L2TP VPN

CONFIGRATION AND SETUP

2025

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1. Configure L2TP Server

Step 1: Click on **PPP**

Step 2: Search for "**L2TP Server**" option

Step 3: "**Enabled**" by check the enabled box

Step 4: Set "**Default Profile**" in "**default-encryption**"

Step 5: In "**Use IPsec**" select "**required**"

Step 6: In "**IPsec Secret**" enter your PreSharedKey

Step 7: Select "**Apply**" & "**OK**"

CMD:

```
/interface l2tp-server server

set enabled=yes default-profile=default-encryption use-ipsec=required ipsec-secret=[Enter your password]
```

EXAMPLE

```
/interface l2tp-server server

set enabled=yes default-profile=default-encryption use-ipsec=required ipsec-secret=YourStrongPreSharedKey
```
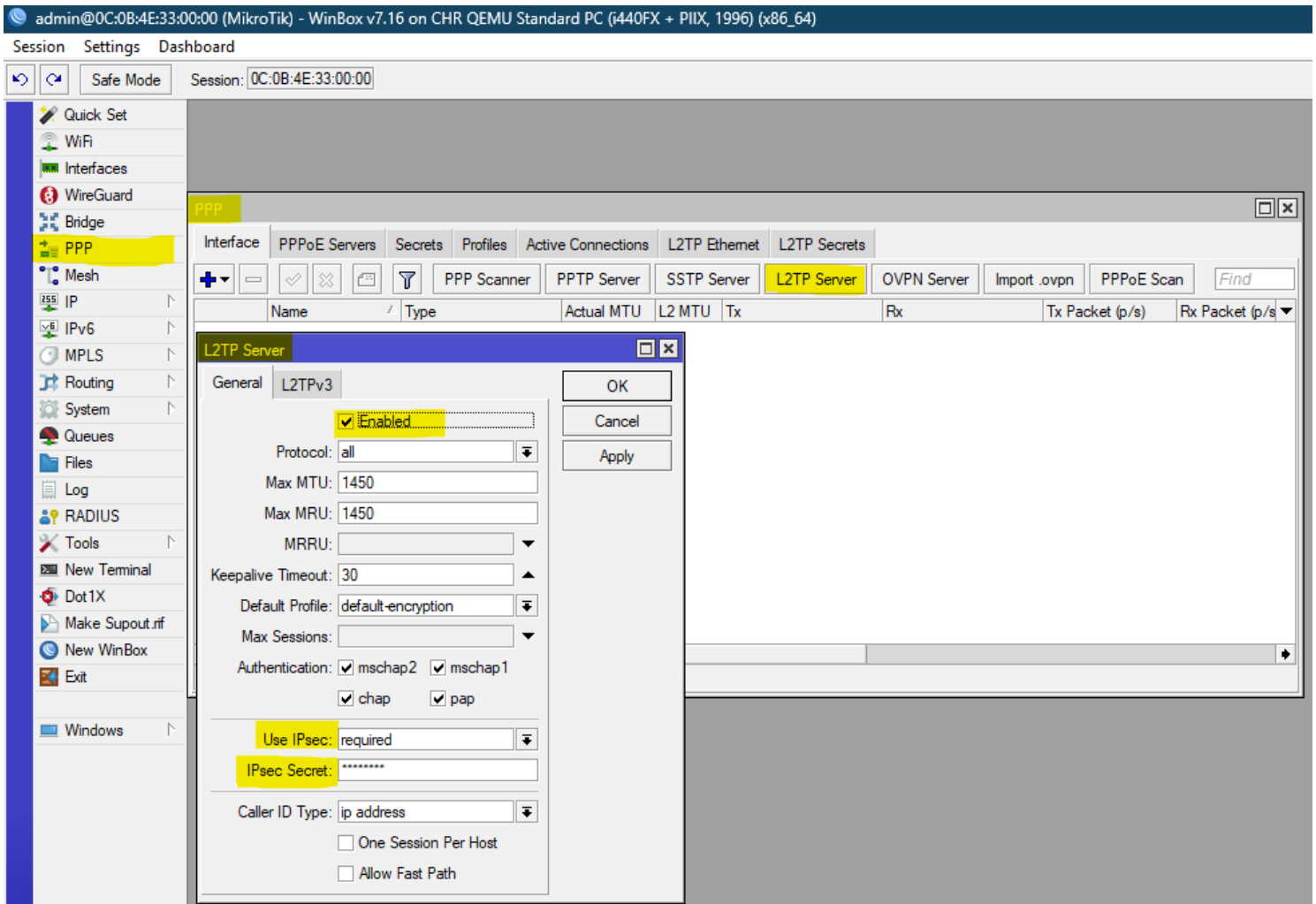
Figure 1

