

STONESOFT



StoneGate FW-1020/1050/1200

Appliance Installation Guide

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Introduction

Thank you for choosing Stonesoft's StoneGate appliance. This guide provides instructions for the initial hardware installation and the maintenance of the FW-1020, FW-1050, and FW-1200 appliances. See [Product Documentation](#), on page 5 for information on other available documentation.

The use of the appliance is subject to the acceptance of the End User License Agreement, which can be found at the Stonesoft website.

You must have a working Management Center on a separate server to bring the appliance(s) operational. The system architecture is explained on the next page. See the *StoneGate Management Center Installation Guide* for instructions on how to install the Management Center.

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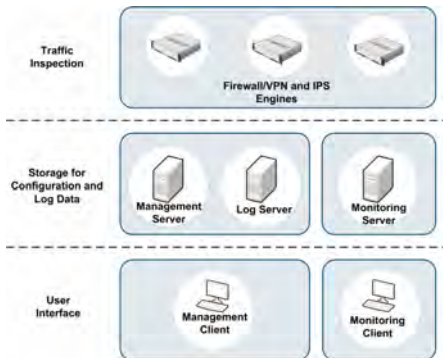


Caution – Never open the covers of the appliance! There are no user serviceable parts inside. Opening the covers may lead to serious injury and will void the warranty. Read the [Safety Precautions](#), on page 6 before you conduct any installation or maintenance operations on the appliance.

Getting Started

StoneGate System Components

Illustration 1 StoneGate Components



The illustration above shows all available StoneGate components. Out of these, you need the following components to have an operational Firewall/VPN system:

1. A **Management Server**, which stores the configuration of the system. In most environments, it is best to have just one common Management Server for all firewall and IPS engines.
2. At least one **Log Server** to handle and store logs and alerts (can be installed simultaneously on the same machine with the Management Server).
3. At least one **Management Client** that you use to connect to the Management Server to change settings and monitor the system.
4. The **Firewall Engines** that handle the actual traffic processing (in this case, the FW-1020, FW-1050, or FW-1200 appliance).
5. **Licenses** for each component except the Management Client(s). Generate appliance licenses at the Stonesoft website with the POS (proof-of-serial-number) code attached to the appliance.

The **Monitoring Server** and the **Monitoring Client** are optional components that are available on separate order.

StoneGate IPS engines can be added to the same system for unified management and incident handling.

Installation Procedure

The appliance installation involves the following mandatory steps:

1. Configure the Firewall element in the Management Center (see the separate *Firewall/VPN Installation Guide* or the online help of the Management Client).
2. Save the initial configuration to receive a one-time password for establishing trust between the appliance and the Management Server (see the separate *Firewall/VPN Installation Guide*).
3. Install the appliance into a rack and connect the cables as instructed in this guide.
4. Perform the initial configuration and establish contact between the appliance and the Management Server (see *Initial Configuration*, on page 19).

Product Documentation

The following documentation covers the StoneGate Firewall/VPN products:

- The *Management Center Installation Guide* and the *Firewall/VPN Installation Guide* explain how to install the Management Center and how to configure your firewalls' basic settings.
- The *online help* of the Management Client contains the step-by-step instructions for the daily configuration and management of your system.
- The *Administrator's Guide* contains the same information as the online help, but in PDF form.
- The *Management Center Reference Guide* and the *Firewall/VPN Reference Guide* contain background and reference information that helps you to plan and understand your system.

Finding the Documentation

Press F1 while in any Management Client window to view the online help.

All PDF guides are available:

- On the Management Center CD-ROM (in the `Documentation` folder)
- At the Stonesoft Website at http://www.stonesoft.com/en/support/technical_support_and_documents/manuals/.

Install the free Adobe Reader program to view the PDF documents (available at www.adobe.com/reader/).

Safety Precautions

The following safety information and procedures must be followed whenever working with electronic equipment. However, please be advised that StoneGate Appliances are not end-user serviceable, and you must never open the appliance covers for any reason. Doing so may lead to serious injury and will void any hardware warranty that may be associated with your appliance.

Electrical Safety Precautions

Basic electrical safety precautions should be followed to protect yourself from harm and the appliance from damage:

- Be aware of the locations of the power on/off switch as well as the room's emergency power-off switch, disconnection switch, or electrical outlet. If an electrical accident occurs, you can then quickly cut power to the system.
- Do not work alone when working with high voltage components.
- Use only one hand when working with powered-on electrical equipment. This is to avoid making a complete circuit, which will cause electrical shock. Use extreme caution when using metal tools, which can easily damage any electrical components or circuit boards they come into contact with.
- Do not use mats designed to decrease electrostatic discharge as protection from electrical shock. Instead, use rubber mats that have been specifically designed as electrical insulators.
- The power supply cord must include a grounding plug and must be plugged into a grounded electrical outlet.



