This guide will discuss a procedure on how to connect/establish a VPN connection using PPTP protocol on CentOS 7 or Redhat 7 Linux the non-GUI way. Below you can find connection details which will be used as an example. Replace the bellow PPTP VPN information to align with your PPTP VPN server settings:

- Connection name: linuxconfig (can be any descriptive name)
- VPN connetion type: PPTP
- PPTP VPN server IP or domain: 123.123.1.1
- CHAP Username: admin
- CHAP User password: 00000000

Configuration

Let's begin by installation of PPTP client:

```
# yum install pptp
```

In the next step we will load a connection tracking support for PPTP module which is required in order to correctly establish PPTP VPN connection:

```
# modprobe nf_conntrack_pptp
```

Now, we need to add CHAP credentials as provided above into /etc/ppp/chap-secrets file:

```
# echo 'admin PPTP 00000000 *' >> /etc/ppp/chap-secrets
```

At this stage, using the above VPN connection information we need to create peer VPN config file and save it into /etc/ppp/peers/ directory. Enter the below code into a file called linuxconfig while replacing VPN server IP, name and ipparam directives:

```
pty "pptp 123.123.1.1 --nolaunchpppd" name admin remotename PPTP require-mppe-128
file /etc/ppp/options.pptp ipparam linuxconfig
```

Connect to VPN PPTP

All is now ready to establish PPTP VPN connection:

```
# pppd call linuxconfig
```

Check /var/log/messages for any errors or warnings. If the PPTP VPN connection was established correctly your should see output similar to the one below:

Jan 7 17:55:44 localhost pppd[18960]: CHAP authentication succeeded Jan 7 17:55:44 localhost pptp[18961]: anon log[decaps_gre:pptp_gre.c:427]: buffering packet 7 (expecting 6, lost or reordered) Jan 7 17:55:44 localhost pppd[18960]: MPPE 128-bit stateless compression enabled Jan 7 17:55:46 localhost pppd[18960]: local IP address 192.168.100.2 Jan 7 17:55:46 localhost pppd[18960]: remote IP address 192.168.100.0

Once the VPN connection is established correctly a new network interface will be create. Use ip to see its configuration:

ip a s ... 3: ppp0: mtu 1396 qdisc pfifo_fast state UNKNOWN qlen 3 link/ppp inet 192.168.100.2 peer 192.168.100.0/32 scope global ppp0 valid_lft forever preferred_lft forever

Disconnect from VPN PPTP

To disconnect VPN PPTP connection simply gracefully kill pppd daemon by using the below command:

pkill pppd

Following the logs we can see that pppd module exited gracefully:

Jan 7 18:00:21 localhost systemd: Started Network Manager Script Dispatcher Service. Jan 7 18:00:21 localhost nm-dispatcher: Dispatching action 'down' for ppp0 Jan 7 18:00:21 localhost pppd[18960]: Exit

Troubleshooting

If you receive a below error message when following a /var/log/messages log:

pppd[32087]: LCP: timeout sending Config-Requests

You are missing a loadable module nf_conntrack_pptp. Load this module using a following command:

modprobe nf_conntrack_pptp