8e6 Technologies

ER
Enterprise Reporter

QUICK START GUIDE

8e6

8e6 Enterprise Reporter Quick Start Guide

Part# ERH-QSG-070423

CONTENTS

ERH ENTERPRISE REPORTER INTRODUCTION

Thank you for choosing to evaluate the 8e6 Technologies ERH Enterprise Reporter. The ER is designed to readily obtain information about end users' Internet activity via log files (text files containing Web access data) from a source device such as the 8e6 R3000 Enterprise Filter. This "H" server model includes RAID technology for fault tolerance and high performance.

The ER is comprised of the ER server and client application. Once the ER server is configured and log files have populated the database, an administrator can use the ER client reporting application to virtually generate an unlimited number of queries and reports from data in the database. This data shows which end user is accessing which site, the duration of each site visit, and the frequency of these visits, and can help administrators identify Internet usage abusers, develop policies, and target sites to be filtered, in order to maximize bandwidth utilization and productivity. The client gives the administrator the ability to interrogate massive datasets through flexible drill-down technology, until the desired view is obtained, and then memorize and save the view to a user-defined report menu for repetitive, scheduled execution and distribution.

About this Document

This document is divided into the following sections:

- **Introduction** - This section is comprised of an overview of the ER product and how to use this document

- **Service Information** - This section provides 8e6 Technologies contact information

- **Preliminary Setup Procedures** - This section includes instructions on how to physically set up the ER in your network environment

- **Install the Server** - This section explains how to configure the ER for reporting

- **Conclusion** - This section indicates that the quick start steps have been completed

- **Evaluation Mode** - This section gives information on using the ER in the evaluation mode

- **Specifications** - This section features hardware specifications

- **RAID Maintenance** - This section includes information on troubleshooting RAID on the "H" server

- **Appendix** - The appendix explains how to set up the optional NAS (SCSI Connected Storage Device or "SAN") unit

Conventions Used in this Document

The following icons are used throughout this document to call attention to important information pertaining to handling, operation, and maintenance of the server; safety and preservation of the equipment, and personal safety:

NOTE: The "note" icon is followed by additional information to be considered.

WARNING: The "warning" icon is followed by information alerting you to a potential situation that may cause damage to property or equipment.

CAUTION: The "caution" icon is followed by information warning you that a situation has the potential to cause bodily harm or death.

SERVICE INFORMATION

The user should not attempt any maintenance or service on the unit beyond the procedures outlined in this document.

Any initial hardware setup problem that cannot be resolved at your internal organization should be referred to an 8e6 Technologies solutions engineer or technical support representative.

8e6 Corporate Headquarters (USA)

Local	:	714.282.6111
Domestic US	:	1.888.786.7999
International	:	+1.714.282.6111

8e6 Taiwan

Taipei Local	:	2501-5285
Domestic Taiwan	:	02-2501-5285
International	:	886-2-2501-5285

Procedures

When calling 8e6 Technologies regarding a problem, please provide the representative the following information:

- Your contact information.

- Serial number or original order number.

- Description of the problem.

- Network environment in which the unit is used.

- State of the unit before the problem occurred.

- Frequency and repeatability of the problem.

- Can the product continue to operate with this problem?

- Can you identify anything that may have caused the problem?

PRELIMINARY SETUP PROCEDURES

Unpack the Unit from the Carton

Inspect the packaging container for evidence of mishandling during transit. If the packaging container is damaged, photograph it for reference.

Carefully unpack the unit from the carton and verify that all accessories are included. Save all packing materials in the event that the unit needs to be returned to 8e6 Technologies.

The carton should contain the following items:

- 1 Enterprise Reporter (ER)
- 1 Bezel to be installed on the front of the chassis
- 2 AC Power Cords
- 1 Serial Port Cable
- 1 CAT-5E Crossover Cable
- 1 CAT-5E Coupler
- 1 Serial Port Cable
- Rack Mount Brackets (2)
- 1 End User License Agreement (EULA)
- 1 envelope containing a CD-ROM with PDFs of the ER user guides. The latest versions of our user guides can be obtained at **http://www.8e6.com/docs/er4server.pdf** (administrator), **http://www.8e6.com/docs/er4_wclient.pdf** (Web client).

NOTE: An additional CAT-5E crossover cable also is included in the carton if you have purchased the optional NAS (SCSI Connected Storage Device or "SAN") unit.

Inspect the server and accessories for damage. If the contents appear damaged, file a damage claim with the carrier immediately.

Install the Bezel

Before rack mounting the unit, the bezel should be installed on the front end of the chassis. This portion of the installation process requires you to unpack the unit and bezel.

NOTE: The bezel has been packaged separately from the unit to prevent damage during shipping.

Front of bezel
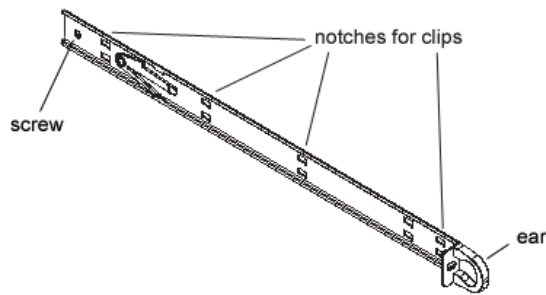
Outside of left inner rail

Inside front end of left inner rail
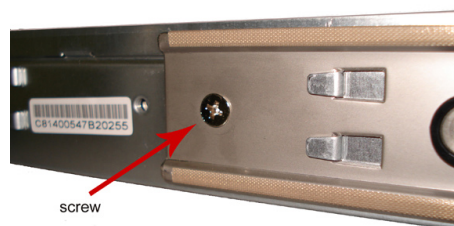
Inner left rail attached to chassis
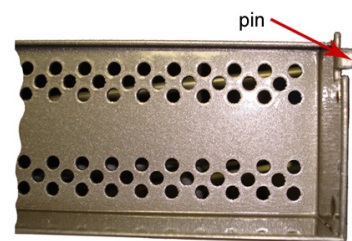
Pin on right side of bezel

A. Remove the plastic wrapping from the left and right ears.

B. On one side of the chassis (left or right), unscrew the inner rail from the chassis.
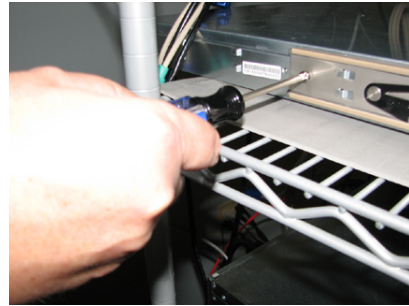
C. Slide the loosened inner rail slightly backwards to release it from the clips at the side of the chassis, and then lay it down beside the chassis, with the inside of the rail facing up.

D. On the inner rail that is still attached to the chassis, insert the bezel pin into the bottom hole of the ear. Be sure the pin is pushed all the way in so that it is flush against the ear.

E. Take up the free end of the bezel and also the loosened inner rail.
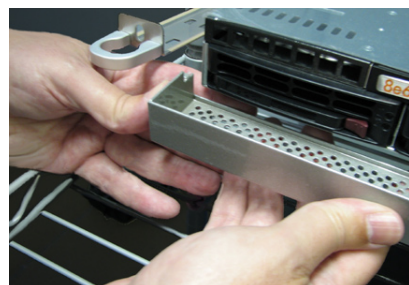
F. Return the loosened inner rail to its upright position and insert the bezel pin into the bottom hole of the ear.
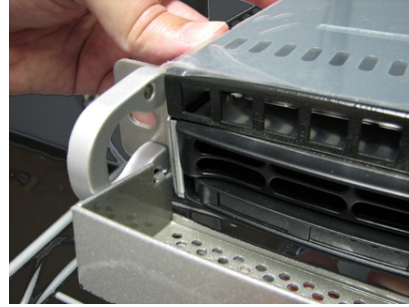
G. Slide the inner rail forward beneath the clips to lock it in place.
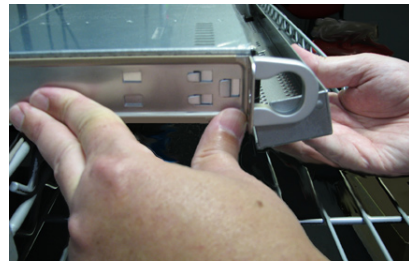
H. Screw the inner rail back on the chassis.
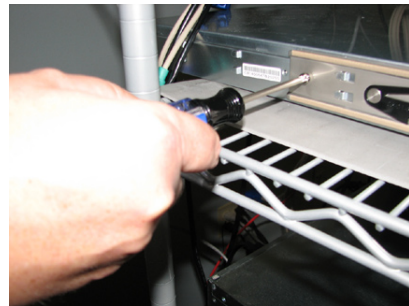
I. After it is installed, the bezel should drop down when it is gently tugged forward and downward. The bezel should remain upright when raised up and closed.

Rack Mount the Server

Rack Mount Instructions

Identify the Sections of the Rack Rails

You should have received two rack rail assemblies with the 8e6 server unit. Each of these assemblies consists of two sections: An inner fixed chassis rail that secures to the unit (A), and an outer fixed rack rail that secures directly to the rack itself (B). Two pairs of short brackets to be used on the front side of the outer rails are also included.

Install the Inner Rails

Both the left and right side inner rails have been pre-attached to the chassis. Proceed to the next step.

Install the Outer Rails

Begin by measuring the distance from the front rail to the rear rail of the rack. Attach a short bracket to the front side of the right outer rail and a long bracket to the rear side of the right outer rail. Adjust both the short and long b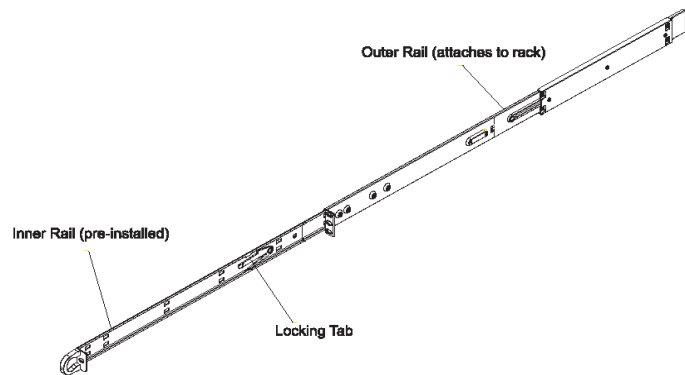rackets to the proper distance so that the rail can fit snugly into the rack. Secure the short bracket to the front side of the outer rail with two M4 screws and the long bracket to the rear side of the outer rail with three M4 screws. Repeat these steps for the left outer rail.

