

STEP 1 :

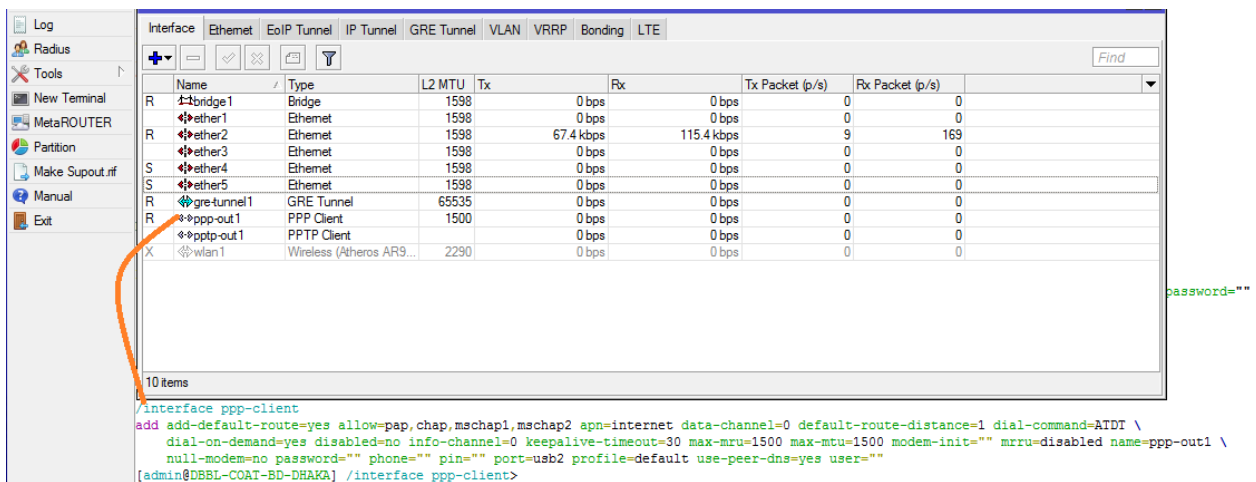
Connect ppp user by BL modem and conform router global internet like: ping 8.8.8.8

```
/interface ppp-client
```

```
add add-default-route=yes allow=pap,chap,mschap1,mschap2 apn=internet data-channel=0  
default-route-distance=1 dial-command=ATDT \
```

```
dial-on-demand=yes disabled=no info-channel=0 keepalive-timeout=30 max-mru=1500  
max-mtu=1500 modem-init="" mrru=disabled name=ppp-out1 \
```

```
null-modem=no password="" phone="" pin="" port=usb2 profile=default use-peer-dns=yes user=""
```



Name	Type	L2 MTU	Tx	Rx	Tx Packet (p/s)	Rx Packet (p/s)
R bridge1	Bridge	1598	0 bps	0 bps	0	0
R ether1	Ethernet	1598	0 bps	0 bps	0	0
R ether2	Ethernet	1598	67.4 kbps	115.4 kbps	9	169
R ether3	Ethernet	1598	0 bps	0 bps	0	0
S ether4	Ethernet	1598	0 bps	0 bps	0	0
S ether5	Ethernet	1598	0 bps	0 bps	0	0
R gre-tunnel1	GRE Tunnel	65535	0 bps	0 bps	0	0
R ppp-out1	PPP Client	1500	0 bps	0 bps	0	0
R pptp-out1	PPTP Client		0 bps	0 bps	0	0
X wlan1	Wireless (Atheros AR9...	2290	0 bps	0 bps	0	0

```
password=""  
/interface ppp-client  
add add-default-route=yes allow=pap,chap,mschap1,mschap2 apn=internet data-channel=0 default-route-distance=1 dial-command=ATDT \  
dial-on-demand=yes disabled=no info-channel=0 keepalive-timeout=30 max-mru=1500 max-mtu=1500 modem-init="" mrru=disabled name=ppp-out1 \  
null-modem=no password="" phone="" pin="" port=usb2 profile=default use-peer-dns=yes user=""  
[admin@DBBL-COAT-BD-DHAKA] /interface ppp-client>
```

