FWA-3310

FireWall Appliance Configuration and Operation Guide

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Part No. 2002331000

1st Edition Printed in Taiwan

August 2001

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CHAPTER 1

Introduction

1.1 About the Advantech FWA-3310

Advantech's FWA-3310 is specifically designed for Internet secure connectivity. It comes with a concrete hardware with pre-installed operating systems and software applications.

1.2 Hardware

The FWA-3310 is built-in with 20GB IDE HDD drive and 64MB DOM flash. The system only supports single Pentium III processor up to 933MHz. The system memory can be up to 256MB Registered PC-133 SDRAM with ECC.

Memory Module approval list is as follows:

ATP	AR32V72N4S4GAS	256MB	PC-133 Registered PC-133 SDRAM w/ ECC
ATP	AR32V72C4S4GAS	256MB	PC-133 Registered PC-133 SDRAM w/ ECC
ATP	AR16V72C4S4GAS	128MB	PC-133 Registered PC-133 SDRAM w/ ECC

ATP Website: www.atpusa.com

Smart	SM572164574E63R	128MB	PC-133 Registered PC-133 SDRAM w/ ECC
Smart	SM572324574E03R	256MB	PC-133 Registered PC-133 SDRAM w/ ECC

Smart Website: www.smartmodulartech.com

1.3 Operating Systems

The FWA-3310 runs on Linux operating system with a kernel version of 2.2.14.

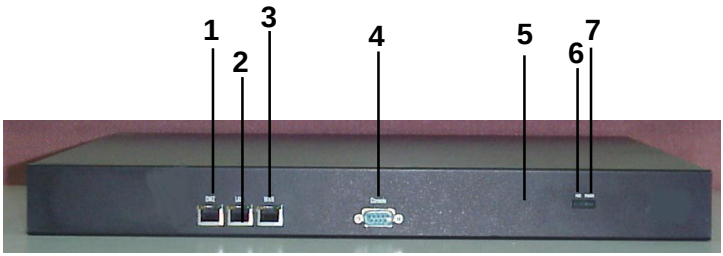
1.4 Software Applications

Supported and pre-installed applications on the FWA-3310 include:

• Check Point FireWall-1® - Enables enterprises to define and enforce a single, comprehensive Security Policy while providing full, transparent connectivity.

• Check Point VPN-1™ - A powerful and secure Internet connectivity solution that lets enterprises deploy Virtual Private Networks (VPNs) to protect the privacy and integrity of business communications over the Internet.

1.5 Front Panel



1. DMZ PORT

The DMZ port connector is RJ-45 and support 10/100BaseT Ethernet (10 Mbps/100 Mbps on twisted pair cable). This port is connects the De-Military Zone.

2. LAN PORT

The LAN port connector is RJ-45 and support 10/100BaseT Ethernet (10 Mbps/100 Mbps on twisted pair cable). This port connects to the Local Area Network.

3. WAN PORT

The WAN port connector is RJ-45 and support 10/100BaseT Ethernet (10 Mbps/100 Mbps on twisted pair cable). This port connects the Wide Area Network.

4. CONSOLE PORT

The console port supports a data terminal equipment (DTE) interface (cable included) with 8 data bits, no parity, and 1 stop bit, running up to 38400 bps.

5. LOAD DEFAULT BUTTON

The Load Default Button restores the system to its default configuration.

6. HDD LED

The HDD LED lights when the HDD is operating properly.

7. POWER LED

The Power LED lights when power is turned on.

1.6 Back Panel

1. FAN

2. POWER SOCKET

The power supply of the FWA-3310 automatically senses the input voltage (90 ~ 264 VAC) and configures itself appropriately.

