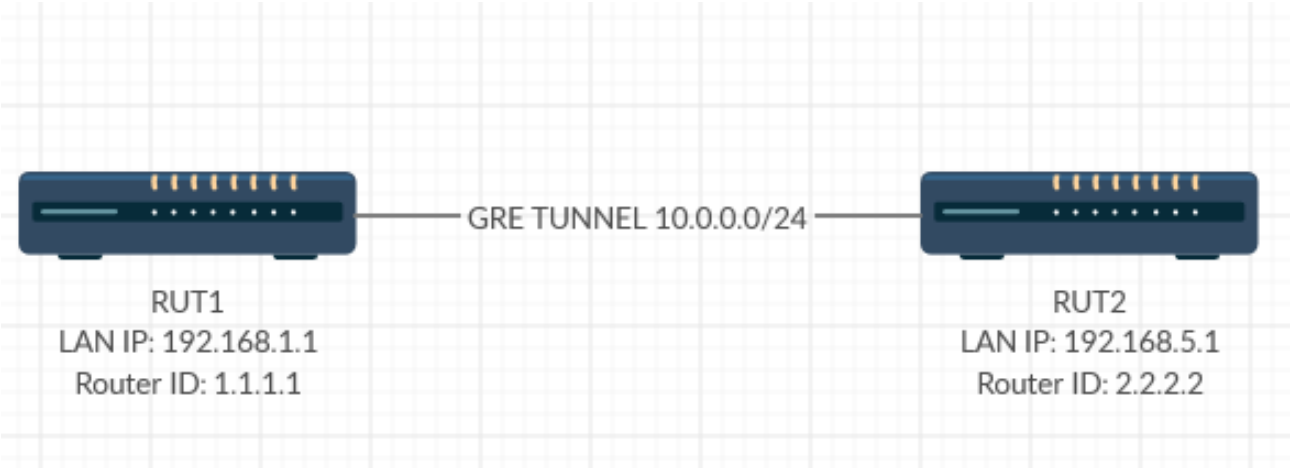
OSPF through GRE TUNNEL between two RUT9XX

This guide provides a configuration example with details on how to create OSPF dynamic routes through GRE tunnel.

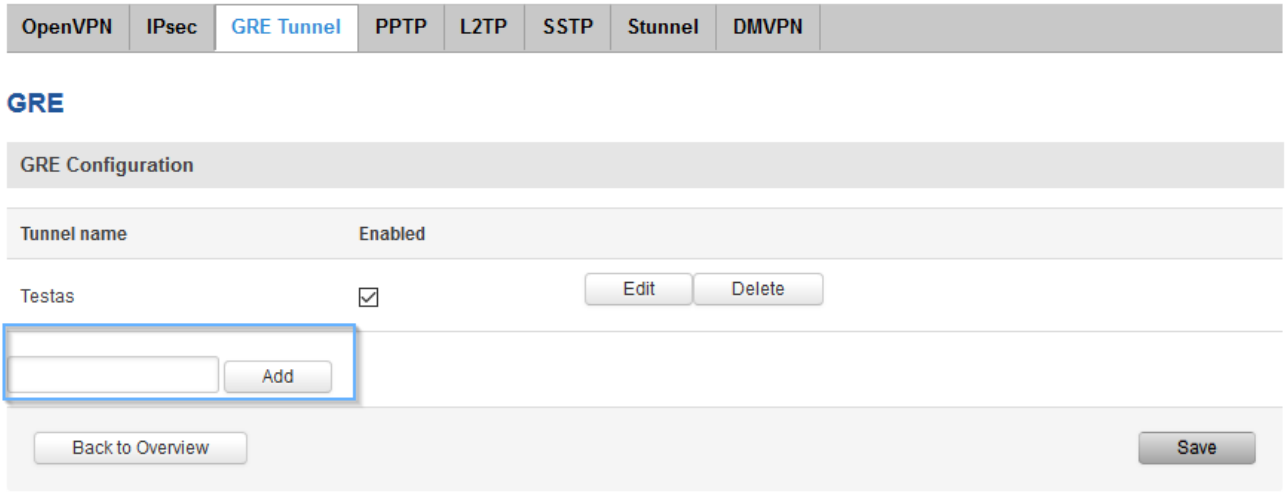


Prerequisites:

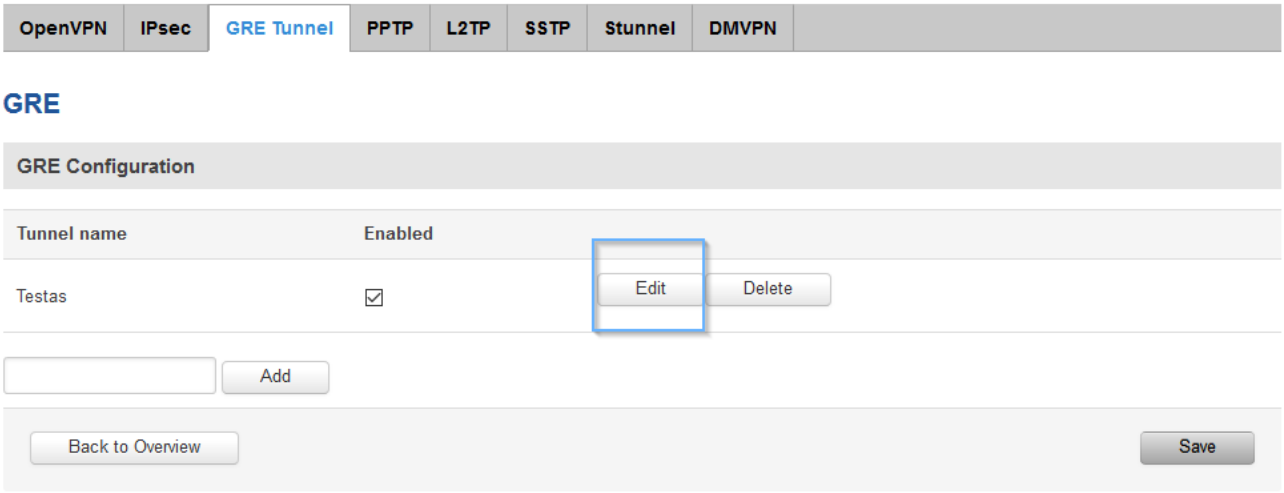
- Two RUT9XX routers.
- Both routers need public IP addresses.
- At least one end device (PC, Laptop, Tablet, Smartphone) to configure the routers.

