



# Using Virtual Network Computing Version 3.3.7

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Similar to Microsoft Terminal Services, Virtual Network Computing (VNC) allows a system administrator to use a server to install applications or perform configuration tasks on a remote server while the user on the remote server views the tasks that occur.

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## Before You Begin

Review the following information before you install VNC:

### **About VNC Terminology**

In this document, master server refers to the server where the user initiates, performs, and manages tasks; the remote server(s) receives the software or configuration information from the master server.

### **About Compatible Operating System Versions**

Make sure that you have installed Cisco-provided operating system version 2000.2.5 on all servers that will use VNC. For information on upgrading the operating system, refer to the documentation for the version of the Cisco CallManager upgrade that runs in the cluster.



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### About Security Risks

Be aware that using VNC poses a security risk by making the cluster vulnerable to attacks.

Installing VNC opens a network port, which may make the server vulnerable to attacks. A network scanner will show port 5800 "VNC => Remote Control Software" and allow an attacker to access the server.

During the VNC installation, enter a complex alphanumeric password for VNC. VNC limits the password to eight characters.

To minimize security risks, set the VNC service to Manual startup and start it only during remote management. This action ensures that users must enter a Windows user name/password that the server can authenticate before starting the service.

Disable Terminal Services if you no longer plan to use it for remote management.

### About Upgrading VNC

When you upgrade the operating system or run an operating system patch on the server, make sure that you review the operating system readme document for information on upgrading VNC. Cisco provides the VNC upgrade files in the operating system upgrade and/or operating system support patch, although Cisco does not automatically install these files on the server.

### About CPU Utilization

VNC may use a large percentage of CPU when you move the mouse and particularly when you move entire windows on the desktop. To minimize CPU utilization, limit unnecessary movements on the desktop, particularly while the server is in production.

## Installing and Configuring VNC

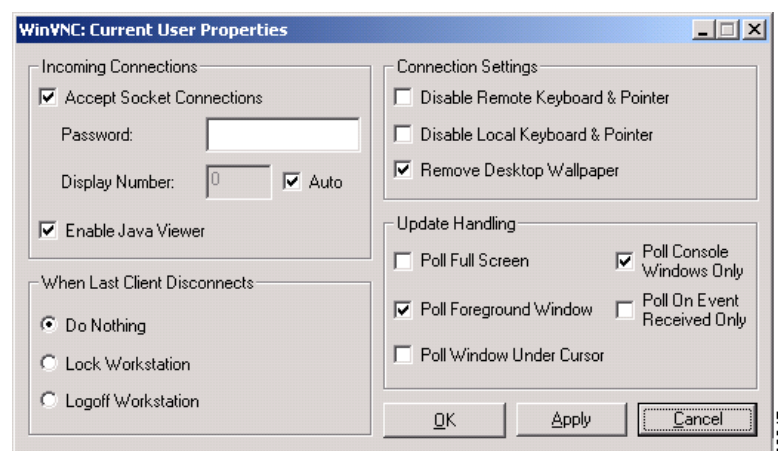
Perform the following procedure to install and configure VNC Version 3.3.7 on all servers that will use VNC.

### Procedure

- 
- Step 1** Using Windows Explorer, browse to the following folder:  
**C:\utils\VNC\**
  - Step 2** In the VNC folder, double-click **vnc-3.3.7-x86\_win32.exe**.  
The following message displays: This will install VNC. Do you wish to continue?
  - Step 3** Click **Yes**.
  - Step 4** The welcome window displays. Click **Next**.
  - Step 5** Click **Yes** to accept the software license agreement.
  - Step 6** In the Select Destination Directory, accept the default location or choose another folder where you want to install VNC, and then click **Next**.
  - Step 7** In the Select Components window, click **Next**.
  - Step 8** In the Select Start Menu Folder window, accept the default folder name or choose another folder where you want the setup program to create the program shortcuts; then, click **Next**.

- Step 9** In the Select Additional Tasks window, check the **Register VNC Server as a system service** check box and the **Start the VNC Server System service** check box. If you want to create additional icons, check the check box next to the icons that you want to create; then, click **Next**.
- The Ready to Install window displays.
- Step 10** Click **Install**.
- A message that indicates that the WinVNC service was successfully registered displays.
- Step 11** Click **OK**.
- Step 12** For new installations, a message indicates that you must set the default password for VNC. Click **OK**.
- Step 13** The WinVNC: Current User Properties dialog box displays, as show in [Figure 1](#).

**Figure 1** WinVNC: Current User Properties Dialog Box



- Step 14** In the Incoming Connections pane, enter a password in the Password field. You can choose any password of up to eight characters that you want to use. You will use this password to open a VNC session between servers.
- Step 15** Click **OK**.
- The Information window displays.
- Step 16** To continue the setup, click **Next**.
- Step 17** Click **Finish**.

## Starting a Remote Server from the Master Server

If you want to start a remote server via VNC, perform the following procedure:

### Procedure

- Step 1** From the master server, map a drive to the remote server by using the server name (not the IP address).
- Step 2** Right-click My Computer and choose **Manage**.

