IBM Proventia Network Intrusion Prevention System

G Appliance Getting Started Guide

IBM Internet Security Systems

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Contents

Preface

Overview

Introduction

This guide is designed to help you connect and configure your Proventia Network Intrusion Prevention System (IPS) appliance.

Scope

This guide describes the appliance models (G100, G200, G1000 and G1200, G400, G400 (Rev A) and G2000) and explains the different ways to connect the appliances to your network. It also includes initial appliance setup procedures.

Additional documentation is located on the IBM ISS Web site at http://www.iss.net/support/documentation.

Audience

This guide is intended for network security system administrators responsible for installing and configuring IPS appliances. A fundamental knowledge of network security policies and IP network configuration is helpful.

Related publications

For the latest available appliance documentation, refer to the Help and the Readme files associated with each appliance release. Additional documents are available on the IBM ISS Web site at the following location: http://www.iss.net/support/documentation/

Additional documentation includes the following:

Document	Supports
Proventia Network IPS G and GX User Guide	All Proventia G appliances running release version 1.2 or later
Proventia G Next Generation Installation and Upgrade Procedures Guide	G100/G200/G1000/G1200 appliances running software versions prior to version 1.2 that need to be upgraded
Proventia G100/G200/G1000/ G1200 Appliance Quick Start Guide	Existing G100/G200/G1000/G1200 model appliances running software versions prior to version 1.2
SiteProtector Documentation	Any appliance managed through SiteProtector

Table 1: *Additional documentation*

Getting Technical Support

Introduction

IBM ISS provides technical support through its Web site and by email or telephone.

The IBM ISS Web site

The IBM Internet Security Systems (IBM ISS) Resource Center Web site (http://www.iss.net/support/) provides direct access to online user documentation, current versions listings, detailed product literature, white papers, and the Technical Support Knowledgebase.

Support levels

IBM ISS offers three levels of support:

- Standard
- Select
- Premium

Each level provides you with 24x7 telephone and electronic support. Select and Premium services provide more features and benefits than the Standard service. Contact Client Services at clientservices@iss.net if you do not know the level of support your organization has selected.

Hours of support

The following table provides hours for Technical Support at the Americas and other locations:

Location	Hours
Americas	24 hours a day
All other locations	Monday through Friday, 9:00 A.M. to 6:00 P.M. during their local time, excluding IBM ISS published holidays **Note:** If your local support office is located outside the Americas, you may call or send an email to the Americas office for help during off-hours.

Table 2: *Hours for technical support*

Contact information

The following table provides electronic support information and telephone numbers for technical support requests:

Regional Office	Electronic Support	Telephone Number
North America	Connect to the MYISS section of our Web site: www.iss.net	**Standard:** (1) (888) 447-4861 (toll free) (1) (404) 236-2700 **Select and Premium:** Refer to your Welcome Kit or call your Primary Designated Contact for this information.
Latin America	support@iss.net	(1) (888) 447-4861 (toll free) (1) (404) 236-2700
Europe, Middle East, and Africa	support@iss.net	(44) (1753) 845105
Asia-Pacific, Australia, and the Philippines	support@iss.net	(1) (888) 447-4861 (toll free) (1) (404) 236-2700
Japan	support@isskk.co.jp	Domestic: (81) (3) 5740-4065

Table 3: *Contact information for technical support*

Chapter 1

Introducing the Proventia Network Intrusion Prevention System Appliance

Introduction

The Proventia Network Intrusion Prevention System (IPS) automatically blocks malicious attacks while preserving network bandwidth and availability. Proventia Network IPS appliances are network security appliances that you can deploy either at the gateway or the network to block intrusion attempts, denial of service (DoS) attacks, malicious code, backdoors, spyware, peer-to-peer applications, and a growing list of threats without requiring extensive network reconfiguration.

In this chapter

This chapter contains the following topics:

Getting Started

Introduction

Verify that you have everything you need before you start setting up the appliance. This section lists package contents for both the appliance packaging and the rack mount kit, and includes information on bypass hardware.

Appliance package contents

The Proventia G appliance packaging includes the following:

- appliance
- power cord
- appliance recovery CD
- null modem serial cable
- warranty statement
- bezel cover with keys
- mouse/keyboard Y-cable
- crossover connectors and patch cables (copper only)
- rack mount kits and instructions

Rack mount kit materials

Table 4 describes the materials included in the rack mount kit for your appliance. Rack mount kit instructions are included in your appliance box and are also available online at http://www.iss.net/support/documentation.

This model kit...	Includes...
G400C, G400F, and G400CF	slide rail kit (option 1) mid-mount rack kit (option 2)
G2000C, G2000F, and G2000CF	tool-less slide rail kit

Table 4: *G Appliance rack mount kits*

Bypass hardware

The Proventia G400C, G400C (Rev A) and G2000C appliances have built-in copper bypass hardware, which by default fails "open," allowing traffic to continue passing through the appliance if the appliance fails or loses power. If you change the default setting to closed, the appliance will not allow traffic to pass in the event of a failure.

The G400F, G400CF, G400F (Rev A) G400CF (Rev A) and G2000F and G2000CF do not have built-in bypass hardware. You can purchase an optional fiber bypass unit and kit that provides bypass functionality. Contact Internet Security Systems for availability. See “Configuring the Appliance External Bypass Unit” on page 34 for more information.

Note: These models require the external bypass unit for the fiber ports only.

The G100/G200/G1000 and G1200 Front and Back Panels

Introduction

This topic identifies the front and back panels of a Proventia G100, G200, G1000, and G1200 appliance, along with descriptions for each item.

Front panel diagram and legend

The Proventia G100, G200, G1000, G1200 front panel is shown in Figure 1:

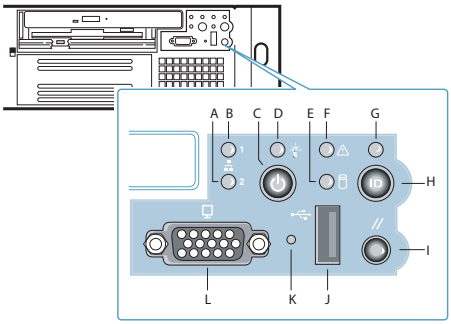


Figure 1: *G100/G200/G1000/G1200 appliance front panel*

The following table describes the elements pictured in Figure 1:

Label	Element
A	Management Interface (1) LED
B	RSKill Interface (2) LED
C	Power Button
D	Power LED
E	Hard Drive Activity LED
F	Fault LED
G	System ID LED
H	System ID Button
I	Reset Button

Table 5: *Elements on the front panel*

Label	Element
J	USB (unused)
K	Unused
L	Video

Table 5: *Elements on the front panel (Continued)*

Caution: You must operate this unit with the top cover installed to ensure proper cooling.

