

Check Point VPN-1 Accelerator Card Installation Guide

Version 4.1 (Solaris and NT)



Note – If you encounter problems with this product, and you have a valid Check Point Support contract, please contact support@checkpoint.com.



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Check Point Software Technologies Ltd.

International Headquarters:

3A Jabotinsky Street
Ramat Gan 52520, Israel
Tel: 972-3-753 4555
Fax: 972-3-575 9256

e-mail: info@CheckPoint.com

U.S. Headquarters:

Three Lagoon Drive, Suite 400
Redwood City, CA 94065
Tel: 800-429-4391 ; (650) 628-2000
Fax: (650) 654-4233

<http://www.CheckPoint.com>

Please direct all comments regarding this publication to techwriters@checkpoint.com.



Adobe PostScript

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Preface

Summary of Contents

This book contains information about the functions of VPN-1 Accelerator Card and how those functions relate to your corporate Security Policy.

Chapter 1, “Hardware Installation,” describes how to install the VPN-1 Accelerator Card hardware.

Chapter 2, “Software Installation,” describes how to install and use the VPN-1 Accelerator Card Add-On for VPN-1/FireWall-1 software.

VPN-1 Accelerator Card 4.1 (Solaris and NT) — Features

VPN-1 Accelerator Card Version 4.1 (Solaris and NT) offers the following features:

- VPN-1 Accelerator Card Version 4.1 (Solaris and NT) provides significant performance improvements to the system by increasing the throughput and reducing CPU utilization.
- VPN-1 Accelerator Card Version 4.1 (Solaris and NT)’s FireWall-1 Management Module can manage FireWall-1 Version 4.0 SP1 FireWall Modules.
- A command for determining the status of integration of VPN-1 Accelerator Card in FireWall-1.

Support

If you encounter problems with this product, please refer to your Support Information Sheet. If you have Gold Support, refer to your Gold Support contact information.

If you have a valid support contract, you can also contact support@checkpoint.com.

What Typographic Changes Mean

The following table describes the typographic changes used in this book.

TABLE P-1 Typographic Conventions

Typeface or Symbol	Meaning	Example
AaBbCc123	The names of commands, files, and directories; on-screen computer output	Edit your <code>.login</code> file. Use <code>ls -a</code> to list all files. <code>machine_name%</code> You have mail.
AaBbCc123	What you type, contrasted with on-screen computer output	<div>machine_name% uu Password:</div>
<i>AaBbCc123</i>	Command-line placeholder: replace with a real name or value	To delete a file, type <code>rm filename</code> .
<i>AaBbCc123</i>	Book titles, new words or terms, or words to be emphasized	Read Chapter 6 in <i>User's Guide</i> . These are called <i>class</i> options. You <i>must</i> be root to do this.

Shell Prompts in Command Examples

The following table shows the default system prompt and superuser prompt for the C shell, Bourne shell, and Korn shell.

TABLE P-2 Shell Prompts

Shell	Prompt
C shell prompt	<code>machine_name%</code>
C shell superuser prompt	<code>machine_name#</code>
Bourne shell and Korn shell prompt	<code>\$</code>
Bourne shell and Korn shell superuser prompt	<code>#</code>

Hardware Installation

In This Chapter

<i>Installing the Board</i>	<i>page 1</i>
<i>Troubleshooting and Support</i>	<i>page 3</i>
<i>Software Option Settings</i>	<i>page 3</i>
<i>Board Specifications</i>	<i>page 4</i>
<i>FCC Part 15 Warnings and Notices - Class B</i>	<i>page 4</i>

Installing the Board

Inspecting the Board



Warning – Each board is packed in an anti-static bag. Before removing the board from its bag, touch the metal chassis of your computer to reduce static electricity on your person. Maintain grounding by wearing a wrist strap attached to the chassis.

The board package contains these items:

- 1 VPN-1 Accelerator Card
- 2 VPN-1 Accelerator Card Add-On for VPN-1/FireWall-1 Installation Guide
- 3 Wrist strap
- 4 VPN-1 Accelerator Card Software CD
- 5 Support Information Sheet
- 6 Registration Certificate card
- 7 End-user License Agreement

Inform your supplier and package delivery carrier of any missing or damaged items.

