IBM Security QRadar SIEM
Version 7.2

Installation Guide

IBM
Note: Before using this information and the product that it supports, read the information in “Notices and Trademarks” on page 45.
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# About This Guide

The *IBM Security QRadar SIEM Installation Guide* provides you with QRadar SIEM 7.2 installation procedures. QRadar SIEM appliances are pre-installed with software and a Red Hat Enterprise Linux version 6.3 operating system. You can also install QRadar SIEM software on your own hardware.

This guide does not cover installation and recovery of High Availability (HA) systems. If you want to install or recover a 7.2 HA system, see the *IBM Security QRadar High Availability Guide*.

## Intended Audience

This guide is intended for network administrators responsible for installation and configuration of QRadar SIEM systems in your network. This guide assumes a working knowledge of networking and Linux systems.

## Documentation Conventions

The following conventions are used throughout this guide:

- **Note**: Indicates that the information provided is supplemental to the associated feature or instruction.

- **CAUTION**: *Indicates that the information is critical. A caution alerts you to potential loss of data or potential damage to an application, system, device, or network.*

- **WARNING**: *Indicates that the information is critical. A warning alerts you to potential dangers, threats, or potential personal injury. Read any and all warnings carefully before proceeding.*

## Technical Documentation

For information on how to access more technical documentation, technical notes, and release notes, see the *Accessing IBM Security QRadar Documentation Technical Note*.

(https://www.ibm.com/support/docview.wss?rs=0&uid=swg21614644)

## Contacting Customer Support

For information on contacting customer support, see the *Support and Download Technical Note*.

(https://www.ibm.com/support/docview.wss?rs=0&uid=swg21612861)
Statement of good security practices

IT system security involves protecting systems and information through prevention, detection and response to improper access from within and outside your enterprise. Improper access can result in information being altered, destroyed, misappropriated or misused or can result in damage to or misuse of your systems, including for use in attacks on others. No IT system or product should be considered completely secure and no single product, service or security measure can be completely effective in preventing improper use or access. IBM systems, products and services are designed to be part of a comprehensive security approach, which will necessarily involve additional operational procedures, and may require other systems, products or services to be most effective. IBM DOES NOT WARRANT THAT ANY SYSTEMS, PRODUCTS OR SERVICES ARE IMMUNE FROM, OR WILL MAKE YOUR ENTERPRISE IMMUNE FROM, THE MALICIOUS OR ILLEGAL CONDUCT OF ANY PARTY.
To ensure a successful QRadar SIEM deployment, adhere to the preparation requirements and recommendations included in this topic.

### QRadar SIEM deployment overview

QRadar SIEM deployment architecture allows you to install components on a single server for small enterprises or distributed across multiple servers for maximum performance and scalability in large enterprise environments.

QRadar SIEM also provides High Availability (HA) functionality, which requires you to install redundant appliances for each system that requires HA protection. If you want to install or recover an HA system, see the *QRadar High Availability Guide*.

### Activation keys and license keys

When you install QRadar SIEM, you must type an activation key. After you install QRadar SIEM, you must apply your license keys. To avoid typing the wrong key in the installation process, it is important to understand the difference between the keys:

- The **activation key** is a 24-digit, four-part, alphanumeric string that you receive from IBM. All installations of QRadar SIEM products use the same software; however, the activation key specifies which software modules to apply for each appliance type. For example, the QRadar QFlow Collector activation key tells the installer to install only QRadar QFlow Collector modules. You can obtain the activation key from the following locations:
  - If you purchased an appliance preloaded with QRadar SIEM software, the activation key is included in your shipping box on the CD.
  - If you purchased a QRadar SIEM software or virtual appliance download, a list of activation keys are included in the Getting Started document that is attached in a confirmation email.

- Your system includes a **default license key** that provides you with access to QRadar SIEM for five weeks. After you install the software and before the default license key expires, you must access the Console user interface to add your purchased Console license and any licenses for managed hosts or additional products, such as QRadar Vulnerability Manager. The default license key provides the following limits:
PREPARATION FOR YOUR INSTALLATION

- Active Log Source Limit: 750
- Events per second threshold: 5000
- Flows per interval: 200000
- User Limit: 10
- Network Object Limit: 300

• After you purchase a QRadar product, you receive an email from IBM that contains your **permanent license keys**. These license keys extend the capabilities of your appliance type and defines your system operating parameters. You must apply your license keys before your default license expires.

### Integrated Management Module

On the back panel of each appliance type, the serial connector and ethernet connectors can be managed using the Integrated Management Module (IMM). You can configure the IMM to share an ethernet port with the QRadar SIEM management interface; however, we recommend configuring the IMM in dedicated mode to reduce the risk of losing the IMM connection when the appliance is restarted. To configure the IMM, you must access the System BIOS settings by pressing the F1 key when the IBM splash screen is displayed. For further instructions on how configure the IMM, see the *Integrated Management Module User’s Guide* located on the CD that was shipped with your appliance.

### QRadar SIEM components

QRadar SIEM deployments can include the following components:

• **QRadar QFlow Collector** - Passively collects traffic flows from your network through span ports or network taps. The QRadar QFlow Collector also supports the collection of external flow-based data sources, such as NetFlow. You can install a QRadar QFlow Collector on your own hardware or use one of the QRadar QFlow Collector appliances.

• **Console** - Provides the QRadar SIEM user interface, which provides real time event and flow views, reports, offenses, asset information, and administrative functionality. Using the Console, you can also manage hosts that include other components in a distributed QRadar SIEM deployment.

• **Event Collector** - Gathers events from local and remote log sources. The Event Collector normalizes raw log source events. During this process, the Magistrate component examines the event from the log source and maps the event to a QRadar Identifier (QID). Then the Event Collector bundles identical events to conserve system usage and sends the information to the Event Processor.

• **Event Processor** - Processes events collected from one or more Event Collector. The Event Processor correlates the information from QRadar SIEM and distributes the information to the appropriate area, depending on the type of event. The Event Processor also includes information gathered by QRadar.
SIEM to indicate behavioral changes or policy violations for the event. When complete, the Event Processor sends the events to the Magistrate component.

- **Magistrate** - Provides the core processing components. You can add one Magistrate component for each deployment. The Magistrate provides views, reports, alerts, and analysis of network traffic and security events. The Magistrate processes events against the custom rules. If an event matches a rule, the magistrate generates the response configured in the custom rule. For example, the custom rule may indicate that when an event matches the rule, an offense is created. If there is no match to a custom rule, the Magistrate uses default rules to process the event. An offense is an alert that has been processed using multiple inputs, individual events, and events combined with analyzed behavior and vulnerabilities. The magistrate prioritizes the offenses and assigns a magnitude value based on several factors, including number of events, severity, relevance, and credibility.

For more information on each QRadar SIEM component, see the *IBM Security QRadar SIEM Administration Guide*.

### Additional hardware requirements

Before you install QRadar SIEM systems, make sure you have access to the following hardware components:

- Monitor and keyboard, or a serial console
- Uninterrupted Power Supply (UPS) for all systems that store data, such as Consoles, Event Processors, or QRadar QFlow Collectors
- Null modem cable if you want to connect the system to a serial console

**Note:** QRadar SIEM supports hardware-based Redundant Array of Independent Disks (RAID) implementations, but does not support software-based RAID installations.