Back panel diagram (G100/G200)

The Proventia G100 /G200 (1U) back panel is shown in Figure 2:

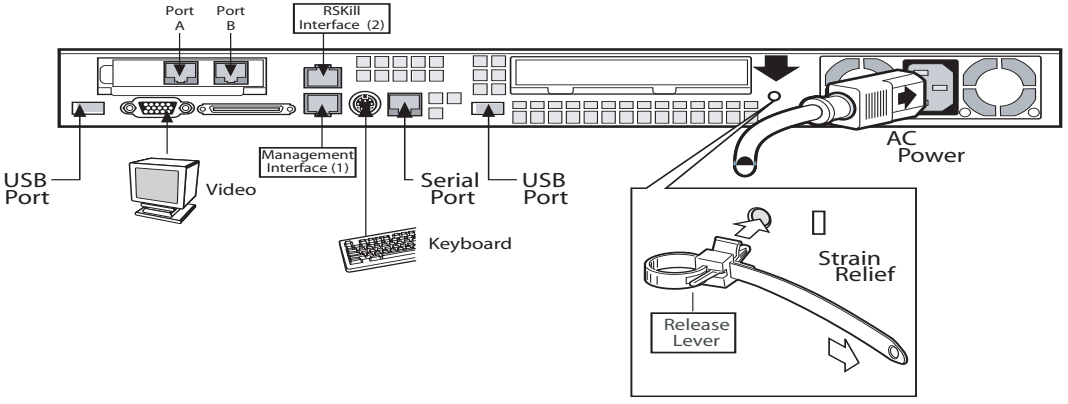


Figure 2: *G100/G200 appliance back panel*

Back panel diagram (G1000/G1200)

The network card is on the right side of the Proventia G1000 appliance. The Proventia G1200 appliance has eight ports. The Proventia G1200 offers AC or a DC power option. The Proventia G1000/G1200 (2U) back panel is shown in Figure 3.

Note: The AC power option is shown in Figure 3. The DC power information is shown in Figure 4 on page 15.

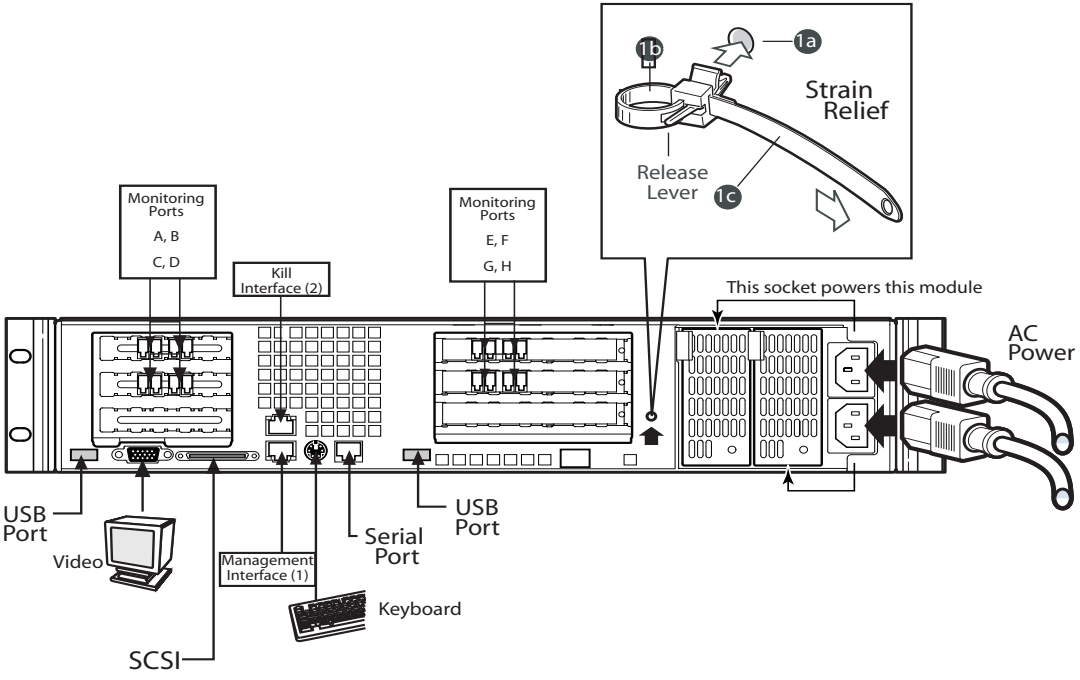


Figure 3: *G1000/G1200 appliance back panel*

DC power supply

The DC power supply used with the Proventia G1200 appliance uses a -48 to -60 VDC input switching power subsystem, which provides up to 470 Watts with -48 to -60 VDC input and with current and remote sense regulation. The power subsystem consists of one or two 470-Watt power supply modules. A system with two modules forms a redundant, hot-swappable (1+1) power subsystem.

Note: The DC power supply is only available for the Proventia G1200 appliance.

Back panel diagram (G1200)

The Proventia G1200 appliance has eight ports. DC power option is only offered on the Proventia G1200 appliance. The Proventia G1200 (2U) back panel is shown in Figure 4:

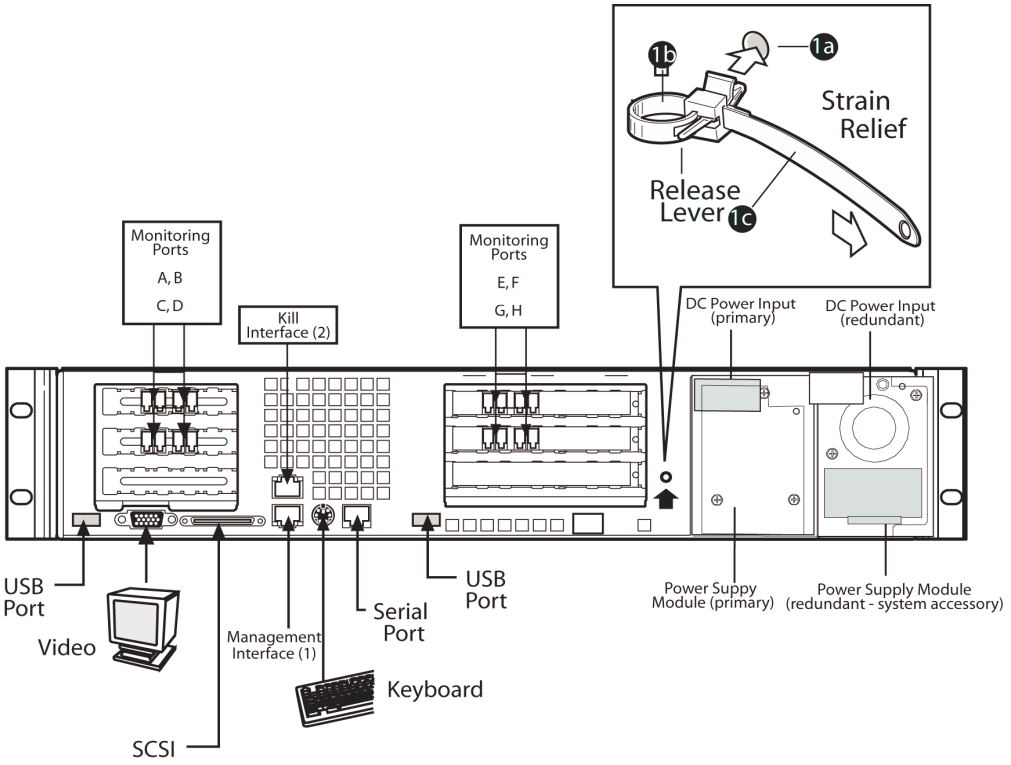


Figure 4: *G1200 appliance back panel with DC power option*

DC power supply features

The DC power supply includes the following features:

- 470-Watt output capability in full DC input voltage range
- power good indication LEDs
- predictive failure warning
- internal cooling fans with multi-speed capability

- remote sense of 3.3-Volt, 5-Volt, and 12-Volt DC outputs
- "DC_OK" circuitry for brown-out protection and recovery
- built-in load sharing capability
- built-in overloading protection capability
- onboard field replaceable unit (FRU) information
- I^2C interface for server management functions
- integral handle for insertion/extraction

Interface requirements for DC power

Table 6 identifies the interface requirements for DC power:

Interface	Description
DC Input	The DC power source may produce hazardous voltage levels exceeding -60 VDC and high energy levels above 240VA that may cause electric shock or burns. All DC input connections should be made only by a qualified service person to prevent injury. All wiring terminals connected to the DC input terminal block must be fully insulated with no exposed bare metal.
DC Output Connectors	The power subsystem DC power and control signals are connected to the server system by wire harnesses when the power supply modules are inserted into the power subsystem enclosure. The safety ground pin of the power supply module is the first pin to connect and the last to disconnect when the module is being inserted or removed from the power subsystem housing. In addition to the 5-V Standby, -12 V, +3.3 V, +5 V and +12 VDC outputs, the following signals and output pins are included: • +3.3 VDC remote sense • +5 VDC remote sense • +12 VDC remote sense • Remote sense return • Power Subsystem On (DC PWR enable) • Power Good

Table 6: *Interface requirements for DC power*

DC power supply module LED indicators

A single bi-color LED on the back of the system indicates the power supply status. Table 7 lists the conditions the LED can indicate:

Power Supply Condition	Power Supply LED
No DC power to all PSUs	OFF
No DC power to this PSU only	AMBER
DC present/Only Standby Outputs On	BLINK GREEN
Power supply DC outputs ON and OK	GREEN
Current limit	AMBER
Power supply failure (OTP, OCP, OVP, UV)	AMBER

Table 7: *DC power supply LED status conditions*

Note: S Failure, PS Presence, PS Predictive Fail, +12 V Mon, +5 V Mon, and the 5 V Standby rails failure are being monitored via an I2C interface chip.

DC input voltage specification

The power supply will operate within all specified limits over the input voltage range outlined in Table 8. The power supply will power-off if the DC input is less than -34 VDC.

Parameter	Minimum Tolerance	Nominal Rating	Maximum Tolerance	Maximum Input Current
Voltage	-38VDC	-48 to -60VDC	-75VDC	17.0 Amps

Table 8: *DC input voltage range*

DC output current specifications

The combined output power of all outputs will not exceed 450 W. The power supply meets both static and dynamic voltage regulation requirements for the minimum dynamic loading conditions. The power supply meets only the static load voltage regulation requirements for the minimum. Combined 3.3V/5V shall not exceed 0A.

Each output has a maximum and minimum current rating, as shown in Table 9.

Voltage	Current Rating
+3.3 VDC Output	20 Amp Max[1]
+5 VDC Output	26 Amp Max[1]
+12 V1DC Output	16 Amp Max[2]
+12 V2DC Output	12.0 Amp Max[2]
+12 V3DC Output	12.0 Amp Max[2]
-12 VDC Output	0.5 Amp Max
+5 VDC Standby	2.0 Amp Max
Output balancing	Total combined output power of all output shall not exceed 450 W.
DC Line Voltage	-48VDC to –60VDC
DC Input Current	17.0 Amp maximum

Table 9: *DC output voltage range*

Note: Combined 3.3V/5V shall not exceed 150W. 2. Maximum continuous load on the combined 12V output shall not exceed 25A. Peak load on the combined 12V output shall not exceed 30A for greater than 10 seconds.

The G400 and G2000 Front and Back Panels

Introduction

This topic identifies the front and back panels of the G400, G400 (Rev A) and G2000 appliances, along with descriptions for each item, including the external bypass unit.

Identifying the G400 (Rev A) appliance model

To determine the G400 (Rev A) appliance model, check the serial number and model label. It should say "Model G400 Rev: A."

Note: The G400 (Rev A) hardware port configurations are the same as the G2000 model. Refer to the appropriate diagram for your appliance model for information about ports and external bypass connectivity.

Front panel diagram and legend

The Proventia G400 and G2000 appliance front panel is shown in Figure 5:

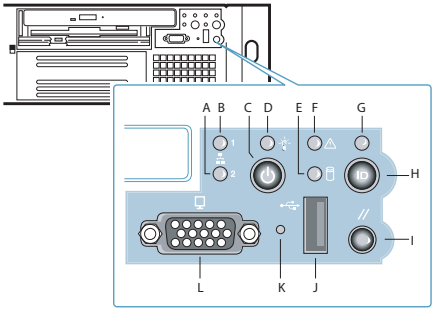


Figure 5: *G appliance front panel*

The following table describes the elements pictured in Figure 5:

Label	Element
A	Management Port LED
B	Kill Port LED
C	Power Button (press and hold to shutdown)
D	Power LED
E	Hard Drive Activity LED
F	Fault LED
G	System ID LED
H	System ID Button
I	Reset Button
J	USB (unused)
K	Unused
L	Video

Table 10: *Elements on the G400 and G2000 front panel*

⚠ **Caution:** You must operate this unit with the top cover installed to ensure proper cooling. A fault LED light generally does not indicate a problem with the appliance itself. The light can appear if the power cord is not plugged in properly.

G400F back panel diagram

Figure 6 illustrates the back of a G400F appliance. USB ports are labeled as they correspond to the monitoring ports for external bypass unit connectivity. For information on connecting the external bypass unit to this appliance, see “Configuring the Appliance External Bypass Unit” on page 34.

Important: Refer to the G2000 diagrams if you have a G400 (Rev A) appliance.

