

EdgeView Service Control Center System Administration Guide

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Overview

The EdgeView Service Control Center (SCC) appliance provides a text-based system administration menu (also referred to as the “Menu”) to allow the system root user to configure EdgeView for initial deployment and to perform various administrative tasks. The “system root user” is normally the System or Network Administrator who is responsible for configuring servers on the corporate network.

The Menu is intended to replace the use of SuSE Linux's YaST administration tool to configure services on the EdgeView such as IP addresses, a default gateway, DNS servers and more.

The root user will receive the Menu upon console or SSH login to the EdgeView server. This document describes the features of the Menu, including the following core functions:

- Rebooting and Shutting down EdgeView
- Configuring Network Cards (IP Address and Default Gateway)
- Configuring Hostname and DNS Servers
- Configuring Network Date and Time
- Configuring Outbound Mail Settings
- Creating and Loading System Configuration XML
- Installing and Configuring High Availability (HA)
- Troubleshooting using Sanity and Health Check Tools

Before You Begin

Before you begin the actual configuration of your EdgeView system, we recommend that you read through this entire document to gain a better understanding of the overall configuration requirements.

You will also need to have handy some information about how EdgeView will be addressed on your network, including:

Standalone System

- Port 1 (eth0) Network IP Address and Netmask
- Port 3 (eth2) Network IP Address and Netmask - OPTIONAL if desired for use as management interface
- Default Gateway
- DNS Servers
- Hostname for your EdgeView
- Domain that EdgeView will join

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- Network Time Server used by EdgeView (or use default)
- Outgoing Mail Server Address and User Connection Settings

High Availability System

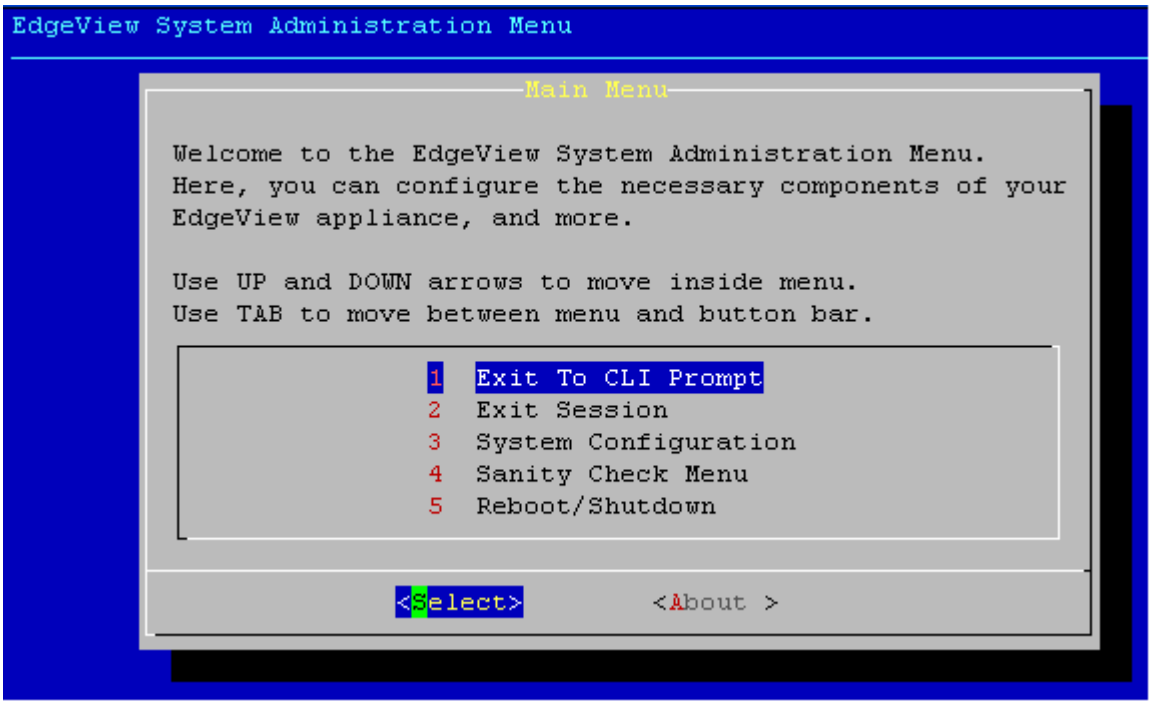
High Availability in addition to the description for Standalone System:

- Port 2 (eth1) Network IP Address and Netmask - for non-geographic redundant systems if default is not desired
- Virtual IP Address - for non-geographic redundant systems that will use a common address in primary mode

Using the Main Menu

Prerequisite Task: Log in to the CLI using the root account. For instructions on how to log in to the CLI using the console or SSH, refer to the hardware installation guide for your EdgeView model at www.edgewaternetworks.com/kb.

Upon root log in to the CLI via the console or SSH, you will receive the following Main Menu:

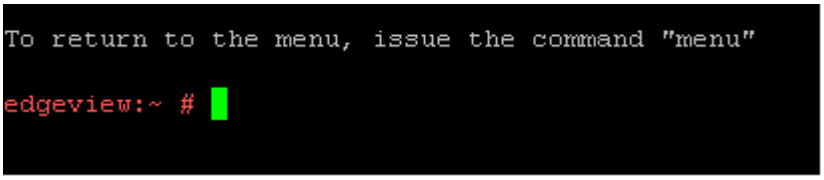


The text-based menu is designed to run on the console of the EdgeView SuSE Linux server using only a keyboard. Simply use the up and down arrows on your keyboard to scroll to the various menu options. To access the button bar below the options, use the **TAB** key (this will toggle back to the options as well). Once inside the button bar, use the left and right arrow keys on your keyboard to choose the desired button then press the **ENTER** key to perform the action.

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Exiting to the CLI Prompt or Exiting the Log in Session

Choose option #1 on the Main Menu to exit the menu and access a system CLI prompt (logged in as the root user):

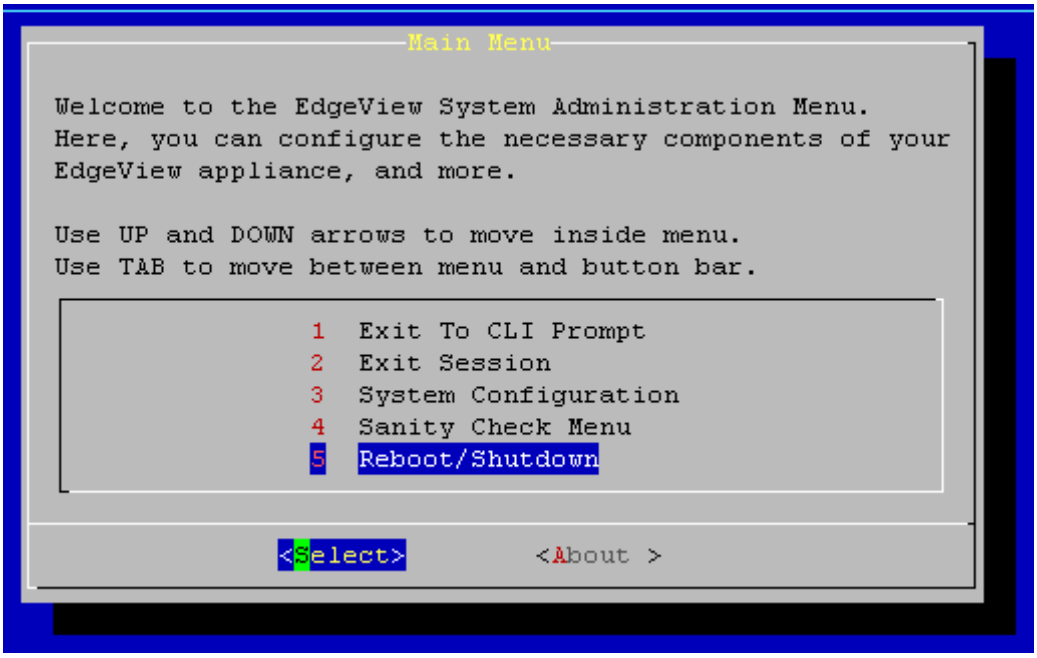


You should not need to access the system CLI under normal circumstances. You can return to the menu by typing **menu** on the CLI. If you wish to exit the login session completely, choose option # 2 from the Main Menu (or type **exit** on the CLI).

Rebooting and Shutting Down EdgeView

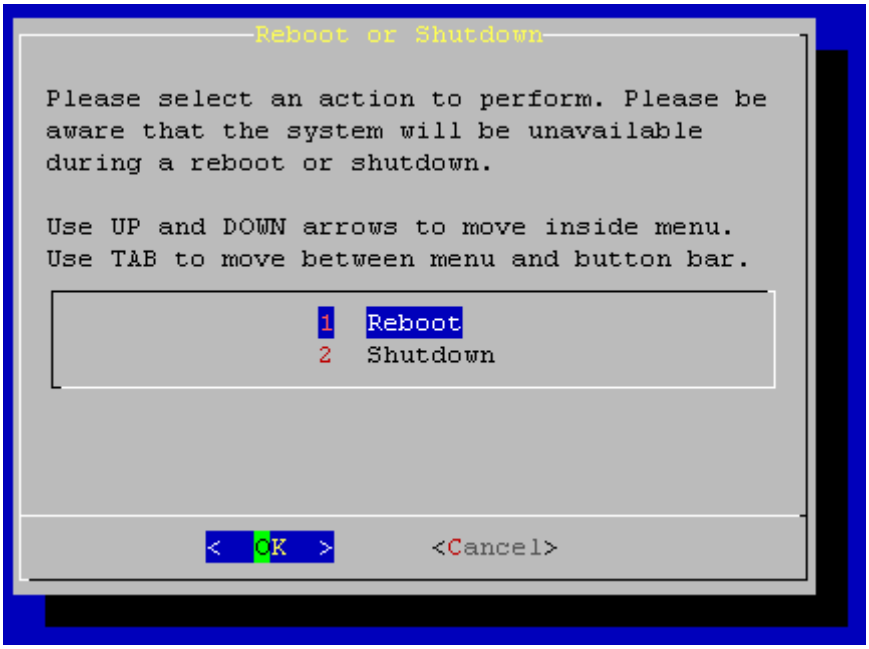
To reboot your EdgeView server:

1. Arrow down to option #5 from the Main Menu and choose **<Select>**:

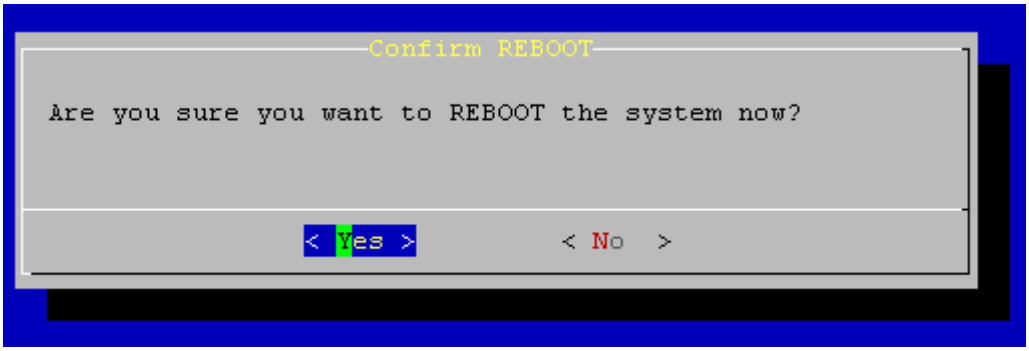


2. From the Reboot or Shutdown screen, choose option #1 and click **<OK>.**

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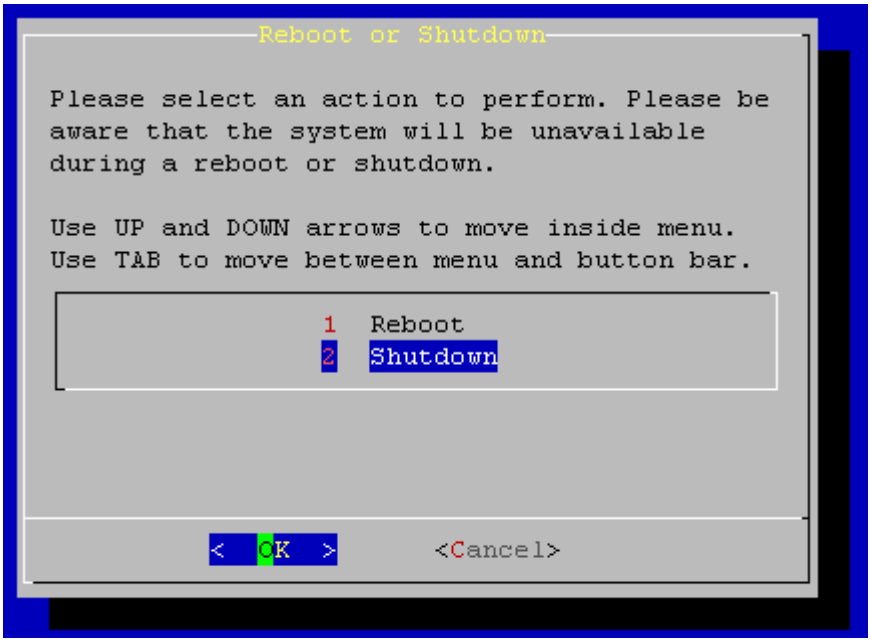
3. Select **<Yes>** in the Confirm REBOOT box:



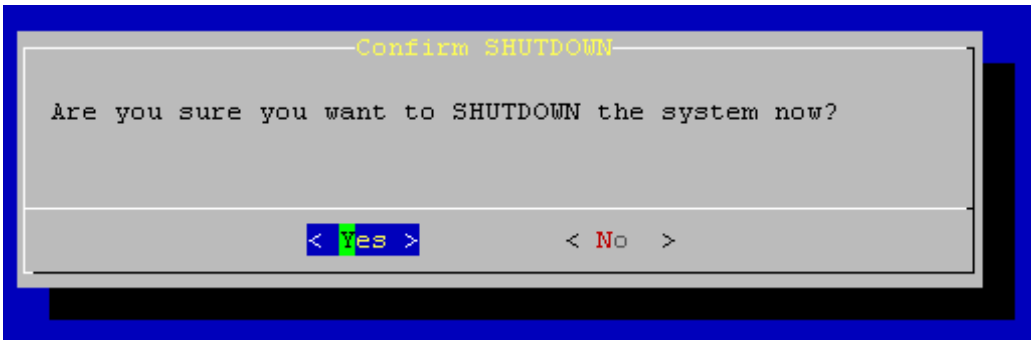
To shut down your EdgeView:

1. Choose option #2 from the Reboot or Shutdown menu:

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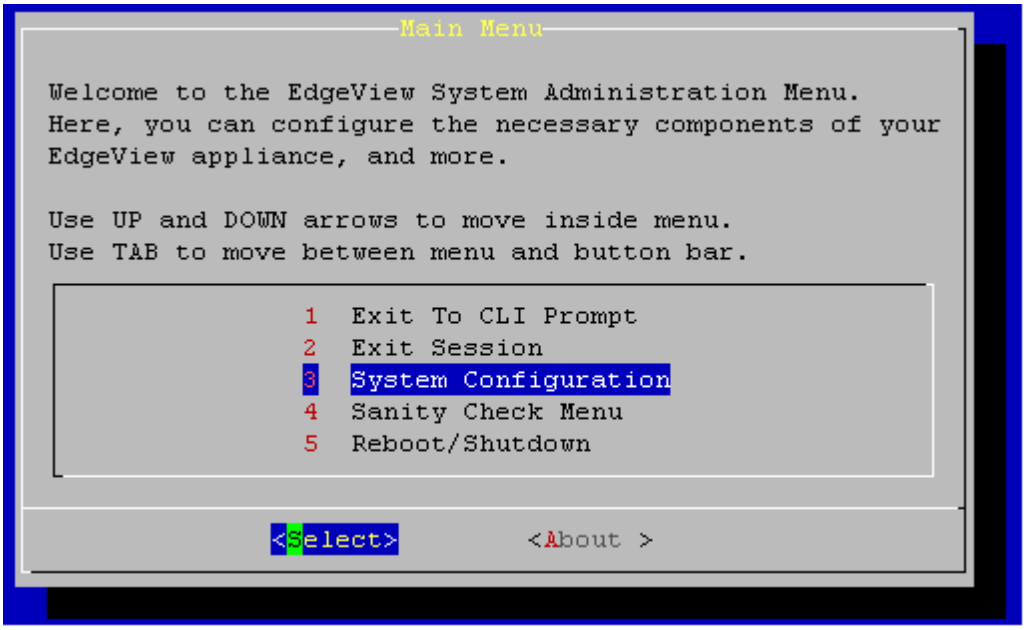
2. Select **<Yes>** in the confirm SHUTDOWN box:



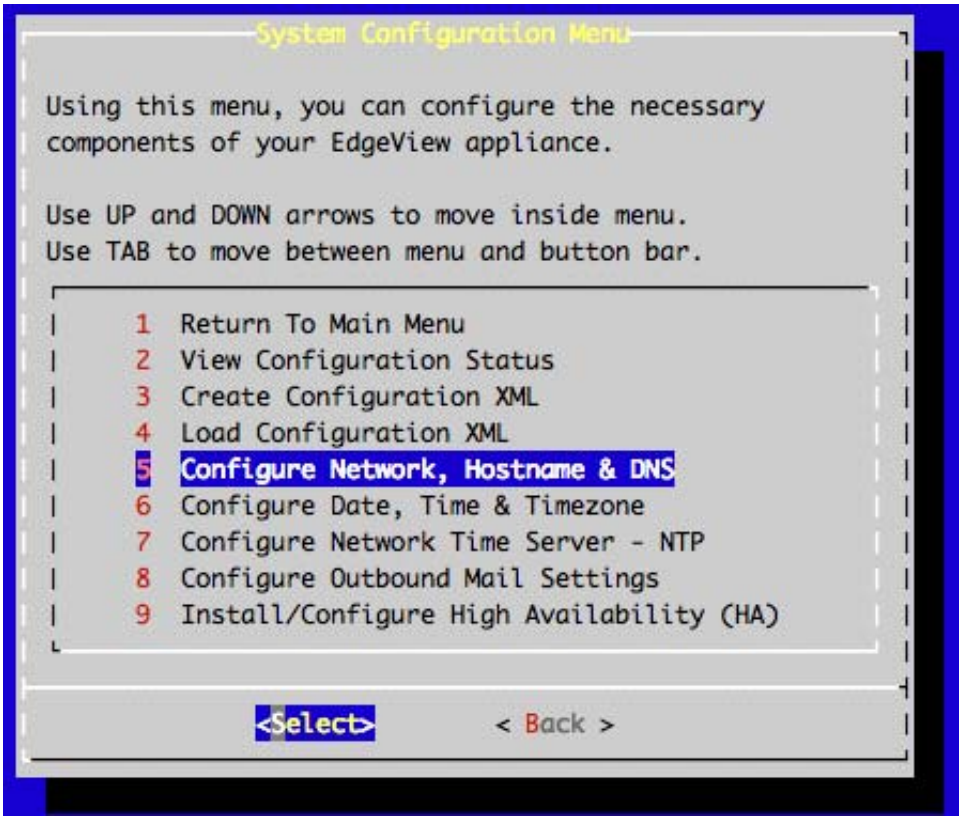
System Configuration

To perform the necessary configuration steps to deploy an EdgeView server, arrow down to option #3 (System Configuration) from the Main Menu and choose **<Select>**:

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The System Configuration Menu displays:

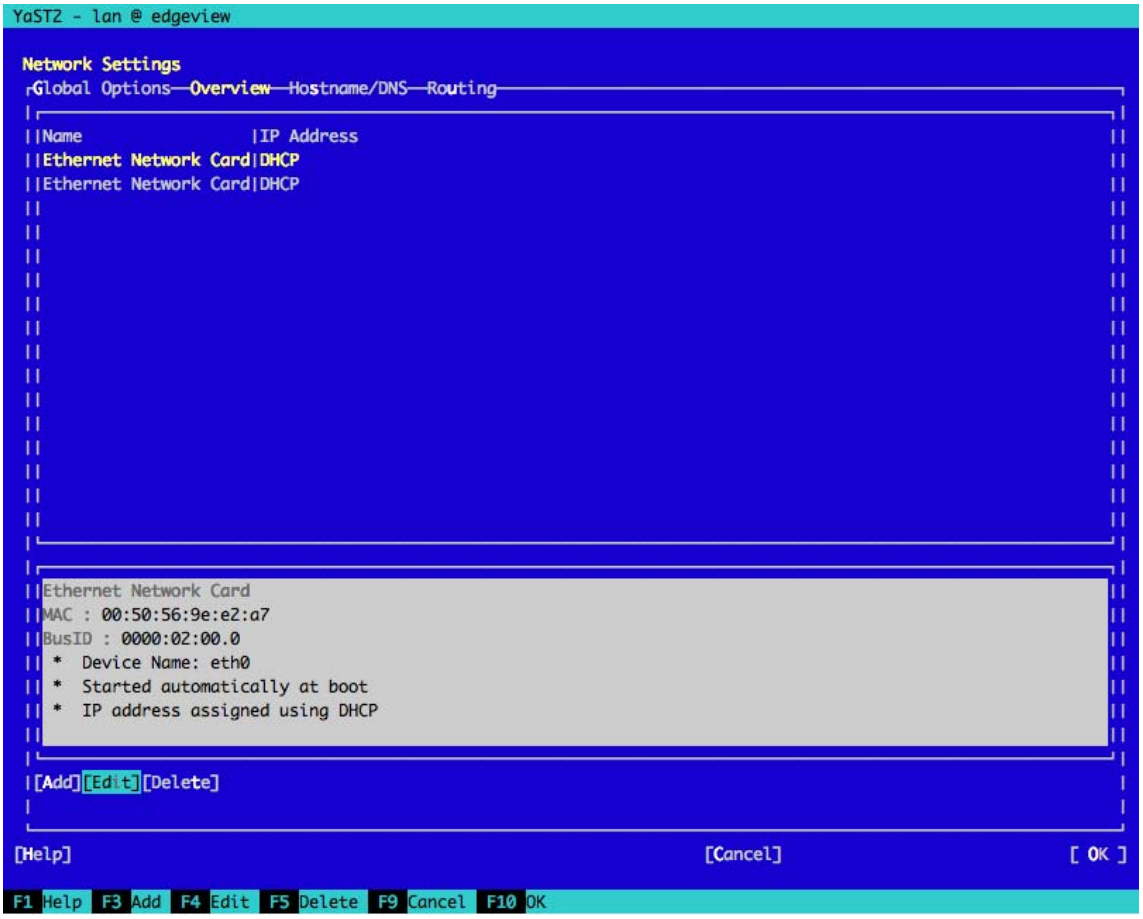


To return to the Main Menu, simply place your cursor on Option #1 and choose **<Select>**.

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Configuring Network Cards - IP Address, Default Gateway, Hostname and DNS Servers

Select option #5 from the System Configuration Menu to configure the network cards on your EdgeView system. The Network Settings YaST confirmation screen displays:



A list of each network interface available on your EdgeView system along with a number of menu options displays at the top of the screen. The number of interfaces may vary depending on your specific platform, but the configuration method is the same for each interface and platform.

The following steps walk you through how to configure the first network interface (eth0) on your system:

- Step 1: Configure Your Network Interfaces
- Step 2: Configure Your Default Gateway
- Step 3: Configure Your EdgeView Hostname and DNS Servers
- Step 4: Enable Your Changes

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Step 1: Configure Your Network Interfaces

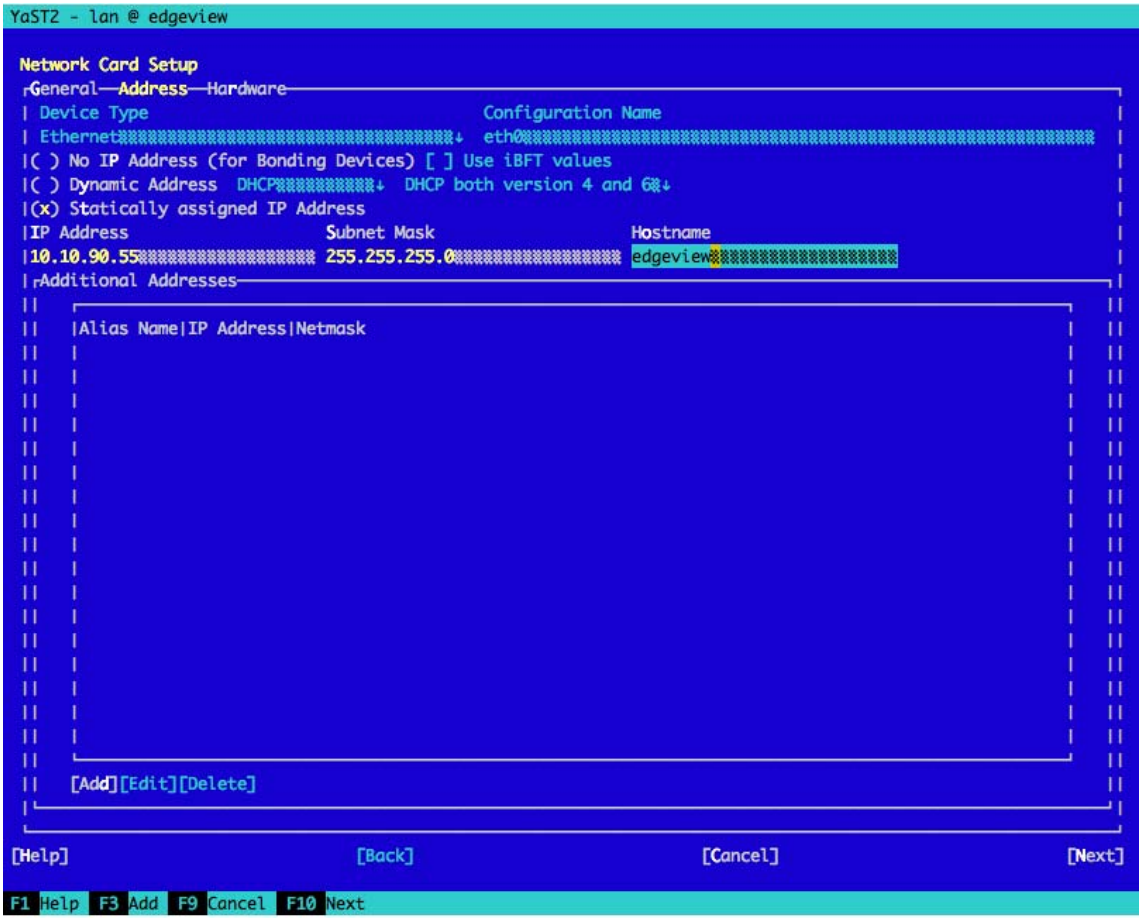
Initially, you need to define whether the interface will obtain an IP address from your network using DHCP or whether you wish to set the IP address manually (static). Since EdgeView is a server on your network, you will want your EdgeView server to have a static eth0 IP address. This prevents the IP address from changing upon reboot (as could be the case with DHCP). Using a static IP address allows the devices on your system that are managed by EdgeView and the users that access EdgeView to access EdgeView at a common address on your network.

In the Network Card Setup screen, use the **TAB** and arrow keys on your keyboard to select the network interface you want to modify. The device name will be shown in the interface detail at the bottom left of the screen.

Attention!

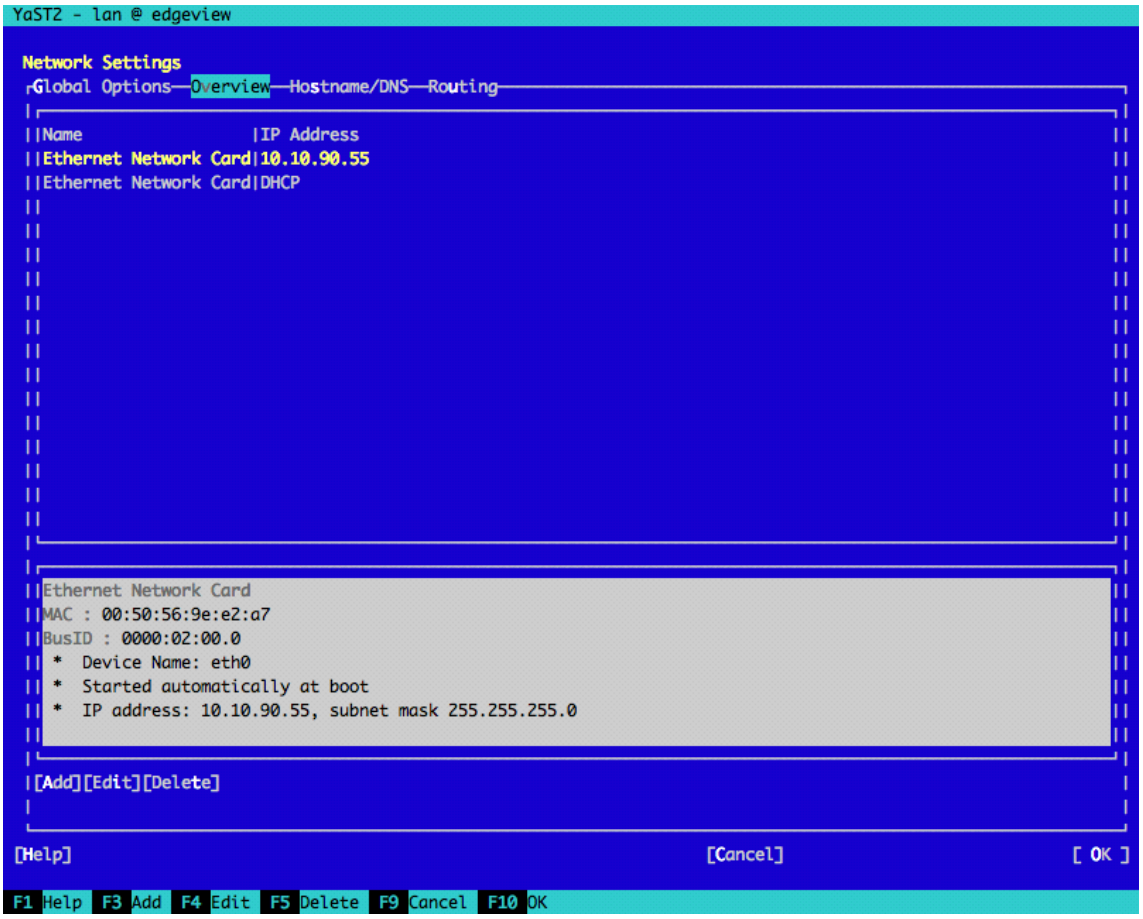
Please note that the interface listing at the top may NOT be in the device name order that you would expect (i.e., eth0 may not be the first listed interface). The default address for your eth0 interface is 192.168.1.1 for hardware platforms.