2. Create IP Pool for VPN Clients

Step 1: Click on "**IP**" on that you will find "**Pool**" Option.

Step 2: Click on "**add**" symbol "**+**".

 Step 3: In "**Name**" write name of your vpn

Step 4: In "**Addresses**" write local ip address range

Step 5: Select "**none**"

Step 6: Select "**Apply**" & "**OK**"

CMD

```
/ip pool

 add name=[Name of your l2tp-vpn] ranges=[Range of ip] comment=[give the comment name for that]

 /
```

EXAMPLE

```
/ip pool

 add name=L2TP-VPN ranges=192.168.1.200-192.168.1.250 comment= "IP POOL FOR VPN CLIENT"

 /
```
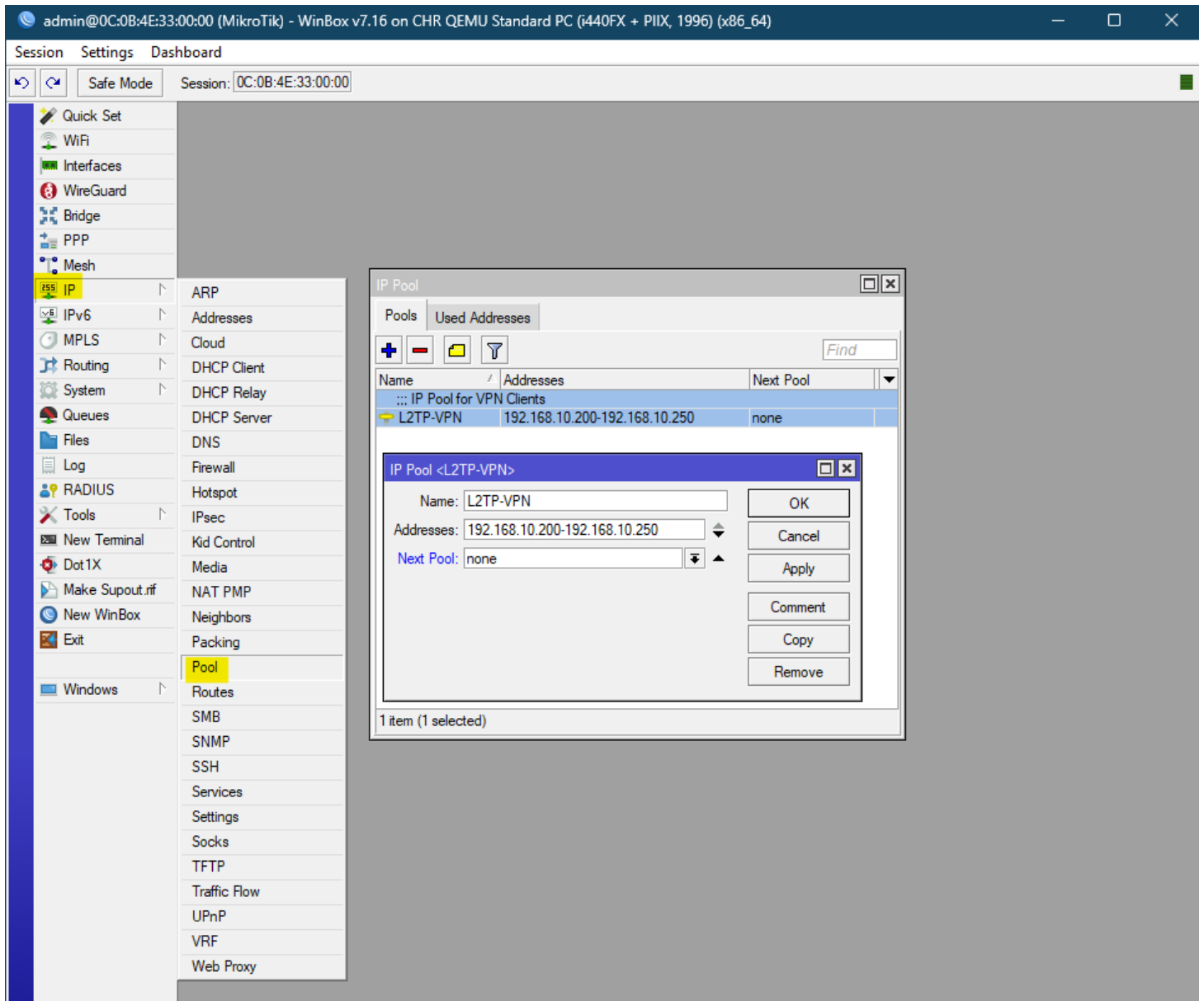
Figure 2

