

## CacheGuard Quick Start

Thank you for choosing CacheGuard Gateway appliance as your Security and network traffic Optimization gateway. This guide helps you to quickly get started with your CacheGuard.

### 1- Connections

The console: the first step is to connect via the console ports and configure the network. Console ports can be the following:

- HDMI port connected to a screen + USB port connected to a USB keyboard
- VGA port connected to a screen + USB port connected to a USB keyboard
- COM port configured at 115200 baud 8 data bits, no parity and one stop bit (8N1) and connected to a VT100 emulator with a null modem serial cable (on some models only)



The network: CacheGuard Gateway uses at least two logical network interfaces: the external (or WAN) interface and the internal (or LAN) interface. By default the external interface is associated to the Eth0 (Ethernet 0) port and the internal interface to the Eth1 (Ethernet 1) port.

It is highly important make the right network connections, otherwise the internet connectivity won't work. The **Eth0** port must be connected to the internet (or WAN) **router** and the Eth1 port to the LAN switch using Ethernet Cat 6 cables and RJ45 plugs. On models without any marking, the Eth0 can be on the right as well as on the left and the same applies to the Eth1 port as shown on the image below:



Locking Edges at the Bottom



Locking Edges at the Top

You can identify ports according to the locking edge position of the Ethernet sockets. When locking edges are at the bottom, Eth1 is on the left and Eth0 is on the right. When locking edges are at the top, Eth0 is on the left and Eth1 is on the right.

Please note that CacheGuard appliances are computers powered by CacheGuard-OS so on some models you may find other ports such as an audio port. CacheGuard-OS does not use those ports.

The schema below shows a typical CacheGuard Gateway appliance implementation:



## 2- Power On & Configure



The first time you turn your on a CacheGuard appliance, you will be prompted to configure your keyboard. Afterwards the boot process continues until the login prompt. Login as *admin* user (the default password is *admin*) and follow setup instructions. The setup instructions guide you to configure the network. After having configured the network, you will be able to configure the appliance using its Web GUI (Graphical User Interface) using a Web browser or remotely using SSH. By default, the Web GUI can be reached at <https://<cacheguard-ip>:8090> where <cacheguard-ip> is the internal or the external IP address of your CacheGuard appliance. Please note that the Web GUI uses a self-signed certificate and it's normal to get a warning message.

Even if the Web GUI is very useful, CacheGuard has a powerful CLI (Command Line Interface) that allows you to do all settings using commands only. To get help from the CLI, use the **help** command. When typing commands, a completion facility allows you to complete commands or obtain a list of available arguments. To use the completion just type the <TAB> key.

CacheGuard comes with online and offline technical documentation and active help via a technical forum where you can post your questions and get responses during business hours CET. Please read the *User's Guide* and the *Command Line Manual* before posting any questions on the technical forum.

## 3- CacheGuard-OS new releases and OS patches

At CacheGuard Technologies Ltd we are very aware of the security and quality of our products. That is why we regularly release new CacheGuard-OS versions. To remain safe, it is highly important to keep your CacheGuard-OS up to date by applying the latest patches (or by re-installing the latest CacheGuard-OS version on your appliance).

Upgrading CacheGuard-OS is an automated operation that you can perform using the CLI or the Web GUI. This operation is done in two phases: you must first download the patch on your appliance and then apply it. To download the latest available patch for your appliance, you can use the command “*system patch aload*” or use the Web GUI page “[GENERAL] > [System Operations] > [Load OS Patch]”. To apply the downloaded patch to your running OS, you can use the command “*apply*” or use the Web GUI page “[GENERAL] > [Whole Configuration] > [Apply New Configuration]”.

## 4- Product Registration

The screenshot shows the 'Appliance Registration' web form. At the top, there is a header with the title 'Appliance Registration' and several icons: a yellow arrow, a green checkmark, a red cross, a green dollar sign, a blue document, a brown house, and a blue cloud. The form fields are as follows:

Serial Number	CG-L0_180503T-0868999 (temporary)
Mode	First Registration ▼
Contact Email	manager@example.com
OTP [Get a One Time Password]	.....
I agree terms of the License	<input checked="" type="checkbox"/>

At the bottom of the form, there are two buttons: 'SUBMIT' with a green checkmark icon and 'RESET' with a red arrow icon.

To benefit from services that may come with your CacheGuard appliance, you must register it using its Web GUI interface. To do so, make sure that your CacheGuard appliance is connected to the internet and proceed as follows:

- Go to the menu item [**GENERAL**] > [**Main Settings**] > [**Registration & Subscription**] (or click on the blinking “Register & Subscribe” icon at the top of the Web GUI).
- Ask for an OTP (One Time Password) by following the [Get a One Time Password](#) link (in front of the **OTP** field) .
- Return to the [**Registration & Subscription**] page of the Web GUI, enter a valid email address and your OTP. You can use the copy/paste to enter your OTP.
- Tick the "I agree to terms of the License" checkbox and press the SUBMIT button.
- Go to the menu item [**GENERAL**] > [**Whole Configuration**] > [**Apply New Configuration**] and pressing the SUBMIT button to apply the registration.