Caution – Never open the appliance covers! There are no user serviceable parts inside. Opening the covers may lead to serious injury and will void the warranty.

General Safety Precautions

Follow these rules to ensure general safety:

- Keep the area around the appliance clean and free of clutter.
- We recommend using a regulating uninterruptible power supply (UPS) to protect the appliance from power surges, voltage spikes and to keep your system operating in case of a power failure.

ESD Precautions

Electrostatic discharge (ESD) is generated by two objects with different electrical charges coming into contact with each other. An electrical discharge is created to neutralize this difference, which can damage electronic components and printed circuit boards. Use a grounded wrist strap designed to prevent static discharge.

Note – Use a UPS (Uninterruptible Power Supply) in critical environments with your StoneGate appliance. If after a brief power outage your StoneGate appliance only partially starts up (for example, the power light is on, but the appliance does not connect) turn the appliance off for five seconds and then back on.

Operating Precautions

Care must be taken to assure that the cover is in place when the appliance is operating to ensure proper cooling. If this rule is not strictly followed, the warranty may become void. Do not open the power supply casing. Power supplies can only be accessed and serviced by a qualified technician of the manufacturer.

Operating and Storage Temperatures

The allowed operating temperature of the appliance is +10...+35°C. The allowed storage temperature is 0...+70°C. Do not operate or store the appliance in temperatures outside these limits.

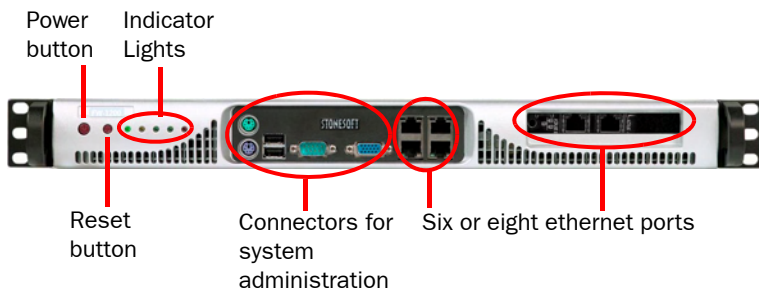
Lithium Battery Precautions



Caution – Do not change the battery; the battery must be replaced by authorized service personnel only. Danger of explosion if battery is incorrectly replaced. Replacement battery must be same or equivalent type recommended by the manufacturer. Used batteries must be discarded according to the manufacturer's instructions. Short-circuiting the battery may heat the battery and cause severe injuries.

Front Panel

Illustration 2 Front Panel



Note – Standby power is supplied to the system even when the appliance is turned off.

The connectors are explained in detail in [Connecting the Cables](#), on page 18.

Front Panel Indicators

The front panel has five LED indicators. They provide you with critical information related to different parts of the system. [Table 1](#) presents the indicators (from left to right).

Table 1 Front Panel Indicators






Indicator	Explanation
	Indicates power is being supplied to the system's power supply unit. This LED is illuminated when the system is operating normally.
	Indicates hard drive activity when flashing.

Table 1 Front Panel Indicators (Continued)

Indicator	Explanation
	Indicates traffic on eth 0 (identically to the corresponding LED in the port).
	Indicates traffic on eth 1 (identically to the corresponding LED in the port).
	Indicates an overheat condition in the appliance. This may be caused by cables obstructing the airflow in the system or the ambient room temperature being too warm.

For more information on port indicators, see [Appendix: Port Indicators](#), on page 31.

Unpacking the Appliance

Inspect the box the appliance was shipped in and note if it was damaged in any way. If the appliance itself shows damage, file a damage claim with the carrier who delivered it. Confirm that the Stonesoft anti-tamper tape on the appliance is intact.

Rack-Mounting

This section provides information on installing the StoneGate appliance into a rack unit.



Caution – Read the [Safety Precautions](#), on page 6 before proceeding.

Preparing for Rack-Mounting

The appliance delivery includes two sets of rail assemblies, two sets of rail-mounting brackets, and screws for attaching the rails and the brackets.



Caution – Read the sections below before you begin the installation.

Choosing a Setup Location

Decide on a suitable location for the rack unit that will hold the appliance:

- The appliance must be situated in a clean, dust-free area that is well ventilated.
- Avoid areas where heat, electrical noise and electromagnetic fields are generated.
- Leave enough clearance in front of the rack to enable you to open the front door completely (~63 cm/25 inches).
- Leave enough clearance in the back of the rack to allow for sufficient airflow and ease in servicing (~76 cm/30 inches).

