

**IBM Proventia Network Intrusion Prevention System**

# **GX6116 Getting Started Guide**

**IBM Internet Security Systems**

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IBM Global Services  
Route 100  
Somers, NY 10589  
U.S.A.

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# Preface

## Overview

<b>Introduction</b>	This guide is designed to help you connect and configure your IBM Proventia Network Intrusion Prevention Systems (IPS) GX6116 appliance.
<b>Scope</b>	This guide includes basic information and required procedures for connecting the appliance and configuring basic settings.
<b>Audience</b>	This guide is intended for network security system administrators responsible for installing and configuring Proventia Network IPS Appliances. A fundamental knowledge of network security policies and IP network configuration is helpful.

# About Proventia Appliance Documentation

**Introduction** This guide explains how to configure intrusion prevention, firewall settings, and other policy settings for the Proventia Network IPS using the Proventia Manager software (local management interface). It also provides information for managing the appliances using both the Proventia Configuration Menu and the Proventia Manager.

**Locating additional documentation** Additional documentation described in this topic is available on the IBM ISS Web site at <http://www.iss.net/support/documentation/>.

**Related publications** See the following for more information about the appliance:

Document	Contents
<i>IBM Proventia Network Intrusion Prevention System G and GX Appliance User Guide</i>	Provides overviews and procedures for creating and managing policies and responses, as well as maintaining appliance settings.
<i>Proventia Network Intrusion Products Help</i>	Procedures for creating and managing policies in Proventia Manager and the Proventia Network IPS Policy Editor in SiteProtector.
<i>Proventia Network IPS Data Sheet</i>	General information about previous Proventia Network IPS appliance features.
<i>Proventia Network IPS Frequently Asked Questions</i>	Frequently asked questions about the appliance and its functions.
Readme File	The information about product issues and updates, and how to contact Technical Support located at <a href="http://www.iss.net/download/">http://www.iss.net/download/</a> .

**Table 1:** Reference 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](mailto: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 <b>Note:</b> 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: <a href="http://www.iss.net">www.iss.net</a>	<b>Standard:</b> (1) (888) 447-4861 (toll free) (1) (404) 236-2700 <b>Select and Premium:</b> Refer to your Welcome Kit or call your Primary Designated Contact for this information.
Latin America	<a href="mailto:support@iss.net">support@iss.net</a>	(1) (888) 447-4861 (toll free) (1) (404) 236-2700
Europe, Middle East, and Africa	<a href="mailto:support@iss.net">support@iss.net</a>	(44) (1753) 845105
Asia-Pacific, Australia, and the Philippines	<a href="mailto:support@iss.net">support@iss.net</a>	(1) (888) 447-4861 (toll free) (1) (404) 236-2700
Japan	<a href="mailto:support@isskk.co.jp">support@isskk.co.jp</a>	Domestic: (81) (3) 5740-4065

**Table 3:** *Contact information for technical support*



## Chapter 1

# Introducing the Proventia Network IPS GX6116 Appliance

## Overview

**Introduction** This chapter contains introductory information about deploying your Proventia Network IPS GX6116 appliance.

**In this chapter** This chapter contains the following topics:

<b>Topic</b>	<b>Page</b>
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Appliance Package Contents	12
About the GX6116 Appliance	13
Network Cabling Guidelines	15

# Intrusion Prevention

## Introduction

The Proventia Network IPS appliance automatically blocks malicious attacks while preserving network bandwidth and availability. The Proventia Network IPS appliances are purpose-built, Layer 2 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.