**Step 3** Choose **Action > Connect to another computer....**

The Select Computer dialog box displays.

**Step 4** In the Name field, enter the name of the server to which you want to connect; then, click **OK**.**Step 5** In the Computer Management window, double-click **Services and Applications**.**Step 6** If an Internet Services Manager dialog displays, click **Yes**.**Step 7** Click **Services**.**Step 8** Right-click **VNC Server**; then, choose **Start**.

## Using the Master Server to Perform Tasks on the Remote Server

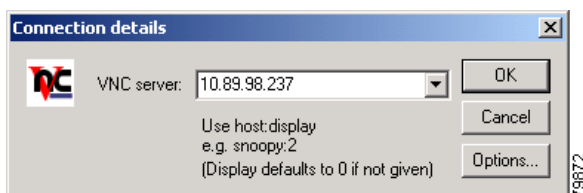
Perform the following procedure to complete installation or configuration tasks via VNC:

### Procedure

**Step 1** On the master server, choose **Start > Programs > RealVNC > Run VNCviewer**.

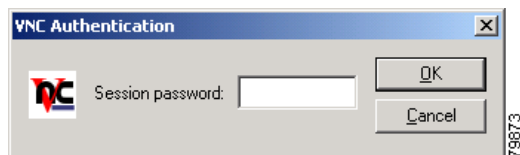
The Connection Details dialog box displays, as shown in [Figure 2](#).

**Figure 2** Connection Details dialog box

**Step 2** In the VNC server field, enter the IP address of the remote server on which you want to install the software or perform a configuration task.**Step 3** Click **OK**.

The VNC Authentication dialog box displays, as shown in [Figure 3](#).

**Figure 3** VNC Authentication Dialog Box

**Step 4** In the Session password field, enter the password that you specified in [Step 14](#) in the “[Installing and Configuring VNC](#)” section on [page 2](#).**Step 5** Click **OK**.

The desktop of the remote server displays.

**Step 6** From the master server, install software or perform configuration tasks on the remote server.

**Caution**

Make sure that you insert installation CD-ROMs into the CD-ROM drive of the remote server or download the files from the web onto the remote server.

**Note**

When you are using a remote terminal over VNC to install Cisco CallManager on an IBM server, the procedure may seem to stall or hang during the installation. On the remote terminal, if you move (drag) the VNC window or refresh the screen by choosing **Request screen refresh** from the VNC application window menu (the menu that appears when you click on the VNC icon in the left corner of the window title), the procedure will continue.

**Step 7** Stop the **VNC Server** service.

**Step 8** Perform the procedures in “[Starting a Remote Server from the Master Server](#)” and “[Using the Master Server to Perform Tasks on the Remote Server](#)” for each remote server on which you want to perform installation or configuration tasks.

## Troubleshooting

If you run VNC to install/upgrade Cisco CallManager on IBM xSeries servers, the installation may appear to hang when the server is copying the files during the installation. Move the mouse to continue the installation.

When using VNC, some servers exhibit high CPU utilization. The server may respond slower than usual.

## Obtaining Documentation

Cisco provides several ways to obtain documentation, technical assistance, and other technical resources. These sections explain how to obtain technical information from Cisco Systems.

### Cisco.com

You can access the most current Cisco documentation on the World Wide Web at this URL:

<http://www.cisco.com/univercd/home/home.htm>

You can access the Cisco website at this URL:

<http://www.cisco.com>

International Cisco websites can be accessed from this URL:

[http://www.cisco.com/public/countries\\_languages.shtml](http://www.cisco.com/public/countries_languages.shtml)

## Documentation CD-ROM

Cisco documentation and additional literature are available in a Cisco Documentation CD-ROM package, which may have shipped with your product. The Documentation CD-ROM is updated regularly and may be more current than printed documentation. The CD-ROM package is available as a single unit or through an annual or quarterly subscription.

Registered Cisco.com users can order a single Documentation CD-ROM (product number DOC-CONDOCCD=) through the Cisco Ordering tool:

[http://www.cisco.com/en/US/partner/ordering/ordering\\_place\\_order\\_ordering\\_tool\\_launch.html](http://www.cisco.com/en/US/partner/ordering/ordering_place_order_ordering_tool_launch.html)

All users can order annual or quarterly subscriptions through the online Subscription Store:

<http://www.cisco.com/go/subscription>

## Ordering Documentation

You can find instructions for ordering documentation at this URL:

[http://www.cisco.com/univercd/cc/td/doc/es\\_inpk/pdi.htm](http://www.cisco.com/univercd/cc/td/doc/es_inpk/pdi.htm)

You can order Cisco documentation in these ways:

- Registered Cisco.com users (Cisco direct customers) can order Cisco product documentation from the Networking Products MarketPlace:

<http://www.cisco.com/en/US/partner/ordering/index.shtml>

- Nonregistered Cisco.com users can order documentation through a local account representative by calling Cisco Systems Corporate Headquarters (California, USA.) at 408 526-7208 or, elsewhere in North America, by calling 800 553-NETS (6387).