Locking Tabs: Both chassis rails have a locking tab, which serves two functions. The first is to lock the server into place when installed and pushed fully into the rack, which is its normal position. Secondly, these tabs also lock the server in place when fully extended from the rack. This prevents the server from coming completely out of the rack when you pull it out for servicing.
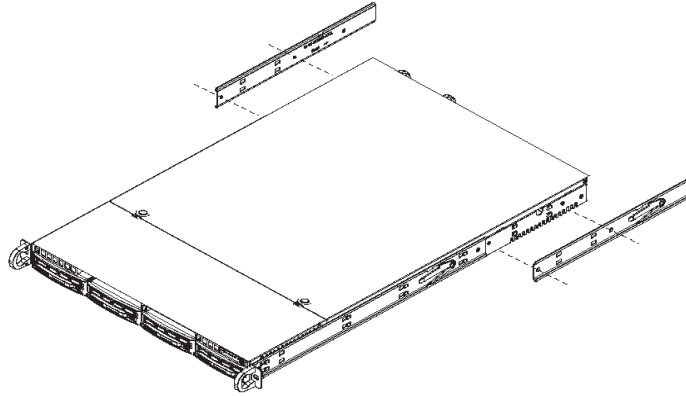
Install the Server into the Rack

You should now have rails attached to both the chassis and the rack unit. The next step is to install the server chassis into the rack. Do this by lining up the rear of the chassis rails with the front of the rack rails. Slide the chassis rails into the rack rails, keeping the pressure even on both sides (you may have to depress the locking tabs when inserting).

When the server has been pushed completely into the rack, you should hear the locking tabs "click." Finish by inserting and tightening the thumbscrews that hold the front of the server to the rack.
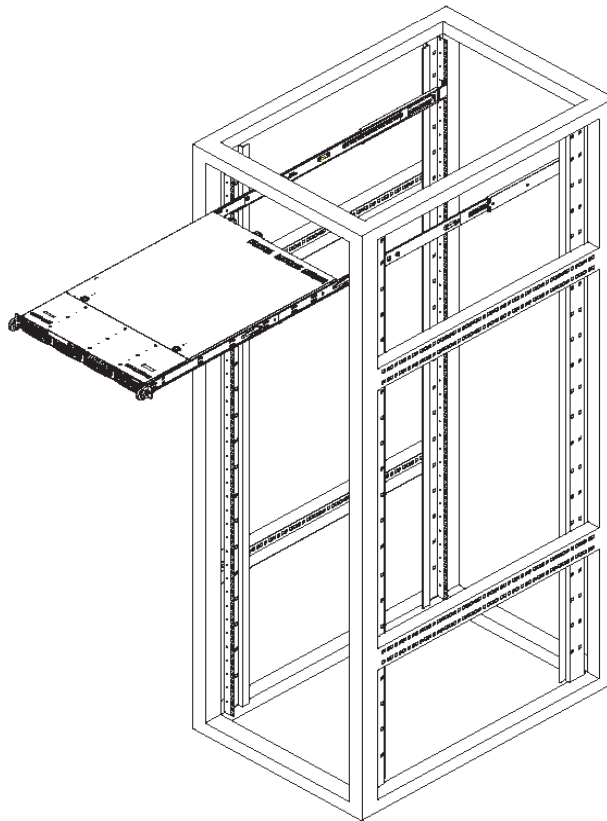
Installing the Server into a Telco Rack

If you are installing the 8e6 server unit into a Telco type rack, follow the directions given on the previous page for rack installation. The only difference in the installation procedure will be the positioning of the rack brackets to the rack. They should be spaced apart just enough to accommodate the width of the Telco rack.
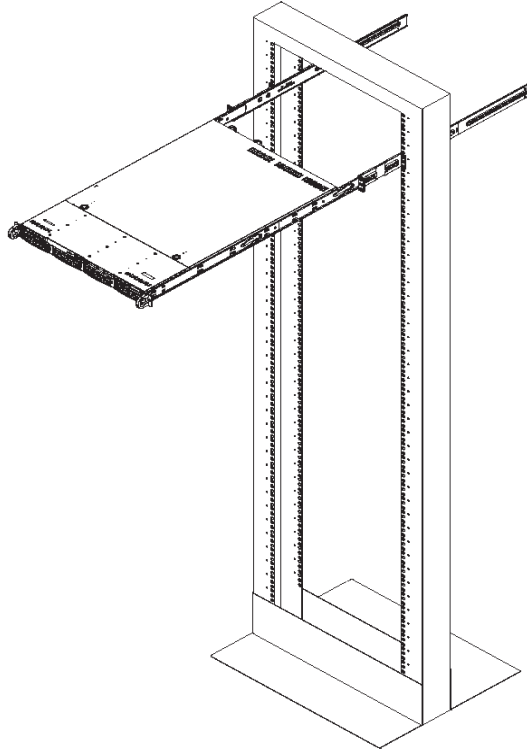
INSTALL THE SERVER

Step 1: Setup Procedures

This step requires you to link the workstation to the ER. You have the option of using the text-based wizard setup procedures described in Step 1A, or the Administrator console setup procedures described in Step 1B.

Wizard Setup Requirements

The following hardware can be used for the wizard setup procedures:

- ER with AC power cord
- either one of two options:
  - PC monitor with AC power cord and keyboard, or
  - PC laptop computer with HyperTerminal and serial port cable (and USB DB9 serial adapter, if there is no serial port on your laptop)

Go to Step 1A to execute Wizard Setup Procedures.

Administrator Console Setup Requirements

The following hardware is required for the Administrator console setup procedures:

- ER with AC power cord
- CAT-5E crossover cable and coupler
- PC laptop computer, or PC monitor with AC power cord and keyboard

Go to Step 1B to execute Console Setup Procedures.

Step 1A: Wizard Setup Procedures

Storage Device Setup (for Attached Storage Units)

If you have a NAS (SCSI Connected Storage Device or "SAN") that will be used with the ER, you will need to connect it to the ER at this point. Refer to the Appendix at the end of this document for instructions on how to connect the SCSI Connected Storage Device.

Link the Workstation to the ER

Monitor and Keyboard Setup

A. Connect the PC monitor and keyboard cables to the rear of the chassis.

B. Turn on the PC monitor.

C. Power on the ER by dropping down the face plate and pressing the large button at the right of the front panel (see image below).
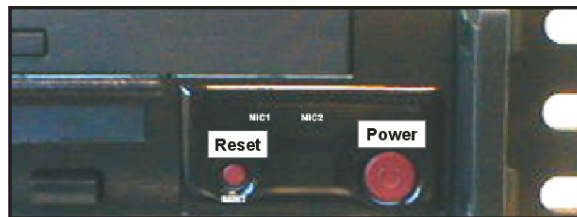
Front of the 1U chassis

Once the ER is powered up, proceed to the Login Screen instructions.

Serial Console Setup

A. Using the serial port cable (and USB DB9 serial adapter, if necessary), connect the laptop to the rear of the chassis (see image below).

Rear of the 1U chassis

B. Power on the laptop.

C. Power on the ER by dropping down the face plate and pressing the large button at the right of the front panel (see first image above).

Once the ER is powered up, proceed to the instructions for HyperTerminal Setup Procedures.

HyperTerminal Setup Procedures

If using a serial console, follow these procedures to create a HyperTerminal session.

A. Launch HyperTerminal by going to Start > Programs > Accessories > Communications > HyperTerminal:

B. In the Connection Description dialog box, enter any session **Name**, and then click **OK** to open the Connect To dialog box:

C. At the **Connect using** field, select the COM port assigned to the serial port on the laptop (probably "COM1"), and then click **OK** to open the Properties dialog box, displaying the Port Settings tab:
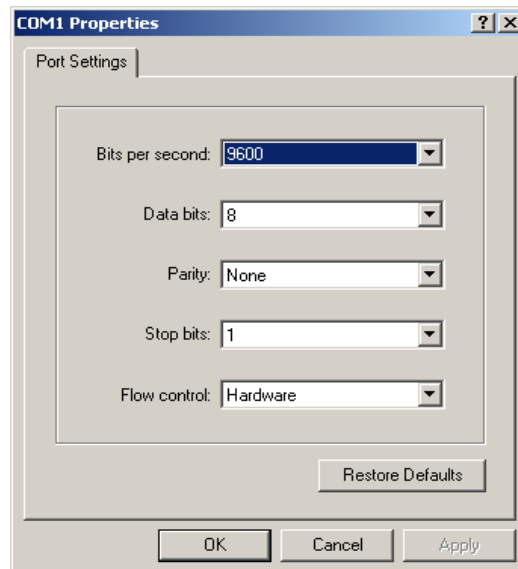
D. Specify the following session settings:

- Bits per second: 9600
- Data bits: 8
- Parity: None
- Stop bits: 1
- Flow control: Hardware

E. Click **OK** to connect to the HyperTerminal session:
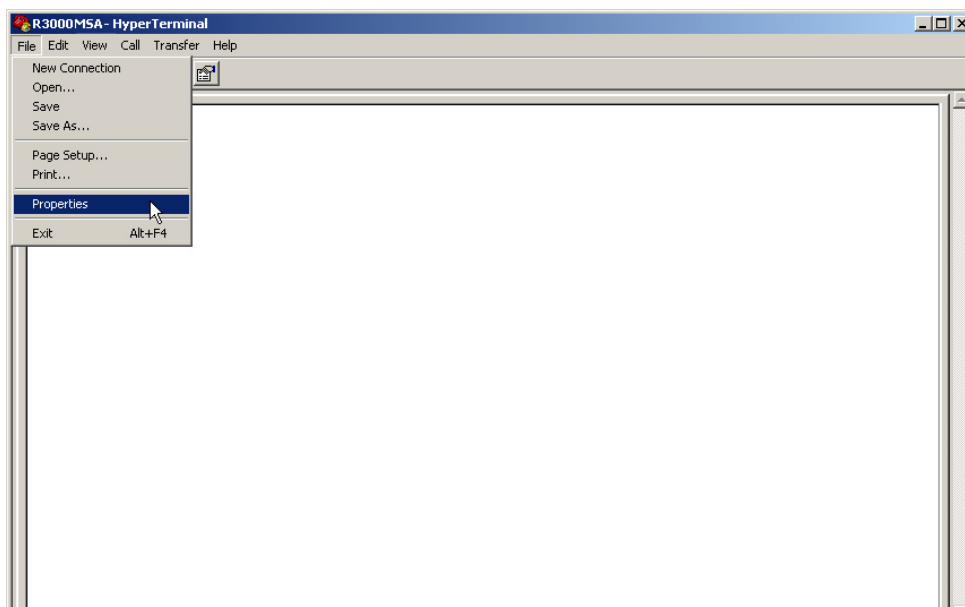
F. In the HyperTerminal session window, go to File > Properties to open the Properties dialog box, displaying the Connect To and Settings tabs:
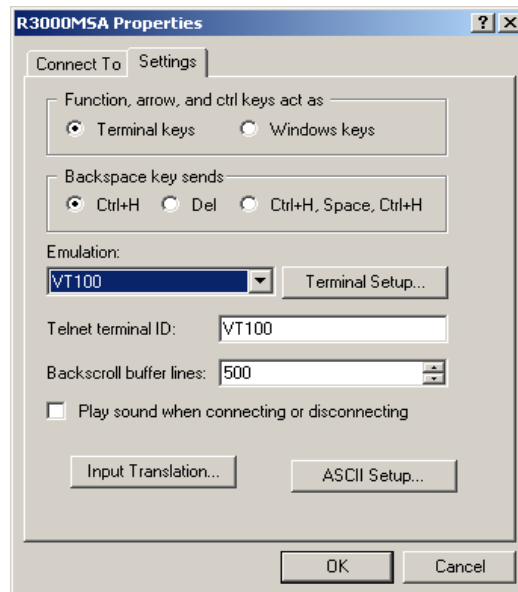
G. Click the Settings tab, and at the **Emulation** menu select "VT100".

