



## Reimaging Cisco ICS 7750 SPEs

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This appendix covers the procedures for reimaging the Windows 2000 Server operating system on the Cisco Integrated Communications System 7750 (Cisco ICS 7750) System Processing Engine (SPE) cards.

This appendix includes the following main sections:

- [Required Tools, Equipment, and Software, page B-2](#)
- [The Windows 2000 Reimaging Process, page B-6](#)
- [SPE310 Cards and Software, page B-9](#)
- [Preparing for SPE310 Reimaging, page B-10](#)
- [Preparing the Peripherals, page B-11](#)
- [Reimaging Windows 2000 Server on the SPE310 Hard Disk, page B-12](#)
- [Installing the Cisco ICS 7750 System Software, page B-15](#)
- [Troubleshooting the Windows 2000 Reimaging Process, page B-16](#)



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**Note**

For a description of the features, modifications, and caveats for the Cisco Integrated Communications System 7750 (Cisco ICS 7750) release 2.6.0, refer to the [Release Notes for System Software Release 2.6.0 on the Cisco ICS 7750](#).

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# Required Tools, Equipment, and Software

You need the following tools, parts, and software for reimaging the SPE310 (hereafter referred to as SPE) cards. If you need additional equipment, contact your customer service representative for ordering information.

**Warning**

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**Only trained and qualified personnel should be allowed to install or replace this equipment.**

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- Cisco ICS 7750 chassis, with one or more SPE cards installed.
- Cisco ICS 7750 Windows 2000 Bootable CD for SPE.
- Cisco ICS 7750 System Software, which can be installed from the following sources, with the following options (see the [“ICS System Software Installation”](#) section on page 4-5 for additional information):
  - CD-ROM—The system software release 2.x.x CD-ROM contains a complete set of the system software, including Microsoft SQL Server software and Microsoft hotfixes. The CD-ROM can be used to install release 2.x.x on an SPE that does not currently have ICS System Software installed, or it can be used to upgrade an SPE that currently has system software release 2.1.0 or later installed.

For instructions on installing the software from the CD-ROM, refer to the “Upgrading System Software on SPEs from the CD-ROM” section in Chapter 8, “Maintaining the Cisco ICS 7750,” in the [Cisco ICS 7750 Installation and Configuration Guide](#).

For download and installation instructions from CCO, see the [“Downloading ICS System Software”](#) section on page 4-10, or refer to the “Downloading and Installing System Software” section in Chapter 8, “Maintaining the Cisco ICS 7750,” in the [Cisco ICS 7750 Installation and Configuration Guide](#).

For general system software installation instructions, refer to the [“ICS System Software Installation”](#) section on page 4-5.

- CCO—Two sets of system software release 2.x.x are available for downloading from CCO:
- S77a-2.x.x.exe—This package contains the complete set of system software version 2.x.x, including Microsoft SQL Server software; this package can be used for new installations or upgrades of existing system software.
- S77a-Upgrade-2.x.x.exe—This package contains only the software components that have been changed since release 2.1.0 and that are necessary for upgrading the ICS System Software from release 2.1.0 or later. Because this package does not contain Microsoft SQL Server software, the package is smaller and requires less download time. This upgrade package cannot be used for SPE reimaging or reinstallation of ICS System Software.

**Note**

An upgrade package is not available for ICS System Software 2.6.0. Use the full ICS System Software 2.6.0 package (S77a-2.x.x.exe) if you need to upgrade an SPE running core software *and* if Cisco CallManager 3.3 is not going to be installed on that SPE. See the “[Special Note About ICS System Software Release 2.6.0](#)” section on page B-5 and the “[Special Considerations for Migrating Data to Cisco CallManager 3.3](#)” section on page B-5.

- Application CDs for applications to be installed on the SPE(s) (for example, Cisco CallManager).
- SVGA-compatible monitor, capable of at least 800 x 600 resolution and 256 colors (1024 x 768 resolution is recommended).
- Operating system: English version of Microsoft Windows 98, Windows ME, Windows XP, Windows NT, or Windows 2000.
- Web browser: Netscape Communicator 4.7 or later, or Internet Explorer 5.5 or later, with Java plug-in version 1.3.1 or later (refer to the [Cisco Software Download](#) page at <http://www.cisco.com/pcgi-bin/tablebuild.pl/java>).
- Communication software: Microsoft Terminal Services Client.