Inserting the Board

To insert the board into the computer, follow these steps:

- 1** Turn off the computer.
- 2** Remove all jewelry from your hands and wrists.
- 3** Use only insulated or non-conducting tools.
- 4** Remove the computer's cover.
- 5** Attach the enclosed anti-static wrist strap to your wrist and connect the strap to the edge of the computer chassis.
- 6** Select an available PCI slot.
- 7** Remove the backplate from the slot.
- 8** Insert the board in the slot and secure the screw. (The PCI board must fit squarely into the PCI slot. If it does not, loosen the screws attaching the PCI backplate to the VPN-1 Accelerator Card Add-On for VPN-1/FireWall-1 one turn. After adjusting the angle of the bracket to fit your computer chassis, re-tighten both screws. Be careful not to over-tighten.)
- 9** Replace the computer cover and reconnect all previously connected cables.

Installing the Driver



Note – The VPN-1 Accelerator Card Add-On for VPN-1/FireWall-1 is available only for the Solaris and Windows NT platforms.

Installation

The VPN-1 Accelerator Card Add-On for VPN-1/FireWall-1 includes the device drivers needed for the VPN-1 Accelerator Card. After you install the VPN-1 Accelerator Card, power on the computer and follow the instructions to install the VPN-1 Accelerator Card Add-On for VPN-1/FireWall-1 as given in Chapter 2, “Software Installation.”

The OS configures the device drivers and Firewall-1 auto-detects the presence of the VPN-1 Accelerator Card during installation. Your system is now enabled to use hardware cryptographic acceleration.

Troubleshooting and Support

Diagnostics

A software diagnostics utility is included in the package. The utility is documented in the file `lunadiag.txt`.

These locations of these files are given in TABLE 1-1.

TABLE 1-1 File Locations

file	location
executable	■ Solaris — <code>\$FWDIR/bin/lunadiag</code> ■ NT — <code>\$FWDIR\bin\lunadiag.exe</code>
documentation	■ Solaris — <code>\$FWDIR/doc/lunadiag.txt</code> ■ NT — <code>\$FWDIR\doc\lunadiag.txt</code>

`lunadiag` should show firmware version 1.24.

In addition, you can use the `fw accel` command (see “Enabling and Disabling VPN-1 Accelerator Card” on page 9) to verify that FireWall-1 is using the VPN-1 Accelerator Card.

To determine the VPN-1 Accelerator Card driver version, enter one of the following command:

Solaris

```
modinfo | grep luna
```

The version number should be 3.9a.

NT

In the Explorer, right-click on `C:\WINNT\system32\drivers\LunaVPN.sys`. The version number, displayed in the **Properties** tab, should be 3.9a.

Support

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If you have a valid support contract, you can also contact support@checkpoint.com.

Software Option Settings

This release of VPN-1 Accelerator Card has no customer-configurable software options.

Board Specifications

Cryptographic Capabilities

Supported Encryption Schemes

The Check Point VPN-1 Accelerator Card supports IPSEC/IKE encryption only.

Supported Algorithms

The Check Point VPN-1 Accelerator Card supports the following algorithms:

Hashing (Data Integrity)

- MD5
- SHA-1

Encryption

- DES
- 3DES

Physical Dimensions

Length: 17.5 cm (6.88 in)

Height: 10.7 cm (4.20 in)

Environmental Operating Range

Operating temperature: 0 to 65 C (32 to 149 F)

Humidity: 20 to 80% non-condensing

Power Requirements

Operating voltage: +5 Volts +/- 0.25 volts @ 1.5 A maximum

Power: 7.5W maximum

FCC Part 15 Warnings and Notices - Class B

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions:

- 1** This device may not cause harmful interference, and
- 2** This device must accept any interference received, including interference that may cause undesired operation.

NOTE: This equipment has been tested and found to comply with the limits for a "Class B" digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential

installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- reorient or relocate the receiving antenna;
- increase the separation between the equipment and receiver;
- connect the equipment into an outlet on a circuit different from that to which the receiver is connected;
- consult the dealer or an experienced radio/TV technician for help.

Changes or modifications not expressly approved by Check Point could void the user's authority to operate the equipment.

Software Installation

In This Chapter

<i>Before Installing the Software</i>	<i>page 7</i>
<i>Special Notes for this Version</i>	<i>page 7</i>
<i>Installing the Software</i>	<i>page 8</i>
<i>Uninstalling the Software</i>	<i>page 8</i>
<i>Enabling and Disabling VPN-1 Accelerator Card</i>	<i>page 9</i>



Note – The Check Point VPN-1 Accelerator Card supports IPSEC/IKE encryption only.