H. Click **OK** to close the dialog box, and to go to the login screen.

NOTE: If using a HyperTerminal session, the login screen will display with black text on a white background.

Login Screen

The login screen displays after powering on the ER unit using a monitor and keyboard, or after creating a HyperTerminal session:


```
Red Hat Linux release 9 (Shrike)
Kernel 2.4.27-R3K-021705 on an i686

ER4LOGO  login:
```

*NOTE: If the screensaver currently displays on your screen, press the **Enter** key to display the login screen.*

A. At the **login** prompt, type in *menu*.

B. Press the **Enter** key to display the Password prompt.

C. At the **Password** prompt, type in the following: ***#s3tup#r3k***

D. Press **Enter** to display the System Configuration screen.

System Configuration Screen

```
                              Tue Jul 25 14:04:53 PDT 2006
                        8e6 Technologies
                       System Configuration

            1.  Display Status
            2.  Enter administration password




            9.  Log off



      Press the number of your selection
```
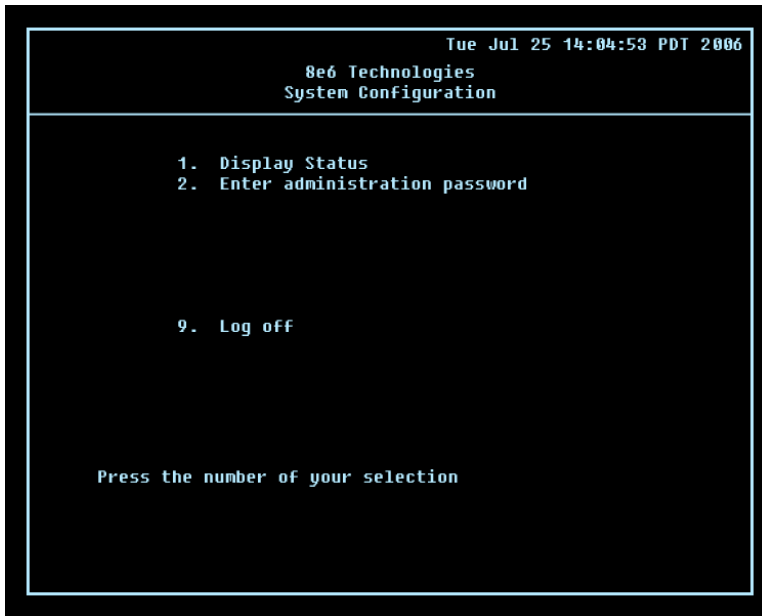
A. At the **Press the number of your selection** prompt, press **2** to select the setup process for the System Configuration wizard.

B. At the login prompt, re-enter your password: ***#s3tup#r3k***

C. Press **Enter** to display the Administration menu where you can begin using the System Configuration wizard.

System Configuration: Administration menu


```
                                    Tue Jul 25 14:05:16 PDT 2006
                            8e6 Technologies
                  System Configuration -- Administration menu


            1.   Display Status
            2.   Initial Setup wizard

            3.   Configure network interface ETH0

            4.   Configure default gateway
            5.   Configure DNS servers
            6.   Configure host name
            7.   Time Zone regional setting

            B.   Reboot system
            C.   Change administration password


            X.   Exit administraion menu

      Press the number of your selection
```

A. At the **Press the number of your selection** prompt, press **2** to select the "Initial Setup wizard" process.

    The wizard takes you to the following system configuration screens to make entries:

    - Configure network interface ETH0
    - Configure default gateway
    - Configure DNS servers
    - Configure host name
    - Time Zone regional setting

NOTE: See the Network screens for Network Settings, and Regional Setting in Step 1B for content included in the wizard screens.

B. After making all entries using the wizard, press **X** to return to the System Configuration screen. Or, to verify the status of the ER and review the entries you made using the wizard, press **1** to view the System Status screen.

NOTE: Changing your password using option C, "Change administration password", will change the password for the console menu but not the ER console login screen.

System Status Screen

```
                              Tue Jul 25 14:05:16 PDT 2006
                                  8e6 Technologies
                          System Status - updates every 10 seconds


        eth0 IP = 200.10.101.76 Mask = 255.255.255.192      Active

        Default gateway IP: 200.10.101.65
        ER host name: ER4LOGO.com

        DNS server IP address(es):  200.10.100.9  200.10.100.8
        Regional timezone setting: US/Pacific

        ER processing is normal
        Version 4.0.00.3




    Press any key to return to menu...
```

The System Status screen contains the following information:

- **Capturing Interface** specified in screen 3 (Configure network interface ETH0)
- **eth0 IP** address and netmask specified in screen 3, and current status ("Active" or "Inactive")
- **Default gateway** IP address specified in screen 4 (Configure default gateway)
- **ER host name** specified in screen 6 (Configure host name)
- **DNS server IP address(es)** specified in screen 5 (Configure DNS servers)
- **Regional timezone setting** specified in screen 7 (Time Zone regional setting)
- Current status of the ER
- Current ER software **Version** installed

NOTE: Modifications can be made at any time by returning to the specific screen of the wizard.

Log Off, Disconnect the Peripherals

A. After completing the wizard setup procedures, return to the System Configuration screen and press **9** to log out.

B. Disconnect the peripherals from the ER.

Step 1B: Console Setup Procedures

Preliminary Setup

Create a "setup workstation" using a Windows-based laptop or desktop machine with a network card and Internet Explorer 6.0 (or later). The setup workstation will be used for accessing the ER server on the network and configuring the unit.

Workstation Configurations

A. From the desktop of the setup workstation, follow the procedures for your machine type:

- **Windows XP** - go to Start > Control Panel. Open Network Connections. Right-click the link for LAN or High-Speed Internet and choose Properties.
- **Windows 2000** - right-click the My Network Places icon and select Properties. Right-click the correct Local Area Connection and choose Properties.
- **Windows NT** - right-click the Network Neighborhood icon and select Properties.
- **Windows ME** - right-click the My Network Places icon and select Properties.

B. Click on **Internet Protocol (TCP/IP)** to highlight it (Windows NT and ME users should select the Protocols or Configuration tab and choose **TCP/IP Protocol**).

C. Click the **Properties** button.

⚠️ *WARNING: Be sure to make note of the current network settings on the setup workstation as you will need to return them for further setup procedures.*

D. Choose the option **Use the following IP address** (Windows NT and ME users should choose the option **Specify an IP Address**).

E. Type in the **IP address** of 1.2.3.3.

F. Type in the **Subnet mask** (netmask) of 255.0.0.0 and click **OK**.

G. Close the LAN connection properties box.

Storage Device Setup (for Attached Storage Units)

If you have a NAS (SCSI Connected Storage Device or "SAN") that will be used with the ER, you will need to connect it to the ER at this point. Refer to the Appendix at the end of this document for instructions on how to connect the SCSI Connected Storage Device.
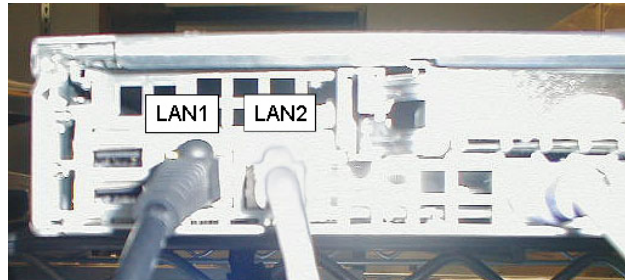
Link the Workstation to the ER

The procedures outlined in this sub-section require the use of the CAT-5E crossover cable.

A. Plug one end of the CAT-5E crossover cable into the ER's LAN 1 port.

B. Plug the other end of the CAT-5E crossover cable into the setup workstation's network card.

NOTE: The CAT-5E coupler can be used if the crossover cable is not long enough for your setup. Plug one end of the CAT-5E crossover cable into the ER, and the other end into the coupler. Plug a standard CAT-5E cable into the other end of the coupler, and the free end of the standard CAT-5E cable into the setup workstation.

C. Plug the ER into a power source with an appropriate rating.

WARNING: It is strongly suggested you use an uninterruptible power supply.

D. Drop down the face plate and press the large button to power on the ER. The boot-up process may take 5 - 10 minutes. When the drive light remains off for 30 seconds, the system is booted up.

WARNING: The ER is an information database. If you experience a power interruption or power off the ER in any manner other than from the Web-based interface utility described in the sub-step Physically Connect the ER to the Network, you may lose data and/or damage the file system.

The Boot Up Process

The boot-up process may take 5 - 10 minutes. When the drive light remains off for 30 seconds, the system is booted up. (See the RAID Maintenance section for a description of front panel LED indicators and buttons.)

If you wish to verify that the unit has been booted up, you can perform the following test on your workstation:

1. Go to your taskbar and click Start > Run.
2. In the dialog box, type in *cmd* (type in *command* if using Windows ME).
3. Click **OK.**
4. In the cmd.exe window, type in *ping 1.2.3.4*
5. Press **Enter** on your keyboard.

If you receive a reply, the unit is up.

Network Setup

When the ER is fully booted, you can configure network settings. For this step, you will need your network administrator to provide you the host name, gateway address, and one unused IP addresses.

Access the Internet

A. Launch Internet Explorer from the setup workstation.

B. Type in **http://1.2.3.4:88** in the address field.

C. Click **Go** to open the login dialog box of the Administrator console application.

Log in to the Administrator Console

In the login dialog box, you need to enter the generic User Name and Password.

