VSX-1

NGX R67

Getting Started Guide

Models: U-40, P-20, P-30

6 June 2010
Health and Safety Information

Read the following warnings before setting up or using the appliance.

**Warning** - Do not block air vents. A minimum 1/2-inch clearance is required.

**Warning** - This appliance does not contain any user-serviceable parts. Do not remove any covers or attempt to gain access to the inside of the product. Opening the device or modifying it in any way has the risk of personal injury and will void your warranty. The following instructions are for trained service personnel only.

To prevent damage to any system board, it is important to handle it with care. The following measures are generally sufficient to protect your equipment from static electricity discharge:

- When handling the board, to use a grounded wrist strap designed for static discharge elimination.
- Touch a grounded metal object before removing the board from the antistatic bag.
- Handle the board by its edges only. Do not touch its components, peripheral chips, memory modules or gold contacts.
- When handling processor chips or memory modules, avoid touching their pins or gold edge fingers.
- Restore the communications appliance system board and peripherals back into the antistatic bag when they are not in use or not installed in the chassis. Some circuitry on the system board can continue operating even though the power is switched off.
- Under no circumstances should the lithium battery cell used to power the real-time clock be allowed to short. The battery cell may heat up under these conditions and present a burn hazard.

**Warning** - DANGER OF EXPLOSION IF BATTERY IS INCORRECTLY REPLACED. REPLACE ONLY WITH SAME OR EQUIVALENT TYPE RECOMMENDED BY THE MANUFACTURER. DISCARD USED BATTERIES ACCORDING TO THE MANUFACTURER’S INSTRUCTIONS.

- Disconnect the system board power supply from its power source before you connect or disconnect cables or install or remove any system board components. Failure to do this can result in personnel injury or equipment damage.
- Avoid short-circuiting the lithium battery; this can cause it to superheat and cause burns if touched.
- Do not operate the processor without a thermal solution. Damage to the processor can occur in seconds.

**For California:**

**Perchlorate Material** - special handling may apply. See http://www.dtsc.ca.gov/hazardouswaste/perchlorate

The foregoing notice is provided in accordance with California Code of Regulations Title 22, Division 4.5, Chapter 33. Best Management Practices for Perchlorate Materials. This product, part, or both may include a lithium manganese dioxide battery which contains a perchlorate substance.

**Proposition 65 Chemical**

Chemicals identified by the State of California, pursuant to the requirements of the California Safe Drinking Water and Toxic Enforcement Act of 1986, California Health & Safety Code s. 25249.5, et seq. (“Proposition 65”), that is “known to the State to cause cancer or reproductive toxicity” (see http://www.calepa.ca.gov)

**WARNING:**

Handling the cord on this product will expose you to lead, a chemical known to the State of California to cause cancer, and birth defects or other reproductive harm. Wash hands after handling.
Welcome

Health and Safety Information

Page 4

Federal Communications Commission (FCC) Statement:

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Information to user:

The user's manual or instruction manual for an intentional or unintentional radiator shall caution the user that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. In cases where the manual is provided only in a form other than paper, such as on a computer disk or over the Internet, the information required by this section may be included in the manual in that alternative form, provided the user can reasonably be expected to have the capability to access information in that form.

Canadian Department Compliance Statement:

This Class A digital apparatus complies with Canadian ICES-003. Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

Japan Class A Compliance Statement:

European Union (EU) Electromagnetic Compatibility Directive


This product is in conformity with Low Voltage Directive 2006/95/EC, and complies with the requirements in the Council Directive 2006/95/EC relating to electrical equipment designed for use within certain voltage limits and the Amendment Directive 93/68/EEC.

Product Disposal

This symbol on the product or on its packaging indicates that this product must not be disposed of with your other household waste. Instead, it is your responsibility to dispose of your waste equipment by handing it over to a designated collection point for the recycling of waste electrical and electronic equipment. The separate collection and recycling of your waste equipment at the time of disposal will help to conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment. For more information about where you can drop off your waste equipment for recycling, please contact your local city office or your household waste disposal service.
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Chapter 1

Introduction

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Welcome

Thank you for choosing Check Point's VSX-1. We hope that you will be satisfied with this solution and our support services. Check Point products provide your business with the most up to date and secure solutions available today.