3. Configure PPP Profile

Step 1: Click on "**PPP**" in there you will find "**Profiles**" Option click on that.

Step 2: In "**Name**" write name of your PPP Profile.

Step 3: In "**Local Address**" Give the gateway of your local IP Address.

Step 4: In "**Remote Address**" select your IP pool name

Step 5: In "**Change TCP MSS**" select "**Yes**" && In "**Use UPnP**" select "**default**"

Step 6: There you will find the "**Protocols**" option in there you have to change only "**Use Encryption**" in "**yes**"
| other leave it as.

Step 7: Select "**Apply**" & "**OK**"

CMD

```
/ppp profile

add name=[name of your ppp profile] local-address=[gateway of local ip] remote-address=[name your L2TP
VPN IP pool] change-tcp-mss=yes use-upnp=default use-encryption=yes

/
```

EXAMPLE

```
/ppp profile

add  name=L2TP-VPN  local-address=192.168.1.1  remote-address=L2TP-VPN  change-tcp-mss=yes  use-
upnp=default use-encryption=yes

/
```
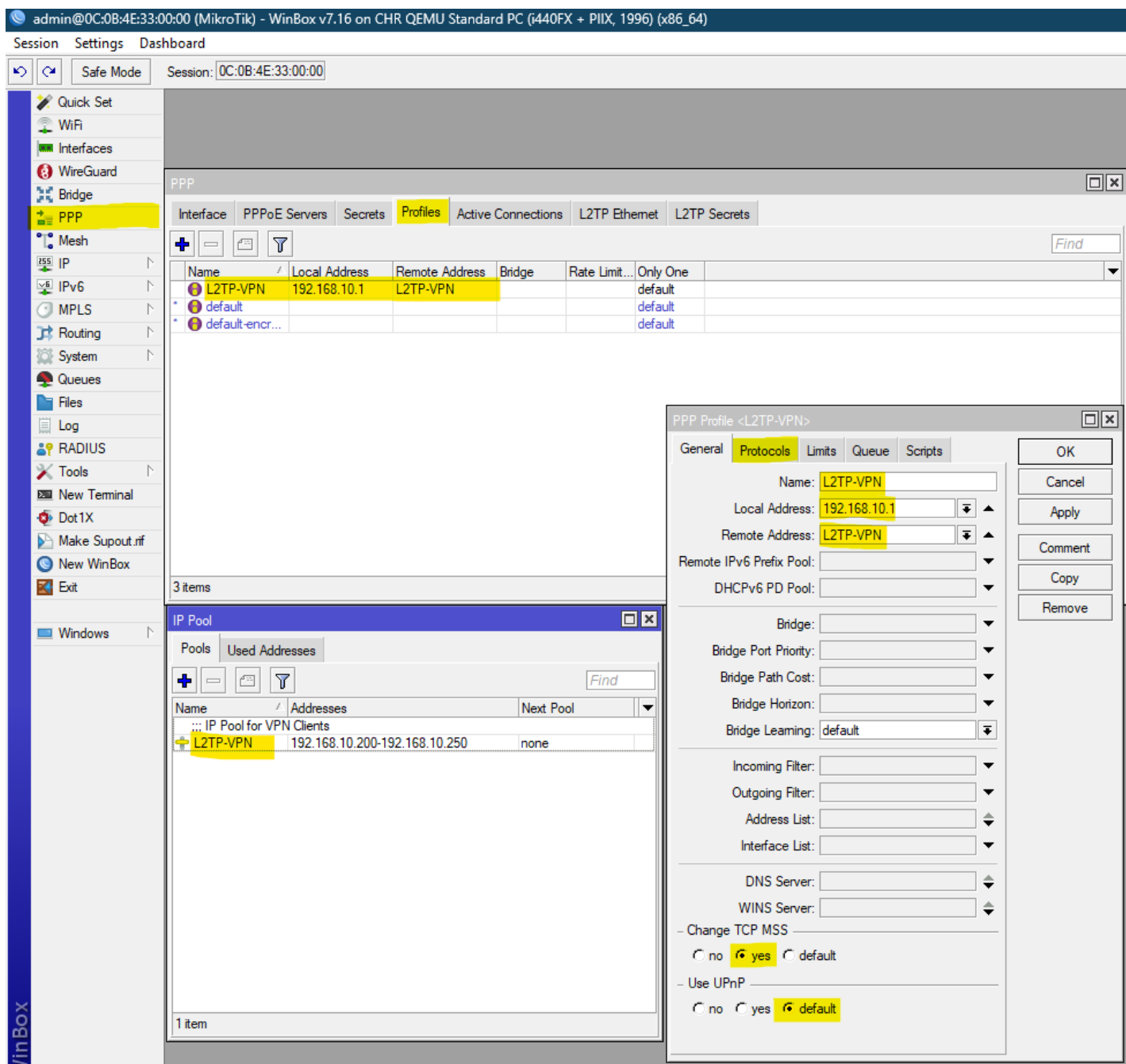
Figure 3

