Vantage CNM

Centralized Network Management



Quick Start Guide

Version 2.2 5/2005



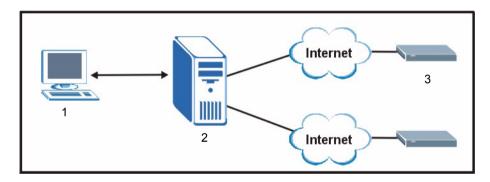
Overview

Vantage Centralized Network Management 2.2 (CNM) is a browser-based, management solution that allows you to easily configure, manage and monitor ZyXEL devices from any location. Vantage Centralized Network Management 2.2 will be referred to as "Vantage CNM" in this document.

This Quick Start Guide shows you to install Vantage CNM. See the User's Guide for more information.

The following figure displays a Vantage CNM application:

- 1 This is the Vantage CNM "client" that manages ZyXEL devices via the Vantage CNM "server".
- 2 The Vantage CNM "server" is the computer with Vantage CNM software installed.
- 3 These are the ZyXEL devices being managed by Vantage CNM.



This Quick Start Guide shows you:

- 1 The Vantage CNM Requirements
- 2 A Vantage CNM Installation Procedure
- 3 How to Start and Stop Vantage CNM
- 4 How to Access Vantage CNM
- 5 How to Uninstall Vantage CNM
- 6 How to Activate Vantage CNM on a ZyXEL Device
- **7** Troubleshooting

1 Requirements

1.1 Vantage CNM Server Requirements

Hardware CD-ROM or DVD-ROM drive

PS/2 Keyboard PS/2 mouse Monitor

HP ProLiant DL380

Hard Disk 2 x 73 GB SCSI-3

Software Red Hat Enterprise Linux ES 3.

Vantage CNM

CPU Pentium IV Dual 2.8 GHz Xeon

RAM 4 GB or more

Browser Internet Explorer 6.0 or above with 1024*768 resolution

1.2 Vantage CNM Client Recommended Requirements

CPU Pentium III 450 MHz or faster

RAM 256 MB or more

Operating System Microsoft Windows 2000/ Windows XP Professional

Browser Internet Explorer 6.0 or above with 1024*768 screen resolution

1.3 ZyXEL Device Requirements

Firmware For details, see the Vantage CNM software release notes.

Please read the device release note carefully if you have to upload

new device firmware.

2 Vantage CNM Installation Procedure

Before you install Vantage CNM, make sure that Red Hat Linux is already installed; see the User's Guide Appendix for further information.

• Use the Vantage CNM installation wizard to install Vantage CNM server software.

Note: In each wizard screen, click **Next** to proceed to the next screen in the wizard, click **Back** to return to the previous screen or click **Cancel** to abort the installation and exit the wizard.

• Use the **Terminal** screen to run Linux commands. To open the **Terminal** screen, select the main menu Red Hat icon (usually located on the bottom left of the screen), **System Tools** and then **Terminal**.



You also need to open a text file so that you can add to and modify existing Linux code. To open the Text Editor¹ screen, select the main menu Red Hat icon, Accessories and then Text Editor. To locate the file that you want to add commands to or modify, click the Open button and browse for the command sequence using the vertical scroll-bars in the Folders and Files sections. Save the file when you are satisfied with the command changes.

Note: You should uninstall any previous versions of Vantage CNM before beginning. Make sure that you uninstall any existing MySQL servers. You may have to remove the /etc/my.cnf file if it exists. In the **Text Editor**, browse for the

/etc/my.cnf

file and delete the file.

2.1 Extracting Vantage CNM

- 1 Insert the Vantage CNM CD into the CD-ROM or download the Vantage CNM software and save it to a folder; for example, ./root/Vantage-CNM.
- 2 Navigate to this folder using the "cd" command and type the following to extract the Vantage CNM files.

At the time of writing Linux RedHat Text Editor was used to modify and amend commands. Other text editing tools can be used; for example gedit or Emacs.

(You may need to make the file executable first using chmod +x Vantage CNM.bin)

```
[root@localhost Vantage-CNM]# chmod +x Vantage_CNM.bin
[root@localhost Vantage-CNM]# ls -1 Vantage_CNM.bin
Vantage_CNM.bin
[root@localhost Vantage-CNM]# ./Vantage_CNM.bin
Preparing to install...
Extracting the JRE from the installer archive...
Unpacking the JRE...
Extracting the installation resources from the installer archive...
Configuring the installer for this system's environment...
Launching installer...
```

Alternatively, double-click the Vantage CNM.bin icon.



