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# **Business Communications Manager**

## **BCM Imaging Tool User Guide**

**NORTEL**  
**NETWORKS™**

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## Preface

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The BCM Imaging Tool is a tool intended to correct configuration or hard disk content problems that cannot be solved using other methods. The BCM Imaging Tool allows you to change the contents of the Business Communications Manager hard drive back to its factory settings.

This guide provides information about how to use the BCM Imaging Tool.

## Symbols used in this guide

This guide uses symbols to draw your attention to important information. The following symbols appear in this guide:



**Caution:** Caution Symbol

Alerts you to conditions where you can damage the equipment.

---



**Danger:** Electrical Shock Hazard Symbol

Alerts you to conditions where you can get an electrical shock.

---



**Warning:** Warning Symbol

Alerts you to conditions where you can cause the system to fail or work improperly.

---



**Note:** Note Symbol

A Note alerts you to important information.

---



**Security note:** This symbol indicates a point of system security where a default should be changed, or where the administrator needs to make a decision about the level of security required for the system.

---

## Text conventions

This guide uses the following text conventions:

*italic text*

Indicates book titles.

Example: *Business Communications Manager Installation and Maintenance Guide*.

**bold text**

Indicates items on the screen or keys on the keyboard.

Example: Press the **Enter** key.

## Acronyms

This guide uses the following acronyms:

BRU	Backup and Restore Utility
DHCP	Dynamic Host Configuration Protocol
IDE	Integrated Device Electronics
IP	Internet Protocol
LAN	Local Area Network
PC	Personal Computer
USB	Universal Serial Bus
WAN	Wide Area Network
WINS	Windows Internet Name Service

## Related publications

For more information about using Business Communications Manager, refer to the following publications:

- *Programming Operations Guide*  
This document provides information about configuring the Business Communications Manager.
- *Management User Guide*  
This document provides information about managing the Business Communications Manager, including how to use the Backup and Restore Utility (BRU).
- *Software Keycode Installation Guide*  
This document provides information about obtaining and adding software keycodes to the Business Communications Manager system.
- *Installation and Maintenance Guide*  
This document provides information about installing and maintaining a Business Communications Manager system.

## How to get help

### USA and Canada

#### Authorized Distributors - ITAS Technical Support

**Telephone:**

1-800-4NORTEL (1-800-466-7835)

If you already have a PIN Code, you can enter Express Routing Code (ERC) 196#.

If you do not yet have a PIN Code, or for general questions and first line support, you can enter ERC 338#.

**Website:**

<http://www.nortelnetworks.com/support>

### Presales Support (CSAN)

**Telephone:**

1-800-4NORTEL (1-800-466-7835)

Use Express Routing Code (ERC) 1063#

### EMEA (Europe, Middle East, Africa)

#### Technical Support - CTAS

**Telephone:**

\* European Freephone 00800 800 89009

European Alternative/

United Kingdom +44 (0)870-907-9009

Africa +27-11-808-4000

Israel 800-945-9779

\* Note: Calls are not free from all countries in Europe, Middle East or Africa

**Fax:**

44-191-555-7980

**email:**

[emeahelp@nortelnetworks.com](mailto:emeahelp@nortelnetworks.com)

### CALA (Caribbean & Latin America)

#### Technical Support - CTAS

**Telephone:** 1-954-858-7777

**email:** [csrmt@nortelnetworks.com](mailto:csrmt@nortelnetworks.com)

### APAC (Asia Pacific)

Technical Support - CTAS

**Telephone:** +61 388664627

**Fax:** +61 388664644

**email:** [asia\\_support@nortelnetworks.com](mailto:asia_support@nortelnetworks.com)



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## Chapter 1

# Using BCM Imaging Tool

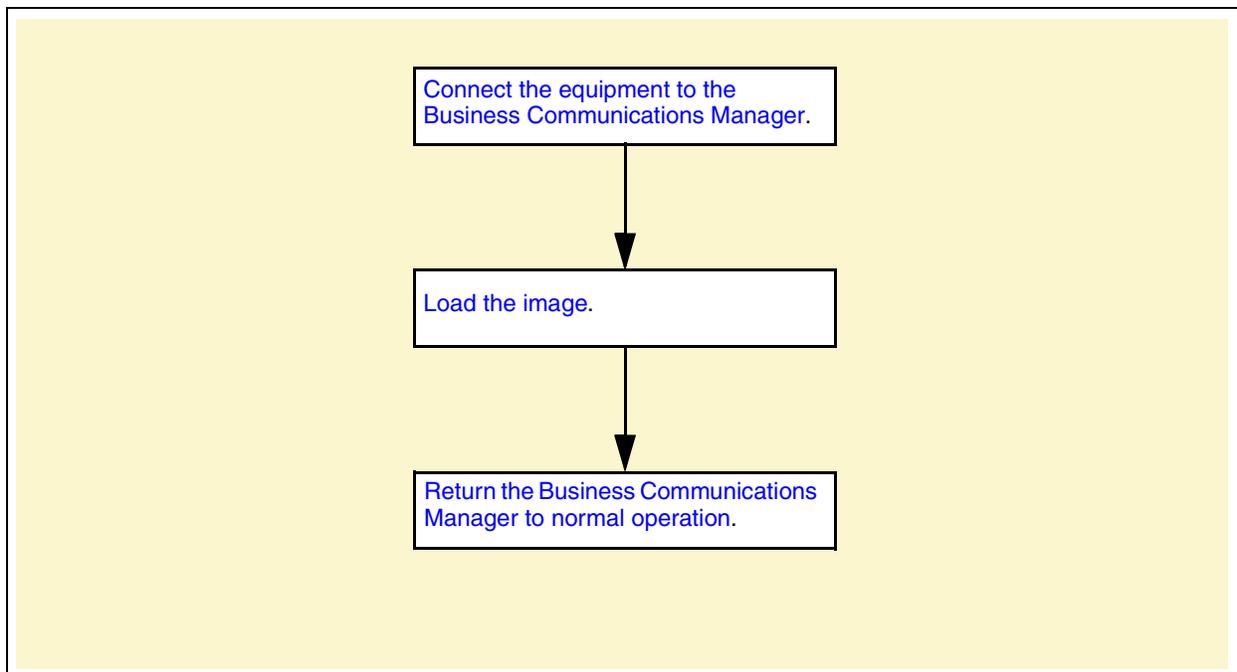
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The BCM Imaging Tool is a software application you use if the contents of the Business Communications Manager hard drive becomes corrupted. With the BCM Imaging Tool you can change the contents of the hard drive back to factory default.

## Overview

Figure 1 shows an overview of using the BCM Imaging Tool.

**Figure 1** Overview of using the BCM Imaging Tool



## Prerequisites

To use the BCM Imaging Tool, you must be at the same site as the Business Communications Manager system. You also need the following:

- a BCM Imaging Tool CD  
This CD contains the BCM Imaging Tool application and the system files required by the Business Communications Manager system to boot from this CD.
- a set of BCM Image CDs  
This set of CDs contains the files that are being loaded onto the Business Communications Manager system. There is one set of BCM Image CDs for each version of Business Communications Manager software that you can load. Make sure you have the correct set of CDs for the Business Communications Manager software version you want to load (for example, BCM 3.6).
- an access code for the Business Communications Manager system you are working on
- a keyboard
- a monitor
- a USB or IDE CD-ROM drive
- access to a network drive (optional)



**Note:** The BCM Imaging Tool does not work on Business Communications Manager systems with an 8 GB hard drive.

---



**Note:** To use a USB CD-ROM drive, your Business Communications Manager system must be a BCM 200 or BCM 400. As well, your system have been purchased with software version 3.5 or greater, or upgraded to software version 3.5 or greater using the Business Communications Manager Upgrade Kit.