3. ON/OFF SWITCH

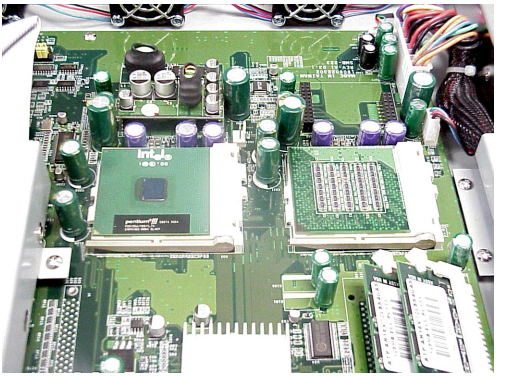
CHAPTER 2

Installation and Configuration

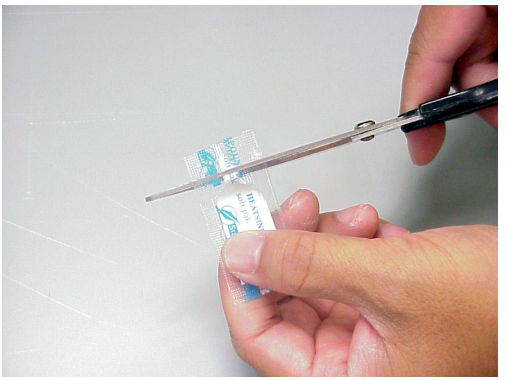
2.1 Hardware Setup

- **CPU Cooler Fan Installation**

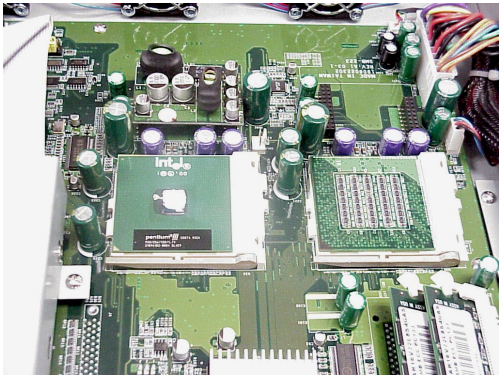
1. First, install the CPU.



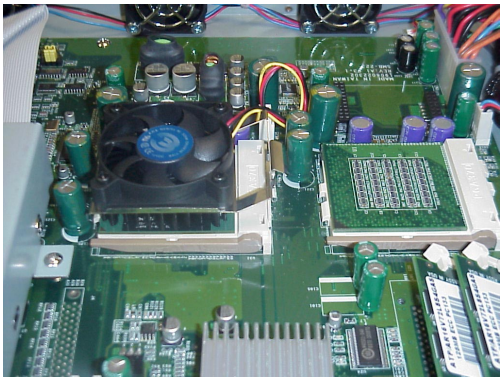
2. Take out the heatspread glue.



3. Paint the glue on the CPU die evenly.



4. Next, install the fan.



- Interface Connection

  · Network connection

  Connect a Twisted Pair Ethernet (TPE) network cable to the LAN, WAN, or DMZ port that was designated on the FWA-3310 inter face.

  · Console connection

  Using the null-modem cable, connect the client's COM1 port to the console port of FWA-3310.

- Power Connection

  1.Tightly plug the power cord into the power socket at the back of the FWA-3310.

  2.Plug the other end of the power cord to the power outlet.

  3.Press the power On/Off switch to turn the FWA-3310 on.

2.2 Before Login

There are two ways of logging into the FWA-3310. One method is through the network connection such as LAN, WAN or DMZ. The other method is via Console Port. The procedures are described as below.

- **Connecting the FWA-3310 to a PC via LAN, WAN or DMZ**

  Perform the following steps:

  1.The default IP address of the FWA-3310 are as below:

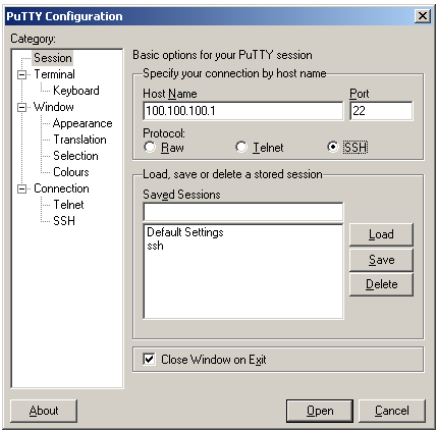
Default / Port	IP	Subet mask
WAN	100.100.100.1	255.255.255.0
LAN	100.100.100.2	255.255.255.0
DMZ	100.100.100.3	255.255.255.0

  2.Check the client's IP address. Make sure that the IP and subnet mask of the client should be as follows:

  IP: 100.100.100.4

  Subnet mask: 255.255.255.0

3. To connect the FWA-3310, client management software could be used to support SSH protocol. Below is a sample configuration that uses PuTTY.