### Additional software requirements

Before you install QRadar SIEM, make sure you have the following applications installed on any desktop system that you use to access the QRadar SIEM user interface:

- Java™ Runtime Environment (JRE)
- Adobe Flash 10.x

You can download Java 1.6 or 1.7 at the following website: [http://java.com/](http://java.com/). Make sure that you install JRE on your desktop system, not on the QRadar SIEM system.
Supported browsers

You can access the Console from a standard web browser. When you access the system, a prompt is displayed asking for a user name and a password, which must be configured in advance by the QRadar SIEM administrator.

Table 1-1 Supported web browsers

<table>
<thead>
<tr>
<th>Web browser</th>
<th>Supported versions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mozilla Firefox</td>
<td>• 10.0 ESR</td>
</tr>
<tr>
<td></td>
<td>• 17.0 ESR</td>
</tr>
<tr>
<td></td>
<td>Due to Mozilla’s short release cycle, we cannot commit to testing on the latest versions of the Mozilla Firefox web browser. However, we are fully committed to investigating any issues that are reported.</td>
</tr>
<tr>
<td>Microsoft® Windows Internet Explorer, with Compatibility View Enabled</td>
<td>• 8.0</td>
</tr>
<tr>
<td></td>
<td>• 9.0</td>
</tr>
<tr>
<td>Google Chrome</td>
<td>• Latest version</td>
</tr>
<tr>
<td></td>
<td>We are fully committed to investigating any issue that are reported.</td>
</tr>
</tbody>
</table>

Required network settings

Before you install QRadar SIEM, you must identify the following information for each system that you want to install:

• Hostname
• IP address
• Network mask address
• Subnet mask
• Default gateway address
• Primary Domain Name System (DNS) server address
• Secondary DNS server address (optional)
• Public IP address for networks using Network Address Translation (NAT)
• Email server name
• Network Time Protocol (NTP) server (Console only) or time server name
Use the procedures in this topic to install QRadar SIEM Consoles and managed host appliances (non-Consoles). QRadar SIEM appliances include QRadar SIEM software and a Red Hat Enterprise Linux operating system. You can also install QRadar SIEM software on your own hardware.

For more information about appliances, see the Hardware Installation Guide.

<table>
<thead>
<tr>
<th>Preparing your QRadar SIEM appliance for installation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before you can use the installation wizard to install a QRadar SIEM appliance, you must physically install and prepare the appliance.</td>
</tr>
</tbody>
</table>

**About this task**

If you use a laptop to connect to the system, you must use a terminal program, such as HyperTerminal, to connect to the system. Make sure you set Connect Using to the appropriate COM port of the serial connector and Bits per second to 9600. You must also set Stop Bits (1), Data bits (8), and Parity (None).

For more information on your QRadar SIEM appliance, see the Hardware Installation Guide.

**Procedure**

**Step 1** Install all necessary hardware.

**Step 2** Choose one of the following options:
- Connect a laptop to the serial port on the rear of the appliance.
- Connect a keyboard and monitor to their respective ports.

**Step 3** Power on the system and log in:

Username: root

**Note:** The username is case sensitive.

**Step 4** Press Enter.

**What to do next**

Installing a QRadar SIEM Console or managed host
Preparing your own appliance for installation

You can install QRadar SIEM software on your own hardware using the Red Hat Enterprise Linux 6.3 operating system. Before you can install QRadar SIEM software on your own appliance, you must prepare your appliance.

**About this task**

Red Hat Enterprise Linux 6.3 operating system is a vendor system. For more information on how to install the Red Hat Linux 6.3 operating system, see your vendor documentation. For QRadar SIEM specific guidelines on how to install and configure the Red Hat Enterprise Linux 6.3 operating system, see *Installing the Red Hat Enterprise Linux operating system*.

**Procedure**

**Step 1** Install the necessary hardware.

**Step 2** Obtain the Red Hat Enterprise Linux 6.3 operating system and install it on your hardware.

**Step 3** Log in as the root user.

Username: root

*Note:* The username is case sensitive.

**Step 4** To create the /media/cdrom redhat directory, type the following command:

`mkdir /media/cdrom`

**Step 5** Obtain the QRadar SIEM software from [http://www.ibm.com/support](http://www.ibm.com/support).

**Step 6** To mount the QRadar SIEM 7.2 ISO, type the following command:

`mount -o loop <path to the QRadar SIEM ISO> /media/cdrom`

**Step 7** To begin the installation, type the following command:

`/media/cdrom/setup`

**What to do next**

*Installing a QRadar SIEM Console or managed host*

---

**Installing a QRadar SIEM Console or managed host**

Use this procedure to install a QRadar SIEM Console or managed host. You can also use this procedure to install QRadar SIEM software on your own appliance.

**Before you begin**

Before you begin, ensure that the following requirements are met:

- Your appliance is prepared for installation. If your appliance is not prepared for installation, choose one of the following:
  - Preparing your QRadar SIEM appliance for installation
  - Preparing your own appliance for installation
- The End User License Agreement (EULA) window is displayed.
• Locate your activation key. The activation key is a 24-digit, four-part, alphanumeric string that you receive from IBM. The letter I and the number 1 (one) are treated the same, as are the letter O and the number 0 (zero).

About this task
When you read the End User License Agreement (EULA), press the Spacebar to advance each window until you reach the end of the document.

The Internet Protocol Version window displays up to a maximum of four interfaces. Each interface with a physical link is denoted with a plus (+) symbol.

When you configure the network settings, you can configure a public IP address for the server. This is a secondary IP address that is used to access the server, usually from a different network or the Internet, and is managed by your network administrator. The Public IP address is often configured using Network Address Translation (NAT) services on your network or firewall settings on your network. NAT translates an IP address in one network to a different IP address in another network.

When you create the root password, the password must meet the following criteria:
• Must contain at least five characters
• No spaces
• Can include the following special characters: @,#,^, and *.

Procedure
Step 1 Read the information in the End User License Agreement (EULA) window.
Step 2 Type yes to accept the agreement, and then press Enter.
Step 3 If you are installing QRadar SIEM on your own appliance, you are prompted to continue the installation. This process may take up to several hours. Type Yes to continue.
Step 4 Type your activation key and press Enter.
Step 5 Select normal for the type of setup. Select Next and press Enter.
Step 6 If you are installing a non-Console appliance, go to Step 9.
Step 7 Select the Enterprise tuning template. Select Next and press Enter.
Step 8 Configure your time settings:
   a Choose one of the following options:
      - Manual - Select this option to manually input the time and date. Select Next and press Enter. The Current Date and Time window is displayed. Go to b.
      - Server - Select this option to specify your time server. Select Next and press Enter. The Enter Time Server window is displayed. Go to c.
   b To manually enter the time and date, type the current time and date. Select Next and press Enter. Go to Step 9.
To specify a time server, in the **Time server** field, type the time server name or IP address. Select **Next** and press Enter. Go to **Step 11**.

**Step 9** On the Time Zone Continent window, select your time zone continent or area. Select **Next** and press Enter.

**Step 10** On the Time Zone Region window, select your time zone region. Select **Next** and press Enter.

**Step 11** Select an internet protocol version. Select **Next** and press Enter.

**Step 12** Select the interface that you want to use as the management interface. Select **Next** and press Enter.

**Step 13** Choose one of the following options:
- If you use IPv4 as your Internet protocol, go to **Step 16**.
- If you use IPv6 as your Internet protocol, go to **Step 14**.

**Step 14** Choose one of the following options:
- To automatically configure for IPv6, select **Yes** and press Enter. The automatic configuration can take an extended period of time. Go to **Step 16**.
- To manually configure for IPv6, select **No** and press Enter. Go to **Step 15**.