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## Compatible USB CD-ROM drives

The BCM Imaging Tool works with USB CD-ROM drives that support the El Torito Bootable CD-ROM Format Specification. The following USB CD-ROM drives have been tested by Nortel Networks and are known to be compatible with the BCM Imaging Tool.

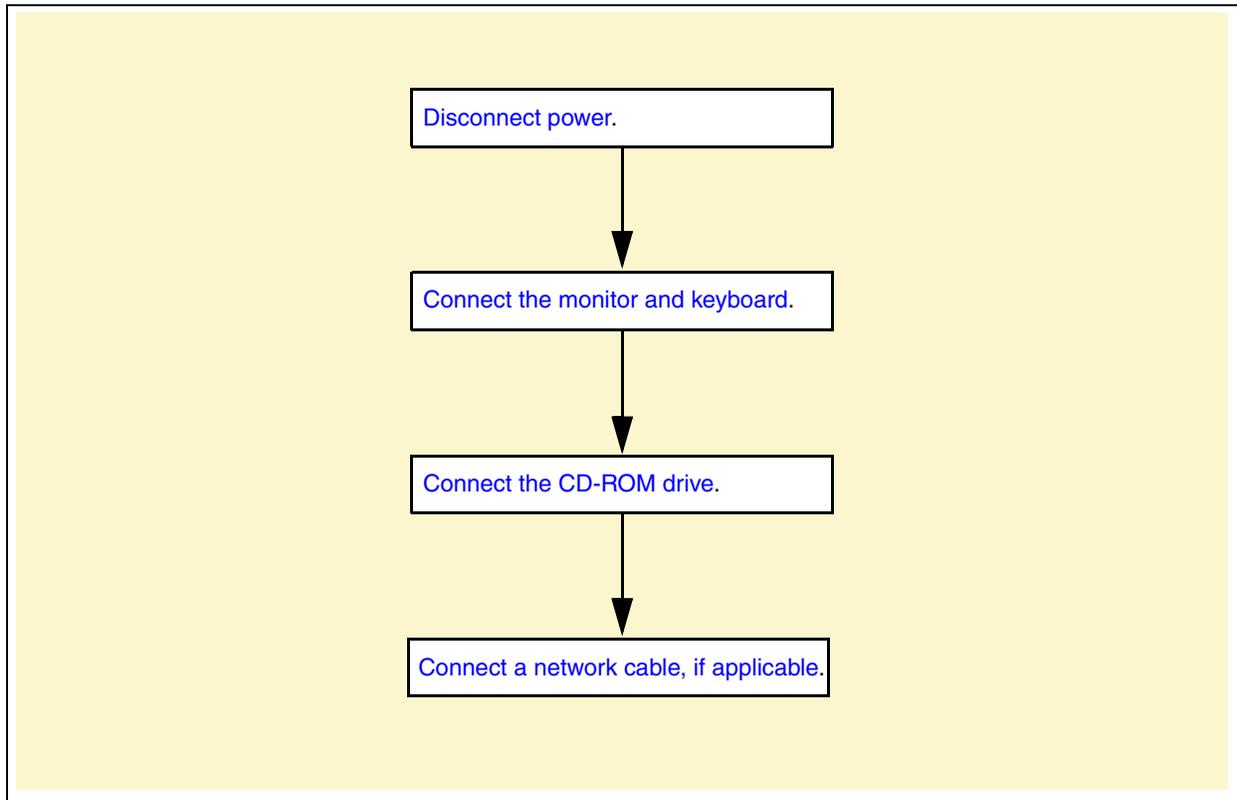
- PlexWriter™ 24/10/24U Hi-Speed USB external CD-RW drive
- LG Portable USB 2.0 CD-RW/DVD-ROM Drive
- Iomega CD-RW 52x24x52x USB 2.0 Drive
- Universal BUSlink USB 2.0 SLIM 24X CD-ROM PC
- Addronics 52x32x32x

Other USB CD-ROM drives may be compatible, but they have not been tested by Nortel Networks for compatibility.

## Connecting to the Business Communications Manager

To use the BCM Imaging Tool, you must connect a monitor, keyboard and CD-ROM drive to the Business Communications Manager. [Figure 2](#) shows the high level steps required to connect this equipment to the Business Communications Manager.

**Figure 2** Overview of connecting the required equipment to the Business Communications Manager



### Disconnecting power from the Business Communications Manager

- 1 If you still have access to the Unified Manager, shut down the system using the Shutdown command.
- 2 Remove all of the data and telephony connections from the front of the Business Communications Manager.
- 3 Disconnect the Business Communications Manager from the AC power outlet.

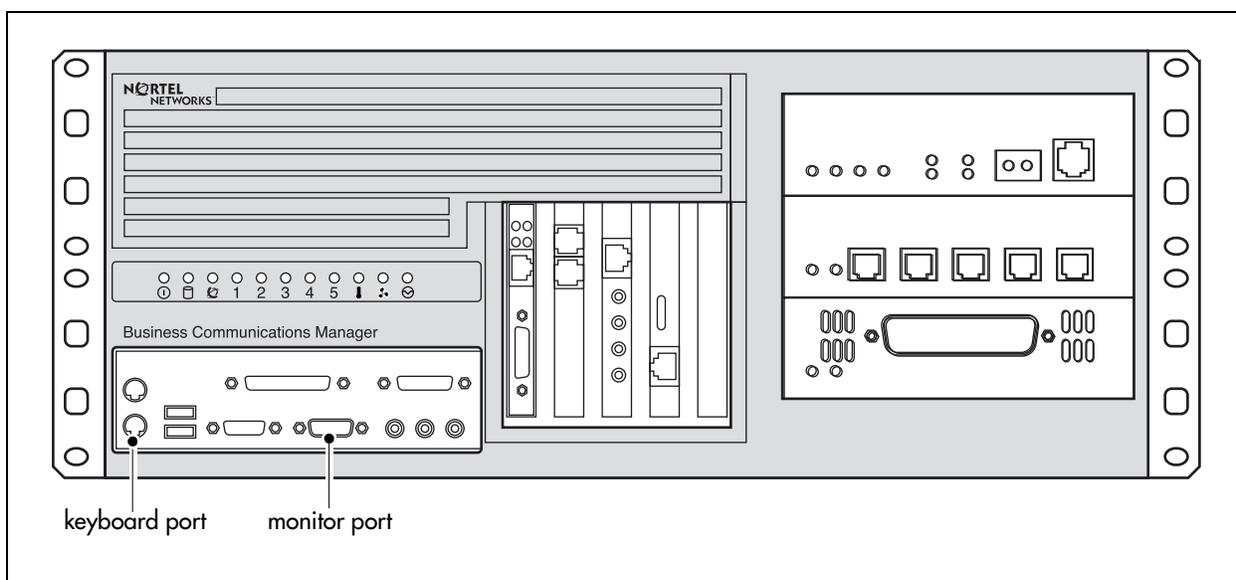
## Connecting a monitor and keyboard

To use the BCM Imaging Tool, you must connect a monitor and keyboard to the Business Communications Manager. The monitor and keyboard are connected to ports on the front of the Business Communications Manager.