Check Point also delivers worldwide technical services including educational, professional and support services through a network of Authorized Training Centers, Certified Support Partners and Check Point technical support personnel to ensure that you get the most out of your security investment.

For additional information on the Internet Security Product Suite and other security solutions, refer to the Check Point Web site (http://www.checkpoint.com), or call Check Point at 1(800) 429-4391. For additional technical information about Check Point products, consult the Check Point Support Center (http://supportcenter.checkpoint.com).

Welcome to the Check Point family. We look forward to meeting all of your current and future network, application and management security needs.

VSX-1 Overview

The VSX-1 (Virtual System eXtension) appliance is a security and VPN solution, designed to meet the demands of large-scale environments. Based on the proven security of VPN-1, VSX provides comprehensive protection for multiple networks or VLANs within complex infrastructures. It securely connects them to shared resources such as the Internet and DMZs, and allows them to safely interact with each other. VSX is supported by SmartDefense™ Services, which provide up-to-date preemptive security.

VSX incorporates the same patented Stateful Inspection and Application Intelligence technologies used in the Check Point VPN-1 product line. It runs on high speed platforms (known as VSX gateways) to deliver superior performance in high-bandwidth environments. Administrators manage VSX via a SmartCenter server or a Provider-1 Multi-Domain Server (MDS), delivering a unified management architecture that supports enterprises and service providers.

A VSX gateway contains a complete set of virtual devices that function as physical network components, such as VPN-1 gateways (firewalls), routers, switches, interfaces, and even network cables. Centrally managed, and incorporating key network resources internally, VSX allows businesses to deploy comprehensive firewall and VPN functionality, while reducing hardware investment and improving efficiency.

Key Features:

- Combines Virtual Firewall, VPN, and IPS
- Consolidates Security Gateways Onto a Single Hardware Platform
- Includes Virtualized Networking Components- Virtual routers, Virtual switches & Virtual cabling
- Wire-Speed Security for Gigabit Networks
This document provides:

- A brief overview of essential VSX-1 concepts and features
- A step by step guide to getting VSX-1 up and running

Note - Screen shots in this guide may apply only to the highest model to which this guide applies.

### Shipping Carton Contents

This section describes the contents of the shipping carton.

#### Table 1-1 Contents of the Shipping Carton for the VSX-1 9070 and 11000 Series

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appliance</td>
<td>A single VSX-1 appliance</td>
</tr>
<tr>
<td>Rack Mounting Accessories</td>
<td>Hardware mounting kit</td>
</tr>
<tr>
<td>Cables</td>
<td>• 2 Power cables&lt;br&gt;• 1 Standard RJ-45 network cable&lt;br&gt;• 1 Serial console cable&lt;br&gt;• 1 RJ-45 loopback plug</td>
</tr>
<tr>
<td>CDs</td>
<td>Includes the following:&lt;br&gt;• CD1: VSX-1 Recovery CD&lt;br&gt;• CD2: VSX-1 Getting Started Guide; VSX NGX R67 Documentation</td>
</tr>
<tr>
<td>Certification, Regulations and Documentation</td>
<td>Certification data sheet and user license agreement.</td>
</tr>
</tbody>
</table>

#### Table 1-2 Contents of the Shipping Carton for the VSX-1 3070

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
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</tr>
<tr>
<td>Certifications, Regulations and Documentation</td>
<td>Certification data sheet and user license agreement.</td>
</tr>
</tbody>
</table>
Chapter 2

Configuring VSX-1

The workflow for configuring VSX is:

1. Mount the VSX-1 in the rack.
2. Connect the cables and power on.
3. Perform the initial configuration.
4. Configure VSX in SmartDashboard and install a policy.

Note - Security Management Server is not installed locally on VSX-1. VSX-1 appliances must be managed by a Security Management Server or Provider-1 Multi Domain Server as described in the VSX NGX R67 Administration Guide (http://supportcontent.checkpoint.com/documentation_download?ID=10165).