STEP 2 : Connect pptp-client (Who is already created on your network) pptp-client server ip 210.4.77.135/ your pptp router ip address for connect pptp client .

```
/interface pptp-client
```

```
add add-default-route=no allow=pap,chap,mschap1,mschap2 connect-to=210.4.77.135  
dial-on-demand=no disabled=no keepalive-timeout=60 max-mru=\
```

```
1450 max-mtu=1450 mrru=1600 name=pptp-out1 password=bdc0m987 profile=default-encryption  
user=coatbddhaka
```

The screenshot shows the MetaROUTER interface list with the following data:

Name	Type	L2 MTU	Tx	Rx	Tx Packet (p/s)	Rx Packet (p/s)
R bridge1	Bridge	1598	0 bps	0 bps	0	0
R ether1	Ethernet	1598	0 bps	0 bps	0	0
R ether2	Ethernet	1598	66.1 kbps	40.7 kbps	9	48
R ether3	Ethernet	1598	0 bps	0 bps	0	0
R ether4	Ethernet	1598	0 bps	0 bps	0	0
R ether5	Ethernet	1598	0 bps	0 bps	0	0
R gre-tunnel1	GRE Tunnel	65535	0 bps	0 bps	0	0
R ppp-out1	PPP Client	1500	0 bps	0 bps	0	0
R ptp-out1	PPTP Client		0 bps	0 bps	0	0
R wlan1	Wireless (Atheros AR9...	2290	0 bps	0 bps	0	0

The terminal shows the following configuration for the ptp-client interface:

```

/interface ptp-client
add add-default-route=no allow=pap,chap,mschap1,mschap2 connect-to=210.4.77.135 dial-on-demand=no disabled=no keepalive-timeout=60 max-mru=1450 max-mtu=1450 mru=1600 name=ptp-out1 password=bdcm987 profile=default-encryption user=coatbddhaka [admin@DBBL-COAI-BD-DHAKA] /interface ptp-client>

```

STEP 3 : Need to create a gre-tunnel1 and gre local and remote ip address will be PPTP-Client local and remote .

/interface gre

add local-address=10.200.128.24 name=gre-tunnel1 remote-address=10.200.128.1

The screenshot shows the MetaROUTER interface list with the following data:

Name	Type	MTU	L2 MTU	Tx	Rx	Tx Packet (p/s)	Rx Packet (p/s)
R gre-tunnel1	GRE Tunnel	1476	65535	0 bps	0 bps	0	0
R ppp-out1	PPTP Client			0 bps	0 bps		
R wlan1	Wireless (Atheros AR9...	2290		0 bps	0 bps		

The 'Interface <gre-tunnel1>' configuration window shows the following settings:

- Name: gre-tunnel1
- Type: GRE Tunnel
- MTU: 1476
- L2 MTU: 65535
- Local Address: 10.200.128.24
- Remote Address: 10.200.128.1

The terminal shows the following configuration command:

```

#
/interface gre
add local-address=10.200.128.24 name=gre-tunnel1 remote-address=10.200.128.1
[admin@DBBL-COAI-BD-DHAKA] >

```

STEP 4 : Add WAN address on gre tunnel interface .