### Connecting a monitor and keyboard to a BCM 1000

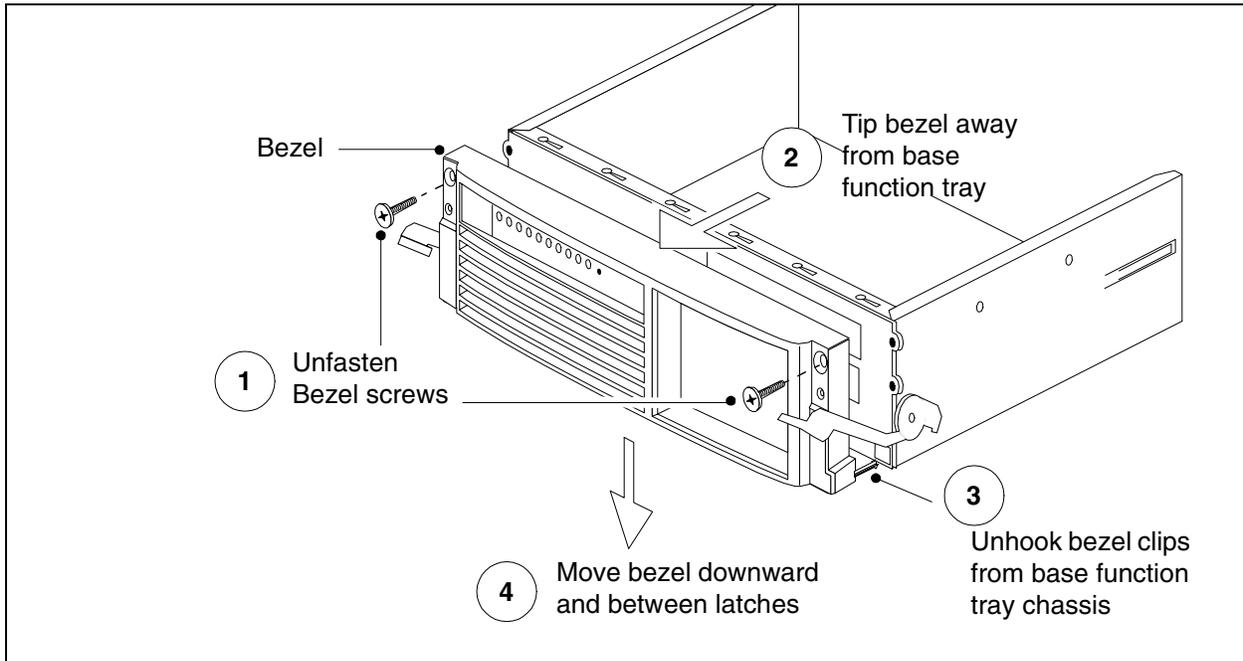
- 1 Open the door on the bezel to reveal the ports.
- 2 Connect the monitor and keyboard to the appropriate port. Refer to [Figure 3](#) for the location of the ports.

**Figure 3** Location of the ports on a BCM 1000

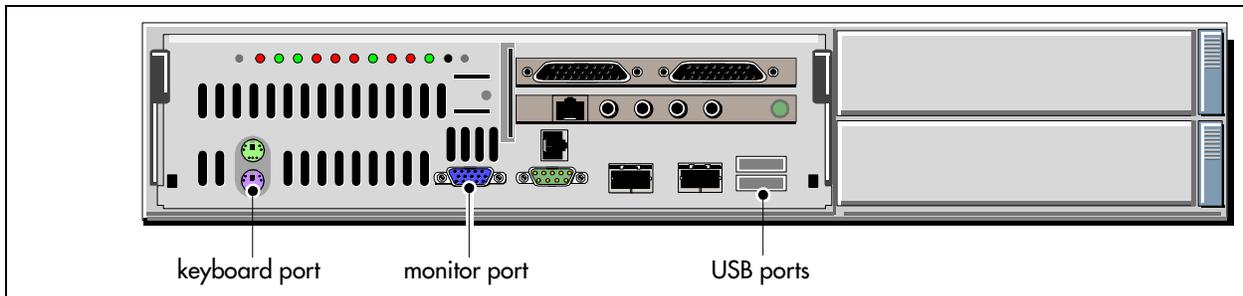


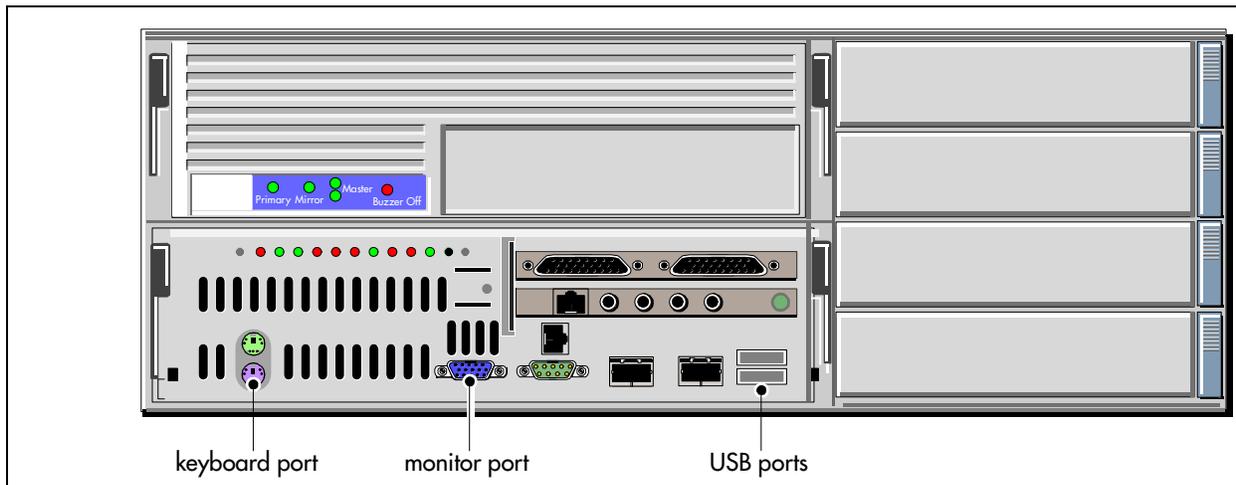
### Connecting a monitor and keyboard to a BCM 200 or BCM 400

- 1 Attach one end of a grounding strap to your wrist and the other end to a grounded metal surface.
- 2 Remove the base function tray latch screws. Place the screws in a safe location.
- 3 Move the base function tray latches to the unlocked position. See [Figure 4](#).
- 4 Grasp the base function tray latches and partially remove the base function tray from the platform base chassis. Do not exert force on the DS30 ribbon cables or connectors.
- 5 Unfasten the bezel screws from the base function tray face. Place the screws in a safe location.
- 6 Pull and tip the bezel away from the base function tray until the bezel clips are clear of the base function tray chassis. Move the bezel in a downward direction between the base function tray latches. Place the bezel in a safe location.

**Figure 4** Remove the base function tray bezel

- 7** Push the base function tray completely into the chassis. Be careful not to crimp the DS30 ribbon cables.
- 8** Move the base function tray latches to the locked position.
- 9** Connect the monitor and keyboard to the appropriate ports. Refer to [Figure 5](#) or [Figure 6](#) for the locations of these ports.

**Figure 5** Location of the ports on a BCM 200

**Figure 6** Location of the ports on a BCM 400

## Connecting a CD-ROM drive to the Business Communications Manager

To use the BCM Imaging Tool, you must connect a CD-ROM drive to the Business Communications Manager. The Business Communications Manager system uses this CD-ROM drive as the boot device when you start the BCM Imaging Tool and to load the information from the BCM Image CDs.

If your Business Communications Manager system is a BCM 200 or a BCM 400, you can use a USB CD-ROM drive or an IDE CD-ROM drive. The advantage of the USB CD-ROM drive is that it is quicker and easier to install on the Business Communications Manager. The advantage of the IDE CD-ROM drive is that it loads the BCM Image much quicker.



**Note:** To use a USB CD-ROM drive with a BCM 200 or a BCM 400, your Business Communications Manager system must be using software version 3.5 or greater.