Rack Precautions

- Ensure that the leveling jacks on the bottom of the rack are fully extended to the floor with the full weight of the rack resting on them.
- In single rack installation, attach stabilizers to the rack.
- In multiple rack installations, couple the racks together.

- Always make sure the rack is stable before extending a component from the rack.
- Extend only one component at a time—extending two or more simultaneously may cause the rack to become unstable.

Device Precautions



Caution – Never open the appliance covers! There are no user serviceable parts inside. Opening the covers may lead to serious injury and will void the warranty.

- Review the electrical and general safety precautions in [Safety Precautions](#), on page 6.
- Determine the placement of each component in the rack before you install the rails.
- Install the heaviest appliance components on the bottom of the rack first, and then work up.
- The appliance must be connected to a grounded power outlet.
- Use a regulating uninterruptible power supply (UPS) to protect the appliance from power surges, voltage spikes and to keep your system operating in case of a power failure.
- Always keep the rack's front door and all panels and components on the appliances closed when not servicing to maintain proper cooling.

Before Installing the Appliance Into a Rack

1. Make sure that the rack is securely anchored onto an unmovable surface or structure before installing the appliance into the rack.
2. Unplug the power cord(s) of the rack before installing the appliance into the rack.
3. Make sure that the system is adequately supported. Make sure that all the components are securely fastened to the appliance to prevent components falling off from the appliance.
4. Be sure to install an AC power disconnect for the entire rack assembly. This power disconnect must be clearly marked.
5. The rack assembly must be properly grounded to avoid electric shock.
6. The rack assembly must provide sufficient airflow to the appliance for proper cooling.

Installing the Appliance into a Rack

This section provides information on installing the StoneGate appliance into a rack unit. There are a variety of rack units on the market, so the assembly procedure may differ slightly from what is instructed. Refer to the instructions that came with the rack unit you are using.

Installing the Appliance into a Telco Rack

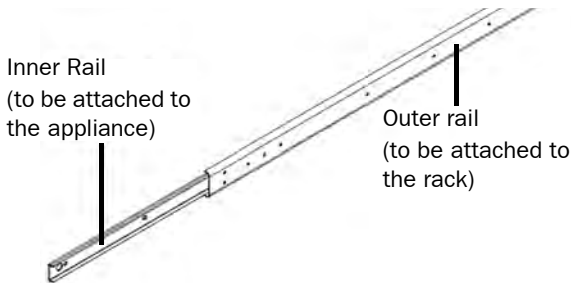
If you are installing the appliance into a Telco type rack, follow the general directions below. The main difference in the installation procedure is the positioning of the rack brackets to the rack. Space them apart just enough to accommodate the width of the Telco rack.

Identifying the Sections of the Rack Rails

You have received two rack rail assemblies with the appliance. Each of these assemblies consist of three sections: an inner fixed rail that secures to the appliance and an outer fixed rack rail that secures directly to the rack itself. A sliding rail guide sandwiched between the two should remain attached to the fixed rack rail. (See [Illustration 3.](#)) The inner and outer rails must be detached from each other to install.

▼ To detach the inner rails

Illustration 3 Identifying the Sections of the Rack Rails



1. Pull the inner rail out as far as possible. You should hear a "click" sound as a locking tab emerges from inside the rail assembly and locks the inner rail.
2. Depress the locking tab to pull the inner rail completely out.
3. Repeat for the other side's rack rail assembly.

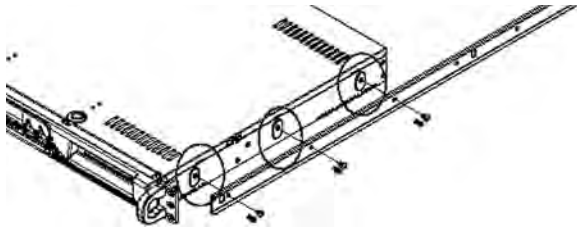
Locking Tabs: As you have seen, both rails have a locking tab, which serves two functions.

- To lock the appliance into place when installed and pushed fully into the rack, which is its normal position.
- To lock the appliance in place when fully extended from the rack to prevent the appliance from coming completely out of the rack when you pull it out for servicing.

▼ To attach the inner rails to the appliance

1. Position the inner rail sections you just removed along the side of the appliance making sure the screw holes line up. Note that these two rails are left/right specific.