**Step 15** Enter network information to use for IPv6:
- In the **Hostname** field, type a fully qualified domain name as the system hostname.
- In the **IP Address** field, type the IP address of the system.
- In the **Email server** field, type the email server. If you do not have an email server, type **localhost** in this field.
- Select **Next** and press Enter. Go to **Step 17**

**Step 16** Configure the QRadar SIEM network settings:
- Enter values for the following parameters:
  - **Hostname** - Type a fully qualified domain name as the system hostname.
  - **IP Address** - Type the IP address of the system.
  - **Network Mask** - Type the network mask address for the system.
  - **Gateway** - Type the default gateway of the system.
  - **Primary DNS** - Type the primary DNS server address.
  - **Secondary DNS** - Optional. Type the secondary DNS server address.
  - **Public IP** - Optional. Type the Public IP address of the server.
  - **Email Server** - Type the email server. If you do not have an email server, type **localhost** in this field.
- Select **Next** and press Enter.

**Step 17** Configure the QRadar SIEM root password:
- Type your password. Select **Next** and press Enter.
Applying your license key

After the installation is complete and before the default license expires, you must access the QRadar SIEM user interface to apply your license key.

Before you begin

Review the following information: Activation keys and license keys.

About this task

When you access the QRadar SIEM for the first time, note the following requirements:

- If you use Mozilla Firefox, you must add an exception to Mozilla Firefox. For more information, see your Mozilla documentation.
- If you use Internet Explorer, a website security certificate message is displayed. You must select the Continue to this website option to log in to QRadar SIEM.

Procedure

Step 1
Open your web browser.

Step 2
Log in to QRadar SIEM:

https://<IP Address>

Where <IP Address> is the IP address of the QRadar SIEM system. The default values are:

Username: admin
Password: <root password>

Step 3
Click Login To QRadar SIEM.

Step 4
Click the Admin tab.

Step 5
On the navigation menu, click System Configuration.

Step 6
Click the System and License Management icon.

Step 7
From the Display list box, select Licenses.

Step 8
Upload your license key.

a. On the toolbar, click Upload License.
b In the dialog box, click **Select File**.
c On the File Upload window, locate and select the license key.
d Click **Open**.
e Click **Upload**.

**Step 9** Allocate the license to your system:

a Select the unallocated license.
b Click **Allocate System to License**.
c From the list of licenses, select a license.
d Click **Allocate License to System**.
3

**INSTALLING THE RED HAT ENTERPRISE LINUX OPERATING SYSTEM**

Use this task to install the Red Hat Enterprise Linux 6.3 operating system on your own appliance for use with IBM Security QRadar SIEM.

**Before you begin**

Before you install the Red Hat Enterprise Linux 6.3 operating system, note the following:

- QRadar SIEM supports the 64-bit versions of the Red Hat Enterprise Linux 6.3 operating system.
- QRadar SIEM does not support KickStart disks. These disks may cause the application to install incorrectly.
- If you want to use NTP as your time server, make sure you install the NTP package. For more information, see your Red Hat documentation.
- For Console systems, must have at least 8 GB of RAM and at least 256 GB of free disk space.
- If you plan to enable payload indexing we strongly recommend that your Console has at least 24 GB of RAM. We require that you upgrade your system memory before you install QRadar SIEM on your system.
- For QRadar QFlow Collectors, make sure the primary drive is at least 70 GB of free space.
- The firewall configuration must allow WWW (http, https) and SSH traffic. Before you configure the firewall, disable the SELinux option. The QRadar SIEM installation includes a default firewall template, which you can update in the System Setup window.
About this task

If you want to delete and recreate partitions rather than edit the default partitions, use the following table as a guide:

Table 1-1 Partition guide

<table>
<thead>
<tr>
<th>Partition</th>
<th>Description</th>
<th>Mount point</th>
<th>File system type</th>
<th>Size</th>
<th>Forced to be primary</th>
<th>SDA or SDB</th>
</tr>
</thead>
<tbody>
<tr>
<td>/boot</td>
<td>System boot files</td>
<td>/boot</td>
<td>EXT4</td>
<td>200 MB</td>
<td>Yes</td>
<td>SDA</td>
</tr>
<tr>
<td>swap</td>
<td>Area to be used as memory when RAM is full.</td>
<td>empty</td>
<td>swap</td>
<td>For systems with 4 to 8 GB of RAM, the size of the swap partition must match the amount of RAM, For systems with 8 to 24 GB of RAM, configure the swap partition size to be 75% of RAM, with a minimum value of 8 GB and a maximum value of 24 GB.</td>
<td>No</td>
<td>SDA</td>
</tr>
<tr>
<td>/</td>
<td>Install area for QRadar SIEM, the operating system, and associated files.</td>
<td>/</td>
<td>EXT4</td>
<td>20000 MB</td>
<td>No</td>
<td>SDA</td>
</tr>
<tr>
<td>/store/tmp</td>
<td>Storage area for QRadar SIEM temporary files</td>
<td>/store/tmp</td>
<td>EXT4</td>
<td>20000 MB</td>
<td>No</td>
<td>SDA</td>
</tr>
<tr>
<td>/var/log</td>
<td>Storage area for QRadar SIEM and system log files</td>
<td>/var/log</td>
<td>EXT4</td>
<td>20000 MB</td>
<td>No</td>
<td>SDA</td>
</tr>
<tr>
<td>/store</td>
<td>Storage area for all QRadar SIEM data and configuration files</td>
<td>/store</td>
<td>EXT4</td>
<td>Select the Fill to maximum allowable size check box</td>
<td>No</td>
<td>SDA</td>
</tr>
</tbody>
</table>

**Note:** If an error is displayed when the software RAID partitions are created, contact Customer Support.
CAUTION: Future software upgrades will fail if you reformat any of the following partitions or their sub-partitions: /store, /store/tmp, /store/ariel, /store/persistent data.

For multi-disk deployments only, configure the following partitions for the Console:

- /store as RAID5 - Stores QRadar SIEM data. Choose EXT4 as the file system type.
- FLOWLOGS and DB are located in the Store partition. In a system with five drives, a suggested configuration includes:
  - disk 1 - boot, swap, OS, QRadar SIEM temporary files, and log files
  - remaining disks - RAID 5, mounted as /store

Note: Other QRadar SIEM components do not require the storage partitions mentioned above.

After installation, if you notice that your onboard network interfaces are named anything other than eth0, eth1, eth2, and eth3, you must rename the network interfaces.

Procedure

Step 1 Install the Red Hat Enterprise Linux 6.3 operating system:

a Obtain the Red Hat Enterprise Linux 6.3 operating system DVD ISO and copy the ISO to one of the following portable storage devices:
  - Digital Versatile Disk (DVD)
  - Bootable USB flash-drive
    For instructions on how to create a bootable USB flash-drive, see the Installing QRadar Using a Bootable USB Flash-Drive Technical Note.

b Insert the portable storage device into your appliance.

c Restart your appliance.

d Load the boot menu.

e Choose one of the following options:
  - Select the USB drive or DVD drive as the boot option.
  - To install the Red Hat Enterprise Linux operating system on a system that supports Extensible Firmware Interface (EFI), you must start the system in legacy mode. Select boot from legacy dvd or boot from legacy usb.

f When the login prompt is displayed, log in to the system as the root user.

Step 2 To prevent an issue with ethernet interface address naming, perform the following steps on the Welcome page:

a Press the Tab key.

b Locate the following line:

Vmlinuz initrd=initrd.image
c At the end of the `Vmlinuz initrd=initrd.image` line, add the following text:
   `biosdevname=0`

d To return to the installation wizard, press Enter.