A. In the **User name** field, type in *admin*.

B. In the **Password** field, type in *reporter*.

C. Click **OK** to close the login dialog box and to go to the main screen of the Administrator console:
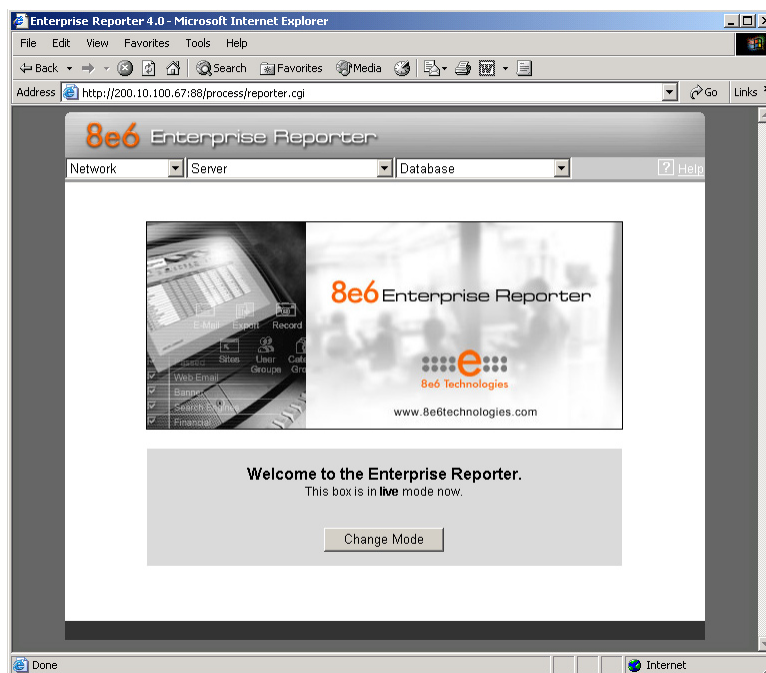
Network Settings

A. From the Network menu at the top left of the screen, choose **Network Setting** to display the Network Settings screen in which you enter LAN settings the ER will use on your network:
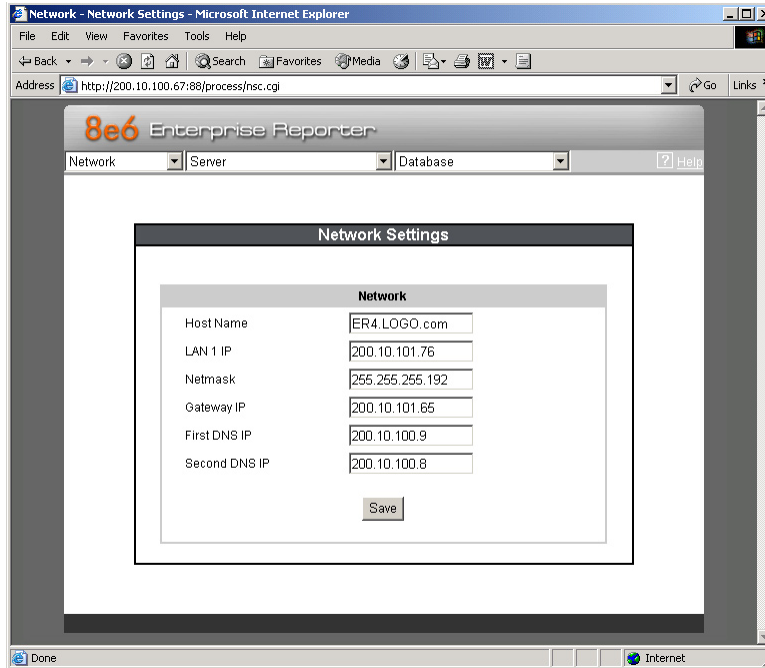
B. Enter the **Host Name** that includes your domain name. For example: er.myserver. com. This must be a valid DNS entry.

C. Enter the **LAN 1 IP** address of the ER server. This IP address must be FTP-accessible via the Web access logging device, and via port 3306 from the client workstation that will run the reports.

D. Enter the **Netmask** (subnet) that will define the traffic designated for the LAN.

E. Enter the **Gateway IP** address for the default router or firewall that is the main gateway for the entire network segment.

F. Enter the **First DNS IP** address of the primary Domain Name System (name server). The server will use this IP address to identify IP addresses on the network.

G. Enter the **Second DNS IP** address of the fallback DNS.

⚠ *WARNING: Be sure to make note of the IP addresses and host name you assigned to the ER. It is strongly suggested you document and save a copy of these entries since they are now the only way to communicate with the ER.*

H. Click **Save**.

Regional Setting: Time Zone

A. From the Network menu, choose **Regional Setting** to display the Regional Setting screen in which you specify the geographic region of the ER, select the language set to display in the console, and then select the Network Time Protocol (NTP) servers the ER will use for time synchronization with Internet clocks:
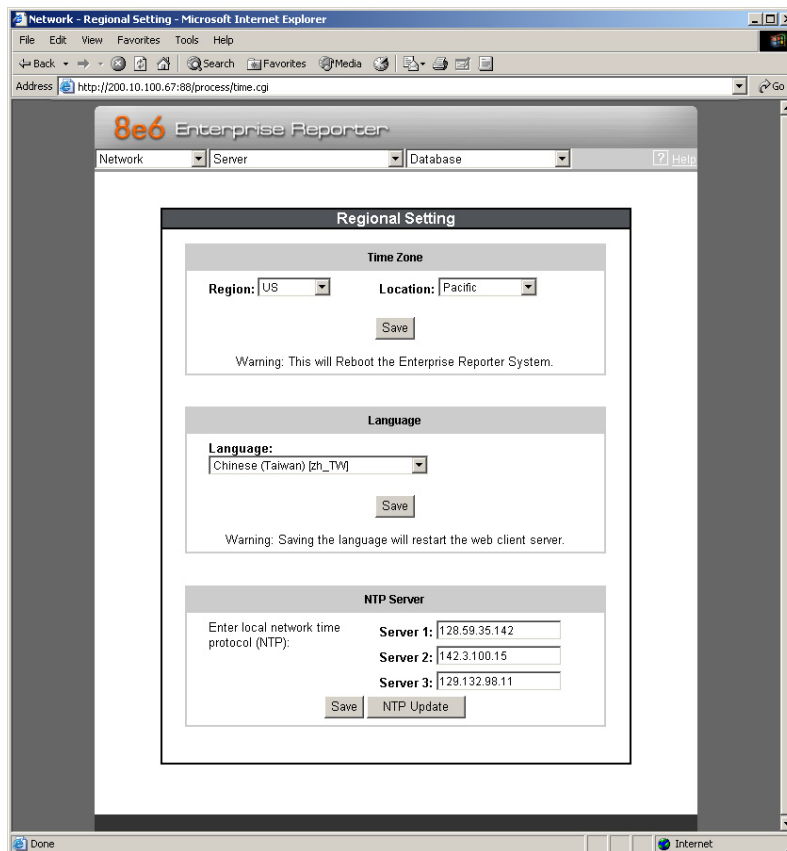
B. At the **Region** pull-down menu, select your country from the available choices.

C. At the **Location** pull-down menu, select the time zone for the specified region.

D. Click **Save**.

Regional Setting: Language

A. If necessary, select a language set from the **Language** pull-down menu to display that text in the console.

B. Click **Save**.

Regional Setting: NTP Servers

A. In the **Server 1** field on the Time Settings screen, enter the IP address of the primary NTP server you wish to use for clock settings on your server.

B. In the **Server 2** field, enter the IP address of the secondary NTP server. The time from this server will be used by your server if the IP address for the primary server fails to be accessed by your server.

C. In the **Server 3** field, enter the IP address of the tertiary NTP server. The time from this server will be used by your server if the IP addresses for the primary and secondary servers fail to be accessed by your server.

D. Click **Save**.

Physically Connect the ER to the Network

Now that your ER network parameters are set, you can physically connect the unit to your network. This step requires a standard CAT-5E cable (*not* the CAT-5E crossover cable supplied with the ER).

NOTE: This section requires you to restart the ER. If you wish to relocate the ER before connecting it to the network, you must first shut down the server instead of restarting it. To shut down the ER, go to the Server menu, select Shut Down, and then choose Shutdown Hardware. Once the server is shut down, you must power on the ER and then log back into the Administrator console.

WARNING:

A. Restart the machine using the steps below. *Never* reset by using the power or reset buttons as this can corrupt the database and result in lost data.

   1. From the Server menu, select **Shut Down**.
   2. On the Shut Down screen, choose **Restart Hardware**.
   3. Click **Apply**.
   4. When the Warning screen displays, click **Restart**.

NOTE: From the time you click Restart Hardware, you have approximately 2 minutes to perform steps B through E while the ER goes through the Restart process.

B. Disconnect the crossover cable from the ER.

C. Plug one end of a standard CAT-5E cable into the ER's LAN 1 port.

D. Plug the other end of the standard CAT-5E cable into an open port on the network hub to which the Web-access logging device (R3000 or equivalent type of unit) is connected.

E. Wait until the Restart process has completed (indicated by the drive light staying off for 30 seconds. This process may take 5 - 10 minutes), then proceed to Step 2.

NOTE: To verify that the server is in the process of being restarted, you can try accessing another screen. If you cannot access another screen, the restart process is still in progress.

Step 2: Change User Name and Password, Set Self-Monitoring

Now that the ER is physically installed on your network and you have configured its network settings, you should be able to access the Administrator console.

Access the Internet

A. Restore the setup workstation you used for the Network Setup to its original settings, and connect it to the network hub to create an "administrator workstation." (You could also use another workstation already on the network that you want to designate as the administrator workstation.)

B. Launch IE on the administrator workstation.

C. In the address field, enter the LAN 1 IP address you assigned to the ER (Step 1B: Network Setup: Network Settings, item "C"). Be sure to include the port information **:88** in the address field. For example, if the ER were assigned an IP address of 10.10.10.10, you would enter **http://10.10.10.10:88** in the browser's address field.

D. Click **Go**. You should be prompted to log into the Administrator console, giving the User Name and Password.

If you can access the main screen of the Administrator console, the ER setup is going as planned and you should proceed to changing your User Name and Password. If you cannot access the main screen, verify the following:

- The ER is powered on.
- Can the administrator workstation normally connect to the Internet?
- Is the administrator workstation able to ping the ER?
- Did you restart the ER after changing the network settings?
- If still unsuccessful, contact an 8e6 Technologies solutions engineer or technical support representative.