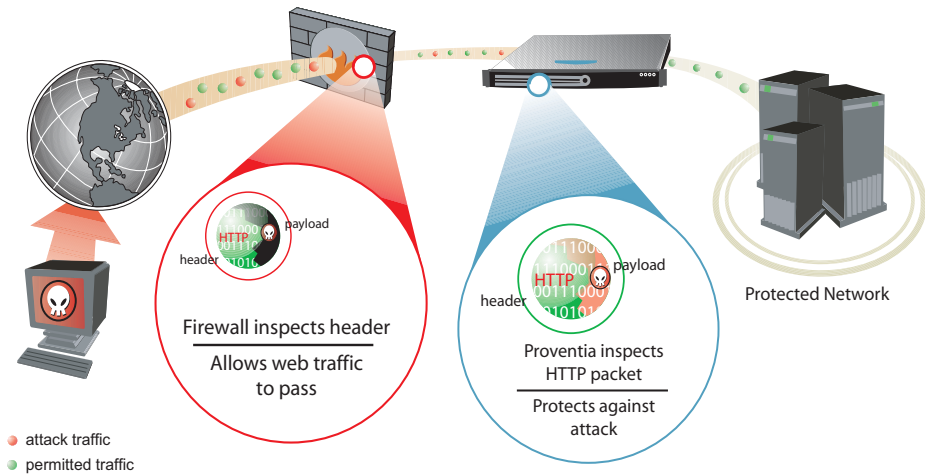


Figure 1: *Intrusion prevention overview*

Figure 1 displays how the Proventia Network IPS protects your network. With flexible deployment options and out-of-the-box functionality, these appliances ensure accurate, high-performance protection at both the network perimeter and across internal networks and internal network segments.

## 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	<ul style="list-style-type: none"> <li>Monitors network and actively blocks malicious traffic</li> <li>Allows you to realize the full benefit of the IPS</li> </ul>
Inline simulation	Block, Quarantine (Simulated)	<ul style="list-style-type: none"> <li>Monitors network without affecting traffic patterns</li> <li>Helps you baseline and test your security policy</li> </ul>
Passive monitoring	Block	<ul style="list-style-type: none"> <li>Replicates traditional IDS technology</li> <li>Monitors traffic without sitting inline</li> </ul>

**Table 4:** *Monitoring modes*

# Appliance Package Contents

## Introduction

Before you begin, you should verify that you have all of the package contents necessary to use the appliance.

## Verifying the contents

Verify the appliance package includes the following:

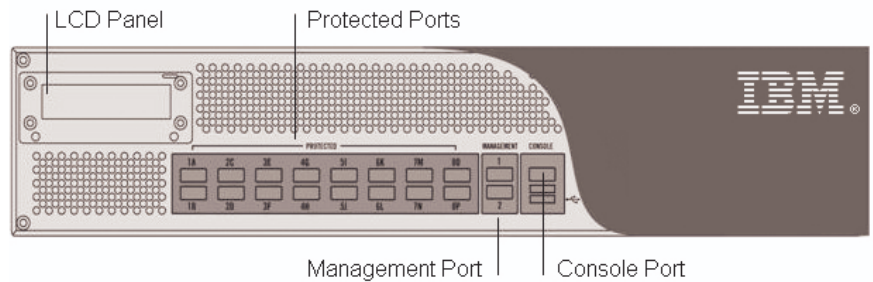
✓	Item
<input type="checkbox"/>	Proventia Network IPS GX6116 appliance
<input type="checkbox"/>	Proventia console cable
<input type="checkbox"/>	Ethernet crossover cable
<input type="checkbox"/>	Power cords
<input type="checkbox"/>	Recovery CD pack
<input type="checkbox"/>	Warranty statement
<input type="checkbox"/>	Rail kit

**Table 5:** *Materials for connecting appliance*

# About the GX6116 Appliance

**Introduction** Before you connect the appliance to the network, familiarize yourself with the appliance’s hardware features.

**GX6116 front panel** Figure 2 displays the GX6116 front panel:



**Figure 2:** GX6116 appliance front panel

**LCD panel** You can use the LCD panel for:

- initial network configuration
- restarting or shutting down the appliance
- obtaining IPS version information
- displaying link status.

**Using the LCD panel to display link status** Use the “Show Link Status” option to see current link status. When you select this option, you see two rows of eight circles that correspond to the physical layout of the management ports. If link is active on a port, the circle that represents the port is filled. An empty circle indicates no link for the associated port.

**External bypass** The GX6116 fails closed by default. It uses external fiber bypass hardware to ensure that network traffic continues to pass if the appliance fails or loses power.

**SFPs and link speed** The GX6116 appliance uses small form-factor pluggable (SFP) transceivers. SFPs are designed for high traffic environments. By design, these ports link only at 1 gigabit per second (Gbps).

# Network Cabling Guidelines

## Introduction

Before you connect the appliance to the network, consider the following guidelines to determine what cabling to use to connect the appliance to the network. Wherever you need a crossover connection, you may use your own Ethernet cable. IBM ISS provides one crossover adapter and two one-foot Ethernet cables per segment. When the appliance is not running, its monitoring ports function as a crossover. The following scenarios work independently of the monitoring port you use.

