

Best Practice - High Performance Environments

<https://campus.barracuda.com/doc/41116258/>

These settings should only be made by experts.

In certain high load environments ,you may need to tune your system for optimal performance. By default, each Barracuda NG Firewall model already uses sensible default values for these settings. Depending on the configuration and the features used, you can use the following options to fine-tune your configuration for optimal performance.

In this article:

Increasing the Routing Cache

If your Barracuda NG Firewall handles traffic from large networks with a large number of IP addresses on both sides of the Forwarding Firewall, increase the maximum number of entries that are allowed in the routing cache.

1. Go to **CONFIGURATION > Configuration Tree > Box > Advanced Configuration > System Settings**.
2. In the left menu, select **Routing Cache**.
3. Click **Lock**.
4. Enter the **Max Routing Cache Entries**. E.g., 200000
5. Click **Send Changes** and **Activate**.

Increasing ARP Cache

1. Go to **CONFIGURATION > Configuration Tree > Box > Advanced Configuration > System Settings**.
2. In the left menu, select **ARP Settings**.
3. Click **Lock**.
4. Enter the **ARP Cache Size**. Default: 8192
5. Click **Send Changes** and **Activate**.

Disable CPU Power Savings

To enable the highest performance on systems using third-party server hardware running the NG Firewall using SF licenses, turn off the CPU power savings in the BIOS settings of the server. CPU power savings is already disabled on Barracuda NG Firewall hardware appliances.

NIC Receive Buffers

Increasing the number of receive buffers improves the system performance when packet bursts occur. The default value for the Intel Gigabit NIC is 256. This setting does not need to be changed on a Barracuda NG Firewall hardware appliance.

1. Show the settings for the NIC.
`ethtool -g eth3`
2. Increase the number of receive buffers.
`ethtool -G eth3 rx 1024`

To make this configuration permanent, add the commands to the **User Scripts** settings.

How to Test-Read Performance for Harddisk

To test-read performance for a hard disk on a running Barracuda NG Firewall, use the following command: `hdparm -tT /dev/<DEVICE>`

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