Step 3 Click **Next** to advance to the next page.

Step 4 Select the language that you want to use for the installation process and as the system default. Click **Next**.

Step 5 Select the type of keyboard layout that you want to use. Click **Next**.

Step 6 Select the **Basic Storage Devices** option. Click **Next**.

Step 7 In the **Hostname** field, type a unique name of your server. The host name can include letters, numbers, and hyphens.

Step 8 Click **Configure Network**.
   The Network Connections window is displayed.

Step 9 Select **System eth0**. Click **Edit**.

Step 10 Configure the parameters:
   a Select the **Connect automatically** check box.
   b Click the **IPv4 Settings** tab.
   c From the **Method** list box, select **Manual**.
   d In the Addresses pane, click **Add**, and then add the IP, Netmask, and Gateway addresses for your server.
   e In the **DNS servers** field, type a comma-separated list of DSN servers.
   f Click **Apply**.
   g Click **Close**.

Step 11 Click **Next** to advance to the next page.

Step 12 From the list box, select a time zone. Click **Next**.

Step 13 Configure your root password for your system:
   a In the **Root Password** field, type a root password.
   b In the **Confirm** field, type the root password again.
   c Click **Next** to advance to the next page.

Step 14 Select the **Create Custom Layout** option. Click **Next**.

Step 15 Configure disk partitioning:
   a Configure the mount points for each disk partition.
   b For all other partitions, such as `/`, `/boot`, and `/var/log`, configure the file system type to be EXT4.
   c Reformat the swap partition with a file system type of swap. For important information on partition requirements, see **About this task**.

Step 16 Click **Next**. No changes are required on this page.
Step 17  Click Next.

Step 18  Select the Basic Server option. Click Next.

Step 19  When the installation is complete, click Reboot.

**What to do next**

- Installing a QRadar SIEM Console or managed host
RE-INSTALLATION FROM THE RECOVERY PARTITION

If required, you can re-install IBM Security QRadar SIEM software from the recovery partition. This section applies to new QRadar SIEM 7.2 installations or upgrades from new QRadar SIEM 7.0 installations on QRadar SIEM appliances.

Recovery partition overview

When you install QRadar SIEM, the installer (ISO) is copied into the recovery partition. From this partition, you can re-install QRadar SIEM, which restores QRadar SIEM to factory defaults. Your system is restored back to factory default configuration. Your current configuration and data files are overwritten.

When you reboot your QRadar SIEM appliance, you are presented with the option to re-install the software. If you do not respond to the prompt within 5 seconds, the system continues to boot as normal, thus your configuration and data files are maintained. If you choose the re-install QRadar SIEM option, a warning message is displayed and you must confirm that you want to re-install QRadar SIEM. After confirmation, the installer runs and you can follow the prompts through the installation process.

Note: After a hard disk failure, you may not be able to re-install from the recovery partition, because it may no longer be available. If you experience a hard disk failure, contact Customer Support for assistance.

Any software upgrades you perform after you install QRadar SIEM 7.2 replaces the ISO file with the newer version.

Re-installing QRadar SIEM from the recovery partition

This topic provides the procedure for re-installing QRadar SIEM from the recovery partition.

Before you begin

Before you begin, ensure that the following requirements are met:

- Locate your activation key. The activation key is a 24-digit, four-part, alphanumeric string that you receive from IBM. You can find the activation key:
  - Printed on a sticker and physically placed on your appliance.
  - Included with the packing slip; all appliances are listed along with their associated keys.
The letter I and the number 1 (one) are treated the same, as are the letter O and the number 0 (zero).

If you do not have your activation key, access http://www.ibm.com/support to obtain your activation key. You must supply the serial number of the QRadar SIEM appliance. Software activation keys do not require serial numbers.

- If your deployment includes offboard storage solutions, you must disconnect your offboard storage before you reinstall QRadar SIEM. After you complete the reinstallation, you can remount your external storage solutions. For more information on configuring off-board storage, see the Configuring Offboard Storage Guide.

About this task
When you read the End User License Agreement (EULA), press the Spacebar to advance each window until you reach the end of the document.

The Internet Protocol Version window displays up to a maximum of four interfaces. Each interface with a physical link is denoted with a plus (+) symbol.

When you configure the network settings, you can configure a public IP address for the server. This is a secondary IP address that is used to access the server, usually from a different network or the Internet, and is managed by your network administrator. The Public IP address is often configured using Network Address Translation (NAT) services on your network or firewall settings on your network. NAT translates an IP address in one network to a different IP address in another network.

When you create the root password, the password must meet the following criteria:
- Must contain at least five characters
- No spaces
- Can include the following special characters: @, #, ^, and *.

When you type `flatten` during the procedure, the installer partitions and reformats the hard disk, installs the OS, and then re-installs QRadar SIEM. You must wait for the flatten process to complete. This process can take up to several minutes. When the process is complete, a confirmation is displayed.

Procedure
Step 1 Reboot your QRadar SIEM appliance.
Step 2 Select Factory re-install.
Step 3 Type `flatten` to continue.
Step 4 Type `SETUP`.
Step 5 Log in to QRadar SIEM as the root user.
   - **Username**: root
   - **Password**: <password>
Step 6  Read the information in the End User License Agreement (EULA) window.

Step 7  Type your activation key and press Enter.

Step 8  If you are re-installing a non-Console appliance, go to Step 11.

Step 9  Select the Enterprise tuning template. Select Next and press Enter.

Step 10  Configure your time settings:

a  Choose one of the following options:
   - Manual - Select this option to manually input the time and date. Select Next and press Enter. The Current Date and Time window is displayed. Go to b.
   - Server - Select this option to specify your time server. Select Next and press Enter. The Enter Time Server window is displayed. Go to c.

b  To manually enter the time and date, type the current time and date. Select Next and press Enter. Go to Step 11.

c  To specify a time server, in the Time server field, type the time server name or IP address. Select Next and press Enter. Go to Step 13.

Step 11  On the Time Zone Continent window, select your time zone continent or area. Select Next and press Enter.

Step 12  On the Time Zone Region window, select your time zone region. Select Next and press Enter.

Step 13  Select an internet protocol version. Select Next and press Enter.

Step 14  Select the interface that you want to use as the management interface. Select Next and press Enter.

Step 15  Choose one of the following options:

- If you use IPv4 as your Internet protocol, go to Step 18.
- If you use IPv6 as your Internet protocol, go to Step 16.

Step 16  Choose one of the following options:

a  To automatically configure for IPv6, select Yes and press Enter. The automatic configuration can take an extended period of time. Go to Step 18.

b  To manually configure for IPv6, select No and press Enter. Go to Step 17.

Step 17  Enter network information to use for IPv6:

a  In the Hostname field, type a fully qualified domain name as the system hostname.

b  In the IP Address field, type the IP address of the system.

c  In the Email server field, type the email server. If you do not have an email server, type localhost in this field.

d  Select Next and press Enter. Go to Step 19.

Step 18  Configure the QRadar SIEM network settings:

a  Enter values for the following parameters:
   - Hostname - Type a fully qualified domain name as the system hostname.
Step 19 Configure the QRadar SIEM root password:

a Type your password. Select Next and press Enter
The password must meet the following criteria:
- Must contain at least five characters
- No spaces
- Can include the following special characters: @,#,^, and *.
The Confirm New Root Password window is displayed.

b Retype your new password to confirm. Select Finish and press Enter.

Step 20 Press Enter to select OK.

Result
After you configure the installation parameters, a series of messages are displayed as QRadar SIEM continues with the re-installation. This process typically takes several minutes.