4. Add VPN User Credentials / Configure PPP Profile

Step 1: Click on "**PPP**" in there you will find "**Secrets**" Option click on that.

Step 2: Click on "**add**" symbol "**+**".

Step 3: In "**Name**" write name of your customer or staff.

Step 4: In "**Password**" Enter the credentials of your customer or staff.

Step 5: In "**Service**" select "**l2tp**"

Step 6: Select "**Apply**" & "**OK**"

CMD

```
ppp secret

add name=[write name of your customer or staff] password=[Enter the credentials of your customer or staff]
service=l2tp comment [enter name of your customer or staff] comment=[enter what comment you want to write]

/
```

EXAMPLE

```
ppp secret

add name=vpnuser password=yourpassword service=l2tp comment=customer1

/
```
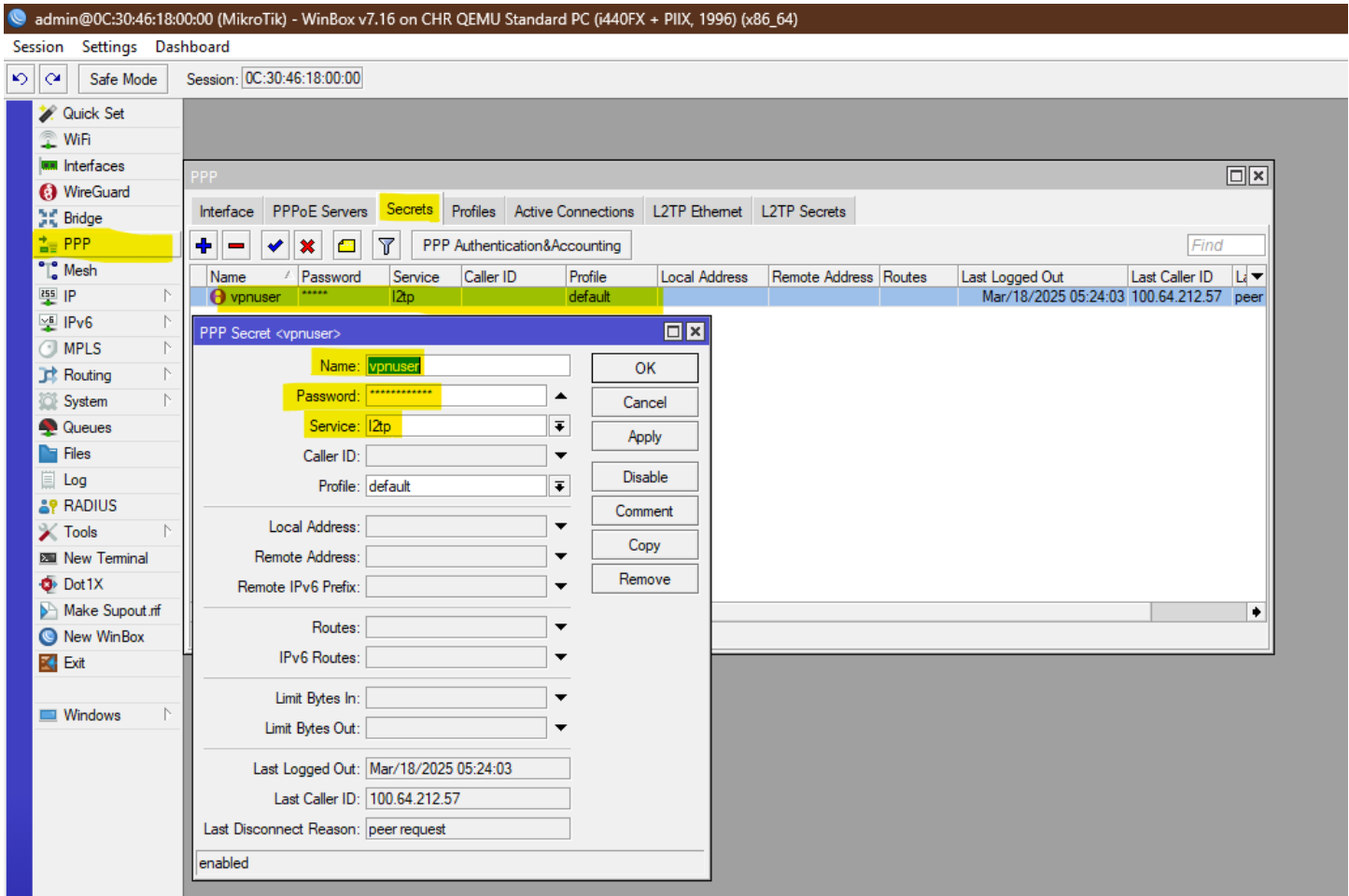
Figure 4

5. Firewall Configuration

Allow L2TP/IPsec Traffic:

Step 1: Click on "**IP**" in there you will find "**Firewall**" Option click on that.

Step 2: Click on "**add**" symbol "**+**".

Step 3: In "**Chain**" select "**input**".

Step 4: In "**Protocol**" select "**udp**" [17 protocol of udp]

Step 5: In "**Any.Port**" Enter the port number

Step 6: Select "**Apply**" & "**OK**"

Step 7: Select the "comment" and write the comment.

Step 8: Again Click on "**add**" symbol "**+**".

Step 9: In "**Chain**" select "**input**".

Step 10: In "**Protocol**" select "**ipsec-esp**" [port of udp]

Step 6: Select "**Apply**" & "**OK**"

CMD

```
ip firewall filter

add chain=input protocol=ipsec-esp comment=[Comment of your 50 (ipsec-esp)]

add chain=input protocol=udp port=[Enter the port number] comment=[Comment Name]

/
```

