



# Cisco Wireless Control System Navigator 1.6.172.0 Installation Guide

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This guide describes how to install Cisco Wireless Control System (WCS) Navigator 1.6.172.0. It contains the following sections:

- [Prerequisites, page 2](#)
- [System Requirements, page 2](#)
- [Installing WCS Navigator for Windows, page 3](#)
- [Installing WCS Navigator for Linux, page 6](#)
- [Manually Upgrading WCS Navigator, page 9](#)
- [Starting WCS Navigator, page 8](#)
- [Logging in to the WCS Navigator User Interface, page 9](#)



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## Prerequisites

Before installing the WCS Navigator, ensure that you have completed the following:

- Met the necessary hardware and software requirements as listed in the [“System Requirements” section on page 2](#) for WCS Navigator.
- Updated your system with the necessary critical updates and service packs.




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**Note** Refer to the latest release notes for information on the service packs and patches required for correct operation of WCS Navigator.

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- Obtained a WCS Navigator license. If you do not have a license, WCS Navigator will not run and will display an error message indicating that a license cannot be found.

## System Requirements

Cisco WCS Navigator for Windows or Linux requires the following:

- Up to 20 WCSs depending on the WCS Navigator license.
- Internet Explorer 7 or later releases with Flash plug-in, or Mozilla Firefox 3.0 or later with Flash plug-in.
- 3.2-GHz Intel Dual Core processor with 4-GB RAM and 40-GB minimum of free disk space on your hard drive.




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**Note** The screen resolution should be set to 1024 x 768 pixels for WCS Navigator.

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## Supported Operating Systems

The following operating systems are supported:

- Windows 2003/SP2 and Windows R2/SP2 32-bit installations with all critical and security Windows updates installed.

Windows 64-bit installations are not supported.

- Red Hat Linux Enterprise Server 5.x 32-bit operating system installations.

Red Hat Linux 64-bit operating system installations are not supported.

- Windows 2003 and Red Hat Linux version support on VMware ESX 3.0.1 version and above.

VMware must be installed on a system with these minimum requirements:

Quad CPU running 3.16 GHz with 8-GBs RAM and a 200-GB hard drive.

Individual operating systems running WCS Navigator in VMware must follow the specifications for the size of WCS that you intend to use.

# Installing WCS Navigator for Windows

This section describes how to install WCS Navigator on a Windows operating system. Before installing WCS Navigator, see the “[Prerequisites](#)” section on page 2 and the “[System Requirements](#)” section on page 2. These sections give an overview of the system requirements and measures that you should take before the installation. You must have administrator privileges on Windows. If installing WCS Navigator for Linux, see the “[Installing WCS Navigator for Linux](#)” section on page 6.



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**Note** You cannot install the WCS Navigator software if the username used to log in to the server contains special characters such as exclamation marks (!). To ensure a successful installation, log in to the server using a username with no special characters before installing the software.

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**Note** WCS Navigator does not support the underscore character (\_) in the name of the Windows server running the software. If the server name contains an underscore, you can install the software, but WCS Navigator fails to start.

