Template:Networking rutos configuration example l2tp over ipsec android

Contents

Configuration overview and prerequisites

Prerequisites:

- One RUTX router of any type
- A Public Static or Public Dynamic IP address
- At least one Android device

The topology above depicts the L2TP/IPsec scheme. The router with the Public IP address (**RUTX**) acts as the **L2TP/IPsec server** and the **Android device** acts as **client**. L2TP connects the networks of **RUTX** and **Android client**, IPsec provides the encryption for the L2TP tunnel. Created VPN tunnel will allow Android device to reach home network behind the RUTX router, but the rest of Android device network traffic will not be redirected through VPN. This way the VPN tunnel will not be under a huge load and will provide greater speeds.

When the scheme is realized, you will be able to log on to your home network from anywhere - work, hotel, car. You will have access to all of your home resources, and your data will still be secure, even if you will be using public WiFi.

Configuring home router (RUTX)

L2TP

Login to the router's WebUI, navigate to the **Services → VPN → L2TP** page and do the following:
1. Enter a **custom configuration name**.
2. Select **Role: Server**.
3. Click the **Add** button.
4. Click the **Edit** button next to the newly created L2TP instance.

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1. **Enable** the L2TP instance.
2. Enter a **Username** and **Password** which later will be used for client authentication.
3. Optionally, set a fixed IP for this client (if left empty, client will receive first free IP from the IP range).
4. Don't forget to **Save** the changes.

IPsec

Go to the **Services → VPN → IPsec** page and do the following:
1. Enter a custom **Name** for the IPsec instance.
2. Click the **Add** button.
3. Click the **Edit** button next to the newly created instance.

In the **IPsec Configuration** page, do the following (and leave the rest as defaults, unless your specific configuration requires otherwise):
1. **Enable** the instance.
2. Enter your **Pre-shared key**.
3. Select **Type: Transport**.
4. Set **DH group** to **MODP1024**.
5. Go to **Phase 2** settings and also set **DH group** to **MODP1024**.
6. **Save** changes.

Firewall

Now go to the **Network → Firewall → General Settings** page and press **Edit** button next to the L2TP forward rule:

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1. Set **Forward: accept**.
2. Select **Covered networks: LAN**.
3. **Save** changes.

Android phone

Go to your Android device **VPN settings** and create a new VPN network:

Apply the following configuration:
1. Select **Type: L2TP/IPsec PSK**.
2. Enter the router's WAN IP address into the **Server** field.
3. Enter the **Pre-shared key** exactly as it was specified in the router's IPsec settings.
4. Press **Show advanced options**

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1. Write the **DNS servers** you are planning to use (in this example we used google DNS servers).
2. Add **Forwarding routes** (RUTX LAN network).
3. **Save** settings.

Now open your newly created VPN instance and connect to it:
1. Write the **Username** you created in router's L2TP settings.
2. Write the **Password** you created in router's L2TP settings.
3. Press **Connect**.

If you applied the configuration correctly, after a moment it should indicate **Connected**:

Results

Now you should be able to access your home network resources. To verify the connection you can try accessing your router's WebUI without being connected to it in any way. If you are able to do that, you have successfully connected to your home network.

Disclaimer:

This configuration example was created by using Android version 10. The IPsec **Phase 1** and **Phase 2** settings, which were used in this configuration example, might not work with other Android versions and might require adjustment.