EXAMPLE

```
/ip firewall filter

add chain=input protocol=udp port=500,1701,4500 action=accept comment="Allow L2TP/IPsec"

add chain=input protocol=ipsec-esp action=accept comment="Allow ESP"
```
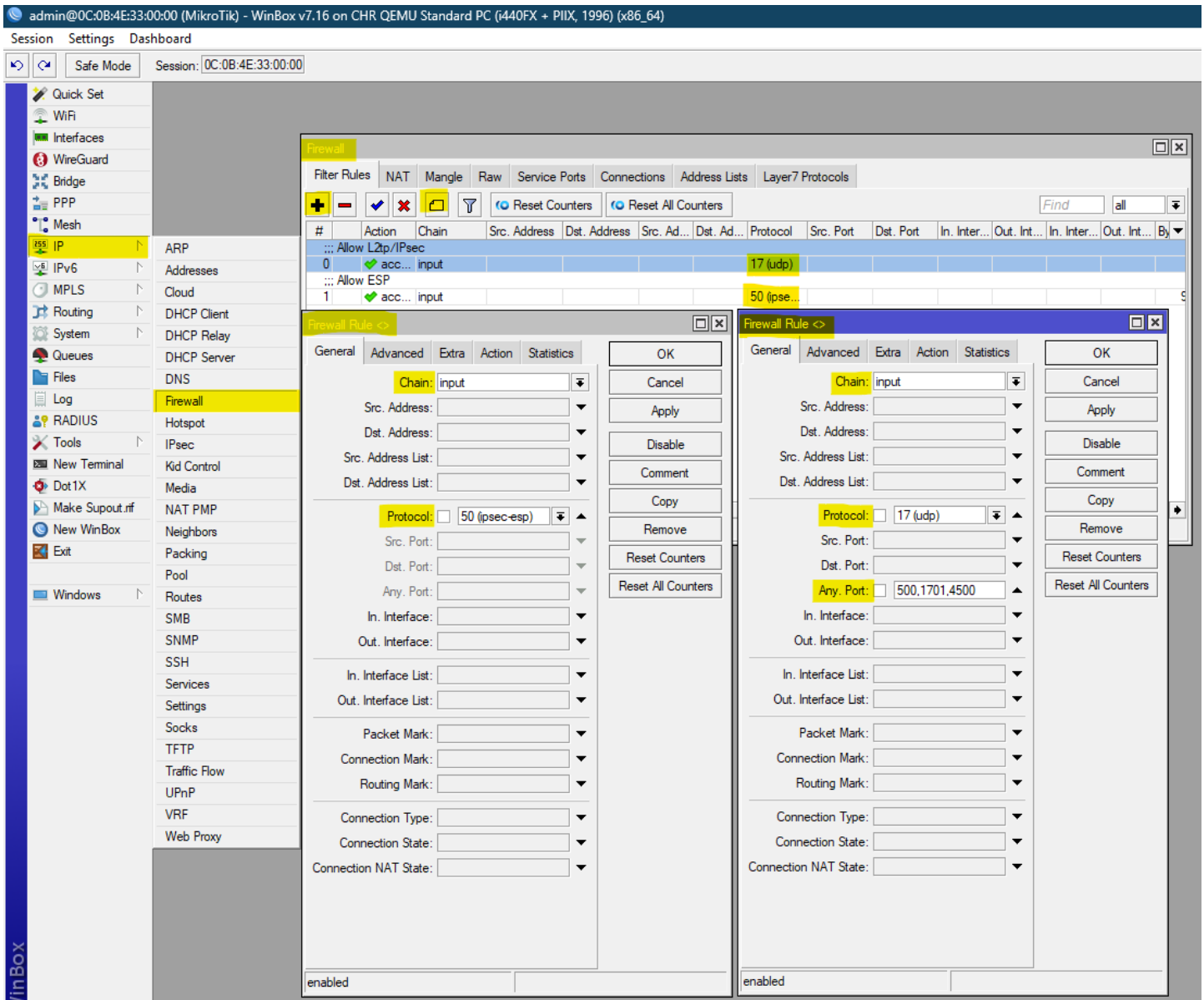
Figure 5

Masquerade NAT (for internet access):

Step 1: Select "**IP**" On that you will find the "**Routes**" Option.

Step 2: Click on the "**add**" symbol "**+**".

Step 3: In "**General**" you will find "Chain" leave it default "**srcnat**" & In "**Src. Address**" enter the local gateways IP.