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Mount VSX-1 in a Rack

Mount the system in the rack with the network ports facing the front of the rack.
Connect the Cables and Power On

1. Connect the power cables.

Installing VSX-1 9070 and 11000 Series

Installing VSX-1 3070

Mounting Brackets
2. On the back panel, press the **Power** button to start the appliance.

   **Note** - When a power supply fails or is not connected to the outlet, an alarm sounds continuously. If you hear the alarm, replace the faulty power supply immediately, and connect the new unit to an A/C outlet ("Removing the Power Supply" on page 23).

3. Wait for the appliance to initialize and boot. The status of the appliance appears on the LCD screen:

   ![Initializing Please wait...](image)

   ![Check Point VSX-1 9070](image)

   The appliance is ready for use when the model number is displayed.

### Initial Configuration

#### Logging in for the First Time

To log in to the VSX-1 appliance for the first time:

1. Connect to the appliance’s Serial console using the cord received in your shipping carton: RJ45/D subminiature cable.
   
   The Serial console settings should be as follows:
   - Speed: 9600
   - Data bits: 8
   - Parity: None
   - Stop bit: 1

2. Log in for the first time using **admin** as the default username and password. Follow the on-screen instructions to change the password. You may also change the administrator username.

3. Run **expert** to enter the high privilege command line access. Log in to expert mode using the password that you set for the admin user.

4. Follow the on-screen instructions to change the expert mode password.

5. Run **sysconfig** to begin the configuration

   A welcome screen opens.

   Welcome to Check Point SecurePlatform Pro VSX NGX R67

   This wizard will guide you through the initial configuration of your SecurePlatform device.

   At any time you can choose Quit [q] to exit this Wizard. Choose Next (n) to continue.

   Press "q" for Quit, "n" for Next

   Your choice:
6. Type n to continue the network configuration process.

Network Configuration

--------------------------------------------------------------------------------------------------------------------------
1) Host Name   3) Domain Name Servers   5) Routing
2) Domain Name   4) Network Connections
--------------------------------------------------------------------------------------------------------------------------
Press "q" for Quit, "p" for Previous, "n" for Next
--------------------------------------------------------------------------------------------------------------------------
Your choice:

7. Follow the on-screen instructions to set the Host Name, Domain Name, and Domain Name Servers.
8. Enter n to continue with the management interface and routing configuration.

Configuring the Management Interface

To change the configuration of the Management interface:
1. In the Network Configuration screen, enter 4 to open the Network Connections screen.

Choose a network connections configuration item (‘e’ to exit):

--------------------------------------------------------------------------------------------------------------------------
1) Add new connection   4) Select management connection
2) Configure connection   5) Show connection configuration
3) Remove connection
--------------------------------------------------------------------------------------------------------------------------
Your choice:

2. Enter 2 to select Configure connection.

Choose a connection to configure (‘e’ to exit):

--------------------------------------------------------------------------------------------------------------------------
1) Exp1-1   4) Exp1-4   7) Lan2   10) Lan6   13) Mgmt
2) Exp1-2   5) Lan1   8) Lan4   11) Lan7   14) Sync
3) Exp1-3   6) Lan2   9) Lan5   12) Lan3
--------------------------------------------------------------------------------------------------------------------------
Your choice:

This screen may differ slightly for different models.

3. Enter the number corresponding to Mgmt interface (Internal interface on VSX-1 3070). This number may change according to your hardware configuration but is 13 in the example above.

The Choose Mgmt/Internal item to configure screen opens.

Choose Mgmt item to configure (‘e’ to exit):

--------------------------------------------------------------------------------------------------------------------------
1) Change IP settings   3) Remove IP from interface
2) Change MTU settings   4) Change from static to dynamic IP
--------------------------------------------------------------------------------------------------------------------------
Your choice:

4. Enter 1 to Change IP settings and then enter an IP address, network mask, and broadcast address for the Management interface.

5. Enter e twice to return to the Network Configuration menu.

6. Enter 5 to select Routing.

7. Enter 1 to select Set Default Gateway and enter the default gateway according to your network configuration.

8. Enter e twice to return to the Network Configuration menu.

After you configure the management interface and routing settings, enter n to continue to the time and date configuration menu.

