.

```
receive
  enable
  disable
```

As a trap receiver, the EME receives traps from other SNMP devices, including other CoreBuilder 9000 modules, that have the EME IP address in their community table.

You can specify the network management stations that receive alerts from the EME. To do so, you must create a new community table entry for each network management station.

Note that SNMP traps are transmitted only through an in-band IP routing interface.

The `show snmp` command displays the status of the SNMP trap configuration and extensions.

```
show snmp
  trap

  extensions
```

Displays the status of the trap receive setting and link state, topology change, and authentication trap filters. Displays an index of trap destinations

The `clear snmp` command clears SNMP trap destinations.

```
clear snmp
  trap_destination
    all
    <index>
```

Clears trap destinations. You can clear all trap destinations or use an index number from the table displayed by `show snmp trap`.

New Features in Software Release 3.0.0

The Software Release 3.0.0 includes the following changes:

- Web-based Management
- ISO Date and Time Format
- Management Redundancy
- MAC Address Distribution
- Trusted IP
- Simple Network Time Protocol (SNTP)
- Daylight Saving Time Support
- Time Zone Support
- Enhanced EME Reset Commands
- Enhanced EME Web Management Commands

Web-based Management

Software Release 3.0.0 supports the Web Management suite of features, which consists of embedded Web Management applications and installable tools:

- **Embedded Web Management applications** — Use the embedded Web Management applications, which are part of the system software image, for most of your device configuration and management tasks. You can manage a single port or device, or, using multiple windows, you can manage multiple devices. This software contains:
 - **WebConsole** — An HTML-based set of configuration forms.
 - **DeviceView** — A Java-based application that displays a real-time image of the device. You can manage each port or module, or the entire system, by clicking the part of the image that you want to manage.
 - **Help** — Access to the configuration form on which you set up the installable Help, as well as access to links to support information on the 3Com Web site.

- n **Installable tools** — The following optional tools are available from the *Software CD*:
 - n **DeviceView accessories** — To set up e-mail notification for Status Logging.
 - n **WebManage Framework** — To group your access links to the devices that you manage.
 - n **Filter Builder** — To create filters for packets on your Layer 3 switching modules only.
 - n **Form-specific Help** — To access hypertext information about the fields in the WebConsole and DeviceView applications.

For information about how to install and use the Web Management applications, see the *Web Management User Guide for the CoreBuilder 9000 Enterprise Switch*.

ISO Date and Time Format

The format for date and time has changed for Release 3.0.0 to the following syntax and now complies with ISO 8601:

YYYY-MM-DDThh:mm:ss

Table 3 Date and Time

Format	Description
YYYY	Year (1999 – 2098)
MM	Month (01 – 12)
DD	Day (01 – 31)
T	Time designator (the literal character “T”)
hh	Hour (00 – 24)
mm	Minute (00 – 59)
ss	Second (00 – 59)

Example: 2000-02-05T03:25:34

Management Redundancy

EME redundancy is available only if you install two EME modules in the chassis. In software Release 3.0.0, you no longer need to configure EMEs for redundancy via mastership priority. If two EMEs with the same configuration are running software Release 3.0.0, the EME that is installed in the lower-numbered slot is the *Primary* management module (formerly referred to as the *Master*). The EME in the higher-numbered slot is the *Secondary* (formerly referred to as the *Slave*).

MAC Address Distribution

MAC address distribution provides MAC addresses to redundant modules that require them. Each CoreBuilder 9000 chassis is assigned a set of MAC addresses that are distributed to each set of modules that act as redundant pairs. Each module in the set is assigned the same set of MAC addresses.



The EME front panel Ethernet port MAC address changes after you upgrade from software Release 2.1.0 to software Release 3.0.0. Use the `show interface` command to view the MAC address that the port utilizes after you download software Release 3.0.0.

In the case of the EME, the front panel Ethernet ports for both the Primary and Secondary EMEs are assigned the same MAC address. In the event of a Primary EME failover, the Secondary EME becomes active with its front panel Ethernet port configured identically to the former Primary EME front panel Ethernet port.

Trusted IP

Trusted IP provides the ability to limit IP management access to the chassis. To limit IP management access, you can configure up to five IP addresses with five associated address masks. These five configured IP addresses are called *trusted IP clients*. If an IP address is not within the trusted IP client list, that IP address is denied access to the system. You can use each address mask to allow all addresses on a particular subnetwork to have trusted access to the chassis.



CAUTION: *The factory setting for the Trusted IP state is `disable`. Do not attempt to change this setting to `enable` unless you have IP addresses configured or unless you want to disable all chassis management access except through the EME serial port. Setting the Trusted IP state to `enable` without configuring any trusted IP addresses disables management access through Telnet, SNMP, and the Web.*

Simple Network Time Protocol (SNTP)

SNTP is an adaption of the Network Time Protocol (NTP), which is used to synchronize computer clocks in the global Internet. For more information about how NTP and SNTP works, see the following specifications:

- RFC 1305 — Network Time Protocol, v3.0
- RFC 2030 — Simple Network Time Protocol, v4.0

The EME implements SNTP to accept time synchronization from an SNTP server. You can define up to three servers. SNTP synchronizes the system time across many devices.