**Tip:** To get the benefits of easier CD-ROM drive installation and faster loading of the BCM Image, use a USB CD-ROM drive and load the BCM Image from a shared network drive.

If your Business Communications Manager system is a BCM 1000, you must use an IDE CD-ROM drive.

### Connecting a USB CD-ROM drive to a BCM 200 or BCM 400

- 1 Place the CD-ROM drive next to the Business Communications Manager.
- 2 Connect the USB cable from the CD-ROM drive to one of the USB ports on the front of the BCM 200 or BCM 400. For the location of the USB ports, refer to [Figure 5](#) for the BCM 200 or [Figure 6](#) for the BCM 400.
- 3 Connect the power cable to the CD-ROM drive.

### Connecting an IDE CD-ROM drive to a BCM 200 or BCM 400

- 1 Make sure that power is disconnected from the BCM 200 or BCM 400. If it is not, refer to [“Disconnecting power from the Business Communications Manager” on page 13](#).
- 2 If required for accessibility, remove the BCM 200 or BCM 400 from the rack, or the wall, and place it on a flat, clean and static-free surface.
- 3 Attach one end of a grounding strap to your wrist and the other end to a grounded metal surface.
- 4 Remove the top cover screws located at the rear of the BCM 200 or BCM 400. Place the screws in a safe location.
- 5 Lift the back of the cover and slide it rear-ward until it disengages from the BCM 200 or BCM 400.
- 6 Lift the top cover up and away from the BCM 200 or BCM 400. Place the cover in a safe location.
- 7 Place the CD-ROM drive in the BCM 200 or BCM 400.  
Make sure you leave room in front of the CD-ROM drive to allow inserting the CDs.
- 8 Connect the available connector on the IDE cable to the CD-ROM drive.
- 9 Connect an available power connector to the back of the CD-ROM drive.

### Connecting an IDE CD-ROM drive to a BCM 1000

- 1 Make sure that power is disconnected from the BCM 1000. If it is not, refer to [“Disconnecting power from the Business Communications Manager” on page 13](#).
- 2 Attach one end of a grounding strap to your wrist and the other end to a grounded metal surface.
- 3 If required for accessibility, remove the BCM 1000 from the rack, or the wall, and place it on a flat, clean and static-free surface.
- 4 Remove the two screws from the cover, at the back of the BCM 1000.
- 5 Lift the back of the cover and slide it back and up.
- 6 Place the CD-ROM drive in the BCM 1000.  
Make sure you leave room in front of the CD-ROM drive to allow inserting the CDs.
- 7 Connect the available connector on the IDE cable to the CD-ROM drive.
- 8 Connect an available power connector to the back of the CD-ROM drive.

## Connecting a network cable to the Business Communications Manager

When you are loading a BCM Image to the hard drive, you can load the BCM Image from the CD-ROM drive connected to the Business Communications Manager system, a shared network drive or a shared CD-ROM drive. To use a shared network drive or a shared CD-ROM drive, you must connect the Business Communications Manager to a computer on the network or to a local computer.

To connect the Business Communications Manager to a computer on the network, use a standard Ethernet cable to connect the LAN card on the Business Communications Manager to a port of a switch or router on the network.

To connect the Business Communications Manager to a local computer:

- Use an Ethernet cross-over cable to connect the LAN card on the Business Communications Manager to the LAN card on the local computer.
- or
- Use a standard Ethernet cable to connect the LAN card on the Business Communications Manager to a port on a local hub or switch. Use a second Ethernet cable to connect the LAN card on the local computer to another port on the local hub or switch.

---

## Loading the BCM Image

The BCM Image is a copy of the contents of the Business Communications Manager hard drive as it was when it was shipped from the factory. You load the BCM Image when you want to change the Business Communications Manager applications and settings back to their factory defaults. Two examples of when you might load the BCM Image are:

- if there has been a serious configuration error that does not allow the Business Communications Manager to start up
- the Business Communications Manager system has been returned from a lease customer and you want to reset it to factory condition



**Warning:** Loading the BCM Image erases all of the information that has been stored on the Business Communications Manager hard drive. This includes keycodes, application patches, configuration programming, voice messages, and greetings.

Note that telephony programming is not stored on the hard drive and therefore is not erased when you load a BCM image. If you want to erase the telephony programming, you must perform a system startup. For information about how to perform a system startup, refer to “Performing a system startup and warm reset” in the *Business Communications Manager Management User Guide*.

---

When you are loading the BCM Image, you can load one of the following software versions as well as any software version greater than BCM 3.6:

- BCM 3.0
- BCM 3.0.1
- BCM 3.5
- BCM 3.6

You can load the BCM Image from the CD-ROM drive connected to the Business Communications Manager, from a shared network drive or from a shared CD-ROM drive.



**Note:** If you want to use the Backup and Restore Utility (BRU) to restore the system programming, you must load the BCM Image for the same software version that the backup was made with (i.e. the same version that is currently on your Business Communications Manager).

---



Nortel Networks recommends that you load the same software version that is currently on the Business Communications Manager system.

If you would like to change the software version, use the Business Communications Manager Upgrade Kit after you have finished loading the BCM Image. The Upgrade Kit includes additional updates that are not loaded when you use the BCM Imaging Tool. For example, the Upgrade Kit for software version 3.5 includes a BIOS update that enables USB support. If you used the BCM Imaging Tool to change the software version from 3.01 to 3.5, the Business Communications Manager system would not get the update required to support USB CD-ROM drives.

---

## Loading the BCM Image from a CD-ROM drive

To load the BCM Image from a CD-ROM drive, you must have a CD-ROM drive connected to the Business Communications Manager system.



**Tip:** Loading the BCM Image from an IDE CD-ROM drive is much faster than loading the BCM Image from a USB CD-ROM drive.

If you connected a USB CD-ROM drive to the Business Communications Manager, load the BCM image using a shared network drive whenever possible. Loading the BCM Image from a shared network drive significantly reduces the amount of time it takes to load the BCM Image. (Loading from a USB CD-ROM drive takes approximately 65 minutes, while loading from a shared drive or IDE CD-ROM drive takes approximately 15 minutes.)

- 1 Connect the required equipment to the Business Communications Manager. For information about how to connect the equipment, refer to [“Connecting to the Business Communications Manager”](#) on page 13.
- 2 Turn on the monitor connected to the Business Communications Manager.
- 3 If you are using a USB CD-ROM drive, turn on the CD-ROM drive power switch. If you are using an IDE CD-ROM drive, connect power to the Business Communications Manager to power up the CD-ROM drive.
- 4 Load the BCM Imaging Tool CD into the CD-ROM drive connected to the Business Communications Manager.
- 5 If you are using a USB CD-ROM drive, connect power to the Business Communications Manager. If you are using an IDE CD-ROM drive, reboot the Business Communications Manager by disconnecting power from the Business Communications Manager and then reconnecting power. The Startup Menu appears.

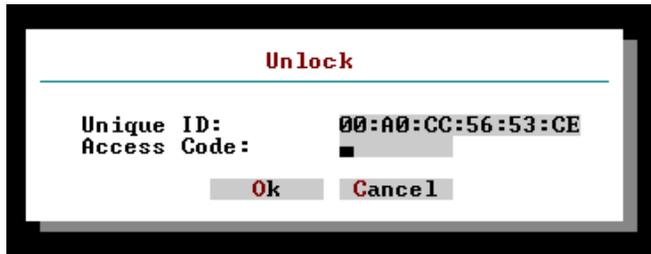
```
MS-DOS 6.22 Startup Menu
-----
1. External USB CD-ROM Drive
2. Internal IDE CD-ROM Drive
Enter a choice: 1
```

- 6 Select the CD-ROM drive in which you installed the BCM Imaging Tool CD and press the **Enter** key. The License Agreement screen appears.
- 7 Read the entire License Agreement and press the **Enter** key. To scroll the License Agreement up or down, use the Page Up, Page Down or arrow keys.