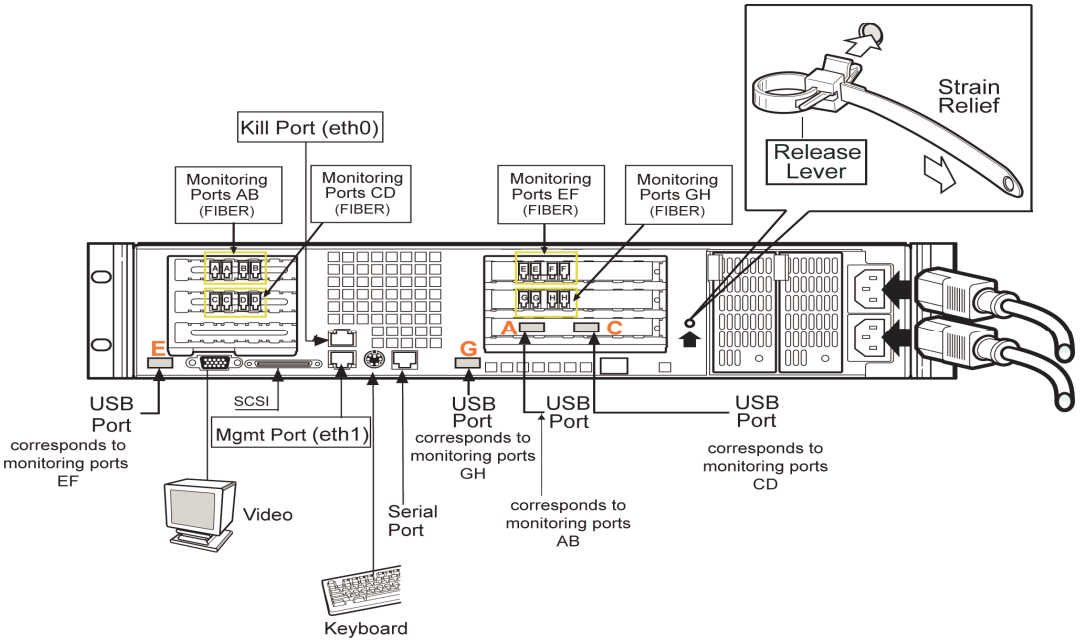


Figure 6: *G400F back panel diagram*

Note: An additional USB card with two more USB ports is added for additional G400 full fiber units (A and C).

G400CF back panel diagram

Figure 7 illustrates the back of the G400CF copper-fiber appliance. The USB ports are labeled as they correspond to the monitoring ports for external bypass connectivity. Other ports and connections are the same as the G400F back panel. Refer to Figure 6, "G400F back panel diagram" on page 21. For more information about external bypass connections, see "Configuring the Appliance External Bypass Unit" on page 34.

Important: Refer to the G2000 diagrams if you have a G400 (Rev A) appliance.

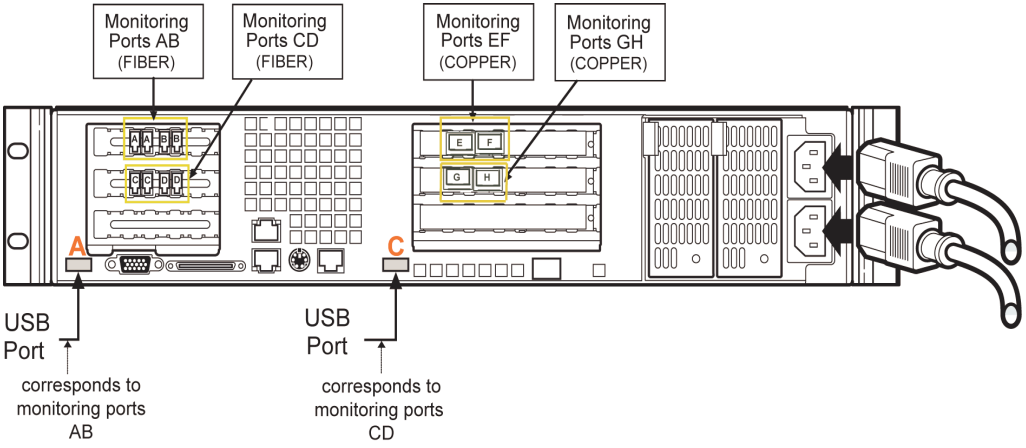


Figure 7: *G400CF back panel diagram*

G400F (Rev A) and G2000F back panel diagram

The following diagram describes the G400F (Rev A) or G2000F fiber appliance. USB ports are labeled as they correspond to the monitoring ports for external bypass unit connectivity. For information on connecting the external bypass unit to these appliances, see “Configuring the Appliance External Bypass Unit” on page 34.

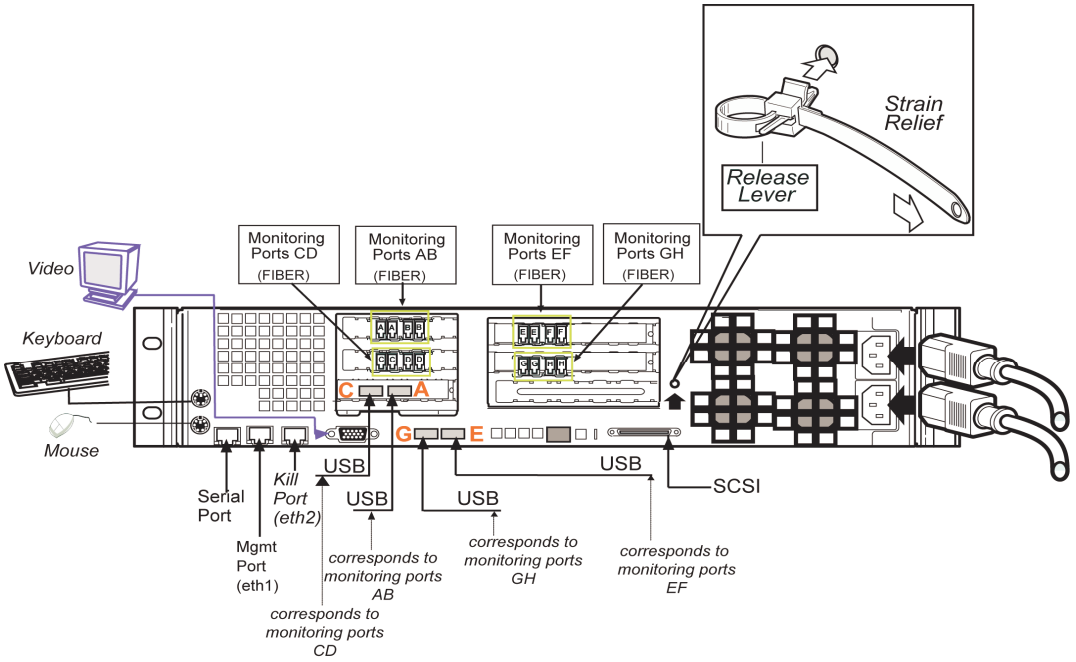


Figure 8: *G400F (rev A) or 2000F back panel diagram*

Note: An additional USB card with two more USB ports is added for additional G400 (Rev A) or G2000 full fiber units (C and A).

G400CF (Rev A) or 2000CF back panel diagram

Figure 9 shows the back of the G400CF (Rev A) or G2000CF copper-fiber appliance labeled for external bypass unit connectivity. USB ports are labeled as they correspond to the monitoring ports. For bypass unit connectivity information, see the "Configuring the Appliance External Bypass Unit" on page 34.

