

HARDWARE CONSIDERATIONS

for Sidewinder™ 5 firewall software

Dell Precision 530

This document provides information on specific system hardware required for running Sidewinder firewall software on a Dell Precision 530. This document is intended for Secure Computing customers who obtain the computer hardware for their firewall software from a supplier other than Secure Computing Corporation.

You should read this document if you are responsible for evaluating, ordering, installing, or configuring system hardware for running Sidewinder firewall software. This document assumes you are familiar with PC hardware component terminology. The detailed set up and configuration guidelines section also assumes you are an experienced computer technician.

Note: Use this guide in conjunction with the manufacturer's documentation included with your hardware package.



Important: Make sure you read and understand the Known Issues section before purchasing this chassis.

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Specific hardware supported

This section defines the required and supported hardware components for installing Sidewinder software on a Dell Precision 530 system. **ANY SUBSTITUTIONS WILL RESULT IN A CONFIGURATION NOT SUPPORTED BY SECURE COMPUTING.**

Note: The embedded video chipset does not support Sidewinder's local graphical user interface (GUI). Use the Sidewinder GUI remotely from a Windows workstation.



Important: This hardware configuration is supported for Sidewinder version 5.2.1 or higher.

Table 1. SUPPORTED HARDWARE

Hardware item, supplier, and description	Quantity	Supplier Part Number (P/N)
Dell Precision 530, 2.0 GHz, 256 MB RAM, CD-ROM drive, keyboard, 1.44 MB floppy drive	1	220-8495
or		
Dell Precision 530, 2.2 GHz, 256 MB RAM, CD-ROM drive, keyboard, 1.44 MB floppy drive		220-8494
Dell 17" monitor	1	320-0173
Dell 18 GB Ultra3, 10K RPM, SCSI hard drive or Dell 18 GB Ultra3, 15K RPM, SCSI hard drive	1–4	340-3724 340-3733
Logitech 3-button mouse	1	Logitech 911455-0403
Optional second 2.0 GHz processor Optional second 2.2 GHz processor	1	311-1580 311-1579

Note: The embedded NIC and dual processors are supported on the Dell Precision 530.

Table 2. PCI SLOTS

PCI Slots	
PCI 32-bit/33 MHz	3
PCI 64-bit/66 MHz	2

Table 3. ADDITIONAL NETWORK CARD ADAPTERS AND SCSI RAID CONTROLLERS

10/100 MB Fast Network Adapters		
PCI Single Port	3Com	3C980C-TXM
	Intel	Pro 100+ Server Adapter, PILA8470B Pro 100S Server Adapter, PILA8470C3
PCI - Multiple Port	3Com	3C982-TXM 10/100 Dual Port Server Adapter
	Intel	Pro 100+ Server Adapter PILA8472, Dual Port PILA8472C3, Dual Port
	Entrada (Osicom)	FE-2404-TX, Quad Port
Gigabit Network Adapters		
PCI - Fiber	Intel	Intel Pro/1000 Gigabit Server Adapter supports 1000 Base-SX Multi-Mode Fiber PWLA8490SX PWLA8490XF
PCI - Category 5 Twisted Pair	Intel	Intel Pro/1000 Gigabit Server Adapter PWLA8490T PWLA8490XT
Raid Controllers		
PCI - Raid Controller Perc 3/DC	Dell	340-2488

Setup and configuration guidelines

This section defines how to verify that the Dell Precision 530 hardware settings are correct for a Secure Computing firewall. These instructions supplement the manufacturer's *Users Guide* and *Installation and Troubleshooting Guide*.

