

GB - 1000

Firewall APPLIANCE

powered by **GNAT Box** System Software

Product Guide



**Global
Technology
Associates, Inc.**

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Technical Support

GTA includes 30 days installation support from the day you receive the initial shipment. GTA's direct customers in the USA should email GTA via the contact information listed below. Other customers should contact their local GTA authorized reseller.

Contact Information

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Document Information

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1 Introduction

GNAT Box Basics

Since 1994, Global Technology Associates, Inc., has been designing and building Internet firewalls. In 1996, GTA developed the first truly affordable commercial-grade firewall, the GNAT Box®. Since then, ICSA-certified GNAT Box System Software has become the engine that drives all GTA firewall systems.

GTA's firewall systems, powered by GNAT Box System Software, currently include GB-Pro, GB-Flash, GB-1000 and RoBoX™. GTA's optional features include GB-VPN, Surf Sentinel (content filtering), and H₂A (high availability).

Requirements

To use GNAT Box System Software, you need to know the following:

- An understanding of TCP/IP networking.
- Network IP addresses for all network interfaces used.
- Netmasks for each attached network.
- Default route for External Network.
- Services to allow inbound/outbound (if any).

To connect the GB-1000, in addition to the null modem cable for the serial port and the power cord included, you need at the minimum two Ethernet cables, one for each required network: a crossover cable to connect the firewall directly to a host or router; or a straight-through cable to connect the firewall to a hub or switch.

Registration

To register, go to www.gta.com, click on Support, then on the GTA Support Center link. This takes you to the login screen. If you already have an account, enter your User ID and password. If you have not yet created an account, click New Account, enter profile information and choose a User ID and password. Once you have completed the form, click Add to save it.

Return to the login screen and enter the User ID and password you created. In the Make a Selection screen, click Support Center, then click on Product Registration in the next screen, the Account Home screen for your support information. In the form that appears, enter your serial number and activation (unlock) code, then click Submit. Your new product will now appear in the View Registered Products screen, accessible from the Account Home page.

Note

If you cannot retrieve your registration code, or a feature code does not appear under Registered Products, please email support with the product serial number and your Support Center User ID in the message subject.

In addition to qualifying you for installation support, your product registration will allow GTA to inform you about upgrades and special offers.

Copy Protection

Copying of GNAT Box System Software is allowed for backup purposes. However, to activate your system and any special features, you will need a serial number and activation codes. Keep a copy of these codes; the codes will also be available online at the GTA Support Center after completing the product registration.

Activation Codes

All commercial GTA Firewalls—GB-Pro, GB-Flash, GB-100, GB-1000 and RoBoX—use activation codes to protect software. For firewall appliances, the required registration code is pre-installed. Codes are printed on packaging and available at www.gta.com in the GTA Support Center.

Feature Activation Codes

Additional features require activation codes. The activation codes for new features must be entered in Features under the Basic Configuration menu. Your feature activation codes can be found under View Registered Products on the GTA Support site by selecting the GB-1000 by its serial number.

Upgrades

Once registered, you can view available upgrades by going to Registered Products in the GTA Support Center. If the Action field in the Registered Products section indicates that there is an upgrade for your product, click on the Free Upgrade link. When you return to the Registered Product List, click the product's serial number and see the Product Details section to obtain the new activation code. The Product Details section will also display your previous activation codes. Upgrades are also available in Support Center Downloads. Only downloads for your version will be shown.

If a free upgrade is not available, the Action field will display “Up to Date” or “Purchase Upgrade/Support.”

Caution Note

Back up your configuration before upgrading!

Installation Support

Installation ("up and running") support is available to registered users. If you have registered your product and need installation assistance during the first 30 days, contact the GTA Support team by email at support@gta.com.

Include in the email your product name, serial number, registration number and any feature activation code numbers for your optional products; a System Software or Hardware Configuration Report, if possible.

Note

Installation Support, also called up and running support, covers only the aspects of configuration related to installation and default setup of the GTA Firewall. For further assistance, contact Sales for information about support offerings.

