

The Barracuda Link Balancer routes and manages traffic across multiple Internet connections. It optimizes the use of multiple Internet links, such as T1s, T3s, DSL and cable connections from one or more Internet service providers. The Barracuda Link Balancer:

- balances incoming and outgoing network traffic across multiple links
- provides automated failover in case of link failure
- manages bandwidth
- performs Quality of Service (QoS) for Internet applications
- includes DHCP server and DNS caching server
- acts as a traditional firewall or can work with your firewall
- provides site-to-site VPNs with link failover

This guide describes how to deploy the Barracuda Link Balancer in your network replacing your existing firewall. You can also deploy the Barracuda Link Balancer between the Internet and your already existing firewall. Instructions for both deployment methods can be found in the *Barracuda Link Balancer Administrator's Guide*.

These instructions allow you to configure the Barracuda Link Balancer WAN links and firewall before connecting it directly to the Internet. We recommend reading through these steps before starting.

## 1 Getting Started

To set up your Barracuda Link Balancer, you need the following:

- Barracuda Link Balancer, AC Power Cord (included)
- Ethernet Cables
- PC with Web browser

Plug in the Barracuda Link Balancer and power it on.

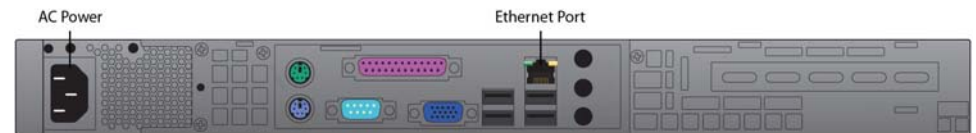
## 2 Configure Temporary Network Settings

Follow these steps to configure the Barracuda Link Balancer with temporary settings:

1. Set the network settings of a PC to use an IP address of 192.168.200.10, subnet mask of 255.255.255.0 and gateway of 192.168.200.200.
2. If there is a LAN port on the front of the Barracuda Link Balancer, connect the PC to that LAN port using an Ethernet cable.



If there is not a LAN port on the front of the Barracuda Link Balancer, connect the PC to the Ethernet port on the back, as shown below.



3. Start the Web browser and access the Web interface by typing <http://192.168.200.200:8000>. The default username is **admin** and the default password is **admin**.
4. Go to the **Basic > Links** page and double click on one of the WAN ports in the graphic. In the Links Configuration section set the Type of the WAN link to DHCP to acquire an address in the office network. Alternatively, set the link Type to Static and enter a specific IP address. Click **Save Changes**.
5. Connect an Ethernet cable from the corresponding WAN port on the front of the Barracuda Link Balancer to your office network. You should now have Internet connectivity from your PC.

## 3 Activate the Barracuda Link Balancer

If you see an activation warning message at the top of every page on the Barracuda Link Balancer Web interface, follow these steps to activate:

1. Click on the link in the warning message or use the link on the **Basic > Status** page to open up the **Barracuda Networks Product Activation** page in a new browser window.
2. Fill in the required fields and click **Activate**. A confirmation page opens to display the terms of your subscription. On the **Basic > Status** page, you may need to enter the activation code from the **Barracuda Networks Product Activation** page to activate your Barracuda Link Balancer.

## 4 Update the Firmware

Go to **Advanced > Firmware Update**. If there is a new **Latest General Release** available, perform the following steps to update the system firmware:

1. Click the **Download Now** button located next to the Latest General Release firmware version. Click **OK** to acknowledge the download duration message. To avoid damaging the Barracuda Link Balancer, do not power off during an update or download. To view the progress of the download, click **Refresh**. You will be notified when the download is complete.
2. Click **Apply Now** to apply the firmware. Click **OK** to acknowledge the reboot message. Applying the firmware takes a few minutes to complete.
3. After the firmware has been applied, the Barracuda Link Balancer automatically reboots. When the system comes back up, the login page is displayed. Log in again.

## 5 Configure Permanent WAN Settings

Configure the permanent settings for the WAN links that will be connected to the Barracuda Link Balancer. Some of the configuration information for the WAN links is provided by your ISP. Be sure to enter these values correctly.