Change User Name and Password

A. Set up a new administrator user name and password by clicking on the Network pull-down menu and choosing **Administrators** to display the Add/Edit/Delete Administrators screen:
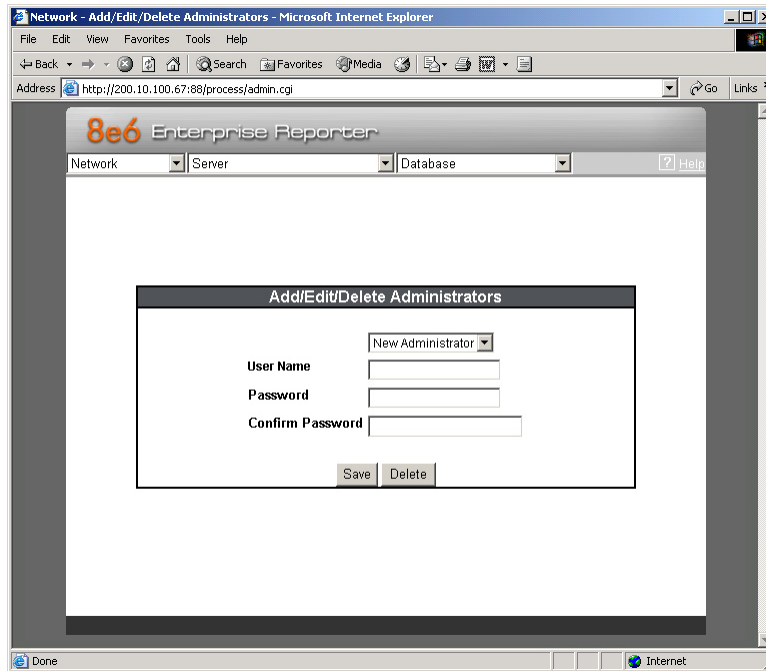
B. Select **New Administrators** from the pull-down menu.

C. Enter a **User Name** and **Password**.

D. In the **Confirm Password** field, re-enter the password.

E. Click **Save**.

Set Self-Monitoring

A. From the Server pull-down menu, choose **Self-Monitoring** to display the Self Monitoring screen:
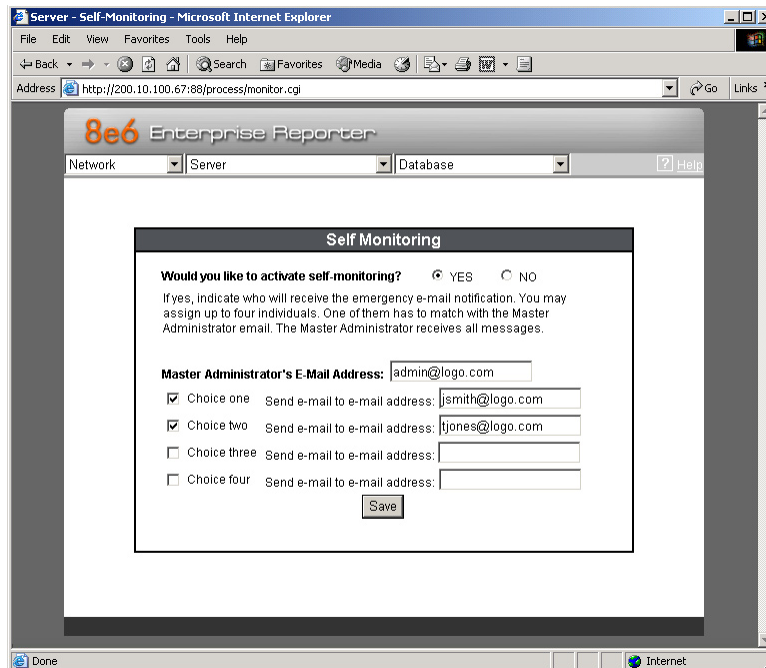
B. Choose **YES** to activate monitoring.

C. Enter the **Master Administrator's E-Mail Address**.

D. Click **Choice one** and enter an e-mail address of an individual in your organization that you would like notified if the ER detects any problems when processing data. This can be the same e-mail address entered in the previous field. Enter up to four e-mail addresses.

E. Click **Save**.

Step 3: R3000 Configuration

If you are using 8e6's R3000 for your Web-access logging device, this step can be performed any time during ER setup, but must be completed in order for the ER to receive logs from the R3000.

A. Access the Administrator console of the R3000.

B. Choose the **Reporting** button at the top of the screen to display the Reporting section of the Administrator console.

C. From the navigation panel at the left of the screen, choose Report Configuration to display the Report Configuration window.

D. Select **8e6 Enterprise Reporter**, and then click **Save**.

E. On the 8e6 Enterprise Reporter tab, in the **Server** field, enter the LAN 1 IP address you assigned to your ER in Step 1B, Network Setup: Network Settings, item "C".

F. Click **Add** to include this IP address in the Remote Server list box. Your R3000 is now set to FTP its log files to your ER.

NOTE: It is recommended you wait for 1 - 2 hours after the initial installation so sufficient data is available for viewing.

You can see if log files have transferred by accessing the ER's Administrator console and choosing **Tools** from the Database pull-down menu to display the Tools screen. Choose the **File Watch Log** and click **View**. The transfer is working if you see an entry that includes the date, time, and IMPORTING: shadow.log.machine1. The transfer should occur every hour. Once you see an entry, reporting information will be available one hour after the timestamp of the import listing.

Step 4: Client Workstation Configuration

Once your ER is installed, you need to configure a client workstation dedicated to the purpose of reporting and not running multiple programs. This workstation should have the following minimum requirements:

- Pentium III class processor or greater
- 512 MB RAM minimum, 1 GB RAM recommended
- 1,024 x 768 display
- 2 GB free hard drive space
- Windows 2000 or XP operating system
- Internet Explorer Version 6.0 or later
- Pop-up blocking software disabled, if installed
- High-speed connection to ER server

Go to the ER server and apply the latest software to the server, following the procedures documented in the Software Update screen sub-section of the ER Administrator User Guide. The CD-ROM supplied with the ER contains the ER Administrator User Guide, the latest version which can be downloaded from our Web site at: **http://www.8e6.com/docs/er4server.pdf**.

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*NOTE: The CD-ROM supplied with the ER contains the ER Web Client User Guide, the latest version which can be downloaded from our Web site at: **http://www.8e6.com/docs/er4_wclient.pdf***.

Step 5: Launch the ER Client

A. Launch IE, enter **http://x.x.x.x:8080** or **https://x.x.x.x:8443** in the address window (in which "x.x.x.x" represents the IP address of the ER server), and then click **Go** to access the login window of the ER client.

B. Enter your **Username** and **Password**, and then click **LOGIN** to access the main screen of the client.

C. In the navigational panel, select **Settings**, and then choose A**dmin Details** from the menu.

D. In the **Admin Password** field, enter the password *admin*.

E. Click **Server Info**, and in the dialog box:

1. If necessary, change the **Database Password** to the password set up on the Tools screen in the Administrator console. (The default password for the Administrator console is *8e6ReporT*.) The database password you enter *must* be the same password used on the ER server.

2. **Save** your settings and exit the client. You can now launch the client and enter the password you just set up.

NOTE: For instructions on logging into the client after initial set up, refer to the ER Web Client User Guide.

CONCLUSION

Congratulations; you have completed the ER quick start procedures. Now that the ER server is set up on your network and the client can be accessed from your workstation, you will need to be sure the Web-access logging device you are using is sending log files to the ER database. Once the ER database is populated, the client can be used for generating reports.

Initially, you will only be able to report on IP addresses. To implement user names in ER reporting, please consult the ER Administrator User Guide.

Refer to the ER Web Client User Guide for information on generating reports.

NOTE: If you cannot view reports, or if your specific environment is not covered in the ER Administrator User Guide, contact an 8e6 Technologies solutions engineer or technical support representative. Port 22 (SSH) and Port 3306 (SQL) must be open on your network to allow access by remote technical support.

Important Information about using the ER in the Evaluation Mode

When evaluating the ER and using this product in the evaluation mode, the Expiration screen in the Administrator console and the ER Server Statistics window in the client will display and function differently than they do in the activated (standard) mode of the ER (described in the ER Administrator User Guide and ER Web Client User Guide).

Administrator Console, Expiration Screen

On the Expiration screen, the following message displays at the top of the screen: "Evaluation Mode – Max Data Storage 'X' Weeks" (in which 'X' represents the maximum number of weeks in the ER's data storage scope). In the evaluation mode, you will not be able to make adjustments to the data storage scope. Thus, the Save button is not included at the bottom of the screen. Evaluation Mode information is for viewing purposes only.

ER Client, ER Server Statistics Window

In the ER Server Statistics window, the note "*Evaluation Mode Enabled" displays above the ER Activity frame. To the right of this note, the Info button displays. When this button is clicked, an alert box opens with the message: "Evaluation Mode – Max Data Storage 'X' Weeks" (in which 'X' represents the maximum number of weeks in the ER's data storage scope). Click OK to close the alert box.

SPECIFICATIONS

ERH Unit

Physical Specifications

Specification	ERH-100 Value	ERH-200 Value
Height	1.7" (43mm)	1.7" (43mm)
Width	17.2" (438mm)	17.2" (438mm)
Depth	26.8" (681mm)	26.8" (681mm)
Front clearance	2 inches (76mm)	2 inches (76mm)
Side clearance	1 inch (25mm)	1 inch (25mm)
Rear clearance	3.6 inches (92mm)	3.6 inches (92mm)
Weight	43.0 lbs (19.5 kg)	44.0 lbs (19.96 kg)

Hardware Component Specifications

Specification	Value
Operating temperature range	10° C ~ 35° C (50° F ~ 95° F)
Storage temperature range	-40° C ~ +60° C (-40° F ~ 158° F)
Operating humidity range	8 ~ 90% non-condensing
Storage humidity range	5 ~ 95% non-condensing
Power supply	560W Hot-swap redundant AC power supply with PFC [24-pin, (8-pin = 12V)]
Rated AC input voltage	100 ~ 240V, 60-50Hz, 10-5 Amp per power supply module (two modules included in the chassis)
Rated input frequency	50 ~ 60 Hz
Rated input current	10A (115V) to 5A (230V)
Rated output power	560W
Maximum rated BTU	N/A (see specs below)
Nominal DC output: +3.3V	21.0A
Nominal DC output: +5V	30.0A
Nominal DC output: +12V	42.0A
Nominal DC output: -12V	1.0A
Nominal DC output: +5V standby	4.0A
Regulatory (power supply)	EN 60950/IEC 60950-Compliant UL Listed (USA) CUL Listed (Canada) TUV Certified (Germany)

Internal Product Specifications

| Specification	ERH-100	ERH-200
CPU	2x3.6GHz Xeon CPU	2x3.6GHz Xeon CPU
Memory	4GB PC2700 / DDR-333 ECC SDRAM	4GB PC2700 / DDR-333 ECC SDRAM
Hard drive capacity	4x250GB HDD	4x400GB HDD
Connectivity	10/100/1000	10/100/1000

RAID MAINTENANCE

This section of the document is divided into three parts: ERH Hardware Components, Server Interface, and Troubleshooting—in the event of a failure in one of the drives, power supplies, or fans.

NOTE: As part of the ongoing maintenance procedure for your RAID server, 8e6 recommends that you always have a spare drive and spare power supply on hand.

Contact 8e6 Technical Support for replacement hard drives and power supplies.

