**CREATING VPN CLIENT IN RASPBERRY PI**

**To create VPN Client**

First in a Pi shell we need to update our repositories, our Pi operating system and install PPTP for Linux.

sudo apt-get update -y

sudo apt-get upgrade -y

sudo apt-get install -y pptp-linux

**Creating a PPTP connection configuration.**

sudo pptpsetup --create sysnet --server 5ac205c032a6.sn.mynetname.net --username sysnet --password sysnet --encrypt option –start

sudo pptpsetup --create VPNvarsity --server 71b2068120f2.sn.mynetname.net --username BGVarsity --password 4332wurx --encrypt option –start

pptpsetup creates a configuration file that gets placed in **/etc/ppp/peers/** which is a superuser protected directory so you will need to run sudo to view its content.

sudo ls -l /etc/ppp/peers/

sudo cat /etc/ppp/peers/sysnet

You can see your point-to-point protocol connection using **ifconfig -s**. It should be listed under ppp0.

pptpsetup can also be used to delete an existing configuration file.

sudo pptpsetup --delete sysnet

**To disconnect**

sudo poff -a

**To connect**

sudo pon sysnet updetach

VPN at boot

To automatically connect your Pi to a VPN server at start-up I’d recommend placing the following script into /etc/rc.local. This file runs all commands within as a superuser, at the end of a Pi boot but before the user login prompt. I use the -B option with the nano text editor to backup the rc.local file before making any changes to it.

sudo nano -B /etc/rc.local

Make sure you insert any script before the exit 0 line and after the hashed # comments.

vpn="on"

if [ $vpn = on ]; then

printf "\nVPN connection to sysnet vpn\n"

pon sysnet updetach

printf "Add Internet traffic route through ppp0\n"

sudo route add -net "0.0.0.0/0" dev "ppp0"

printf "Netstat output of all PPTP sockets\n"

netstat -a | grep "/var/run/pptp/"

fi

**Just run**

sudo /etc/rc.local

Create this script and make it executable:

1. sudo nano /root/cron/pptp\_cron.sh

2. chmod +x /root/cron/pptp\_cron.sh

Add the below script to the file and change the following attributes for your own values:

- your-vpn-host-or-ip-address

- your-vpn-username

- your-vpn-password

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#!/bin/bash

HOST=5ac205c032a6.sn.mynetname.net

PPTPUSER=sysnet

PPTPPASS=sysnet

DATE=`date`

PINGRES=`ping -c 2 $HOST`

PLOSS=`echo $PINGRES : | grep -oP '\d+(?=% packet loss)'`

echo "$DATE : Loss Result : $PLOSS"

if [ "100" -eq "$PLOSS" ];

then

echo "$DATE : Starting : $HOST"

/usr/sbin/pptp pty file /etc/ppp/options.pptp user $PPTPUSER password $PPTPPASS

echo "$DATE : Now running : $HOST"

else

echo "$DATE : Already running : $HOST"

fi

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Add the following entry to your cron to execute the script every minute.

crontab -e

\*/1 \* \* \* \* /root/cron/pptp\_cron.sh >> /var/log/pptp\_pinger.log 2>&1

Go to /etc/ppp/peers

**Creating file "sysnet"**

sudo nano sysnet

write the detail below and save.

**# written by pptpsetup**

pty "pptp 5ac205c032a6.sn.mynetname.net --nolaunchpppd"

lock

noauth

nobsdcomp

nodeflate

name vpn

remotename sysnet

ipparam sysnet

persist

refuse-pap

refuse-chap

refuse-mschap

maxfail 0

require-mppe-128

mru 1500

mtu 1500

Go to /etc/ppp#

type ls

open the file chap-secrets

cat chap-secrets

please make sure that the username and password are listed on that file.

**Auto reconnect**

root@mediaserver:/bin# cat vpnauto.sh

#!/bin/bash

date

sudo poff

sleep 10s

sudo pon sysnet updetach persist

exit

**Crontab -e**

# m h dom mon dow command

#\* \* \* \* \* /bin/vpnauto.sh

#\* \* \* \* \* /bin/pingvpnserver.sh>>/var/log/`date +\%Y\%m\%d`\_pingvpn.log 2>&1

10 7 \* \* \* /bin/vpnauto.sh

20 10 \* \* \* /bin/vpnauto.sh

30 15 \* \* \* /bin/vpnauto.sh