- Peripherals:
  - Windows-compatible mouse with USB (Universal Serial Bus) or PS/2-style connector.
  - PC keyboard with USB and/or PS/2-style connector.
  - USB CD-ROM drive (provided in the Cisco ICS 7750 accessory kit).




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**Note** If you lose the CD-ROM USB cable (used to connect the CD-ROM drive to the SPE card), see the documentation accompanying the CD-ROM drive in the Cisco ICS 7750 accessory kit for information on obtaining a replacement, or contact TAC for additional assistance.

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- (Optional) USB hub (needed if using a USB keyboard and mouse, when the keyboard lacks a USB pass-through port; a powered hub is recommended).




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**Note** If you are using a USB keyboard with a USB mouse, you will need a pass-through USB port on the keyboard for connecting the mouse. Alternatively, you can use a USB hub, to which you can connect both the keyboard and the mouse, and then connect the hub to one of the USB ports on the SPE through the hub's uplink port. Either a pass-through USB port or a USB hub is required because one of the two USB ports on the SPE card is needed for the CD-ROM drive.

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- CD-ROM mounting tray that attaches to the front ventilation grille of the chassis (also included in the accessory kit).
- A number-1 Phillips screwdriver.
- ESD-prevention equipment or the disposable ESD-preventive wrist strap included in the hardware accessory kit.




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**Note** Procedures for installing and removing peripherals used with SPE cards are described in [Appendix C, “Using Peripherals with Cisco ICS 7750 SPEs.”](#)

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## Special Note About ICS System Software Release 2.6.0

There is no upgrade path to ICS System Software 2.6.0 from earlier versions of ICS System Software for the SPE running System Manager. If you are installing ICS System Software release 2.6.0 on an SPE running System Manager release 2.1.0 through 2.5.0, you must reimage and reinstall the software on that SPE using the S77a-2.x.x.exe package.

SPEs that are running ICS Core Software can be upgraded using the full ICS System Software 2.6.0 package if Cisco CallManager 3.3 is not going to be installed on that SPE. For example, either an SPE running Cisco Unity Voice Messaging or a spare SPE running ICS Core Software, can be upgraded to ICS System Software release 2.6.0 without the need for reimaging.



### Note

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ICS System Software 2.6.0 is supported for use only with Cisco CallManager 3.3 and is not compatible with earlier versions of Cisco CallManager; reimaging and reinstallation of software are required for using Cisco CallManager 3.3. For information about installing Cisco CallManager 3.3, refer to the [Installation Guide for Cisco CallManager](#), and click the link for the installation instructions for Cisco CallManager 3.3.

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## Special Considerations for Migrating Data to Cisco CallManager 3.3

If you are migrating from Cisco CallManager 3.1 or 3.2 to Cisco CallManager 3.3, additional steps are required on the Cisco ICS 7750.

A new backup utility is available for importing your Cisco CallManager data, but it requires a manual backup and restore of two \*.ini files (backup.ini and dbname.ini). You must manually copy the backup.ini and dbname.ini files into the C:\Recover folder on the SPE hard disk, and then restore those files to complete the migration. You must also reset the SPE host name and network settings to those used before the reimage.

For information about the sequence of steps to follow, refer to [Installing System Software Release 2.6.0 on the Cisco ICS 7750](#). For caveats and modifications, refer to the [Release Notes for Cisco CallManager 3.3\(x\) on the Cisco ICS 7750](#). For additional information about backing up and restoring Cisco CallManager, refer to [Backing up and Restoring Cisco CallManager Release 3.3](#).

# The Windows 2000 Reimaging Process

*Reimaging* is a recovery process for removing all software from the hard disk of an installed SPE and reinstalling the following two main software component systems:

- Microsoft Windows 2000—Reinstalling the Windows 2000 Server operating system clears the SPE 310 hard disk of all existing data, preparing it for installation of the ICS software.
- Cisco ICS 7750 System Software—The specific ICS software package that is loaded depends on the intended functionality of the SPE (System Manager or core software). The package chosen determines the supported feature set (refer to the [Cisco ICS 7750 Installation and Configuration Guide](#) for supported installation packages).