## General cabling guidelines

The following table lists some general cabling guidelines:

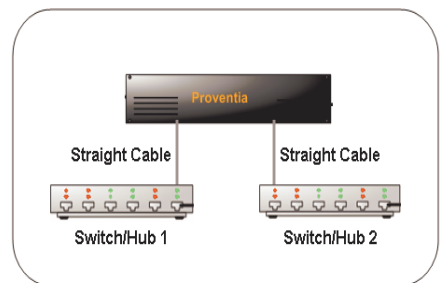
Use this Ethernet cable...	In these situations....
Crossover	Between the appliance and a workstation Between the appliance and a router
Straight-through	Between the appliance and a switch or hub

**Table 6:** *General cabling guidelines*

## Switch or hub 1 to switch or hub 2

To deploy the appliance between two switches or hubs:

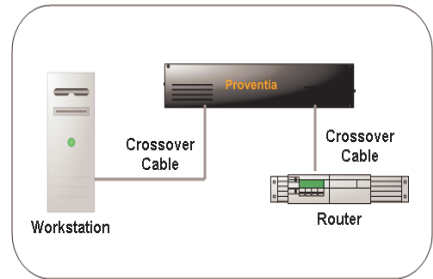
- use a straight-through Ethernet cable from Switch or Hub 1 to the appliance
- use a straight-through Ethernet cable from the appliance to Switch or Hub 2



**Workstation or server to router**

To deploy the appliance between a workstation and a router:

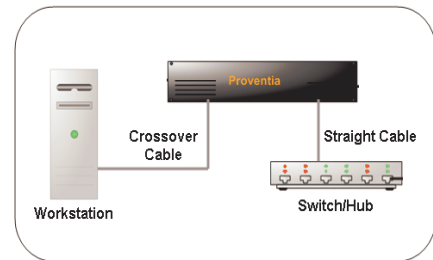
- use an Ethernet crossover cable from the workstation to the appliance
- use an Ethernet crossover cable from the appliance to the router



**Workstation or server to switch or hub**

To deploy the appliance between a workstation and a switch:

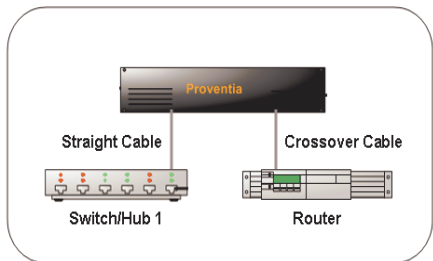
- use an Ethernet crossover cable from the workstation to the appliance
- use a straight-through Ethernet cable from the appliance to the switch



**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

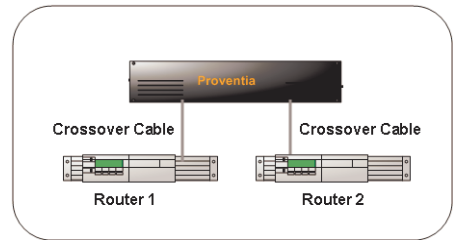




**Router to router**

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





## Chapter 2

# Getting Started

## Overview

**Introduction** This chapter contains information about the appliance package contents, a list of connection and configuration steps, and connection procedures for the GX6116 appliance.

**In this chapter** This chapter contains the following topics:

<b>Topic</b>	<b>Page</b>
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Connecting the Cables and Starting the Appliance	21
Required information checklist	22
Connecting to the Appliance	23
Completing the Initial Configuration	25

# Getting Started

## Setup process overview

Connecting and configuring the GX6116 appliance is an 8-step process:

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 21
2	Connect to the appliance through a serial console or remote connection.	“Connecting to the Appliance” on page 23
3	Gather required information.	“Required information checklist” on page 22
4	Log in to Proventia Setup and configure initial network settings.	“Completing the Initial Configuration” on page 25
5	Verify you have the following: <ul style="list-style-type: none"> <li>• Internet Explorer version 6.0 or later</li> <li>• Java Runtime Environment (JRE). The application prompts you with an installation link if you do not have it installed. (See the Readme for the required JRE version.)</li> </ul>	
6	Open Internet Explorer and log in to Proventia Manager as username <b>admin</b> and the password you configured during Proventia Setup.	“Accessing Proventia Manager” on page 31
7	Collect license information and install license.	“Installing the License File” on page 38
8	Apply security and firmware updates.	“Applying Initial Updates” on page 39

**Table 7:** *Setup process*

# Connecting the Cables and Starting the Appliance

## Introduction

After you determine where to place the appliance in the network, you can connect the appliance. You should install network cabling and verify that traffic flows *before* you turn on the appliance. If you plan to use external bypass units, see the “Connecting the External Power Failure Bypass Unit.” These instructions are provided with the bypass unit and are also available on the Web at <http://www.iss.net/support/documentation/>.