- **Connecting the FWA-3310 to a PC via console port.**

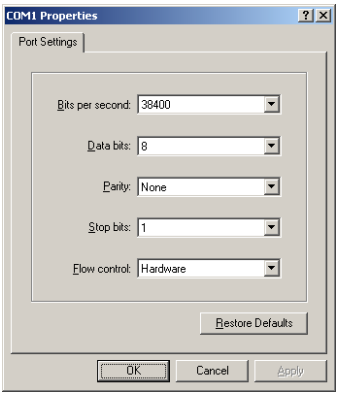
The following setup operates under Windows OS.

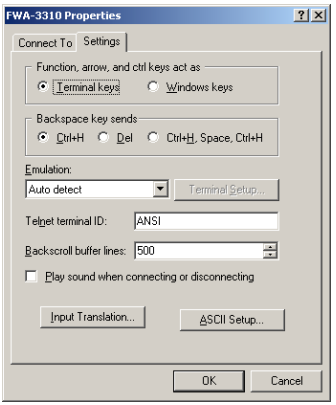
1. Run the console client management programs such as HyperTermi nal or NetTerm to configure the console port connection.

2. HyperTerminal is applied for the following example:

3.Setting the connection to COM1.

4.The parameter of baudrate is 38400bps for COM1. It simulates ANSI.



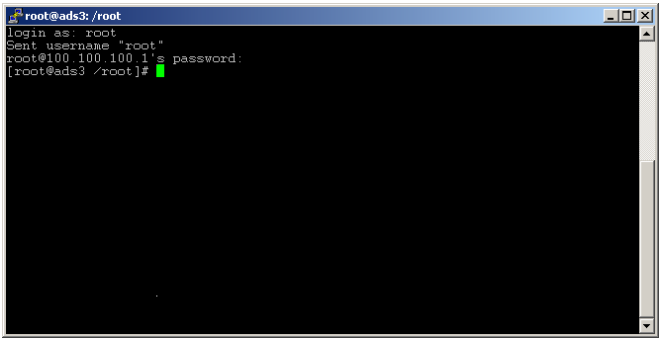


2.3 Login the FWA-3310

There are two different ways of logging in the FWA-3310. They are described as below.

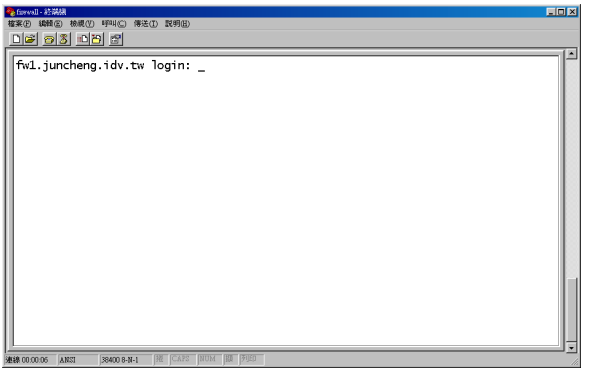
- **Logging in via LAN, WAN, or DMZ**

  At the prompt, type in the user name. "root" is the default that owns the supervisor authority. Then confirm the entry. Next type the password according to the system prompt. The default password for root is "123456".



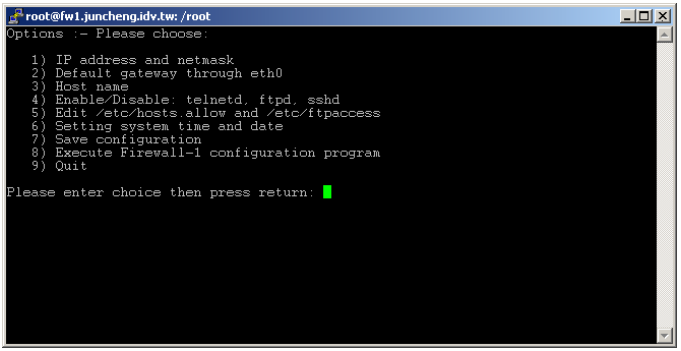
- **Login via console port**

  At the login as prompt, type the user name. "root" is the default that owns the supervisor authority. Then confirm the entry. Next type the password according to the system prompt. The default password for root is "123456".



2.4 Configure the FWA-3310

Once login succeeds, use the command "setup-fw" to configure it. The procedures will remain the same no matter which port is applied. Configuration under network connecting is as follows:



·IP address and netmask

Changes the FWA-3310's IP address and netmask.

