

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 below PPTP VPN information to align with your PPTP VPN server settings:

- Connection name: linuxconfig ( can be any descriptive name )
- VPN connection 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 you should see output similar to the one below:

## How to establish PPTP VPN client connection on CENTOS/RHEL 7 Linux

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```
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
```