In this example, the first interface has the device name eth0 so you simply need to tab to [**Edit]** to access its details in the Network Card Setup screen:



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In the Network Card Setup screen, Tab and select (by clicking the spacebar) **Statically Assigned IP Address** option. You will now be able to enter the IP Address, Subnet Mask, and Hostname of your EdgeView. Tab to **[Next]** to return to the initial Network Settings screen. You should now see the pending IP address changes for your eth0 interface (as shown in the example below):

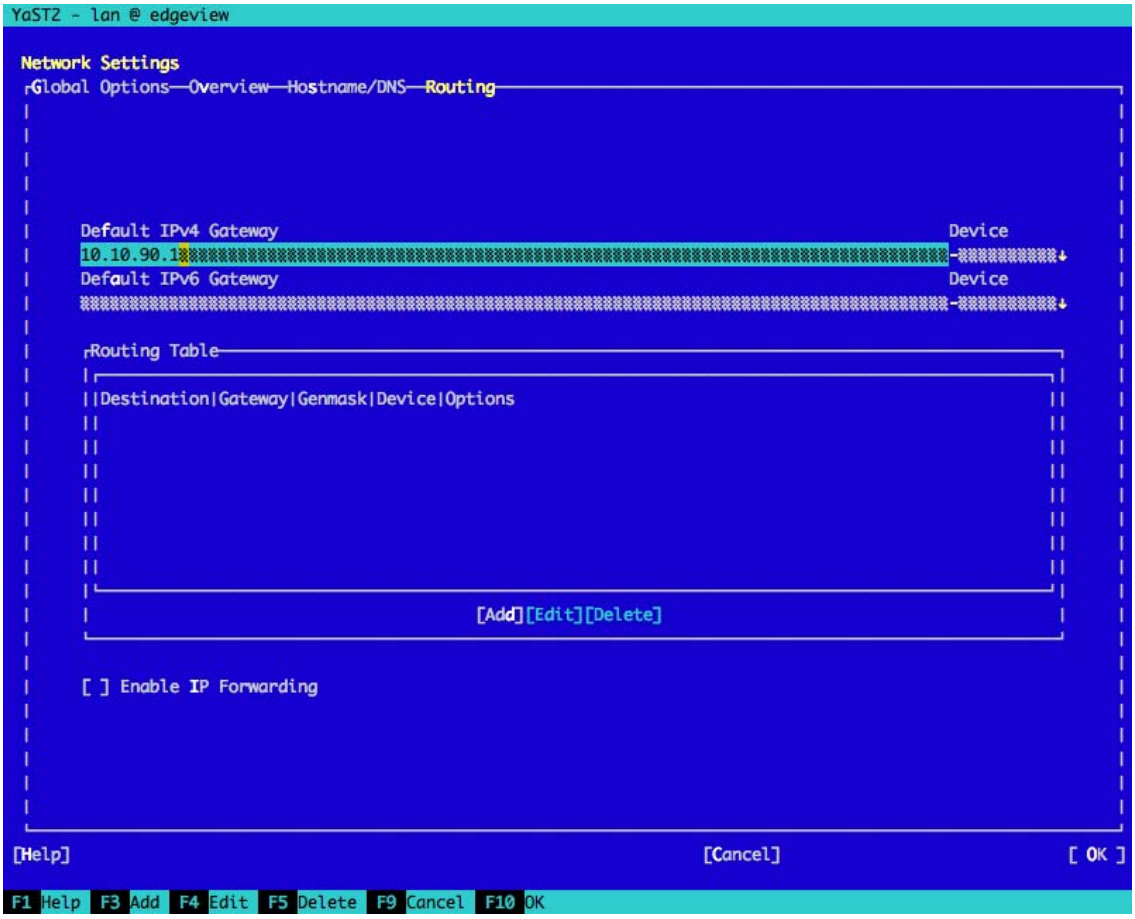


If you wish to configure additional interfaces, simply repeat the same procedure after you have selected the interface from the Network Settings screen. The most common network card setup with EdgeView is to use eth0 as the WAN-side address (Internet side) and eth1 or eth2 as the LAN-side address (internal network side). If your system is configured as non-geographic redundant High Availability, you should use eth1 for the HA heartbeat interface as described in the High Availability section of this document.

Step 2: Configure Your Default Gateway

To configure your default route, Tab and select the **Routing** option on the Network Settings screen. If you use static IP addresses for your network interfaces, you should always configure a default gateway. You may enter your default gateway IP address into the **Default Ipv4 Gateway** field as shown below:

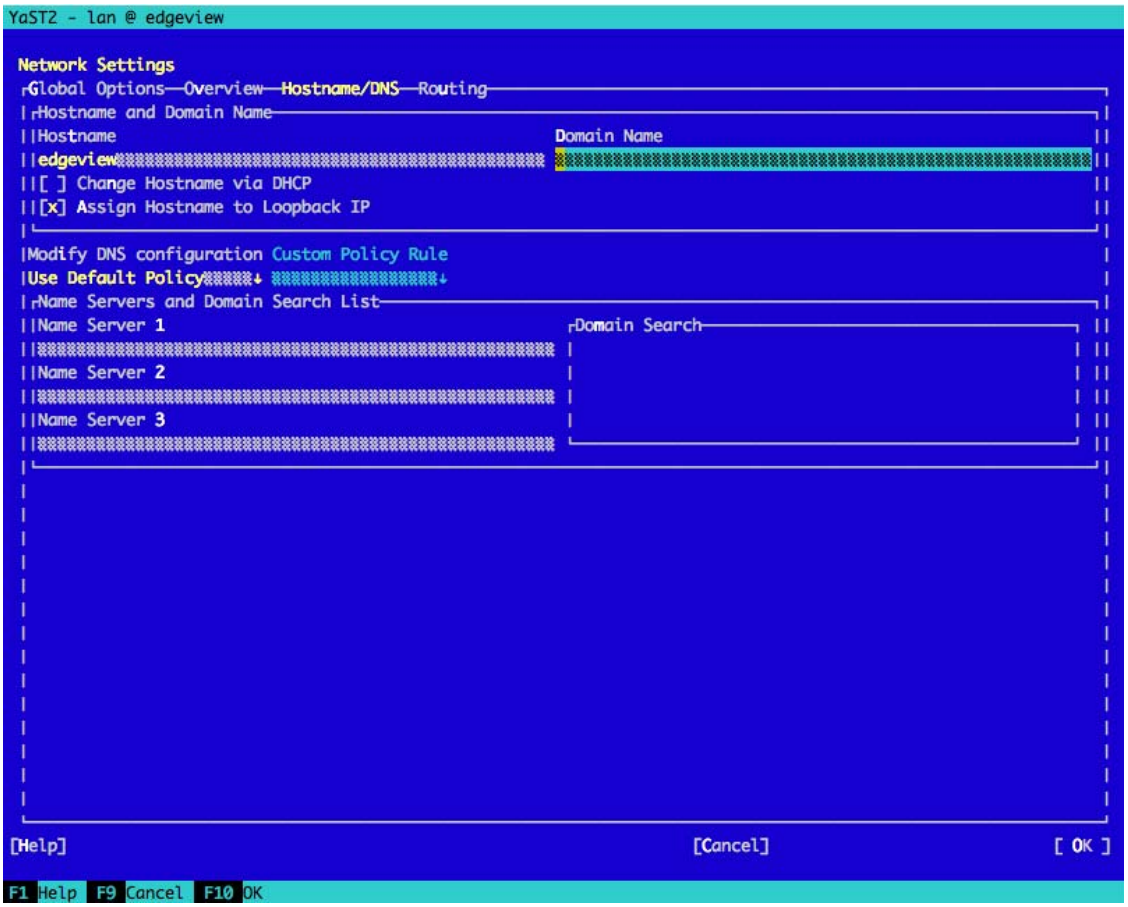
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Step 3: Configure Your EdgeView Hostname and DNS Servers

To configure the hostname and DNS servers for your EdgeView, Tab to the **Hostname/DNS** option in the Network Settings screen and enter the hostname and domain name of your EdgeView system based on the naming practices of your network.

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Hostname

Enter your desired Hostname following the standard domain name rules you use for any system on your network. If you are configuring an HA system, the EdgeView standard practice (but not required) is to number each node member of the HA cluster using a zero-based index. For example, the primary (or “master”) EdgeView server of an HA cluster would normally be called “edgeview0” and the secondary machine would normally be called “edgeview1”. You may use other hostnames besides “edgeview” as well.

Domain Name

The Domain Name for the servers in your network is typically your corporate domain (for example, “mycompany.com”).

DNS (Domain Name Servers)

You may specify static IP addresses for your network name servers (most common) or you may allow DHCP to configure the name servers for you. Follow your normal company procedures for DNS configuration.

Domain Search (optional)

You may also enter an optional search list of DNS servers. The search list is normally determined by the local domain name. This means that the system will attempt to find a

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host that does not have a domain name using the primary domain name of the system as configured above. For systems with multiple sub-domain names, you may enter those in the search order and the system will attempt to resolve a hostname that does not have a domain name using the search list.

Step 4: Enable Your Changes

Once you have finished configuring network settings, enable your changes by selecting **[OK]** in the Network Settings screen. Reboot your EdgeView when the network card configuration is complete.

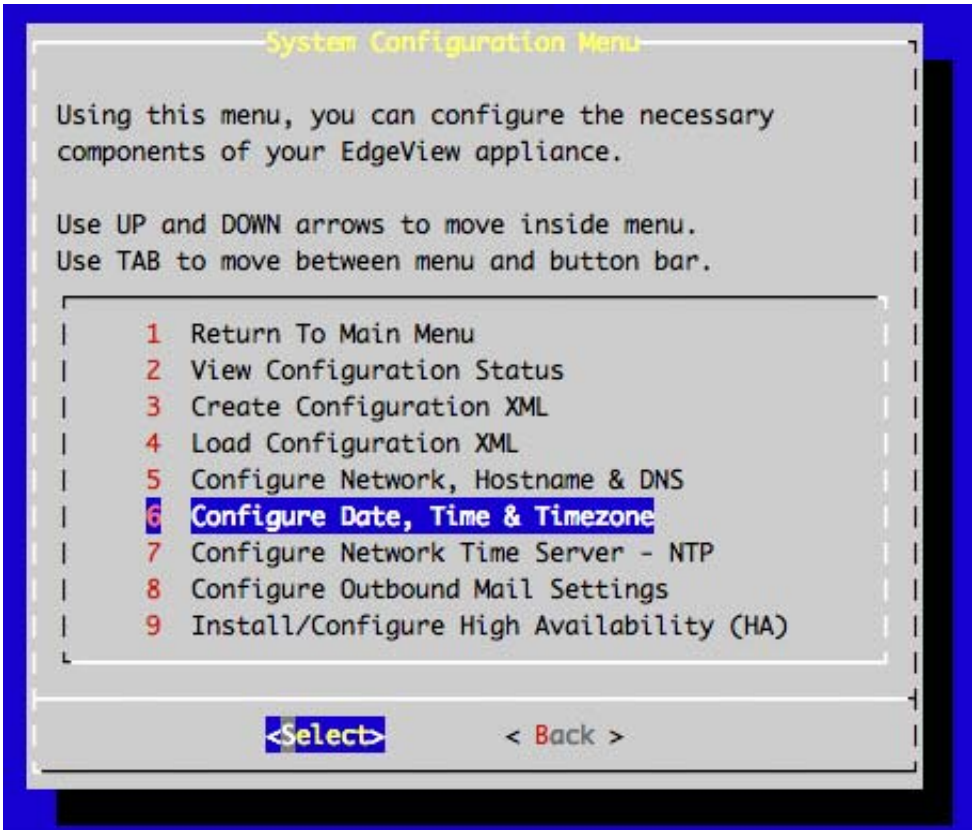
Attention!

Edgewater Networks strongly suggests you reboot at this time. If you are implementing a high availability configuration, you are required to reboot prior to configuring HA.

Configuring the Timezone

(Optional) To configure your EdgeView timezone:

1. Choose option #6 from the System Configuration Menu.



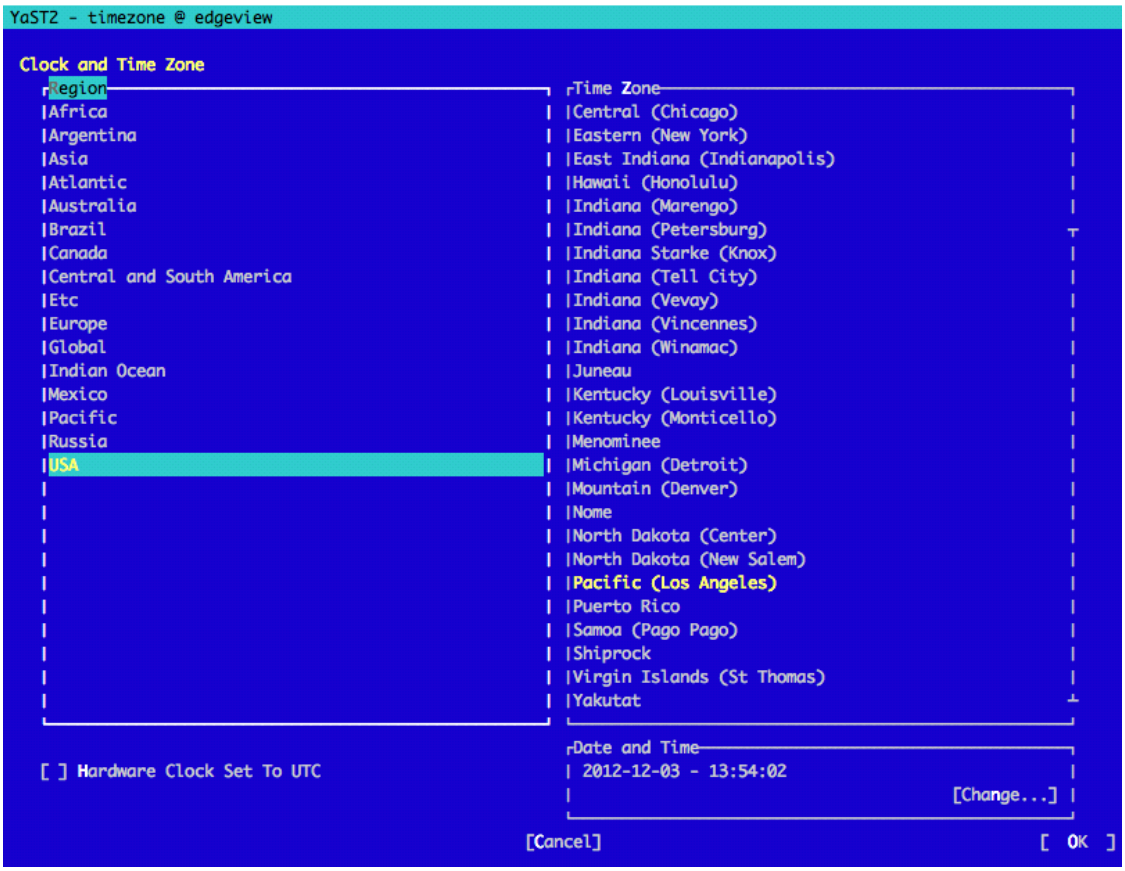
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2. In the Clock and Time Zone YaST configuration screen, choose your desired timezone and select **[OK]**.

3. If you have set your BIOS clock to use UTC, you may designate your setting by pressing your spacebar in the checkbox for **Hardware Clock Set to UTC**.

Important Note On Daylight Savings Time (DST) Shifts

If your BIOS clock is set to local time, Linux will simply accept the time from your BIOS clock in the given format. This means that the BIOS clock is responsible for any time shifts resulting from Daylight Savings Time changes. However, if your hardware clock is set to UTC, the EdgeView Linux operating system will adjust to and from DST using the specified timezone.