3 Vantage CNM must be able to ping the hostname of your computer; otherwise you see the next screen.

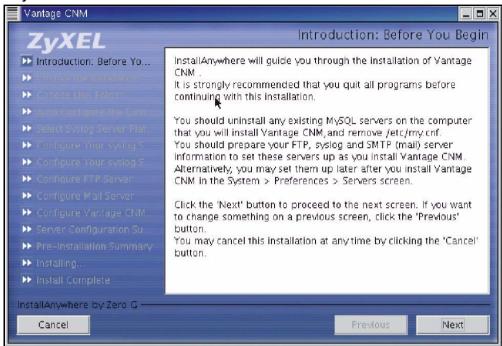


4 The Vantage CNM logo appears briefly when extraction begins.

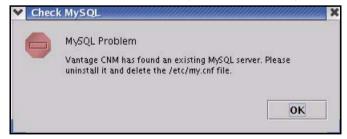


2.2 Installation Wizard

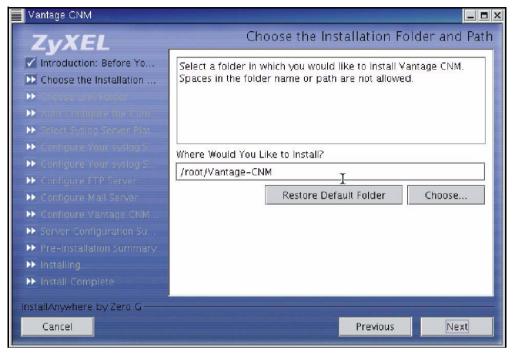
1 The first wizard screen appears after successful extraction. You should prepare all FTP, SMTP and syslog server IP addresses and login names/passwords. For syslog, you need an SSH login name and password. You can configure these servers during the wizard installation or after you install Vantage CNM in the System > Preferences > Servers screen.



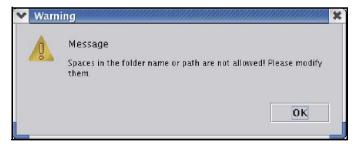
If a MySQL server is detected, you see the following screen.



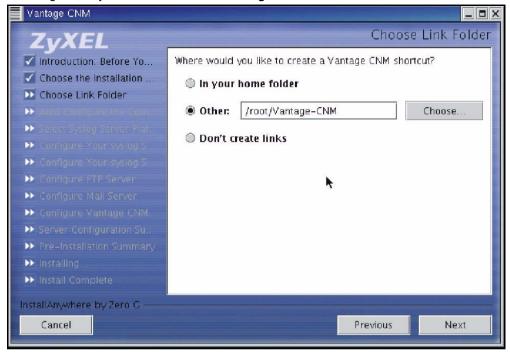
2 Select a folder where you would like to install Vantage CNM. Spaces in the folder name or path are not allowed.



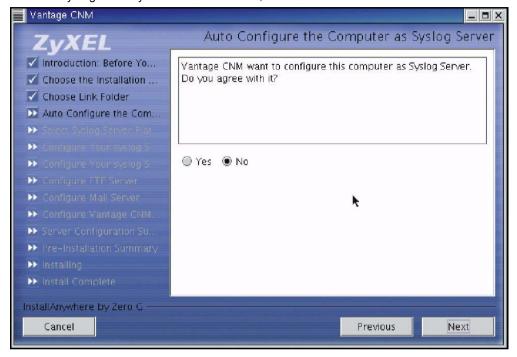
You will see an error screen as shown next if your installation folder or path has a space.



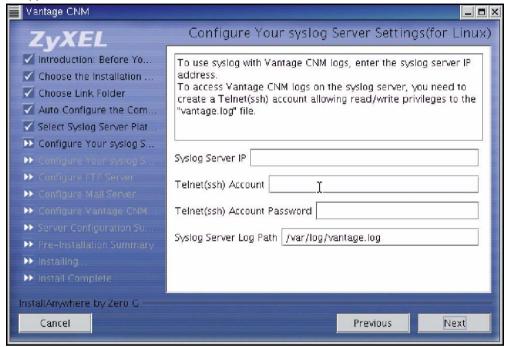
The next screen asks you where you want to create a Vantage CNM link or shortcut. After you install Vantage CNM you will see a **Launch Vantage** icon in this folder.