Illustration 4 Attaching the Inner Rail to the Appliance



2. Screw the rail securely to the side of the appliance with the supplied screws.
3. Repeat the procedure for the other side of the appliance.
4. When installing to a four-post Telco rack, attach the rail brackets. If you are installing the appliance into a two-post Telco rack, proceed to [Installing the Appliance into a Two-Post Telco Rack](#), on page 14.

▼ To attach the outer rails to the rack

1. Determine where you want to place the appliance in the rack.
2. Position the fixed rack rail/sliding rail guide assemblies at the desired location in the rack, keeping the sliding rail guide facing the inside of the rack.
3. Screw the assembly securely to the rack using the brackets provided.

4. Attach the other assembly to the other side of the rack, making sure both are at the exact same height and with the rail guides facing inward.

You should now have rails attached to both the appliance and the rack unit. The next step is to install the appliance into the rack.

Note – Do not install the appliance upside down.

▼ To install the appliance into the rack

1. Line up the rear of the inner rails with the front of the outer rails.
2. Slide the inner rails into the outer rails, keeping the pressure even on both sides (you may have to depress the locking tabs when inserting). When the appliance has been pushed completely into the rack, you should hear the locking tabs "click".
3. Finish by inserting and tightening the thumbscrews that hold the front of the appliance to the rack.

Proceed to [Connecting the Cables](#), on page 18.

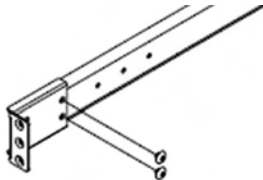
Installing the Appliance into a Two-Post Telco Rack

Once you have detached the inner rails from the rail assembly and attached them to the appliance, you can continue installing the appliance into a two-post Telco rack.

▼ To attach the outer rails to the two-post Telco rack

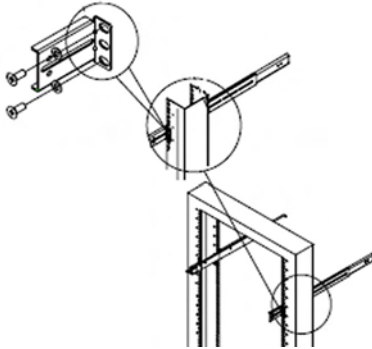
1. Locate a pair of front (short) and rear (long) brackets supplied with the appliance. The front brackets are marked with Up/Front Arrows and the back brackets with Up/Rear arrows.
2. Secure the front (short) bracket (marked with Up/Front Arrows) to the outer rail with two screws (see [Illustration 5](#).)

Illustration 5 Securing Front Bracket to Outer Rail



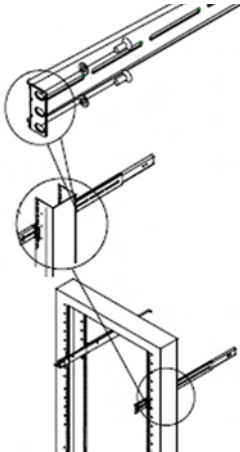
3. Attach the front (short) bracket to the front end of the rack and secure it to the rack with two screws and two washers. See [Illustration 6](#).

Illustration 6 Attaching Front Bracket to Two-Post Telco Rack



4. Attach the rear (long) bracket to the rear end of the rack, and secure it to the rack with two screws and two washers. See [Illustration 7](#).

Illustration 7 Attaching Rear Bracket to Two-Post Telco Rack



5. Repeat steps 2-4 to install the other outer rail to the other side of the rack.

▼ **To install the appliance into the two-post Telco rack**

1. Measure the depth of your rack and adjust the length of the rails accordingly.
2. Secure the rails to the appliance with screws (see [Illustration 8](#)).

Illustration 8 Securing the Rails to the Appliance

3. Line up the rear of the inner rails with the front of the outer rails.

Note – Do not install the appliance upside down.

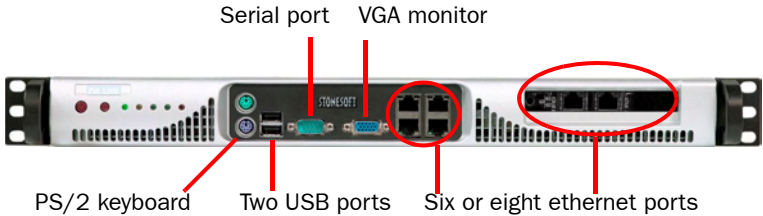
4. Slide the inner rails which are attached to the appliance into the outer rails on the rack. Keep the pressure even on both sides (you may have to depress the locking tabs when inserting). When the appliance has been pushed completely into the rack, you should hear the locking tabs "click" (see [Illustration 9](#)).