Daylight Saving Time Support

You can set the Daylight Saving Time for your area through the EME in software Release 3.0.0. The `daylight_saving_time` option is listed under the EME's `set clock` command. You can enable daylight saving time (`disable` is the default), and select a daylight saving time period for your location.

Time Zone Support

You can select a time zone for your location using the `time_zone` option that is listed under the EME's `set clock` command. The default is no time zone, local time represented.

Entering the `set clock time_zone` command displays the current time zone table, with time zone indexes and the time zone identifiers, then prompts you to select a time zone index.

This command is explained in detail in "Documentation Changes" in Chapter 3, "Release Issues".

Enhanced EME Reset Commands

The EME `reset` command has been enhanced to provide warm and cold reset. These enhancements are explained in detail in "Documentation Changes" in Chapter 3, "Release Issues".

Enhanced EME Web Management Commands

The EME `set web` command has been enhanced to provide a mechanism to disable Web access to a CoreBuilder 9000 chassis. The `show web` command has been enhanced to show the Web access setting. These commands are explained in detail in "Documentation Changes" in Chapter 3.

3

RELEASE ISSUES

This chapter discusses the following issues for software Release 3.0.5:

- Corrected Problems in Release 3.0.0
- Corrected Problems in Release 3.0.5
- Operating Considerations
- Known Problems
- Documentation Changes

Corrected Problems in Release 3.0.0

This section discusses problems that have been corrected in software Release 3.0.0.



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

- The condition that caused the EME to excessively ARP from its 10BASE-T port when you inserted it into a multinetted subnetwork has been corrected. (27009)
- The EME no longer deletes the module's BladeConfig.X.Y file from the file system when you use the default filename with the `upload` command. (23456)
- If you have two switch fabric modules in the chassis and one is not functioning properly, you can use the `set power slot <slot> mode disable` command to power off the switch fabric module that is not functioning correctly instead of physically removing the module from the chassis. (23135)
- When you enter the `show module <slot>.<subslot> verbose` command and the supported files field displays `none`, you no longer have to reset the module. The supported file types appear after the module comes up.

- After you reset the chassis, and during the system start-up procedures, the system may display the following message: os socket err. You can ignore this message. The system continues the start-up procedures as usual.
- You no longer see an os socket err message while the EME is processing multiple commands over a Telnet session and the time to process the command has been reduced.
- The EME now recognizes all file types. In previous releases, if you were going to hot swap a module, or download software to a module, the EME sometimes did not recognize certain file types.
- The EME deletes a software image from its file system after successfully downloading software to a switching module from an external file server.
- Transcend ® network management software now correctly interprets SNMP trap information. (29657)
- Bursty multicast or broadcast traffic no longer causes EME performance problems. (24014 and 27383)
- The EME no longer redirects broadcast frames to its default gateway. (27142)
- The EME password no longer reverts back to the default password after a reset of the switch fabric module and a switchover to the redundant EME. (29077)

Operating Considerations

This section describes operating considerations that apply to software Release 3.0.5.



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

EME Management Module

- The Chassis Reset button functions only on the management module with the active EMC. The active EMC is indicated by the module with the illuminated Active LED.
- Do not attempt to perform any management tasks while you are downloading software.
- While you are downloading or uploading a file, do not close the console window that you used to execute the command. If you use a script to execute the command, do not halt the script.

- If you are planning to transfer several software load image files consecutively with the `download` command, ensure that adequate space is available in the EME file system before you begin each of the file transfers.

To determine whether there is adequate file space, enter the `show file` command.

If the value in the Number of bytes available field is less than the size of the file to be transferred, do not begin the file transfer. Use the `clear file` command to delete unneeded files until the value in the number of bytes available field is adequate. If you attempt the transfer without adequate space available, the transfer will fail.

- To gain access to the EME command interface, the system prompts you for a username and password. The default username is `admin` (lowercase), but there is no default password. The first time that you log in, simply press Enter at the password prompt.
- To define a password for your EME, use the `set login password` command. After you enter the password, the EME user interface prompts you to reenter it to verify it.
- When you create the *system* name through the Administration Console command line interface, you can use spaces in the name and no quotation marks are required. However, when you create a module name that contains spaces, then you must use quotation marks around the module name. 3Com recommends that you not use spaces for the module name.

Web-based Management

- You need to click some security windows in the Web Management interface twice for the browser to accept the information. (24806)
- If you use Netscape as your browser, you must install the Help files on an external server, not on a local PC. For instructions on how to install and configure Help for the Netscape browser, see “Documentation Changes” later in this chapter. (29490)

Known Problems

This section describes problems that are known to exist in software Release 3.0.1 and 3.0.5.