What to do next
See Applying your license key.
A virtual appliance is a QRadar SIEM system that consists of QRadar SIEM software installed on a VMWare ESX 5.0 virtual machine. Use the procedures in this topic to install your virtual appliance.

### Virtual Appliance Overview

A virtual appliance enables the same visibility and functionality in your virtual network infrastructure that QRadar SIEM appliances offer in your physical environment.

After you install your virtual appliances, you can access the deployment editor and add your virtual appliances to your deployment. For more information on how to connect appliances, see the *IBM Security QRadar SIEM Administration Guide*.

The following virtual appliances are available:

- **QRadar SIEM 3190** - The QRadar SIEM 3190 virtual appliance is a QRadar SIEM system that can profile network behavior and identify network security threats. The QRadar SIEM 3190 virtual appliance includes an on-board Event Collector and internal storage for events. The QRadar SIEM 3190 virtual appliance supports:
  - Up to 1,000 network objects
  - 50,000 flows per interval, depending on your license
  - 1,000 Events Per Second (EPS), depending on your license
  - 750 event feeds (additional devices can be added to your licensing)
  - External flow data sources for NetFlow, sFlow, J-Flow, Packeteer, and Flowlog files
  - QRadar QFlow Collector and Layer 7 network activity monitoring
You can also add one or more of the following virtual appliances to expand the capacity of the QRadar SIEM 3190 beyond license-based upgrade options:

- QRadar SIEM 1690
- QRadar SIEM 1790

**QRadar SIEM 1690** - The QRadar SIEM 1690 virtual appliance is a dedicated Event Processor that allows you to scale your QRadar SIEM deployment to manage higher EPS rates. The QRadar SIEM 1690 includes an on-board Event Collector, Event Processor, and internal storage for events. The QRadar SIEM 1690 appliance supports:
  - Up to 1,000 events per second
  - 2 TB or larger dedicated event storage
  - The QRadar SIEM 1690 virtual appliance is a distributed Event Processor appliance and requires a connection to any QRadar SIEM 3105 or 3124 series appliance

**QRadar SIEM 1790** - The QRadar SIEM 1790 virtual appliance is deployed in conjunction with any QRadar SIEM 3105 or 3124 series appliance to increase storage. The QRadar SIEM 1790 virtual appliance includes an on-board Event Processor, and internal storage. The QRadar SIEM 1790 appliance supports:
  - 50,000 flows per interval depending on traffic types
  - 2 TB or larger dedicated flow storage
  - 1,000 network objects
  - You can add QRadar SIEM 1790 appliances to any QRadar SIEM 3105 or 3124 series appliance to increase your deployment's storage and performance.
  - QRadar QFlow Collector and Layer 7 network activity monitoring

**QRadar VFlow Collector** - The QRadar VFlow Collector virtual appliance provides the same visibility and functionality in your virtual network infrastructure that a QRadar QFlow Collector offers in your physical environment. The QRadar VFlow Collector virtual appliance analyzes network behavior and provides Layer 7 visibility within your virtual infrastructure. Network visibility is derived from a direct connection to the virtual switch. The QRadar VFlow Collector virtual appliance supports a maximum of:
  - 10,000 flows per minute
  - Three virtual switches, with one additional switch that is designated as the management interface.

The QRadar VFlow Collector 1290 virtual appliance does not support NetFlow.

**QRadar SIEM 1590** - The QRadar SIEM 1590 virtual appliance is a dedicated event collector, which is required if you want to enable the Store and Forward feature. The Store and Forward feature allows you to manage schedules that control when to start and stop forwarding events from your dedicated Event Collector appliances to Event Processors in your deployment. A dedicated Event Collector does not process events and it does not include an on-board...
Virtual appliance requirements

Before you install your virtual appliance, ensure the following requirements are met:

- Virtual appliances require VMware ESXi 5.0. You must have a VMware client installed on your desktop. VMware server applications are bundled with client software. For example, ESXi 5.0 is bundled with VMware vSphere client 5.0. If your server/client configuration differs, we recommend you upgrade your VMware server and client. For more information, see [http://www.vmware.com](http://www.vmware.com).
- 8 GB of free memory is required by the VMware host for QRadar SIEM 1690, QRadar SIEM 1790, and QRadar SIEM 3190. 12 GB is optimal.
- 256 GB of free disk space is required on all virtual appliance types except QRadar QFlow Collectors.
- QRadar QFlow Collectors require at least 70 GB of free disk space.

Virtual appliance installation procedures

The process to install a virtual appliance includes the following tasks, which must be performed in sequence.

1. **Creating your virtual machine**
2. **Installing the QRadar SIEM ISO on the virtual machine**
3. **Installing QRadar SIEM software on your virtual machine**
4. **Adding your virtual appliance to your deployment**

Creating your virtual machine

To install a virtual appliance, you must first create a virtual machine using VMware vSphere client 5.0.

About this task

When you configure the parameters on the CPU page, you must configure a minimum of two processors. The combination of number of virtual sockets and number of cores per virtual socket determines how many processors are configured on your system.
The following table provides examples of CPU page settings you can use:

<table>
<thead>
<tr>
<th>Number of processors</th>
<th>Sample CPU page settings</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Number of virtual sockets = 1</td>
</tr>
<tr>
<td></td>
<td>Number of cores per virtual socket = 2</td>
</tr>
<tr>
<td>2</td>
<td>Number of virtual sockets = 2</td>
</tr>
<tr>
<td></td>
<td>Number of cores per virtual socket = 1</td>
</tr>
<tr>
<td>4</td>
<td>Number of virtual sockets = 4</td>
</tr>
<tr>
<td></td>
<td>Number of cores per virtual socket = 1</td>
</tr>
<tr>
<td>4</td>
<td>Number of virtual sockets = 2</td>
</tr>
<tr>
<td></td>
<td>Number of cores per virtual socket = 2</td>
</tr>
</tbody>
</table>

Procedure

Step 1 Access your vSphere Client.

Step 2 Select File > New > Virtual Machine.

Step 3 In the Configuration pane of the Create New Virtual Machine window, select the Custom option and click Next.

Step 4 In the Name field, type a unique name for the virtual machine and click Next.

Step 5 In the right pane, select the datastore where you want to store the virtual machine and click Next.

Step 6 In the Virtual Machine Version pane, select the Virtual Machine Version: 7 option and click Next.

Step 7 Select the Operating System (OS) for the QRadar SIEM virtual appliance:
   a In the Guest Operating System pane, select the Linux option.
   b From the Version list box, select Red Hat Enterprise Linux 6 (64-bit) and click Next.

Step 8 On the CPUs page, configure the number of virtual processors that you want for the virtual machine:
   a From the Number of virtual sockets list box, select the number of sockets that you want for the virtual machine and click Next.
   b From the Number of cores per virtual socket list box, select the number of sockets that you want for the virtual machine and click Next.

Step 9 In the Memory Configuration pane, provide a minimum of 8 GB for memory:
   a In the Memory Size field, type or select 8 or higher.
   b In the list box, select GB.

Step 10 Configure your network connections:
From the **How many NICs do you want to connect** list box, select the number of Network Interface Controllers (NICs) that you want to add. You must add at least one NIC.

b For all NICs, select **VMXNET3** from the **Adapter** list box.

c Click **Next**.

**Step 11** In the SCSI controller pane, select **VMware Paravirtual** and click **Next**.

**Step 12** In the Disk pane, select **Create a new virtual disk**.

**Step 13** Configure the virtual disk size and specify a provisioning policy:

a In the Capacity pane, type or select 256 or higher and select **GB** from the list box.

b In the Disk Provisioning pane, select the **Thin provision** check box.

c Click **Next**.