4 You next configure a syslog server. syslog is a logging system that is used by most versions of UNIX. If Vantage CNM finds an existing syslog server on your computer, you see the next screen asking you if this is the syslog server you wish to use. If not, choose **No**.



5 If you choose **Yes** in the **Auto Configure the Computer as Syslog Server** screen, you will then see the next screen. You must create a Telnet account on the syslog server. Vantage CNM uses SSH to communicate with the syslog server to instruct it to send files to an FTP server for retrieval. See the appendices in the User's Guide for details. Follow the instructions as shown in the screen.



If you choose **No** in the **Auto Configure the Computer as Syslog Server** screen, you must configure the **System > Preferences > Server** screen in Vantage CNM.

- **6** The syslog server must be a syslog server running on Linux.
 - Make sure that syslog is enabled on Linux. Select the main menu Red Hat icon, System Settings, Server Settings and then Services. Scroll down to the syslog checkbox and make sure that it is selected.

Vantage CNM communicates with a Linux syslog server using SSH (Secure SHell), so you must enable the SSH daemon on the Linux syslog server. This allows the Linux syslog server to receive logs.

Configuration changes to the Linux syslog server can be made in the terminal screen using Linux commands.

For Vantage CNM to receive logs from the Linux syslog server, you must do the following on the Linux syslog server.

In **Text Edit** (or a similar text editing tool) open the file path:

/etc/syslog.conf

Enter this row after it:

local2.* /var/log/vantage.log

In /etc/syslog.conf find the following row:

*.info;mail.none;authpriv.none;cron.none /var/log/messages

Modify the row to (or if the above row does not exist, type the following):

*.info; mail.none; authoriv.none; cron.none; local2.none /var/log/messages

Open the file path /etc/sysconfig/syslog

Syslogd must support the "-r" option. Find the row,

Modify it as follows:

Make sure that you save each file after you make modifications.

In the Terminal screen run /etc/init.d/syslog stop and /etc/init.d/syslog start to restart syslog.

You can add a telnet account to the Vantage CNM server by typing

[root@localhost Vantage-CNM] # useradd followed by a name; for example "test" [root@localhost Vantage-CNM] # passwd followed by a password; for example "1234" Modify the following row:

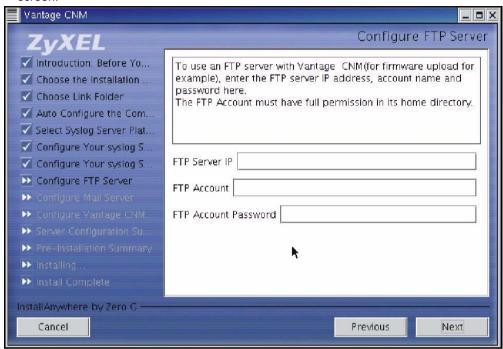
[root@localhost Vantage-CNM] # /var/log/vantage.log

To the following using correct name and passwords

[root@localhost Vantage-CNM]# cd/var/log
[root@localhost Vantage-CNM]# chown test/var/log/vantage.log
[root@localhost Vantage-CNM]# chgrp 1234/var/log/vantage.log

After you fully install Vantage CNM, you can check the link status in the **System > Status** screen.

7 The next screen asks you configure an FTP server. The FTP server is used for syslog log file downloads to Vantage CNM and firmware uploads from Vantage CNM to ZyXEL device(s). Follow the instructions in the screen.



8 Make sure that you have selected **FTP Server** application packet when you installed Red Hat Enterprise Linux. Make sure that vsftpd is enabled on Linux.

Check that the FTP Daemon vsftpd is installed by entering the command

[root@localhost Vantage-CNM] # man vsftpd

Manual operation displays. In **Text Edit** find the file path:

/etc/vsftpd/vsftpd.conf

Make sure that the listen=YES command displays.

Add the clause chroot local user=yes

In the Terminal screen run the command

[root@localhost Vantage-CNM] # cp /etc/vsftpd/vsftpd.conf /etc/vsftpd.conf

Add a user and assign a folder to that user by typing as follows

[root@localhost Vantage-CNM] # useradd -d /var/ftp/pub -M followed by a name; for example test.

The next line requests a password for this user. Type a password of not less than six characters.