Part 1: ERH Hardware Components

The ERH RAID server contains four hard drives, two power supplies, and five sets of dual cooling fans (10 in total). These components are depicted in the diagram below:
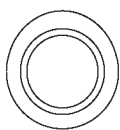
Rear of Chassis
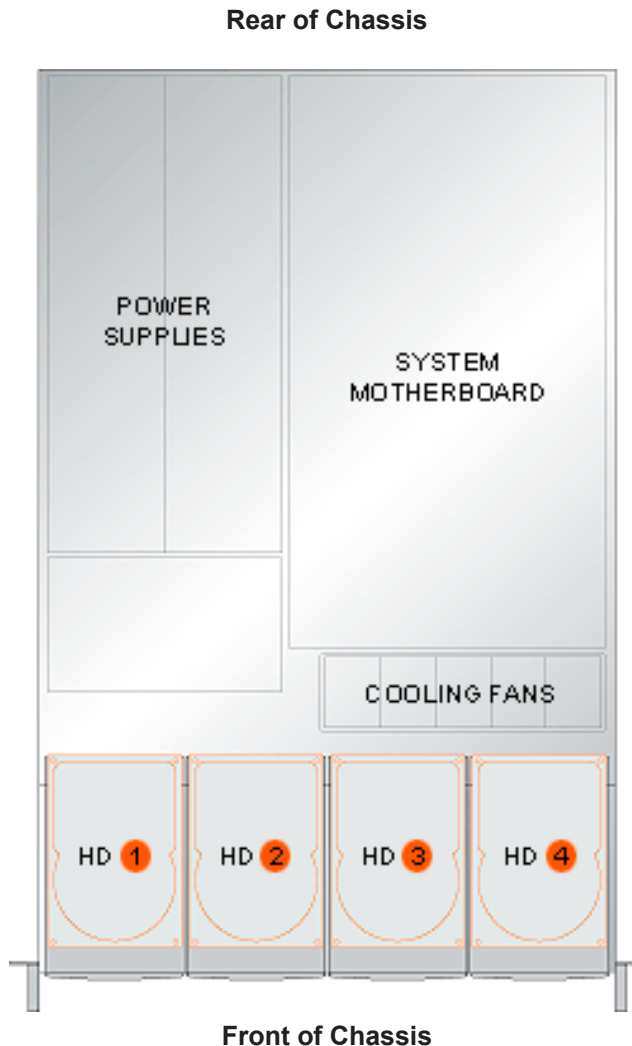
Front of Chassis

Part 2: Server Interface

Front of Chassis: Control Panel

Control panel buttons, icons, and LED indicators display on the right side of the front panel. The buttons let you perform a function on the unit, while an LED indicator corresponding to an icon alerts you to the status of that feature on the unit.

Button   LED
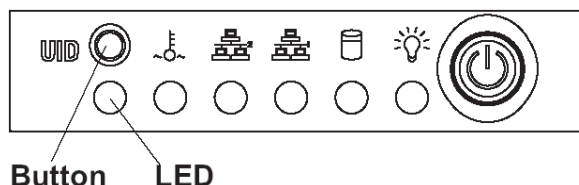
The buttons and LED indicators for the depicted icons function as follows:

UID (button) – When the UID button is pressed, a steady blue LED displays on both the front and rear of the chassis (see also Rear of Chassis). These indicators are used for easy location of the chassis in a large stack configuration. The LED remains on until the button is pressed a second time.

Overheat/Fan Fail (icon) – This LED is unlit unless the chassis is overheated. (See Fan Failure in the Troubleshooting sub-section for information on detecting a fan failure and resolving this problem.)

NIC2 (icon) – A flashing green LED indicates network activity on LAN2.

NIC1 (icon) – A flashing green LED indicates network activity on LAN1.

HDD (icon) – In addition to displaying in the control panel, this icon also displays on the front panel on each hard drive carrier. A green LED indicates hard drive activity. An unlit LED on a drive carrier may indicate a hard drive failure. (See Hard Drive Failure in the Troubleshooting sub-section for information on detecting a hard drive failure and resolving this problem.)

Power (icon) – The LED is unlit when the server is turned off. A steady green LED indicates power is being supplied to the unit's power supplies. (See also Rear of Chassis.) (See Power Supply Failure in the Troubleshooting sub-section for information on detecting a power supply failure and resolving this problem.)

Power (button) – When the power button is pressed, the main power to the server is turned on. When the power button is pressed again, the main power to the server is removed but standby power is still supplied to the server.

Rear of Chassis

UID (LED indicator) – On the rear of the chassis, to the left of the power supplies, a steady blue UID LED indicator displays when the UID button on the control panel is pressed. This LED remains lit until the UID button is pressed again.

VGA Port   Button/LED
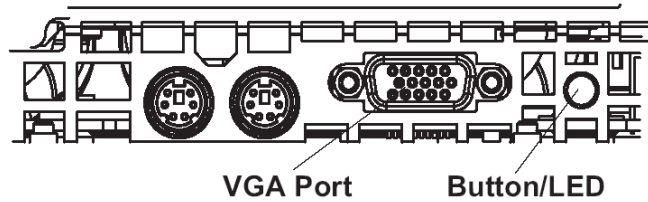
Power Supplies (LED indicators) – The power supplies are located at the right on the rear of the chassis. An LED indicator is located above each of the power plugs. (See Power Supply Failure in the Troubleshooting sub-section for information on detecting a power supply failure and resolving this problem.)
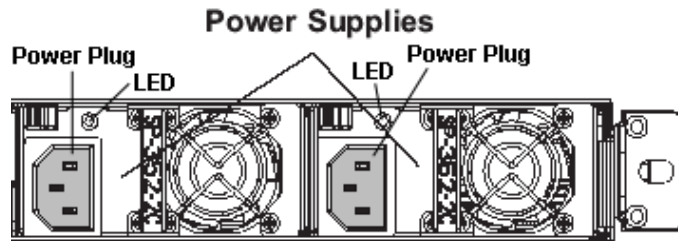
Part 3: Troubleshooting

The text in this section explains how the server alerts the administrator to a failed component, and what to do in the event of a failure.
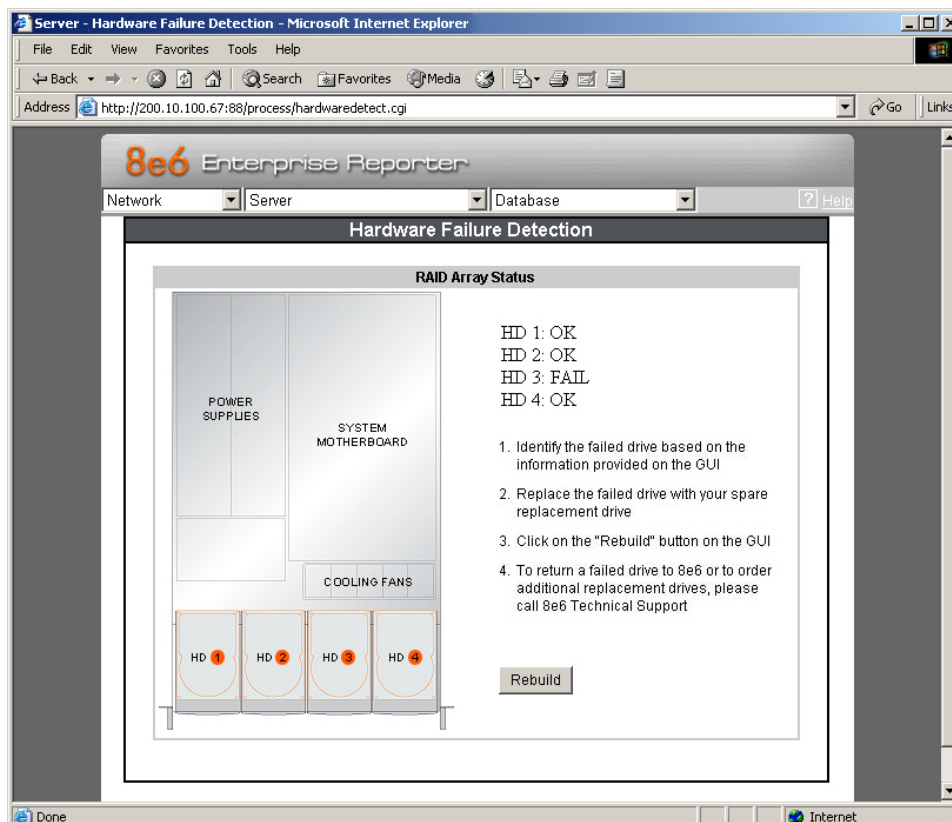
Hard Drive Failure

Step 1: Review the Notification Email

If a hard drive fails, a notification email is sent to the administrator of the server. This email identifies the failed hard drive by its number (HD 1, 2, 3, or 4). Upon receiving this alert, the administrator should verify the status of the drives by first going to Hardware Failure Detection screen on the Administrator console.

⚠️ **WARNING:** *Do not attempt to remove any of the drives from the unit at this time. Verification of the failed drive should first be made in the Administrator console before proceeding, as data on the server will be lost in the event that the wrong drive is removed from the unit.*

Step 2: Verify the Failed Drive in the Administrator Console

The Hardware Failure Detection screen on the ER server is accessible via the **Server > Hardware Failure Detection** menu selection:

The Hardware Failure Detection screen displays the current RAID Array Status for the four hard drives (HD 1, 2, 3, and 4).

Normally, when all four hard drives are functioning without failure, the text "OK" displays to the right of the hard drive number, and no other text displays on the screen.

However, when a hard drive has failed, the message "FAIL" displays to the right of the hard drive number, and instructions for replacing the hard drive display below:

1. Identify the failed drive based on the information provided on the GUI.
2. Replace the failed drive with your spare replacement drive.
3. Click on the "Rebuild" button on the GUI.
4. To return a failed drive to 8e6 or to order additional replacement drives, please call 8e6 Technical Support.
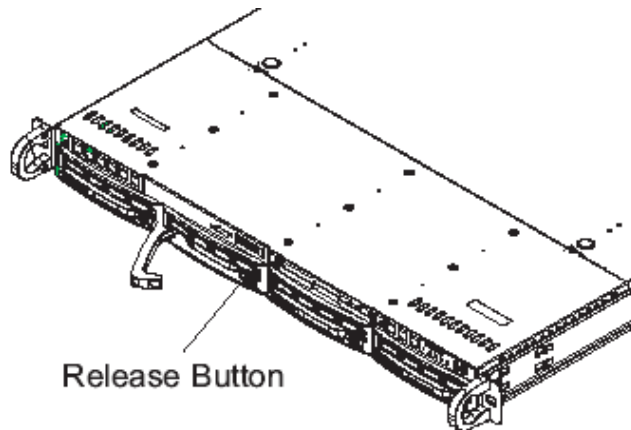
Step 3: Replace the Failed Hard Drive

After verifying the failed hard drive in the Administrator console, go to the server to replace the drive.
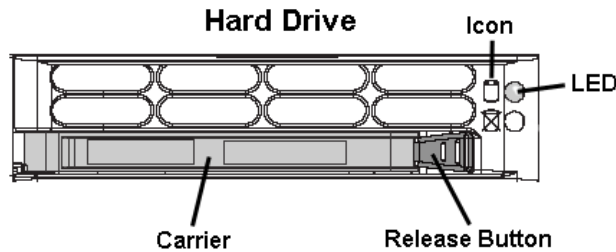
Press the red release button to release the handle on the carrier, and then extend the handle fully and pull the carrier out towards you. Replace the failed drive with your spare replacement drive.

