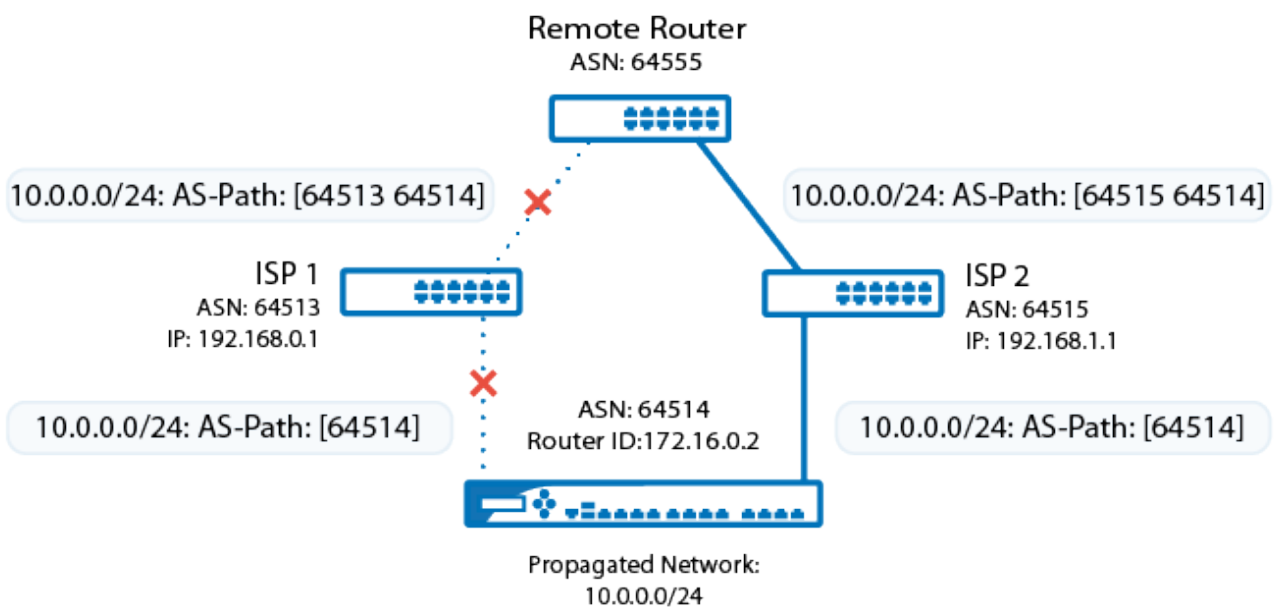


How to Configure BGP for Inbound Link Failover

<https://campus.barracuda.com/doc/48202971/>

BGP is used to announce routes to the neighboring networks. If you are using two or more ISPs to connect to the Internet, you can configure BGP to propagate routes for both ISPs to the neighboring networks. The remote BGP service monitors the neighboring connections and automatically chooses the other link when one link goes down. All traffic for your network is then routed over the remaining link.



Before You Begin

Before you configure the BGP service, you need an AS number for your network. AS numbers from 64512 to 65534 and 4,200,000,000 to 4,294,967,295 are reserved for private use.

Step 1. Enable the BGP Service

Create and configure the BGP service.

1. Create a **OSPF/RIP/BGP Service**. For more information on how to create a service, see [How to Configure Services](#).
2. Go to **CONFIGURATION > Configuration Tree > Box > Virtual Servers > your virtual server > Assigned Services > OSPF-RIP-BGP-Service > OSPF/RIP/BGP Settings**.

3. Click **Lock**.
4. From the **Run BGP Router** list, select **yes**.
5. From the **Operation Mode** list, select **advertise-learn**.
6. In the **Router ID** field, enter the IP address of the router.
7. Click **Send Changes** and **Activate**.

Step 2. Configure the BGP Service

1. Go to **CONFIGURATION > Configuration Tree > Box > Virtual Servers > your virtual server > Assigned Services > OSPF-RIP-BGP-Service > OSPF/RIP/BGP Settings**.
2. In the left menu, click on **BGP Router Setup**.
3. Enter the **AS Number** for your network.
4. In the **Terminal Password** fields, specify a password for connecting to the BGP router service via telnet from the shell of the Barracuda NextGen Firewall F-Series.
5. In the **Networks** table, add the local subnet (e.g., 10.0.0.0/24).
 1. Click the plus sign (+).
 2. Enter a **Name** for the network and click **OK**.
 3. In the **Network Prefix** field, enter the subnet. This is the subnet which is propagated via BGP (e.g., 10.0.0.0/24).
 4. Click **OK**.
6. Click **Send Changes** and **Activate**.

Step 3. Create a BGP Neighbors for ISP 1 and ISP 2

1. Go to **CONFIGURATION > Configuration Tree > Box > Virtual Servers > your virtual server > Assigned Services > OSPF-RIP-BGP-Service > OSPF/RIP/BGP Settings**.
2. In the left menu, click **Neighbor Setup IPv4**.
3. Click **Lock**.
4. In the **Neighbors** table, create a BGP neighbor for each ISP:
 1. Click the plus sign (+).
 2. Enter a **Name** for the ISP (e.g., ISP1bgpNeighbor or ISP2bgpNeighbor).
 3. In the **Neighbors** window, specify the following settings:
 - **Neighbor IPv4** - Enter the IP address of the BGP neighbor (e.g., 192.168.0.1 or 192.168.1.1).
 - **OSPF Routing Protocol Usage** - Select **no**.
 - **RIP Routing Protocol Usage** - Select **no**.
 - **BGP Routing Protocol Usage** - Select **yes**.
 - **AS Number** - Enter the AS number that is assigned to the BGP neighbor (e.g., 64513 or 64515).
 - **Update Source** - Select **Address**.
 - **Update Source IPv4 Address** - Enter the IP address that is assigned to the ISP WAN interface.

4. Click **OK**.
5. Click **Send Changes** and **Activate**.

Monitoring BGP Routes

To monitor the routes that are learned and propagated by BGP, go to the **CONTROL > Network** page and click the **BGP** tab.

Network	Next Hop	Metric	Local Pref	Weight	Path	Origin
Local						
> 10.0.0.0/24	0.0.0.0	0		32768	Local	IGP
> 172.16.16.0/24	0.0.0.0	0		32768	Local	IGP
AS 64515						
Neighbor: 192.168.1.1						
AS 64513						
Neighbor: 192.168.0.1						

Interfaces/IPs | IPs | Interfaces | Proxy ARPs | ARPs | Statistics | OSPF | RIP | **BGP** | Switch Info

Figures

1. bgp_2_isp_failover.png
2. BGPmonitoring.png

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