Support Options

If you need support after installation and configuration to defaults, contact the sales department to purchase a support contract. Contracts range from support by the incident to full coverage for a year.

Other avenues for assistance are available through the GNAT Box Mailing List, on the GTA website, found at www.gta.com, or through an authorized GTA Channel Partner.

Documentation

In GNAT Box System Software version 3.3, the **GNAT BOX SYSTEM SOFTWARE USER'S GUIDE** has been refined, with some documentation moving to the GTA website and the Installation CD. The Product Guides show how to set up and install GTA Firewall products and change the factory settings on the GNAT Box System Software to the default configuration for your network. The User's Guide includes advanced configuration functions as well as descriptions of GBAdmin and the Web interface, administrative tools and GNAT Box-specific terms.

Documentation Map

Topic	Document Name	Location
Installation	Product Guides	Shipped w/product, CD
System Setup	Product Guides	Shipped w/product, CD
Terms	Terms & Concepts	gta.com, CD
Troubleshooting	–	Product Guide, User's Guide
Configuration examples	–	gta.com
Sample reports	–	gta.com
Ports & services	–	gta.com
Drivers & NICs (Pro, Flash)	Product Guides	Shipped w/product, CD
GTA Firewalls	Product Guides	Shipped w/product, CD
Content Filtering	Surf Sentinel Feature Guide	Shipped w/product, CD
High Availability	H ₂ A Feature Guide	Shipped w/product, CD
VPN	GB-VPN Feature Guide	Shipped w/product, CD
VPN Examples	GB-VPN to VPN Tech Docs	Shipped w/product, CD
GBAdmin interface	User's Guide	Shipped w/GTA Firewalls, CD
GBAdmin	GBAdmin Online Help	Shipped w/GTA Firewalls, CD
Web interface	User's Guide	Shipped w/GTA Firewalls, CD
Console interface	Console Interface Tech Doc	gta.com, CD

All documents for registered products can be found on the www.gta.com website.

Documents are either in plain text (*.txt) or in Adobe® Acrobat® Portable Document Format (PDF; *.pdf) which requires Acrobat Reader for viewing and downloading. A free copy of Acrobat Reader can be obtained at www.adobe.com. Documents received from GTA Support may also be in email or Microsoft Word format (*.doc).

User Interfaces

GNAT Box System Software, GTA's operating system running on the GB-1000, has three user interfaces: GBAdmin, the Web interface and the Console interface. For more information about the interfaces, see the **GNAT BOX SYSTEM SOFTWARE USER'S GUIDE** and www.gta.com.

GBAdmin

GBAdmin is a Windows-based interface that can be operated without access to the Internet. The program has on-screen Help and uses standard Windows commands and conventions. It also requires a Windows-based computer or workstation and Internet Explorer, version 5.0 and up.

Web Interface

The Web interface can be used on any compatible browser, including Internet Explorer, Netscape Navigator, Mozilla and Opera, running on platforms such as Windows, Unix and Mac, with any caveats noted in the appropriate product guides and release notes.

Console

The Console interface can be used to reset a misconfigured firewall to defaults. As of the GNAT Box version 3.2.2 release, the Console interface is limited on the GB-Pro and GB-100 due to space requirements. Instructions for the Console interface are available on the GTA website.

About GB-1000

The GB-1000 firewall appliance runs the latest GNAT Box System Software on Global Technology Associates' custom-built hardware platform.

The GB-1000 is a turnkey, stand-alone Internet firewall appliance. It is completely self-contained, with software pre-installed. The system needs only to be configured for your local network requirements. This Product Guide explains how to install the GB-1000 hardware and configure it to default settings using either GBAAdmin or the Web interface.