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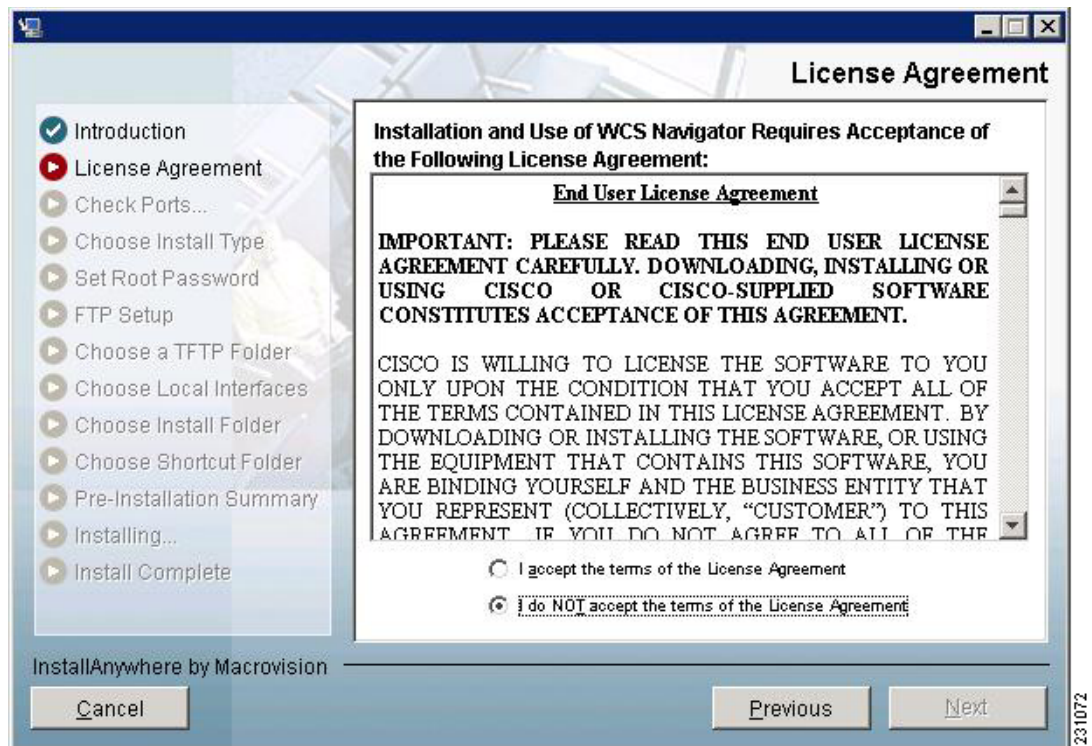
To install WCS Navigator, follow these steps:

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**Step 1** Double click the NAVIGATOR-K9-1.6.172.0.EXE file that you downloaded from Cisco.com to your local drive.

The Install Anywhere window appears and prepares the system for installation. After a few seconds, the Introduction screen appears, followed by the License Agreement screen (see [Figure 1](#)). Click **I accept the terms of the License Agreement** to proceed with the installation.