Following the apply operation, you will receive your registration confirmation by email.

## 5- Services activation

If your CacheGuard appliance comes with an activation code, you will need to submit it in order to activate associated services. Activation codes are provided either electronically (by email) or on paper (card or sticker) with your CacheGuard appliance.

To submit your activation code, you must register your CacheGuard appliance first as described in the previous section and then proceed as follows:

- Go to the menu item [**GENERAL**] > [**Main Settings**] > [**Registration & Subscription**] or click on the “Register & Subscribe” icon at the top of the Web GUI.
- Follow the [Manage Subscription](#) link (in front of the **License Key** field) by clicking on it. At this stage you will be forwarded to the “CacheGuard Subscriber Portal” where you can create an account (if you have not yet any) and then submit your activation code.
- Further instructions will be provided by the “CacheGuard Subscriber Portal” to complete your services activation.

The screenshot shows a web form titled "License Registration & Subscription" with a header bar containing several icons. The form contains the following fields and elements:

- Serial Number:** A text field containing the value "CG-L0\_".
- License Key:** A text field with a link "[Manage Subscription]" in red text next to it.
- I agree terms of the License:** A checkbox that is currently unchecked.
- Buttons:** Two buttons at the bottom: "SUBMIT" with a green checkmark icon and "RESET" with a red double arrow icon.

**NB:** a License Key is only required if you run CacheGuard-OS for more than a certain number of users (see Licensing & Limitations below).

## 6- Connect to the internet via CacheGuard Gateway

CacheGuard Gateway can transparently intercept Web traffic incoming from the internet and destined to Web users and/or Web servers located on your LAN. You have also the possibility to configure your Web browsers to explicitly use CacheGuard Gateway as a Web proxy for HTTP and HTTPS traffic. In addition, CacheGuard Gateway is a firewall, a VPN server, a proxy cache, an antivirus at the gateway for Web traffic, a URL filter, a reverse proxy, a Web application load balancer, a WAF (Web Application Firewall), an SSL mediator (to manage encrypted traffic), an SSL terminator (to offload protected Web servers), a traffic logger, a bandwidth manager and much more. You can find more information about CacheGuard Gateway features at <https://www.cacheguard.com>.

## 8- Licensing & Limitations

CacheGuard appliances run under CacheGuard-OS, an open source and network appliance oriented OS (Operation System) free of charge for a limited number of users. Each CacheGuard appliance is tuned during the CacheGuard-OS installation to support a limited number of users. Any usage of a CacheGuard appliance beyond its installed capacity can be considered as a DoS (Denial of Service) attack and all underlying traffic can be dropped or delayed. To support more users, you have the possibility to re-install CacheGuard-OS on your machine and select the required users capacity during the installation. Prior to any CacheGuard-OS re-installation, please verify that your hardware resources can support your required users capacity (more information can be found in the CacheGuard User's Guide).

## 9- CacheGuard-OS installation

If for any reason you need to re-install CacheGuard-OS on your machine please proceed as follows:

- Download CacheGuard-OS ISO CDROM 64 bits image from <https://www.cacheguard.com>.
- Follow instructions given at <https://www.cacheguard.net/doc/guide/installation.html> to create a bootable USB stick.

To install CacheGuard-OS on your machine, you will need to configure its BIOS to boot on a USB memory stick or on a PXE server via the network (on some models only). To enter the BIOS, press the <DEL> button during the boot process. To configure an AMI BIOS to boot on a USB memory stick or on a PXE server follow instructions given below:

- To boot on a bootable CacheGuard-OS USB stick, insert it into a USB port and proceed as follows:
  - 1) Enter the BIOS, make sure that the Advanced > USB Configuration > USB Mass Storage Driver Support is set to Enabled, save the new BIOS configuration and reboot (Save & Exit > Save Changes > Yes).
  - 2) Enter the BIOS again and set the Boot > Boot Option Priorities > Boot Option #1 to your USB stick name. Also set the Boot > Hard Drive BBS Priorities to the your USB stick name.
  - 3) Save and reboot again to boot on the CacheGuard-OS USB stick.
- To boot on a PXE server, connect the Eth0 port to your PXE server and proceed as follows:
  - 1) Enter the BIOS, make sure that the Advanced > Network Stack Configuration and Advanced > Network Stack Configuration > Ipv4 PXE Support are Enabled. If you had to modify them, save the new BIOS configuration and reboot (Save & Exit > Save Changes > Yes).
  - 2) Enter the BIOS again, set the Boot > Boot Option Priorities > Boot Option #1 to UEFI: PXE IP4 <Network Interface Name> (where <Network Interface Name> is the network interface chip name in your appliance).
  - 3) Save and reboot again to boot on your PXE server.
- After having installed CacheGuard-OS, you will need to reconfigure the BIOS to boot on the SSD/HDD on which CacheGuard-OS has been installed. To do so, enter the BIOS, set the Boot > Network Device BBS Priorities > Boot Option #1 to that SSD/HDD, save and reboot.

## 10- Useful links

- Collaborative Technical Help: <https://help.cacheguard.net/>
- Warranty Claim: <https://www.cacheguard.net/cacheguard-warranty-claim.php>