EME Management Module

- If you attempt to enable a Serial Line Internet Protocol (SLIP) interface before you have properly configured the SLIP interface and the terminal port, the EME returns `UT_ERR`. This is not a standard 3Com error message.

To properly configure SLIP, see “Documentation Changes” later in this chapter.

- The EME incorrectly displays the following message when you set the `servdiag` loop count to 0 with the `set servdiag 2.1 loop_cnt 0` command:

```
Test may take up to 2 minutes and 0 seconds
Do you wish to continue (y/n):
```

The `servdiag` test runs forever, as it is designed to do when you set the loop count to 0 (not up to 2 minutes). (30015)

- The EME may incorrectly display the following error message after you reset the EME with SNTP enabled:

```
SNTP client error
```

This is not a valid error message under these conditions; there is no problem with the SNTP client. (29808)

- After you set the clock to 24:00:00 to indicate midnight, the EME sets the clock to 00:00:00 of the same day rather than the next day. You can specify the next day in the date field with the EME `set clock date_time` command. (29835)
- The EME command line interface does not accept a user-defined GMT offset when you select the user-defined time zone setting (`set clock time_zone 28-Input_an_offset_from_GMT` command). You can set a user-defined time zone with a GMT offset through the WebConsole. (29853)
- When downloading v3.0.0 code or higher, you must use the `all_image` command. Selecting any other option causes an incomplete download. (30404)
- In configurations with two 9 port GEN Switch Fabric Module (Part Number 3CB9FG9) with no GBICs installed, the EME may report error messages stating that there is an error with the GBICs when the

secondary FGA fails over to become the primary. Please disregard these messages. (30278)

- With a redundant EME configuration using dual 10BaseT ports connected to a SuperStack II Switch 3900, in the event of a failover, the secondary EME does not automatically send traffic. You must wait until the old Primary EME MAC address has aged out of the address table of the SuperStack II or clear the PC ARP cache before the new Primary EME is accessible via it's ethernet port. (30199)
- The DeviceView application incorrectly displays a power supply in an 8-slot or a 16-slot chassis in the wrong orientation if you start DeviceView with the power supply turned off. (29843)

Web-based Management

Documentation Changes

This section describes information that is either incorrect or not documented in the indicated CoreBuilder 9000 EME module documentation. Note that other CoreBuilder 9000 release notes contain issues that apply to their specific modules.

Ethernet

In Chapter 5 "Ethernet" of the *CoreBuilder 9000 Implementation Guide*, Table 16, Ethernet Media Specifications, on page 93, the Recommended Distance column for the 100BASE-FX multimode fiber should read 41.2 m, not 412 km.

Enterprise Management Engine

The following command is not documented in either the *CoreBuilder 9000 Enterprise Management Engine User Guide* or the *CoreBuilder 9000 Enterprise Management Engine Command Quick Reference* booklet:

- `set trap_destination` – Use this command to set a Simple Network Management Protocol (SNMP) trap to a specific destination. The correct syntax for this command is:

```
> set snmp trap destination <community> <number>
```

Where `<community>` is the community string of the selected trap where you want to send the trap and `<number>` is the IP address of the trap receiver.

The following are new EME commands for this release and are not documented in either the *CoreBuilder 9000 Enterprise Management Engine User Guide* or the *CoreBuilder 9000 Enterprise Management Engine Command Quick Reference* booklet:



When you reset the Secondary EME from the Primary EME, you must use the `reset module <slot>.2` command. To use the `reset eme` command, you must be directly connected to the Secondary EME.

- `reset eme cold` – Use this command with diagnostics enabled to reset the EME and execute diagnostics.



Issuing the `reset eme cold` command on a Primary EME causes a failover to the Secondary EME. The Secondary EME becomes the Primary EME.

- `reset eme warm` – Use this command to reset the EME without executing diagnostics. `reset eme warm` is the default if you do not enter anything after `reset eme`.



Issuing the `reset eme warm` command on a Primary EME in the lower numbered slot does not cause it to fail over.

Issuing the `reset eme warm` command on a Primary EME in the higher numbered slot causes it to fail over.

Issuing the `reset eme warm` command on a Secondary EME does not cause it to become Primary.

- `reset module <slot>.<subslot> cold` – Use this command to reset the module and execute diagnostics as if the module had been power cycled.
- `reset module <slot>.<subslot> warm` – Use this command to reset the module without executing diagnostics.
- `reset module all cold` – Use this command to reset all modules, excluding the EME, and execute diagnostics as if the modules had been power cycled.
- `reset module all warm` – Use this command to reset all modules, excluding the EME, without executing diagnostics.