/ip address

```
add address=10.255.17.38/30 comment=gsm interface=gre-tunnel1 network=\
10.255.17.36
```

Address	Network	Interface
10.86.13.59	10.112.112.141	ppp-out1
10.180.204.145/28	10.180.204.144	bridge1
10.200.1.82/30	10.200.1.80	ether1
10.255.17.38/30	10.255.17.36	gre-tunnel1
10.255.17.38/30	10.255.17.36	ether1
192.168.1.1/30	192.168.1.0	ether2

```
[admin@DBBL-COAT-BD-DHAKA] > ip address export
# jan/02/1970 03:51:14 by RouterOS 6.18
# software id = Y8U7-TBAL
#
/ip address
add address=192.168.1.1/30 interface=ether2 network=192.168.1.0
add address=10.255.17.38/30 comment=gsm interface=gre-tunnel1 network=\
10.255.17.36
```

this special case and new correlation

this special case and new correlation , **so follow the routing method**

Route List

	Dst. Address	Gateway	Distance	Routing Mark	Pref. Source
S	0.0.0.0/0	10.255.4.141 reachable ether1	2		
S	0.0.0.0/0	ppp-out1 reachable	1		
DAS	0.0.0.0/0	10.112.113.103 reachable ppp-out1	1		
DAC	10.112.113.103	ppp-out1 reachable	0		10.82.241.74
DAC	10.180.202.80...	bridge1 reachable	0		10.180.202.81
DAC	10.200.8.40/30	ether1 reachable	0		10.200.8.42
DAC	10.200.130.1	pptp-out1 reachable	0		10.200.130.11
DAC	10.255.4.140/...	ether1 reachable	0		10.255.4.142
AS	10.255.13.150	10.255.4.141 reachable ether1	1		
AS	113.11.60.126	10.255.4.141 reachable ether1	1		
AS	210.4.64.0/24	10.255.4.141 reachable ether1	1		
AS	210.4.77.138	10.255.4.141 reachable ether1	1		

Terminal

```
/ip route
add check-gateway=ping distance=1 gateway=ppp-out1
add check-gateway=ping distance=2 gateway=10.255.4.141
add distance=1 dst-address=10.255.13.150/32 gateway=10.255.4.141
add distance=1 dst-address=113.11.60.126/32 gateway=10.255.4.141
add distance=1 dst-address=210.4.64.0/24 gateway=10.255.4.141
add distance=1 dst-address=210.4.77.138/32 gateway=10.255.4.141
[admin@DBBL Swamibag_Tasmeri_ATM] >
```

Route <0.0.0.0/0>

General Attributes

Dst. Address: 0.0.0.0/0

Gateway: ppp-out1 reachable

Check Gateway: ping

Type: unicast

Distance: 1

Scope: 30

Target Scope: 10

Routing Mark:

And All Route Will add unser p2p link gateway ip

Need to add this manually

STEP 5 : Add a default route AD valu will be 1

Route <0.0.0.0/0>

General Attributes

Dst. Address: 0.0.0.0/0

Gateway: 10.255.17.37 reachable gre-tunnel1

Check Gateway:

Type: unicast

Distance: 1

Scope: 30

Target Scope: 10

Routing Mark:

Pref. Source:

enabled active static

	Dst. Address /	Gateway	Distance	Routing Mark	Pref. Source
S	0.0.0.0/0	pptp-out 1 unreachable	2		
AS	0.0.0.0/0	10.255.17.37 reachable gre-tunnel 1	1		
DS	0.0.0.0/0	10.112.112.141 reachable ppp-out 1	1		
DAC	10.112.112.141	ppp-out 1 reachable	0		10.86.13.59
DAC	10.180.204.14...	bridge 1 reachable	0		10.180.204.145
DC	10.200.1.80/30	ether1 unreachable	255		10.200.1.82
S	10.255.13.150	pptp-out 1 unreachable	2		
DAC	10.255.17.36/...	gre-tunnel 1 reachable	0		10.255.17.38
DAC	192.168.1.0/30	ether2 reachable	0		192.168.1.1
S	210.4.64.0/24	pptp-out 1 unreachable	2		
S	210.4.77.138	pptp-out 1 unreachable	2		

STEP 6 : also need to below AD value will be 2 (destination router DBBL DC, BDCOM monitoring server)