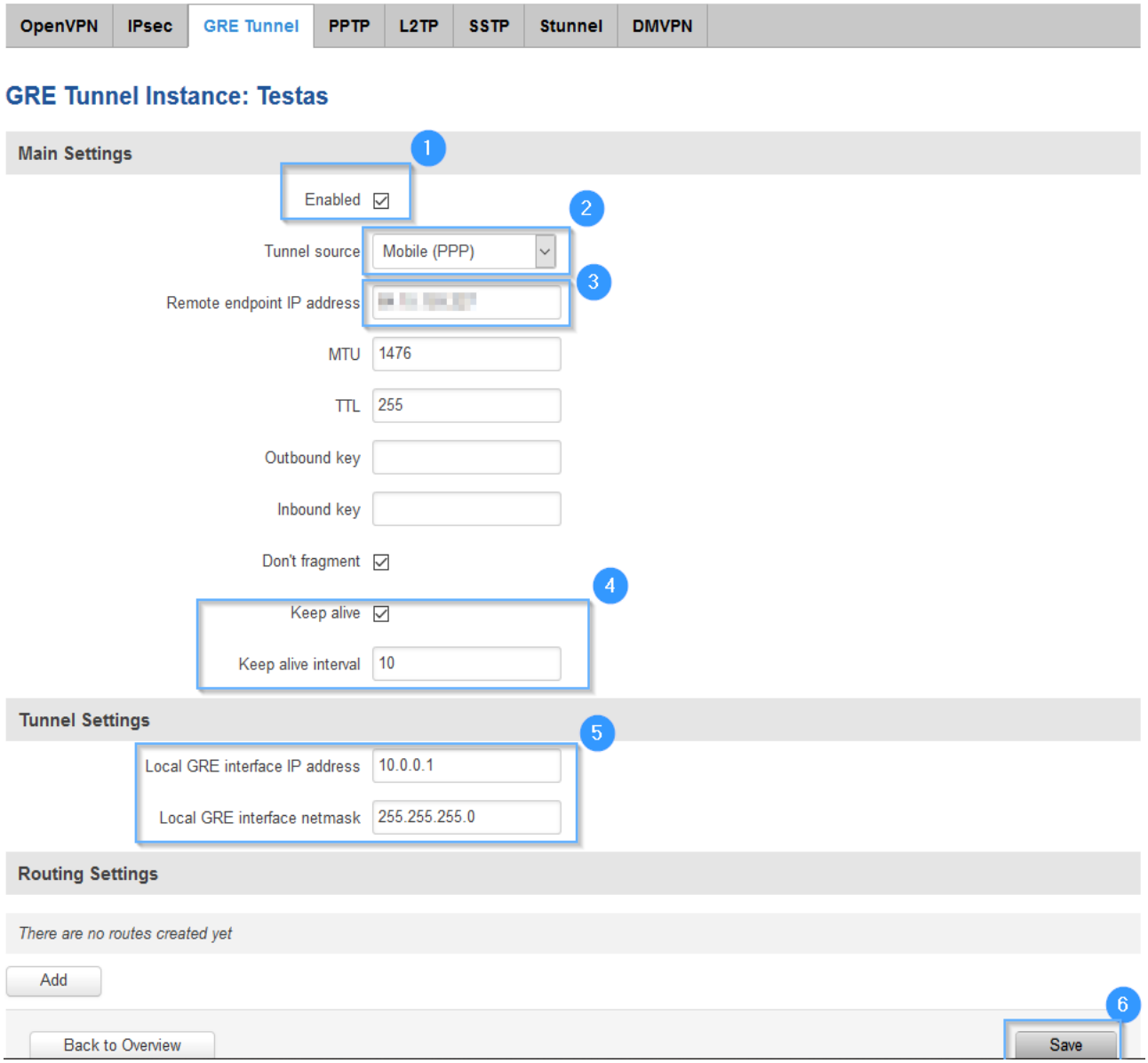
RUT1 configuration

Connect to routers **WebUI** and go to **Services > VPN>GRE Tunnel.** Enter a name for your GRE Tunnel instance and click **ADD**.