**Important:** Keep management and monitoring communication separate so network traffic can pass uninterrupted through the appliance’s network interface card (NIC).

## Connecting the appliance to the network

To connect the appliance to the network:

1. Connect the power cords to the appliance.
2. Connect **Management** port 1, on the left, to the network you will use to manage the appliance. Management port 2, on the right, is the RS Kill (TCP reset) port.

**Important:** The appliance does not send kill responses for TCP events until you configure TCPReset. See “Configuring TCPReset” in the *IBM Proventia Network Intrusion Prevention System G and GX Appliance User Guide*.

3. Populate the **Protected** ports with the SFP modules as necessary.  
**Note:** For each port pair, SFP modules must be the same media type; for example, if port A is copper (TX), then port B must also be copper (TX).
4. Connect the network cables to the **Protected** ports. To run the appliance in passive mode, only connect the first Protected port in the pair to the network.
5. (Optional) Connect the serial **Console** cable to the appliance to connect a computer directly to the appliance to complete the initial network configuration.
6. Ping through the to a computer on the other side to verify that traffic passes.
7. Flip the power switch to the On position.

## Required information checklist

Use the checklist in the following table to obtain the information you need to configure the IPS appliance.

✓	Setting	Description
<input type="checkbox"/>	Appliance hostname	The unique computer name for your appliance <b>Example:</b> <i>myappliance</i>
	<b>Your setting:</b>	
<input type="checkbox"/>	Appliance domain name	The domain suffix for the network <b>Example:</b> <i>mydomain.com</i>
	<b>Your setting:</b>	
<input type="checkbox"/>	Appliance domain name server	This is the IP address of the server you are using to perform domain name lookups (DNS search path). (optional). <b>Example:</b> <i>10.0.0.1</i>
	<b>Your setting:</b>	
<input type="checkbox"/>	Management Port IP Address	An IP address for the management network adapter.
	<b>Your setting:</b>	
<input type="checkbox"/>	Management port subnet mask	The subnet mask value for the network that will connect to your management port.
	<b>Your setting:</b>	
<input type="checkbox"/>	Management port default gateway (IP address)	This is the IP address for the management gateway.
	<b>Your setting:</b>	
<input type="checkbox"/>	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.
	<b>Your setting:</b>	

**Table 8:** Checklist and worksheet for configuration information

---

# Connecting to the Appliance

## Introduction

If you connected the appliance directly to a computer using the serial Console cable, you are ready to log on the appliance and begin configuring. See “Completing the Initial Configuration” on page 25.

If you want to configure the appliance from a remote computer, follow the procedure below, which explains how to connect to the appliance using Hyperterminal. You may use another terminal emulation program, such as PuTTY, to connect to the appliance, but those procedures are not outlined here. Follow the instructions listed in the documentation for the program you choose.

## Caution for GX6000-series appliances

Do not turn the appliance off or remove power from the appliance at any time during the installation process. Removing power can corrupt the installation process and permanently damage the appliance, resulting in a situation whereby the appliance must be returned to the factory.

If you want to turn the appliance off, wait until *after* you see the unconfigured login prompt.

## Procedure

To connect to the appliance remotely using Hyperterminal:

1. On your computer, select **Start**→**Programs**→**Accessories**→**Communications**.
2. Select **Hyperterminal**.

3. Create a new connection using the following settings:

<b>Setting</b>	<b>Value</b>
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.

When the connection is established, the Proventia Setup Configuration Menu appears.

**Tip:** If you are unable to establish a connection, ensure the appliance has power and that you have started the appliance.