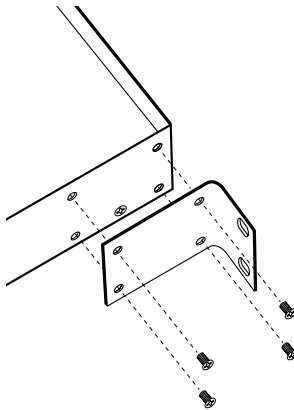
For advanced configuration options, screen shots, fields with descriptions, and detailed instructions on using the interfaces, see **GNAT Box® SYSTEM SOFTWARE USER'S GUIDE**. For Console interface instructions, see GTA's website at www.gta.com.

Hardware Design

The GB-1000 Firewall Appliance is built to address the requirements of an Internet firewall system. The system has four high-speed Intel-based 10/100 Ethernet interfaces to ensure high performance and network design flexibility. A 32-bit PCI expansion slot provides additional flexibility with support for four types of interface card: Gigabit Ethernet, Token Ring, fiber-based Ethernet or 10/100 Ethernet; or a four-port 10/100 Ethernet interface card. The GB-1000 uses a flash memory card to store and run the system software, so there is no hard disk to become a point of failure.

System Location

The GB-1000 system is housed in a low profile cabinet designed to be mounted either in a standard 19" equipment rack or placed on a shelf or desktop. When the system is mounted in an EIA standard 19" equipment rack, the supplied screws and mounting brackets should be attached to the system unit. To attach the mounting brackets, align the mounting bracket screw holes to the chassis screw holes, insert the screws and tighten.



19" Rackmount Bracket

Environment

The system has two small cooling fans with exhaust vents on the rear of the system. At least six (6) inches of clearance should be provided at the rear of the system to allow for efficient cooling. Blocking these fans or not allowing adequate clearance for the exhaust vents can cause the system to overheat, possibly causing a failure.

Specifications

Physical Specifications

Chassis:	1.75" h x 9" d x 17" w (4.445cm h x 22.86cm d x 43.18cm w)
With mounting brackets:	1.75" h x 9" d x 19" w (4.445cm h x 22.86cm d x 48.26cm w)
Weight:	8 lbs (3.63kg)

Power Specifications

Input Voltage:	95-135 VAC 180-265 VAC (Auto-switching)
Input Frequency:	47Hz-63Hz
MTBF:	Minimum-150,000 Hours

Operational Specifications

Temperature:	50° to 122° F (10° to 50° C)
Relative Humidity:	10% - 80%

Storage Specifications

Temperature:	-4° to 176° F (-20° to 80° C)
Relative Humidity:	10% - 95%
Operational Elevation:	0 - 10,000 ft

CPU/Memory Specifications

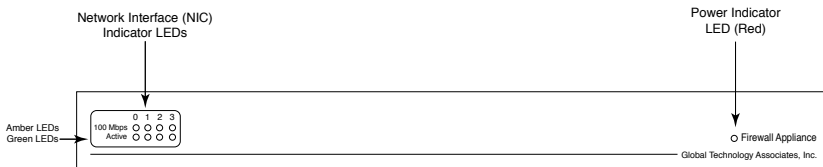
CPU:	733Mhz Intel Celeron
RAM:	128Mb
Flash Memory:	16Mb

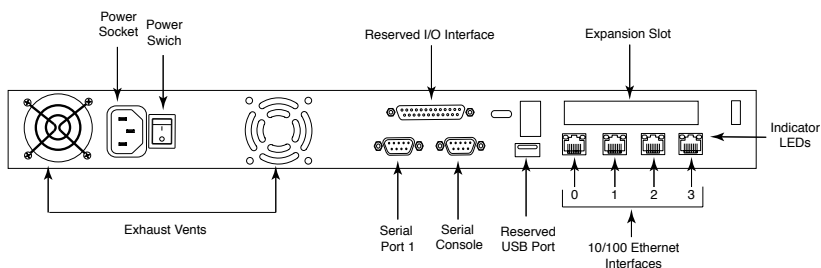
I/O Interfaces Specifications

4	10/100 UTP Ethernet interfaces
2	RS-232 (DB-9)
1	USB port–Reserved
1	Parallel port (DB-25)–Reserved
1	Expansion slot

Expansion Options

- Token Ring
- Gigabit Ethernet
- Fiber-based Ethernet
- 1- or 4-port 10/100 Ethernet





GB-1000 Rear Panel

Status Displays

Power On LED

When the GB-1000 is powered up, the red power LED indicator located on the right side of the front panel will be lit.

