**Security Products**

# ISG 2000
# Hardware Installation and Configuration Guide

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**FCC Statement**

The following information is for FCC compliance of Class A devices: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. The equipment generates, uses, and can radiate radio-frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case user

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# About This Guide

The Juniper Networks ISG 2000 is a purpose-built, high-performance security device designed to provide a flexible solution to medium and large enterprise central sites and service providers. The ISG 2000 security device integrates firewall, deep inspection (DI), virtual private network (VPN), and traffic management functionality in a low-profile, modular device.

Built around a fourth-generation security ASIC, the GigaScreen3, which provides accelerated encryption algorithms, the ISG 2000 supports flexible interface configuration with the following interface options for its four open slots:

- 10/100 Mbps interface module, for 10/100Base-T connections (four and eight ports)
- 10/100/1000 Mbps interface module, for 10/100/100Base-T connections (two ports)
- Mini-GBIC interface module, for fiber-optic connections (two and four ports)

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**NOTE:** The configuration instructions and examples in this document are based on the functionality of a device running ScreenOS 6.1.0. Your device might function differently depending on the ScreenOS version you are running. For the latest device documentation, refer to the Juniper Networks Technical Publications website at www.juniper.net/techpubs/hardware. To see which ScreenOS versions are currently available for your device, refer to the Juniper Networks Support website at http://www.juniper.net/customers/support/.

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## Organization

This guide includes the following sections:

- Chapter 1, “Hardware Overview,” describes the device and components of an ISG 2000 device.
- Chapter 2, “Installing and Connecting a Device,” describes how to mount and connect cables and power to an ISG 2000 device.
- Chapter 3, “Configuring a Device,” describes how to configure and manage an ISG 2000 device and how to perform some basic configuration tasks.
- Chapter 4, “Intrusion Detection and Prevention,” describes how to connect the Intrusion Detection and Prevention (IDP) security modules into an ISG 2000 device.
- Chapter 5“Servicing a Device,” describes service and maintenance procedures for an ISG 2000 device.
- Appendix A, “Specifications,” provides general device specifications for an ISG 2000 device.

## Conventions

This guide uses the document conventions as described in the following sections:

- “Web User Interface Conventions” on page 6
- “Command Line Interface Conventions” on page 7

### *Web User Interface Conventions*

The Web user interface (WebUI) contains a navigational path and configuration settings. To enter configuration settings, begin by clicking a menu item in the navigation tree on the left side of the screen. As you proceed, your navigation path appears at the top of the screen, with each page separated by angle brackets.

The following example shows the WebUI path and parameters for defining an address:

Policy > Policy Elements > Addresses > List > New: Enter the following, then click **OK**:

Address Name: addr_1
IP Address/Domain Name:
IP/Netmask: (select), 10.2.2.5/32
Zone: Untrust

To open online Help for configuration settings, click the question mark (?) in the upper left of the screen.

The navigation tree also provides a Help > Config Guide configuration page to help you configure security policies and Internet Protocol Security (IPSec). Select an option from the list and follow the instructions on the page. Click the **?** character in the upper left for Online Help on the Config Guide.

### Command Line Interface Conventions

The following conventions are used to present the syntax of command line interface (CLI) commands in text and examples.

In text, commands are in **boldface** type and variables are in *italic* type.

In examples:

- Variables are in *italic* type.
- Anything inside square brackets [ ] is optional.
- Anything inside braces { } is required.
- If there is more than one choice, each choice is separated by a pipe ( | ). For example, the following command means "set the management options for the ethernet1, the ethernet2, *or* the ethernet3 interface":

```
set interface { ethernet1 | ethernet2 | ethernet3 } manage
```

## Requesting Technical Support

Technical product support is available through the Juniper Networks Technical Assistance Center (JTAC). If you are a customer with an active J-Care or JNASC support contract, or are covered under warranty, and need postsales technical support, you can access our tools and resources online or open a case with JTAC.

- JTAC policies—For a complete understanding of our JTAC procedures and policies, review the *JTAC User Guide* located at http://www.juniper.net/customers/support/downloads/710059.pdf .
- Product warranties—For product

### *Self-Help Online T ls and Res u v es*

Chapter 1

# Hardware Overview

This chapter provides detailed descriptions

| | | | |
|---|---|---|---|
| FAN | Green | On steadily | All fans are functioning properly. |
| | Red | On steadily | One or more fans failed or a fan subdevice is not receiving power. |
| MOD1 | Green | On steadily | Interface module is installed. |
| | | Off | No interface module is installed. |
| MOD2 | Green | On steadily | Interface module is installed. |
| | | Off | No interface module is installed. |
| MOD3 | Green | On steadily | Interface module is installed. |
| | | Off | No interface module is installed. |
| MOD4 | Green | On steadily | Interface module is installed. |
| | | Off | No interface module is installed. |