- 8 If you want to accept the License Agreement and use the BCM Imaging Tool, use the **Tab** key to highlight the **Accept** button and press the **Enter** key. The Unlock screen appears.



**Note:** If you do not want to accept the License Agreement, use the **Tab** key to highlight the **Decline** button and press the **Enter** key. The BCM Imaging Tool exits.

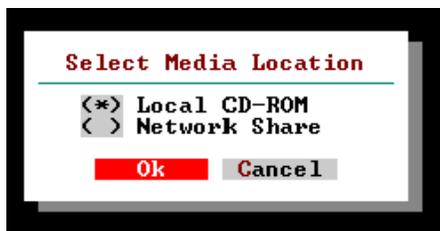


- 9 Enter the Access Code for this Business Communications Manager system. If you do not have the Access Code for this Business Communications Manager system, contact your Nortel Networks support personnel and request the Access Code for this system. Provide the support personnel with the Unique ID that is shown on Unlock screen of the BCM Imaging Tool.



**Note:** An Access Code works for only one Business Communications Manager system. You cannot use an Access Code from another Business Communications Manager system.

- 10 Use the **Tab** key to highlight the **OK** button and press the **Enter** key (or press **Alt+O**). The Select Media Location screen appears.



- 11 Use the **Tab** key to select the **Local CD-ROM** option and then press the **Space** bar.

- 12 Use the **Tab** key to highlight the **OK** button and press the **Enter** key (or press **Alt+O**). Follow the instructions on the screen to continue. Make sure you have the BCM Image CDs ready to insert when requested by the BCM Imaging Tool.



**Note:** After you insert a CD in the CD-ROM drive, wait at least 5 seconds before you press the **Enter** key. This allows the CD-ROM drive time to recognize the new CD.

If you press **Enter** before the CD-ROM drive is ready, you will receive an error message. Leave the CD in the CD-ROM drive, wait at least 5 seconds and then press the **Enter** button. If the error message gives you the option of Abort or Retry, press the **R** button.

---

- 13 Use the **Tab** key to highlight the **OK** button and press the **Enter** key (or press **Alt+O**). The Image File Needed screen appears.
- 14 Insert the first BCM Image CD into the CD-ROM drive. A Warning screen appears.



- 15 Press the **Enter** key and follow the instructions on the screen to continue.
- 16 Use the **Tab** key to highlight the **Yes** button and press the **Enter** key (or press **Alt+Y**).
- 17 When the BCM Imaging Tool has finished loading the BCM Image, the BCM Imaging Completed screen appears. You can now return the Business Communications Manager system to its normal operating configuration using the steps in [“Returning the Business Communications Manager to normal operation”](#) on page 29.



## Loading the BCM Image from a network drive

To load the BCM Image from a network drive, you must have a CD-ROM drive connected to the Business Communications Manager system. You must also have one of the following network connections.

- A computer connected to the Business Communications Manager system using an Ethernet crossover cable or two Ethernet cables and a local hub or switch. For information about the network settings required for this connection, refer to [“Configuring your computer to connect using an Ethernet crossover cable” on page 28](#).
- A computer on the network that you can access from the Business Communications Manager system.



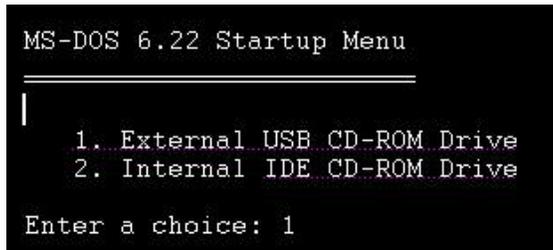
**Note:** The computer that has the network drive you want to use must be using Windows NT, Windows 2000 or Windows XP. The BCM Imaging Tool does not support Windows 95, Windows 98 or Windows Me.

---

The network share can be a shared folder on a hard drive or a shared CD-ROM drive. If you are using a shared folder on a hard drive, you must load the BCM Imaging Tool and the BCM Images onto the shared folder before you start the BCM Imaging Tool. For information about loading these files onto a shared folder, refer to [“Preparing a shared network drive” on page 28](#). If you are using a shared CD-ROM drive, load the BCM Image CDs into the shared CD-ROM drive when requested by the BCM Imaging Tool.

To load the BCM Image:

- 1** Connect the required equipment to the Business Communications Manager. For information about how to connect the equipment, refer to [“Connecting to the Business Communications Manager” on page 13](#).
- 2** Turn on the monitor connected to the Business Communications Manager.
- 3** If you are using a USB CD-ROM drive, turn on the CD-ROM drive power switch. If you are using an IDE CD-ROM drive, connect power to the Business Communications Manager to power up the CD-ROM drive.
- 4** Load the BCM Imaging Tool CD into the CD-ROM drive connected to the Business Communications Manager.
- 5** If you are using a USB CD-ROM drive, connect power to the Business Communications Manager. If you are using an IDE CD-ROM drive, reboot the Business Communications Manager by disconnecting power from the Business Communications Manager and then reconnecting power. The Startup Menu appears.

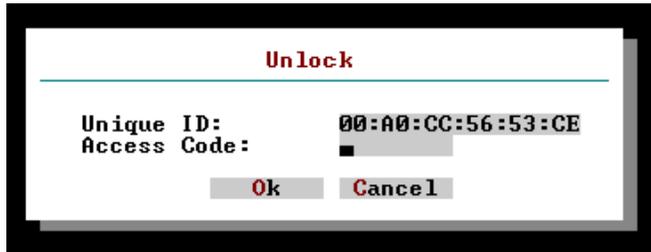


- 6 Select the CD-ROM drive in which you installed the BCM Imaging Tool CD and press the **Enter** key.  
The License Agreement screen appears.
- 7 Read the entire License Agreement and press the **Enter** key.  
To scroll the License Agreement up or down, use the Page Up, Page Down or arrow keys.
- 8 If you want to accept the License Agreement and use the BCM Imaging Tool, use the **Tab** key to highlight the **Accept** button and press the **Enter** key.  
The Unlock screen appears.



**Note:** If you do not want to accept the License Agreement, use the **Tab** key to highlight the **Decline** button and press the **Enter** key. The BCM Imaging Tool exits.

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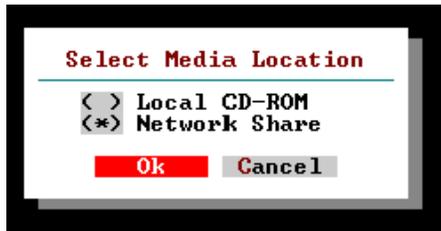
- 9 Enter the Access Code for this Business Communications Manager system.  
If you do not have the Access Code for this Business Communications Manager system, contact your Nortel Networks support personnel and request the Access Code for this system. Provide the support personnel with the Unique ID that is shown on Unlock screen of the BCM Imaging Tool.



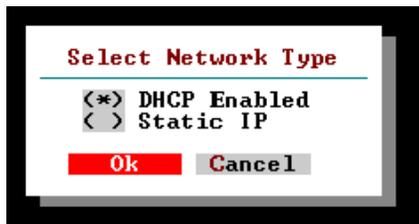
**Note:** An Access Code works for only one Business Communications Manager system. You cannot use an Access Code from another Business Communications Manager system.