5. Finish by inserting and tightening the thumbscrews that hold the front of the appliance to the rack.

Proceed to [Connecting the Cables](#), on page 18.

Connecting the Cables

Illustration 10 Front Panel



▼ To connect the cables

1. Choose one of the following:
 - Connect a monitor to the VGA port and a keyboard to either of the two USB ports.
 - Or connect the supplied null-modem cable to the serial port and to another computer that you will use for a terminal connection.
2. Connect the power cable to the AC power connector on the back of the appliance.
3. Connect network cables to the ethernet ports (six in FW-1020, eight in FW-1050 and FW-1200).
 - You are free to choose which ethernet ports you connect to which network. The ethernet ports are mapped to Interface IDs during the initial configuration. The port number labels indicate the numbering of the ethernet ports on the appliance.

Connecting the Appliance to the Power Supply

Plug the power cord into a grounded, high-quality power strip that offers protection from electrical noise and power surges. We highly recommend using an uninterruptible power supply (UPS) to ensure continuous operation and minimize the risk of damage to the appliance in case of sudden loss of power.

Note – Standby power is supplied to the system even when the appliance is turned off.

Initial Configuration

To start using the appliance, you must activate the network interfaces and establish a secure connection to the Management Server as outlined in the sections below.

To successfully complete this configuration, the following prerequisites must be met:

- The Firewall element must be defined in the Management Center
- If you use the configuration wizard to configure the engine, you must have created a one-time password for this engine.
- If you want to import some of the initial configuration information in the configuration wizard, save the initial configuration on a USB stick or a floppy disk.
- If you want to configure the engine automatically with a USB stick, save the initial configuration on a USB stick.

See the *Firewall/VPN Installation Guide* for details.

Note – The appliance must contact the Management Server before it can be operational.

Connecting to the Appliance

You may not need to connect to the appliance at this point if you import a configuration from a USB stick as explained in [Configuring the Engine Automatically](#), on page 20, and you are not interested in the console messages that are displayed during this process.

In other cases, you need a physical connection to the appliance using a monitor and keyboard or a serial cable connection from a computer with a terminal program. By default, the monitor and keyboard connection is enabled and the serial console is inactive. If you want to use a serial connection, follow the instructions directly below. To use a monitor and keyboard, just boot up the appliance.

▼ To connect using a serial cable

1. Connect the serial cable supplied with the appliance to the serial port on the appliance and to a computer.
2. On the computer, open a terminal with settings 9600bps, 8 databits, 1 stopbit, no parity.
3. Power on the appliance.

4. Press a key on your keyboard when you see “Press any key”. The message is shown four times. If you do not press a key within this time, the serial console remains inactive and you must reboot the appliance to try again.
5. A boot menu is shown. Select the **Switch to serial console** option. The appliance boots up with the serial console activated.
 - The keyboard and display console is now inactive and must be activated in a similar way before you can use it.
 - To define two active consoles, use the command **sg-bootconfig**. For usage, see “Command Line Tools” in the *Firewall/VPN Reference Guide, Administrator’s Guide* or online help of the Management Client.

There are two ways to configure the engine software.

- You can configure the engine automatically with a USB stick (see [Configuring the Engine Automatically](#) below).
- If the automatic configuration is not possible or desired, you can use the engine configuration wizard (see [Configuring the Engine with the Configuration Wizard](#), on page 21).

Configuring the Engine Automatically

The automatic configuration requires that you have a suitable configuration saved on a USB memory stick. See the *Firewall/VPN Installation Guide* or the online help of the Management Client for details.

If you want to check the configuration before it is activated, follow the instructions in [Configuring the Engine with the Configuration Wizard](#), on page 21, and import the configuration manually.

▼ To import and activate a configuration from a USB memory stick

1. Insert the USB stick that contains the configuration saved in your Management Client in one of the USB ports on the appliance.
2. Turn on the appliance using the power on/off button. The appliance automatically imports the configuration from the USB stick and then tries to make the initial contact to the Management Server.
 - If the connection is successful, the appliance automatically reboots itself and the engine configuration is finished.

If you configure the engine with a USB stick, you must set a password for the `root` account in the Management Client to enable command line access to the engine. If you want to allow remote access to the engine using SSH, enable the SSH daemon for the engine in the Management Client. See the *Administrator's Guide* for more information.

Proceed to [After Successful Management Server Contact](#), on page 27.