NOTE: *Contact Technical Support if you have any questions about replacing a failed hard drive.*

Step 4: Click Rebuild in the Administrator Console

Return to the Hardware Failure Detection screen in the Administrator console and click Rebuild.

Step 5: Contact Technical Support

Contact Technical Support to order a new replacement hard drive and for instructions on returning your failed hard drive to 8e6.

Power Supply Failure

Step 1: Identify the Failed Power Supply

The administrator of the server is alerted to a power supply failure on the chassis by an audible alarm and an amber power supply LED—or an unlit LED—on the front and rear of the chassis.

NOTE: *A steady amber power supply LED also may indicate a disconnected or loose power supply cord. Verify that the power supply cord is plugged in completely before removing a power supply.*

WARNING: *Be sure the correct failed power supply has been identified. Removing the wrong power supply will cause the system to crash.*
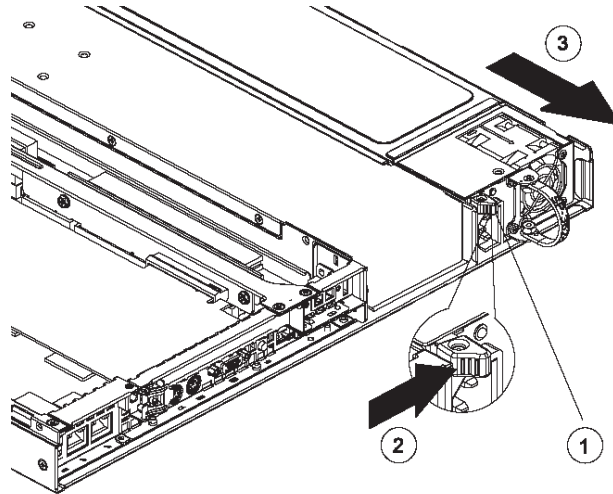
Step 2: Unplug the Power Cord

To prevent electrical shock to yourself and damage to the unit, unplug the power cord from the failed power supply.

Step 3: Replace the Failed Power Supply

Remove the failed power supply by locating the red release tab (1) and pushing it to the right (2), then lifting the curved metal handle and pulling the power supply module towards you (3).

Note that an audible alarm sounds and the LED is unlit when the power supply is disengaged. Replace the failed power supply with your spare replacement power supply. The alarm will turn off and the LED will be a steady green when the replacement power supply is securely locked in place.

Step 4: Contact Technical Support

Contact Technical Support to order a new replacement power supply and for instructions on returning your failed power supply to 8e6.

Fan Failure

 Identify a Fan Failure

A flashing red LED indicates a fan failure. If this displays on your unit, contact Technical Support for an RMA (Return Merchandise Authorization) number and for instructions on returning the unit to 8e6.

A steady red LED (on and not flashing) indicates an overheating condition, which may be caused by cables obstructing the airflow in the system or the ambient room temperature being too warm. Check the routing of the cables and make sure all fans are present and operating normally. The LED will remain steady as long as the overheating condition exists.

APPENDIX: SCSI CONNECTED STORAGE DEVICE

This appendix pertains to the installation of the optional NAS (SCSI Connected Storage Device or "SAN") unit.

Preliminary Setup Procedures

Unpack the Unit from the Carton

Inspect the packaging container for evidence of mishandling during transit. If the packaging container is damaged, photograph it for reference.

Carefully unpack the unit from the carton and verify that all accessories are included. Save all packing materials in the event that the unit needs to be returned to 8e6 Technologies.

The carton should contain the following items:

- 1 Nexsan Technologies unit
- 1 Mounting Kit
- 1 Accessory Kit containing:
    - 2 AC Power Cords
    - 1 Ultra SCSI 160 cable

Other Required Installation Items

In addition to the contents of the Nexsan carton, you will need the following items to install the storage device:

- 1 Standard CAT-5E cable
- 1 CAT-5E crossover cable (from the ER server carton)

Inspect the unit and accessories for damage. If the contents appear damaged, file a damage claim with the carrier immediately.
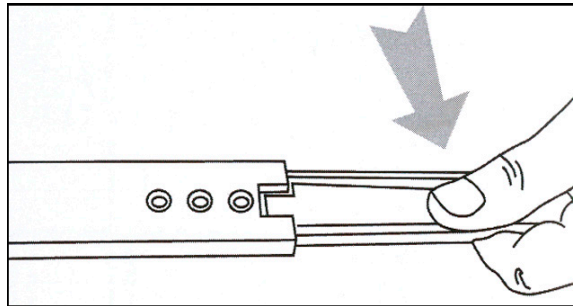
Rack Mount the Server

Rack Mount Components

The following items are needed to install rails for rack mounting:

- 1 x Slide Kit and Mounting Hardware
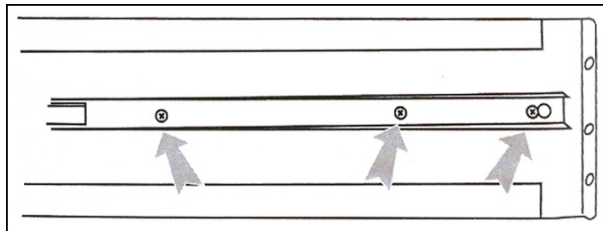- 1 pair Accuride Slide Rails

Step 1

Remove inner slide rail as shown. Press down on latch to release.

Step 2

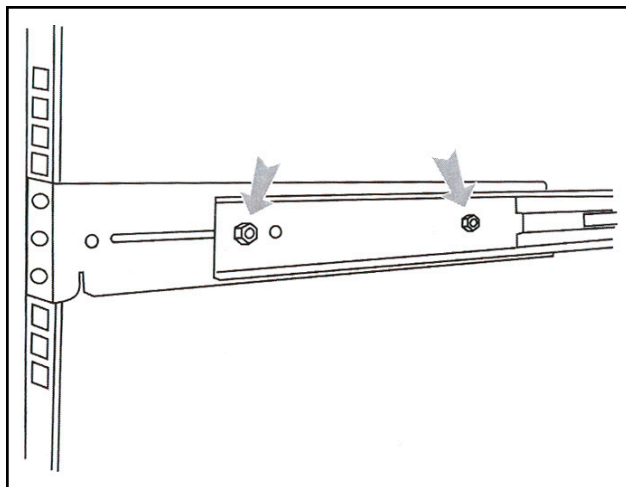Attach inner slide rail to chassis using 3 screws as shown.

NOTE: When attaching the extended brackets, attach them loosely at first. Adjust the length to fit the cabinet, and then tighten.

Step 3

Attach left and right rear (long) extended brackets to the outer rail using 2 screws, 2 washers, and 2 nuts for each bracket.
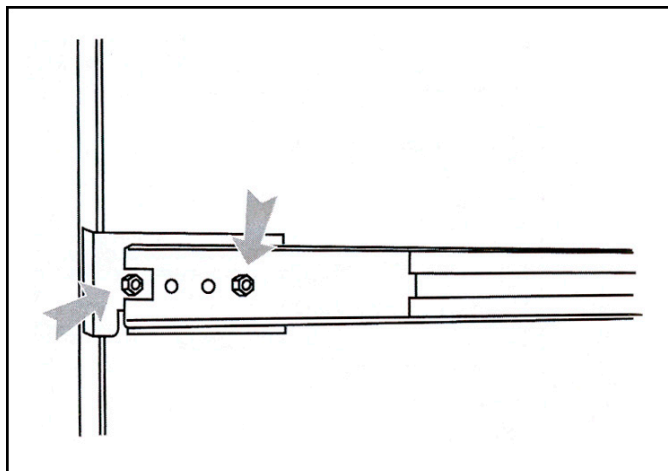
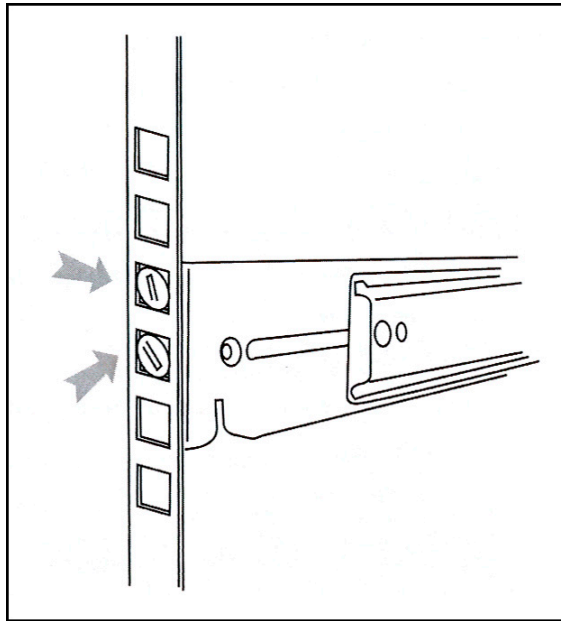*NOTE: Make sure the flange is on the bottom edge.*

Step 4

Attach left and right front (short) extended brackets to the outer rail using 2 screws, 2 washers, and 2 nuts for each bracket.

NOTE: Make sure the flange is on the bottom edge.

Step 5

Attach outer rail to chassis using 4 screws and cage nuts per rail, 2 at each end.

Step 6

Slide chassis into outer rail carefully, making sure the chassis is level with the slide.

NOTE: It's easier if the drives and power supplies are removed first before sliding the chassis into the outer rail.

Install the Unit

Link the ER Unit with the SCSI Connected Device

This sub-step is a continuation from the Storage Device Setup (for Attached Storage Units) portion of Step 1A or 1B in the ER section. The procedures outlined in this step require the use of the CAT-5E crossover cable and the Ultra SCSI 160 cable.