# 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	<ul style="list-style-type: none"> <li>• <b>Admin Password</b>—When you access the appliance, you must provide this password. This password can be the same as the root password.</li> <li>• <b>Root Password</b>—When you access the appliance from a command line, you must provide this password.</li> <li>• <b>Proventia Manager Password</b>—When you access Proventia Manager, you must provide this password. This password can be the same as the root password.</li> </ul>
Network Configuration Information	<ul style="list-style-type: none"> <li>• <b>IP Address</b>—The IP address of the management network adapter.</li> <li>• <b>Subnet Mask</b>—The subnet mask value for the network that connects to the management interface.</li> <li>• <b>Default Gateway</b>—The IP address for the management gateway.</li> </ul>

<b>Information</b>	<b>Description</b>
Host Configuration	<p>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.</p> <ul style="list-style-type: none"><li>• <b>Hostname</b>—The computer name for the appliance. Example: myappliance.</li><li>• <b>Domain Name</b>—The domain suffix (DNS search path) for the network. Example: mycompany.com.</li><li>• <b>Primary Name Server</b>—The IP address for the DNS used to perform domain name lookups. Example: 10.0.0.1</li><li>• <b>Secondary Name Server</b>—The IP address for the secondary DNS used to perform domain name lookups.</li></ul>
Time Zone Configuration	<p>These settings determine the time zone for the appliance.</p>
Date/Time Configuration	<p>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.</p>
Agent Name Configuration	<p>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.</p>

Information	Description
Port Link Configuration	<p>Port link settings determine the appliance's performance mode, or how the appliance handles its connection to the network.</p> <p>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.</p>
Adapter Mode Configuration	<p>The Adapter Mode determines how the appliance behaves within the network in order to protect it. Review "About IPS monitoring modes" on page 11 if you are not sure which mode to select.</p> <p>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.</p>

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

When prompted, press ENTER to log off the appliance.



## Chapter 3

# Installing Licenses and Applying Updates

## Overview

### Introduction

This chapter explains how to access and navigate Proventia Manager so that you can apply the license file and the latest security updates to the appliance.

### In this chapter

This chapter contains the following topics:

Topic	Page
Before You Begin	30
Accessing Proventia Manager	31
Working with Proventia Manager	32
Navigating Proventia Manager	35
Installing the License File	38
Applying Initial Updates	39

## Before You Begin

### Verifying setup

Before you apply licenses and install security updates, verify that you have done the following:

1. Properly installed the hardware and connected the cables.
2. Created a connection using Hyperterminal (or a VT100 compatible terminal emulation program), with the recommended settings.
3. Completed all initial setup configurations, including the following:
  - logged on to the appliance with the Proventia Setup Utility
  - configured the admin, root, and Proventia Manager passwords
  - configured network settings
  - configured the time and date
  - applied the settings
4. Prior to using the appliance, you must install the license file. Additionally, you can perform the following tasks:
  - view your component status on the Home page
  - update the firmware
  - configure update settings
  - configure and update intrusion prevention settings
  - configure the firewall

---

# 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.
2. Type **https://xxx.xxx.xxx.xxx** where **xxx.xxx.xxx.xxx** is the IP address for the appliance.
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:** You can 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**.

## Working with Proventia Manager

### Introduction




When you open the Proventia Manager, the Home page provides an immediate snapshot of the current status of the appliance. This page includes the following navigation, information and reporting options:

- device name (the appliance domain name you configured during setup)
- protection status
- system status
- alerts for each module
- important messages

### Viewing protection status

The protection status area describes the current status of the intrusion prevention component. Selecting a component name links you to the component status page.

The following status icons show you the current status of a component:

This icon...	Indicates...
	The component is active.
	The component is stopped.
	The component is in an unknown state. This status may require immediate attention.

**Table 9:** *Protection status icons*



## Viewing system status

On the Home page, the system status group box describes the current status of the system. The following table describes the data available in the System Status area:

Statistic	Description
Model Number	The model number of the appliance.
Base Version Number	The base version of the appliance software. <b>Note:</b> The base version is the software version shipped with the appliance, or the software version of the most recent firmware update.
Uptime	How long the appliance has been online, in the following format: x days, x hours, x minutes
Last Restart	The last time the appliance was restarted, in the following format: yyyy-mm-dd hh:mm:ss <b>Example:</b> 2004-05-04 16:24:37
Last Firmware Update	The last time appliance firmware was updated, in the following format: yyyy-mm-dd hh:mm:ss - version: x.x <b>Example:</b> 2004-05-04 16:25:56 - version: 1.7
Last Intrusion Prevention Update	The last time appliance security content was updated, in the following format: yyyy-mm-dd hh:mm:ss - version: x.x <b>Example:</b> 2004-01-25 12:34:36 - version: 1.7
Last System Backup	The last time a system backup was created, in the following format: yyyy-mm-dd hh:mm:ss <b>Example:</b> 2004-05-04 15:49:01
Backup Description	The backup type on the appliance: <ul style="list-style-type: none"> <li>• Factory Default</li> <li>• Full System Backup</li> </ul>

**Table 10:** *System Status statistics*

**Viewing important messages**

The Home page displays important messages about licensing and updates. If you have not configured the appliance to download updates automatically, these messages may appear with a link to the appropriate Proventia Manager page.