**Figure 1** License Agreement Screen

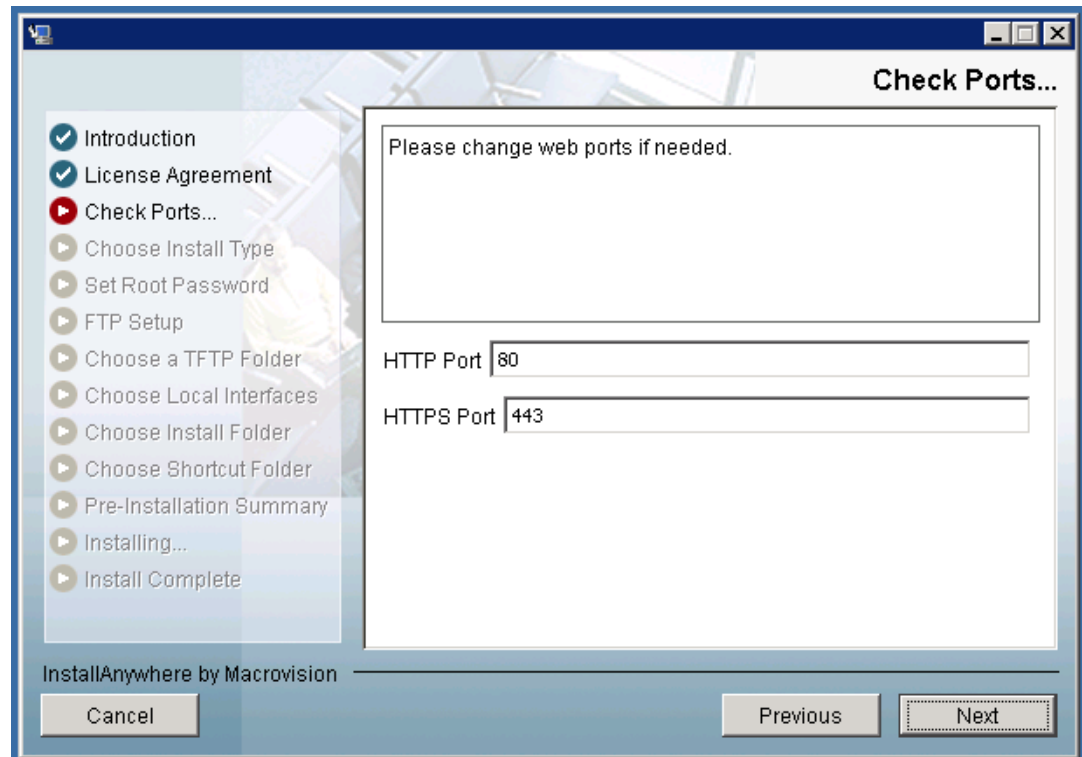


- Step 2** If the install wizard detects a previous version of WCS Navigator, you are prompted to exit the installation. When a previous version is detected, you must proceed as an upgrade and follow the steps in the [“Manually Upgrading WCS Navigator”](#) section on page 9. For a first time installation action, continue to Step 4.

The Check Ports screen appears (see [Figure 2](#)).

- Step 3** On the Check Ports screen, change the default HTTP and HTTPS ports if necessary and click **Next** to open the Choose Install Type screen. The default ports for HTTP and HTTPS are 80 and 442, respectively. Click **Next**.

**Figure 2** Check Ports Screen



- Step 4** Enter and reenter the root password. The rules for a strong password are as follows:
- The minimum password length is 8.
  - The password cannot contain the username or the reverse of the username.
  - The password cannot be *Cisco* or *ocsic* (Cisco reversed).
  - The root password cannot be *public*.
  - No character can be repeated more than three times consecutively in the password.
  - The password must contain three of the four following character classes: uppercase, lowercase, numbers, and special characters.
- Step 5** Enter the root FTP password.
- Step 6** From the FTP Server File screen, choose a folder in which to store the FTP server files and click **Next** to bring up the TFTP File Server screen.



**Note** Store the FTP server files in a folder outside the main installation folder to ensure that the FTP server files are not deleted if WCS Navigator is uninstalled.

- Step 7** From the TFTP Server File screen, choose a folder in which to store the TFTP server files and click **Next**.

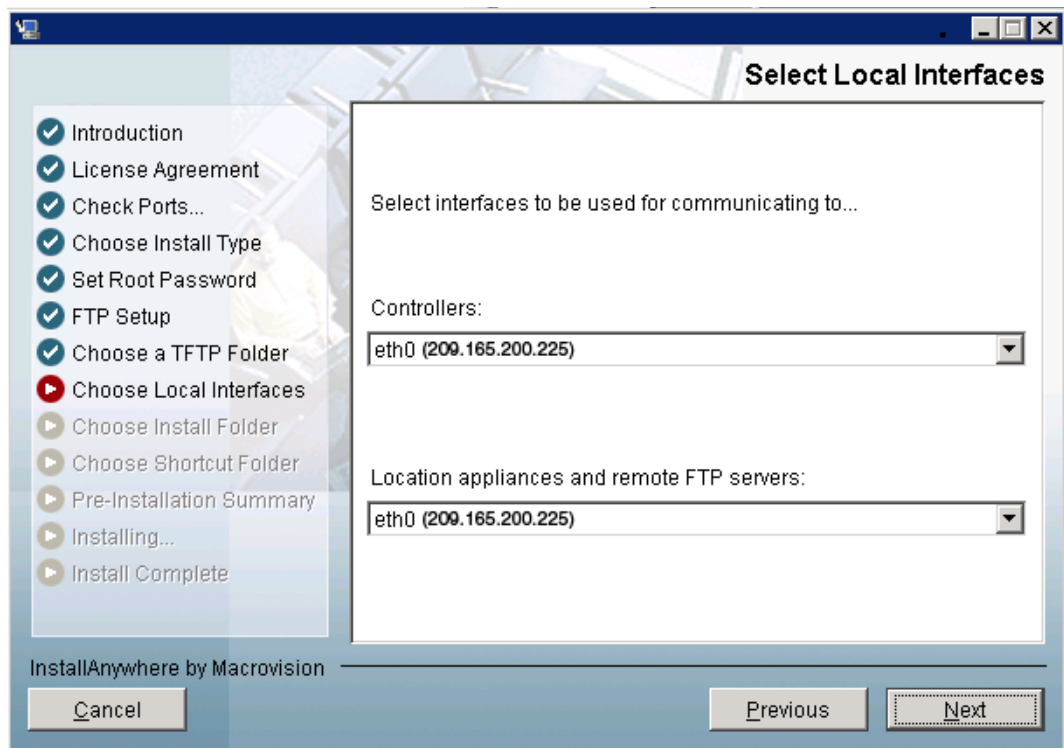


**Note** Store the TFTP server files in a folder outside the main installation folder to ensure that the TFTP server files are not deleted if WCS Navigator is uninstalled.