Instructions for installing Windows 2000 Server are provided in this appendix. When you complete reimaging of the operating system, you will be prompted to continue with the installation of the Cisco ICS System Software, a process described in [Chapter 4, “Installing and Upgrading Cisco ICS 7750 System Software.”](#)

After the reimaging and ICS software installation, you may wish to install or reinstall application software on one or more SPEs in the chassis. Depending on your specific situation, you may also need to perform a backup of configuration data prior to the reimaging, then reinstall the application software after the SPE has been reimaged, and, finally, restore the saved data.



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**Note**

For information on backing up and restoring application data, and on installing the application software, refer to the documentation for your application(s).

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## Reimaging Scenarios

The following are the three main scenarios for reimaging:

- Reimaging an SPE for running System Manager—You will need to back up configuration data, if any. Then, when the SPE reimaging is complete, you can restore the saved data.

- Reimaging one or more SPEs running core software and set up to run applications—In this case, you will need to back up the application configuration data, if any. Then, after the SPE has been reimaged and necessary software has been installed, you can restore the saved data.
- Reimaging both the SPE running System Manager and one or more SPEs running core software—In this scenario, both the existing SPE running System Manager and any SPE(s) running applications should be backed up for later restoration, if possible.

See the “[Preparing for SPE310 Reimaging](#)” section on page B-10 for details about the information needed for backing up the Cisco ICS 7750 prior to reimaging. For details on backup and restore procedures for SPE cards, refer to the *Cisco ICS 7750 Installation and Configuration Guide*. For information on backing up and restoring configuration data for applications that may be installed in an SPE to be reimaged, refer to the documentation for those applications.

At various points during the reimaging process, the applications and the voice-mail, and call-handling functions will be interrupted. Therefore, it is recommended that you reimage SPEs at a time when disruption caused by the service interruption will be minimized, such as during scheduled maintenance.

**Caution**

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Reimaging SPEs in one Cisco ICS 7750 chassis for use in another chassis is *not* supported. Always reimage an SPE in the chassis in which it will be used.

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## Scenarios in Which Reimaging Is Not Applicable

The following are instances in which the reimaging process described in this document is not applicable:

- Installing a new spare SPE in a chassis for running core software (applications)
- Replacing an existing applications SPE
- Replacing an existing System Manager SPE

For procedures for these three scenarios, refer to the *Cisco ICS 7750 FRU Installation and Replacement* publication.

If you still have questions, contact your technical support representatives for additional help (see “[Obtaining Technical Assistance](#)”).

## Stages in SPE310 Reimaging

The reimaging process usually consists of three stages:

1. Reimaging of the SPE hard disk with a fresh installation of Windows 2000 Server—This is done by means of a CD-ROM drive attached to one of the USB ports on the SPE. Progress can be most efficiently tracked by observing the LEDs on the SPE in the Cisco ICS 7750 chassis in conjunction with the information displayed on an external attached monitor.
2. Installation of the Cisco ICS 7750 System Software—This step is performed directly on the SPE. The system software may be installed from a CD-ROM or downloaded from CCO. The application of essential Cisco-recommended hotfixes for the Windows 2000 operating system is included as part of the ICS System Software installation.

For installation instructions from the CD-ROM, refer to Chapter 4, “Completing the Cisco ICS 7750 Installation,” in the *Cisco ICS 7750 Installation and Configuration Guide*.

For download and installation instructions from CCO, see the “[Downloading ICS System Software](#)” section on page 4-10, or refer to the “Downloading and Installing System Software” section in Chapter 8, “Maintaining the Cisco ICS 7750,” in the *Cisco ICS 7750 Installation and Configuration Guide*.

If you are performing a new installation on the SPE, you will need the ICS System Software package that contains the complete set of system software version 2.x.x. This step is performed directly on the SPE.

Several options are presented during the installation process that determine the software set that will be installed. These options include the following:

- Install ICS System Manager Software—Select this option to install System Manager on the SPE. There must be one (and only one) SPE running ICS System Manager software in the chassis.
  - Install ICS Core Software—Select this option to install ICS Core Software on any additional SPEs in the chassis, if another SPE running the ICS System Manager software is already present.
3. Installation of SPE applications—This last step is optional, depending on your system configuration. After all the software and applications are installed on the SPE(s), the system is ready for restoration of the previously saved application configuration data, if any.