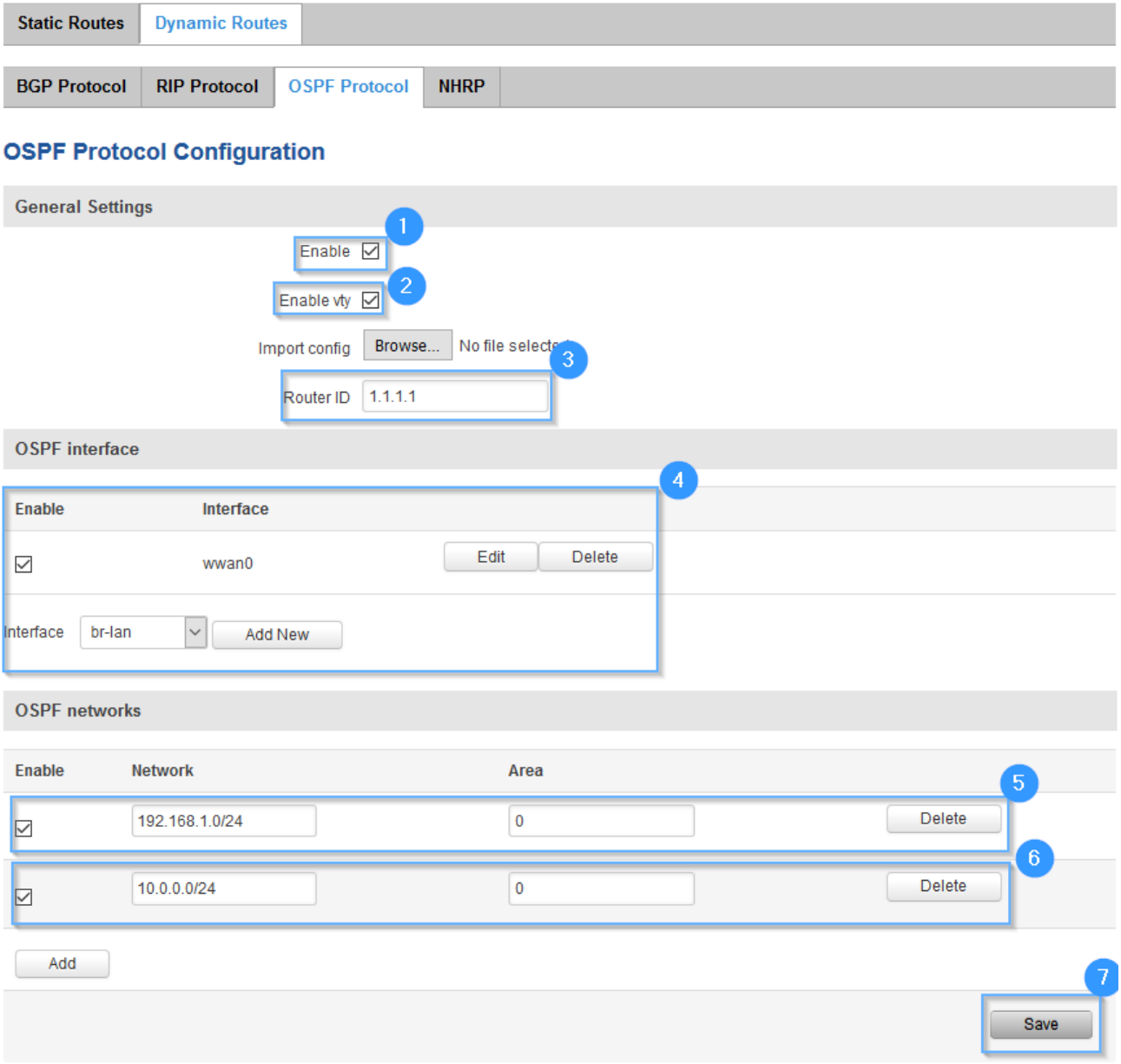
Your instance will appear in **GRE CONFIGURATION** field, click **edit**.





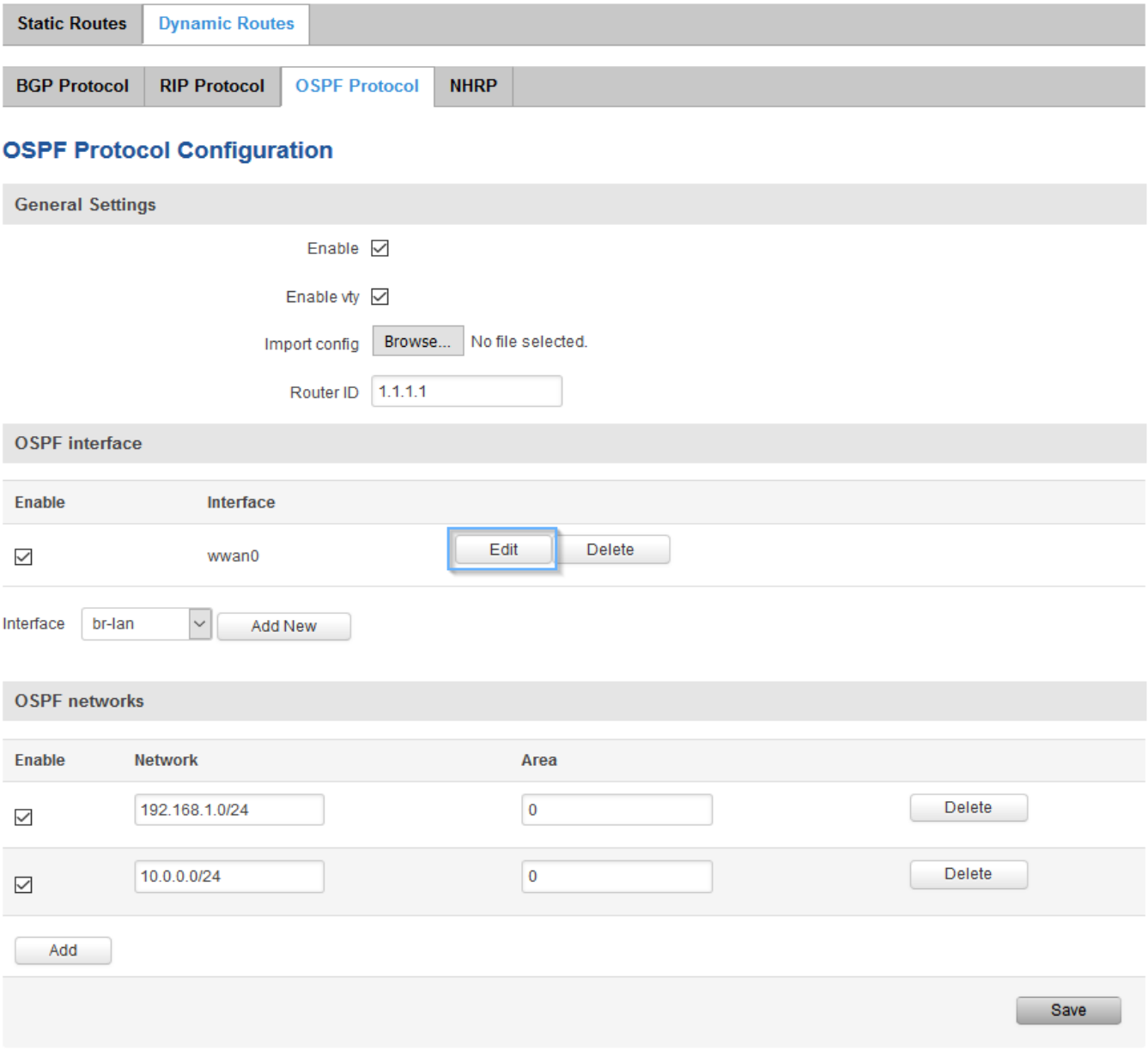
1. **Enable** instance.
2. Select **Tunnel source** (your WAN interface).
3. Enter **Remote endpoint IP address** (RUT2 WAN IP).
4. Enable **Keep alive** and add interval (anything from 1 to 255).
5. Write **Local GRE interface IP address and netmask** (create GRE tunnel IP address or just use the same as in the example).
6. Leave everything else as default and click **Save.**