Network Interface Indicators

On the left side of the front panel are two groups of four LEDs. The columns are labeled 0, 1, 2, and 3. These numbers correspond to the network interfaces fxp0, fxp1, fxp2 and fxp3, with "fxp" indicating the specific kind of driver used by the NIC. The bottom row of green LEDs indicate when the network interface is active and up. These LEDs will blink when data is being transmitted or received. The top row of amber LEDs indicate when an interface is in 100 Mbps mode.

At the rear of the unit, green and amber LEDs are found on either side of the RJ-45 network connector. These LEDs indicate the same information as the network LEDs on the front panel (green for activity, amber for 100 Mbps).

I/O Ports

USB Port	Reserved
Parallel Port	Reserved
Serial Console	38,400 bps, 8-bit, 1 stop, no parity
Serial Port 1	Attach a standard modem port for a pager or Internet access or an ISDN TA (Terminal Adapter)
Ethernet NICs	fxp0, fxp1, fxp2 and fxp3 interfaces are all active and available. The factory setting for fxp0 is the IP address 192.168.71.254.

Attention

There are no user serviceable parts in the GB-1000. Opening the GB-1000 unit will void the warranty on the system.

2 Installation

Installing the GB-1000 requires that the system be connected to your local area network (LAN). This allows the administrator to connect to the GB-1000, configure the network settings to match the local network address scheme and perform connectivity tests. The GB-1000 can be configured and administered using any of the user interfaces. Installation procedures for GBAAdmin and the Web user interfaces are described in this document.

Note that the IP Address 192.168.71.254 is the factory setting for the Protected Network interface (fxp0) port on the GB-1000.

Install Utilities and Documentation

Prior to installation of the GB-1000, install the utility software and documentation on your workstation. If the workstation is running Windows 95, 98, NT or Windows 2000, there is an automated installer on the CD-ROM that will install these files. If the workstation is running a non-Windows based OS (e.g., Macintosh or Unix) or an older version of Windows, locate the directory on the CD-ROM for your OS and use the Read Me document to install the documentation and utility programs.

Temporarily Configure Workstation

The factory network information settings on the GB-1000 are unlikely to match your network, so you must temporarily configure a local workstation to match the GB-1000's network information settings in order to configure the GB-1000 and integrate it into your network.

Note

Please refer to the **GNAT Box SYSTEM SOFTWARE USER's GUIDE** for specific information about editing Network Information.

Once you are able to connect to the firewall, the network information can be changed to match the existing address scheme on your network and you can reset your local machine to its original IP Address.

LAN Using the Default IP Network

If your local area network is currently using the 192.168.71.0 network, make sure that the IP address 192.168.71.254 is not currently assigned to any device on your network. If a device *does* have this IP address assigned:

- Set up an isolated network that contains only the GB-1000 Firewall Appliance and a workstation that will be used to configure the system; connect the GB-1000 and your workstation to a hub that has no other connections.
- Optionally, use an Ethernet “crossover cable” and connect your workstation directly to the GB-1000’s Protected Network interface, (port fxp0).

Connect the GB-1000

1. Connect the GB-1000 to a hub or switch on your local area network using the Protected Network interface, (the first interface port fxp0, see illustration GB-1000 Rear Panel) and a standard (straight-through) network cable. By default, fxp0 is assigned the IP address 192.168.71.254. (Use a crossover cable to connect the firewall directly to a host or router.)
2. Connect power cord to GB-1000 and plug in.
3. Locate the power switch in the rear of the GB-1000. Power on GB-1000. The system will boot up and be operational in about one minute. Check to see that the power LED on the front panel is lit and the active link LED for fxp0 is lit.