Configuring the Network Time Server (NTP)

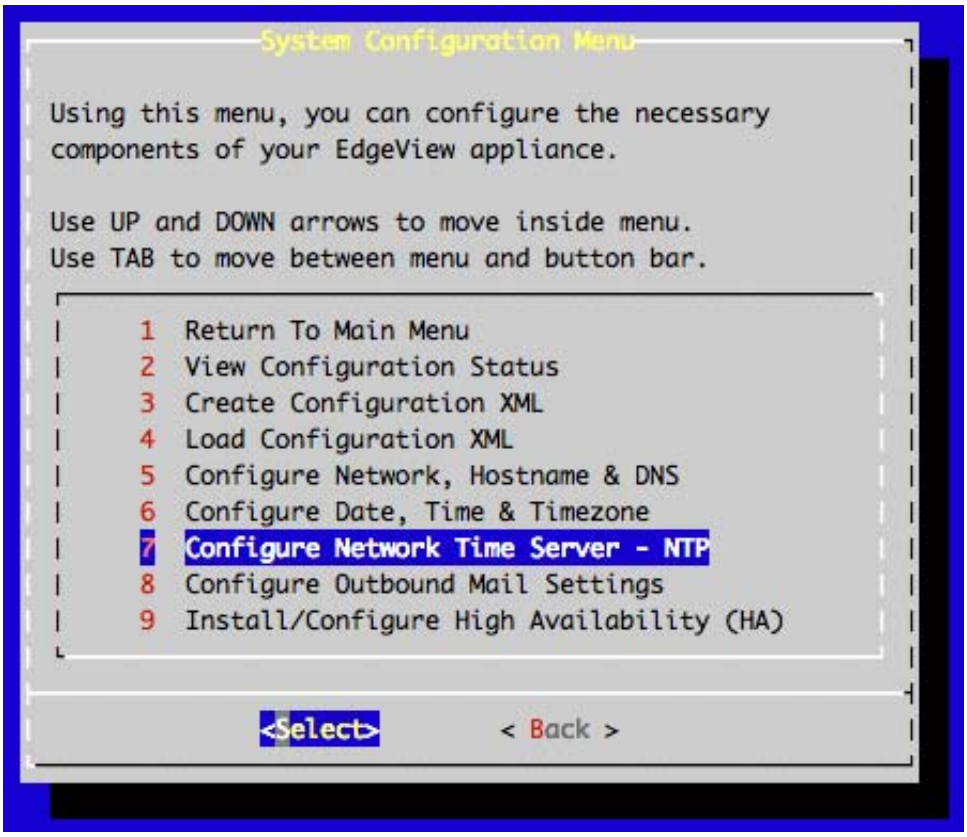
The initial clock setting for the EdgeView (out-of-the-box) is to use the BIOS system clock as the source to keep time (also known as the “local” clock). Edgewater Networks strongly recommends that you use a network time server (NTP) to keep time on your EdgeView system. This is because your EdgeView collects data from various network devices and

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the time read from those devices needs a central time mechanism in order to provide better synchronization.

To configure the network date and time on your EdgeView system:

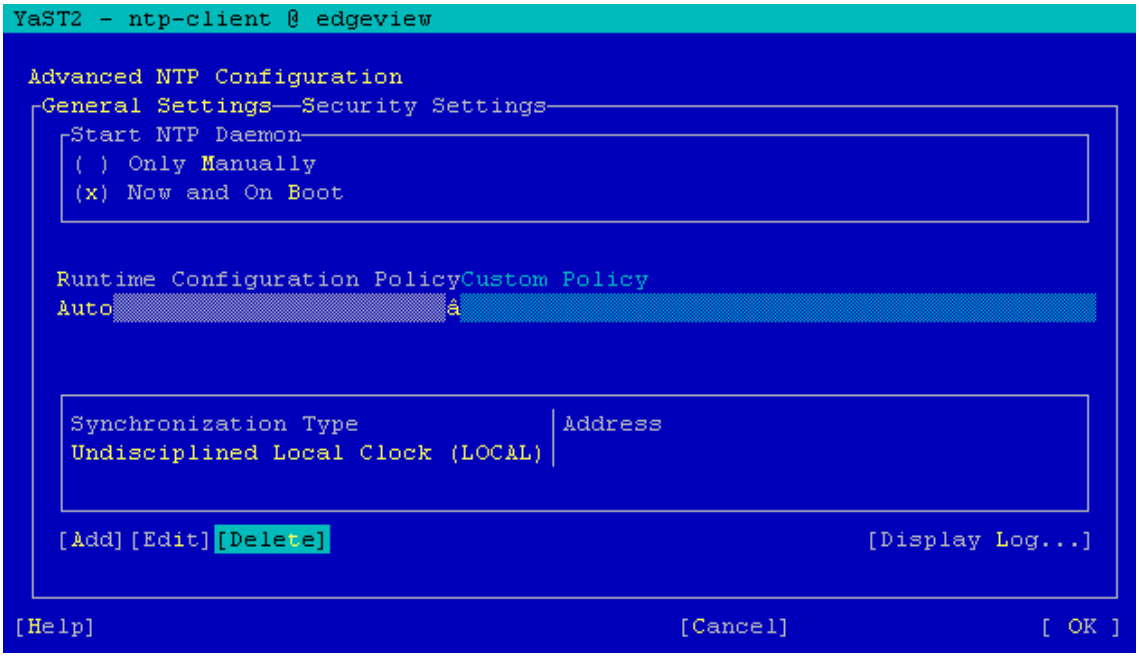
1. Select option #7 from the System Configuration Menu.



   The Advanced NTP Configuration YaST configuration screen (shown below) displays:

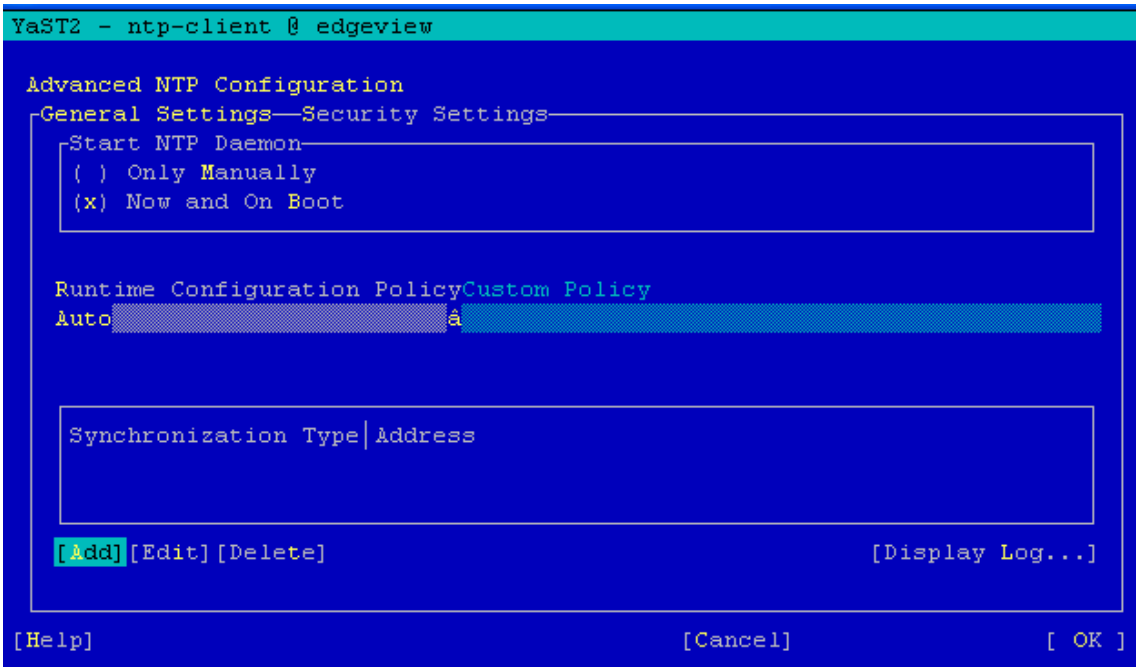
2. To configure NTP to start at boot, select the **Now and On Boot** option as shown below:

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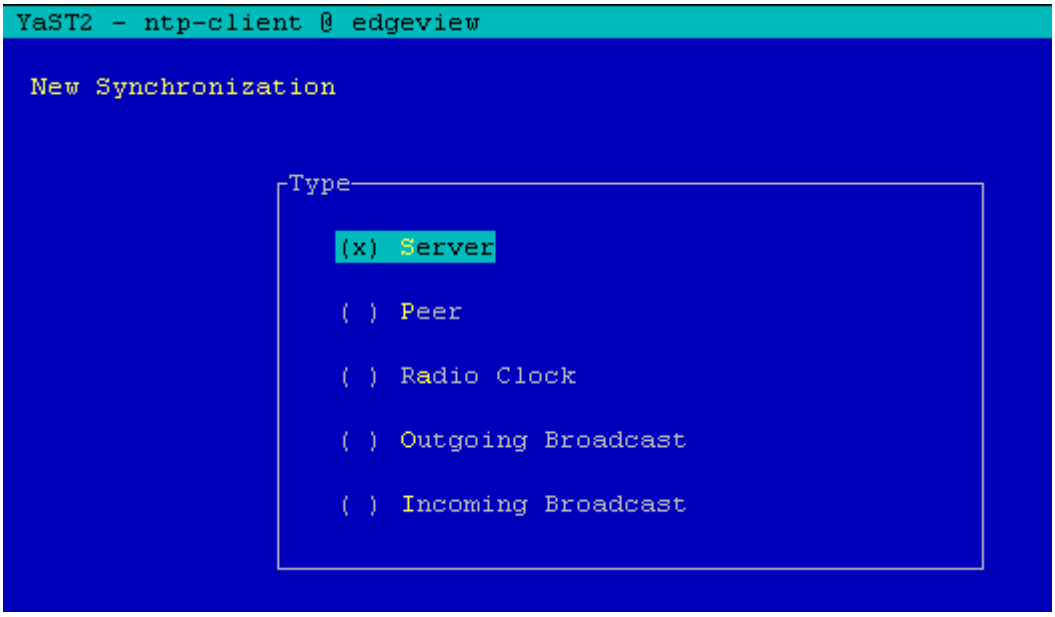
3. Select **[Delete]** to delete the default local Synchronization Type (**Undisciplined Local Clock**).

4. Select **[Add]**.

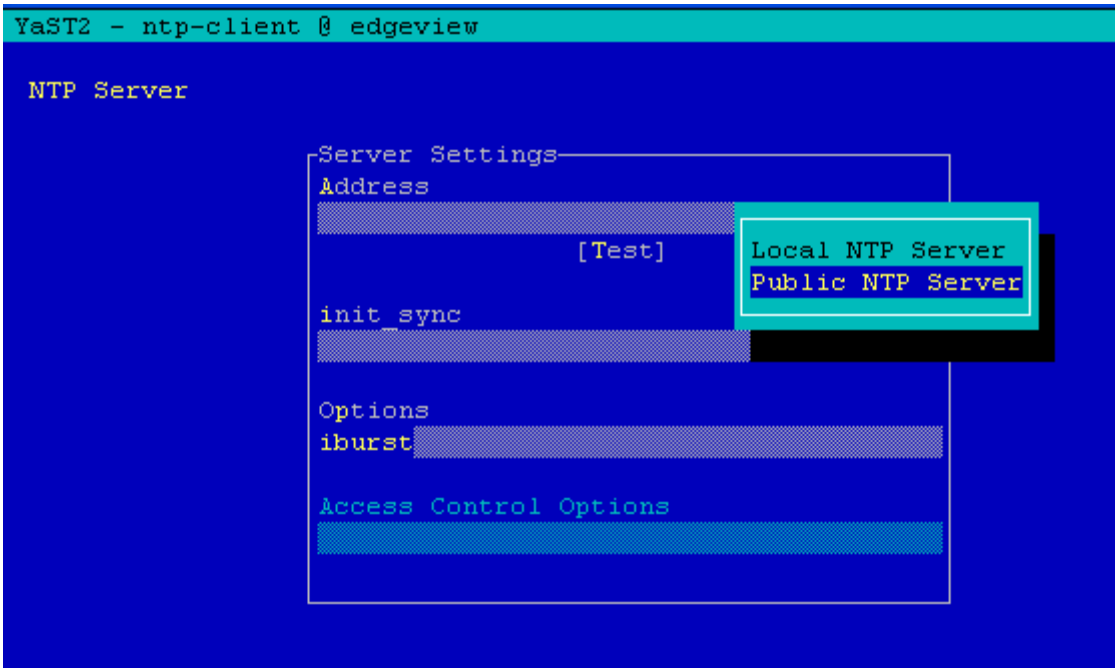


5. In the New Synchronization screen, select **Server**:

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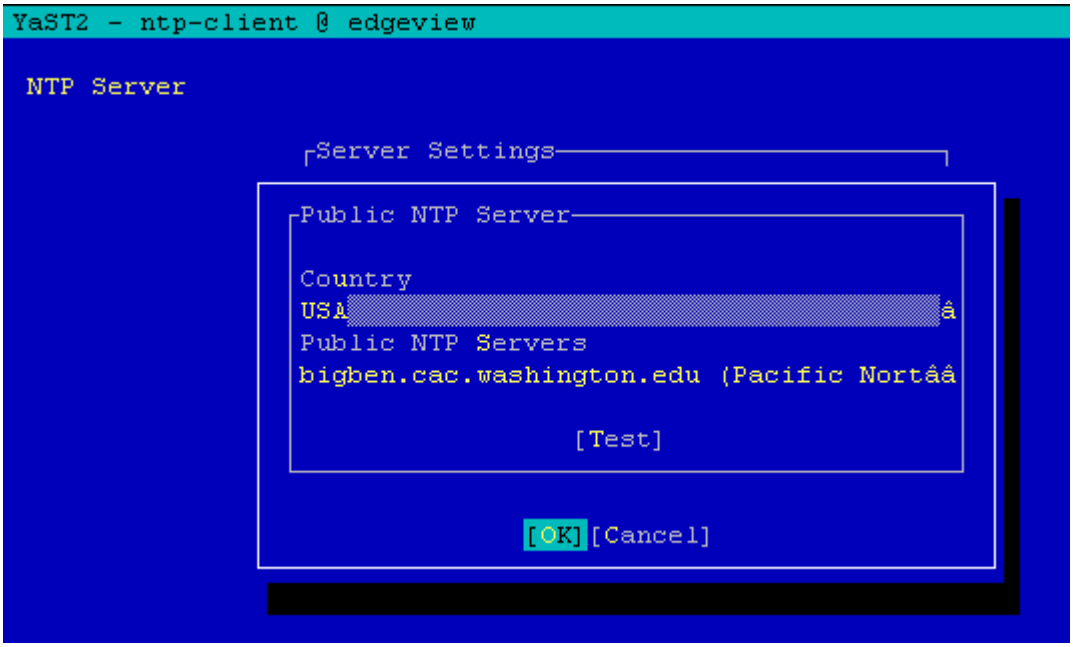


6. In the NTP Server screen, select **Public NTP Server** for the NTP server. If your company uses a local NTP server, you may also select the **Local NTP Server** option and designate that server according to your company policy.