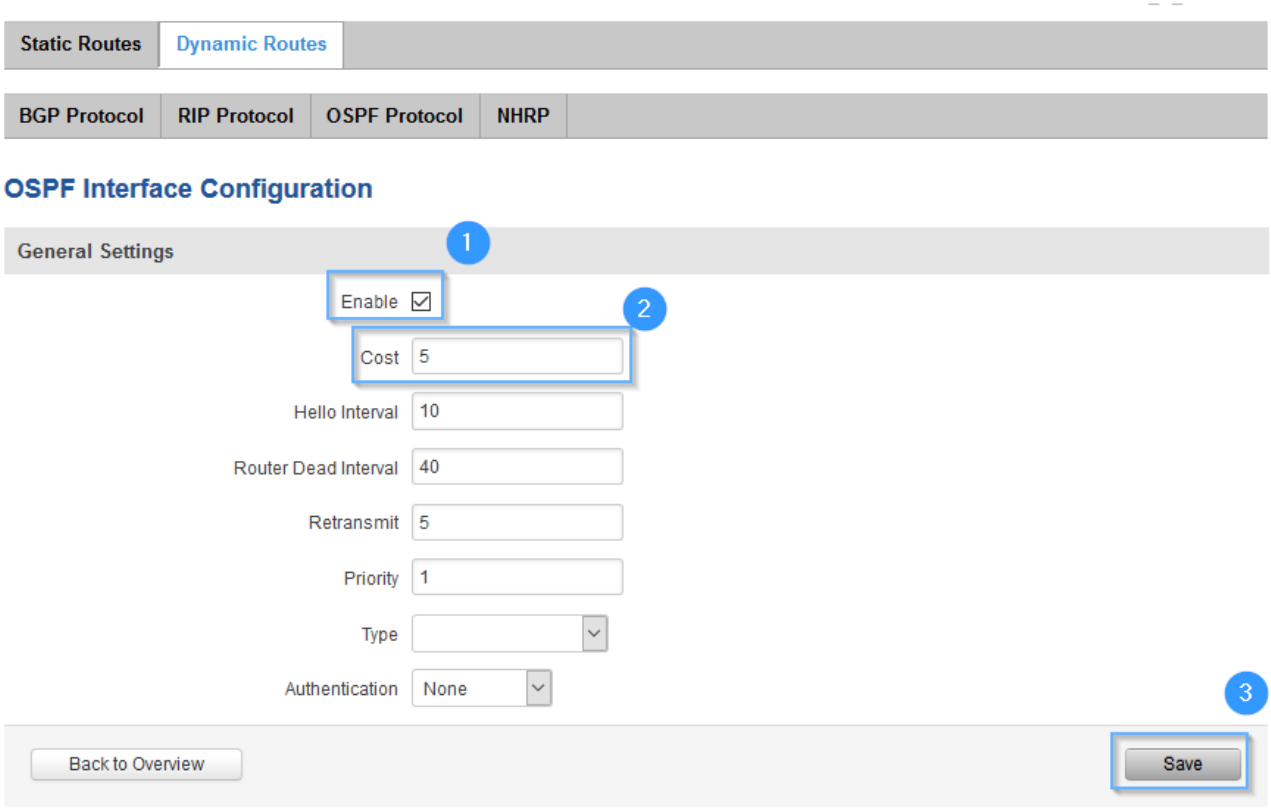
Go to **Network > Routing > Dynamic Routes > OSPF protocol.**



1. **Enable** instance.
2. **Enable vty** instance**.**
3. Add **Router ID** (any arbitrary 32bit number).
4. Create new **OSPF interface** (select your WAN source and press **Add New**).
5. Add **OSPF network 1** (write your LAN network, netmask, area number and enable it).
6. Add **OSPF network 2** (write your GRE tunnel IP, netmask, area number and enable it).
7. Click **Save**.