Route List

Routes Nexthops Rules VRF

	Dst. Address /	Gateway	Distance	Routing Mark	Pref. Source
S	0.0.0.0/0	pptp-out 1 unreachable	2		
AS	0.0.0.0/0	10.255.17.37 reachable gre-tunnel 1	1		
DS	0.0.0.0/0	10.112.112.141 reachable ppp-out 1	1		
DAC	10.112.112.141	ppp-out 1 reachable	0		10.86.13.59
DAC	10.180.204.14...	bridge 1 reachable	0		10.180.204.145
DC	10.200.1.80/30	ether1 unreachable	255		10.200.1.82
S	10.255.13.150	pptp-out 1 unreachable	2		
DAC	10.255.17.36/...	gre-tunnel 1 reachable	0		10.255.17.38
DAC	192.168.1.0/30	ether2 reachable	0		192.168.1.1
S	210.4.64.0/24	pptp-out 1 unreachable	2		
S	210.4.77.138	pptp-out 1 unreachable	2		

STEP 7 : Need to assign a new ip for always check physical link status and need to add comments on link IP (;;gsm and ;;bdcom)

/tool network

```
add down-script="ip address set [find comment="\bdcom\" ] disabled=yes\r\
```

```
\nip address set [find comment="\gsm\" ] disabled=no" host=10.200.1.81 \
```

```
interval=30s up-script="ip address set [find comment="\bdcom\" ] disabled=n\
```

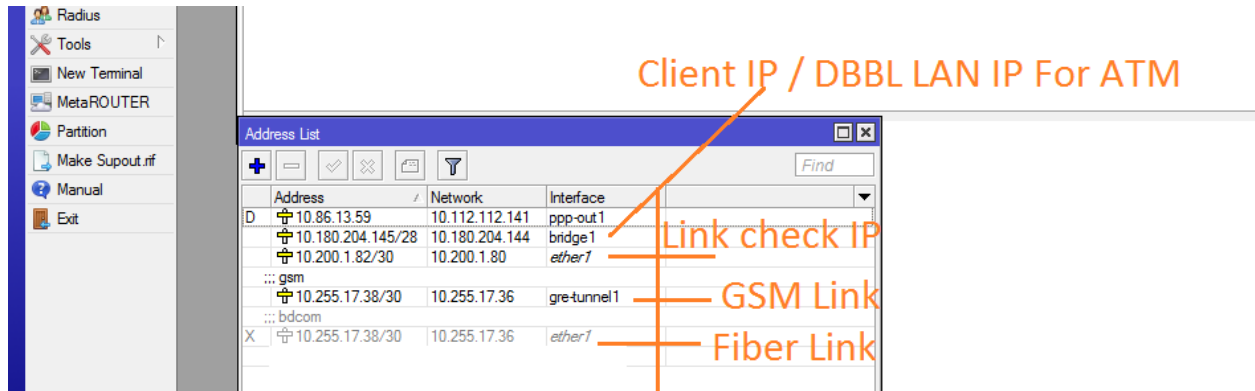
```
o\r\
```

```
\nip address set [find comment="\gsm\" ] disabled=yes"
```

The screenshot displays the Mikrotik WinBox interface. The 'Address List' window shows a table with columns for Address, Network, and Interface. The entry for 10.255.17.38/30 on gre-tunnel1 is highlighted. The 'Netwatch' window shows a table with columns for Host, Interval, Timeout, Status, and Since. The entry for 10.200.1.81 is highlighted. A 'Netwatch Host <10.200.1.81>' dialog box is open, showing the 'On Down' script: 'ip address set [find comment="bdcom"] disabled=yes' and 'ip address set [find comment="gsm"] disabled=no'. A terminal window in the bottom right shows the execution of the commands: '/tool network', 'add down-script="ip address set [find comment="\bdcom\"] disabled=yes\r\ \nip address set [find comment="\gsm\"] disabled=no" host=10.200.1.81 \ interval=30s up-script="ip address set [find comment="\bdcom\"] disabled=n\ o\r\ \nip address set [find comment="\gsm\"] disabled=yes"', and the prompt '[admin@DBBL-COAI-BD-DHAKA] >'. An orange arrow points from the terminal to the 'Netwatch Host' dialog box.