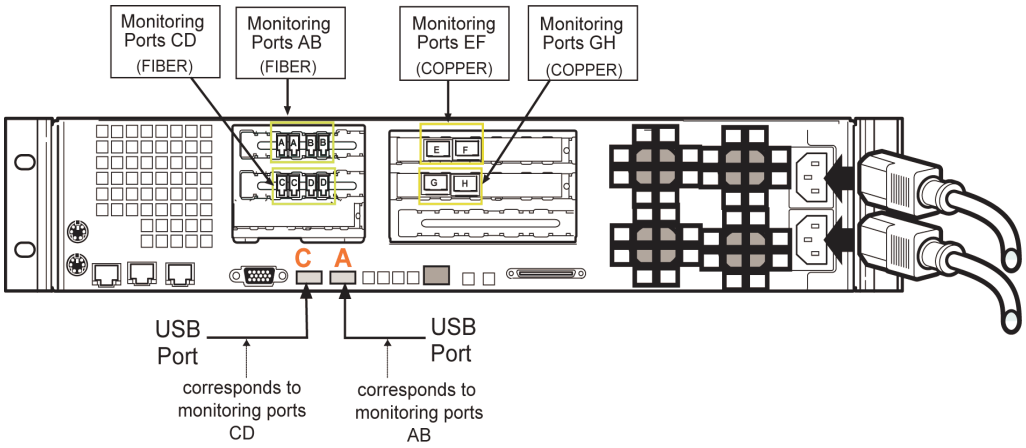


Figure 9: *G400CF (rev A) or 2000CF back panel diagram*

Network Cabling Guidelines

Introduction

The Proventia G400C, G400C (Rev A) and G2000C appliances have built-in copper bypass hardware, which by default fails "open," allowing traffic to continue passing through the appliance if the appliance fails or loses power. If you change the default setting to closed, the appliance will not allow traffic to pass in the event of a failure.

The G400F, G400CF, G400F (Rev A) G400CF (Rev A) and G2000F and G2000CF do not have built-in bypass hardware. You can purchase an optional fiber bypass unit and kit that provides bypass functionality. Contact Internet Security Systems for availability. See "Configuring the Appliance External Bypass Unit" on page 34 for more information.

Note: These models require the external bypass unit for the fiber ports only.

General cabling guidelines

The following table lists some general cabling guidelines:

Use this Ethernet cable...	In these situations....
Crossover	Between the appliance and a workstation Between the appliance and a router
Straight-through	Between the appliance and a switch or hub

General cabling guidelines

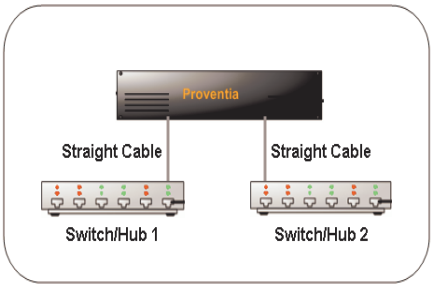
Where a crossover is needed, you may use your own CAT5 crossover cable or the provided one-foot cable and crossover coupler that comes with the appliance. When the appliance is not running, its monitoring ports function as a crossover. The following scenarios work independently of the monitoring port (A or B) you use.

Important: You should install the correct network cabling and verify that traffic flows *before* you turn on the appliance.

Switch or hub 1 to switch or hub 2

To deploy the appliance between two switches or hubs:

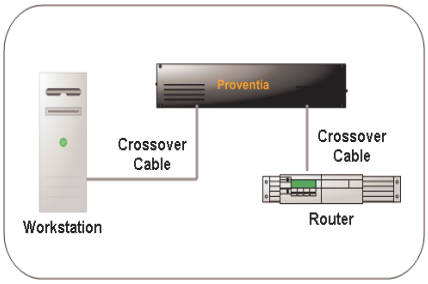
- use a straight-through Ethernet cable from Switch or Hub 1 to the appliance
- use a straight-through Ethernet cable from the appliance to Switch or Hub 2



Workstation or server to router

To deploy the appliance between a workstation and a router:

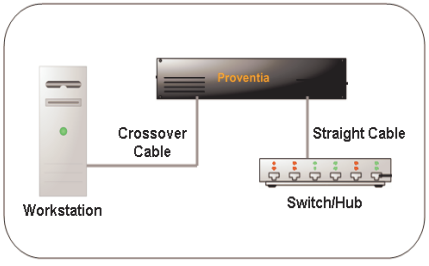
- use an Ethernet crossover cable from the workstation to the appliance
- use an Ethernet crossover cable from the appliance to the router



Workstation or server to switch or hub

To deploy the appliance between a workstation and a switch:

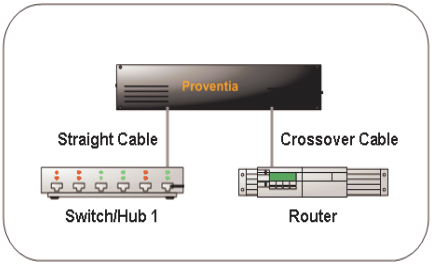
- use an Ethernet crossover cable from the workstation to the appliance
- use a straight-through Ethernet cable from the appliance to the switch



Router to switch or hub

To deploy the appliance between a router and a switch/hub:

- use an Ethernet crossover cable from the router to the appliance
- use a straight -through Ethernet cable from the

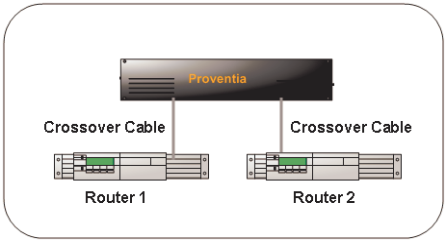


appliance to the switch or hub

Router to router

To deploy the appliance between two routers:

- use an Ethernet crossover cable from Router 1 to the appliance
- use an Ethernet crossover cable from the appliance to Router 2



High Availability Deployment

Appliances **cannot** be configured for high availability (HA) mode during the initial setup in the Proventia Setup Utility. Select one of the standard appliance modes during the initial setup, and then refer to High Availability Configuration topics in the *Proventia Network Intrusion Prevention System G/GX Appliance User Guide* or the Help for detailed procedures for enabling HA modes.

Chapter 2

Connecting and Configuring the Appliance

Overview

Introduction

This chapter describes how to configure a Proventia Network IPS G appliance. Use the "Configuration Checklist" on page 39 to gather the information you need to complete the configuration process.

In this chapter

This chapter contains the following topics:

Process Overview

Overview

This topic provides an overview of the steps required to set up a Proventia G appliance.

The setup process

The following table outlines the steps required to set up a Proventia G appliance:

Step	Description	Where to find the procedure
1	Connect the appliance cables to a computer and turn on the appliance.	“Connecting the Cables and Starting the Appliance” on page 32.
2	Start a terminal emulation session.	“Setting up terminal emulation” on page 33.
3	Gather required information.	“Configuration Checklist” on page 39.
4	Log in to the Proventia Setup Assistant as **admin/admin**.	“Completing the Initial Configuration” on page 42.
5	Configure initial network and appliance settings.	“Completing the Initial Configuration” on page 42.

Table 11: *Setup process*

Step	Description	Where to find the procedure
6	Contact your Sales Representative for your license registration number. Do the following: 1. Register your customer license at the IBM ISS License Registration center (https://www1.iss.net/cgi-bin/lrc). 2. Download the license key file from the IBM ISS Registration Center to your computer. **Note:** IBM ISS recommends that you upload the license key file to a designated directory so that the appliance can download and install the latest updates automatically. 3. Upload the license when you log in to Proventia Manager, when prompted.	"Acquiring the License File" on page 48.
7	Verify you have the following: • Internet Explorer version 6.0 or later • Java Runtime Environment (JRE) version 1.5. The application prompts you with an installation link if you do not have it installed.	"Accessing Proventia Manager" on page 46.
8	Log in to Proventia Manager.	"Logging on to Proventia Manager" on page 46.
9	Install license.	"Acquiring the License File" on page 48
10	Apply updates.	"Applying Initial Updates" on page 50

Table 11: *Setup process (Continued)*

Connecting the Cables and Starting the Appliance

Introduction

This topic provides instructions for connecting cables and starting the appliance for the first time.