**Note**

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Details on installing application software and on backing up and restoring saved application data are beyond the scope of this document. Refer to the documentation for your application software for information about installing it, as well as for information about backing up and restoring configuration data. The procedures in this document advise you, at the appropriate points during the SPE reimaging process, when you should back up, install, and restore SPE applications.

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For information about connecting peripherals, see the [“Using Peripherals with SPE310 Cards” section on page C-2](#).

## SPE310 Cards and Software

The following are the software configuration rules for SPE cards using Cisco ICS 7750 System Software release 2.1.0 and later:

- Cisco ICS System Manager software must be installed on one (and only one) SPE in a Cisco ICS 7750 chassis.
- The SPE running System Manager is installed in slot 6 by default (at the factory). You can move the SPE running System Manager to another slot, provided that you follow the instructions in [Cisco ICS 7750 FRU Installation and Replacement](#) and the [Cisco ICS 7750 Installation and Configuration Guide](#).
- Cisco ICS Core Software must be installed on all SPEs in the chassis except the SPE running System Manager.
- Software approved for use on the SPE in the Cisco ICS 7750, such as Cisco CallManager, can be installed on any SPE in the chassis.

**Note**

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The specific ICS software package installed on an SPE during the reimaging process determines whether the SPE will be the SPE running System Manager or an SPE running core software.

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# Preparing for SPE310 Reimaging

You will need the following information for restoring saved configurations and data. Be sure to record it now:

- SPE host names
- Passwords, including the following:
  - Windows administrator password
  - System Manager admin password
  - Cisco IOS login password
  - Cisco IOS enable password
  - SNMP read-only and read-write community strings
- IP address of each card in the chassis
- Specific role of each SPE in the chassis
- Cisco CallManager and/or other application-specific configuration information and passwords, as applicable

The [“Backup” section on page B-10](#) provides additional details about the data you should gather and the backups to perform if you later wish to restore a previous Cisco ICS 7750 system configuration. After you have gathered the information and backed up the configuration data, you can then proceed to the [“Preparing the Peripherals” section on page B-11](#).

## Backup

To prepare for SPE reimaging, you should back up any existing system data.

- For instructions about backing up the ICS System Manager data, the Cisco IOS configuration files for multiservice route processor (MRP) cards, and the SPE registry settings, refer to the *Cisco ICS 7750 Installation and Configuration Guide*.



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**Note** If you are installing ICS System Software 2.6.0, you can restore a backup made from ICS System Software 2.1.0 or later. However, you cannot use a backup created from ICS System Software 2.6.0 to restore an earlier version of ICS System Software.

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- To back up the Cisco IOS configuration files for any Flash-based card, including the MRP (MRP300, MRP3-8FXS, MRP3-16FXS, MRP3-8FXOM1) or analog station interface (ASI) cards, and the system switch processor (SSP), you must follow a manual procedure. Refer to [Cisco ICS 7750 FRU Installation and Replacement](#) for additional information.



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**Note** For information about the Flash-based cards, refer to [Installing Memory, PVDM, and VPN Modules in ASI Cards, MRP Cards, and SPE Cards in the Cisco ICS 7750](#).

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- For instructions about backing up applications you have installed on SPEs, and for which you later plan to restore configuration data, refer to the documentation for those applications.

You should also record all passwords assigned for Cisco ICS 7750 component and application access (if these passwords were changed from defaults), as well as for any administrative logins and accounts. During the reimaging process, some passwords are reset to defaults, which you can later change to desired values. However, in some instances, restoring backed-up configuration and application data will require knowledge of the original passwords that were in effect prior to the reimaging process.

## Preparing the Peripherals

To reimage the SPE, you need to install the CD-ROM drive tray and CD-ROM drive, which are both provided in the accessory kit. A monitor, a keyboard, and a mouse are also required.

During this process, the rest of the chassis remains powered up, including any installed MRPs, except for the Flash-based MRP cards (MRP300, MRP3-8FXS, MRP3-16FXS, and MRP3-8FXOM1). The Flash-based MRP cards must be removed during the reimaging process.

**Note**

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During the SPE reimaging process, alarm LEDs may light temporarily on the various cards in the Cisco ICS 7750 chassis. This is a normal part of the process, and any alarm LED indications on the SPE being reimaged can be disregarded for the duration of the reimaging process.