The following EME commands were enhanced for this release but are not documented in either the *CoreBuilder 9000 Enterprise Management Engine User Guide* or the *CoreBuilder 9000 Enterprise Management Engine Command Quick Reference* booklet:

- `set web access` – Use this command to disable Web access to the CoreBuilder 9000 chassis. The options for this command are `disable` and `enable` (default).

- `show web access` – Use this command to view the setting for Web access on your CoreBuilder 9000 chassis. The options for this command are `disable` and `enable` (default).

The `set clock time_zone` command is not documented in either the *CoreBuilder 9000 Enterprise Management Engine User Guide* or the *CoreBuilder 9000 Enterprise Management Engine Command Quick Reference* booklet.

The `set clock time_zone` command:

- Allows you to configure the local time zone value.
- Displays the following time zone table, with time zone indexes and the time zone identifiers, before it prompts you to select a time zone index.

Index	Time Zone
1	[GMT+0:00] GMT/WET/UT
2	[GMT-1:00] WAT
3	[GMT-2:00] AT
4	[GMT-3:00] Brasilia/Buenos Ar/GeorgeTown
5	[GMT-4:00] AST
6	[GMT-5:00] EST
7	[GMT-6:00] CST
8	[GMT-7:00] MST
9	[GMT-8:00] PST
10	[GMT-9:00] YST
11	[GMT-10:00] AHST/CAT/HST
12	[GMT-11:00] NT
13	[GMT-12:00] IDLW
14	[GMT+1:00] CET/FWT/MET/MEWT/SWT
15	[GMT+2:00] EET
16	[GMT+3:00] BT
17	[GMT+4:00] ZP4
18	[GMT+5:00] ZP5
19	[GMT+5:30] Bombay/Calcutta/Madras/New Dehli/Colombo
20	[GMT+6:00] ZP6
21	[GMT+7:00] WAST
22	[GMT+8:00] CCT
23	[GMT+9:00] JST
24	[GMT+9:30] Darwin/Adelaide
25	[GMT+10:00] EAST/GST
26	[GMT+11:00] Magadan/Solomon Is/N. Caledonia
27	[GMT+12:00] IDLE/NZST/NZT
28	Input an offset from GMT

```
Select timezone index {1-28|?} [1]:
```

The default is no time zone, local time represented.



See “Known Problems” earlier in this chapter for information about time zone 28.

The following information and procedure about configuring the Serial Line Internet Protocol (SLIP) are not documented in the *CoreBuilder 9000 Enterprise Management Engine User Guide*:

Vendors initiate SLIP sessions differently. Consult the documentation for your system. Although the 3Com SLIP implementation is as generic as possible, it may not function properly with SLIP implementations from other vendors.

To properly configure SLIP, follow these steps:

- 1 Assign an IP address and subnet mask to the SLIP interface on the EME using the following command:

```
set ip subnet_mask <mask> serial_port
```

where <mask> is the workstation’s IP subnetwork



Assign the same IP address and subnet mask to the serial port of the device on the other end using the following command:

```
set ip ip_address <address> serial_port
```

where <address> is the EME’s IP address.

- 2 Assign the terminal settings using the following command:

```
set terminal <port> <baud, data_bits, hangup, mode, parity,  
stop_bits, terminal_type>
```

Set the terminal to match the remote terminal settings.

- 3 Enable SLIP mode using the following command:

```
set terminal <port> mode slip <address> IP address.
```

To end the SLIP session do one of the following:

- from a remote SLIP connection, send a break character to the EME

- from the EME command line interface, set the SLIP port to command mode or disable the interface.

Web-based Management

Chapter 2 of the *Web Management User Guide* for your system should include some additional notes and some filename changes:

- This notice should appear at the beginning of the “Windows Installation” section:



If you use Netscape as your browser, you must install the Help files on an external server, not on a local PC. To install the Help files on an external server, follow the instructions for installing on a PC.

- In the first paragraph of the section on installing supplemental tools and in the “Windows Installation” section, use the filename `Setup.exe` instead of `webmanagev30.exe`.
- In the section “Setting Up the Form-Specific Help Files,” this notice should appear:



If you use Netscape as your browser, you must install the Help files on an external server. To configure the location of the Help files, use the sample URL syntax in the Help Server Configuration form in the software. Do not use the examples in Figure 12 in the guide.

SNMP Traps

The following describes the modifications to the existing EME console interface menu structure with regards to SNMP traps.

Existing commands under EME 3.0.0 code:

set	eme	trap_receive	disable/enable
set	snmp	authentication_trap	disable/enable
show	snmp	authentication_trap	extensions
set	trap_destination	<community>	<ip>

New command structure under EME 3.0.5 release code:

```

set snmp trap destination <community> <ip>
                        filter authentication disable/enable
                        link_state disable/enable
                        topology_change disable/enable
                        receive disable/enable

```

```

show snmp extensions
      trap

```

```

clear snmp trap

```

Note that the `set trap destination` command now resides under the `set snmp trap` command. Trap destinations are displayed by entering the `show snmp trap` command.

