

How to Configure Multipath Routing

<https://campus.barracuda.com/doc/96026257/>

Firewall-assisted multipath routing is used when multiple paths are used to route traffic through a single target network. Multipath routing offers benefits such as increased bandwidth. When a session is established, the Barracuda CloudGen Firewall assigns a network path to the session based on the source address. The weight of a multipath gateway determines how often the path is used in comparison with the others. If all multipath gateways are given the same weight, the load is distributed evenly over all available multipath gateways.


Use connections and link balancing via connection objects in the Firewall service if you require failover support. If one part of the multipath connection goes down, the entire multipath route is considered down even if the other multipath gateways are still up and running.










Configure Multipath Routing

Create a multipath route and set the weight of each link according to your preferences.
























1. Go to **CONFIGURATION > Configuration Tree > Box > Network**.
2. In the left menu, click **Advanced Routing**.
3. Click **Lock**.
4. In the left menu, expand the **Configuration Mode** section and click **Advanced View**.
5. Click **+** to add a route to the **IPv4 Routing Table**.
6. Enter a **Name** for the multipath route and click **OK**.
7. Enter the settings for the multipath route:
 - **Target Network Address** - Enter the target network. For example, enter **0.0.0.0/0** if you want to use a multipath route as the default route.
 - **Route Type** - Select **multipath**.
 - **Trust Level** - Select the trust level for the route. For example, select **Untrusted** for a WAN connection

- **Route Metric** – Enter the route metric for this route. If you want traffic to the target network to take this route, ensure that no other route to the same destination has a lower metric.
- **Multipath Gateway** – Click  and enter the following settings for each multipath gateway:
 - **Multipath Gateway** – Enter the IP address for the gateway. For example, enter 10.0.10.11 for the first gateway in the previous figure.
 - **Weight Number** – Enter the weight number for this multipath gateway.
 - **Assigned Source** – Enter the IP address that you want to use as the source IP address.

| | | | | |
|--------------------|---|---|---|---|
| Multipath Gateway |  | <input type="text" value="10.0.10.11"/> |  |  |
| Weight Number |  | <input type="text" value="1"/> |  | |
| Assigned Source IP |  | <input type="text" value="10.0.10.1"/> |  |  |

8. Click **OK**.

Route Configuration

| Target Network Address |  | <input type="text" value="0.0.0.0/0"/> |  | | | | | | | | | | | | |
|------------------------|---|--|---|-------------------|---------------|--------------------|------------|---|-----------|------------|---|-----------|------------|---|-----------|
| Route Type |  | <input type="text" value="multipath"/> |  | | | | | | | | | | | | |
| Interface Name | | <input type="text" value=""/> |  | | | | | | | | | | | | |
| Gateway | | <input type="text" value=""/> |  | | | | | | | | | | | | |
| Route Metric |  | <input type="text" value="100"/> |  | | | | | | | | | | | | |
| Source Address | | <input type="text" value=""/> |  | | | | | | | | | | | | |
| Foreign IP Sufficient | | <input type="text" value="no"/> |  | | | | | | | | | | | | |
| Trust Level |  | <input type="text" value="Untrusted"/> |  | | | | | | | | | | | | |
| Default Gateway | | <input type="text" value=""/> |  | | | | | | | | | | | | |
| MTU | | <input type="text" value="1500"/> |  | | | | | | | | | | | | |
| Advertise Route | | <input type="text" value="no"/> |  | | | | | | | | | | | | |
| Multipath Gateway |  | <div>        </div> <table border="1"> <thead> <tr> <th>Multipath Gateway</th> <th>Weight Number</th> <th>Assigned Source IP</th> </tr> </thead> <tbody> <tr> <td>10.0.10.11</td> <td>1</td> <td>10.0.10.1</td> </tr> <tr> <td>10.0.10.22</td> <td>1</td> <td>10.0.10.2</td> </tr> <tr> <td>10.0.10.33</td> <td>1</td> <td>10.0.10.3</td> </tr> </tbody> </table> | | Multipath Gateway | Weight Number | Assigned Source IP | 10.0.10.11 | 1 | 10.0.10.1 | 10.0.10.22 | 1 | 10.0.10.2 | 10.0.10.33 | 1 | 10.0.10.3 |
| Multipath Gateway | Weight Number | Assigned Source IP | | | | | | | | | | | | | |
| 10.0.10.11 | 1 | 10.0.10.1 | | | | | | | | | | | | | |
| 10.0.10.22 | 1 | 10.0.10.2 | | | | | | | | | | | | | |
| 10.0.10.33 | 1 | 10.0.10.3 | | | | | | | | | | | | | |

9. Click **Send Changes** and **Activate**.

10. Open the **CONTROL > Box** page and click **Activate new network configuration**.

Now you can send traffic to the **Target Network** of the multipath route and the traffic will be distributed across the configured multipath gateways according to the assigned weight. Balancing might not be perfect because the link is selected based on a route table lookup, and route lookups are cached. Routes to heavily used IP addresses will most likely always be over the same link.

Figures

1. fw_multipath.png
2. plus.png
3. plus.png
4. FW_multipath02.png
5. FW_multipath01.png

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