The ip for only link status check and for the below script active .

STEP 8 : Ip address add



STEP 9 : ipsec vpn configuration on cisco router and Mikrotik for routing LAN Network over over the GSM Network .

```
/ip ipsec policy
```

```
set (unknown) disabled=yes
```

```
add dst-address=10.99.1.0/24 sa-dst-address=:: sa-src-address=:: src-address=10.180.204.144/28
tunnel=yes
```

```
[admin@DBBL-COAT-BD-DHAKA] > ip ipsec peer export
```

```
# jan/02/1970 04:42:28 by RouterOS 6.18
```

```
# software id = Y8U7-TBAL
```

```
#
```

```
/ip ipsec peer
```

```
add address=10.255.13.150/32 dh-group=modp768 enc-algorithm=des nat-traversal=no  
secret=123456789
```

```
[admin@DBBL-COAT-BD-DHAKA] > ip ipsec proposal export
```

```
# jan/02/1970 04:43:20 by RouterOS 6.18
```

```
# software id = Y8U7-TBAL
```

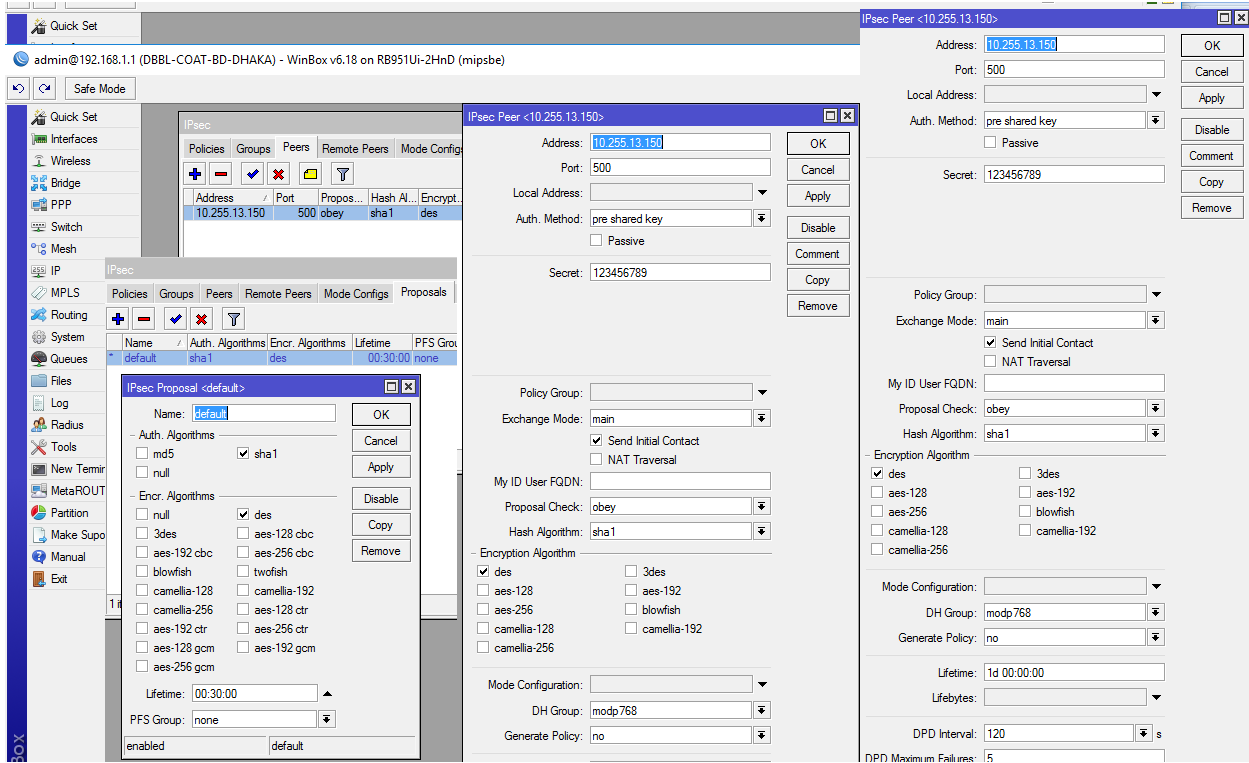
```
#
```

```
/ip ipsec proposal
```

```
set [ find default=yes ] enc-algorithms=des pfs-group=none
```



```
Log  
Radius  
Tools  
New Terminal  
MetaROUTER  
Partition  
Make Supout.rf  
Manual  
Exit  
Terminal  
.. Move up one level  
/command Use command at the base level  
[admin@DBBL-COAT-BD-DHAKA] > ip ipsec policy export  
# jan/02/1970 04:42:09 by RouterOS 6.18  
# software id = Y8U7-TBAL  
#  
/ip ipsec policy  
set (unknown) disabled=yes  
add dst-address=10.99.1.0/24 sa-dst-address=: sa-src-address=: src-address=10.180.204.144/28 tunnel=yes  
[admin@DBBL-COAT-BD-DHAKA] > ip ipsec peer export  
# jan/02/1970 04:42:28 by RouterOS 6.18  
# software id = Y8U7-TBAL  
#  
/ip ipsec peer  
add address=10.255.13.150/32 dh-group=modp768 enc-algorithm=des nat-traversal=no secret=123456789  
[admin@DBBL-COAT-BD-DHAKA] > ip ipsec proposal export  
# jan/02/1970 04:43:20 by RouterOS 6.18  
# software id = Y8U7-TBAL  
#  
/ip ipsec proposal  
set [ find default=yes ] enc-algorithms=des pfs-group=none  
[admin@DBBL-COAT-BD-DHAKA] > █
```