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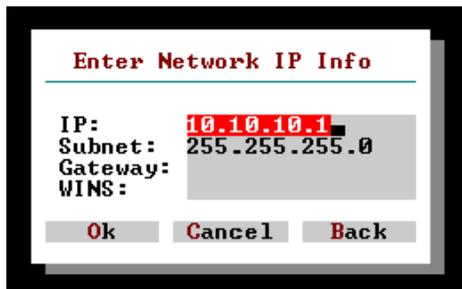
- 10 Use the **Tab** key to highlight the **OK** button and press the **Enter** key (or press **Alt+O**).  
The Select Media Location screen appears.



- 11 Use the **Tab** key to select the **Network Share** option and then press the **Space** bar.
- 12 Use the **Tab** key to highlight the **OK** button and press the **Enter** key (or press **Alt+O**). The Select Network Type screen appears.

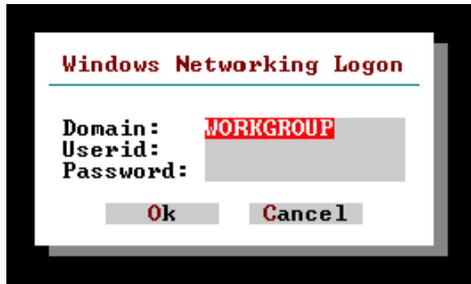


- 13 If your network uses DHCP, use the **Tab** key to highlight the **OK** button and press the **Enter** key (or press **Alt+O**). Proceed to [Step 20](#).  
If you are using a local computer or your networks does not use DHCP, use the **Tab** key to select the **Static IP** option and then press the **Space** bar.
- 14 Use the **Tab** key to highlight the **OK** button and press the **Enter** key (or press **Alt+O**). The Enter Network IP Info screen appears.

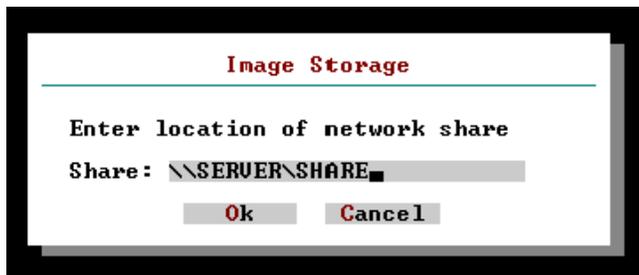


- 15 Enter the IP address of the Business Communications Manager system and press the **Tab** key. The **Subnet** field is highlighted.
- 16 Enter the Subnet mask of the Business Communications Manager and press the **Tab** key. The **Gateway** field is highlighted.
- 17 If the computer with the shared drive is on a different subnet, enter the IP address of gateway for the network to which the Business Communications Manager is connected and press the **Tab** key.  
If the computer with the shared drive is on the same subnet, press the **Tab** key. The **WINS** field is highlighted.
- 18 If the network uses a WINS server, enter the IP address of the WINS server.  
If the network does not use a WINS server, go to the next step.

- 19 Use the **Tab** key to highlight the **OK** button and press the **Enter** key (or press **Alt+O**). The Windows Networking Logon screen appears.



- 20 Enter the name of the Domain in which the computer with the shared drive is located and press the **Tab** key.  
If you are not using domain names on your network, enter the Machine Name of the computer with the shared drive or the name of the Workgroup to which the computer belongs and press the **Tab** key.  
The **Userid** field is highlighted.
- 21 Enter the User name required to access the shared drive and press the **Tab** key.  
The **Password** field is highlighted.
- 22 Enter the Password required to access the shared drive.
- 23 Use the **Tab** key to highlight the **OK** button and press the **Enter** key (or press **Alt+O**). The Image Storage screen appears.



- 24 Enter the pathname of the shared drive (for example, \\rdoe-3\BIT35).



**Note:** You cannot use an IP address in the pathname you enter to specify the location of the shared drive. You must always use the server name.

---

- 25 Use the **Tab** key to highlight the **OK** button and press the **Enter** key (or press **Alt+O**).  
If there is only one BCM Image on the shared drive, a Verification screen appears. Go to [Step 27](#).  
If there is more than one BCM image on the shared drive, the Image Selection screen appears. Continue with [Step 26](#).
- 26 Use the **Tab** key to select the image file you want to load and press the **Enter** key.  
A Verification screen appears.

- 27 Use the **Tab** key to highlight the **Yes** button and press the **Enter** key (or press **Alt+Y**).



**Note:** If you are using a shared CD-ROM drive, you must insert the BCM Imaging Tool CD and the BCM Image CDs in the shared CD-ROM drive when prompted by the BCM Imaging Tool.

---

- 28 When the BCM Imaging Tool has finished loading the BCM Image, the BCM Imaging Completed screen appears. You can now return the Business Communications Manager system to its normal operating configuration using the steps in [“Returning the Business Communications Manager to normal operation”](#) on page 29.



## Preparing a shared network drive

If you are loading the BCM Image from a shared network drive, you must load the contents of the BCM Imaging Tool CD and the BCM Image CDs onto the network drive before you start. To prepare the network drive:

- 1 Create a folder on the computer you want to use for sharing.
- 2 Enable sharing on the folder and set the permissions so that the Business Communications Manager can access this folder. For information about how to enable sharing or set the permissions, refer to the documentation for your computer.
- 3 Copy the contents of the BCM Imaging Tool CD into the shared folder.  
Make sure the contents of the BCM Imaging Tool CD are at the top level of the folder.
- 4 Copy the contents of BCM Image CDs into the shared folder.  
Make sure the contents of all of the BCM Image CDs are at the top level of the folder.
- 5 Repeat step 4 for each version of the BCM Image CDs you want to load.

## Configuring your computer to connect using an Ethernet crossover cable

When you are connecting your computer to the Business Communications Manager using an Ethernet crossover cable, or a local hub or switch, you must change the network settings on your computer. The table below shows the recommended settings for this type of connection.

Network settings on your computer	Value	BCM Imaging Tool setting	Value
		Select Network Type	Static IP
IP Address	10.10.10.100	IP	10.10.10.1
Subnet mask	255.255.255.0	Subnet	255.255.255.0
Default Gateway	10.10.10.100	Gateway	10.10.10.100

For information about how to set the network parameters on your computer, refer to your Operating System documentation.