Installation of the GB-1000 is complete. The next step is to enter your basic network information in the GB-1000’s default configuration.

3 Set Up Default Configuration

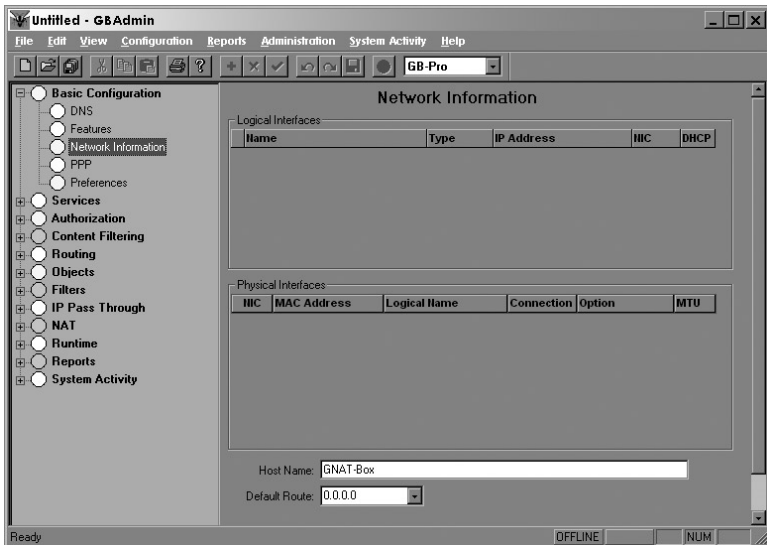
The following sections will describe how to set up your GB-1000 in the default configuration, in which all internal users are allowed outbound and no unsolicited inbound connections are allowed.

Configure with GBAdmin

GBAdmin must be installed on a local workstation running Windows 95, 98, NT 4.0, XP, Me, or Windows 2000.

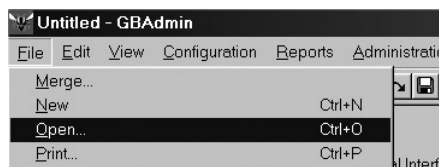
Start GBAdmin

Select GBAdmin (GBAdmin.exe) from the program menu. This brings you a blank GBAdmin interface, similar to the following screen:



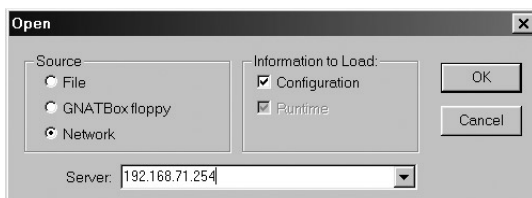
GBAdmin Interface

Select File from the tool bar at the top, then select Open.

*File/Open*

Select the GB-1000

This will bring up the Open File dialog box. Under source, select Network. Then in the Server field enter the default IP Address for the GB-1000 (192.168.71.254). Make sure that there is a check in the box next to Configuration. Once this is complete, press the <return> key or click OK.

*Open File dialog box*

Enter User ID and Password

The system will prompt you for a User ID and password. Enter the default user ID, which is "gnatbox" (all lower case), then press the <return> key. Next, enter the default password, which is also "gnatbox" (all lower case), then press the <return> key or select OK when finished.

*User ID and Password*

Note

GTA recommends changing the default user ID and password. See the **GNAT BOX SYSTEM SOFTWARE USER'S GUIDE** for instructions.

Basic Configuration

The GB-1000 comes configured with factory settings. These settings need to be changed to match the settings on your network. Click on the "+" next to Basic Configuration to expand the menu if it is not open. Select Network Information to display the network settings.

On the Network Information screen, configure IP and netmasks, (expressed in either dotted decimal or CIDR notation), for your External and Protected Networks. Disable the DHCP option on the external interface if necessary, as it is set by default. Set the Default Route to your Internet router IP address. Set the Host Name to the name given to the firewall in your DNS server. Once you have completed the Network Information form, apply the changes to the GB-1000 by clicking on the single diskette icon on the tool bar to save the data. The GB-1000 will now be on a different logical network (assuming you've changed the default IP address for the Protected Network).