Now press edit **OSPF interface** which you have created.

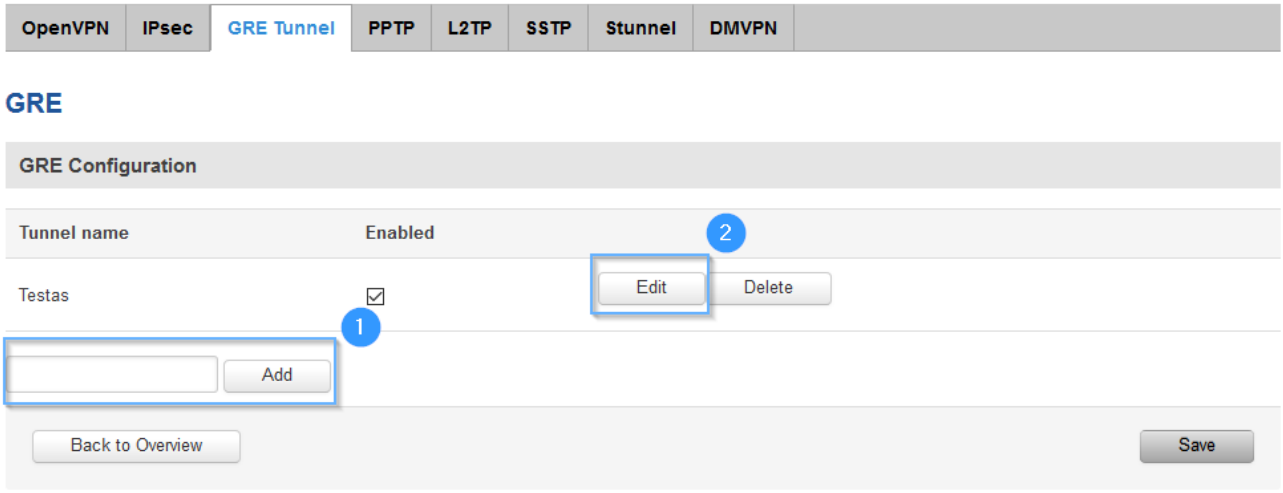


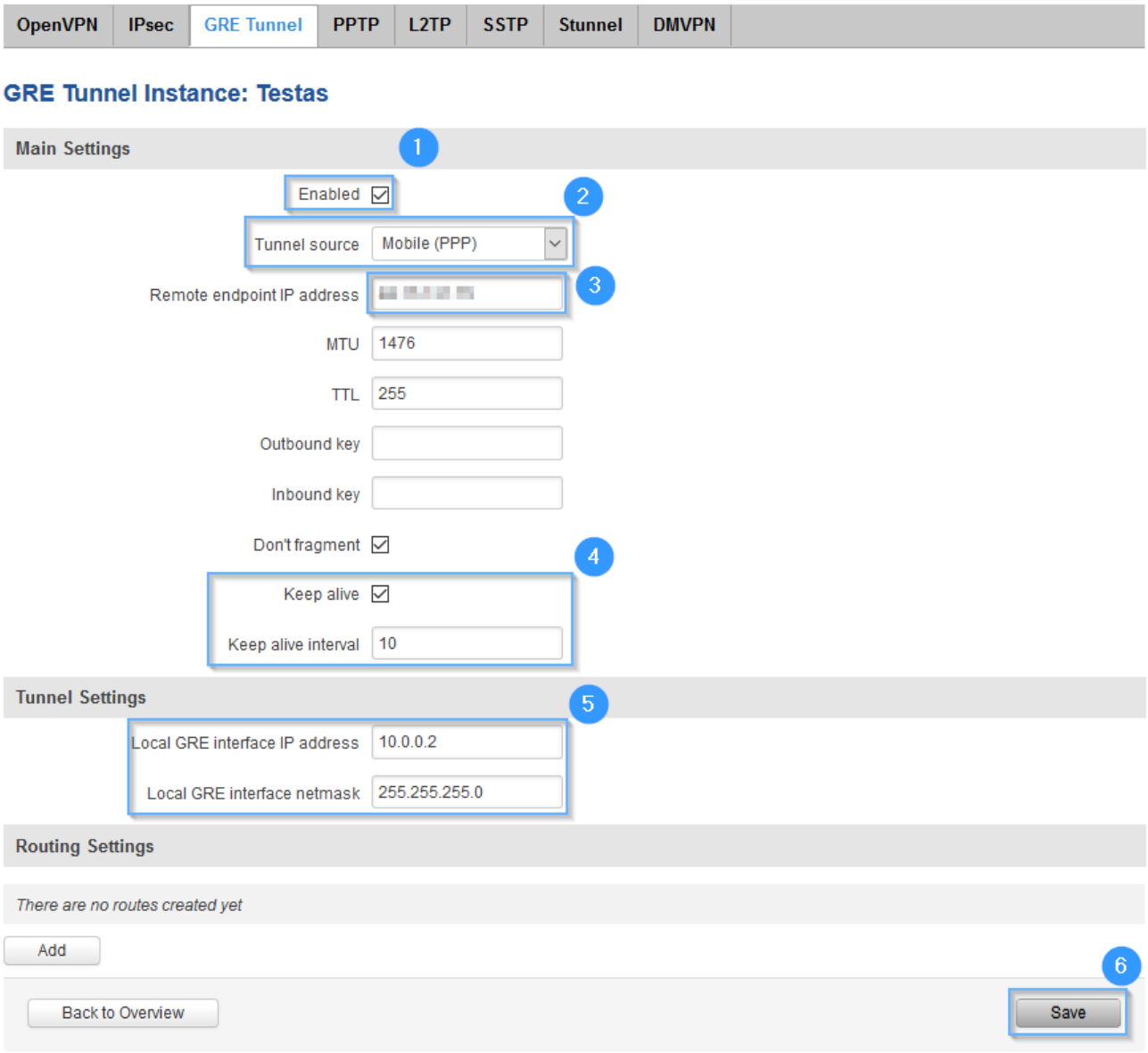


1. **Enable** instance.
2. Add **Cost** (this is used for SPF calculation, you can write your own number or just the number in the example).