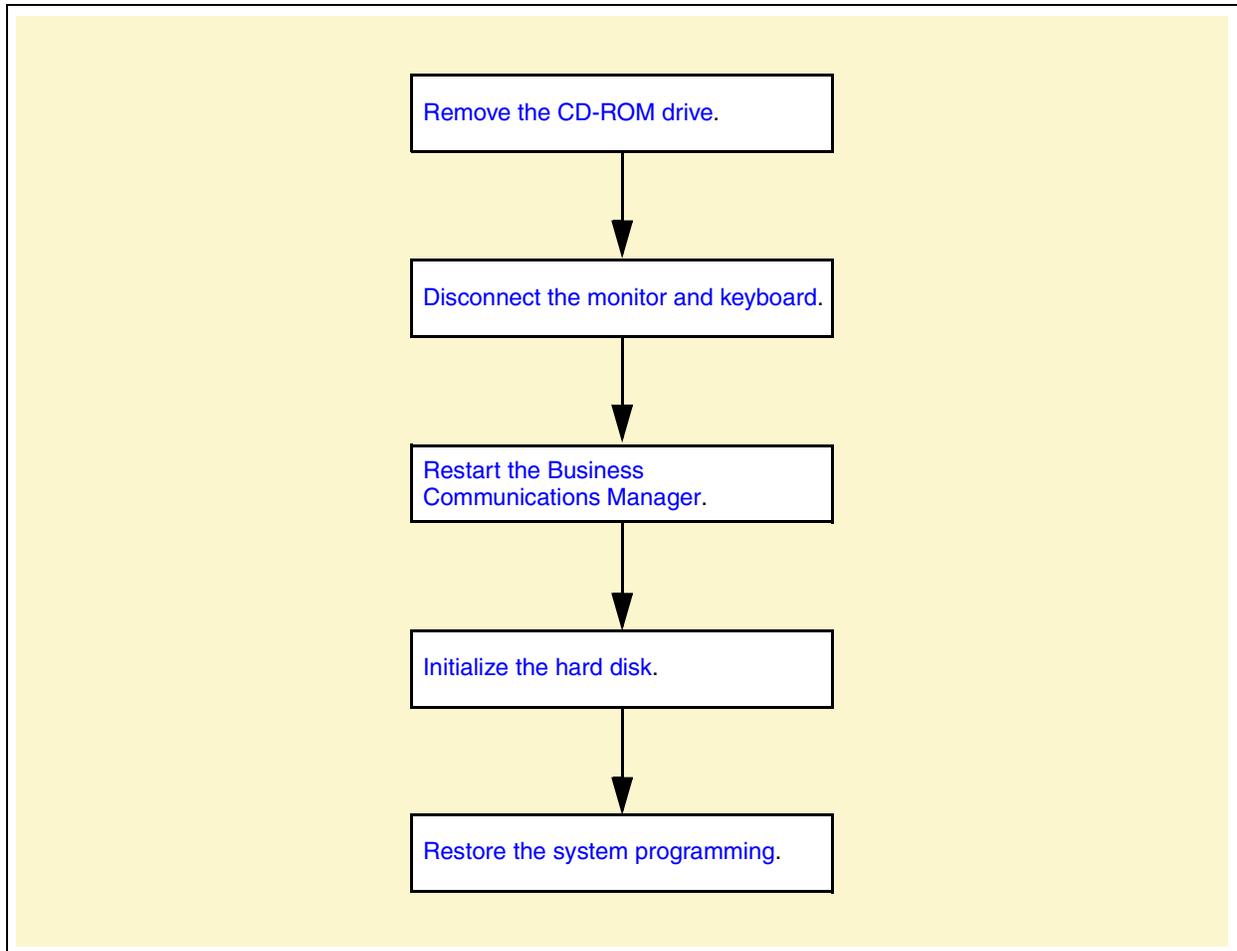
**Note:** Make sure you record your current network setting, so you can change them back when you are finished using the BCM Imaging Tool.

---

## Returning the Business Communications Manager to normal operation

After you have finished applying a BCM Image, you must return the Business Communications Manager system to its normal operating configuration. [Figure 7](#) shows the high level steps required to return the Business Communications Manager to its normal configuration.

**Figure 7** Overview of returning the Business Communications Manager to its normal configuration



## **Removing a USB CD-ROM drive from a BCM 200 or BCM 400**

- 1 Turn off the CD-ROM drive.
- 2 Disconnect the power cable from the CD-ROM drive.
- 3 Disconnect the USB cable from the CD-ROM drive and the Business Communications Manager.

## **Removing an IDE CD-ROM drive from a BCM 200 or BCM 400**

- 1 Disconnect the power cable from the BCM 200 or BCM 400.
- 2 Attach one end of a grounding strap to your wrist and the other end to a grounded metal surface.
- 3 Disconnect the IDE ribbon cable from the CD-ROM drive.
- 4 Disconnect the power connector from the CD-ROM drive.
- 5 Remove the CD-ROM drive from the BCM 200 or BCM 400.
- 6 Set the top cover on the BCM 200 or BCM 400.
- 7 With the rear of top cover slightly raised, slide the top cover forward until the cover engages with the BCM 200 or BCM 400.
- 8 Press the top cover down until it rests on the BCM 200 or BCM 400.
- 9 Install the two top cover screws at the rear of the platform base chassis.

## **Removing an IDE CD-ROM drive from a BCM 1000**

- 1 Disconnect the power cable from the BCM 1000.
- 2 Attach one end of a grounding strap to your wrist and the other end to a grounded metal surface.
- 3 Disconnect the IDE ribbon cable from the CD-ROM drive.
- 4 Disconnect the power connector from the CD-ROM drive.
- 5 Remove the CD-ROM drive from the BCM 1000.
- 6 Set the top cover on the BCM 1000.
- 7 With the rear of top cover slightly raised, slide the top cover forward until the cover engages with the BCM 1000.
- 8 Press the top cover down until it rests on the BCM 1000.
- 9 Install the two top cover screws at the rear of the platform base chassis.

## Disconnecting the monitor and keyboard from a BCM 1000

To disconnect the monitor and keyboard:

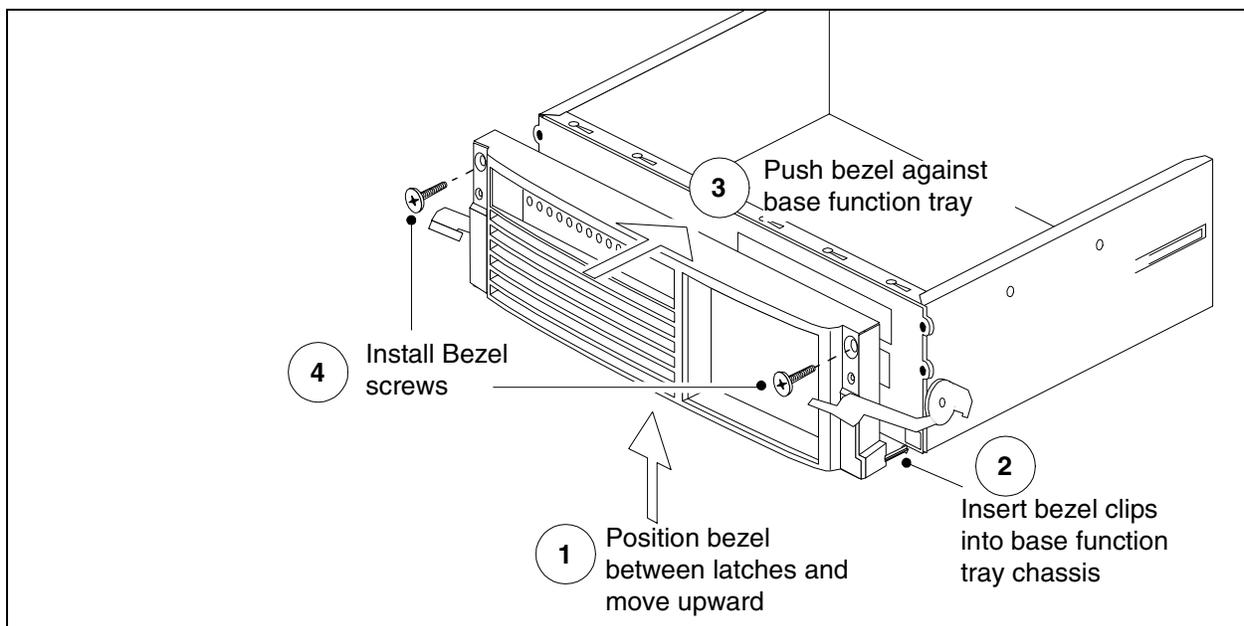
- 1 Remove the monitor and keyboard cables from the Business Communications Manager.
- 2 Close the door on the bezel.