1. Unplug the Ethernet cable connecting the WAN port to your office network.
2. Go to the **Basic > Links** page.
3. For each link that will be connected to this unit:
  - a. Click the relevant WAN port in the graphic.
  - b. In the Links Configuration section enter the details for the link to be connected to the WAN port.
  - c. Click **Save Changes**.

**Note:** For each WAN interface that has a static IP address, enter the IP addresses of all of your servers with public IP addresses in the **Additional IP Addresses** field. You will need to reconfigure those servers with private IP addresses. In the next step you can create 1:1 NAT rules to map the public IP addresses to the private IP addresses of the servers.

## 6 Configure the Barracuda Link Balancer Firewall

Create firewall rules on the Barracuda Link Balancer to match the settings of your current firewall:

1. Go to the **Firewall > Inbound** page to add inbound rules.
2. Go to the **Firewall > Outbound** page to add outbound rules.
3. Go to the **Firewall > NAT** page to add 1:1 NAT and port forwarding rules.

## 7 Configure Permanent LAN IP Address

Set the LAN IP address of the Barracuda Link Balancer to its permanent setting:

1. Go to the **Basic > IP Configuration** page. In the LAN IP Configuration section, change the LAN IP Address and Subnet Mask to their permanent settings. The LAN IP address is the default gateway for your network. Click **Save Changes**.
2. The connection to the PC that you were using will terminate.
3. Unplug the cable connecting your PC to the Barracuda Link Balancer.
4. Power down your Barracuda Link Balancer using the power button on the front of the unit. Be sure to wait for the Barracuda Link Balancer to shut down completely.

## 8 Install in the Production Network

Now that the Barracuda Link Balancer is configured, install it in its permanent location and make it part of your production network:

1. Mount the Barracuda Link Balancer in a 19-inch rack or place it in a stable location. To ensure proper ventilation, do not block the cooling vents on the front and back of the unit.
2. Connect each of the cables from the Internet links into a WAN port on the front of the Barracuda Link Balancer. Be sure to connect them according to your configuration.

3. Unplug your firewall from the network and plug its LAN connection into the LAN port on the front of the Barracuda Link Balancer, if there is one, or, if not, into the Ethernet port on the back.
4. If the IP address of the Barracuda Link Balancer is the same as the IP address of the firewall that you removed, you can ignore this step. Otherwise, make the Barracuda Link Balancer the default gateway for the clients by performing these steps:
  - a) Update the configuration of the DHCP server for the clients to give out the LAN IP address of the Barracuda Link Balancer as the default gateway. As the leases are renewed, each client will gain access to the new Internet links.
  - b) Change the default gateway of any clients with static IP addresses to the LAN IP address of the Barracuda Link Balancer.

## 9 Test Connectivity

Reboot your routers or modems on the WAN side of the Barracuda Link Balancer to clear their ARP caches. Then test the connectivity to a client system:

1. If needed, change the gateway IP address of a test system to the LAN IP address of the Barracuda Link Balancer.
2. Confirm that you can access the Internet from the test system. If this works, continue.
3. On the test system, log into the Web interface using the permanent LAN IP address followed by a colon and 8000. Go to the **Basic > Links** page. The status of each link should appear as **Connected**. You can see the utilization of each link by moving the mouse over the graphic.
4. On the test system, generate some traffic, by, for example, opening more tabs in the browser of the test system and downloading files from the Internet. FTP files from a number of different sites or use BitTorrent to get the traffic to flow on multiple links. Go to the **Basic > Status** page to view graphs that show the incoming and outgoing traffic for each link.

You can continue to monitor the WAN links using the **Basic > Links** page and the **Basic > Status** page.

Your Barracuda Link Balancer is now configured and operational.

### For more information

Barracuda Link Balancer concepts and alternate configurations are discussed in detail in the *Barracuda Link Balancer Administrator's Guide*, which is available at <http://www.barracuda.com/documentation>. Be sure to check out the Barracuda Networks Support Forum at <http://forum.barracuda.com> for Frequently Asked Questions (FAQs) and other helpful tips for setting up and using your Barracuda Link Balancer.

### Contact and Copyright Information

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