If the Automatic Configuration Fails

- If the automatic configuration fails, and you do not have a display connected, you can check for the reason in the log (`sg_autoconfig.log`) written on the USB stick.
- If you see a “connection refused” error message, ensure that the Management Server IP address is reachable from the engine and check the IP addresses you have defined in the Management Client.
- If the configuration with the USB stick still does not succeed, follow the instructions for the manual configuration, see [Configuring the Engine with the Configuration Wizard](#) below.

Configuring the Engine with the Configuration Wizard

You can use the engine configuration wizard with all Management Center and Firewall versions. If you have saved the initial configuration on a USB stick or a floppy disk, you can import it in the configuration wizard to reduce the need for typing in information.

▼ To start the configuration wizard

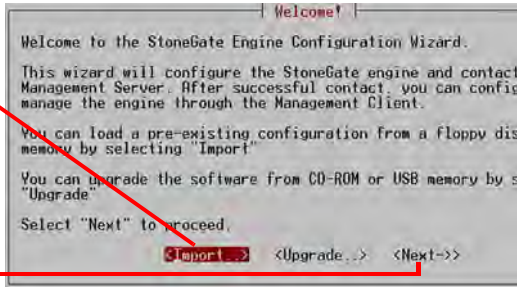
- ◆ Turn on the appliance using the power on/off button. The engine bootup process is shown in the console and, after some time, the engine configuration wizard starts.

Note – You can (re)start the engine configuration wizard at any time using the `sg-reconfigure` command on the engine command line.

▼ To select the configuration method

To import a saved configuration, highlight **Import** using the arrow keys and press ENTER.

To skip the import, highlight **Next** and press ENTER.



▼ To set the keyboard layout

1. Highlight the entry field for **Keyboard Layout** using the arrow keys and press ENTER. The Select Keyboard Layout dialog opens.



2. Highlight the correct layout and press ENTER.

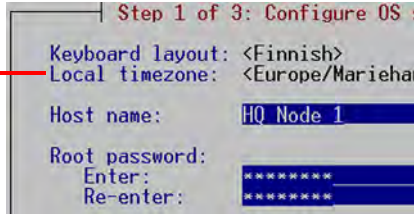
Tip: Type in the first letter to move forward more quickly.



Note – If the desired keyboard layout is not available, use the best-matching available layout, or select US_English.

▼ To set the engine's timezone

1. Highlight the entry field for **Local Timezone** using the arrow keys and press ENTER.
2. Select the correct timezone in the dialog that opens.

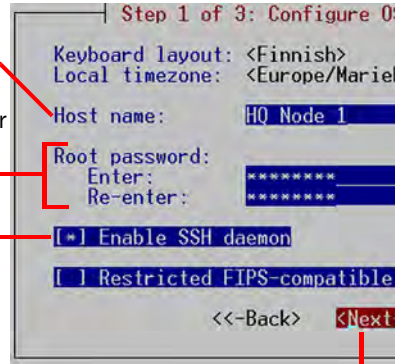


Note – The timezone setting affects only the way the time is displayed on the engine command line. The actual operation always uses UTC time.

Note – The appliance's clock is automatically synchronized with the Management Server's clock.

▼ To set the rest of the OS settings

1. Type in the name of the firewall.
2. Type in the password for the user root. This is the only account for engine command line access.
3. Highlight **Enable SSH Daemon** and press the spacebar on your keyboard to select the option and allow remote access to engine command line using SSH.
4. Highlight **Next** and press ENTER. The Configure Network Interfaces window is displayed.

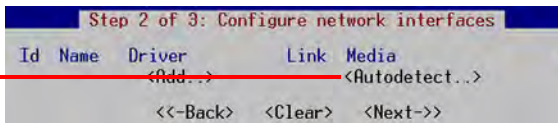


Configuring the Network Interfaces

The configuration utility can automatically detect which network cards are in use. You can also add interfaces manually, if necessary.

▼ To add the network interfaces

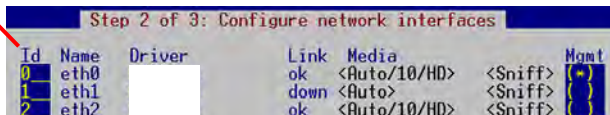
Highlight **Autodetect** and press ENTER.



Check that the automatically detected drivers are correct and that all interfaces have been detected. To add interfaces manually, click **Add** and select a device driver.

▼ To map the physical interfaces to interface IDs

1. Type in the IDs to define how physical interfaces are mapped to the Interface IDs you defined in the Firewall element. Ethernet ports are detailed in [Illustration 10](#) in [Connecting the Cables](#), on page 18.