## Disconnecting the monitor and keyboard from a BCM 200 or BCM 400

To disconnect the monitor and keyboard:

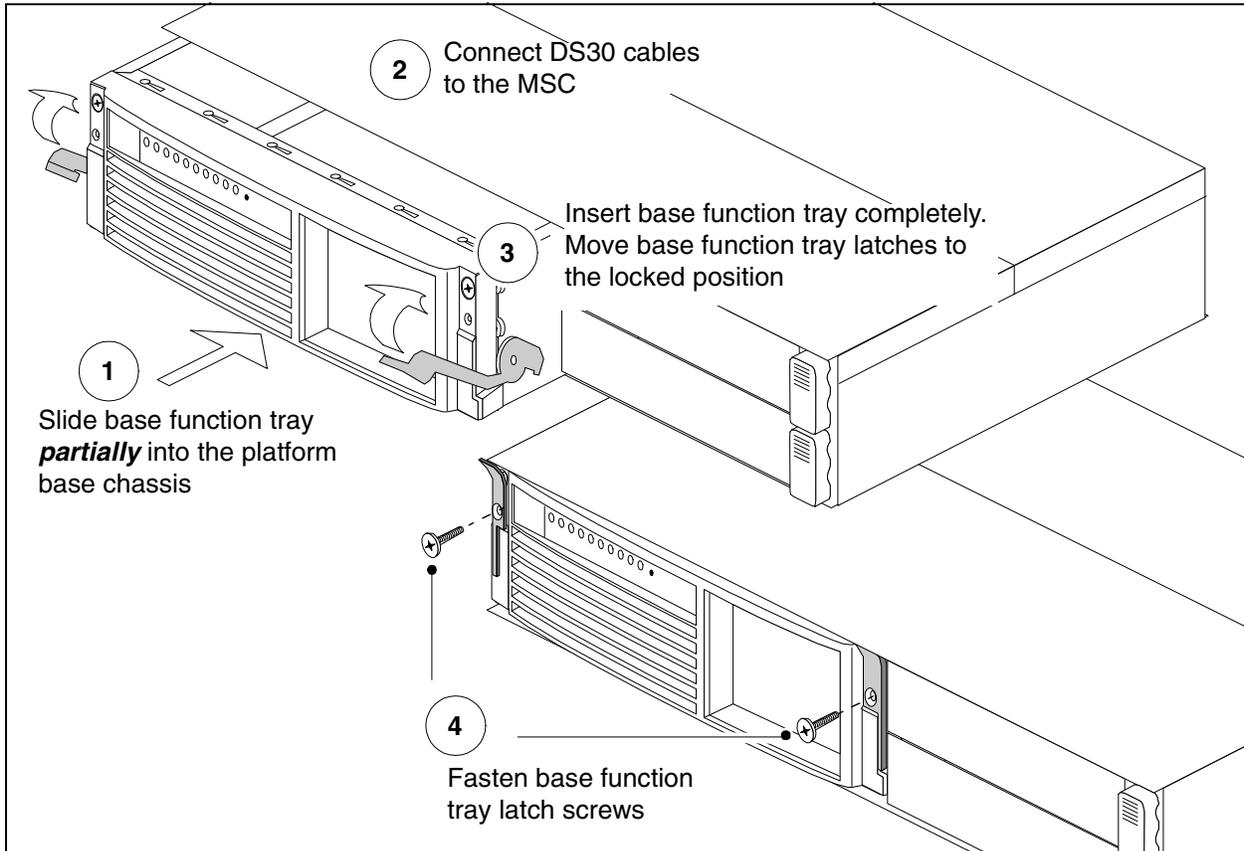
- 1 Make sure the Business Communications Manager is disconnected from the AC power outlet.
- 2 Attach one end of a grounding strap to your wrist and the other end to a grounded metal surface.
- 3 Disconnect the monitor and keyboard cables from the BCM 200 or BCM 400.
- 4 Move the base function tray latches to the unlocked position.
- 5 Position the bezel below and between the base function tray latches. Lift the bezel until the bezel clips line-up with the corresponding base function tray bezel holes.
- 6 Tilt the bezel forward, then push the bottom of the bezel into the base function tray chassis to engage the bezel clips.
- 7 Push on the face of the bezel so that it rests flush with the face of the base function tray chassis.
- 8 Install the base function tray bezel screws. See [Figure 8](#).

**Figure 8** Install the base function tray bezel



- 9 Push the base function tray completely into the chassis. Be careful not to crimp the DS30 ribbon cables.
- 10 Move the base function tray latches to the locked position. Refer to [Figure 9](#).
- 11 Install the base function tray latch screws.

**Figure 9** Install the base function tray



## Restarting the Business Communications Manager

- 1 If you removed the Business Communications Manager from the rack or wall, replace it.
- 2 Plug the Business Communications Manager and the expansion unit, if there is one, into the AC power source.  
The Business Communications Manager automatically starts booting.  
The reboot can take several minutes to complete.



**Note:** Plug in the expansion unit immediately after plugging in the Business Communications Manager to ensure synchronization between the two units.

---

- 3 Reconnect all the connectors to the front of the units.

## Initializing the Business Communications Manager hard disk

After you have finished applying the BCM Image, you must initialize the hard disk. This restores several key settings that are normally set at the factory. For information about how to initialize the hard drive, refer to **Initialize the Hard Disk** in the *Business Communications Manager Installation and Maintenance Guide*.

The procedure for initializing the hard disk is different on the various Business Communications Manager software versions. For this reason, make sure you use the Installation and Maintenance Guide for the correct Business Communications Manager model (BCM 1000, BCM 200 or BCM 400) and software version (BCM 3.0, BCM 3.0.1, BCM 3.5, BCM 3.6 or greater).



**Security note:** If you loaded Business Communications Manager software version 3.5, **Telnet** and **BCM Drive Shares** are enabled.

To ensure optimal security, you should disable these two settings. For information on how to disable Telnet settings, refer to the *Business Communications Manager Programming Operations Guide*. For information about how to disable the BCM Drive Shares, refer to the *Business Communications Manager Management User Guide*.

---

## Restoring the Business Communications Manager programming

After you have finished initializing the hard disk, you can restore the Business Communications Manager system programming. To restore the programming, you can use the Backup and Restore Utility (BRU) or you can manually enter the program settings.

### Restoring the Business Communications Manager programming using BRU

To restore the programming using BRU, you must have previously created a backup of the system programming using BRU. If you do not have a backup, you must restore the programming manually.



**Note:** You can use BRU only if you loaded the same Business Communications Manager software version that the backup was made with. For example, to use a backup created on Business Communications Manager software version 3.5, you must have loaded the BCM Image for software version 3.5 onto the Business Communications Manager.

---

To restore the system programming:

- 1 Install any patches that are applicable for this Business Communications Manager system.



**Note:** Only install the patches that you know operate properly on this Business Communications Manager system.

---

- 2 Use the Backup and Restore Utility (BRU) to restore a known working copy of system programming. The restore also loads all of the software keycodes for the system. For information about how to use BRU, refer to the *Business Communications Manager Management User Guide*.



**Note:** Make sure the **Registry** option in the **Select BCM Component(s)** box is not selected before you restore the programming.

---

### Restoring the Business Communications Manager programming manually

- 1 Add all of the software keycodes that are applicable for this Business Communications Manager system. For information about adding keycodes, refer to the *Software Keycode Installation Guide*.
- 2 Install any patches that are applicable for this Business Communications Manager system.



**Note:** Only install the patches that you know operate properly on this Business Communications Manager system.

---

- 3 Use Unified Manager to manually configure the Business Communications Manager system. For information about how to use Unified manager, refer to the *Business Communications Manager Programming Operations Guide*.

---

# Glossary

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This Glossary provides terms used in the BCM Imaging Tool User Guide.

**BCM Image**

A copy of the contents of a Business Communications Manager hard drive as it was when it was shipped from the factory.

**IDE CD-ROM drive**

A CD-ROM drive that connects to the IDE cable on a computer system. This is normally an internal CD-ROM drive.

**Unified Manager**

Unified Manager is a web-based navigation tool that allows you to view and change all operations and maintenance programming on the Business Communications Manager system.

**USB CD-ROM drive**

A CD-ROM drive that connects to the USB port on a computer system. This is normally an external CD-ROM drive.



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