·Default gateway through eth0

eth0 stands for WAN port.

·Host name

Place to enter the FWA-3310's hostname.

·Enable/Disable: telnetd. ftpd. sshd

Enables or disables telnet, ftp, or sshd daemon.

·Edit /etc/hosts.allow and /etc/ftpaccess

Edits host.allow to define telnet service.

The file "ftpaccess" defines the ftp service.

·Setting system time and date

Place to set the system's date and time.

·Save configuration

Select this option to save the configuration.

·Execute FireWall-1 configuration program

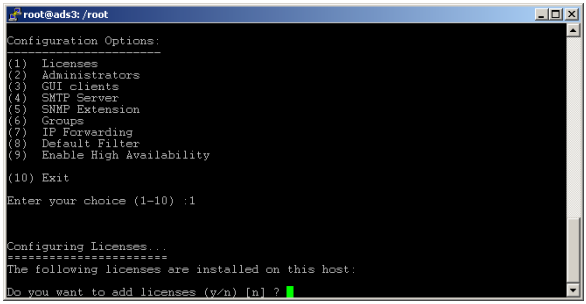
The system will prompt for configuration of the Check Point soft ware.

·Quit

Select this if no configuration changes were made and exit.

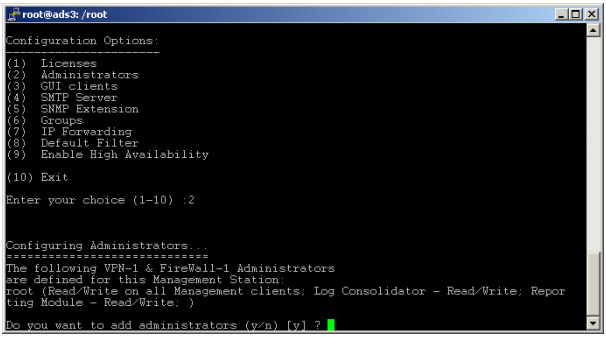
2.5 Check Point Configuration

Once FireWall-1® configuration program is executed, the display will show as follows:



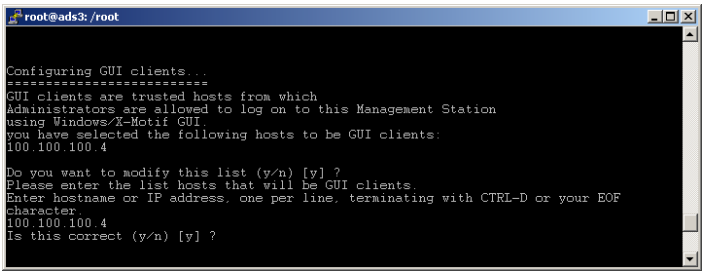
·Configuring licenses

Upon choosing "y" in this section, enter the Check Point FireWall-1® license exactly as supplied by Check Point. This field is case sensitive.



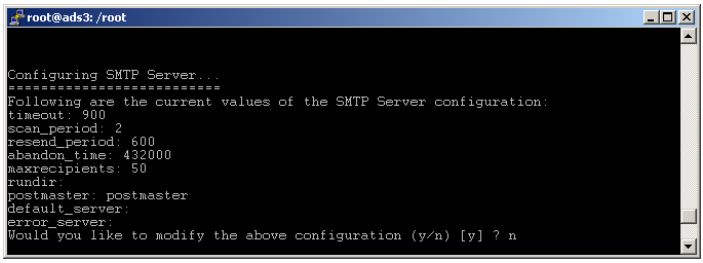
·Configuring administrators

Enter a username, password, and permission information to estab lish a new administrator account. First enter a unique name for the new administrator account. Then type a unique password for the new administrator account and retype the previously entered password for confirmation. Lastly, pick the command (Read/Write All, Read Only All, or Customized) for the new administrator. Once the procedure is completed, the following message will display: Administrator xxxx was added successfully and has ™™™ permis sion to all management clients.(xxxx and ™™™ are the name and the permission you offered to the new administrator.)