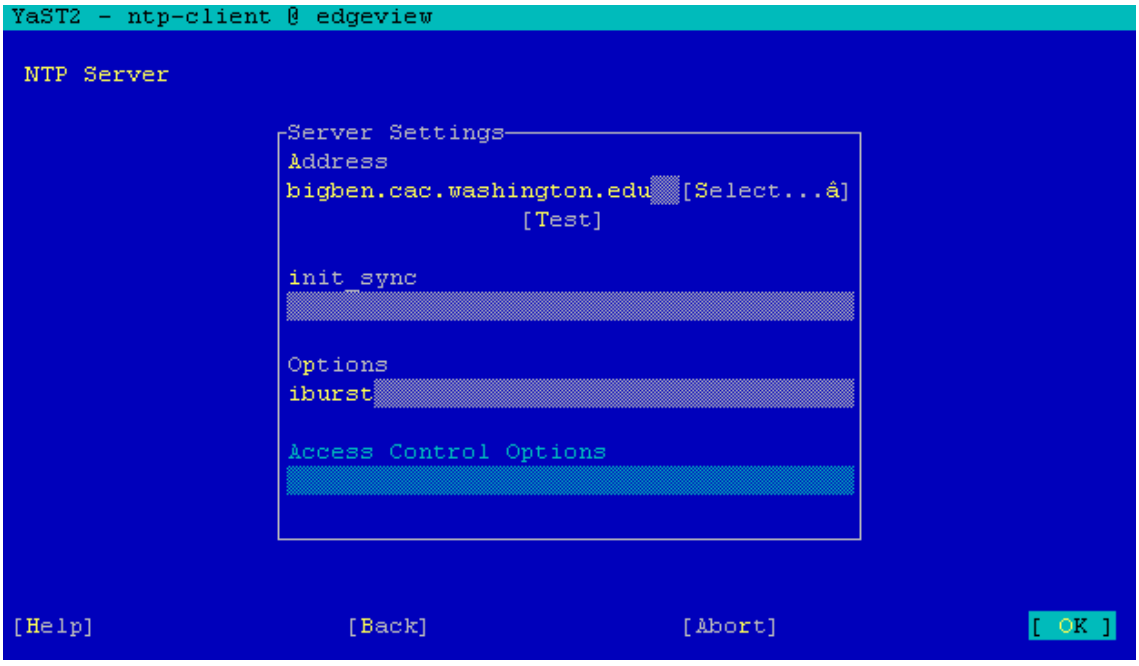


7. If you choose to use a public NTP server, designate the server of your choice as shown below:

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8. Select **[OK]** to confirm the server setting and then select **[OK]** again to complete the final network time configuration steps. This will return you to the System Configuration Menu.

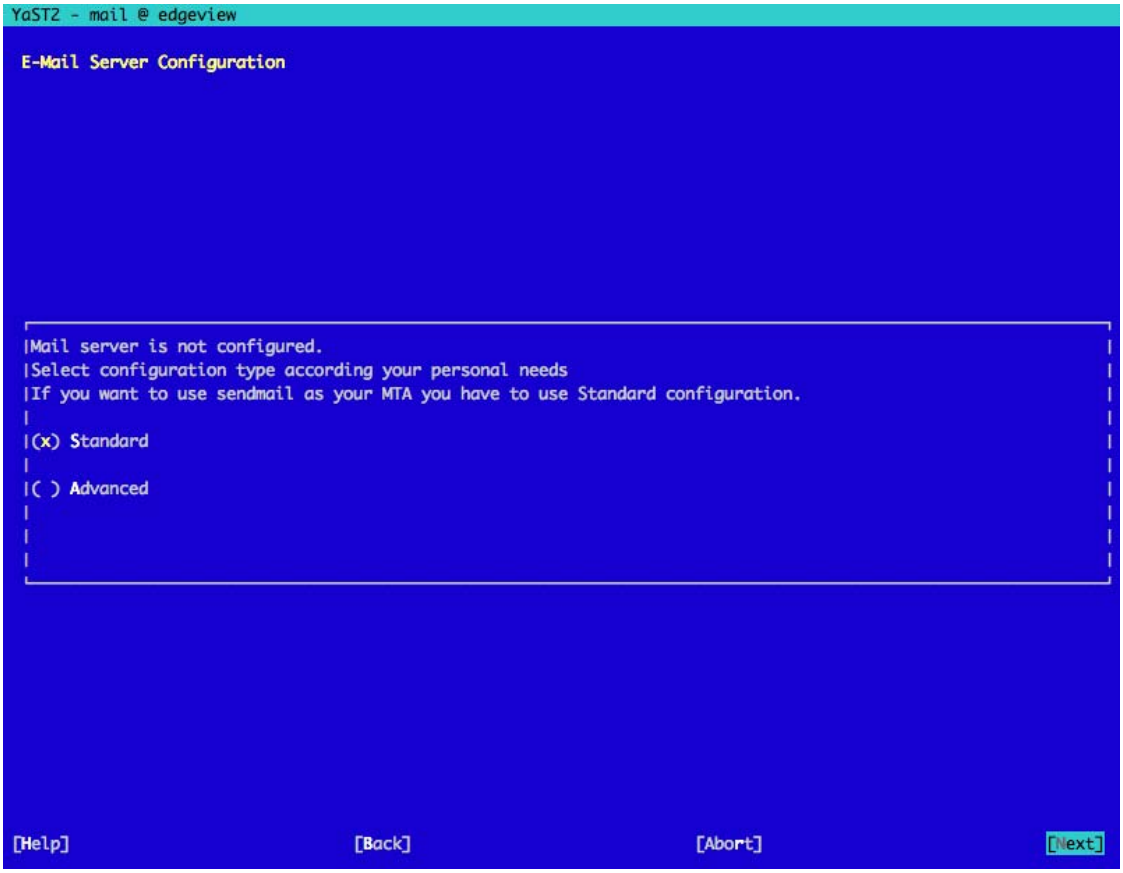


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Configuring Outbound Mail Settings

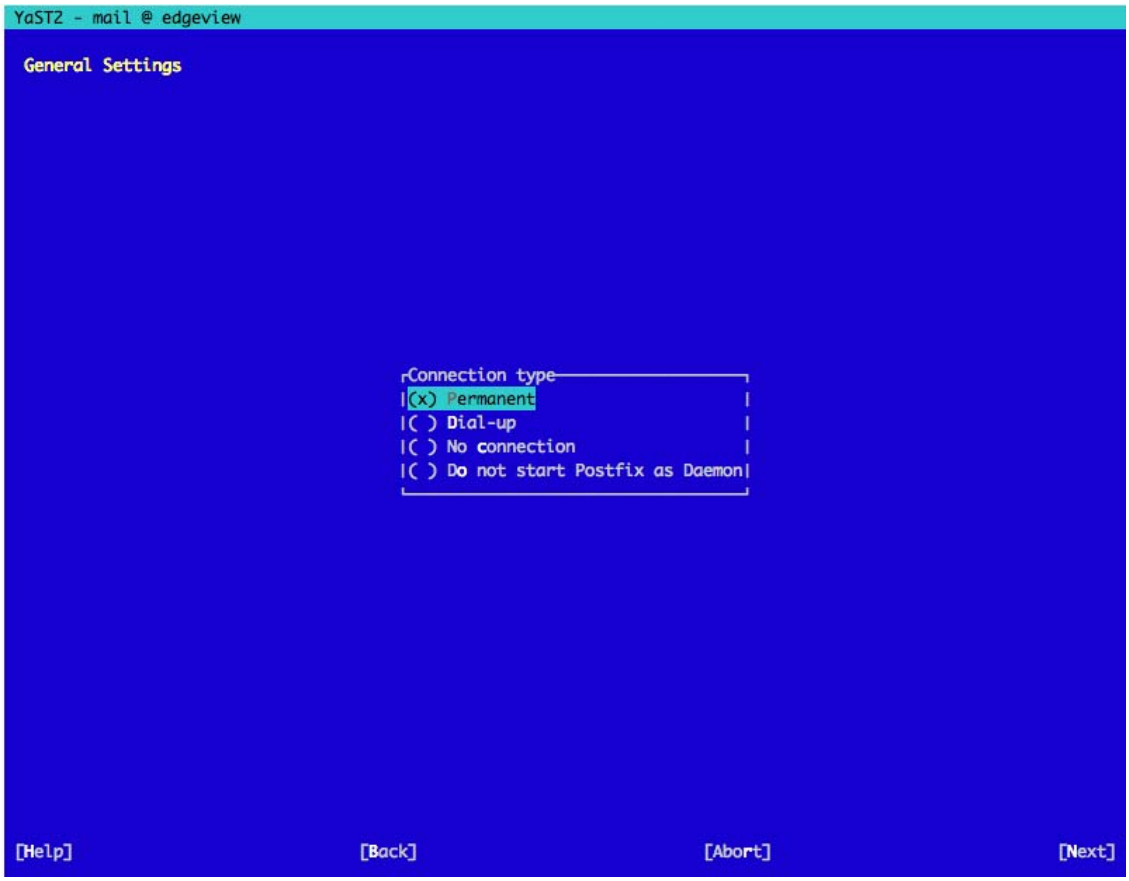
EdgeView utilizes the postfix mail transfer agent to send email messages for a variety of system activity. You can configure postfix beyond the default settings in order to customize outbound mail from your EdgeView server with the following features:

- Routing mail through a company mail server (relay host)
- Customizing the From header of the message (envelope masquerading)
- Substituting local user accounts to an email address (user masquerading)



1. Choose Option #8 (Configure Outbound Mail Settings) from the System Configuration Menu.
2. From the initial E-Mail Server Configuration screen, choose **Standard** configuration and select **[Next]**.
3. In the General Settings screen, select **Permanent** for the Connection Type and select **[Next]**.
4. Proceed to Routing Email Through a Corporate Mail Server.

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Routing Email Through a Corporate Mail Server

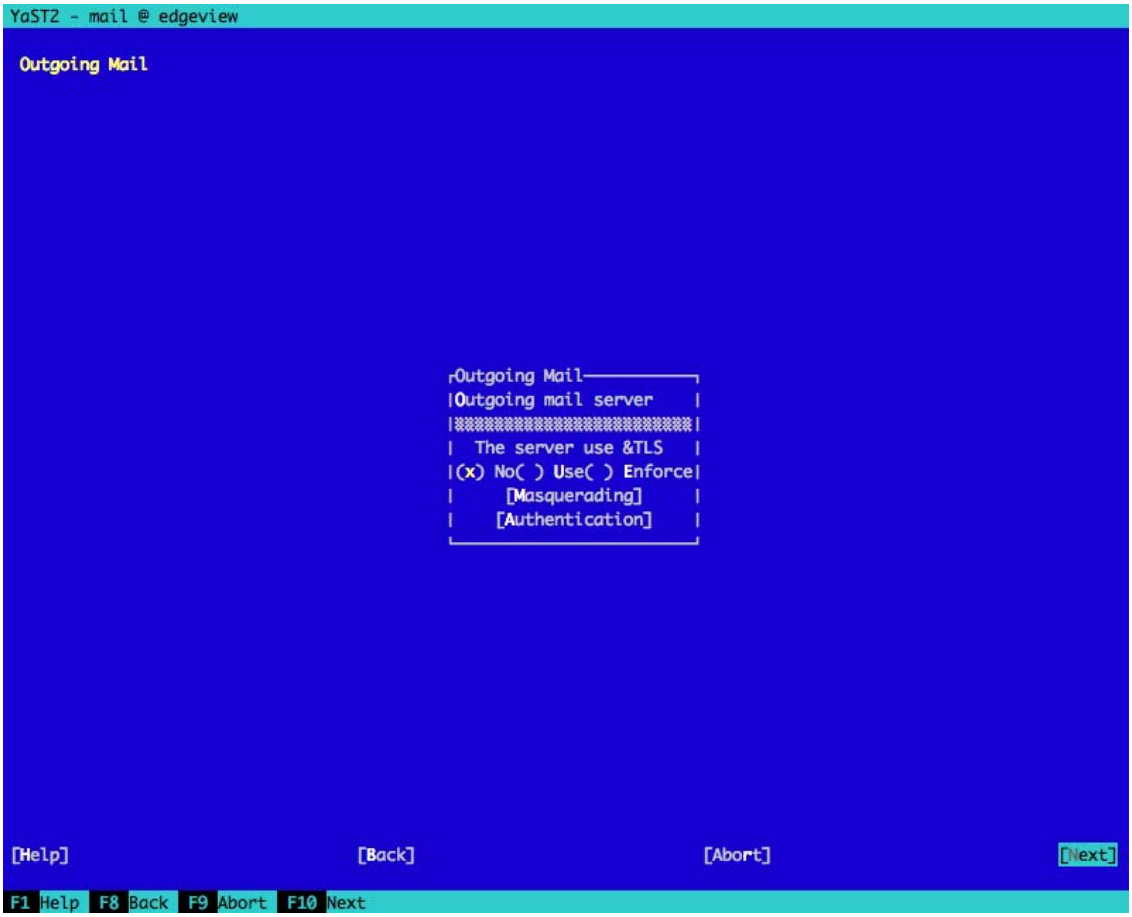
Mail servers typically send email to the Internet in one of two ways:

- By connecting directly to the destination SMTP server and sending the email OR
- By relaying the mail through another mail server.

Corporate networks typically use the latter method. If you need to connect through a corporate email server to send email:

1. Enter the IP or FQDN of your corporate mail server in the Outgoing Mail screen shown below:

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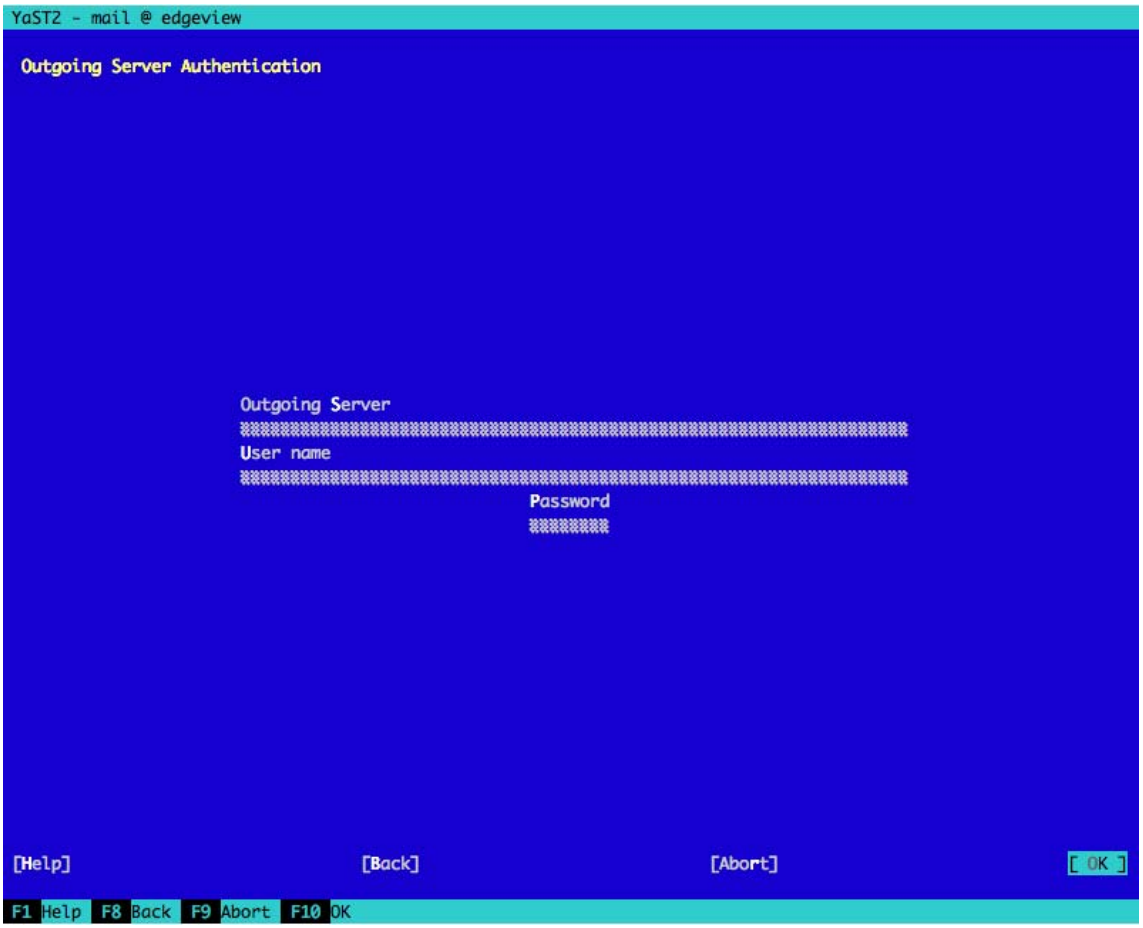
Attention!