Before Installing the Software

Before installing VPN-1/FireWall-1 for the VPN-1 Accelerator Card Add-On for VPN-1/FireWall-1, install the VPN-1 Accelerator Card in your computer, as described in Chapter 1, “Hardware Installation.”

Special Notes for this Version



Note – The VPN-1 Accelerator Card Add-On for VPN-1/FireWall-1 is available only for the Solaris and Windows NT platforms.

A Version 4.1 VPN-1/FireWall Management Station cannot manage a Version 4.0 VPN/FireWall Module with a VPN-1 Accelerator Card.

The VPN-1 Accelerator Card Add-On for VPN-1/FireWall-1 enables VPN-1/FireWall-1 Version 4.1 to take advantage of the hardware cryptographic capabilities of the VPN-1 Accelerator Card.

Installing the Software

Solaris

- 1 Install VPN-1/FireWall-1 Version 4.1 according to the instructions for installing VPN-1/FireWall-1 given in “Installing VPN-1/FireWall-1” of *Getting Started with VPN-1/FireWall-1*.
- 2 Become superuser.
- 3 Change to the `solaris2/Add-Ons` directory on the CD.
- 4 Enter the following command:

```
hostname# pkgadd -d . CPvpna-41
```

For information about the `pkgadd` command, refer to the Unix documentation.

- 5 After installing, reboot.

Windows NT

- 1 Install VPN-1/FireWall-1 Version 4.1 according to the instructions for installing VPN-1/FireWall-1 given in “Installing VPN-1/FireWall-1” of *Getting Started with VPN-1/FireWall-1*.
- 2 Run the `SETUP` application in the `Windows/Add-Ons/CPvpna-41` directory on the CD.
- 3 After installing, reboot.

Uninstalling the Software



Note – Uninstalling VPN-1 Accelerator Card Add-On for VPN-1/FireWall-1 does not uninstall VPN-1/FireWall-1, but only removes VPN-1 Accelerator Card Add-On for VPN-1/FireWall-1 capabilities from VPN-1/FireWall-1.

Solaris

To uninstall VPN-1 Accelerator Card Add-On for VPN-1/FireWall-1 on Solaris, proceed as follows:

- 1 Run the `pkgrm` command.

For information about the `pkgrm` command, refer to the Unix documentation.
- 2 Reboot.

Windows NT

To uninstall VPN-1 Accelerator Card Add-On for VPN-1/FireWall-1 on Windows NT, proceed as follows:

- 1 Click on **Add/Remove Programs** in the Control Panel.
- 2 Select **VPN-1 Accelerator Card Add-On for VPN-1/FireWall-1**.
- 3 Click on **Add/Remove** and follow the instructions.
- 4 Reboot.

Enabling and Disabling VPN-1 Accelerator Card

If a VPN-1 Accelerator Card is installed, it is enabled by default when VPN-1/FireWall-1 starts. You can also enable or disable it manually as well as obtain its status.

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<i>lunadiag</i>	<i>page 9</i>

fw accel

Syntax

<code>fw accel on off stat [-l]</code>
--

Options

parameter	meaning
on	enable VPN-1 Accelerator Card
off	disable VPN-1 Accelerator Card
stat	obtain the status of the VPN-1 Accelerator Card
Options	
parameter	meaning
-l	long format (letter ell)

When you enable or disable the VPN-1 Accelerator Card, current connections are not dropped. Instead, encryption continues in the hardware or software, accordingly.

Diagnostics

lunadiag

A software diagnostics utility specific to the Luna accelerator card is available in the Luna package. The utility is documented in the file `lunadiag.txt`.

The locations of these files are given in TABLE 2-1.

TABLE 2-1 File Locations

file	location
executable	■ Solaris — <code>\$FWDIR/bin/lunadiag</code> ■ NT — <code>\$FWDIR\bin\lunadiag.exe</code>
documentation	■ Solaris — <code>\$FWDIR/doc/lunadiag.txt</code> ■ NT — <code>\$FWDIR\doc\lunadiag.txt</code>

`lunadiag` should show firmware version 1.24.

To determine the VPN-1 Accelerator Card driver version, enter the following command:

Solaris

```
modinfo | grep luna
```

The version number should be 3.9a.

NT

In the Explorer, right-click on `C:\WINNT\system32\drivers\LunaVPN.sys`. The version number, displayed in the **Properties** tab, should be 3.9a.

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