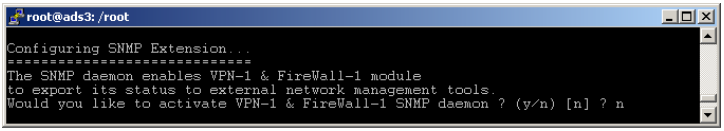
·Configuring GUI clients

Enter the IP addresses to specify the GUI clients that allow connec tions to the appliance for installing security policies and receiving logging information. Only these specific IP addresses will launch GUIs to connect to the firewall. Type the IP address(es) after "Please enter the list hosts that you will be GUI clients." Enter hostnames or IP addresses, one per line, terminating with CTRL+D or the EOF character. prompt.



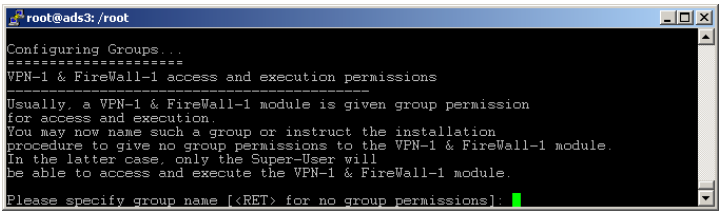
·Configuring SMTP server

A default value in the SMTP parameters will display on the screen. That will work under most circumstances. Change values only when the mail system is not functioning properly and after carefully eliminating other potential malfunctioning Configuration SNMP Extension



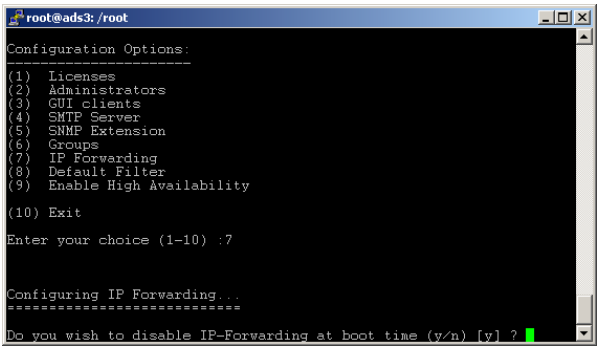
·Configuring SNMP extension

Activate or deactivate SNMP(Simple Network Management Protocol) after the prompt.



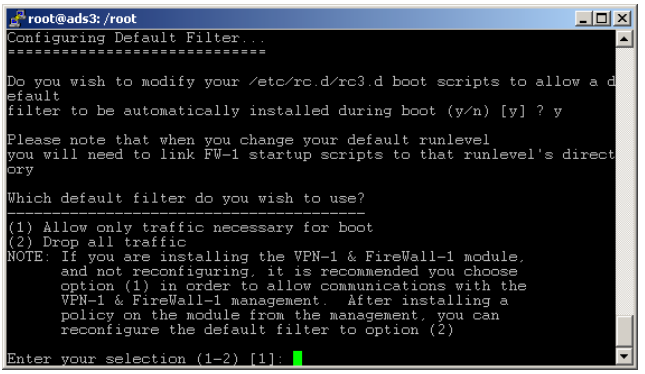
·Configuring groups

Sets up users (within a group) other than roots that can start or stop the FireWall-1® software.



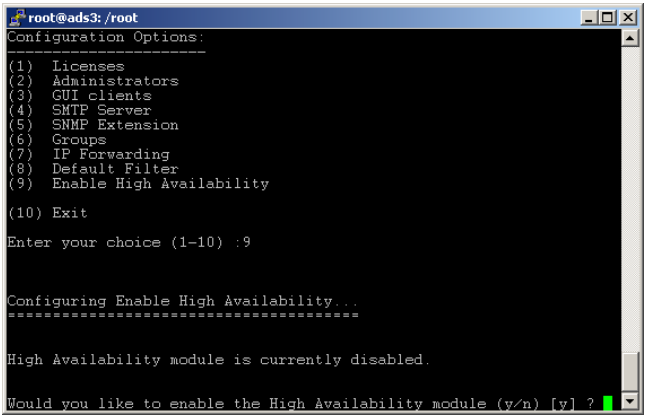
·Configuring IP forwarding

IP Forwarding is usually handled by the gateway's operating system (OS), but this arrangement provides no network security. The section indicates whether the IP Forwarding should be activat ed next time when the system is booted up.