The `show eme` display has been modified in this release. In version 3.0.0, the `show eme` command displayed Trap Receive status (ENABLED or DISABLED). In version 3.0.5, Trap Receive status is shown under the `show snmp trap` command.

Examples of setting the link state and topology change traps through the EME console with accompanying displays of the trap outputs to the console are shown here. Note that traps were generated for demonstration of the output.

```

CB9000> set snmp trap filter link_state enable
Link state trap set to ENABLE.
CB9000>
Event Received: "SNMP Trap" Event generated:
2000-02-08T16:31:54 Entry: 00812 Slot: 09.02 Id: 00297
Severity: Inform Type: Trap Enterprise: CoreBuilder-9000 Trap
source slot: 03.01 Trap info: Link Down Octet string:
Corebuilder 9000-10 Port 100FX Layer 3 Switching Module,
manuf : 3Com, Fast-Ethernet Port 1
CB9000> set snmp trap filter link_state disable
Link state trap set to DISABLE.

```

(No subsequent generation of the link state traps occurs.)

```

CB9000> set snmp trap filter topology_change enable
Spanning tree topology change trap set to ENABLE.

```

```
Event Received: "SNMP Trap" Event generated:  
2000-02-08T16:32:31 Entry: 00816 Slot: 09.02 Id: 00297  
Severity: Inform Type: Trap Enterprise: dot1dBridge Trap  
source slot: 03.01 Generic trap: 6 Specific trap: 2  
CB9000> set snmp trap filter topology_change disable
```

Spanning tree topology change trap set to DISABLE.

(No subsequent generation of the topology change traps occurs.)

Note that only the topology change trap is filtered with this command. You will continue to see any new root traps. A Topology Change trap has a specific trap of two. A New Root trap has a specific trap of one. `apclear snmp`

4

SOFTWARE INSTALLATION

This chapter provides the following software installation procedures for Software Release 3.0.5:

- How to Obtain Software Image Files
- Installation and Upgrade Prerequisites
- Downloading Software
- Downgrading Management Modules to a Previous Software Release

How to Obtain Software Image Files

To obtain image files for software Release 3.0.5, contact your network supplier or 3Com representative, or visit the 3Com Web site at:

<http://support.3com.com/infodeli/swlib/index.htm>



CAUTION: Before you upgrade software on CoreBuilder 9000 switch fabric modules and interface modules to Release 3.0.5, you must upgrade software on the EME module to Release 3.0.5. You must also upgrade the EMC operational file to Release 3.0.0 and ensure that the EMC boot file is at software Release 2.1.0. See the CoreBuilder 9000 Release Notes for Management Modules, Release 3.0.5 for instructions.

Installation and Upgrade Prerequisites

Before you upgrade the EME to software Release 3.0.5, read this section for important procedures that pertain to both modules when they are installed in an existing chassis or a new chassis.



CAUTION: All modules in a CoreBuilder 9000 chassis must operate at compatible software levels. You must verify the software release on all new and existing modules in your chassis and upgrade as necessary. See Table 1 in Chapter 1 for management module software compatibility requirements for this release. See “Verifying and Updating Management Modules for an Existing Chassis” and “Verifying and Updating Management Modules for a New Chassis” next for procedures and important information.



CAUTION: Do not attempt to perform any management tasks while you are downloading software.



CAUTION: Before you attempt to download any management module software, save the configuration files for the module that you are upgrading for the release that you are currently running to an external device using the EME `upload` command. To avoid duplicate filenames, if you have multiple chassis, be sure to use a unique filename and not the default filename. See the CoreBuilder 9000 Enterprise Management Engine User Guide for an explanation about how to use the EME `upload` command.

Verifying and Updating Management Modules for an Existing Chassis

To verify whether management modules in an existing, powered-on chassis are operating with software that is compatible with software Release 3.0.5 for your EME and EMC:

- 1 At the EME prompt, enter:

```
show module <slot>.all verbose
```

for any management slot. This command displays detailed information about the EME and EMC for that particular slot.
- 2 Compare the software release numbers in the display for the EME, second EME, or EMC with the requirements in Table 1 in Chapter 1 to identify which management modules you need to upgrade.
- 3 Have ready the software upgrades and these release notes for any management modules that you are upgrading.

- 4 Download software to the appropriate EME or EMC.



CAUTION: The EME (Primary and Secondary, if redundancy is applicable) and EMC automatically reset after you download software. A message informs you of this and prompts you to confirm whether you want to continue to download the software. See “Downloading Software” later in this chapter for the download procedure.

Verifying and Updating Management Modules for a New Chassis

When you purchase a new chassis and modules, you may receive some modules that are loaded with software that is incompatible with other modules.



CAUTION: All management modules in a chassis must operate at compatible software levels. When you purchase a new chassis with management modules, you must verify the software release on all of the management modules and upgrade as necessary in the order specified in the following procedure.