A. Plug the SCSI cable into the upper right slot on the back of the ER unit (see Figure 1, Item A).

B. Plug one end of the CAT-5E crossover cable into the ER unit's LAN 2 port—the port on the right (see Figure 1, Item B).
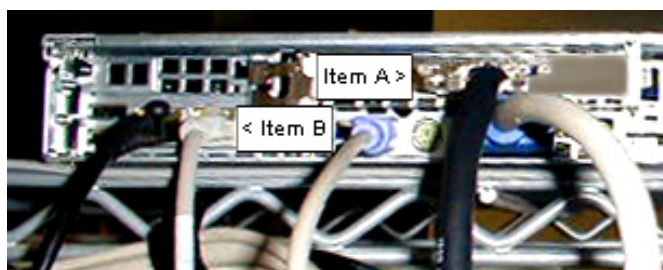

Figure 1: Back of the ER unit

C. Plug the other end of the SCSI cable into the storage device's upper *left* disk "0" (zero) channel (see Figure 2, Item A).
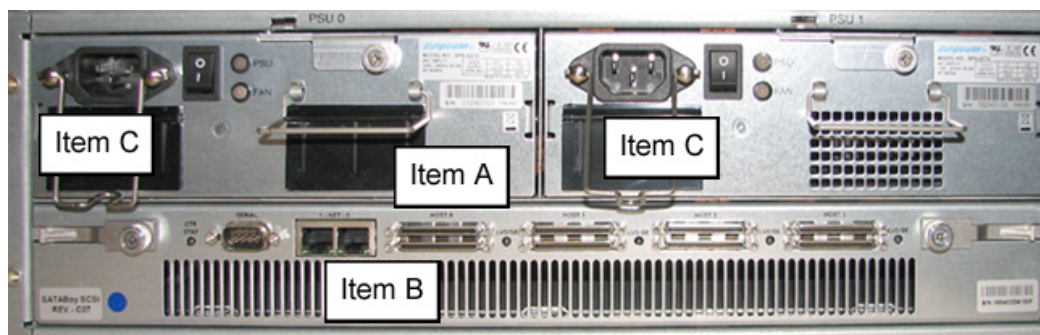

Figure 2 - Back of the Nexsan SATABoy

D. Plug the other end of the CAT-5E crossover cable into the storage device's port "0" (zero) on the right (see Figure 2, Item B).

E. Plug the storage device's AC power cords into the back of the unit (see Figure 2, Item C).

F. Plug the loose ends of the AC power cords into a power source with an appropriate rating. It is strongly suggested you use an uninterruptible power supply.

⚠ *WARNING: Be sure **all** drives are installed in the storage device unit before powering on the unit. Be sure the ER unit is **not** powered on.*

G. Turn on the power switches at the back of the storage device, which are positioned to the right of the power cord connectors. The boot-up process may take up to 5 minutes. When the unit is booted up, the three vertical LED lights at the left of the front panel will be lit up (see Figure 3).

Once all LED lights are lit, the ER can be powered on.

Shut Down, Restart Procedures

Follow the procedures in this section if you need to shut down or restart the storage device.

Shut Down the Storage Device Unit

If you need to shut down the storage device, always follow these steps:

Figure 3: LED display

A. Power off the ER unit first. (Refer to the Physically Connect the ER to the Network sub-step in Step 1B of the ER section for shut down procedures.)

B. Power off the storage device next by turning off both switches in the back of the unit.

Restart the Storage Device Unit

The storage device must be restarted after a power failure. In this instance, the storage device may already be turned on, but needs to be booted up again.
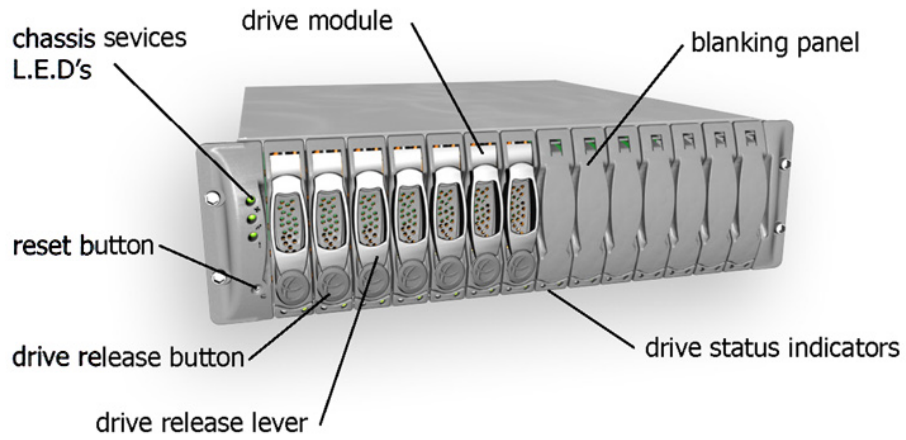
⚠ *WARNING: You must **always** power on the storage device **before** powering on the ER unit. Since the storage device is an information database, if you experience a power interruption or if you power off the storage device without going through the standard shut down procedures, you may lose data and/or damage the file system.*
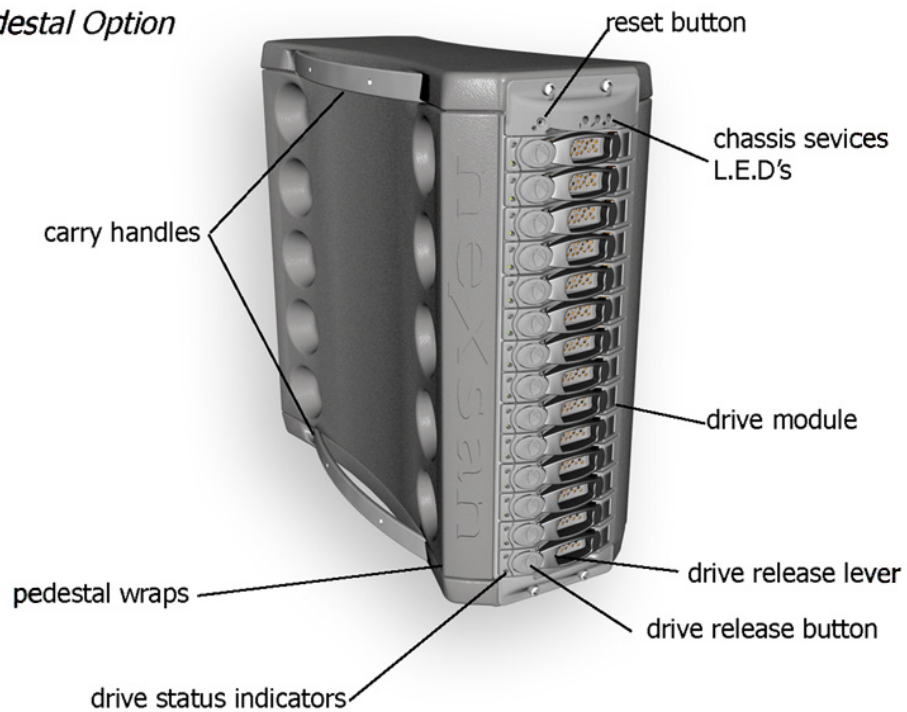
To restart the storage device, press the power button on the front panel. The boot-up process may take up to 5 minutes.

Physical Components

Rack Mount Option

chassis sevices L.E.D's
drive module
blanking panel
reset button
drive release button
drive release lever
drive status indicators

Pedestal Option

reset button
chassis sevices L.E.D's
carry handles
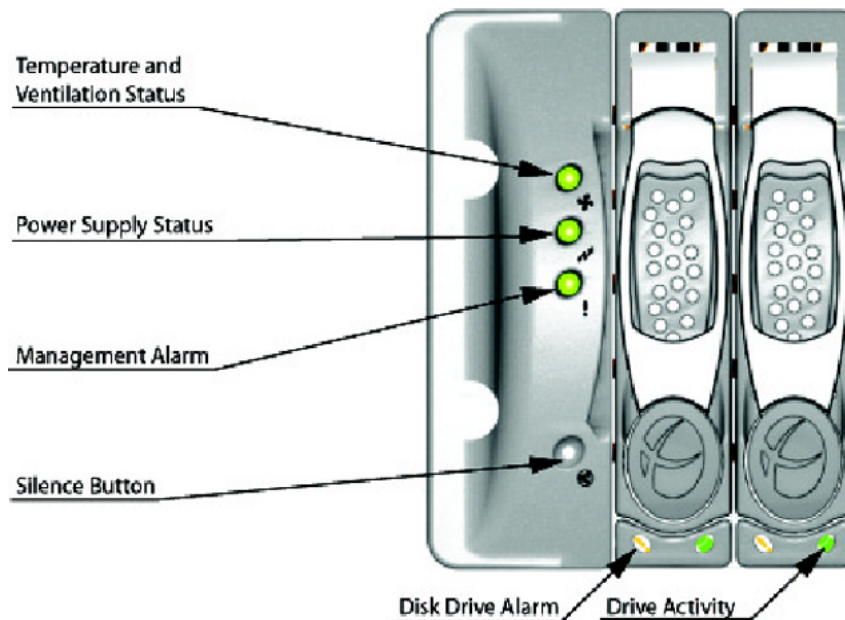drive module
drive release lever
drive release button
pedestal wraps
drive status indicators

LED Display

Temperature and Ventilation Status

When the LED is green, the blowers are operating at an acceptable RPM, and the internal temperature sensors are within acceptable limits.

The LED alternates green and red to indicate a predicted failure of one blower or an alarmingly rapid increase in temperature.

If the LED is red, a blower has failed or the unit is too hot, and an audible alarm will sound.

Power Supply Status

The LED is green if both power supplies are functional.

The LED is red if either power supply has failed, and an audible alarm will sound. In this scenario, an authorized service personnel should examine the LEDs on each power supply module to determine which has failed.

⚠️**WARNING:** *Inadvertently removing the functional, surviving power supply will result in system failure and possible data loss.*

Management Alarm

A green LED indicates nominal status.

A red LED indicates RAID controller or non-PSU/Blower enclosure errors.

Silence Button

Insert a thin object to temporarily silence the audible alarm. This button also is used for confirming creation in the RAID configuration mode.

Disc Drive Alarm

The LED is illuminated yellow if a drive is suspected to be bad.

Disk Drive Activity

The LED is illuminated green when an installed drive is in a "ready" state. During activity, the LED will flicker.

Specifications

Table 1: Physical Specifications

Specification	SATABoy Model Value
Height	5.22" (132.5mm)
Width	16.89" (429mm)
Depth	20.47" (520mm)
Front clearance	2 inches (76mm)
Side clearance	1 inch (25mm)
Rear clearance	3.6 inches (92mm)
Weight	74.96 lbs (34kg)

Table 2: Hardware Component Specifications

Specification	SATABoy Model Value
Power Supplies	2 x 400watt load sharing
Cooling	2 x Radial blowers per PSU
Interface	10/100/1000 Base-T Ethernet RJ45
Protocols	TCP/IP, HTTP, SMTP, SNMP traps, daytime and FTP
GUI	HTML, supports most standard Internet browsers
Email	Sent via SMTP in event of failure or warning event
Trap	Sent via SNMP in event of failure or warning event
Hard disk interface	SATA storage (14 channels)
Host Channel Interface	Ultra 160 SCSI (4 channels)