The Advanced Options page is displayed. Do not configure the options on this page.

**Step 14** Click **Next**.

**Step 15** On the Ready to Complete page, review the settings and click **Finish**.

**What to do next**

**Installing the QRadar SIEM ISO on the virtual machine**

**Installing the QRadar SIEM ISO on the virtual machine**

After you create your virtual machine, you must install the QRadar SIEM ISO on the virtual machine.

**Before you begin**

Before you begin, ensure that you created a virtual machine. See **Creating your virtual machine**.

**Procedure**

**Step 1** Obtain the QRadar SIEM software from [http://www.ibm.com/support](http://www.ibm.com/support).

**Step 2** In the left pane of your VMware vSphere Client, select your virtual machine from the menu tree.

**Step 3** In the right pane, click the **Summary** tab.

**Step 4** In the Commands pane, click **Edit Settings**.

**Step 5** In the left pane of the Virtual Machine Properties window, click **CD/DVD Drive 1**.

**Step 6** In the Device Status pane, select the **Connect at power on** check box.

**Step 7** In the Device Type pane, select **Datastore ISO File** and click **Browse**.

is displayed.

**Step 8** On the Browse Datastores window, locate and select the ISO file and click **Open**.

**Step 9** Click **OK**.
What to do next
Installing QRadar SIEM software on your virtual machine.

Installing QRadar SIEM software on your virtual machine

After your virtual machine is configured and QRadar SIEM ISO is installed, power on and continue the QRadar SIEM software installation.

Before you begin
Before you begin, you must have created a virtual machine and installed the QRadar SIEM ISO on the machine. See the following topics:

- Creating your virtual machine
- Installing the QRadar SIEM ISO on the virtual machine

You must also locate your activation key. The activation key is a 24-digit, four-part, alphanumeric string that you receive from IBM. The letter I and the number 1 (one) are treated the same, as are the letter O and the number 0 (zero).

About this task
When you read the End User License Agreement (EULA), press the Spacebar to advance each window until you reach the end of the document.

The Internet Protocol Version window displays up to a maximum of four interfaces. Each interface with a physical link is denoted with a plus (+) symbol.

When you configure the network settings, you can configure a public IP address for the server. This is a secondary IP address that is used to access the server, usually from a different network or the Internet, and is managed by your network administrator. The Public IP address is often configured using Network Address Translation (NAT) services on your network or firewall settings on your network. NAT translates an IP address in one network to a different IP address in another network.

When you create the root password, the password must meet the following criteria:

- Must contain at least five characters
- No spaces
- Can include the following special characters: @,#,^, and *.

Procedure
Step 1 Access your vSphere Client.
Step 2 In the menu tree, right-click your virtual machine and select Power > Power On.
Step 3 Log in to the virtual machine:
Username: root
Note: The username is case sensitive.
Step 4 Press Enter.

Step 1 Read the information in the End User License Agreement (EULA) window.

Step 2 Type yes to accept the agreement, and then press Enter.

Step 3 Type your activation key and press Enter.

Step 4 Select normal for your type of setup. Select Next and press Enter.

Step 5 Specify if you want to install a Console or non-Console system.
   a. Yes - Select this option if this system is a Console.
   b. No - Select this option if this system is not a Console.

Step 6 Select Next and press Enter.

Step 7 If you are installing a non-Console appliance, go to Step 10.

Step 8 Select the Enterprise tuning template. Select Next and press Enter.

Step 9 Configure your time settings:
   a. Choose one of the following options:
      - Manual - Select this option to manually input the time and date. Select Next and press Enter. The Current Date and Time window is displayed. Go to b.
      - Server - Select this option to specify your time server. Select Next and press Enter. The Enter Time Server window is displayed. Go to c.
   b. To manually enter the time and date, type the current time and date. Select Next and press Enter. Go to Step 10.
   c. To specify a time server, in the Time server field, type the time server name or IP address. Select Next and press Enter. Go to Step 10.

Step 10 On the Time Zone Continent window, select your time zone continent or area. Select Next and press Enter.

Step 11 On the Time Zone Region window, select your time zone region. Select Next and press Enter.

Step 12 Select an internet protocol version. Select Next and press Enter.

Step 13 Select the interface that you want to use as the management interface. Select Next and press Enter.

Step 14 Choose one of the following options:
   a. If you use IPv4 as your Internet protocol, go to Step 17.
   b. If you use IPv6 as your Internet protocol, go to Step 15.

Step 15 Choose one of the following options:
   a. To automatically configure for IPv6, select Yes and press Enter. The automatic configuration can take an extended period of time. Go to Step 17.
   b. To manually configure for IPv6, select No and press Enter. Go to Step 16.

Step 16 Enter network information to use for IPv6, type the values for the Hostname and Email server. Select Next and press Enter.
Step 17 Configure the QRadar SIEM network settings:
   a  Enter values for the following parameters:
      • **Hostname** - Type a fully qualified domain name as the system hostname.
      • **IP Address** - Type the IP address of the system.
      • **Network Mask** - Type the network mask address for the system.
      • **Gateway** - Type the default gateway of the system.
      • **Primary DNS** - Type the primary DNS server address.
      • **Secondary DNS** - Optional. Type the secondary DNS server address.
      • **Public IP** - Optional. Type the Public IP address of the server.
      • **Email Server** - Type the email server. If you do not have an email server, type `localhost` in this field.
   b  Select Next and press Enter.

Step 18 Configure the QRadar SIEM root password:
   a  Type your password. Select **Next** and press Enter.
   b  Retype your new password to confirm. Select **Finish** and press Enter.
   c  Press Enter to select **OK**.

**Result**
After you configure the installation parameters, a series of messages are displayed as QRadar SIEM continues with the installation. This process typically takes several minutes.

**What to do next**
**Adding your virtual appliance to your deployment**

After your virtual appliance is installed, you must add the virtual appliance to your deployment using the deployment editor.

**Before you begin**
Before you begin, you must have created a virtual machine, installed the QRadar SIEM ISO on the machine, and installed QRadar SIEM.

See the following topics:
• **Creating your virtual machine**
• **Installing the QRadar SIEM ISO on the virtual machine**
• **Installing QRadar SIEM software on your virtual machine**

**About this task**
The name you assign to the virtual appliance can be up to 20 characters in length and can include underscores or hyphens.
Procedure

**Step 1** Log in to the QRadar SIEM Console.

**Step 2** On the **Admin** tab, click **Deployment Editor**.

**Step 3** In the Event Components pane on the Event View page, select the virtual appliance component that you want to add.

**Step 4** On the first page of the Adding a New Component wizard, type a unique name for the virtual appliance. Click **Next**.

**Step 5** From the **Select a host to assign to** list box, select the managed host that you want to assign the virtual appliance to. Click **Next**.

**Step 6** Click **Finish**.

**Step 7** From the deployment editor menu, select **File > Save to staging**.

**Step 8** On the **Admin** tab menu, click **Deploy Changes**.

**What to do next**

See **Applying your license key**.
Use the `qchange_netsetup` script to change the network settings of your QRadar SIEM system. Configurable network settings include hostname, IP address, network mask, gateway, DNS addresses, public IP address, and email server.

### Changing the network settings in an all-in-one Console

You can change the network settings in your all-in-one system. An all-in-one system has all QRadar SIEM components, including the Admin tab, installed on one system.

**Before you begin**

You must have a local connection to your Console before you start this procedure.