[root@localhost Vantage-CNM] # passwd followed by a password; for example "123456"

Note: You can also add users in Linux by doing the following:

Select the main menu Red Hat icon, **System Settings** and then **Users and Groups**. The Red **Hat User Manager** screen opens. Select the **Add User** button and configure a user.

In the **Terminal** screen run the command

```
[root@localhost Vantage-CNM]# chown vantage /var/ftp/pub
[root@localhost Vantage-CNM]# chmod 750 /var/ftp/pub
```

And run vsftpd by typing [root@localhost Vantage-CNM] # vsdtpd&

```
[root@localhost Vantage-CNM]# ftp 127.0.0.1 ....try
```

If you want to stop this action type [root@localhost Vantage-CNM] # killall vsftpd

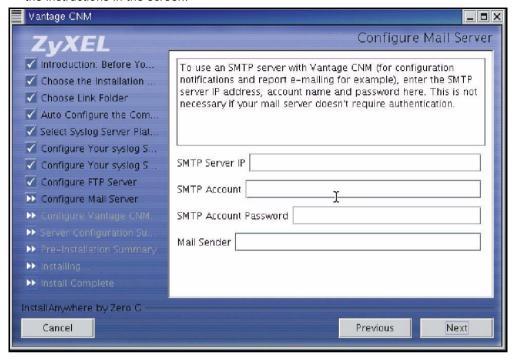
Type [root@localhost Vantage-CNM]# chkconfig --level35 vsftpd on to have vsftpd start automatically when the system is up.

After you fully install Vantage CNM, you must configure the FTP server section of the **System > Preferences > Server** screen in Vantage CNM with the same settings. You can check the link status in the **System > Status** screen.

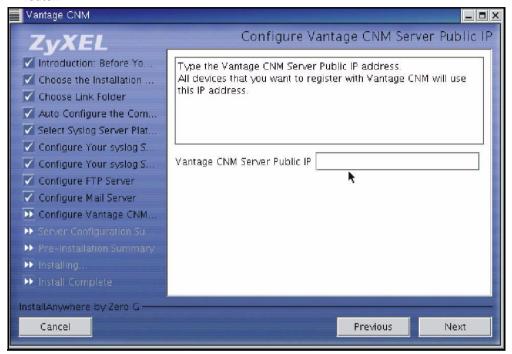
Note: You can also check if vsftpd is enabled on Linux by doing the following:

Select the main menu Red Hat icon, **System Settings**, **Server Settings** and then **Services**. Scroll down to the **vsftpd** checkbox and make sure that it is selected.

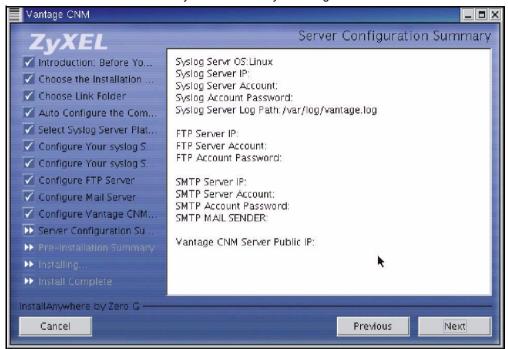
The next screen asks you to configure a mail server. The mail server is used to send notifications. Follow the instructions in the screen.



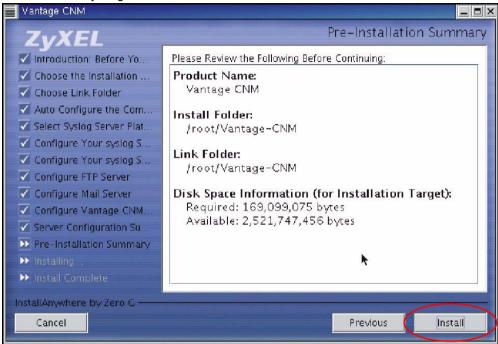
10The next screen asks you to configure the Vantage CNM server public address. This is the IP address that the ZyXEL devices use to communicate with Vantage CNM. Follow the instructions in the screen. If Vantage CNM is behind a NAT router, then you need to enter the public IP address (WAN) of the NAT router.



11The next screen is a summary of the servers you configured in this wizard. Click **Next** to continue.