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**Caution**

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Powering down an SPE will interrupt any services or applications running on that SPE. Measures should be taken to minimize the effects on users.

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In a chassis with more than one SPE, you can use the System Manager display to show the function of each SPE and in which slot each resides.

Follow the steps outlined in [Appendix C, “Using Peripherals with Cisco ICS 7750 SPEs”](#) for information on how to connect the monitor, keyboard, mouse, and USB CD-ROM drive to the SPE.

## Reimaging Windows 2000 Server on the SPE310 Hard Disk

The first stage of the reimaging process is to install a new copy of the Windows 2000 Server operating system, using the Cisco ICS 7750 Windows 2000 Bootable CD for SPE, which is included in the accessory kit.

This Cisco-provided CD contains a special, customized version of Windows 2000 Server. When an SPE is booted from the CD, it automatically copies a complete Windows 2000 setup disk image to the Cisco ICS 7750 hard disk; then Windows 2000 performs an automatic silent installation.

If you are reimaging more than one SPE in the same Cisco ICS 7750 chassis, you should repeat the steps listed in this section before you continue with [Chapter 4, “Installing and Upgrading Cisco ICS 7750 System Software.”](#)

**Note**

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Because of the way that disk images are formatted, if you attempt to use Windows Explorer or some other file browser to read the Cisco ICS 7750 Windows 2000 Bootable CD for SPE, you will not see any files displayed. This is normal and does not indicate faulty CD media. Disk image files cannot be read using conventional file browsers.

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Follow these steps to reimage Windows 2000 Server on the SPE hard disk:

**Step 1**

Put the Windows 2000 CD in the CD-ROM drive, making sure to seat the CD securely on the CD-ROM drive spindle, and close the cover.

**Note**

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Use only the Windows 2000 CD included in the Cisco ICS 7750 accessory kit. This version has been customized for use with the Cisco ICS 7750. Use of any other version of Microsoft Windows, even if it is the same basic type of operating system, is not supported. Use of any other version of Microsoft Windows will prevent the Cisco ICS 7750 from functioning properly.

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**Step 2**

Power up the SPE by reseating it in the Cisco ICS 7750 chassis.

**Note**

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If the chassis is not powered up, power it up, and wait for all the components to initialize. This process can take several minutes. Do this before you reseat the SPE.

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The SPE should boot automatically from the attached CD-ROM drive. If it does not boot, unseat the SPE from the chassis about an inch, check the cable connection between the CD-ROM drive and the SPE's USB port, and reseat the SPE again.

During rebooting, the SPE green status LED blinks, and the amber alarm LED is on.

It takes about a minute for the rebooting to complete. On the attached monitor, a text message is displayed, indicating that the SPE reimaging process is about to start.



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**Note** To stop the process at this point, unseat the SPE, remove the Windows 2000 CD from the CD-ROM drive, and reseat the SPE in the chassis. After the operating system reimaging process begins, however, you cannot stop the reimaging, and all data on the SPE's hard disk will be lost.

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**Step 3** You begin the SPE reimaging at this time by pressing the SHTDN button on the SPE. When you press the SHTDN button, the status LED goes out and the alarm LED blinks.

The Symantec Norton Ghost application runs automatically and begins copying the raw Windows 2000 installation image to the SPE hard disk, a process which takes approximately one hour.

During this time, both the green status LED the and amber alarm LED blink in unison. You can view the progress by watching the Norton Ghost display on the attached monitor.



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**Note** If there is a problem during the Norton Ghost execution, such as a hard disk failure or a sector error, you may see an error message that directs you to contact Symantec Support. If this happens, you should instead contact the Cisco Technical Assistance Center (TAC). See the [“Obtaining Technical Assistance”](#) section in the Preface for more information.

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When the Norton Ghost application has finished running, the status LED goes off and the amber alarm LED stays on. The attached monitor displays a completion status message.

**Step 4** Unseat the SPE from the Cisco ICS 7750 chassis.

**Step 5** If the chassis is connected to an existing network (for example, by means of an Ethernet connection to the SSP), remove the network connection now. (If the chassis is connected only to an isolated console PC through the SSP Ethernet connection, you can leave that connection in place.)



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**Note** This step is necessary to prevent the SPE from being vulnerable to virus or worm attack. You will be able to restore the network connection shortly, after you install the required operating system security hotfixes.