Sending mail directly is rare. To avoid typical SPAM restrictions, your EdgeView server should have a reverse DNS entry.

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2. If you choose to relay email through a company mail server, you will likely need to authenticate before sending the email (another SPAM restriction). Tab to **[Authentication]** and select **[Enter]**. The Outgoing Server Authentication screen displays:

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3. Enter the proper Outgoing Server address and authentication credentials for your mail server account, then select **[OK]**. Your company's email administrator should provide you with the user name and password that is required for the account to route email through the company mail server.

Configuring Header Masquerading

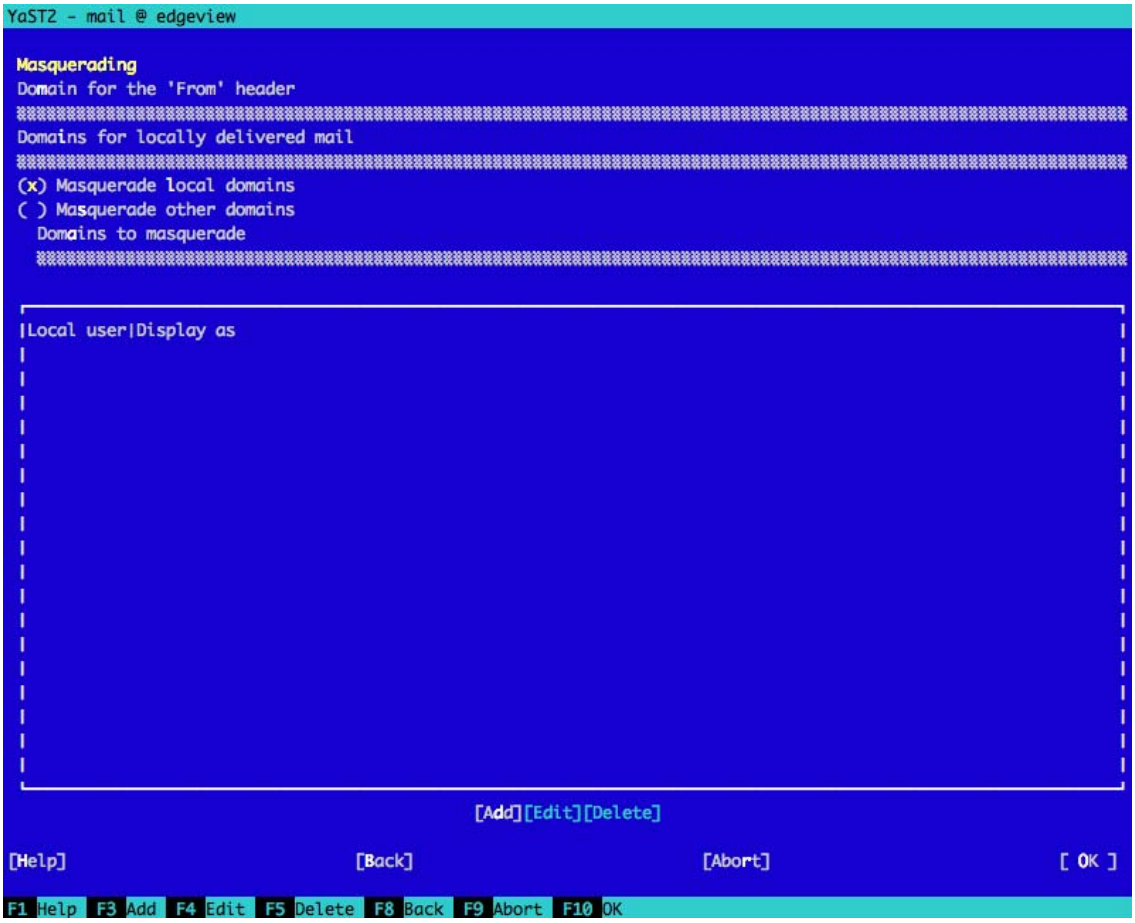
The EdgeView Linux operating system will attempt to deliver email with the "from address" derived by using the FQDN of your EdgeView (as configured previously in this document). This means that your email will be sent from an account such as the following: root@edgeview.mycompany.com. Your mail can be sent using only your company domain in the From address like this: root@mycompany.com.

The process of changing "edgeview.mycompany.com" to simply "mycompany.com" is called header masquerading.

To configure header masquerading:

1. In the Outgoing Mail screen, select the **Masquerading** option:

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2. Enter your desired Domain to use for the From header of email addresses that are sent from this EdgeView as it pertains to the normal email domain of your company.

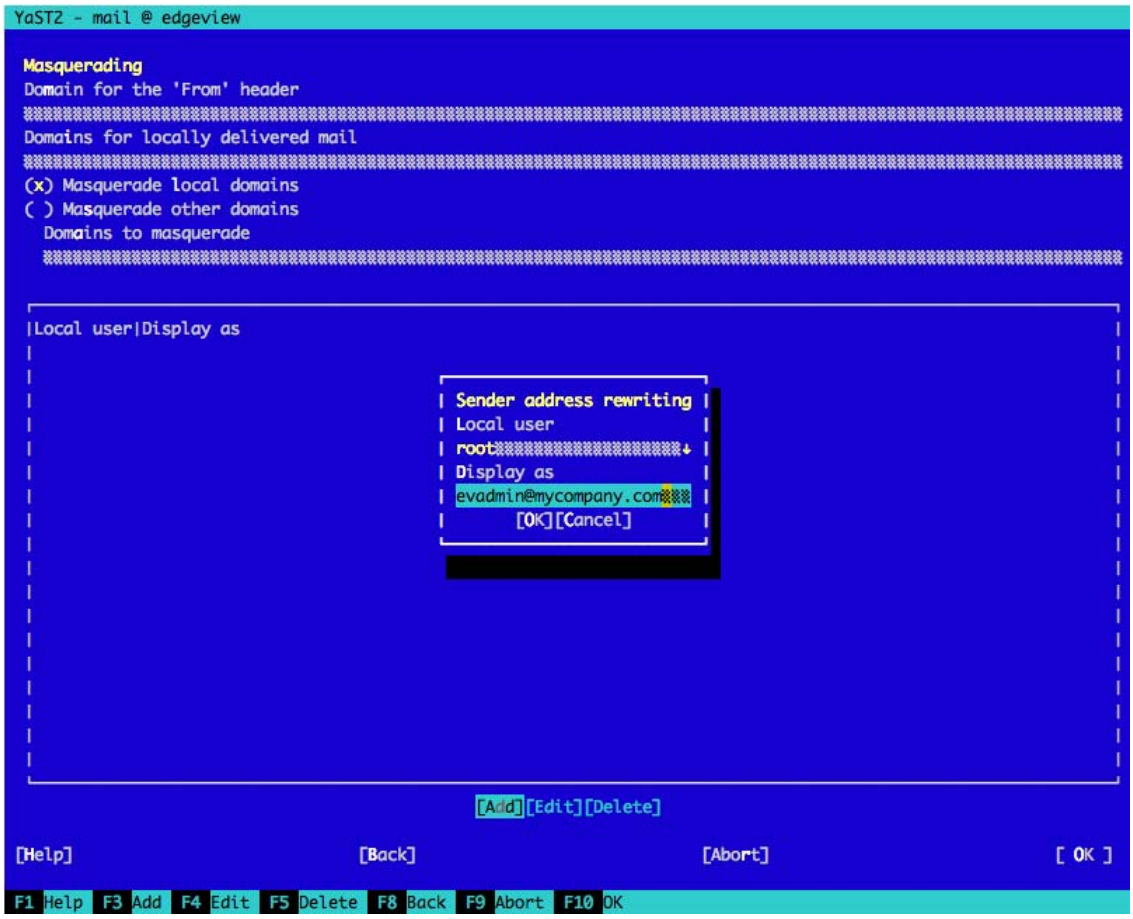
Configuring User Masquerading

If you want email sent from local system users to have a different user name in the “From” header, enter the desired email address to show in the From header in the Local User Email Masquerading screen. This step is optional, but we suggest you populate the **root** and **wwwrun** users with the email address of your EdgeView administrator.

To masquerade a local user to an email address:

1. Select **[Add]** from the Masquerading screen:

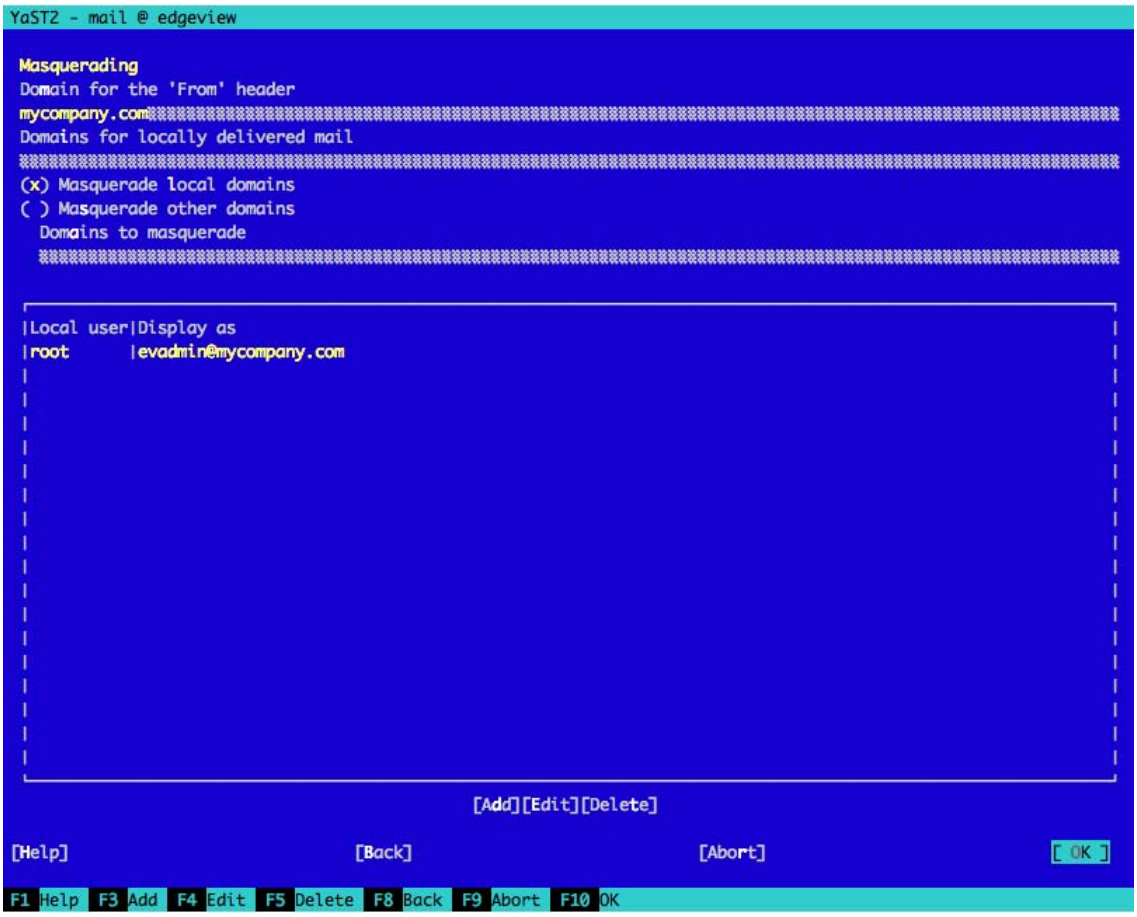
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2. Access your local users by highlighting the **Local user** text and pressing the down arrow on your keyboard. Make sure the **Display as** text contains the full email address you wish to masquerade.

3. Select **[OK]** to queue your change:

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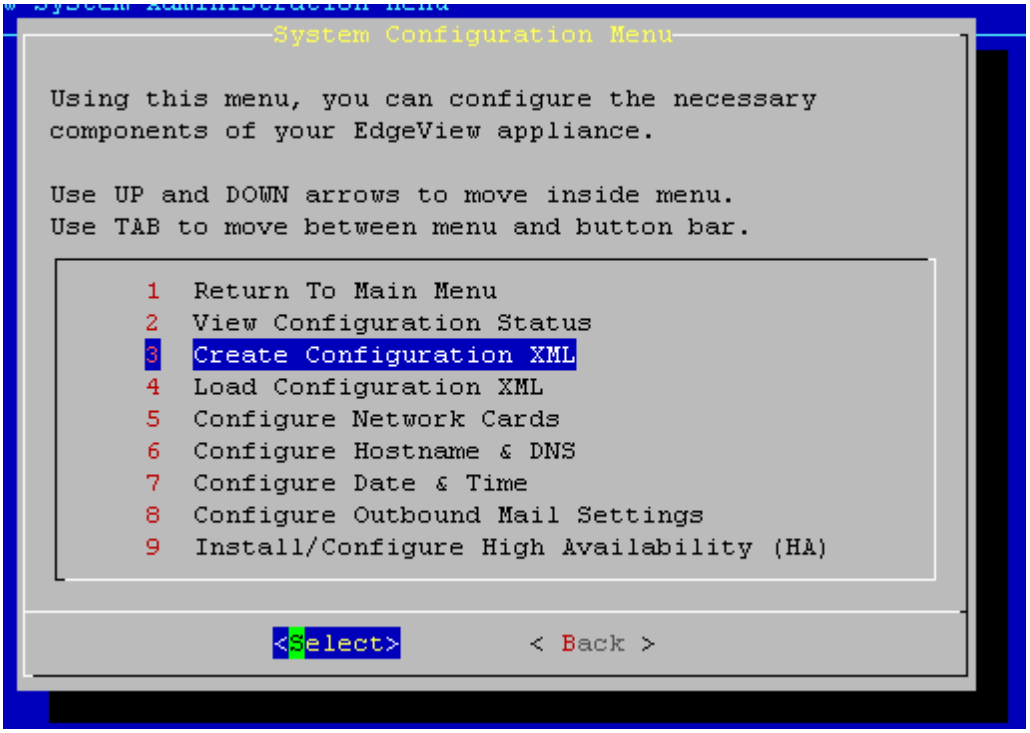


4. Select **[OK]** to return to the Outgoing Mail screen where you may enable your queued changes by selecting **[Next]**.

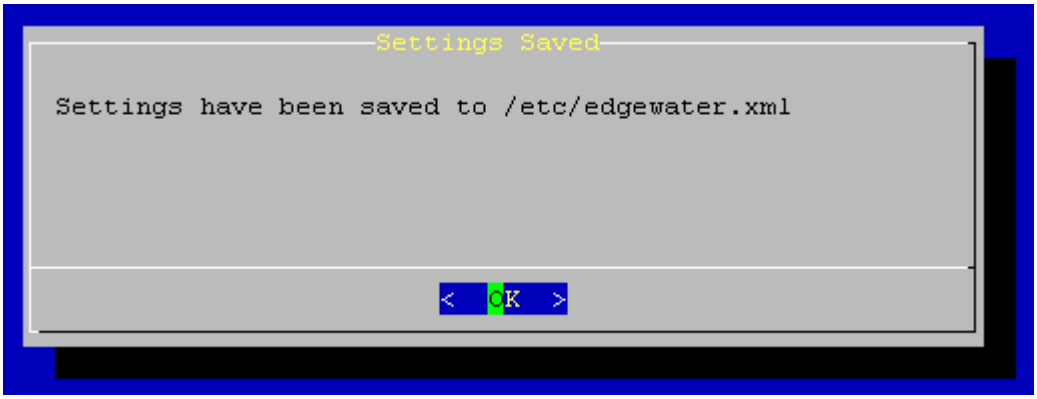
Creating and Loading a System Configuration XML File

The System Configuration Menu also provides you a way to save the settings of your EdgeView system and re-load them to another system or to use as a restore point in the event of a disk crash. Choose option #3 to create an XML file based on the configuration steps described above.