Setting Network and Time/Date Properties

To set the system time and date:
1. In the Time and Date Configuration screen, set the time zone, date, and local time according to the on-screen instructions.

Enter n to continue.
2. Enter \( n \) again to proceed to the Check Point Configuration Program.
3. Read and enter \( y \) to accept the license agreement.
Continue with the clustering options.

## Selecting Cluster Options

Now you can configure the VSX-1 to support clusters of virtual systems. You can change these cluster options again at any time.

**To enable VSX clustering features:**

1. The question, "Would you like to install a Check Point clustering product?" appears.
   - If you want to enable VSX clustering, enter \( y \).
   - If you do not want to install cluster functionality, enter \( n \) and complete the first time configuration.
2. You are asked if you want to enable the **Per Virtual System State**. This feature is required for the **Virtual System Load Sharing (VSLS)** and **Per Virtual System High Availability** features.
   - Enter \( y \) when prompted if you want to enable this feature.
   - If you do not intend to use these features, enter \( n \). If you respond with \( n \), a prompt appears, offering an option to enable the **Active/Standby Bridge Mode**. Enter \( y \) to enable this feature or \( n \) to disable.

## Completing the Configuration

**To perform the final configuration steps and reboot the appliance:**

1. You may add a license. In most cases, you will add licenses later using the GUI client.
2. Enter and confirm a SIC activation key. You must provide this key in order to establish SIC trust between the gateway and the management server.
3. You may enable ClusterXL for **Active/Standby Bridge Mode**.
4. Enter \( y \) to reboot the appliance.

To use VSX, you must configure and install a security policy according to the **VSX NGX R67 Administration Guide** (http://supportcontent.checkpoint.com/documentation_download?ID=10165).

## VSX-1 Appliance Recovery

VSX comes preloaded on your VSX-1 appliance. If, for any reason, you need to reinstall VSX on the appliance, follow this procedure.

**To reinstall VSX software on the appliance:**

1. Connect to the appliance console using the designated cord received in your shipping carton (RJ45/D-subminiature cable) and connect to the console using Terminal Emulation software, such as HyperTerminal.
2. Load the Installation CD that you received in your shipping carton into a portable USB CD-ROM/DVD-ROM drive.
3. Connect the portable CD-ROM/DVD-ROM drive to the appliance's USB socket.
5. Once the appliance boots from the CDROM/DVD drive, press **Enter** to start the installation.
6. The installation automatically installs all required components and the progress of each stage is shown.
7. When you see the message, "You may safely reboot your system," reboot the appliance manually using the master power button. Turn the appliance off and disconnect the USB CD-ROM/DVD-ROM. After several seconds, press the master power button to turn on the appliance again.

**To install the existing security policy and configuration on the recovered gateway or cluster members:**

1. From the command line of the SmartCenter server or MDS run: `vsx_util reconfigure`
2. Enter the following information when prompted:
   - a) IP address of the SmartCenter server or CMA that holds the VSX object
b) Administrator username and password

c) Gateway or Cluster member object name

d) SIC activation key for the recovered gateway or cluster member

3. Reboot the reconfigured gateway or Cluster member.

The VSX-1 appliance now contains the security policy and is part of the network configuration. For more information about the vsx_util reconfigure command, see the VSX NGX R67 Administration Guide (http://supportcontent.checkpoint.com/documentation_download?ID=10165).
Chapter 3

VSX-1 Hardware

This chapter provides instructions for installing and removing hardware components on the VSX-1 appliance.

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Overview

This section discusses the hardware components comprising the VSX-1 appliance.
Front Panel Components

This section describes the features and components located on the appliance front panel.