3. Leave everything else as default and click **Save.**

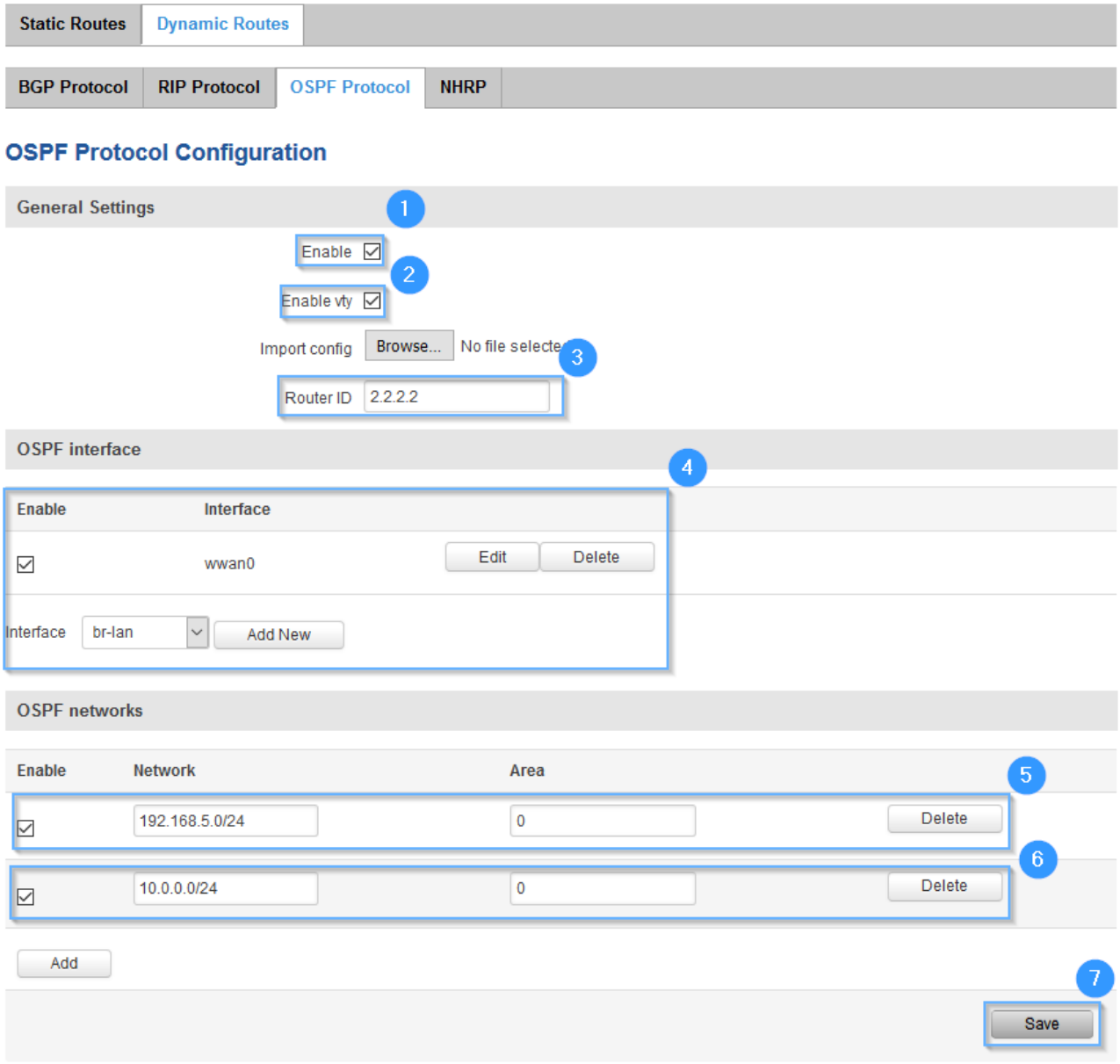
RUT2 Configuration

Connect to routers WebUI and go to **Services > VPN > GRE Tunnel**. Enter name of your instance, click **add** and when new instance appears, click **Edit**.