2. Highlight the **Media** column and press ENTER to match the speed/duplex settings to those used in each network. It is recommended that you leave the speed/duplex settings to Auto, so that they are negotiated automatically.

3. Highlight the **Mgmt** column and press the spacebar on your keyboard to select the correct interface for contact with the Management Server.

Note – The Management interface must be the same that you configured as the Primary Control Interface for the corresponding Firewall element in the Management Center.

Highlight **Next** and press ENTER to continue.

Contacting the Management Server

The Prepare for Management Contact window opens. If the initial configuration was imported, most of this information is filled in.

This task has two parts. First, you activate an initial configuration on the firewall.

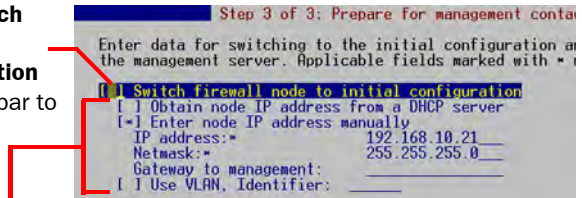
- The initial configuration contains the information that the engine needs to connect to the Management Server for the first time.
- The initial configuration is replaced with a working configuration when you install a Firewall Policy from the Management Server on this engine using the Management Client.

▼ To activate the initial configuration

1. Highlight **Switch**

Firewall Node to Initial Configuration

and press spacebar to activate.



2. Fill in according to your environment. The information must match to what you defined for the Firewall element (Primary Control IP Address). If the engine and the Management Server are on the same network, you can leave the **Gateway to management** field empty.

The initial configuration contains a simple firewall policy that allows only administration-related connections and blocks everything else.

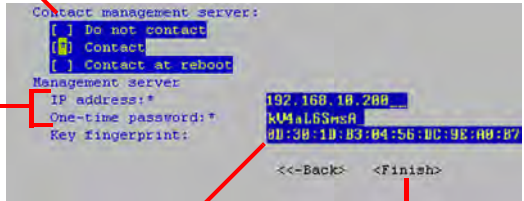
In the second part of the configuration, you define the information needed for establishing a trust relationship between the engine and the Management Server.

If you do not have a one-time password for this firewall, see the *Firewall/VPN Installation Guide* for instructions on how to save an initial configuration.

▼ To fill in the Management Server information

1. Highlight **Contact Management Server** and press spacebar to activate.

2. Fill in the Management Server IP address and the one-time password that was created for this engine when you saved the initial configuration.



3. (Optional) Fill in the Key fingerprint (also shown when you saved the initial configuration). Filling it in increases the security of the communications.

4. Highlight **Finish** and press ENTER.

Note – Once initial contact has been made, the engine receives a certificate from the Management Center for identification. If the certificate is deleted or expires, you must repeat the initial contact using a new one-time password.

The engine now tries to make initial Management Server contact.

- If you see a “connection refused” error message, ensure that the one-time password is correct and the Management Server IP address is reachable from the node. Save a new initial configuration if unsure about the password.
- If the engine is unable to contact the Management Server, make sure there are no networking problems, that all information defined in the Firewall element corresponds to what you entered in the configuration wizard and, if NAT is in use, that you have configured contact addresses for NAT as explained in the *Firewall/VPN Installation Guide*.

After Successful Management Server Contact

After you see a notification that Management Server contact has succeeded or the appliance has rebooted itself after automatic configuration with a USB stick, the firewall engine installation is complete and the firewall is ready to receive a policy. In a while, the firewall's status changes in the Management Client from **Unknown** to **No Policy Installed**, and the connection state is **Connected** indicating that the Management Server can connect to the node.

The next step is creating a security policy and installing it on the engine. See the *Firewall/VPN Installation Guide* for basic instructions or the online help of the Management Client for detailed instructions.



Caution – When using the command prompt, use the `reboot` command to reboot and `halt` command to shut down the node. Do not use the `init` command. You can also reboot the node using the Management Client.

Command-Line Management

▼ To permanently activate the serial console

1. Login to the command line (using SSH, keyboard and display, or a serial connection) as user **Root** with the password you have set for the appliance.
2. Run the command `sg-bootconfig --secondary-console`

Maintenance Operations

Common maintenance operations for this StoneGate appliance are described below.

Reverting to Previously Installed Software Version

This procedure allows you to undo a software upgrade.

The appliance has two working partitions. One is designated as active and the other as inactive. The inactive partition is used for upgrades and the status is switched between the partitions when the upgrade is ready to be activated. If the appliance does not start up with the new version, it automatically switches to the previous configuration at the next reboot. You can also switch back to the previously installed software version manually as instructed here whenever necessary.