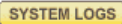



# Navigating Proventia Manager

## Introduction

If you are planning to use the Proventia Manager to manage the appliance, you should familiarize yourself with its navigation features.

## About the navigation buttons

The following buttons appear on every page in the Proventia Manager:

Click this button...	To do this...
	Access the System Logs page.
	Access the Alerts page for the area you have selected in the left navigation pane.
	Access the online Help.
	Minimize or maximize the navigation pane.

**Table 11:** *Navigation buttons*

## About the left navigation pane

In the left pane, you select the item in the tree that you want to configure. Some items have more than one component for you to configure. Expand the tree to display a sub-list of configurable elements in that area.

The following table describes each area of Proventia Manager:

This item...	Lets you view or configure...
Notifications	In the Notifications area, you can view high-level Alert Event Log information, System Logs, system (appliance) alert information.
Intrusion Prevention	In the Intrusion Prevention area, you can configure responses, protection domains, and event types that help keep the network secure from intrusions. You can also view important security alert and quarantined intrusion information, and determine how the appliance should respond to detected intrusions.
Firewall Settings	In the Firewall Settings area, you can create and edit firewall rules to block attacks.





**Table 12:** *Left navigation pane*

This item...	Lets you view or configure...
System	In the System area, you can configure and view information about various aspects of the appliance. You can configure user access, network adapter cards, alerts, and advanced parameters to help you monitor the appliance. You can also view and download important system logs, manage licenses, and reboot the appliance from this area.
Statistics	The Statistics area lets you view important statistics about appliance activity, such as Protection, Packet, and Driver information.
Updates	Use the Updates area to configure and manage updates for the appliance, so that you have the latest protection available for your network.
Support	The Support area provides contact information for Technical Support, as well as helpful links to provide you assistance with the appliance.








**Table 12:** *Left navigation pane (Continued)*

### About icons

The following table describes icons that appear in Proventia Manager as you work:

Icon	Description
	Click this icon to add an item to the list.
	Click this icon to edit an item in the list.
	Click this icon to remove an item (or items) from the list. You can use the standard [SHIFT]+click or [CTRL]+click methods to select adjacent or non-adjacent items in the list. <b>Note:</b> In some cases, when you click Remove, an item is not removed from the list, but it is disabled and reset to its default state.
	Click this icon to group items by column in a table. For example, you could group security events by severity. This means that your high, medium, and low severity events each have their own group, making it easier for you to search for events.

**Table 13:** *Proventia Manager policy icons*

Icon	Description
	Click this icon to reset table groupings to their default settings.
	Click this icon to select the columns you want to display on a page.
	Select an item in the list and click this icon to move the item up the list.
	Select an item in the list and click this icon to move the item down the list.
	Select an item in the list and click this icon to copy the item to the clipboard. <b>Tip:</b> You can use the standard [SHIFT]+click or [CTRL]+click methods to select adjacent or non-adjacent items in the list.
	Click this icon to paste a copied item from the clipboard into a list. After you paste the item, you can edit it.
	If this icon appears on a page or next to a field on a page, then you must enter required data in a field, or the data you have entered in a field is invalid.

**Table 13:** *Proventia Manager policy icons (Continued)*

### About saving changes

Each time you navigate from one location to another in the Proventia Manager, click the Save Changes button to ensure the changes are applied. If you do not save information before navigating to another page, you are prompted to save your information. To move to another page without saving changes, click the Cancel Changes button so that you are not prompted to save before you click the new link.

## Installing 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.

Use the procedure below to install the license file. This is necessary to make your appliance run at full capability. Installation involves saving the license file information to the appropriate location so that the Proventia Manager software can locate and acknowledge it.

### Prerequisites

Before you install the license file, complete the following:

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

### 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.

### Installing the license file

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 “Updating the Appliance” in the *IBM Proventia Network Intrusion Prevention System 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** This chapter describes the process and procedures for reinstalling the GX6116 appliance.

**Caution:** Reinstalling the appliance firmware clears the appliance's current configuration settings and all data stored on the appliance.

**In this chapter** This chapter contains the following topics:

Topic	Page
Requirements	42
Checklist	44
Reinstalling the Appliance Firmware	47

# Requirements

## Introduction

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 on the appliance.