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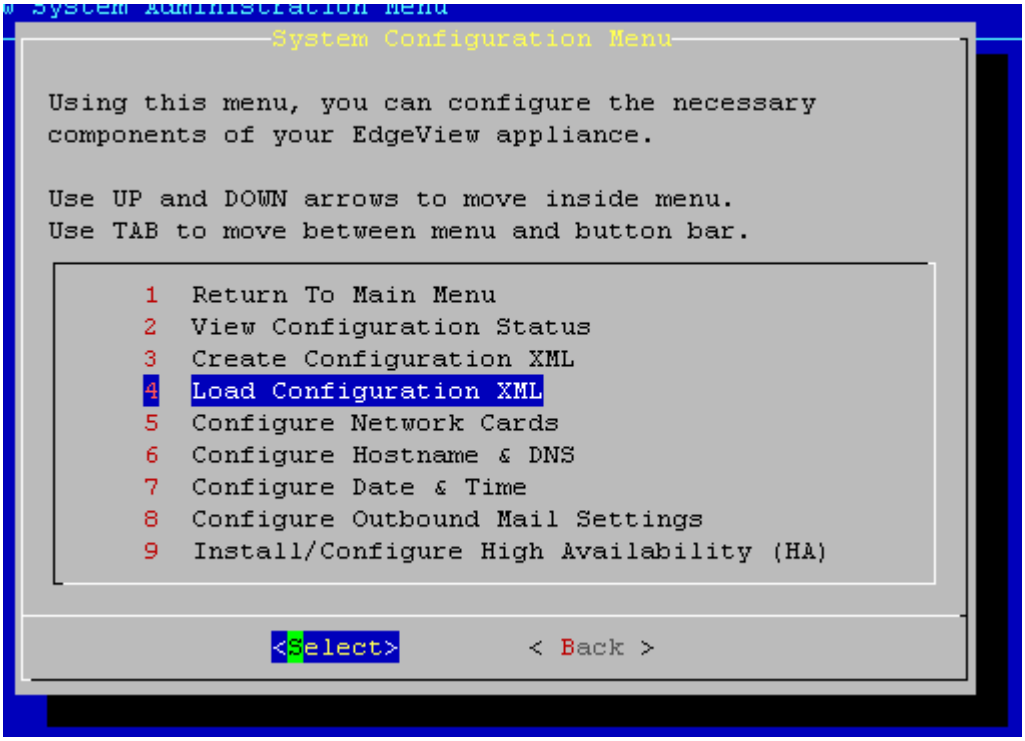
You will see an alert when the settings have been saved. You may copy this XML file from your EdgeView system as a backup or to load back into this or another system.



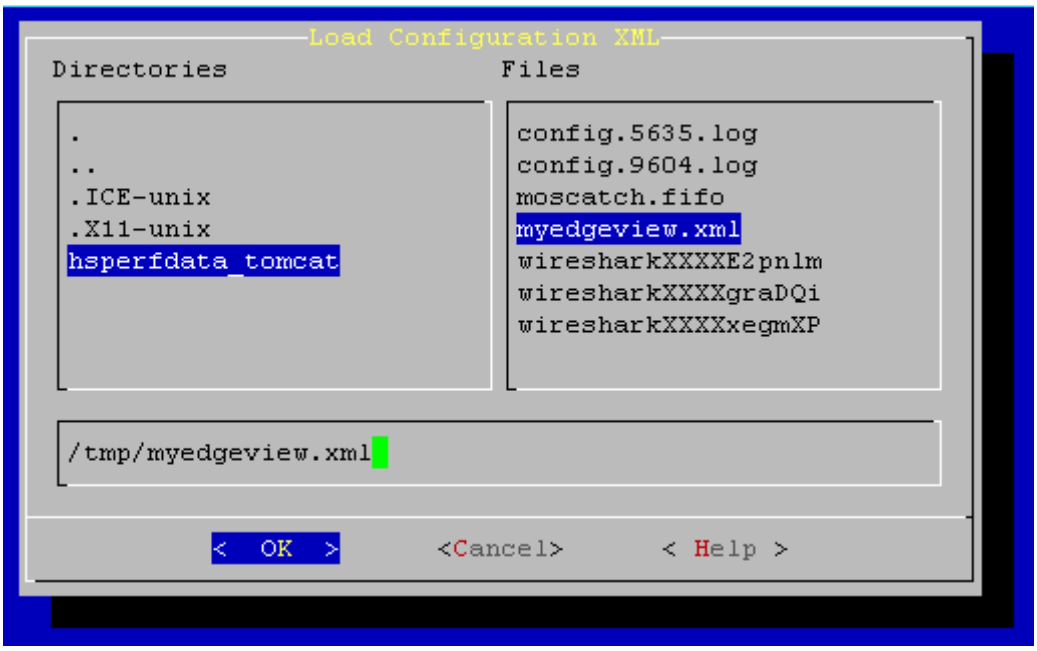
To load a previously saved XML settings file:

1. Choose option #4 from the System Configuration Menu:

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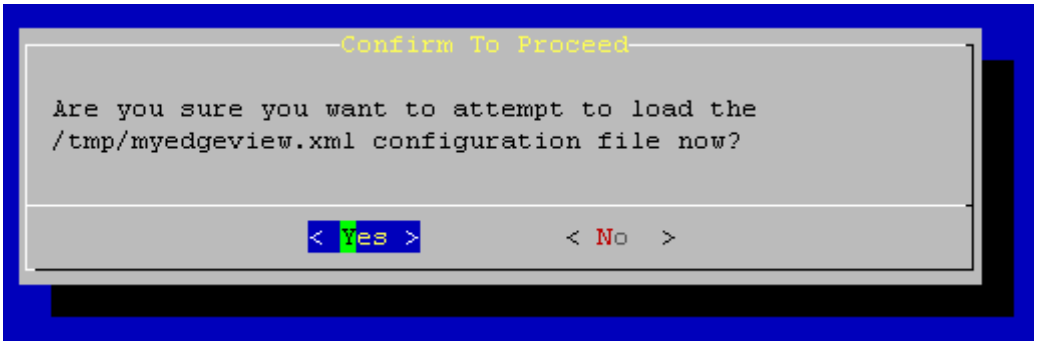


2. In the Load Configuration screen, select the appropriate file from your file system:

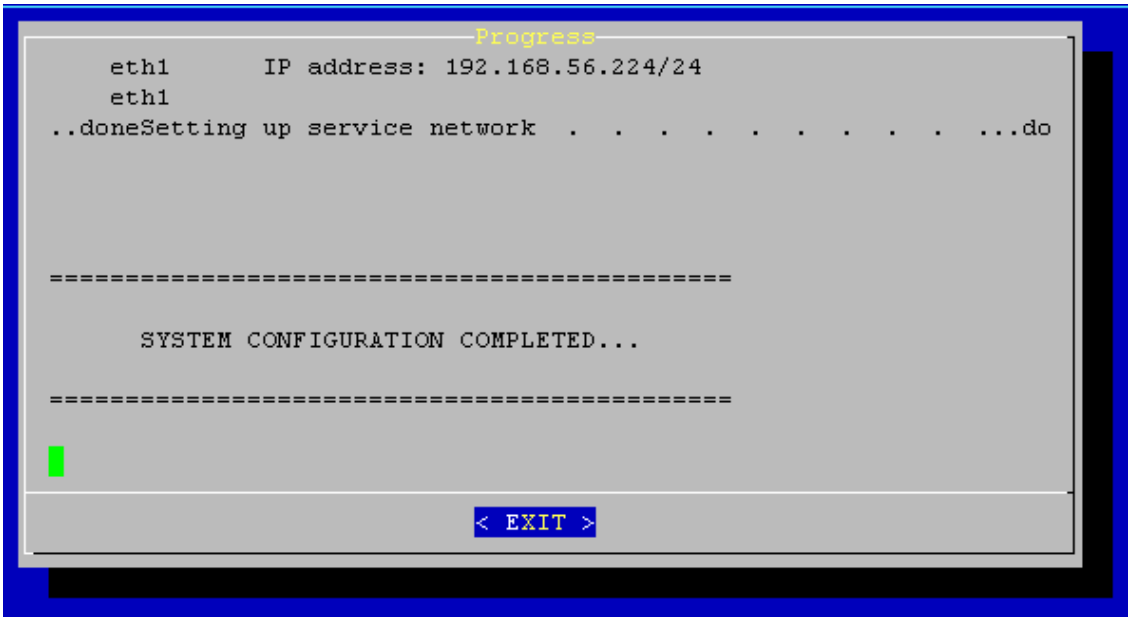


3. Select the desired XML configuration file and select **<OK>** to receive a confirmation screen:

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4. Select **<Yes>** to configure your EdgeView system with the settings found in the chosen XML configuration file:



5. Reboot your EdgeView.

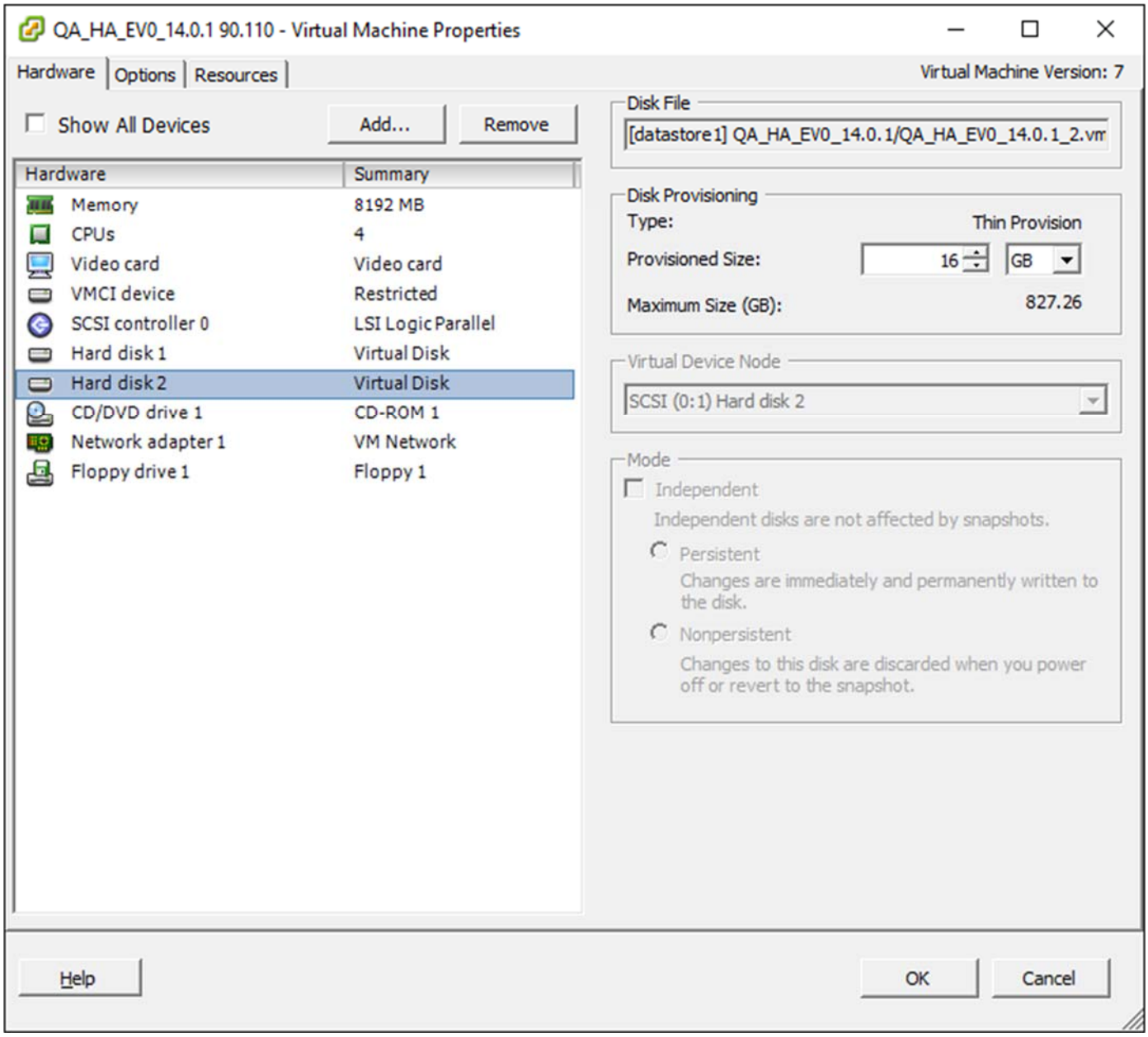
Installing a High Availability System

Add a Second Drive

On each system, add a second drive in ESXi:

1. From VSphere for the VM, click **Edit Settings** > **Hardware** > **Add** > **Hard Disk**.

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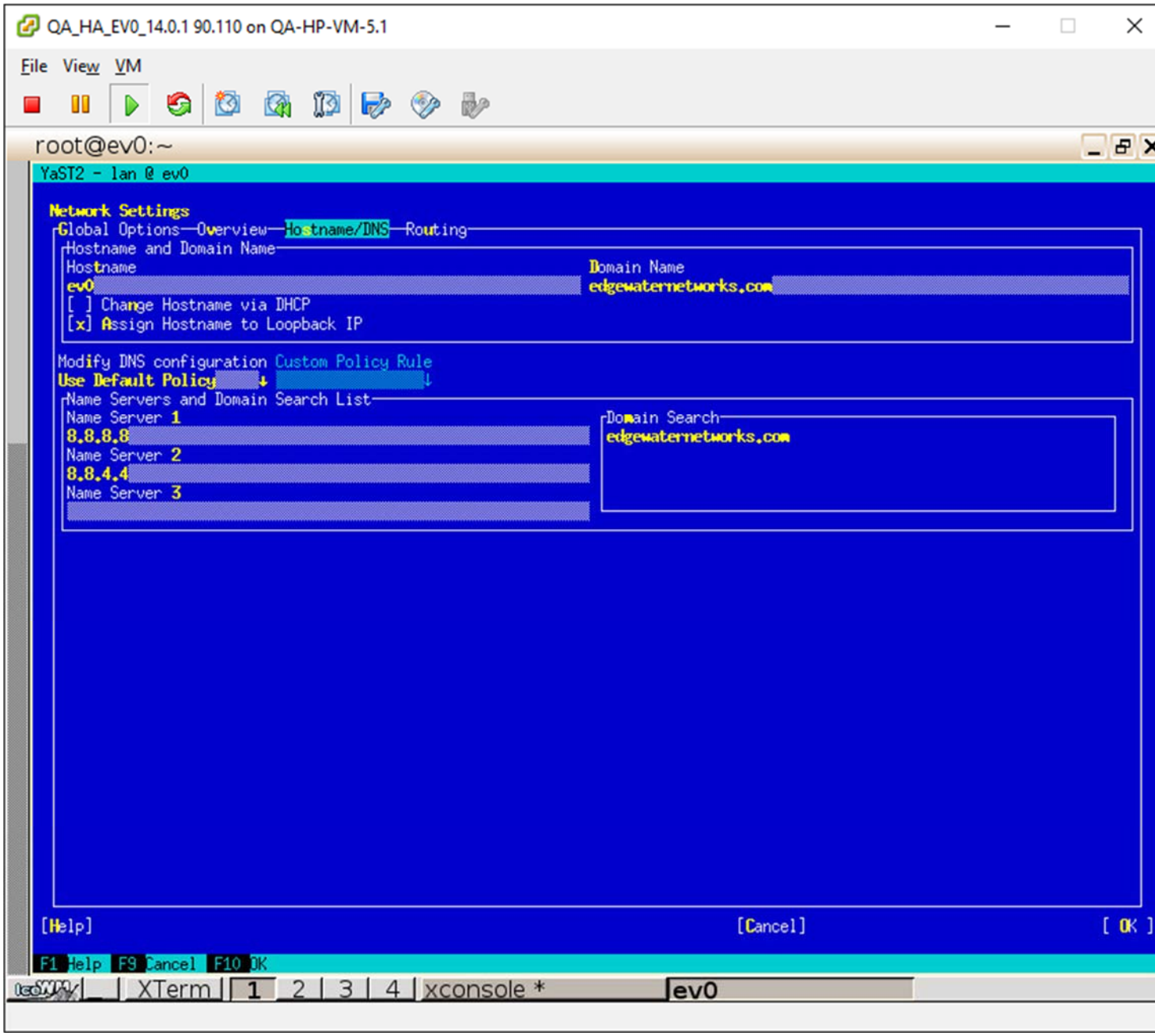


2. Select **Create New Virtual Disk** and assign a size (for example, 100GB). This size needs to be the SAME on each system, and should be determined based on projected database size and replication needs. More on this can be found in the Admin Guide.
3. Choose either **Thin Provision** or **Thick Provision** (recommended).
4. Click **Store with VM**.
5. Click through the defaults on the next screen, then click **Finish**.
6. Reboot the VMs. After reboot, you should see **/dev/sdb** in the CLI.