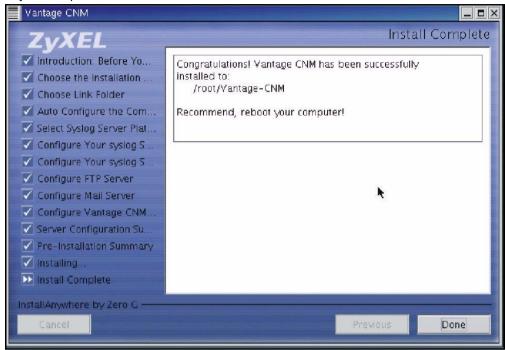
The next screen asks you to review everything you configured in this wizard before continuing. Click **Install** if everything is as intended.



13 Wait while Vantage CNM installs.



14 Vantage CNM has installed successfully when you see the next screen. It is recommended you restart your computer.



- **15** Restart Linux by running the command [root@localhost Vantage-CNM] # reboot in the Terminal screen.
- **16** After Linux restarts and you have logged in as the root user, in the **Terminal** screen change the directory to the folder you saved Vantage CNM and run the command

```
[root@localhost root]# cd Vantage-CNM
[root@localhost Vantage-CNM]# ./LaunchVantageCNM
```

to start the Vantage CNM Server.

3 Starting and Stopping Vantage CNM

• In the Terminal screen change the directory to the folder you saved Vantage CNM in and run the command

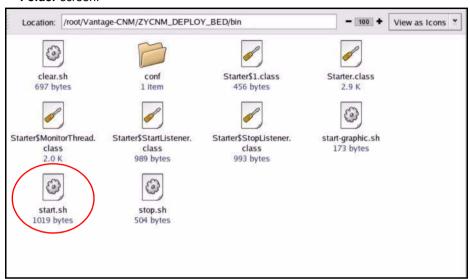
```
[root@localhost root]# cd Vantage-CNM/ZYCNM_DEPLOY_BED/bin
[root@localhost bin]# ./start.sh
```

Or

[root@localhost bin]# ./start-graphic.sh

Or

 Navigate to the folder you saved Vantage CNM in (for example, /root/Vantage-CNM), in the Choose Link Folder screen.



Double-click ZYCNM_DEPLOY_BED and then the /bin icon.

Double-click the **start.sh** icon to launch Vantage CNM (or the **stop.sh** icon to quit Vantage CNM).

3.1 Vantage CNM Status Screen

You see the following Vantage CNM screen indicating the status (started or stopped) of Vantage CNM. Use the **Stop** and **Start** buttons to exit or resume Vantage CNM.



4 Accessing Vantage CNM

4.1 IP Address

- 1 From the Vantage CNM client computer, open your web browser and type http://{Vantage CNM server IP address}/vantage or simply http://{Vantage CNM server IP address}. If the Vantage CNM server and client is the same computer, you can enter "localhost" instead of the IP address.
- 2 When the login screen appears, type "root" as Username, "root" as the Password (factory defaults) and then click **OK**. You may see a screen asking you if Windows should remember this password. If this is a shared computer, Windows should not remember your password.

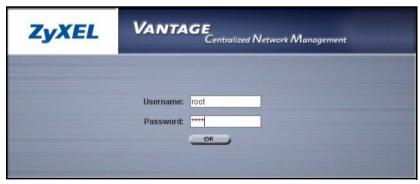
Note: If the login screen does not display, check if the Linux firewall is active. Select the main menu Red Hat icon, System Settings and then Security Level. Select Medium from the Security level drop-down list box and select the WWW(HTTP), FTP and SSH check boxes in the Allow incoming section of the screen.

3 You may see another screen advising that this is a HTTPS connection. Click Yes to continue.



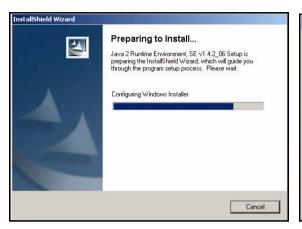
4.2 Login

1 Enter "root" for both username and password and then click **OK**. You should change your password after first login; see section 2 for more information.



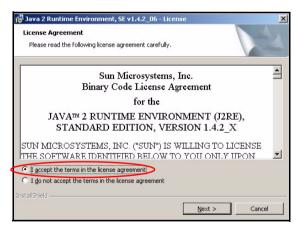
4.3 Install Java Plug-in

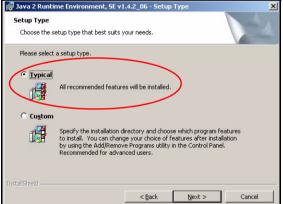
1 You may be asked to install a Java plug-in on the Vantage CNM computer. Install it. The Vantage CNM server must be connected to the Internet to download the plug-in.