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- Step 6** Remove the CD from CD-ROM drive, and disconnect the CD-ROM drive cable from the SPE's USB port.
- Step 7** If you have disconnected the keyboard and mouse, reconnect them to the SPE.
- Step 8** Reboot the SPE by reseating it in the chassis.



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**Note** If you notice the execution of CHKDSK as a result of reseating the SPE, it is an expected behavior. CHKDSK is part of the Windows 2000 reimaging process, a routine check to find and fix any potential inconsistencies or errors on the SPE hard disk.

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The Windows 2000 silent installation begins, requiring no user input. During the installation, the SPE reboots automatically several times as Windows installs the necessary components, finds and registers devices, and creates user settings. When the installation is complete (after about 20 minutes), the green status LED blinks and the alarm LED turns off. The following message appears:

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It is now safe to turn off your computer.
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- Step 9** Unseat the SPE about one inch, wait 10 seconds, and reseat the SPE to reboot again.
- When the SPE comes up, the Windows 2000 login screen is displayed on the attached monitor.
- Step 10** Log in to the SPE, using the default Windows user login name (*administrator*) and password (*changeme*).
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## Installing the Cisco ICS 7750 System Software

To install the Cisco ICS 7750 System Software, you can use the same attached USB CD-ROM drive, monitor, keyboard, and mouse.

For details on how to perform the Cisco ICS 7750 software installation, see [Chapter 4, “Installing and Upgrading Cisco ICS 7750 System Software.”](#)

After you have reimaged the SPE310 with the Windows 2000 operating system and the silent installation is complete, proceed to the [“Installing the Cisco ICS 7750 System Software”](#) section on page B-15.

**Note**

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You should not make any other Windows 2000 configuration changes (for example, password changes, adjustments to computer management accounts, and so on) until after you complete the Cisco ICS 7750 System Software installation process, which is described in the [“Installing the Cisco ICS 7750 System Software”](#) section on page B-15.

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When software installation is complete, you should remove the peripherals attached to the Cisco ICS 7750 chassis. This process is described in [Appendix C](#), “Using Peripherals with Cisco ICS 7750 SPEs.”

## Troubleshooting the Windows 2000 Reimaging Process

Although much of the SPE reimaging and software installation process is automated, you may encounter problems or error messages that require manual intervention.

[Table B-1](#) lists the possible error messages or problems that might occur during the Windows 2000 reimaging process and tells what course of action you should follow to remedy the problem.

**Table B-1 Troubleshooting the Windows 2000 Reimaging Process**

<b>Error Message or Condition</b>	<b>Possible Causes</b>	<b>Solution</b>
Error message: "Bad file name or file not found. Abort, Retry, or Ignore?"	<ul style="list-style-type: none"> <li>• CD may be scratched or smudged.</li> <li>• CD may have been removed from the CD-ROM drive.</li> </ul>	<ul style="list-style-type: none"> <li>• Check the CD for smudges or debris. If either is present, carefully clean the CD, replace it in the drive, and restart the Windows 2000 reimaging process.</li> <li>• If the CD is missing from the drive, replace it in the drive, and restart the Windows 2000 reimaging process.</li> <li>• If the CD is still unreadable, contact TAC.</li> </ul>
Error message: "You should probably format the drive."	SPE hard disk I/O error. This error can be displayed if the hard drive on the SPE has not been formatted correctly.	<ul style="list-style-type: none"> <li>• Restart the Windows 2000 reimaging process.</li> <li>• If the error recurs, contact TAC.</li> </ul>
Error message: "An unexpected FATAL error has occurred."	Corrupted or unreadable files on the CD.	<ul style="list-style-type: none"> <li>• Check the CD for smudges or debris. If either is present, carefully clean the CD, replace it in the drive, and restart the Windows 2000 reimaging process.</li> <li>• If the CD is still unreadable, contact TAC.</li> </ul>
Error message: "The drive name you specified was not correct."	<ul style="list-style-type: none"> <li>• CD may be scratched or smudged.</li> <li>• CD may have been removed from the CD-ROM drive.</li> <li>• The USB cable on the CD-ROM drive may be loose or disconnected.</li> </ul>	<ul style="list-style-type: none"> <li>• Check the CD for smudges or debris. If either is present, carefully clean the CD, replace it in the drive, and restart the Windows 2000 reimaging process.</li> <li>• If the CD is missing from the drive, replace it in the drive and restart the Windows 2000 reimaging process.</li> <li>• If the CD is still unreadable, contact TAC.</li> </ul>