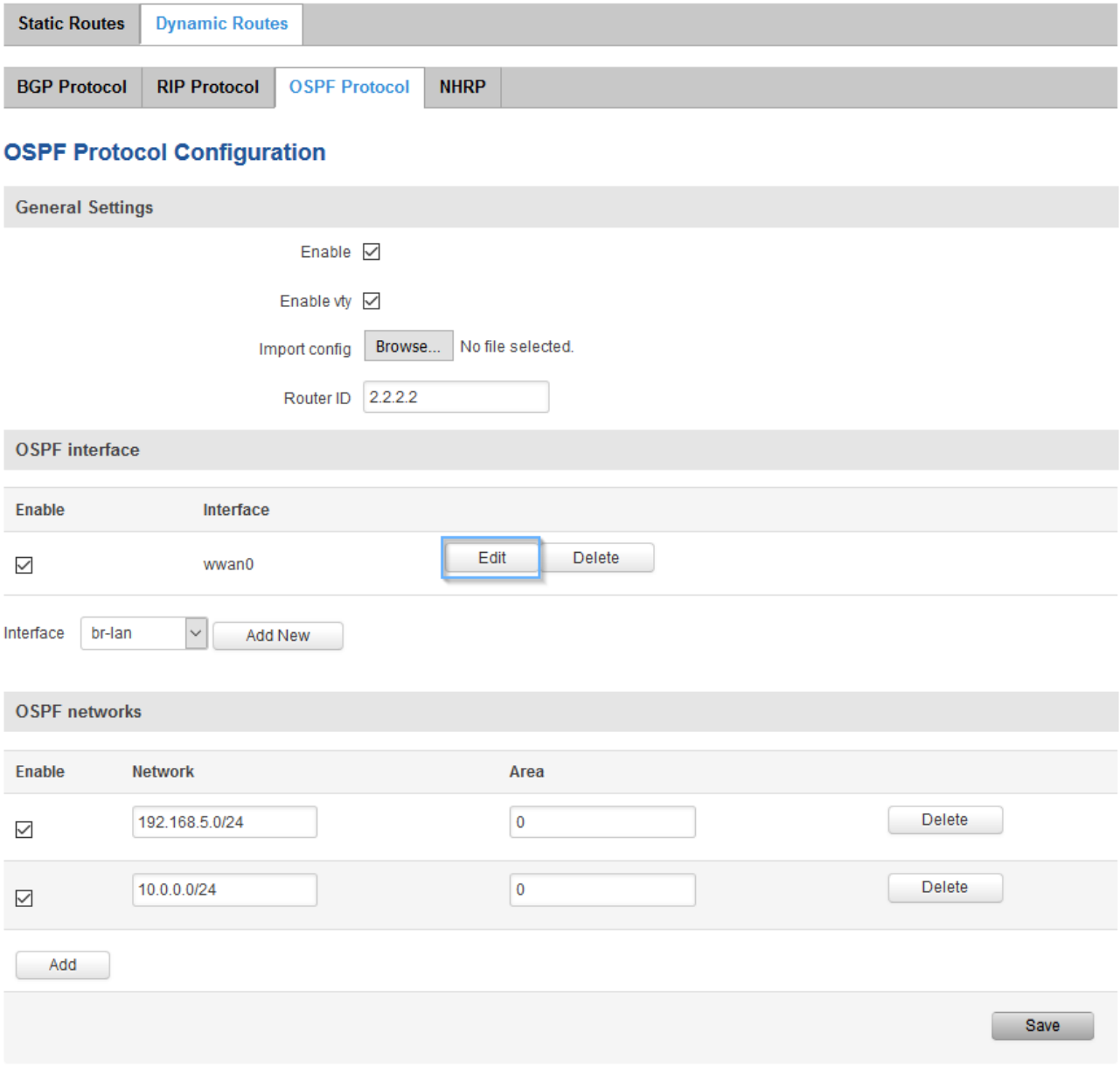


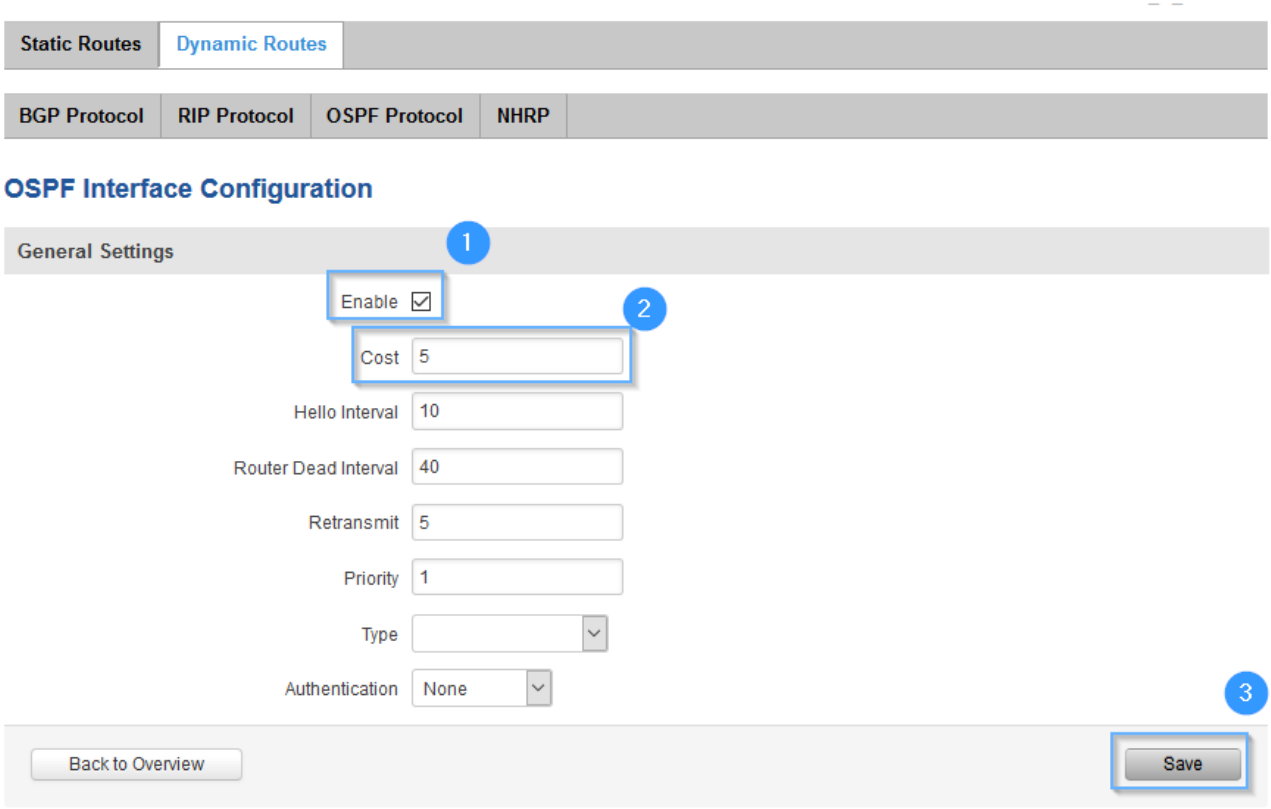
1. **Enable** instance.
2. Select **Tunnel source** (your WAN interface).
3. Enter **Remote endpoint IP address** (RUT1 WAN IP).
4. Enable **Keep alive** and add interval (anything from 1 to 255).
5. Write **Local GRE interface IP address and netmask** (create GRE tunnel IP address or just use the same as in the example).
6. Leave everything else as default and click **Save.**