STEP 10 : This is for IPIP VPN .

The image displays three network configuration windows:

- Address List:** Shows IP addresses assigned to various interfaces. The entry for `172.16.10.22/30` on interface `pip1` is highlighted.
- Interface List:** Shows the configuration for the `pip1` interface, which is an IP Tunnel with an MTU of 1480.
- Route List:** Shows the routing table with entries for `0.0.0.0/0` and `10.99.1.0/24` pointing to the `pip1` interface.

STEP 11 : finally we need check ping reachability .

The terminal shows the following ping test results:

```

[admin@DBBL-COAT-BD-DHAKA] > ping 8.8.8.8
HOST
8.8.8.8          SIZE TTL TIME  STATUS
8.8.8.8          56  56 136ms
8.8.8.8          56  56 784ms
8.8.8.8          56  56 277ms
  sent=3 received=3 packet-loss=0% min-rtt=136ms avg-rtt=399ms max-rtt=784ms

[admin@DBBL-COAT-BD-DHAKA] > ping 10.255.13.150
HOST
10.255.13.150   SIZE TTL TIME  STATUS
10.255.13.150   timeout
10.255.13.150   timeout
10.255.13.150   timeout
  sent=3 received=0 packet-loss=100%

[admin@DBBL-COAT-BD-DHAKA] > ping 10.99.1.25 src-address=10.180.204.145
HOST
10.99.1.25      SIZE TTL TIME  STATUS
10.99.1.25      timeout
10.99.1.25      timeout
  sent=2 received=0 packet-loss=100%
  
```

Annotations on the right side of the terminal window:

- GOOGLE:** Points to the first ping command (`8.8.8.8`).
- DBBL DC:** Points to the second ping command (`10.255.13.150`).
- ATM LAN and DC END LAN SRC Ping Check:** Points to the third ping command (`10.99.1.25 src-address=10.180.204.145`).