If you are installing WCS Navigator on a multi-homed server (a server having multiple interfaces), the installer automatically detects the presence of multiple interfaces. The Select Local Interfaces screen appears (see [Figure 3](#)).

- Step 8** Choose the interfaces to be used by the server for communicating with WCS. Click **Next**.

**Figure 3** *Select Local Interfaces Window*





- Step 9** Choose a folder in which to install the WCS Navigator at the Choose Install Folder screen and click **Next** to continue.
- Step 10** Follow the prompts that appear to complete the installation. After the installation is complete, the Install Complete screen appears.
- Step 11** Click **Done** to complete the installation.



**Note** The system must be rebooted to complete the WCS Navigator installation.

## Installing WCS Navigator for Linux

You must have root privileges on Linux. This section describes how to install WCS Navigator on a Linux operating system. To install WCS Navigator on Linux, follow these steps:

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- Step 1** If not already done, log in as root. If you are using a graphical environment, open a terminal window.
- Step 2** Using the command line, switch to the directory to which the install file from Cisco.com was downloaded to. For example, if the install file was placed in /root/Desktop, enter **cd /root/Desktop**.
- Step 3** Enter **NAVIGATOR-K9-1.6.172.0.bin** to start the install script.  
The License Agreement screen appears. You are asked to accept the terms of the license agreement.
- Step 4** If the installation wizard detects a previous version of WCS Navigator, you are prompted to exit the install. When a previous version is detected, you must proceed as an upgrade and follow the steps in the [“Manually Upgrading WCS Navigator” section on page 9](#).  
The Check Ports prompt appears. For a first time installation, continue to Step 5.
- Step 5** At the prompt, change the default HTTP and HTTPS ports if necessary. The default ports for HTTP and HTTPS are 80 and 443, respectively.
- Step 6** Enter and reenter the root password. The rules for a strong password are as follows:
- The minimum password length is 8.
  - The password cannot contain the username or the reverse of the username.
  - The password cannot be *Cisco* or *ocsic* (Cisco reversed).
  - The root password cannot be *public*.
  - No character can be repeated more than three times consecutively in the password.
  - The password must contain three of the four character classes: uppercase, lowercase, numbers, and special characters.
- Step 7** Enter the root FTP password.
- Step 8** Choose a folder in which to store the FTP server files. If the folder does not already exist, you must enter **mkdir** and create it.
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- Note**  Store the FTP server files in a folder outside the main installation folder to ensure that the FTP server files are not deleted if WCS Navigator is uninstalled.
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- Step 9** Choose a folder in which to store the TFTP server files. If the folder does not already exist, you must enter **mkdir** and create it.
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- Note**  Store the TFTP server files in a folder outside the main installation folder to ensure that the TFTP server files are not deleted if WCS Navigator is uninstalled.
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- Step 10** If you are installing WCS Navigator on a multi-homed server (a server having multiple interfaces), the installer detects the presence of multiple interfaces. Choose the interface to be used by the server for communicating with WCS.
- Step 11** Choose a folder in which to install the WCS Navigator.
- Step 12** Follow the prompts that appear to complete the installation. After the installation is complete, the Install Complete statement appears.




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**Note** You must manually start WCS Navigator after the installation.

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# Starting WCS Navigator

This section describes how to start WCS Navigator on either a Windows or Linux server.

## Starting WCS Navigator on Windows

To start WCS Navigator on Windows, follow these steps:


**Note**

With WCS Navigator installed as a Windows service, it runs upon system bootup.

**Step 1** Log in to the system as administrator.

**Step 2** Perform one of the following:

- From the Windows Start menu, choose **Start > All Programs > WCS Navigator > StartNavigator**.
- From the command prompt, navigate to the WCS Navigator installation directory `C:\Program Files\Navigator1.3\bin>startServer.bat`.

The WCS Navigator Admin window appears and displays messages indicating that it is starting.