Important: Ensure that you keep your management and monitoring communication separate so that network traffic will be allowed to pass uninterrupted through the appliance's network interface card (NIC).

Connecting the power cord

The appliances have dual standard AC power connectors.

To connect the power cord(s):

1. Press the strain relief into the platform hole until it snaps into place.
2. Insert the power cord into the loop.

   Note: Leave some slack in the power cord between the strain relief and the power supply.
3. Pull the tab to secure the power cord in the loop.
4. Plug one end of the power cord into the back of the appliance.
5. Plug the other end of the power cord(s) into a standard AC power supply.

Connecting the network cables

To connect the network cables:

1. Connect the management port (eth1) on the back panel to the network you will use to manage it.
2. Connect the network cables to correspond with the adapter mode (inline or passive) you plan to use for the appliance.

   Note: Only connect the Kill port if you want the appliance to send kill responses through the Kill port while in monitoring mode.

   Reference: If you configure the appliance to operate in inline protection or inline simulation modes, see "Network Cabling Guidelines" on page 25.

Connecting to the appliance for first time setup

To connect to the appliance:

1. Ensure the appliance is on.
2. Connect the CAT5 cable from your management interface (eth1) to your hub or switch.
3. Plug one end of the null modem (serial) cable into the serial port on the back of the appliance (Figure 6 or Figure 8, depending on your appliance model).
4. Plug the other end of the serial cable into the serial port on your computer or laptop.
5. Use a terminal emulation program, such as Hyperterminal, to create a connection to the appliance.

Setting up terminal emulation

To set up terminal emulation and connect to the setup utility:

1. On your computer select **Start→ Programs→ Accessories→ Communications.**
2. Select **Hyperterminal**.
3. Create a new connection using the following settings:

Setting	Value
Communications Port	Typically COM1 (depending on computer setup)
Emulation	VT100
Bits per second	9600
Data bits	8
Parity	None
Stop bits	1
Flow control	None

4. Press ENTER to establish a connection.

   The unconfigured login prompt appears.
5. Proceed to “Completing the Initial Configuration” on page 42.

Configuring the Appliance External Bypass Unit

Introduction

The full fiber and copper-fiber hybrid model appliances—G400F, G400CF, G2000F, and G2000CF—use an external bypass unit. The external bypass unit monitors the appliance and ensures that network traffic continues to pass ("fails open") if the appliance fails or loses power.

Items you need

Table 12 outlines what you need to configure the external bypass unit:

Bypass Unit	Included Equipment (Appliance to bypass unit)	Other Required Cables (Bypass unit to network)
Single	• One USB cable • Two fiber cables (LC to LC connectors)	Two fiber cables (LC to whatever your network requires)
Double	• Two USB cables • Four fiber cables (LC to LC connectors)	Four fiber cables (LC to whatever your network requires)

Table 12: *Items needed to configure the bypass units*

Configuration diagram

Figure 10 illustrates bypass unit to appliance configuration.

Note: Internet Security Systems recommends that you place the bypass unit so that it faces the back of the rack. The front of the unit and the back of the appliance are now on the same side.

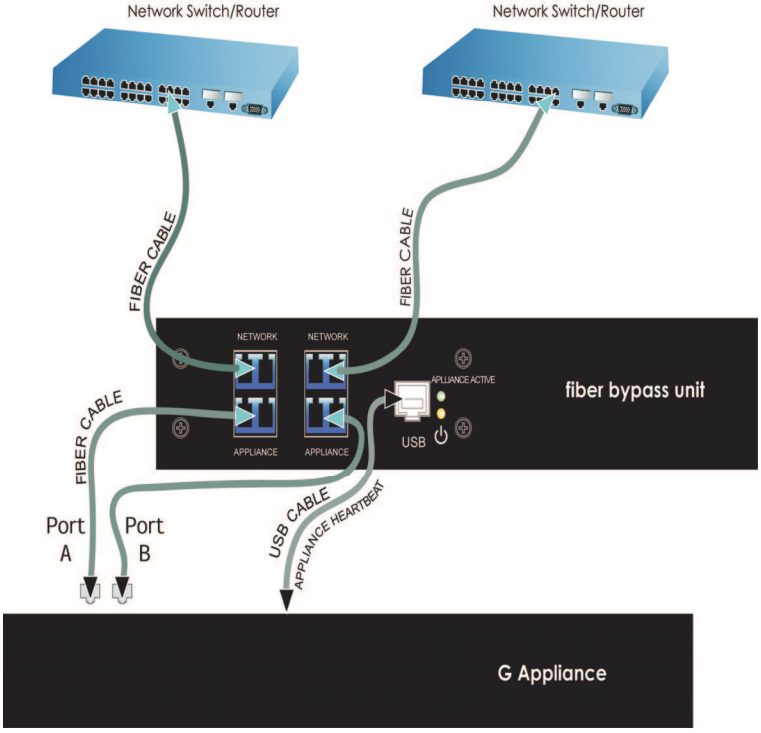


Figure 10: *Generic bypass unit to appliance configuration*

Before you connect the appliance

For each USB port to be correctly associated with the corresponding pair of monitoring ports, you must connect the USB cables before you turn on the appliance. If you connect or disconnect any USB cables while the appliance is on, you must restart the appliance.

Note: If you are unsure whether your appliance is full fiber or copper, refer to ports on the back of the appliance.

⚠ **Caution:** If you disconnect or change USB port connections, or replace interface cards after the appliance and bypass unit are initialized, the system may renumber the USB ports. IBM ISS recommends that you set up the connections as described in this topic. If you need to adjust your ports, you must turn off the appliance, and then reconfigure your port settings.

Connecting the cables

To connect the bypass unit to the appliance:

Important: The appliance MUST be OFF before you connect the appliance to the external bypass unit.

1. Connect the fiber cables from the network ports on the bypass unit to your network switch and routers.
2. Verify that traffic is flowing between the network and the appliance.

   Tip: If you can ping the appliance, traffic is flowing between the network and the appliance.
3. Connect the fiber cables (included with the appliance) from the ports on bypass unit to the corresponding ports on the back of the appliance.
4. Connect the USB cable from the USB port on the bypass unit to the correct USB port(s) on the back of the appliance.

Connecting the G400F and CF appliances

This topic describes how to connect an external bypass unit to the G400F and G400CF appliances. Refer to the back panel diagrams corresponding to your appliance model.

Important: If you have a G400 (Rev A) appliance, refer to the G2000 diagrams for connectivity information.

Port configurations for the G400F

Table 13 indicates USB and monitoring port configurations to connect the external bypass unit to a G400F fiber appliance.

This USB port driver...	Corresponds to monitoring port...
E	EF
G	GH
A	AB
C	CD

Table 13: *G400F USB port connections*

Port Configurations for the G400CF

Table 14 indicates USB and monitoring port configurations to connect an external bypass unit to a G400CF copper-fiber appliance.