Change the Hostnames

On each system, use the TUI Menu to change the hostnames (for example, ev0, ev1).

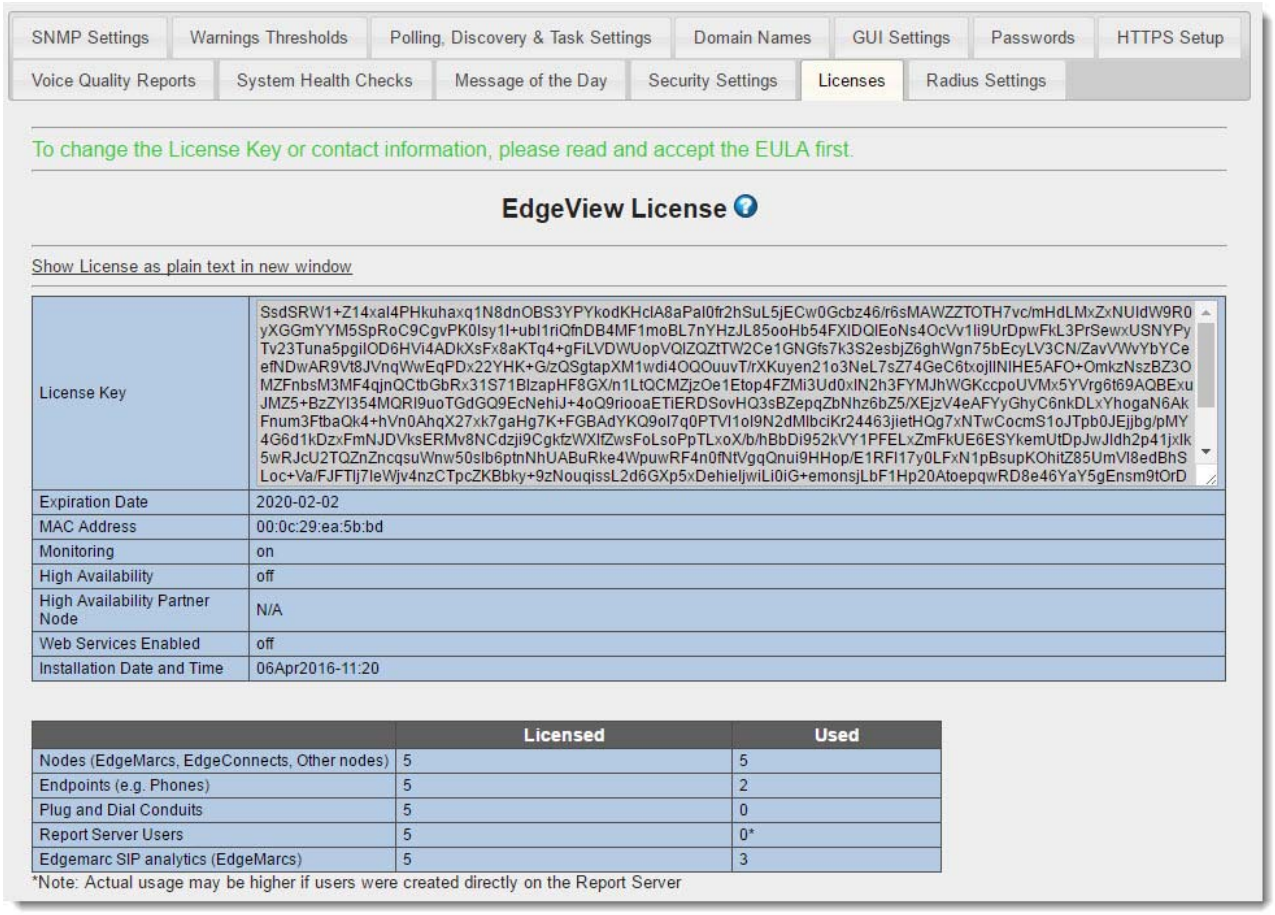
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Add the License Key

On each system, add the appropriate License Key (Primary or Secondary, depending on the system). It is recommended to do this now while you have individual access to each GUI.



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Set Up the Disk Partition

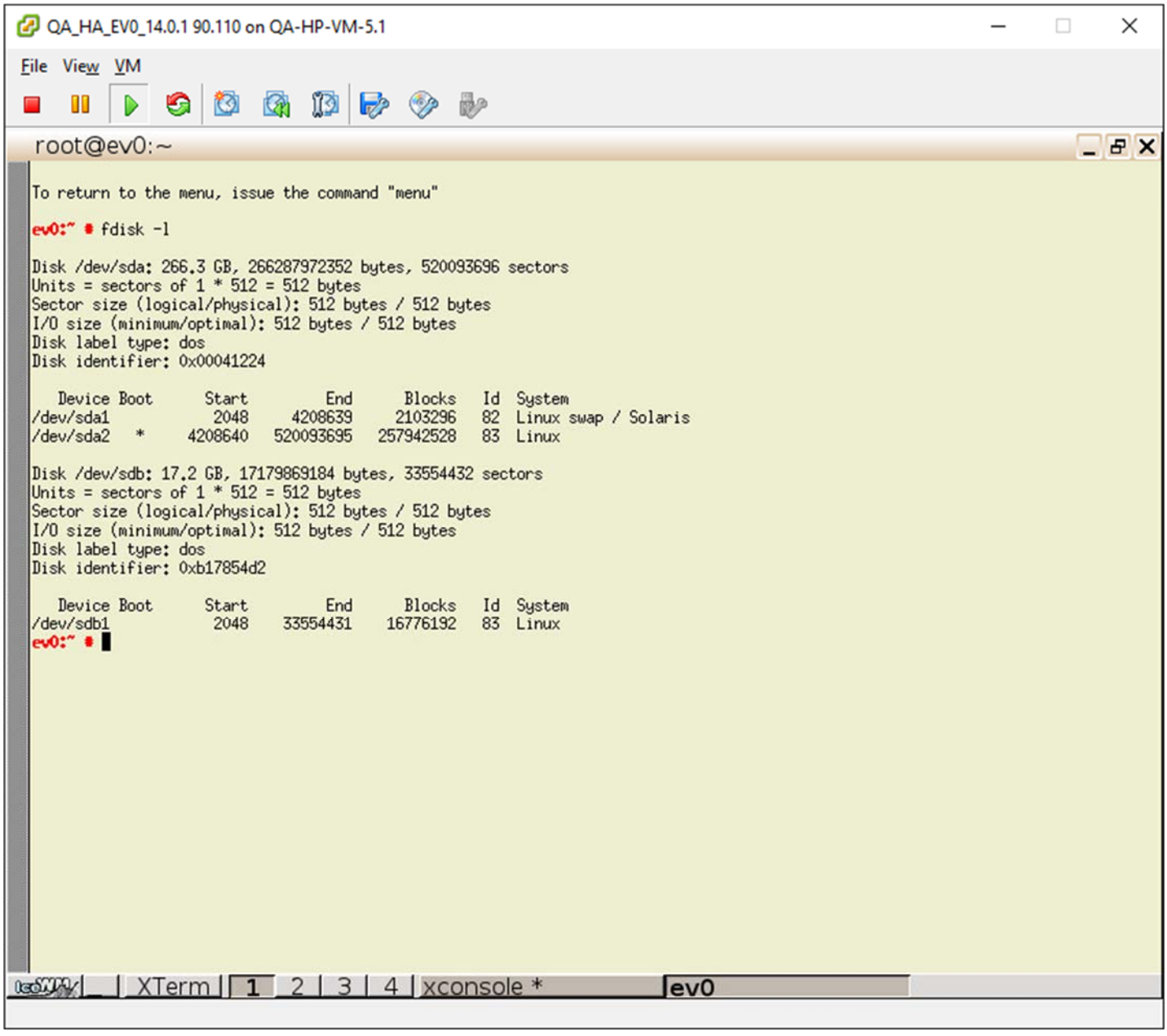
1. Set up the disk partition on each /dev/sdb that was added in Step 1 Add a Second Drive by entering the following:

   `fdisk /dev/sdb n (add partition) p (primary)`

2. Accept the rest of the defaults and enter:

   `w (write)`

   You should now see an “sdb1” when you enter **fdisk -l** (list partitions).



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Set Up Primary and Secondary

1. On Secondary, run the following:

   ```
   /ewn/bin/EVconfig/configHAv3.pl
   ```

2. Choose **Configure Trusted Connection**. (This should be the only option on the Secondary.)
3. Follow the instructions on the screen.
4. Repeat Step 1 through Step 3 for Primary.
5. Shut down both EVs and take screen shots.
6. Bring both systems back up.
7. Verify that the systems can talk to each other (**ssh** from one to the other).

Set Up HA and Replication

1. On the Primary, run the following:

   ```
   /ewn/bin/EVconfig/configHAv3.pl
   ```

2. Perform all three available options. If you did the first one already, uncheck it and run again.
3. Follow the instructions on the screen.



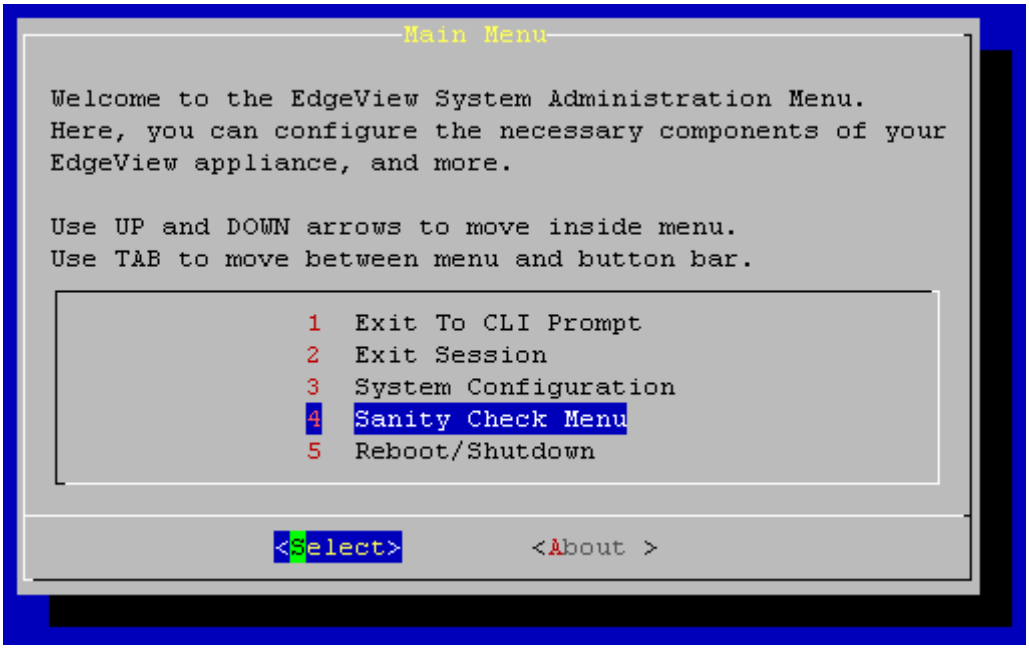
Note

The DRBD section can take a while! Be patient! It is creating and formatting the filesystem for the new drive, so it can take longer with large secondary drives.

Troubleshooting Using Sanity and Health Check Tools

Once your EdgeView system has been configured, select option #4 (Sanity Check Menu) from the Main Menu to validate the settings:

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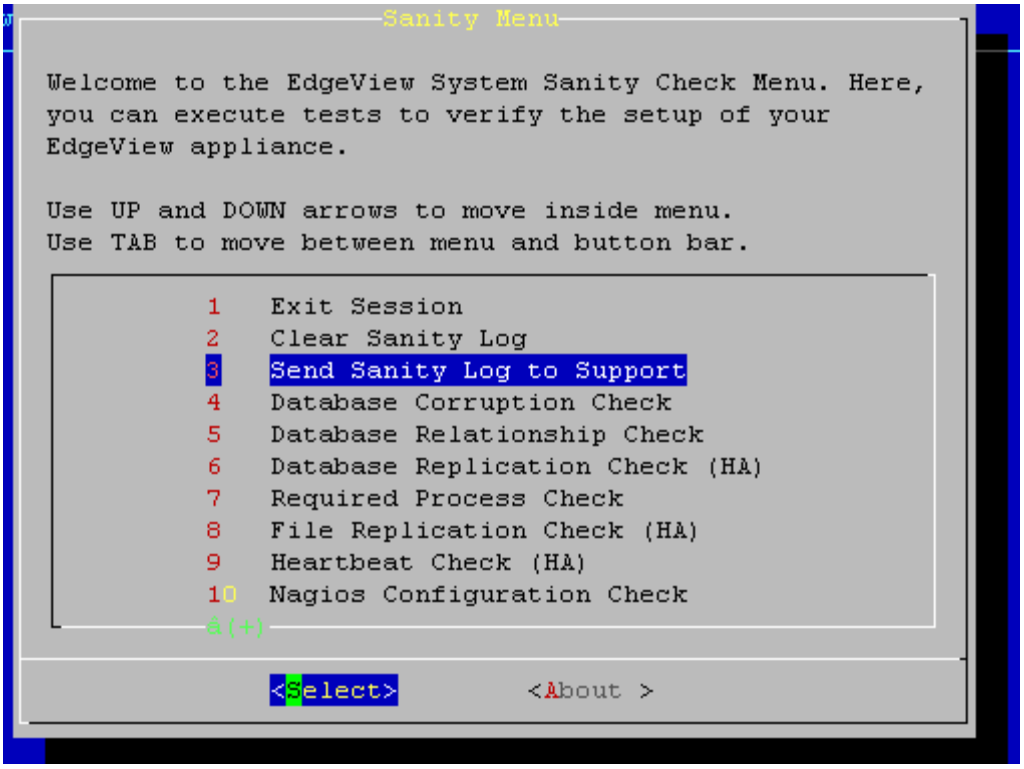
Sanity Checks should be performed any time your system is experiencing problems or is not functioning as expected. As seen in the screen below, the Sanity Menu allows you to perform a number of specific checks against your EdgeView system:



In addition, you may perform all of the appropriate checks for your system by running “All Checks”. The sanity tests keep a running log of output that is date/time stamped. Once a

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test has been completed, you may send the sanity logs to our support department for further evaluation by choosing option #3 from the Sanity Menu:



Attention!

You must have a properly functioning outbound mail configuration as described in this document before the sanity logs can be emailed directly from the EdgeView to the Edgewater Networks support team.

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