## Interface Modules

## 10/100/1000 Mbps Interface Module

### *Fan Tray*

The ISG 2000 device has a single hot-

### *DC P we Supply Unit*

The DC PSU weighs approximately three pounds. The faceplate contains a POWER ON LED, a power switch, two thumbscrews, a hex nut, a cooling fan vent, and three

## Before You Begin

The location of the device, the layout of the equipment rack, and the security of

Rack-mounting requires the following accessories and tools:

- Number-2 phillips screwdriver (not provided)
- Four screws to match the rack (required if the thread size of the screws

### Center-Mount

To center-mount the ISG 2000:

1. Use the screws to attach the left and right plates to the middle of each side of the ISG 2000 device.

### *DC P we Supply Unit*

To install and connect a DC PSU to the ISG 2000:

1. Slide the PSU into one of the power compartments in the back of the device.
2. Fasten the PSU to the device by tightening

### Connecting the Modem Port

You can connect to the Untrusted network with an RJ-45 straight-through serial cable and an external modem.

Chapter 3

# Configuring a Device

This chapter describes how to configure an ISG 2000 device in your network. It includes the following sections:

## Default Device Settings

The ISG 2000 device supports a maximum of 24 ports, each of which can serve as a

In Route mode (with or without NAT), at

**Figure 10: DB-9 Adapter**

2. Plug the male end of the RJ-45 CAT5 serial cable into the Console port on the

4. If you have not yet changed the default login for the login name and password, enter **netscreen** at both the login and password prompts. (Use lowercase letters only. The login and password fofcalw T.00d3.7i Toe.6(7t y)224(rmo-527a)16.8(e)-3(ged)5(ofi)hi2

The **set clock** CLI command allows you to manually enter the date and time for the device.

### *dminist▼ ative ess*

By default, anyone in your network can manage a device if they know the admin name and password.

To configure the device to be managed only from a specific host on your network, use the WebUI or CLI as follows:

***WebUI***

***CLI***

set route 0.0.0.0/0 interface ethernet1/1 gateway *p_addr*
save

## *Management Interface IP address*

The default IP address and subnet mask settings for the mgt interface are

### Trust Zone Interface IP address

The ISG 2000 device can communicate with your protected network through an interface bound to the Trust zone. To allow an interface to communicate with internal devices, you must assign it th

### *P li y C nfigu ati n*

By default, the ISG 2000 device does not al

### File Transfers

To download files from or upload files to the device, use the WebUI or CLI as follows:

#### WebUI

Configure > Update > ScreenOS/Keys or Config File > Select the type of file

**Figure 11: HA Cabling Connections**

To cable two ISG 2000 security devices together for HA and connect them to the network:

3. Set the HA interface by executing the following command on each device, for example:

   ```
   set interface ethernet4/1 zone ha
   set interface ethernet4/2 zone ha
   ```

***Maste Unit***

4. Connect a crossover cable from **ethernet3/8** to

## Restarting the Device

You may need to restart the device in order to implement new features, such as when you change between route and transparent mode or when yo

4. Click **Reset**.

   An alert box prompts you to confirm that you want to reset the device.

5 Click **OK**.

   The device resets. Also, an alert box prompts you to leave your browser open for a few minutes and then log back into the device.

### *unset all*

To use the CLI **unset all** command, you will need to know the login name and

Chapter 4

# Intrusion Detection and Prevention

Intrusion Detection and Prevention (IDP) is

## Minimum Configuration for a Network and Security Manager Connection

## Required Tools and Parts

3. Grip the levers, then gently slide th

**Figure 15: Interface Locked**

4. Tighten the thumbscrews on each side of the interface module.

8. Connect the power cord to a standard 100-240-volt power outlet.

9. Press the power switch to the ON position.

### *DC Power Supply Unit Replacement*

To connect DC power-feed wires to the terminal block:

1. To open the three connectors on the terminal block so that they can receive

To replace one DC PSU:

1. Loosen the retaining screws on the terminal block and remove the feed wires.
2. Loosen the hex nut on the grounding screw and remove the grounding wire.

## Fan Tray

**Figure 22: Removing the Fan-Tray Filter**

6. Carefully insert a new filter into the device. Use the wooden ruler as an aid to

3. Slide the connector into the transceiver po

To install or remove a security module:

1. Remove the top cover from the device. (Remove the three screws located on the sides and the back of the top cover.)

2. Insert the security module into an empty slot, starting with the slot closest to

## Electrical

Table 8 provides the electrical specifications for the ISG 2000.

## Environmental

The mini-Gigabit transceivers are compatible with the IEEE 802.3z Gigabit Ethernet standard, and the 10Gbase-R transceivers are compatible with the IEEE 802.3ae standard. Table 13 lists media types and distances for the different types of interfaces used in the ISG 2000.

**T1019able 13: Interface25 Types for Mini-Gigabit Transceivers and 10Gigabit XFP**

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