To verify and update management modules to Release 3.0.5, follow these steps:

- 1 Install one EME module in the powered-off chassis.
For the installation procedure, see the *Enterprise Management Engine Quick Start Guide for the CoreBuilder 9000 Enterprise Switch*.
- 2 Power on the chassis, if you have not already done so as part of the EME installation procedure.
- 3 At the EME prompt, enter:
show module <slot>.all verbose
for any management slot. This command displays detailed information about the EME and EMC for that particular slot.
- 4 Compare the EME and EMC software release numbers in the display with the compatibility requirements in Table 1 in Chapter 1.
- 5 If necessary, upgrade the EME according to the procedures in “Downloading Software” next in this chapter.



CAUTION: The EME and EMC automatically reset after you download software. A message informs you of this and prompts you to confirm whether you want to continue to download the software.

- 6 Install a second EME or an EMC, if applicable, and repeat step 5.

Downloading Software

The following sections explain how to download software Release 3.0.5 to an EME management module that is running software Release 3.0.0.



You must download software Release 3.0.5 to the EME management module first before you can attempt to download the software to any switch fabric modules or interface modules.



CAUTION: Before you attempt to download any module software, including the management modules, save the configuration file for the modules that you are upgrading to an external device using the EME `upload` command. See the CoreBuilder 9000 Enterprise Management Engine User Guide for an explanation about how to use the EME `upload` command. You must save the configuration files because you cannot use the software Release 3.0.5 configuration files on software Release 3.0.0 if you downgrade your system from software Release 3.0.5 to software Release 3.0.0. See “Downgrading Management Modules to a Previous Software Release” in Chapter 4.

Installing Software onto the EMC and the EME

This section describes how to load software Release 3.0.5 onto an EME that is running software Release 3.0.0. This section assumes that:

- You have downloaded the operational image on a file server from the 3Com Web site at the following URL:

`http://support.3com.com/software/switches.htm`

- You have the 16 MB DRAM card installed on your EME.



CAUTION: If you do not have redundant EMEs or EMCs installed in your chassis, you will lose power to all of the modules if you remove the EME to install the 16 MB DRAM card.

If the 4 MB DRAM card is installed on your EME, remove the EME, replace the 4 MB DRAM memory card with the 16 MB DRAM memory card, and reinsert the EME into the chassis.



If you are using the console interface to the EME, the login prompt appears after the reset is complete. If you are using a Telnet connection to the EME, you need to reestablish the Telnet connection after the reset.

**Installing Software
Release 3.0.5 on an
EME Running
Software
Release 2.x.x**

These instructions assume that the software releases that are listed in Table 4 are present on the 3CB9EME and 3CB9EMC management modules in the chassis before you start downloading:

Table 4 Software Releases for Systems Running Software Release 3.0.0

Software Image	Release
Controller operational	3.0.0
Controller boot	2.1.0
Management operational	3.0.0
Management boot	3.0.0

Use the `show module <slot>.all verbose` command to display the release of software that is running on the management modules.



CAUTION: Do not attempt to perform any management tasks while you are downloading software.

Loading EME Software Release 3.0.5 to a Chassis with a Single EME

These instructions assume that you have saved the configuration files from your current release, that you have only one 3CB9EME module in the chassis, and that the module has the 16 MB DRAM memory card installed.

Loading Operational Software on the EME

Enter the `download` command as follows:

```
CB9000> download eme oper_image <server address> eme30005.op
```

Where `<server address>` is the IP address of the server where the software image resides.

The system displays the following messages and prompt:

```
This will cause the eme to reset.
Are you sure you want to continue download? (y/n) : y
File transfer request pending.
```

```
Event Received: "Eme image dload" Event generated: 14:37:58
21 Dec 1999 Entry: 00184 Slot: 17.02 Id: 01182 Severity:
Inform Type: Inform
Eme oper image download. Eme will reset.
```

Finalizing the Upgrade

Flush the Address Resolution Protocol (ARP) table on the TFTP server or management station. Ping the server or management station to verify that you are connected.

Loading EME Software Release 3.0.5 to a Chassis with Redundant EMEs

These instructions assume that you have saved the configuration files from your current release, that you have two 3CB9EME modules in the chassis, and that each 3CB9EME module has the 16 MB DRAM memory card installed.



CAUTION: *Before you attempt to download any module software, including the management modules, save the configuration file for the modules that you are upgrading to an external device using the EME `upload` command. Name the files so that they uniquely identify the versions of the module code that were in use at the time they were uploaded, as well as the chassis and slot where the module is located. See the CoreBuilder 9000 Enterprise Management Engine User Guide for an explanation about how to use the EME `upload` command. You must save the configuration files because they are not guaranteed to work with revisions of code other than the ones with which they were created. If at some point you want to downgrade the modules to preexisting code, you must use the configuration file that corresponds to that version of code.*

To determine which EME is the Primary and which EME is the Secondary, use the `show module all` command. The Primary EME is also indicated by the module with the illuminated IRi LED. The Secondary EME is also indicated by the module with the illuminated SEC LED.