This USB port driver...	Corresponds to this monitoring port...
A	AB
C	CD

Table 14: *G400CF copper-fiber USB port configuration*

Connecting the G400 (Rev A) or G2000 Appliances

Refer to your back panel diagrams for labels corresponding to the following tables.

Port configurations for the G400F (Rev A) or G2000F

Table 15 indicates the USB and monitoring port configurations for connecting a G400F (rev A) or G2000F fiber appliance to the external bypass unit.

This USB port driver...	Corresponds to this monitoring port...
C	CD
A	AB
G	GH
E	EF

Table 15: *G400F (rev A) or 2000F USB port connections*

Port configurations for the G400CF (Rev A) or G2000CF

Table 16 indicates the USB and monitoring port configurations for connecting a G2000CF copper-fiber appliance to the external bypass unit.

This USB port driver...	Corresponds to this monitoring port...
C	CD
A	AB

Table 16: *G400CF (rev A) or 2000CF (copper-fiber) USB port configuration*

Configuration Checklist

Required information checklist

Use the checklist in Table 17 to obtain the information you need to configure your Proventia G appliance.

✓	Setting	Description
❑	Appliance hostname	The unique computer name for your appliance **Example:** *myappliance*
	Your setting:	
❑	Appliance domain name	The domain suffix for the network **Example:** *mydomain.com*
	Your setting:	
❑	Appliance domain name server	The IP address of the server you are using to perform domain name lookups (DNS search path). (optional). **Example:** *10.0.0.1*
	Your setting:	
❑	Management Port IP Address	An IP address for the management network adapter.
	Your setting:	
❑	Management port subnet mask	The subnet mask value for the network that will connect to your management port.
	Your setting:	
❑	Management port default gateway (IP address)	The IP address for the management gateway.
	Your setting:	
❑	Adapter mode	The adapter (operation) mode to use for the appliance. The adapter mode you plan to use should correspond to the way you connected the network cables.
	Your setting:	

Table 17: *Checklist and worksheet for configuration information*

About IPS monitoring modes

How you connect the appliance to the network depends on the mode in which you want to run the appliance. The inline appliances include the following adaptor modes:

Mode	Responses	Benefits
Inline protection	Block, Quarantine, Firewall	• Monitors network and actively blocks malicious traffic • Allows you to realize the full benefit of the IPS
Inline simulation	Block, Quarantine (Simulated)	• Monitors network without affecting traffic patterns • Helps you baseline and test your security policy
Passive monitoring	Block	• Replicates traditional IDS technology • Monitors traffic without sitting inline

Table 18: *Monitoring modes*

High availability appliance modes

During setup, you can select one of the adapter modes described in Table 18. For the G400 or G2000, you can configure high availability (HA) through the Proventia Manager as part of your appliance management configuration. Table 19 lists the available HA modes.

Mode	Description
Normal mode	In Normal operation mode, the appliance cannot operate with another appliance in HA. Appliances can be configured to run in inline protection, inline simulation, and passive monitoring modes at the adapter level only.
HA Protection mode	In protection mode, both HA partner appliances monitor traffic inline and each report and block the attacks received on their inline ports. The appliances also monitor the traffic on each other's segments using mirror links—ready to take over reporting and protection in case of network failover.

Table 19: *HA appliance modes*

Mode	Description
HA Simulation mode	In HA simulation mode, both HA partner appliances monitor traffic inline but do not block any traffic. Instead they provide passive notification responses. The appliances also monitor the traffic on each other's segments using mirror links—ready to take over notification in case of network failover.

Table 19: *HA appliance modes (Continued)*

Completing the Initial Configuration

Introduction

Proventia Setup is the program you use to configure initial appliance network settings.

Procedure

To complete the initial configuration for the appliance:

1. At the unconfigured login prompt, type the user name **admin**, and then press ENTER.
2. Type the default password **admin**.
3. Select **Start**, and then press ENTER.
4. Read the Software License Agreement, and then select **Accept** to continue.

5. Follow the on-screen instructions.

   The following table describes the required information. You can use the information you provided in the check list to complete many of these settings.

Information	Description
Change Password	• **Admin Password**—When you access the appliance, you must provide this password. This password can be the same as the root password. • **Root Password**—When you access the appliance from a command line, you must provide this password. • **Proventia Manager Password**—When you access Proventia Manager, you must provide this password. This password can be the same as the root password.
Network Configuration Information	• **IP Address**—The IP address of the management network adapter. • **Subnet Mask**—The subnet mask value for the network that connects to the management interface. • **Default Gateway**—The IP address for the management gateway.
Host Configuration	The appliance uses domain names and DNS information to send email and SNMP responses. If you do not configure this information during setup, you must specify the IP address of the appliance's mail server each time you define an email or SNMP response. • **Hostname**—The computer name for the appliance. Example: myappliance. • **Domain Name**—The domain suffix (DNS search path) for the network. Example: mycompany.com. • **Primary Name Server**—The IP address for the DNS used to perform domain name lookups. Example: 10.0.0.1 • **Secondary Name Server**—The IP address for the secondary DNS used to perform domain name lookups.

Information	Description
Time Zone Configuration	These settings determine the time zone for the appliance.
Date/Time Configuration	You must set the date and time for the appliance as it appears in the management interface, so you can accurately track events as they occur on the network.
Agent Name Configuration	The Agent Name is the appliance name as it appears in the management interface. This name should correspond to a meaningful classification in the network scheme, such as the appliance's geographic location, business unit, or building address.
Port Link Configuration	Port link settings determine the appliance's performance mode, or how the appliance handles its connection to the network. You can select the speed (the rate at which traffic passes between the appliance and the network) and the duplex mode (which direction the information flows). Select link speeds and settings compatible with your particular network and in relation to the other devices that bracket the Proventia Network IPS appliance. If you are not sure about your network settings, select Auto to enable the appliance to negotiate the speed and duplex mode with the network automatically. **Note**: After the initial appliance configuration, you can only change port link speed and duplex settings for the inline monitoring and kill ports through Proventia Manager. For more information, see "Managing Network Adapter Cards" in the *Proventia Network IPS G and GX Appliance User Guide*.

Information	Description
Adapter Mode Configuration	The Adapter Mode determines how the appliance behaves within the network in order to protect it. Review “About IPS monitoring modes” on page 40 if you are not sure which mode to select. You can select different adapter modes for each port pair, but you must confirm that you have selected the correct adapter mode for the appliance’s physical network connections. You may experience significant network implications if you have configured this setting incorrectly.

When you have entered all the information, the appliance applies the settings.

6. When you are prompted, press ENTER to log off the appliance.

Applying the settings and logging out

To apply your settings and exit:

1. On the Adapter Mode Configuration screen, press ENTER

   A progress bar appears while the appliance applies your settings.

   The log out screen appears, indicating that the configuration is complete.