**Note**

With WCS Navigator installed as a service, messages also indicate that the `Nms_Server` service is starting.

**Step 3** Close the WCS Navigator Admin window when the Close button becomes active.

**Step 4** WCS Navigator is now ready to host user interfaces (clients).

## Starting WCS Navigator on Linux

To start WCS Navigator when it is installed on Linux, follow these steps:


**Note**

To see the version of WCS Navigator you have installed, enter `./opt/Navigator1.3/bin/nmsadmin.shversion`.


**Note**

With WCS Navigator installed as a Linux service, it runs upon system bootup.

**Step 1** Log in to the system as root.

**Step 2** Using the Linux command line interface (CLI), perform one of the following:

- Navigate to the `/opt/Navigator1.3/bin` directory (or the directory chosen during installation) and enter `./StartNavigator`.
- Navigate to the `/opt/Navigator1.3/bin` directory and enter `./StartNavigator`.

The CLI displays messages indicate that WCS Navigator is starting.



**Step 3** WCS Navigator is ready to host user interfaces (clients).

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## Logging in to the WCS Navigator User Interface

To log into the WCS Navigator user interface through a web browser, follow these steps:

**Step 1** Launch Internet Explorer 7.0 or later releases on a different computer than the one on which you installed and started WCS Navigator.



**Note** Some WCS Navigator features may not function properly if you use a web browser other than Internet Explorer 6.0 on a Windows workstation.

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**Step 2** In the browser's address line, enter *https://<host\_ip\_address>*, where *<host\_ip\_address>* is the IP address of the computer on which you installed and started WCS Navigator.

**Step 3** When the WCS Navigator user interface displays the Login screen, enter the root password that was created during installation.

**Step 4** Click **Submit** to log in to WCS Navigator.

**Step 5** After logging in, you must install the license for WCS Navigator.

You can now add WCS to the WCS Navigator and start using the application.



**Note** To exit the WCS Navigator user interface, close the browser window or click **Logout** in the upper right corner of the page.

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## Manually Upgrading WCS Navigator

To manually upgrade WCS Navigator on a Windows server, follow these steps:

**Step 1** If possible, stop all WCS Navigator user interfaces to stabilize the database.

**Step 2** Back up the WCS Navigator database. See the [“Backing Up the WCS Navigator Database \(for Windows\)”](#) section on page 10 or the [“Backing Up the WCS Navigator Database \(for Linux\)”](#) section on page 10.

**Step 3** Uninstall the WCS Navigator application. See the [“Uninstalling WCS Navigator on Windows”](#) section on page 11 or the [“Uninstalling WCS Navigator on Linux”](#) section on page 11.

**Step 4** Install the new version of WCS Navigator by following the instructions in the [“Installing WCS Navigator for Windows”](#) section on page 3 or the [“Installing WCS Navigator for Linux”](#) section on page 6.

**Note**

Ensure that the MAX HEAP SIZE is set to 1024m in the startServer.bat file if you are using MS Windows or startServer.sh file if you are using Linux. If set to a lesser value, it may result in an OutOfMemoryException.

- Step 5** Restore the WCS Navigator database by following the instructions in the [“Restoring the WCS Navigator Database \(for Windows\)”](#) section on page 11 or the [“Restoring the WCS Navigator Database \(for Linux\)”](#) section on page 12.

## Backing Up the WCS Navigator Database (for Windows)

To back up the WCS Navigator database on a Windows server, follow these steps:

- Step 1** Log in to the system as administrator.
- Step 2** Create a backup directory for the WCS Navigator database with no spaces in the name.
- Step 3** Perform one of the following:
- Follow these steps from the Windows Start menu:
    - a. Choose **Programs > Navigator > Backup**. The Enter Information window appears.
    - b. Browse to the backup directory that you created and choose the filename or enter the full path of the backup directory that you created and a name for the backup file and click **OK**.
  - Follow these steps from the command prompt:
    - a. Navigate to the WCS Navigator installation directory (\bin).
    - b. Enter **DBAdmin backup backup-filename**, where *backup-filename* is the full path of the backup directory that you created plus a name for the backup file.
- The DBAdmin window appears and displays messages indicating the status of the backup.
- Step 4** Close the DBAdmin window when the Close button becomes active.