Note

The GB-1000 has four network interfaces; two are used for Protected and External Networks. The other network interfaces can be defined as any of the three network types: Protected, External or PSN (Private Service Network or GTA's DMZ). It is not necessary to configure the other interfaces immediately, since only External and Protected Network interfaces are required to initially configure and test the GTA Firewall. See the **GNAT Box SYSTEM SOFTWARE USER'S GUIDE** for more information about the functions of the network interface types.

Network Information

Logical Interfaces

	Name	Type	IP Address	NIC	DHCP
1	EXTERNAL	External	0.0.0.0/0	fxp1	<input checked="" type="checkbox"/>
2	PROTECTED	Protected	192.168.71.254/24	fxp0	<input type="checkbox"/>

Physical Interfaces

	NIC	MAC Address	Logical Name	Connection	Option	MTU
fxp0	00:D0:68:00:47:D1	PROTECTED	AUTO	Default	1500	
fxp1	00:D0:68:00:47:D2	EXTERNAL	AUTO	Default	1500	
fxp2	00:D0:68:00:47:D3		AUTO	Default	1500	
fxp3	00:D0:68:00:47:D4		AUTO	Default	1500	
PPPo			PPPoE	fxp0	1500	

Host Name:

Default Route: EXTERNAL

Network Information (netmask using CIDR notation)

Once you click Save on the Network Information screen you will not be able to access the GB-1000 from your workstation, since the firewall will now be on a different network.

Re-configure Workstation

Re-configure your workstation back to its original IP address, now on the same network as the GTA Firewall.

Access the GB-1000

After re-configuring your workstation, you can access the GB-1000 using the new IP address assigned to the Protected Network interface.

The GB-1000 should now be active and functioning in the default security mode, (all internal users are allowed outbound and no unsolicited inbound connections are allowed). You can now perform any additional configuration tasks. See the **GNAT BOX SYSTEM SOFTWARE USER'S GUIDE** for more information.

Configure with the Web Interface

Web setup requires a browser that supports frames running on any OS.

Exception

GNAT Box System Software version 3.2.2 and up is known to be incompatible with Internet Explorer 5 for Macintosh. If your browser does not allow you to continue past the Security Alert screen in order to set up your new GB-1000, GTA recommends the following options:

1. Use another compatible browser such as Mozilla (www.mozilla.org), Netscape (www.netscape.com) or Opera (www.opera.com) to administer your firewall, that allows you to use SSL encryption.
2. Use a compatible browser, GBAdmin or Console to install GB-1000, disable SSL, then use Internet Explorer 5 with SSL encryption disabled. See Technical Documents on the CD and on gta.com for information on installing the GTA certificate or disabling SSL encryption.

Start a Browser for the Web Interface

Start a web browser on your workstation and enter the following URL into the browser Address field: <https://192.168.71.254>.

Acknowledge Security Alert

If your network and cables are configured correctly, you will be prompted with a Security Alert dialog indicating that the Certificate Authority is not one you have chosen to trust; that the security certificate date is valid; and that the name on the security certificate does not match the name of the site.



Security Alert

Select Yes, or if your alert differs, choose the selection that allows you to proceed. You will establish your GB-1000 certificate once you have logged on to the firewall. See the **GNAT BOX SYSTEM SOFTWARE USER'S GUIDE**.

Enter User ID and Password

Next, the GB-1000 will prompt you with a dialog box for a User ID and password. Enter the default user ID, which is "gnatbox" (all lower case), press the <tab> key, then enter the default password, which is also "gnatbox" (all lower case). Select OK or press the <return> key when finished.