**Table B-1 Troubleshooting the Windows 2000 Reimaging Process (continued)**

Error Message or Condition	Possible Causes	Solution
Error message: "The drive was not ready. Check the drive!"	<ul style="list-style-type: none"> <li>• This message might be displayed if the CD has been removed and reinserted in the drive.</li> <li>• The CD may be unreadable.</li> </ul>	<ul style="list-style-type: none"> <li>• Check the CD for smudges or debris. If either is present, carefully clean the CD, replace it in the drive, and restart the Windows 2000 reimaging process.</li> <li>• If the CD is missing from the drive, replace it in the drive and restart the Windows 2000 reimaging process.</li> <li>• If the CD is still unreadable, contact TAC.</li> </ul>
Error message: "Critical Error - 0x0C Sharing Violation."	CD has been removed from the CD-ROM drive before the Norton Ghost disk reimaging was completed.	Put the Windows 2000 installation CD in the drive, and restart the reimaging process.
Error message: "Critical Error - 0x02 Drive not ready."	The CD-ROM drive was removed from the USB port on the SPE before the Norton Ghost disk reimaging was completed.	Reconnect the CD-ROM drive, and/or check the USB connector cable between the drive and the SPE. Restart the Windows 2000 reimaging process.

**Table B-1 Troubleshooting the Windows 2000 Reimaging Process (continued)**

Error Message or Condition	Possible Causes	Solution
Error message: "Application error 29005. Write sector failure, result = 32, drive = 129, sectors 6711422 to 6711429. If this problem persists, please contact your local Symantec support center" (the actual numbers displayed may vary).	Hard disk failure.	Contact TAC.
Error message: "Cannot load COMMAND.com, system halted."	CD may be scratched or smudged, or it could be faulty.	<ul style="list-style-type: none"> <li>• Check the CD for smudges or debris. If either is present, carefully clean the CD, replace it in the drive, and restart the Windows 2000 reimaging process.</li> <li>• If the CD is still unreadable, contact TAC.</li> </ul>
During initial boot, the USB CD-ROM drive is not recognized by the SPE system BIOS.	CD may be scratched or smudged, or it could be faulty.	<ul style="list-style-type: none"> <li>• Check the CD for smudges or debris. If either is present, carefully clean the CD, replace it in the drive, and restart the Windows 2000 reimaging process.</li> <li>• If this error keeps occurring, contact TAC.</li> </ul>
The Norton Ghost reimaging progress bar stops movement for an extended period of time.	The SPE detected input on the PS/2 port.	There must be no peripherals attached to the PS/2 port during the Windows 2000 disk reimaging. Remove the "Y" connector from the PS/2 port on the SPE, and restart the process.

**Table B-1 Troubleshooting the Windows 2000 Reimaging Process (continued)**

<b>Error Message or Condition</b>	<b>Possible Causes</b>	<b>Solution</b>
The Windows 2000 reimaging process begins again after Norton Ghost has completed and the system has rebooted.	The Cisco ICS 7750 Windows 2000 Bootable CD for SPE disc is still in the CD-ROM drive.	Remove the CD from the CD-ROM drive, and reseal the SPE. The Windows 2000 silent installation process should resume normally.
The process hangs or halts during the silent installation of Windows 2000.	Keystrokes were detected during the silent install.	Restart the Windows 2000 reimaging process, making sure that the PS/2 “Y” connector and attached keyboard and mouse are not connected to the SPE.
The CD-ROM drive is not recognized, even though the drive is connected properly to the USB port.	This error can occur if the CD-ROM drive has been removed from the SPE without stopping the drive properly though Windows 2000.	Follow these steps: <ul style="list-style-type: none"> <li>• Unplug the CD-ROM drive from the USB port of the SPE.</li> <li>• Close the “Unsafe Removal of Device” window shown on the Windows desktop.</li> <li>• Wait approximately 5 minutes.</li> <li>• Reconnect the CD-ROM drive to the SPE’s USB port. You should see the CD-ROM drive available.</li> </ul>