## Backing Up the WCS Navigator Database (for Linux)

To back up the WCS Navigator database on a Linux server, follow these steps:

- Step 1** Log in to the system as root.
- Step 2** Using the Linux CLI, navigate to the /opt/Nav1.3 directory (or any other directory).
- Step 3** Create a backup directory for the WCS Navigator database with no spaces in the name.
- Step 4** Perform one of the following:
- Navigate to the directory chosen during installation and enter **./Backup**. Enter a name for the backup file when prompted.

- Navigate to the directory chosen during installation and enter **DBAdmin backup** *backup-filename*, where *backup-filename* is the full path of the backup directory that you created plus a name for the backup file.
- Using KDE or X-Windows, enter DBAdmin -gui backup, browse to the backup directory, and choose the file.

The CLI displays messages indicating the status of the backup.

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## Uninstalling WCS Navigator on Windows

To uninstall WCS Navigator on a Windows server, follow these steps:

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- Step 1** Log in to the system as administrator.
  - Step 2** From the Windows Start menu, Choose **Programs > Navigator > Uninstall Navigator**.
  - Step 3** When the Uninstall WCS Navigator window appears, click **Uninstall**.
  - Step 4** Follow the instructions to continue the uninstall process.
  - Step 5** When the Navigator Uninstaller window indicates that the program is uninstalled, click **Finish** to close the window.
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## Uninstalling WCS Navigator on Linux

To uninstall WCS Navigator on a Linux server, follow these steps:

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- Step 1** Stop WCS Navigator.
  - Step 2** Log in to the system as root through an X terminal session.
  - Step 3** Using the Linux CLI, navigate to the directory chosen during installation.
  - Step 4** Enter **./UninstallNav**.
  - Step 5** Click **Yes** to continue the uninstall process.
  - Step 6** Click **Finish** when the uninstall process is complete.
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## Restoring the WCS Navigator Database (for Windows)

To restore the WCS Navigator database from a backup file on a Windows server, follow these steps:

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- Step 1** Log into the system as administrator.
  - Step 2** Perform one of the following:

- Follow these steps from the Windows Start menu:
    - a. Choose **Start > Programs > Navigator > Restore**. The DBAdmin and Enter Information window appears.
    - b. Browse to the backup directory that you created and choose the filename or enter the full path and filename of the backup file and click **OK**.
  - Follow these steps from the command prompt:
    - a. Navigate to the WCS Navigator installation directory.
    - b. Enter **DBAdmin restore backup-filename**, where *backup-filename* is the full path and filename of the backup file.
- Step 3** Click **Yes** if a message indicates that WCS Navigator is running and needs to be shut down. The DBAdmin window appears and displays messages indicating that WCS Navigator is shutting down (if applicable) and the WCS Navigator database is being restored.
- Step 4** Close the DBAdmin window when the Close button becomes active.



**Note** If the restore process shuts down WCS Navigator, a restart is attempted after a successful restore.

## Restoring the WCS Navigator Database (for Linux)

To restore the WCS Navigator database from a backup file on a Linux server, follow these steps:

- Step 1** If possible, stop all WCS Navigator user interfaces to stabilize the database.
- Step 2** Log in to the system as root.
- Step 3** Using the Linux CLI, perform one of the following:
  - Navigate to the directory chosen during installation and enter **./Restore** to start the restoration process. Enter the backup filename when prompted.
  - Navigate to the directory chosen during installation and enter **DBAdmin restore backup-filename**, where *backup-filename* is the full path and filename of the backup file.
- Step 4** Click **Yes** if a message indicates that WCS Navigator is running and needs to be shut down. The DBAdmin window appears and displays messages indicating that WCS Navigator is shutting down (if applicable) and the WCS Navigator database is being restored.
- Step 5** Close the DBAdmin window when the Close button becomes active.



**Note** If the restore process shuts down WCS Navigator, a restart is attempted after a successful restore.

The CLI displays messages that indicates that the WCS Navigator database is being restored.

# Obtaining Documentation and Submitting a Service Request

For information on obtaining documentation, submitting a service request, and gathering additional information, see the monthly *What's New in Cisco Product Documentation*, which also lists all new and revised Cisco technical documentation, at:

<http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>

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