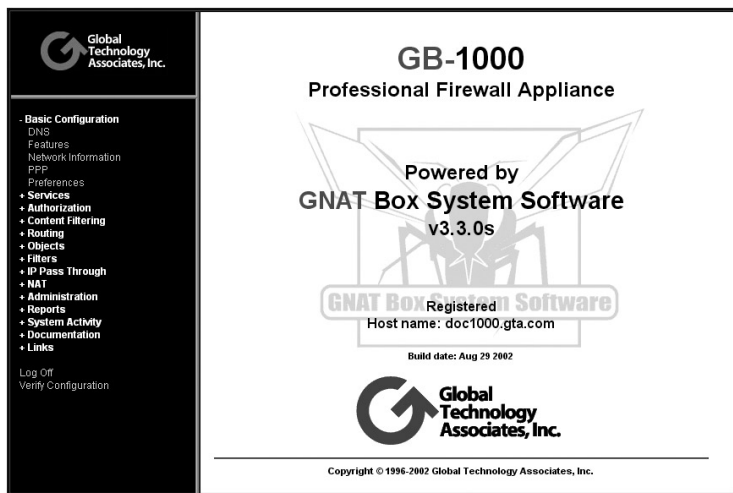


User ID and Password

Note

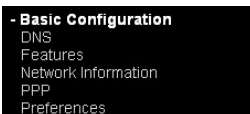
GTA recommends changing the default user ID and password. See the **GNAT BOX SYSTEM SOFTWARE USER'S GUIDE** for instructions.

This brings you to the Web interface, similar to the following screen:

*Web Interface*

Basic Configuration

The GB-1000 comes configured with factory settings. These settings need to be changed to match the settings on your network. If the Network Information screen is not open, click on Basic Configuration to expand the menu. Select Network Information.

*Basic Configuration Menu*

On the Network Information screen, configure IP and netmasks, (expressed in either dotted decimal or CIDR notation), for your External and Protected Networks. Disable the DHCP option on the external interface if necessary, as it is set by default. Set the Default Route to your Internet router IP address. Set the Host Name to the name given to the firewall in your DNS server. Once you have completed the Network Information, apply the changes to the GB-1000 by clicking on the Save button on screen. The GB-1000 will now be on a different logical network (assuming you've changed the default IP address for the Protected Network).

Once you click Save on the Network Information screen you will not be able to access the GTA Firewall from your workstation, since the firewall will now be on a different network.

GNAT-Box Network Information

Logical Interfaces

Logical Name	Type	IP Address	NIC	DHCP	Gateway
EXTERNAL	External	0.0.0.0/0	fxp1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
PROTECTED	Protected	192.168.71.254/24	fxp0	<input type="checkbox"/>	<input type="checkbox"/>
	External		fxp2	<input type="checkbox"/>	<input type="checkbox"/>
	External		fxp3	<input type="checkbox"/>	<input type="checkbox"/>
	External		PPP0	<input type="checkbox"/>	<input type="checkbox"/>

Network Interface Cards

NIC	MAC Address	Connection	Option	MTU
fxp0	00:D0:68:00:47:D1	AUTO	default	1500
fxp1	00:D0:68:00:47:D2	AUTO	default	1500
fxp2	00:D0:68:00:47:D3	AUTO	default	1500
fxp3	00:D0:68:00:47:D4	AUTO	default	1500
PPP0		PPPoE	fxp0	AUTO

Host name:

doc1000.gta.com

Default gateway:

0.0.0.0/0

Save

Reset

Network Information (using CIDR notation)

Note

The GB-1000 has four network interfaces. Only one External and one Protected Network interface are required to initially configure and test the GTA Firewall. The other interfaces can be defined as any of the three network types: Protected, External or PSN (Private Service Network, GTA's DMZ). See the **GNAT BOX SYSTEM SOFTWARE USER'S GUIDE** for more information about the functions of the network interface types.

Re-configure Workstation

Re-configure your workstation back to its original IP address, now on the same network as the GTA Firewall.

Access the GB-1000

After re-configuring your workstation, you can access the GB-1000 using the new IP address assigned to the Protected Network interface.