**About this task**

The Internet Protocol Version window displays up to a maximum of four interfaces. Each interface with a physical link is denoted with a plus (+) symbol.

When you configure the network settings, you can configure a public IP address for the server. This is a secondary IP address that is used to access the server, usually from a different network or the Internet, and is managed by your network administrator. The Public IP address is often configured using Network Address Translation (NAT) services on your network or firewall settings on your network. NAT translates an IP address in one network to a different IP address in another network.

**Procedure**

1. **Step 1** Log in to QRadar SIEM as the root user:
   - **Username**: root
   - **Password**: <password>
2. **Step 2** Type the following command:
   ```bash
gchange_netsetup
   ```
3. **Step 3** Select an internet protocol version. Select Next and press Enter.
4. **Step 4** Select the interface that you want to use as the management interface. Select Next and press Enter.
Step 5 Choose one of the following options:
- If you use IPv4 as your Internet protocol, go to Step 8.
- If you use IPv6 as your Internet protocol, go to Step 6.

Step 6 To configure IPv6, choose one of the following options:
  a To automatically configure for IPv6, select Yes and press Enter. The automatic configuration can take an extended period of time. Go to Step 8.
  b To manually configure for IPv6, select No and press Enter. Go to Step 7.

Step 7 Enter network information to use for IPv6:
  a Type the values for the Hostname, IP Address, and Email server.
  b Select Next and press Enter.

Step 8 Configure the QRadar SIEM network settings:
  a Enter values for the following parameters:
    - Hostname - Type a fully qualified domain name as the system hostname.
    - IP Address - Type the IP address of the system.
    - Network Mask - Type the network mask address for the system.
    - Gateway - Type the default gateway of the system.
    - Primary DNS - Type the primary DNS server address.
    - Secondary DNS - Optional. Type the secondary DNS server address.
    - Public IP - Optional. Type the Public IP address of the server.
    - Email Server - Type the name of the email server. If you do not have an email server, type localhost in this field.
  b Select Next and press Enter.

Step 9 Select Finish and press Enter.

Result
A series of messages are displayed as QRadar SIEM processes the requested changes. After the requested changes are processed, the QRadar SIEM system is automatically shutdown and rebooted.

Changing the network settings of a Console in a multi-system deployment
To change the network settings in a multi-system deployment, you must remove all managed hosts from the deployment, change the network settings, re-add the managed hosts, and then re-assign the component or components.

About this task
This procedure requires you to use the deployment editor. For more information on how to use the deployment editor, see the IBM Security QRadar SIEM Administration Guide.
You must perform this procedure in the following order:

1. **Removing managed hosts**
2. **Changing the network settings**
3. **Re-adding and re-assigning managed hosts**

### Removing managed hosts
Before you can change network settings on a Console in a multi-system deployment, you must remove all managed hosts from your deployment.

**Procedure**

**Step 1**
Log in to QRadar SIEM:

```
https://<IP Address>
```

Where `<IP Address>` is the IP address of the QRadar SIEM system.

**Username:** admin

**Password:** `<admin password>`

**Step 2**
Click the **Admin** tab.

**Step 3**
Click the **Deployment Editor** icon.

**Step 4**
On the deployment editor window, click the **System View** tab.

**Step 5**
For each managed host in your deployment, right-click the managed host and select **Remove host**.

**Step 6**
Click **Save**.

**Step 7**
Close the deployment editor.

**Step 8**
On the **Admin** tab, click **Deploy Changes**.

### What to do next

### Changing the network settings

After you remove all managed hosts from your Console, you can change the network settings on the Console.

**Before you begin**

Before you can change network settings on Console in a multi-system deployment, you must remove all managed hosts from your Console. See **Removing managed hosts**.

**About this task**

The Internet Protocol Version window displays up to a maximum of four interfaces. Each interface with a physical link is denoted with a plus (+) symbol.

When you configure the network settings, you can configure a public IP address for the server. This is a secondary IP address that is used to access the server, usually from a different network or the Internet, and is managed by your network...
administrator. The Public IP address is often configured using Network Address Translation (NAT) services on your network or firewall settings on your network. NAT translates an IP address in one network to a different IP address in another network.

**Procedure**

**Step 1** Using SSH, log in to QRadar SIEM as the root user.
Username: root
Password: <password>

**Step 2** Type the following command:
```
qchange_netsetup
```

**Step 3** Select an internet protocol version. Select **Next** and press Enter.

**Step 4** Select the interface that you want to use as the management interface. Select **Next** and press Enter.

**Step 5** Choose one of the following options:
- If you use IPv4 as your Internet protocol, go to **Step 8**.
- If you use IPv6 as your Internet protocol, go to **Step 6**.

**Step 6** To configure IPv6, choose one of the following options:
- To automatically configure for IPv6, select **Yes** and press Enter. The automatic configuration can take an extended period of time. Go to **Step 8**.
- To manually configure for IPv6, select **No** and press Enter. Go to **Step 7**.

**Step 7** Enter network information to use for IPv6:
- Type the values for the **Hostname**, **IP Address**, and **Email server**.
- Select **Next** and press Enter.

**Step 8** Configure the QRadar SIEM network settings:
- Enter values for the following parameters:
  - **Hostname** - Type a fully qualified domain name as the system hostname.
  - **IP Address** - Type the IP address of the system.
  - **Network Mask** - Type the network mask address for the system.
  - **Gateway** - Type the default gateway of the system.
  - **Primary DNS** - Type the primary DNS server address.
  - **Secondary DNS** - Optional. Type the secondary DNS server address.
  - **Public IP** - Optional. Type the Public IP address of the server.
  - **Email Server** - Type the name of the email server. If you do not have an email server, type *localhost* in this field.
- Select **Next** and press Enter.

**Step 9** Select **Finish** and press Enter.
Changing the network settings of a Console in a multi-system deployment

Result
A series of messages are displayed as QRadar SIEM processes the requested changes. After the requested changes are processed, the QRadar SIEM system is automatically shutdown and rebooted.

What to do next
Re-adding and re-assigning managed hosts

About this task
When you create the password for each managed host, the password must meet the following criteria:
• Must contain at least five characters
• No spaces
• Can include the following special characters: @, #, ^, and *.

Procedure
Step 1 Log in to QRadar SIEM:
https://<IP Address>
Where <IP Address> is the IP address of the QRadar SIEM system.
Username: admin
Password: <admin password>
Step 2 Click the Admin tab.
Step 3 Click the Deployment Edit icon.
The deployment editor is displayed.
Step 4 Click the System View tab.
Step 5 From the menu, select Actions > Add a managed host.
Step 6 On the Add a new host wizard, click Next.
Step 7 On the Enter the host’s IP window, enter values for the parameters:
• Enter the IP of the server or appliance to add - Type the IP address of the host that you want to add to your System View.
• Enter the root password of the host - Type the root password for the host.
• Confirm the root password of the host - Type the password again, for confirmation.
• Host is NATed - Optional. Select this option to enable encryption.
Step 8 Click Next.
Step 9 Click Finish.
**Step 10** Re-assign all components to your non-Console managed host.

   a. In the QRadar SIEM deployment editor, click the **Event View** tab.
   b. Select the component that you want to re-assign to the managed host.
   c. From the menu, select **Actions > Assign**
   d. From the **Select a host** list box, select the host that you want to re-assign to this component. Click **Next**.
   e. Click **Finish**.