Example:

```
CB9000> show module all
```

```
CB9000> show module all
```

Slot	Module	Status	Description
04.01	3CB9LF36T	Up	36 Port 10/100TX Telco Layer 2 Switching Module
05.01	3CB9LF36R	Up	36 Port 10/100TX RJ45 Layer 2 Switching Module
06.01	3CB9RF12R	Up	12 Port 10/100TX Layer 3 Switching Module
07.01	3CB9LG2MC	Managed by fabric	2 port Gen I/O Module
08.01	3CB9FG24T	Primary	24 Port Gigabit Switching Fabric, 12 Trunks
17.01	3CB9EMC	Active	Enterprise Management Controller
17.02	3CB9EME	Primary	Enterprise Management Engine
18.01	3CB9EMC	Standby	Enterprise Management Controller
18.02	3CB9EME	Secondary	Enterprise Management Engine



CAUTION: Do not attempt to perform any management tasks while you are downloading software.

Loading Operational Software on the Secondary EME

Enter the `download` command as follows:

```
CB9000> download module 18.2 oper_image <server address>
eme30005.op
```

Where `<server address>` is the IP address of the server where the software image resides.

The following messages and prompt appear:

```
This will cause the backup eme to reset.
Are you sure you want to continue download? (y/n) : y
```

```
File transfer request pending.
Downloading file from external file server to eme - 002366572
Downloading file from eme to backup eme - 002366572
File transfer completed successfully.
Module 18.2 will automatically reset.
```

Loading Operational Software on the Primary EME

Enter the following command to load operational software on the Primary EME:

```
CB9000> download eme oper_image <server address> eme30005.op
```

Where `<server address>` is the IP address of the server where the software image resides.

The following messages and prompt appear:

```
This will cause the eme to reset.
```

```
Are you sure you want to continue download? (y/n) : y
```

```
File transfer request pending.
```

```
Event Received: "Eme image dload"  Event generated: 14:37:58  
21 Dec 1999 Entry: 00184  Slot: 17.02  Id: 01182  Severity:  
Inform  Type: Inform  
Eme oper image download.  Eme will reset.
```

Finalizing the Upgrade

Flush the ARP table on the TFTP server or management station. Ping the server or management station to verify that you are connected.

Downgrading Management Modules to a Previous Software Release



Follow this procedure to downgrade the management modules that are installed in your chassis that are running software Release 3.0.5 to software Release 3.0.0.

Before you downgrade the management modules, first downgrade all interface modules and switch fabric modules that are installed in your chassis. See the procedures in the CoreBuilder 9000 Release Notes for applicable modules.

- 1 Download the operational code to the applicable management modules that are installed in your CoreBuilder 9000 as follows:
 - Download Release 3.0.0 operational code to the Secondary EME module, if a second EME module is installed (redundant).
 - Download software Release 3.0.0 operational code to the Primary EME.
- 2 After the Primary EME displays `RDY` in the four-character LED display, reconfigure the IP information on the Primary EME.
- 3 Flush the ARP table and ping the TFTP server or management station to verify that you are connected.
- 4 If you have a Secondary EME installed, set the mastership priority value on the STBY EME to 5.
- 5 Download the software Release 3.0.0 configuration file to the EME.



After you complete the downgrade procedure, see the version 3.0.0 CoreBuilder 9000 Release Notes for applicable modules. The version 3.0.0 Release Notes describe the version 3.0.0 software, including all Known Problems and System Issues. To view the Software Release 3.0.0 release notes, visit the 3Com Web site at the following URL:

<http://support.3com.com/nav/switches.htm>

5

REFERENCE

This chapter contains the following topics:

- Identifying Modules in the Switch
- Applicable Documents
- MIB Files
- Entering Commands
- Year 2000 Compliance

Identifying Modules in the Switch

The CoreBuilder 9000 Enterprise Switch uses an abbreviated version of each module name in various menu prompts and displays.

Table 5 lists the model numbers of modules, descriptions, and the corresponding abbreviated name.