**VSX-1 11000 Series Front Panel**

<table>
<thead>
<tr>
<th>Key</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>LCD display screen</td>
</tr>
<tr>
<td>2</td>
<td>Management connection port - Ethernet connection to a remote management workstation</td>
</tr>
<tr>
<td>3</td>
<td>Synchronization port - for synchronizing with cluster members or a high availability peer</td>
</tr>
<tr>
<td>4</td>
<td>Console port - for a serial connection to the appliance using a terminal emulation program such as HyperTerminal</td>
</tr>
<tr>
<td>5</td>
<td>Keypad</td>
</tr>
<tr>
<td>6</td>
<td>Power indicator LED</td>
</tr>
<tr>
<td>7</td>
<td>USB ports</td>
</tr>
<tr>
<td>8</td>
<td>Future expansion slot</td>
</tr>
<tr>
<td>9</td>
<td>Expansion line card exp1 (2 or 4 ports)</td>
</tr>
<tr>
<td>10</td>
<td>Built in Ethernet ports (Lan1 - Lan8)</td>
</tr>
<tr>
<td>11</td>
<td>Expansion line card exp2 (2 or 4 ports)</td>
</tr>
<tr>
<td>12</td>
<td>Hard disk drive</td>
</tr>
</tbody>
</table>
**VSX-1 9000 Series Front Panel**

![VSX-1 9000 Series Front Panel Diagram]

**Table 3-3  VSX-1 9000 Series Front Panel**

<table>
<thead>
<tr>
<th>Key</th>
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<tbody>
<tr>
<td>1</td>
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</tr>
<tr>
<td>4</td>
<td>Console port - for a serial connection to the appliance using a terminal emulation program such as HyperTerminal</td>
</tr>
<tr>
<td>5</td>
<td>USB ports</td>
</tr>
<tr>
<td>6</td>
<td>Screen operation keys</td>
</tr>
<tr>
<td>7</td>
<td>Power indicator LED</td>
</tr>
<tr>
<td>8</td>
<td>Future expansion slot</td>
</tr>
<tr>
<td>9</td>
<td>Expansion line card exp1 (2 or 4 ports)</td>
</tr>
<tr>
<td>10</td>
<td>Built in Ethernet ports (Lan1 - Lan8)</td>
</tr>
<tr>
<td>11</td>
<td>Expansion line card exp2 (2 or 4 ports)</td>
</tr>
<tr>
<td>12</td>
<td>Hard disk drive</td>
</tr>
</tbody>
</table>

**VSX-1 3070 Front Panel**

![VSX-1 3070 Front Panel Diagram]
Table 3-4 VSX-1 3070 Front Panel

<table>
<thead>
<tr>
<th>Key</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>LCD display screen</td>
</tr>
<tr>
<td>2</td>
<td>Screen operation keys</td>
</tr>
<tr>
<td>3</td>
<td>Power indicator LED</td>
</tr>
<tr>
<td>4</td>
<td>USB ports</td>
</tr>
<tr>
<td>5</td>
<td>Console port - for a serial connection to the appliance using a terminal emulation program such as HyperTerminal</td>
</tr>
<tr>
<td>6</td>
<td>Internal connection port - Ethernet connection to a remote management workstation</td>
</tr>
<tr>
<td>7</td>
<td>External connection port - Ethernet connection to connect outside the organization</td>
</tr>
<tr>
<td>8</td>
<td>DMZ connection port - Ethernet connection to the DMZ</td>
</tr>
<tr>
<td>9</td>
<td>Sync/Lan1 port - for synchronizing with cluster members in high availability mode, or Lan1 interface in Gateway mode</td>
</tr>
<tr>
<td>10</td>
<td>Built in Ethernet ports (Lan2 - Lan7)</td>
</tr>
</tbody>
</table>

**LCD Display Screen**

After the appliance has booted up, the LCD panel located on the front of the appliance displays the model of the unit, for example:

![LCD Display Screen](image)

**Managing VSX-1 11000 Series Using the LCD Panel**

The appliance has an LCD panel that can be used to perform basic management operations. The management IP address, netmask, and default gateway of the appliance can be configured. The appliance can also be rebooted.