## Documentation Feedback

You can submit comments electronically on Cisco.com. On the Cisco Documentation home page, click **Feedback** at the top of the page.

You can send your comments in e-mail to [bug-doc@cisco.com](mailto:bug-doc@cisco.com).

You can submit comments by using the response card (if present) behind the front cover of your document or by writing to the following address:

Cisco Systems  
Attn: Customer Document Ordering  
170 West Tasman Drive  
San Jose, CA 95134-9883

We appreciate your comments.

## Obtaining Technical Assistance

For all customers, partners, resellers, and distributors who hold valid Cisco service contracts, the Cisco Technical Assistance Center (TAC) provides 24-hour, award-winning technical support services, online and over the phone. Cisco.com features the Cisco TAC website as an online starting point for technical assistance.

## Cisco TAC Website

The Cisco TAC website (<http://www.cisco.com/tac>) provides online documents and tools for troubleshooting and resolving technical issues with Cisco products and technologies. The Cisco TAC website is available 24 hours a day, 365 days a year.

Accessing all the tools on the Cisco TAC website requires a Cisco.com user ID and password. If you have a valid service contract but do not have a login ID or password, register at this URL:

<http://tools.cisco.com/RPF/register/register.do>

## Opening a TAC Case

The online TAC Case Open Tool (<http://www.cisco.com/tac/caseopen>) is the fastest way to open P3 and P4 cases. (Your network is minimally impaired or you require product information). After you describe your situation, the TAC Case Open Tool automatically recommends resources for an immediate solution. If your issue is not resolved using these recommendations, your case will be assigned to a Cisco TAC engineer.

For P1 or P2 cases (your production network is down or severely degraded) or if you do not have Internet access, contact Cisco TAC by telephone. Cisco TAC engineers are assigned immediately to P1 and P2 cases to help keep your business operations running smoothly.

To open a case by telephone, use one of the following numbers:

Asia-Pacific: +61 2 8446 7411 (Australia: 1 800 805 227)

EMEA: +32 2 704 55 55

USA: 1 800 553-2447

For a complete listing of Cisco TAC contacts, go to this URL:

<http://www.cisco.com/warp/public/687/Directory/DirTAC.shtml>

## TAC Case Priority Definitions

To ensure that all cases are reported in a standard format, Cisco has established case priority definitions.

**Priority 1 (P1)**—Your network is “down” or there is a critical impact to your business operations. You and Cisco will commit all necessary resources around the clock to resolve the situation.

**Priority 2 (P2)**—Operation of an existing network is severely degraded, or significant aspects of your business operation are negatively affected by inadequate performance of Cisco products. You and Cisco will commit full-time resources during normal business hours to resolve the situation.

**Priority 3 (P3)**—Operational performance of your network is impaired, but most business operations remain functional. You and Cisco will commit resources during normal business hours to restore service to satisfactory levels.

**Priority 4 (P4)**—You require information or assistance with Cisco product capabilities, installation, or configuration. There is little or no effect on your business operations.

# Obtaining Additional Publications and Information

Information about Cisco products, technologies, and network solutions is available from various online and printed sources.

- The Cisco Product Catalog describes the networking products offered by Cisco Systems, as well as ordering and customer support services. Access the Cisco Product Catalog at this URL:  
[http://www.cisco.com/en/US/products/products\\_catalog\\_links\\_launch.html](http://www.cisco.com/en/US/products/products_catalog_links_launch.html)
- Cisco Press publishes a wide range of networking publications. Cisco suggests these titles for new and experienced users: Internetworking Terms and Acronyms Dictionary, Internetworking Technology Handbook, Internetworking Troubleshooting Guide, and the Internetworking Design Guide. For current Cisco Press titles and other information, go to Cisco Press online at this URL:  
<http://www.ciscopress.com>
- Packet magazine is the Cisco quarterly publication that provides the latest networking trends, technology breakthroughs, and Cisco products and solutions to help industry professionals get the most from their networking investment. Included are networking deployment and troubleshooting tips, configuration examples, customer case studies, tutorials and training, certification information, and links to numerous in-depth online resources. You can access Packet magazine at this URL:  
<http://www.cisco.com/go/packet>
- iQ Magazine is the Cisco bimonthly publication that delivers the latest information about Internet business strategies for executives. You can access iQ Magazine at this URL:  
<http://www.cisco.com/go/iqmagazine>
- Internet Protocol Journal is a quarterly journal published by Cisco Systems for engineering professionals involved in designing, developing, and operating public and private internets and intranets. You can access the Internet Protocol Journal at this URL:  
[http://www.cisco.com/en/US/about/ac123/ac147/about\\_cisco\\_the\\_internet\\_protocol\\_journal.html](http://www.cisco.com/en/US/about/ac123/ac147/about_cisco_the_internet_protocol_journal.html)
- Training—Cisco offers world-class networking training. Current offerings in network training are listed at this URL:  
<http://www.cisco.com/en/US/learning/index.html>

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