2. Select **Logout**, and then press ENTER.

Accessing Proventia Manager

Introduction

Proventia Manager is the Web-based management interface for the appliance. Use Proventia Manager to perform the following tasks:

- monitor the status of the appliance
- configure and manage settings
- view quarantine table and apply changes
- review and manage appliance activities

Logging on to Proventia Manager

To log on to the Proventia Manager interface:

1. Start Internet Explorer 6.
2. Type `https://` <appliance IP address>.
3. Log in using the user name `admin` and the Proventia Manager password.
4. If a message informs you that you do not have Java Runtime Environment (JRE) installed, install it, and then return to this procedure.
5. Select **Yes** to use the Getting Started procedures.

   Note: IBM ISS recommends that you use the Getting Started procedures to help you customize the appliance settings. If this window does not appear, you can also access the Getting Started procedures from the Help.
6. Click **Launch Proventia Manager**.

Chapter 3

Installing Licenses and Applying Updates

Overview

Introduction

This chapter describes how to obtain a license, install the license, and apply updates.

In this chapter

This chapter contains the following topics:

Acquiring the License File

Introduction

Proventia Network IPS appliances require a properly configured license file. If you have not installed the appropriate license file, you cannot manage the appliance.

To purchase a license, contact your local sales representative.

About the Licensing page

The Licensing page displays important information about the current status of the license file, including expiration dates. Additionally, this page allows you to access the License Information page, which includes information about how to acquire a current license.

Collecting license information

To collect your license information:

1. Contact your Sales Representative for your license registration number.
2. Register your customer license at the IBM ISS License Registration center (https://www1.iss.net/cgi-bin/lrc).
3. Download the license key file from the IBM ISS Registration Center to your computer.

   Note: You must save the license file to the appropriate location so that the Proventia Manager software can locate and acknowledge it.

Location for the license key

Upload the license key file to a designated directory so that the appliance can download and install the latest updates automatically.

Installing the License File

Overview

The license file is necessary to make your appliance run at full capability. You must install the license before you can manage the appliance.

Prerequisites

Before you install the license file, you should have completed the following steps:

- register your customer license
- download the license from the IBM ISS Registration Center

Procedure

To install the license file:

1. In Proventia Manager, select **System→Licensing**.
2. Click **Browse**.
3. Locate the license file that you downloaded.
4. Click **OK**.
5. Click **Upload**.

Applying Initial Updates

Introduction

Before you begin to create policies to manage your network security, you must ensure you have applied the latest updates to the appliance. The appliance retrieves updates from the IBM ISS Download Center, accessible over the Internet.

For information about maintaining appliance updates, see Chapter 6, "Updating the Appliance," in the *Proventia Network IPS G and GX Appliance User Guide*.

Types of updates

You can install the following updates:

- **Firmware updates**. These updates include new program files, fixes or patches, enhancements, or online Help updates.
- **Intrusion prevention updates**. These updates contain the most recent security content provided by IBM ISS X-Force.

You can find updates on the Updates to Download page, and you can schedule automatic update downloads and installations from the Update Settings page.

Note: Some firmware updates require you to reboot the appliance. For more information about product issues and updates, see your appliance Readme.

Downloading updates

To download initial updates:

1. Select **Updates→Available Downloads**.
2. If your appliance model requires it, the Export Administration window appears.

   Review the agreement, select **Yes**, and then click **Submit**.
3. The Updates to Download window appears and displays the following message if updates are available: "There are updates available. Click here to see details."

   Click the link in the message.
4. On the Updates to Download page, click **Download All Available Updates**.

Installing updates

To install updates:

1. In Proventia Manager, select **Updates→Available Installs**.
2. If your appliance model requires it, the Export Administration Regulation window appears.

   Review the agreement, select **Yes**, and then click **Submit**.
3. On the Available Installs page, select the updates you want to install, and then click **Install Updates**.

   Note: Some firmware updates require you to reboot the appliance. For detailed information about each firmware update, review the appliance Readme.
4. View the installation status in the Update History table on the Update Status page.

Chapter 4

Reinstalling the Appliance

Overview

Introduction

Reinstalling the appliance resets the appliance to its original factory settings. Under normal circumstances, you should never need to reinstall the appliance. Use the instructions in this chapter only if you have exhausted other options for correcting problems.

In this chapter

This chapter contains the following topics:

Understanding the Reinstallation Process

Introduction

Reinstalling the appliance erases all data from the system and returns it to its factory state.

Important: Perform this procedure only under the guidance of IBM ISS technical support.

Recovery CD

The Recovery CD included in the appliance packaging contains the software that was installed on the appliance at the factory. You can reinstall the software from this CD.

Before you reinstall the appliance

Before you reinstall the appliance, complete the following tasks:

✓	Task Description
❑	Locate the *Proventia Network Intrusion Prevention System Recovery CD* included with the appliance package.
❑	Create a backup of the current system in Proventia Manager. You can restore the system settings from this backup after you reinstall the appliance firmware. See "Appliance Management" in the *Proventia Network IPS G and GX Appliance User Guide* for more information.
❑	Record the following appliance settings for the management interface: • IP address, subnet mask, and default gateway • hostname, domain name, and DNS name server

Table 20: *Before you reinstall the appliance*

Results of the reinstallation process

The reinstallation process does the following:

- Overwrites software configuration changes you have made since you first installed the appliance.
- Restores the original, default login credentials:
  - username = admin
  - password = admin

Reinstalling the Appliance

Introduction

This topic describes the process for reinstalling the Proventia G Intrusion Prevention Appliances.

⚠ **Caution:** Reinstalling restores the appliance to its original configuration and removes any customized settings.

What you need

To reinstall a G appliance, you need the following:

- a computer to use as your configuration interface
- a *Proventia Network IPS G Appliance Recovery CD* (model-specific)
- the IP address, subnet mask, and default gateway of the appliance's management interface.

Reinstallation process task overview

To reinstall the appliance, follow the tasks in Table 21. See the complete procedure in "Procedure" on page 55:

Task	Description
1	Reinstall the appliance.
2	Log in and change the passwords.
3	Reconfigure the network interface and host.
4	Reconfigure the time and date.
5	Reconfigure the link speed, duplex and operational mode settings.
6	Apply your settings and logout.

Table 21: *Reinstallation process*

Important: After rebooting with the Recovery CD, the appliance reverts to the default login name and password, **admin/admin**.

Procedure

To reinstall the appliance:

1. If there is a bezel cover on the front of the appliance, remove it.
2. Connect a keyboard to the appliance or to the computer and monitor.

Reference: If using a computer, see "Setting up terminal emulation" on page 33.

3. Place your model-specific *Proventia Network IPS G Appliance Recovery CD* in the CD-ROM drive.
4. Restart the appliance.

   Tip: You can manually turn the power off and on if the appliance is not recognizing the CD .

   The appliance restarts.
5. At the **`boot:`** prompt, type `reinstall`, and then press ENTER.

   The appliance reloads the operating system, displays status messages, ejects the CD, and then reboots.

   Important: Promptly remove the CD prior to the appliance restarting.

   Wait for the appliance to completely finish the restart process.
6. At the unconfigured login prompt, enter the default username: **`admin`**
7. Enter the password, **`admin`**.

   The Proventia Setup screen appears.
8. Perform the configuration steps as described in "Completing the Initial Configuration" on page 42.

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