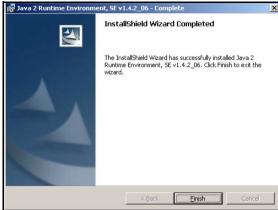
- 2 Select the I accept the terms in the license agreement radio button and click the Next.
- 3 Click Typical and then click Next to begin the Java plug-in installation.





4 Wait for the Java plug-in to finish installing.

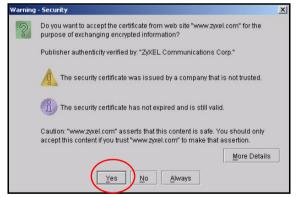




4.4 HTTPS Certificates

HTTPS is used to access the Vantage CNM server. A series of warning screens related to HTTPS certificate information appears. Click **Yes** (or **Always**) in each to continue.



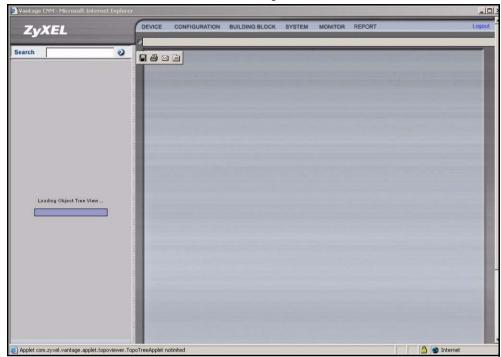


4.5 Activate Vantage

1 The next screen appears asking you to enter the **Activation Key** and **Service Set Key** generated at www.myZyXEL.com. See section 5 if you have not yet registered and activated Vantage there. Afterwards, enter these fields and then click **Next** to continue.

2 The next screen asks you to configure the Vantage server public address. This is the IP address that the ZyXEL devices use to communicate with Vantage. Follow the instructions in the screen. If Vantage is behind a NAT router, then you need to enter the public IP address (WAN) of the NAT router. Click **Next** to register and go to the main screen.

3 See the User's Guide for details on the Vantage main screen.



5 MyZyXEL.com

http://www.myZyXEL.com/ is ZyXEL's online services center where you must register Vantage and generate an **Activation Key** and **Services Set Key** that you enter in step 1 of section 4.5.

5.1 A Note on Numbers

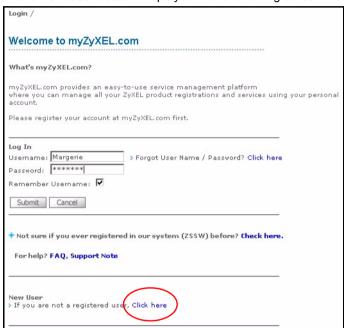
You need the following (unique) numbers to install and activate Vantage CNM.

Serial Number	You need the serial number to register Vantage CNM Appliance at myZyXEL.com.
Authentication Code	This is a unique number that is generated in the Activate Vantage screen. You need this number to register Vantage CNM Appliance at myZyXEL.com.
License Key	You need a license key to manage up to a specified number (see the license key envelope) of ZyXEL devices.
Activation Key	The Activation Key is generated online at the myZyXEL.com (after you register Vantage) and is needed to activate Vantage.

Service Set Key	The Service Set Key is generated online at the myZyXEL.com (after you register
	Vantage) and is needed to activate Vantage.

5.2 Login

- 1 Go to http://www.myZyXEL.com using your web browser.
- 2 Log into your account if you already have one; otherwise create a new account by clicking the hyperlink in the **New User** section displayed in the following screen.



Fill in the account registration form. You will receive an e-mail from myZyXEL.com containing a hyperlink. Click the hyperlink or paste it into your web browser within three days in order to activate your account.

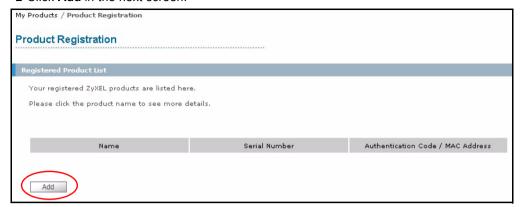


5.3 Register Vantage

1 After you have created a myZyXEL.com account, log in and click the hyperlink in the **Registered ZyXEL Products** section as displayed in the following screen.