**Menu Options**

<table>
<thead>
<tr>
<th>Menu</th>
<th>Sub-menu</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Network</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Set Mgmt IP</td>
<td>Set the management interface IP address</td>
</tr>
<tr>
<td></td>
<td>Set Netmask</td>
<td>Set the management interface network mask</td>
</tr>
<tr>
<td></td>
<td>Set Default GW</td>
<td>Set the management interface default gateway</td>
</tr>
<tr>
<td>System</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Menu</td>
<td>Sub-menu</td>
<td>Purpose</td>
</tr>
<tr>
<td>-----------</td>
<td>---------------------------------</td>
<td>----------------------------------------------</td>
</tr>
<tr>
<td>Reboot</td>
<td></td>
<td>Reboot the appliance</td>
</tr>
</tbody>
</table>

### LCD Panel Keys

<table>
<thead>
<tr>
<th>To</th>
<th>Press</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enter the main menu</td>
<td>Enter</td>
</tr>
<tr>
<td>Navigate the menu</td>
<td>🔼 or 🔽</td>
</tr>
<tr>
<td>Select a menu option</td>
<td>Enter</td>
</tr>
<tr>
<td>Go back to previous menu</td>
<td>ESC</td>
</tr>
</tbody>
</table>

### When Entering an IP Address

<table>
<thead>
<tr>
<th>To</th>
<th>Press</th>
</tr>
</thead>
<tbody>
<tr>
<td>Move to the next digit</td>
<td>Enter</td>
</tr>
<tr>
<td>Move back to the previous digit</td>
<td>ESC</td>
</tr>
<tr>
<td>Approve the change</td>
<td>Enter when the cursor is located on the last digit</td>
</tr>
<tr>
<td>Cancel the IP change</td>
<td>ESC   when the cursor is located on the first digit</td>
</tr>
<tr>
<td>Change current digit</td>
<td>🔼 or 🔽</td>
</tr>
</tbody>
</table>

### Managing 9000 Series and 3070 VSX-1 Using the LCD Panel

The arrow keys scroll the display up and down. Use the **ENTER** button to make selections. The **ESC** button will be used in future releases.

All of the buttons on the LCD display are only functional while the count down to the booting process is displayed.
Expansion Line Cards

The VSX-1 9000 and 11000 series appliances contain two expansion slots that accommodate cold-swappable network line cards.

According to type, each expansion line card contains two or four ports. The following types of expansion line card are currently available:

**Table 3-5 Expansion Cards Available for VSX-1 9000 and 11000 Series**

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPPWR-ACC-4-1C</td>
<td>1000BaseT line card</td>
</tr>
<tr>
<td>CPPWR-ACC-4-1SRF</td>
<td>1GbE Multi-mode SR fiber optic line card</td>
</tr>
<tr>
<td>CPPWR-ACC-4-1LRF</td>
<td>1GbE Single-mode LR fiber optic line card</td>
</tr>
<tr>
<td>CPPWR-ACC-2-10SRF</td>
<td>10GbE Multi-mode SR fiber optic line card</td>
</tr>
<tr>
<td>CPPWR-ACC-2-10LRF</td>
<td>10GbE Single-mode LR fiber optic line card</td>
</tr>
</tbody>
</table>

Hard Disk Drives

The VSX-1 9000 and 11000 series appliances contain two redundant hot-swappable hard disk drives (RAID1).

RAID1 Mirroring

The VSX-1 9000 and 11000 series appliances perform RAID1 mirroring across two hard disk drives using a dedicated RAID controller. Mirror rebuild is automatic.

VSX-1 3070 contains one hard disk drive that is not replaceable.

Rear Panel Components

This section describes components located on the rear panel of the appliance.
**Main Power Switch**

The main power switch controls power to the entire unit.

**Redundant Power Supply Units**

The VSX-1 9070 and 11000 series appliances contain two hot-swappable power supply units that provide built-in power redundancy. Each power supply connects to an electric outlet.

**Cooling Fans**

The VSX-1 9070 and 11000 series appliances contain three replaceable cooling fans. Each cooling fan operates independently of the others, providing redundancy in the event of failure.
VSX-1 3070 contains one cooling fan that is not replaceable.

Customer Replaceable Parts

To ensure maximum availability and ease of maintenance, the VSX-1 9000 and 11000 series appliances contain the following customer replaceable parts:

<table>
<thead>
<tr>
<th></th>
<th>VSX-1 9070</th>
<th>VSX-1 11000 Series</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power supplies</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Cooling fans</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Expansion line cards</td>
<td>1 with additional slot</td>
<td>1 with additional slot</td>
</tr>
<tr>
<td>Hard disk drives</td>
<td>2 (RAID-1) Hot swappable</td>
<td>2 (RAID-1) Hot swappable</td>
</tr>
</tbody>
</table>

Unless directed to do so by Check Point technical support, customers are prohibited by warranty and support agreements from replacing any parts. Customers are prohibited from opening the VSX-1 appliance case under any circumstances.
Power Supply

This section presents the procedures for removing and installing a power supply unit. The VSX-1 9070 and 11000 series appliances contain two redundant power supplies.