**Important:** Reinstalling the appliance means erasing all data from the system and returning it to its factory state. Only perform this procedure under the guidance of IBM ISS technical support.

## Results

This 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

## Supported network cards

The computer you use to reinstall appliance firmware must have one of the following network cards installed for you to complete the reinstallation successfully:

**Important:** IBM ISS supports only the network cards listed.

Card	Brand Manufacturer
e1000	Intel PRO/1000
e100	Intel PRO/100
3c59x	3Com 3c590, 3c595, 3c905, 3c575
bcm5700	Broadcom 57xx Gigabit
sk98lin	SysKonnect and Marvell Gigabit
tulip	Digital/Intel 21x4x "Tulip"
eeepro100	Intel PRO/100
8139too	RealTek 8139

**Table 14:** *Supported network cards*

<b>Card</b>	<b>Brand Manufacturer</b>
ne2k-pci	NE2000-compatible PCI cards
pcnet32	AMD PCnet32, VMWare
sis900	SiS 900, 7016
via-rhine	Via Rhine VT86C100A, 6102, 6105
8139cp	RealTek 8139C+
epic100	SMC83c170, SMC83c175
xircom_cb	Xircom CardBus
3c574_cs	3Com 3c574
axnet_cs	Asix AX88190
nmclan_cs	AMD Am79C940
smc91c92_cs	SMC 91c92
xirc2ps_cs	Xircom CE2, CE IIps, RE-10, CEM28, CEM33, CEM56, CE3-100, CE3B, RE-100, REM10BT, REM56G-100
3c589_cs	3Com 3c589
fmvj18x_cs	FMV J181, FMV J182, TDK LAK-CD021, ConTec C-NET (PC) C, Ungermann Access/CARD
pcnet_cs/NE2000 compatible cards	D-Link DE-650, Linksys PCMCIA, Accton EN2212, RPTI EP400, PreMax PE-200, IBM Credit Card Adapter, Novell NE4100, Kingston KNE-PCM/x, Allied Telesis LA-PCM, ASANTE FriendlyNet

**Table 14:** *Supported network cards (Continued)*

## Checklist

### Introduction

Before you reinstall the appliance firmware, ensure you complete the tasks listed in the following checklist.

### Before you begin

Before you begin, ensure you have gathered the proper materials and connected the appliance as specified in the following table:

✓	Description
<input type="checkbox"/>	<p>Choose a computer to access the appliance and reinstall the software. This computer is referred to as the <i>Pre-boot eXecution (PXE) server</i>.</p> <p><b>Requirements:</b></p> <ul style="list-style-type: none"> <li>• The BIOS settings on the computer must allow it to restart from a CD. For more information, see the computer's documentation.</li> <li>• Pentium II or compatible CPU</li> <li>• 64M RAM</li> <li>• IDE CD-ROM drive</li> <li>• COM1 serial port</li> </ul>
<input type="checkbox"/>	<p>Locate the following items included with the appliance package:</p> <ul style="list-style-type: none"> <li>• <i>IBM Proventia Network Intrusion Prevention System Recovery CD</i></li> <li>• an Ethernet cross-over cable</li> <li>• a serial (null modem) cable</li> </ul> <p><b>Important:</b> IBM ISS does not support the use of other cables for this procedure.</p>
<input type="checkbox"/>	<p>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.</p> <p>See “Appliance Management” in the <i>IBM Proventia Network Intrusion Prevention System G and GX Appliance User Guide</i> for more information.</p>
<input type="checkbox"/>	<p>Record the following appliance settings for the management interface:</p> <ul style="list-style-type: none"> <li>• IP address, subnet mask, and default gateway</li> <li>• hostname, domain name, and DNS name server</li> </ul>

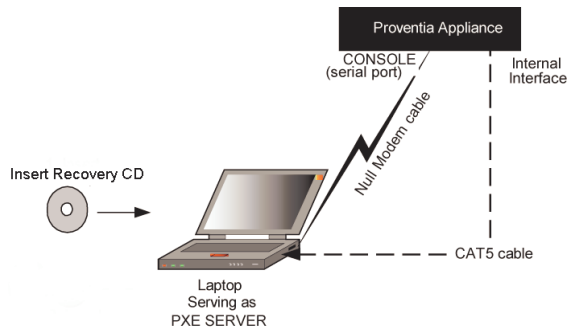
**Table 15:** *Reinstallation checklist*