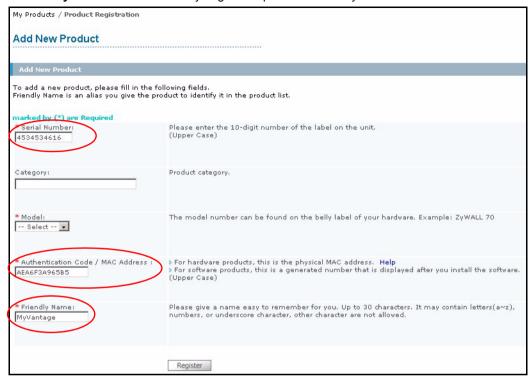


2 Click Add in the next screen.



- 3 Enter the following information in the next screen and then click Register.
- **Serial number**: This is a 10-digit number found on the Vantage CNM product label. It identifies the model type within myZyXEL.com. Type the number exactly as shown on the label.
- Authentication Code: This is a generated number that is displayed after you install Vantage as shown in section 4.5. Type the information exactly as displayed or copy and paste it into the screen; be careful to avoid pasting trailing spaces.

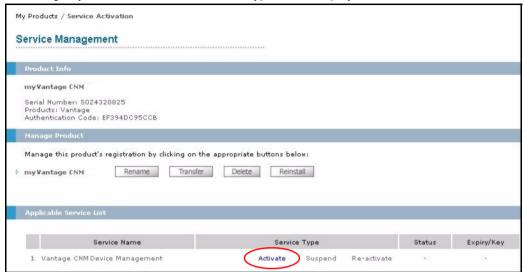
• Friendly Name: This is an alias you give the product to identify it.



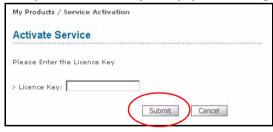
After you have registered Vantage, a registration successful screen displays.

5.4 Generate Keys to Activate Vantage

1 The product is now registered but not activated. You need to activate Vantage before you can use it to manage ZyXEL devices. Click the name hyperlink to display its details.



- 2 Click Activate to display the next screen. You use this screen to generate an Activation Key and Service Set Key. You need these keys to activate Vantage standard firmware, upgrade firmware or trial firmware.
- 3 Enter the license key exactly as displayed on the envelope label and click **Submit**. A screen then displays showing you the **Activation Key** and **Service Set Key** that you need to enter in step 1 of section 4.5. The keys are also sent to your myZyXEL.com registered e-mail address.



4 Now, return to section 4.5 of this Quick Start Guide.

6 Uninstalling Vantage CNM

You must uninstall any previous versions of Vantage CNM before you install a new version of Vantage CNM. Follow this procedure to uninstall Vantage CNM.

- 1 You should first stop Vantage CNM by clicking Stop in the Vantage Status screen; see section 3.1 for information.
- 2 Double-click the icon as shown in the next screen or in the Terminal screen change the directory to where you saved Vantage CNM and type



- ./Uninstall_Vantage_CNM
- 3 The following screen then displays. Click Uninstall to being uninstalling.



4 Click **OK** to continue removing Vantage CNM. You will then see the next screens.





5 The next screen displays when Vantage CNM has been removed from your computer. Click **Done** to finish.



7 Activating Vantage CNM on a ZyXEL Device

7.1 How to activate Vantage CNM on a ZyXEL device using commands

Go to command mode (SMT menu 24.8 of most ZyXEL devices) and issue the following command:

Enter cnm active. If cnm active 0 displays then Vantage CNM is disabled on the ZyXEL device. To enable Vantage CNM on the device

- 1 Enter cnm active 1.
- 2 Enter cnm managerIp x.x.x.x on the ZyXEL device where x.x.x.x is the public IP address of the Vantage CNM server.

