# Troubleshooting

https://campus.barracuda.com/doc/3433/

The following diagnostic tools should help you troubleshoot most problems. Please read this article before contacting Barracuda Networks Technical Support. See also Replacing a Failed System.

## Basic Troubleshooting Tools

The **ADVANCED > Troubleshooting** page provides a suite of tools that help troubleshoot network connectivity issues that may be impacting the performance of your Barracuda Email Security Gateway.

For example, you can test your Barracuda Email Security Gateway's connection to the Barracuda Networks update servers to make sure that it can successfully download the latest Energize Updates definitions. You can also ping or telnet to other devices from the Barracuda Email Security Gateway, perform dig/NS-lookup, TCP dump and perform a trace route from the Barracuda Email Security Gateway to any another system.

## Connect to Barracuda Networks Support Servers

In the Support Diagnostics section of the **ADVANCED > Troubleshooting** page, you can initiate a connection between your Barracuda Email Security Gateway and the Barracuda Networks Technical Support Center which will allow technical support engineers to troubleshoot any issues you may be experiencing. See How to Open a Support Tunnel for details.

## Rebooting the System in Recovery Mode

If your Barracuda Email Security Gateway experiences a serious issue that impacts its core functionality, you can use diagnostic and recovery tools that are available from the reboot menu (see below) to return your system to an operational state.

Before you use the diagnostic and recovery tools, do the following:

- Use the built-in troubleshooting tools on the **ADVANCED > Troubleshooting** page to help diagnose the problem.

- Perform a system restore from the last known good backup file.
- Contact [Barracuda Networks Technical Support](#) for additional troubleshooting tips.

As a last resort, you can reboot your Barracuda Email Security Gateway and run a memory test or perform a complete system recovery, as described below.

**To perform a system recovery or hardware test**

1. Connect a monitor and keyboard directly to your Barracuda Email Security Gateway.
2. Reboot the system by doing one of the following:
   - In the web interface: Go to the **BASIC > Administration** page, navigate to the **System Management** section, and click **Restart**.
   - At the front panel of the Barracuda Email Security Gateway: Press the **Power** button on the front panel to turn off the system, and then press the **Power** button again to turn the system on.
   The splash screen displays one of the following lists of boot options:
     - If you see the following two options, continue with step 3 immediately below.
       Barracuda Appliance
       Barracuda Recovery
     - If you see the following three options, see **[Rebooting the System in Recovery Mode – Older Hardware](#)** below.
       Barracuda
       Recovery
       Hardware Test
3. Use your keyboard to select the desired boot option, and press the **Enter** key. You must select the boot option within three seconds after the splash screen appears. If you do not select an option within three seconds, the Barracuda Email Security Gateway starts up in *Normal* mode (first option). For a description of each boot option, refer to **Reboot Options – Newer Hardware** below.

> To stop a hardware test, reboot your Barracuda Email Security Gateway by pressing the Ctrl-Alt-Del keys.

## Reboot options – Newer Hardware

The table below describes the options available at the reboot menu.

| Reboot Options | Description |
|---|---|
| Barracuda Appliance | Starts the Barracuda Email Security Gateway in the normal (default) mode. This option is automatically selected if no other option is specified within the first three seconds of the splash screen appearing. |

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| Barracuda Recovery | Displays the Recovery Console, where you can select the following options:<br>•<br>**Support Tunnel (reverse runnel)** – Turns on reverse tunnel that allows Barracuda Networks Technical Support to access the system. Another method for enabling remote administration is to click **Establish Connection to Barracuda Networks Support Center** on the **ADVANCED >Troubleshooting** page.<br>•<br>**Barracuda Repair (no data loss)** – Repairs the file system on the Barracuda Email Security Gateway.<br>•<br>**Diagnostic memory test** – Runs a diagnostic memory test from the operating system. If problems are reported when running this option, Barracuda recommends running the Hardware_Test option next.<br>•<br>**Full Barracuda Recovery (all data lost**) – Restores the factory settings on your Barracuda Email Security Gateway and clears out the configuration information. |

## Rebooting the System in Recovery Mode – Older Hardware

If after following the steps in the **Rebooting the System in Recovery Mode** section above, you see the following three options on the splash screen, continue with the following steps.

Barracuda
Recovery
Hardware Test

1. Use your keyboard to select the desired boot option, and press the **Enter** key. You must select the boot option within three seconds after the splash screen appears. If you do not select an option within three seconds, the Barracuda Email Security Gateway starts up in *Normal* mode (first option). For a description of each boot option, refer to **Reboot Options – Older Hardware** below.

 To stop a hardware test, reboot your Barracuda Email Security Gateway by pressing the Ctrl-Alt-Del keys.

## Reboot options – Older Hardware

| Reboot Options | Description |
|---|---|

| | |
|---|---|
| Barracuda | Starts the Barracuda Email Security Gateway in the normal (default) mode. This option is automatically selected if no other option is specified within the first three seconds of the splash screen appearing. |
| Recovery | Displays the Recovery Console, where you can select the following options:<br><br>• **Barracuda Repair (no data loss)** – Repairs the file system on the Barracuda Email Security Gateway.<br><br>• **Full Barracuda Recovery (all data lost**) – Restores the factory settings on your Barracuda Email Security Gateway and clears out the configuration information.<br><br>• **Enable remote administration (reverse runnel)** – Turns on reverse tunnel that allows Barracuda Networks Technical Support to access the system. Another method for enabling remote administration is to click **Establish Connection to Barracuda Networks Support Center** on the **ADVANCED >Troubleshooting** page.<br><br>• **Diagnostic memory test** – Runs a diagnostic memory test from the operating system. If problems are reported when running this option, Barracuda recommends running the Hardware_Test option next. |
| Hardware_Test | Performs a thorough memory test that shows most memory related errors within a two-hour time period. The memory test is performed outside of the operating system and can take a long time to complete. Reboot your Barracuda Email Security Gateway to stop the hardware test. |