**Step 11** Repeat for each non-Console managed host until all hosts are re-added and re-assigned.

**Step 12** Close the deployment editor.

**Step 13** Click **Deploy Changes**.

---

### Changing the network settings of a managed host in a multi-system deployment

To change the network settings of a managed host in a multi-system deployment, you must remove the managed host that you want to change from the deployment, change the network settings, re-add the managed host, and then re-assign the original components.

**About this task**

This procedure requires you to use the deployment editor. For more information on how to use the deployment editor, see the *IBM Security QRadar SIEM Administration Guide*.

You must perform this procedure in the following order:

1. **Removing the managed host from your deployment**
2. **Changing the network settings of a managed host**
3. **Re-adding and re-assigning the managed host**

### Removing the managed host from your deployment

Before you can change network settings on a managed host in a multi-system deployment, you must remove the managed host from your deployment.

**Procedure**

**Step 1** Log in to QRadar SIEM:

```
https://<IP Address>
```

Where `<IP Address>` is the IP address of the QRadar SIEM system.

Username: `admin`

Password: `<admin password>`

**Step 2** Click the **Admin** tab.

**Step 3** Click the **Deployment Editor** icon.

**Step 4** Click the **System View** tab.
Step 5  Right-click the managed host that you want to delete to access the menu, select Remove host.

Step 6  Close the deployment editor.

Step 7  Click Deploy Changes.

What to do next

Changing the network settings of a managed host

After you remove the managed host from your Console, you can change the network settings on the managed host.

Before you begin

Before you can change network settings on managed host in a multi-system deployment, you must remove the managed host from your Console. See Removing the managed host from your deployment.

About this task

The Internet Protocol Version window displays up to a maximum of four interfaces. Each interface with a physical link is denoted with a plus (+) symbol.

When you configure the network settings, you can configure a public IP address for the server. This is a secondary IP address that is used to access the server, usually from a different network or the Internet, and is managed by your network administrator. The Public IP address is often configured using Network Address Translation (NAT) services on your network or firewall settings on your network. NAT translates an IP address in one network to a different IP address in another network.

Procedure

Step 1  Using SSH, log in to Console as the root user:

Username: root
Password: <password>

Step 2  Type the following command:

```
qchange_netsetup
```

Step 3  Select an internet protocol version. Select Next and press Enter.

The window displays up to a maximum of four interfaces. Each interface with a physical link is denoted with a plus (+) symbol.

Step 4  Select the interface that you want to use as the management interface. Select Next and press Enter.

Step 5  Choose one of the following options:

- If you use IPv4 as your Internet protocol, go to Step 8.
- If you use IPv6 as your Internet protocol, go to Step 6.
Step 6 To configure IPv6, choose one of the following options:
   a To automatically configure for IPv6, select Yes and press Enter. The automatic configuration can take an extended period of time. Go to Step 8.
   b To manually configure for IPv6, select No and press Enter. Go to Step 7.

Step 7 Enter network information to use for IPv6:
   a Type the values for the Hostname, IP Address, and Email server.
   b Select Next and press Enter.

Step 8 Configure the QRadar SIEM network settings:
   a Enter values for the following parameters:
      • Hostname - Type a fully qualified domain name as the system hostname.
      • IP Address - Type the IP address of the system.
      • Network Mask - Type the network mask address for the system.
      • Gateway - Type the default gateway of the system.
      • Primary DNS - Type the primary DNS server address.
      • Secondary DNS - Optional. Type the secondary DNS server address.
      • Public IP - Optional. Type the Public IP address of the server.
      • Email Server - Type the name of the email server. If you do not have an email server, type localhost in this field.
   b Select Next and press Enter.

Step 9 Select Finish and press Enter.

Result
A series of messages are displayed as QRadar SIEM processes the requested changes. After the requested changes are processed, the QRadar SIEM system is automatically shutdown and rebooted.

What to do next
Re-adding and re-assigning the managed host

After you remove the managed host from your Console and change the network settings, you must re-add and re-assign the managed host.

About this task
When you create the root password for each managed host, the password must meet the following criteria:
- Must contain at least five characters
- No spaces
- Can include the following special characters: @,#,^, and *.
Procedure

Step 1  Log in to QRadar SIEM:

https://<IP Address>

Where <IP Address> is the IP address of the QRadar SIEM system.
Username: admin
Password: <admin password>

Step 2  Click the Admin tab.

Step 3  Click the Deployment Editor icon.

Step 4  Click the System View tab.

Step 5  From the menu, select Actions > Add a managed host.

Step 6  Click Next.

Step 7  Enter values for the parameters:

• Enter the IP of the server or appliance to add - Type the IP address of the host that you want to add to your System View.

• Enter the root password of the host - Type the root password for the host.

• Confirm the root password of the host - Type the password again, for confirmation.

• Host is NATed - Select this option if you want to specify NAT values if necessary.

• Enable Encryption - Select this option if you want to enable encryption.

Step 8  Click Next.

Step 9  Click Finish.

Step 10  Re-assign all components to your non-Console managed host.

a  In the QRadar SIEM deployment editor, click the Event View tab.

b  Select the component that you want to re-assign to the managed host.

c  From the menu, select Actions > Assign.

d  From the Select a host list box, select the host that you want to re-assign to this component. Click Next.

e  Click Finish.

Step 11  Close the deployment editor.

Step 12  On the Admin tab, click Deploy Changes.
### Updating network settings after a NIC Replacement

If you perform a replacement of your integrated motherboard or stand-alone NICs, you must update your QRadar SIEM network settings to ensure your hardware remains operational.

#### About this task

This task involves the network settings file. The file displays one pair of lines for each NIC that has been installed and one pair of lines for each NIC that has been removed. You must remove the lines for the NIC that you removed and then rename the NIC that you installed.

Your network settings file may resemble the following example:

```
# PCI device 0x14e4:0x163b (bnx2)
SUBSYSTEM=="net", ACTION=="add", DRIVERS=="?*",
ATTR{address}=="78:2a:cb:23:1a:2f", ATTR{type}=="1",
KERNEL=="eth*", NAME="eth0"

# PCI device 0x14e4:0x163b (bnx2)
SUBSYSTEM=="net", ACTION=="add", DRIVERS=="?*",
ATTR{address}=="78:2a:cb:23:1a:2f", ATTR{type}=="1",
KERNEL=="eth*", NAME="eth0"

# PCI device 0x14e4:0x163b (bnx2)
SUBSYSTEM=="net", ACTION=="add", DRIVERS=="?*",
ATTR{address}=="78:2a:cb:23:1a:2f", ATTR{type}=="1",
KERNEL=="eth*", NAME="eth4"

# PCI device 0x14e4:0x163b (bnx2)
SUBSYSTEM=="net", ACTION=="add", DRIVERS=="?*",
ATTR{address}=="78:2a:cb:23:1a:2f", ATTR{type}=="1",
KERNEL=="eth*", NAME="eth4"
```

Where `NAME="eth0"` is the NIC that was replaced and `NAME="eth4"` is the NIC that was installed.

#### Procedure

**Step 1** Using SSH, log in to QRadar SIEM as the root user:

Username: `root`

Password: `<password>`

**Step 2** Type the following command:

```
cd /etc/udev/rules.d/
```

**Step 3** To edit the network settings file, type the following command:

```
vi 70-persistent-net.rules
```

**Step 4** Remove the pair of lines for the NIC which has been replaced; `NAME="eth0"`. 
Step 5 Rename the Name=<eth> values for the newly installed NIC. For example, 
NAME="eth4" should be renamed to NAME="eth0".

Step 6 Save and close the file.

Step 7 Type the following command:

reboot
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What’s in this appendix:

• Notices
• Trademarks

This section describes some important notices, trademarks, and compliance information.

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