Table 5 Identifying Modules in the CoreBuilder 9000

Model Number	Description	Abbreviated System Identification Name
3CB9RG4	4-Port Gigabit Ethernet Layer 3 Switching Module (GBIC)	4-GEN-GBIC-L3
3CB9RD6MC	6-Port SAS (3-Port DAS) FDDI Layer 3 Switching Module	6-FDDI-L3
3CB9RF12R	12-Port 10/100BASE-TX Fast Ethernet Multiprotocol Layer 3 Switching Module	12-E/FEN-TX-L3
3CB9RF10MC	10-Port 100BASE-FX Fast Ethernet Multiprotocol Layer 3 Switching Module	10-E/FEN-FX-L3
3CB9LF20R	20-Port 10/100BASE-TX Fast Ethernet Layer 2 Switching Module	20-E/FEN-TX-L2
3CB9LF10MC	10-Port 100BASE-FX Fast Ethernet Layer 2 Switching Module	10-E/FEN-FX-L2
3CB9LF20MM	20-Port 100BASE-FX (MT-RJ) Fast Ethernet Layer 2 Switching Module	20-E/FEN-FX-L2

Table 5 Identifying Modules in the CoreBuilder 9000 (continued)

Model Number	Description	Abbreviated System Identification Name
3CB9LF36R	36-Port 10/100BASE-TX Fast Ethernet RJ-45 Layer 2 Switching Module	36-E/FEN-TX-L2
3CB9LF36T	36-Port 10/100BASE-TX Fast Ethernet Telco Layer 2 Switching Module	36-E/FEN-TX-L2
3CB9LG9MC	9-Port 1000BASE-SX Gigabit Ethernet Layer 2 Switching Module	9-GEN-SX-L2
3CB9LG2MC	2-Port 1000BASE-SX Gigabit Ethernet (GEN) Interface Module	Managed by the switch fabric module
3CB9LG2SC	2-Port 1000BASE-LX Gigabit Ethernet (GEN) Interface Module	Managed by the switch fabric module
3CB9LG4	4-Port Gigabit Ethernet Interface Module (GBIC)	Managed by the switch fabric module
3CB9FG9	9-Port Gigabit Ethernet (GEN) Switch Fabric Module	9G-FAB
3CB9FG24	24-Port Gigabit Ethernet Switch Fabric Module, 4 trunks	24G-FAB
3CB9FG24T	24-Port Gigabit Ethernet Switch Fabric Module, 12 trunks	24G-FAB-T
3CB9EME	Enterprise Management Engine	Management Module
3CB9EMC	Enterprise Management Controller	Controller Module

Applicable Documents

For information about installing, managing, and using the management modules, as well as their specifications, see these documents:

- The *Quick Start Guide* that is shipped with each module
- *CoreBuilder 9000 Implementation Guide*
- *Command Reference Guide*, which covers the CoreBuilder 3500, 9000, and 9400, and the SuperStack® II Switch 3900 and 9300 products
- *CoreBuilder 9000 Enterprise Management Engine User Guide*

MIB Files

The organization of a Management Information Base (MIB) allows a Simple Network Management Protocol (SNMP) network management package, such as the Transcend® Network Control Services application suite, to manage a network device without having a specific description of that device.

The CoreBuilder 9000 EME supports the following MIBs in software Release 3.0.5:

- **MIB2-MIB.mib** — MIB-II MIB, RFC 1213.
Unsupported group in this MIB: `egp` group
- **IF-MIB-V1SMI.mib** — IF MIB Version 1, RFC 1573.
Unsupported tables in this MIB:
 - `ifTestTable`
 - `ifRcvAddressTable`
 - `ifHC 64-bit counters`
- **ENTITY-MIB.mib** — Entity MIB, RFC 2037.
Unsupported table and groups in this MIB:
 - `entAliasMappingTable`
 - `entity General` group
 - `entity Notifications` group
- **cb9000.mib**
- **cb9eme.mib**



MIB names and numbers are usually retained when organizations restructure their businesses; therefore, some of the 3Com Enterprise MIB names may not contain the word "3Com."

**Entering
Commands**

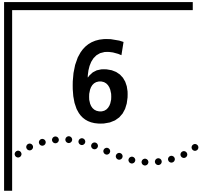
Before you enter any command, 3Com recommends that you:

- Examine all menus and submenus carefully to obtain the complete and correct command string.
- Consult the documentation for the valid minimum abbreviation for the command string.

**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>



TECHNICAL SUPPORT

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

Information contained in this chapter 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 FactsSM 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 28,800 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
Asia, Pacific Rim			
Australia	1 800 678 515	P.R. of China	10800 61 00137 or 021 6350 1590
Hong Kong	800 933 486	Singapore	800 6161 463
India	+61 2 9937 5085	S. Korea	
Indonesia	001 800 61 009	From anywhere in S. Korea:	00798 611 2230
Japan	0031 61 6439	From Seoul:	(0)2 3455 6455
Malaysia	1800 801 777	Taiwan, R.O.C.	0080 611 261
New Zealand	0800 446 398	Thailand	001 800 611 2000
Pakistan	+61 2 9937 5085		
Philippines	1235 61 266 2602		
Europe			
From anywhere in Europe, call: +31 (0)30 6029900 phone +31 (0)30 6029999 fax			
Europe, South Africa, and Middle East			
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		
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)			
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
Latin America	1 408 326 2927	1 408 326 3355
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	
U.S.A. and Canada	1 800 NET 3Com (1 800 638 3266)	1 408 326 7120 (not toll-free)
	Enterprise Customers: 1 800 876 3266	