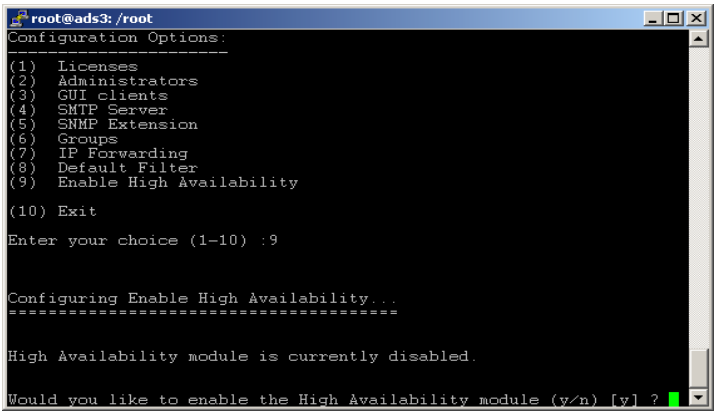
·Configuring default filter

The Default Filter page selects a default security policy to be used when the system boot and FireWall-1® starts. After FireWall-1® starts, security policy will be enforce the security. Select the options: (1)Allow only traffic necessary for boot, or (2)Drop all traffic.



·**Enable high availability**

Enable or disable High Availablity.



·**Restore the System to the Default Configuration**

To reset the system to its factory default configuration, press the load default button on the front panel of the FWA-3310.

·**Operating System Installation**

Operating System is built in the FWA-3310; it is not necessary to install the Operation System.

·**Upgrading the Software**

·FTP

To enable ftpd, ftp host-ip-address, cd /tmp and put files. (Standard windows 98 ftp) Users may adopt differential ftp, ex. cuteftp, ftp32, and so on. Upgrade or install via rpm, tar or any other file format.

·Secure copy

Type "pscp -r -pw password filename user@ip-address:/tmp/ filename" Users may adopt a separate secure copy, ex. openssh, standard ssh, and so on. Upgrade or installation via rpm, tar and any other format.

·Backing up the configuration

There are no procedures to back up the provided configuration. Please back up the configuration per your requirement.

CHAPTER 3

Product Specifications

3.1 Specifications

-**CPU**: Intel® Pentium® !!! Processor up to 933MHz, FSB 133MHz

-**Chipset**: Serverworks Serverset 30LE chipset, support 133 MHz FSB

-**BIOS**: Award 2 Mb flash memory

-**Memory**: Up to 256MB Registered PC-133 SDRAM DIMM with ECC

-**LAN**: Triple Intel 82559 Fast Ethernet controllers, support 10/100 Base-TX with RJ-45 connectors

-**Storage**: One 64MB IDE DOM (Primary Master) and 20GB IDE HDD drive (Secondary Master, store Event log)

-**On-board I/O**: 1 x RS-232 port (Console), 3 x RJ-45 LAN ports on the front panel

3.2 System and Environmental Specifications

- **Construction**: 19" Rack Mount, Heavy-duty steel chassis
- **Cooling system**: Three cooling fans
- **Controls**: Default setting switches
- **Indicators**: LED Displays for Power, LAN and HDD
- **Storage drives**: one IDE DOM and one HDD drive
- **Power supply**: Slim 200W switching power supply
- **Input**: 90 ~ 264 Vac Full Range @ 47 ~ 63Hz
- **Weight**: 4.5Kg
- **Paint color**: Black 4U 2X, Fabric Texture
- **Operating temperature**: 0 ~ 40°C (32 ~ 104°F)
- **Storage temperature**: -20 ~ 75°C (-4 ~ 167°F)
- **Operating humidity**: 5 ~ 95% @ 40°C, non-condensing
- **Storage humidity**: 5 ~ 95%

- **Dimension**: 426 mm W x 44mm H x 367.5 mm D
- **OS**: Hardened Linux
- **AP**: Inactive FireWall-1®/VPN-1 Software Package of Check Point

Appendix A

Frequently Asked Questions (FAQs)

- **How can the configuration files be backed up?**
  Only default configuration is provided. Please backup the configura tion files per your requirement.

- **How can the system password be restored once it's lost?**
  Press the load default button on the front panel of the FWA-3310.

- **How can the configuration files be edited?**
  Use the command "setup-fw" to edit the configuration file. Refer back to Chapter 2.4 for more information.

- **How can technical support be reached?**
  To request any technical support and/or additional information, please visit: http://www.advantech.com/support/index.asp