

How to Set Up a Default Route Through a Site-to-Site VPN Tunnel

<https://campus.barracuda.com/doc/46209416/>

In this example scenario, a Barracuda NextGen Firewall F-Series in the internal LAN requires an Internet connection. A second Barracuda NextGen Firewall F-Series (the external system) has direct Internet access and is therefore used to tunnel the Internet traffic to the internal system.

In this article:

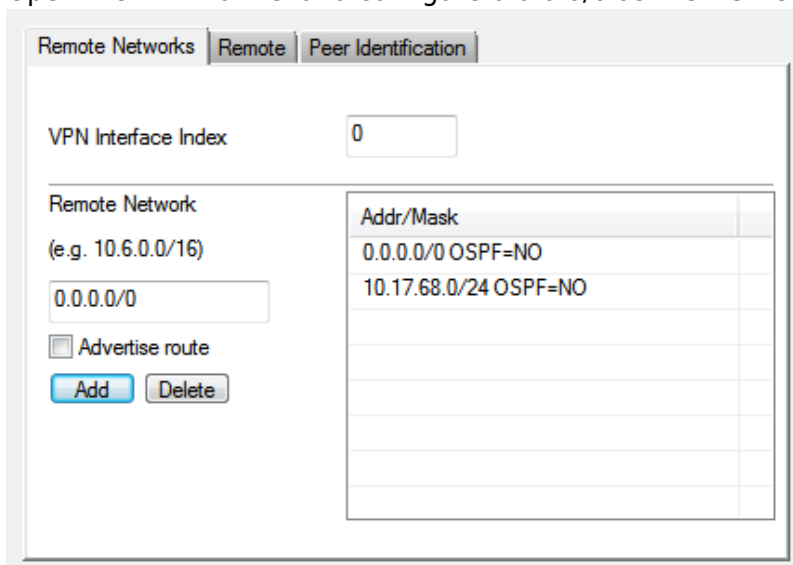
Step 1. Configure a Site-to-Site VPN Tunnel

Make sure that you have correctly configured the site-to-site VPN tunnel between both firewalls. For more information, see [How to Create a TINA VPN Tunnel between F-Series Firewalls](#).

Step 2. Configure the Internal Barracuda NextGen Firewall F-Series

To configure the Barracuda NextGen Firewall F-Series in the internal LAN:

1. Go to **CONFIGURATION > Configuration Tree > Box > Virtual Servers > your virtual server > Assigned Services > VPN-Service > Site to Site**.
2. Click **Lock**.
3. Open the TINA tunnel and configure 0.0.0.0/0 as the **Remote Network**.



Remote Network (e.g. 10.6.0.0/16)	Addr/Mask
0.0.0.0/0	0.0.0.0/0 OSPF=NO
	10.17.68.0/24 OSPF=NO

4. Create a dummy default route to prevent packets from being dropped in the forwarding firewall.

Route Configuration

Target Network Address	0.0.0.0/0
Route Type	gateway
Interface Name	<input type="text"/> <input type="checkbox"/> Other
Gateway	192.168.111.32
Route Metric	100

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

Step 3. Configure the External Barracuda NextGen Firewall F-Series

1. Go to **CONFIGURATION > Configuration Tree > Box > Virtual Servers > your virtual server > Assigned Services > VPN-Service > Site to Site**.
2. Click **Lock**.
3. Open the TINA tunnel and add 0.0.0.0/0 (the default route) in the **Local Networks** table.

Local Networks **Local** Identify

Call Direction	Active
Local Network Scheme	-explicit-
Network Address (e.g. 10.6.0.0/16)	Addr/Mask
<input type="text" value="0.0.0.0/0"/>	0.0.0.0/0
<input type="button" value="Add"/> <input type="button" value="Delete"/>	

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

Step 4. Configure Access Rules for the Tunnel

Remember to also create access rules on both firewalls for the tunnel traffic. For more information, see [How to Create Access Rules for Site-to-Site VPN Access](#).

If **Dynamic SNAT** is used in the access rules for the internal unit, the dummy route is used instead of the VPN tunnel. Therefore, make sure that the rules have **No SNAT** configured for Internet traffic traversing the VPN tunnel.

Troubleshooting

If you have issues with the default route for the site-to-site VPN tunnel, try the following solutions:

- **No traffic passes through the default route** - Verify whether the VPN connection itself works by setting up clients on both ends of the tunnel. Note that locally transmitted ICMP pings are not redirected through the tunnel. The client on the external system can also be an external web server.
- **ICMP traffic passes through the VPN tunnel in one direction but the reply does not** - Use Dynamic SNAT on the external Barracuda NextGen Firewall F-Series.
- **There is no connection to the Internet** - Make sure that a valid default route also appears in the regular network configuration of the external Barracuda NextGen Firewall F-Series and that this default route points to a working Internet gateway.

Figures

1. defroutvpnint.png
2. howtocredefroutvpndummy.png
3. howtocredefroutext.png

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