▼ To switch back to the previously active version

1. Connect the serial cable supplied with the appliance to the serial port on the appliance and to a computer.
2. On the computer, open a terminal with settings 9600bps, 8 databits, 1 stopbit, no parity.
3. (Re)start the appliance:
 - If the appliance is powered on and accessible, press `Enter`, log in and issue command `reboot`.
 - Otherwise, cycle the power off and on as appropriate.

Note – When the appliance is powered and you need to unplug it, always wait at least five (5) seconds before plugging in the appliance again. Otherwise, the appliance may not have time to clear properly and fails to start.

4. Wait until a boot menu is shown.

5. Select **Switch to previously installed software version**. Note the indicated partition (A or B). The appliance switches partitions and boots up.
6. Refresh the policy on the firewall or firewall cluster to synchronize the policy and other configuration data between components.

Note – If the certificate for system communications on the previously used partition is not valid anymore, see the *Troubleshooting* section in the Management Client’s online help for renewal instructions.

If you want to undo this operation, repeat the steps exactly as above.

Resetting the Appliance to Factory Settings

The primary way to reset the appliance’s settings is to run the configuration wizard (**sg-reconfigure** command line tool) and to select the **Switch Firewall Node to Initial Configuration** option.

Note – Perform a factory reset only if you have a specific need to do so. Consult Stonesoft Support before performing this operation if you are unsure of whether this operation is necessary or not.

▼ To reset to factory settings

1. Connect the serial cable supplied with the appliance to the serial port on the appliance and to a computer.
2. On the computer, open a terminal with settings 9600bps, 8 databits, 1 stopbit, no parity.
3. (Re)start the appliance:
 - If the appliance is powered on and accessible, press `Enter`, log in and issue command `reboot`.
 - Otherwise, cycle the power off and on as appropriate.

Note – When the appliance is powered and you need to unplug it, always wait at least five (5) seconds before plugging in the appliance again. Otherwise, the appliance may not have time to clear properly and fails to start.

4. Wait until a boot menu is shown.
5. Select **System Restore Options** from the boot menu.

6. Type **1** and press `Enter` to clear the settings. A confirmation prompt is shown.
7. Type **YES** and press `Enter` to perform the reset. If you decide to cancel the operation, type **NO** and press `Enter`.



Caution – Do not unplug the power from the appliance or interrupt the reset in any way. If the reset is interrupted, the appliance may become unusable until serviced.

To use the appliance after a factory reset, you must configure it as explained in [Initial Configuration](#), on page 19.

Appendix: Port Indicators

The port indicators provide information on activity and link status. The indicators, their labels, and colors vary between different appliance models and port types. The indicators are explained below.

Illustration 11 Motherboard Ports



Table 2 Motherboard Indicators

Indicator	Status	Explanation
Link	Unlit	No link or link speed is 10 Mbps.
Link	Green	Link speed is 100 Mbps.
Link	Amber	Link speed is 1 Gbps.
Activity	Green	Link ok, blinks on activity.

Table 3 Two Unlabeled Indicators per Copper Port (All Models)

Indicator	Status	Explanation
Left LED	Blinking green	Link ok, activity.
Right LED	Unlit	Speed is 10 Mbps or no connection.
Right LED	Green	Speed is 100 Mbps.
Right LED	Amber	Speed is 1 Gbps.

Table 4 Three Indicators per Copper Port in FW-1050 or FW-1200

Indicator	Status	Explanation
Link Activity	Blinking green	Link ok, activity.
100 Mbits/s	Green	Speed is 100 Mbps.
1000 Mbits/s	Green	Speed is 1000 Mbps.

Table 5 Two Indicators per Copper Port in FW-1050 or FW-1200

Indicator	Status	Explanation
ACT/LNK	Blinking green	Link ok, activity.
ACT/LNK	Unlit	No link.
10=OFF	Unlit	Speed is 10 Mbps.
100=GRN	Green	Speed is 100 Mbps.
1000=OR	Orange	Speed is 1000 Mbps.

Table 6 Two Indicators per Copper Port in FW-1020

Indicator	Status	Explanation
ACT/LNK	Blinking green	Link ok, activity.
ACT/LNK	Unlit	No link.
10=OFF	Unlit	Speed is 10 Mbps.
100=GRN	Green	Speed is 100 Mbps.
1000=YLW	Yellow	Speed is 1000 Mbps.

Table 7 One Indicator per Fiber Port in FW-1200

Indicator	Status	Explanation
ACT/LNK	On	Link ok.
ACT/LNK	Unlit	No link.