Step 4: Select "**Action**" you will find "Action" in that select "**masquerade**"

Step 5: Select "**Apply**" & "**OK**"

CMD

```
/ip firewall nat

add chain=srcnat src-address=[Gateways of local IP] out-interface=bridge1 action=masquerade
```

EXAMPLE

```
/ip firewall nat

add chain=srcnat src-address=192.168.1.0/24 out-interface=bridge1 action=masquerade
```
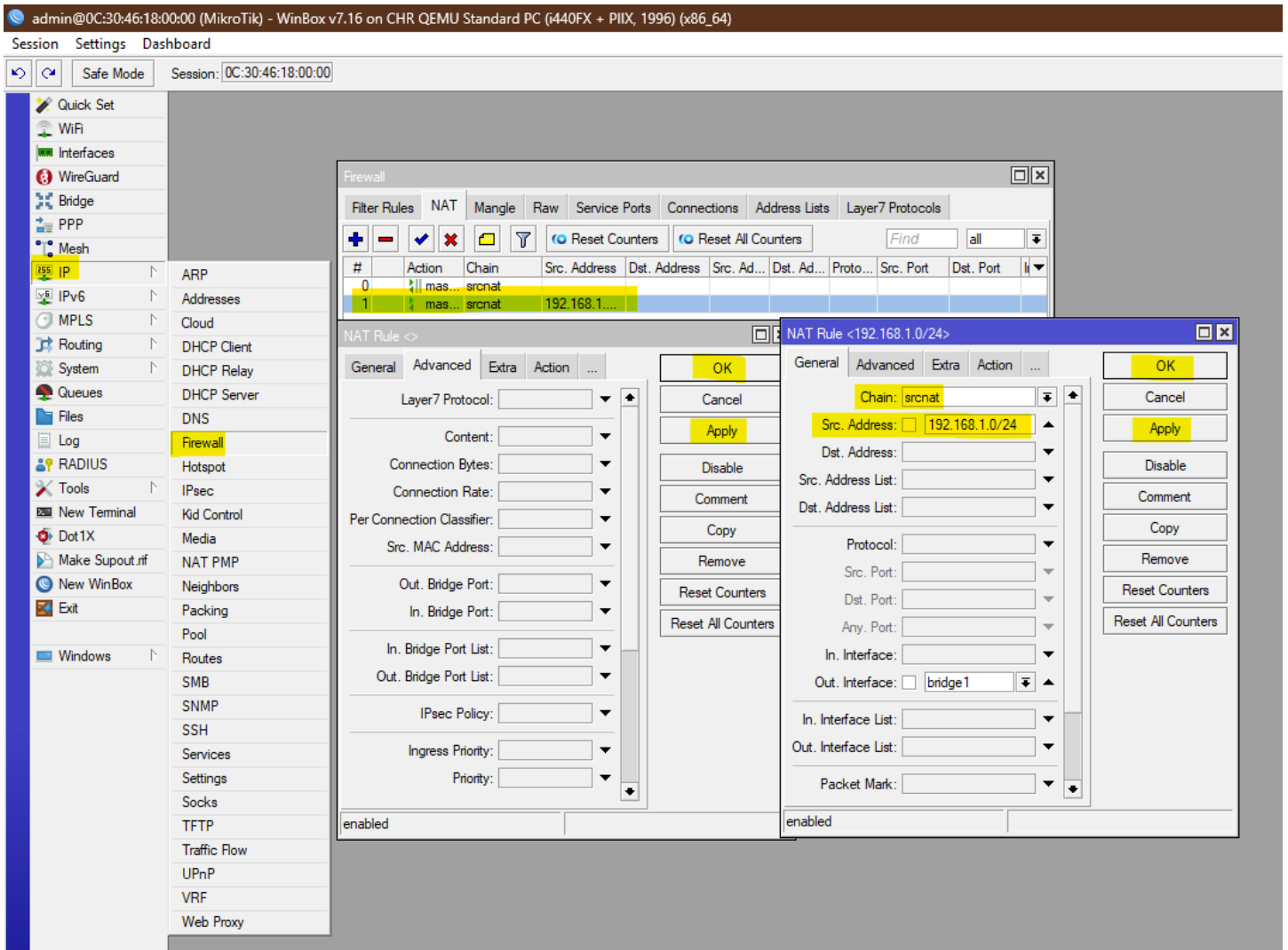
Figure 6