1. Connect the monitor, keyboard, mouse, and power cords.
2. Power on the system, and press **F2** to enter the system setup routine.
3. Verify the following BIOS settings:

Table 4. BIOS SETTINGS

Dell Precision 530 BIOS Settings		
Time and Date	Operating System	Solaris
	Serial Number	xxx
Boot Sequence	CD-ROM device	
	Diskette Drive A:	
	Hard drive C:	
Hard Drive Sequence	System BIOS boot devices	
	AIC-7899, A:00 SCSI HDD	
Integrated Devices	Sound	On
	Network Interface Controller	On
	SCSI Controller	On
	1394 Controller	On
	Mouse Controller	On
	USB Emulation	Off
	USB Controller	Off
	Serial Port 1	Auto
	Serial Port 2	Off
	Parallel Port Mode	PS/2
	I/O Address	378h
	IDE Drive Interface	Auto
	PC Speaker	On

More...

Dell Precision 530 BIOS Settings		
PCI IRQ Assignment (con)	Intel Corp USB Adapter	IRQ 14
	Intel Corp serial bus	IRQ 11
	Intel Corp USB Adapter	IRQ 10
	Intel Corp Multimedia	IRQ 11
	Adaptec SCSI Adapter	IRQ 14
	3Com Corp Network Card	IRQ 10
	Texas Instruments IEEE1394 bus	IRQ 9
System Security	Password Status	Unlocked
	System Password	Not Enabled
	Setup Password	Not Enabled
	Chassis Intrusion	Enabled
	PXE BIOS Default Policy	Deny
	Keyboard NumLock	On
	Report Keyboard Errors	Report
	Auto Power On	Disabled
	Remote Wake Up	Off
	AC Power Recovery	Off
	Fast Boot	On
	Suspend Mode	S3
	OS Install Mode	Off

4. Exit and save the BIOS settings.
5. When the Adaptec screen appears, press **Ctrl + A**.
6. Verify or set the following parameters.
7. At the Configuration menu, verify the following settings for the Adaptec SCSI card.
 - SCSI BUS Interface Definition:**
 - SCSI Controller ID—set to 7
 - SCSI Controller Parity—set to Enabled
 - SCSI Controller Termination—Enabled

8. At the Additional Options menu, select SCSI Device Configuration and verify or set the following:

Table 5. SCSI DEVICE CONFIGURATION SETTINGS 0–7

SCSI Device ID	0	1	2	3	4	5	6	7
Sync Transfer Rate	160	160	160	160	160	160	160	160
Initiate Wide Negotiation	YES							
Enable Disconnect	YES							
Send Start Unit Command	YES	YES	YES	YES	YES	YES	NO	YES
Enable Write Back Cache	NO							
BIOS Multiple LUN Support	NO							
Include in BIOS scan	YES							

Table 6. SCSI DEVICE CONFIGURATION SETTINGS 8–15

SCSI Device ID	8	9	10	11	12	13	14	15
Sync Transfer Rate	160	160	160	160	160	160	160	160
Initiate Wide Negotiation	YES							
Enable Disconnect	YES							
Send Start Unit Command	YES							
Enable Write Back Cache	NO							
BIOS Multiple LUN Support	NO							
Include in BIOS scan	YES							

9. Select **Advanced Configuration Options** from the Additional Options menu. Verify or set the following:

Table 7. ADVANCED CONFIGURATION OPTION SETTINGS

Advanced Configuration Options	
Reset SCSI Bus at IC Initialization	Enabled
Display <Ctrl + A> Message During BIOS Initialization	Enabled
Extended Int 13 Translation for DOS drives > 1GB	Enabled
Post Display Mode	Verbose
Options listed below have NO EFFECT if Int 13 support is disabled	
Host Adapter BIOS	Enabled
Support Removable Disks Under BIOS or Fixed Discs	Disabled
BIOS Support for Bootable CD-ROM	Enabled

10. Exit and save the Adaptec card settings.
11. Ready to install Sidewinder! Please refer to your Sidewinder documentation.

Known issues

The following are known issues on the Dell Precision 530:

- The embedded video chipset does not support Sidewinder's local graphical user interface (GUI). Use the Sidewinder GUI remotely from a Windows workstation.
- In the Dell Perc 3/DC Raid controller BIOS, verify the Adapter Emulation is set to: `Mass Storage`. Sidewinder will fail to detect a block size during the initial software load if the Adapter Emulation is not set.

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