1. **Enable** instance.
2. **Enable vty** instance**.**
3. Add **Router ID** (any arbitrary 32bit number).
4. Create new **OSPF interface** (select you WAN source and press **Add New**).
5. Add **OSPF network 1** (write your LAN network, netmask, area number and enable it).
6. Add **OSPF network 2** (write your GRE tunnel IP, netmask, area number and enable it).
7. Click **Save**.

Now press edit **OSPF interface** which you have created.



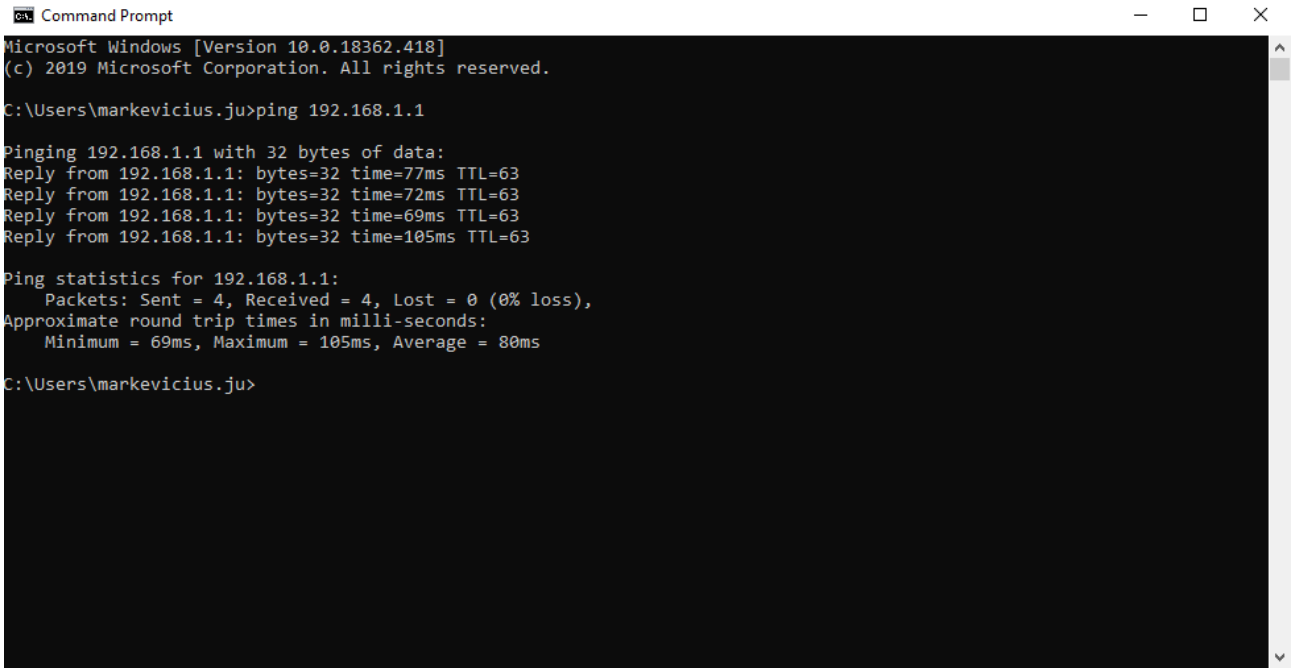


1. **Enable** instance.
2. Add **Cost** (this is used for SPF calculation, you can write your own number or just the number in the example).
3. Leave everything else as default and click **Save.**

Testing configuration

Connect RUT1 or RUT2 router to your PC via LAN cable and try to ping RUT2 or RUT1 by using CMD.

Use this command: **ping (ip)**



Also you should see new routes in the routing table, which you can find **Status>Routes.**

RUT1:

Active IP Routes

Network	Target	IP gateway	Metric
[illegible]	[illegible]	[illegible]	[illegible]
Testas	10.0.0.0/24	0.0.0.0	0
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
Testas	192.168.5.0/24	10.0.0.2	20
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]

RUT2:

Active IP Routes

Network	Target	IP gateway	Metric
[illegible]	[illegible]	[illegible]	[illegible]
Testas	10.0.0.0/24	0.0.0.0	0
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
Testas	192.168.1.0/24	10.0.0.1	20
[illegible]	[illegible]	[illegible]	[illegible]