7.2 Encrypt traffic between Vantage CNM and the ZyXEL device

- 1 Go to CI (Command Interface) mode (SMT menu 24.8 of the ZyXEL device)
- 2 Type 'cnm encrymode X' where X = 0 is no encryption, X = 1 is DES encryption, X = 2 is 3DES encryption. The ZyXEL device must use the same encryption method as Vantage.
- 3 To set the encryption key (if X = 1 or 2) on the ZyXEL device, type 'cnm encrykey xxxxxxxxx' where 'xxxxxxxxx' is the alphanumeric encryption key ("0" to "9", "a" to "z" or "A" to "Z") in the Vantage server. Type an eight-character alphanumeric ("0" to "9", "a" to "z" or "A" to "Z") for DES encryption and a 24-character alphanumeric for 3DES encryption. The ZyXEL device must use the same encryption key as Vantage

7.3 Activate Vantage CNM on a ZyXEL device and encrypt traffic using the web configurator

Log into the device web configurator, click Remote Management from the navigation panel and then click the CNM tab. Select **Enable**, enter the Vantage CNM Server (IP) Address and select an **Encryption Algorithm** and **Encryption Key** if desired.

8 Troubleshooting

PROBLEM	CORRECTIVE ACTION
I am having problems installing Vantage CNM	Make sure that you have uninstalled any previous versions of Vantage CNM before beginning the installation process.
	Make sure that you have uninstalled any existing MySQL servers; see section 2 for details on how to do this.
	Spaces in the folder name or path are not allowed when you choose a location to install Vantage CNM.
	Check that you have edited the correct files with the exact modifications as outlined in this Quick Start Guide.
	Alter the configuration of the server memory by navigating to the file; install_path/ZYCNM_DEPLOY_BED/jboss-3.2.1_tomcat-4.1.24/bin/run.conf
	Find the line; JAVA_OPTS="-server -Xms1792m -Xmx1792m" and change "1792" to a smaller number; for example JAVA_OPTS="-server -Xms512m -Xmx512m".

Vantage CNM Quick Start Guide Vantage CNM is installed but I Make sure that Vantage CNM is installed correctly on the server computer. cannot access Vantage CNM Make sure that the Vantage CNM server is turned on and Vantage CNM has "started": see section 4.5 for more information. Make sure your computer's network card is working properly. Make sure that when you installed Vantage, you entered a Vantage CNM server public IP address. Check that you have correctly configured the server computer IP address in Vantage CNM. Stop Vantage CNM (see section 3) and open the following file path: file:/root/Vantage-CNM/ZYCNM DEPLOY BED/conf and double-click vantage.properties. Or in the **Terminal** screen, follow the commands: [root@localhost root] # cd Vantage-CNM/ [root@localhost root]# cd Vantage-CNM/ZYCNM DEPLOY BED/c conf csv [root@localhost root]# cd Vantage-CNM/ZYCNM DEPLOY BED/ conf/ Check that the server IP address is the same as the IP address of the computer on which Vantage CNM is installed (server IP address). If the Vantage CNM server IP address has changed, then enter the new one as the web site address in your web browser. If the Vantage CNM server is behind a NAT router or firewall then do the following: If the Vantage CNM server is behind a NAT router, enter the WAN Public IP address of the NAT router and configure the NAT router to forward UDP port 1864 traffic to the Vantage CNM server. • If the Vantage CNM server is behind a firewall, you may have to create a rule on the firewall to allow UDP port 1864 traffic through to the Vantage CNM server (most (new) ZyXEL firewalls automatically allow this). Make sure you have entered the Vantage CNM username and password correctly (the fields are case sensitive). If you did not log out of Vantage CNM gracefully last time, and you cannot log in again, then enter the following URL to forcibly log out so that you can log in again; http://localhost/vantage/pages/backdoor/Logoff.jsp

I cannot register a ZyXEL device with Vantage CNM

The Vantage CNM server may be down. Check with the Vantage CNM server administrator.

Make sure that you have a Java applet version 1.4.2 or later installed. If you do

Make sure that the Vantage CNM server IP address is correct.

not, install Java from the included CD.

I can access Vantage CNM but I cannot manage ZyXEL devices	The encryption algorithms and/or encryption keys may not match between the ZyXEL device and Vantage CNM. Check that these are correct.
	The ZyXEL device may turned off.
	The device may not have Vantage CNM enabled.
	The device model type may not be supported by Vantage CNM.
	Go to CI (Command Interface) mode (SMT menu 24.8 of the ZyXEL device)
	Enter the command cnm active 1 to enable Vantage CNM on the ZyXEL device.
	Enter the command cnm managerIp followed by the public IP address of the Vantage CNM server; for example cnm managerIp 212.175.135.225.
	The ZyXEL device must use the same encryption key as Vantage CNM.