Figure 3-3  Redundant Power Supply Units

Removing the Power Supply

To remove a power supply unit:

1. If the alarm sounds, press the red alarm button to the right of the power supply. The alarm stops.
2. Remove the power cord.
3. Loosen the retaining screw located above the power socket.
4. Pull the extraction handle to remove the power supply unit.

   Note - Use only the extraction handle to remove the power supply unit. To prevent damaging the power supply, do not pull on the retaining screw, power cord clip or any other part of the unit.

Installing the Power Supply

To install a replacement power supply:

1. Insert the power supply into its slot and push firmly until it clicks into place.
2. Tighten the retaining screws.
3. Insert the power cord. Verify that the green LED is illuminated.
Cooling Fan

This section presents the procedures for removing and installing a fan unit. The VSX-1 9070 and 11000 series appliances contain three cooling fans. It is not necessary to power off the appliance before adding or removing a fan unit.

Removing Fan Units

To remove a fan unit:
1. Loosen the four retaining screws in the corners of the fan assembly.
2. Gently pull the fan unit out of the appliance.

Installing Fan Units

To install a fan unit:
1. Insert the fan unit into the appliance. Push firmly until it clicks into place.
2. Tighten the four retaining screws in the corners of the fan assembly.

Expansion Line Card

This section presents the procedures for removing and installing an expansion line card unit. The built-in Ethernet ports (Lan1 Lan8) are not customer replaceable. The VSX-1 9070 and 11000 series appliances contain two expansion line card slots.

Important - Make certain that you are electromagnetically grounded when performing the following procedures. Static electricity can damage the appliance.
Removing Expansion Line Cards

To remove an expansion line card:

1. Power off the appliance and remove the power cords from the power supply units.
2. Loosen the retaining screws on either side of the expansion line card.
3. Holding the screws, pull the expansion line card out of the slot.

Installing Expansion Line Cards

To install an expansion line card:

1. Power off the appliance and remove the power cords from the power supply units.
2. Insert the expansion line card into the slot.
3. Push until the card clicks into place.
4. Tighten the retaining crew on either side of the expansion line card.
Hard Disk Drive

This section covers installing or removing a hard disk drive. The VSX-1 9070 and 11000 series appliances contain two hot swappable (RAID-1) hard disk drives.

![Diagram of Hard Disk Drive](image)

**Removing a Hard Disk Drive**

To remove a hard disk drive:

1. Using the key supplied in the toolkit, unlock the drive.
2. Slide the release latch toward the left. The extraction handle springs out.
3. Using the extraction handle, remove the drive from the slot.

**Installing a Hard Disk Drive**

To install a hard disk drive:

1. Slide the replacement hard disk drive into the slot.
2. Push the extraction handle until it closes and the drive clicks into place.
3. Using the key supplied in the toolkit, lock the new drive in place.
Chapter 4

Registration and Support

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Registration

VSX-1 requires a specific Check Point license. Obtain a license and register at the Check Point Appliance Registration site (http://register.checkpoint.com/cpapp).

Note - The MAC address of the management interface is required to obtain a license.

- Mgmt — on VSX-1 9070 and 11000 Series
- Internal — on VSX-1 3070

Support

For additional technical information about Check Point products, consult the Check Point Support Center (http://supportcenter.checkpoint.com).

Where To From Here?

You have now learned the basics that you need to get started. The next step is to obtain more advanced knowledge of your Check Point software.

See the VSX NGX R67 Administration Guide (http://supportcontent.checkpoint.com/documentation_download?ID=10165), also available on the CD.

Other Check Point documentation is available in PDF format on the Check Point CD supplied with the appliance as well as on the Technical Support site (http://supportcenter.checkpoint.com).

Be sure to also use the Online Help when you are working with the Check Point SmartConsole clients.