✓	Description
☐	<p>Turn off the appliance, and then connect the computer (PXE server) directly to the appliance with the provided cables. See diagram below.</p> <p><b>Connect the null modem cable to the devices as follows:</b></p> <ul style="list-style-type: none"> <li>• On the computer (PXE server), use the port labeled COM1.</li> <li>• On the appliance, use the port labeled <b>Console</b>.</li> </ul> <p><b>Connect the Ethernet cable to the devices as follows:</b></p> <ul style="list-style-type: none"> <li>• On the computer (PXE server), use the Ethernet port.</li> <li>• On the appliance, use the left <b>Management</b> port labeled 1.</li> </ul> <p><b>Note:</b> Connecting to the computer (PXE server) to the appliance disables the appliance-Internet connection. When you finish the reinstall process, you must re-establish the Internet connection to retrieve appliance updates.</p> <p><b>Important:</b> If you are running multiple PXE servers on the network, then you need to disconnect them prior to running the Proventia Network IPS reinstallation. You can verify that you are accessing the correct PXE server by the message displayed in Step 5.</p>

**Table 15:** *Reinstallation checklist (Continued)*

**Diagram**

The following diagram illustrates the proper computer-appliance connections for the reinstall process:



---

# Reinstalling the Appliance Firmware

## Introduction

Use the following procedure to reinstall the Proventia Network IPS firmware on your appliance.

## Caution: Do not remove power

Do not turn the appliance off or remove power from the appliance at any time during the installation process. Removing power can corrupt the installation process and permanently damage the appliance, resulting in a situation whereby the appliance must be returned to the factory.

If you want to turn the appliance off, wait until *after* you see the unconfigured login prompt.

## Reinstalling using a PXE boot server

To reinstall the appliance:

1. Turn the appliance off.
2. Insert the *IBM Proventia Network Intrusion Prevention System Recovery CD* into the CD-ROM drive of the PXE boot server, and then restart the PXE boot server.

The PXE boot server displays the following message:

To start the Boot Server, type "bootserv" and then press ENTER.

3. Type **bootserv** at the boot prompt.

The PXE boot server loads and then displays the following messages:

```
***You may now boot your Proventia GXxxxx via the network***
```

```
***Starting Terminal Emulator***
```

```
***Press Control-G to Exit and Reboot***
```

**Note:** The PXE boot server now acts as a terminal emulator for the appliance and displays the console output of the appliance.

4. Turn on the appliance.

The PXE boot server displays boot process messages, and then displays the following prompt:

Press L to boot from LAN, or press any other key to boot normally.

**Important:** The installation process allows only five (5) seconds for you press L to boot from LAN. If you do not press L within this time period, the appliance boots as usual, and you must begin the reinstallation again.

5. Press the L key.

The following message appears:

```
Internet Security Systems  
Proventia GXxxxx Recovery Boot
```

The PXE boot server displays status messages from the appliance, and then boots the installer over the network.

6. At the prompt, type **reinstall**, and then press ENTER.

The installer reloads the operating system.

**Note:** When the reinstallation is complete, the appliance automatically reboots. Let the appliance complete the boot process without interruption.

7. When the appliance has rebooted, the `unconfigured.appliance login` prompt appears.

You can log in with the default user and password of `admin/admin` and configure the appliance using the Configuration Menu.

### **Reinstalling using a USB CD-ROM drive**

To reinstall an appliance using a USB CD-ROM drive:

1. Turn the appliance off.
2. Connect a USB CD-ROM drive to the USB port on the appliance.
3. Connect one end of the serial console cable to the console port of the appliance and connect the other end to the serial port on another computer.
4. Establish a serial connection from the computer to the appliance using a terminal emulation program. Use the following settings:
  - Port: The serial port you have used on the computer, usually COM1.



- Emulation: VT100
  - Bits per second: 9600
  - Data Bits: 8
  - Parity: None
  - Stop Bits: 1
  - Flow Control: None
5. Restart the appliance and insert the recovery CD into the USB CD-ROM drive.
  6. The appliance starts up from the CD and displays the following message:

CAUTION: Reinstalling from the recovery CD restores the appliance to its original configuration and removes any customized settings. The appliance also reverts to the default password.

7. Type "reinstall," and press ENTER.  
When the reinstallation process is complete, the appliance automatically restarts.

IMPORTANT: Let the appliance complete the boot process without interruption. Otherwise, you could risk damaging the appliance.



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