The GB-1000 should now be active and functioning in default security mode, (all internal users are allowed outbound and no unsolicited inbound connections are allowed). You can now perform any additional configuration tasks. See the **GNAT BOX SYSTEM SOFTWARE USER'S GUIDE** for more information.

4 Troubleshooting

Guidelines

GTA Support recommends the following guidelines as a starting point when troubleshooting network problems:

- Start with the simplest case of locally attached hosts.
- Use IP numbers, not names. Your real problem could be DNS.
- Work with one network segment at a time.
- Verify your system configuration with the Verification Configuration feature in the Reports Menu. The verification check is the best method of ensuring that your system is configured correctly. All errors and warnings listed should be corrected.
- Your first tests should be connectivity tests. Ping and Traceroute are very useful tools for testing connectivity.
- Make sure the network cabling is connected to the correct network interface. It is easy to confuse network interface ports. Some useful guidelines are:
 - In a GB-1000, the port/NIC numbers, MAC addresses and logical names are listed on the Network Information screen and in the Configuration Report.
 - Use the trial and error method. Connect one network cable and use the ping facility to reach a host on the desired network. Move the cable and use ping until you are successful. Connect the next network cable and perform the test again with the two remaining network interface cards.
 - Generate a hardware report from one of the user interfaces. Check the report to ensure all your network devices have been recognized by the system at boot time.

Troubleshooting Q & A

1. Why are the green LEDs on the back of the GB-1000 not lighting up?

This indicates that you do not have network connectivity. You may have selected the wrong network connection type. Check the Network Information screen to ensure the appropriate connection type is selected. If you have selected one of the specific settings, reset to AUTO, the factory setting.

2. Why can't *all* hosts behind the firewall reach the Internet?

This is usually a routing problem. The Traceroute facility can be very useful in debugging routing problems. Check for these problems:

- Are the hosts that can't reach the Internet on a different network subnet?
- Have you added a static route to the GB-1000 to tell it which router is used to reach the problem network? Have you set the router's default route to be the GB-1000? Have you set the default route for hosts on the problem network to be the router?
- Is the wrong IP address assigned? All network interfaces on the GB-1000 must be on different logical networks.
- Is the default route assigned incorrectly? The default route must always be on the same subnet as the network interface of the host (this is true for all hosts, not just the GTA Firewall). For a GB-1000, the default route must be an IP address on the network which is attached to the External Network interface.
 - Exception: When using PPP or PPPoE, the default route is not necessarily on the same subnet. The route is assigned by your PPP provider.

3. Why can't *one* host behind the firewall reach the Internet?

This indicates that the default route is assigned incorrectly (or not at all) to hosts on the Protected or Private Service networks. All hosts protected by the GB-1000 must use the IP address of the GB-1000's network interface for the respective network. Hosts that reside behind routers or other gateways on these networks generally use the IP address of the gateway or router.

4. Why can't I access the Web interface from the Protected Network?

The default Remote Access filter set is generated from the configuration parameters entered in the Network Information screen. It is possible that the GB-1000's Protected Network interface is on a different subnet from the remote host. Check the Remote Access filter for the Web interface; it may need to be adjusted.

5. Why do I get errors when GBAAdmin starts up? Why is online help information not displayed?

GBAdmin requires Microsoft Internet Explorer 5.x or later installed on your workstation. Components from Internet Explorer are used to display the online help information.

For more Troubleshooting suggestions, see the **GNAT BOX SYSTEM SOFTWARE USER'S GUIDE** and GTA's website at www.gta.com.

6. Why can't I see or ping the Protected Network interface?

You may have the wrong cable for your connection.

- For a direct connection (GB-1000 to host or router) you need a crossover cable.
- For a connection to a hub or switch you need straight-through cables.

Note

To distinguish between a crossover cable and a straight-through cable, compare the connection ends. On a straight-through cable, the wire order matches; on a crossover cable, the first three of the four cables are in reverse order.

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