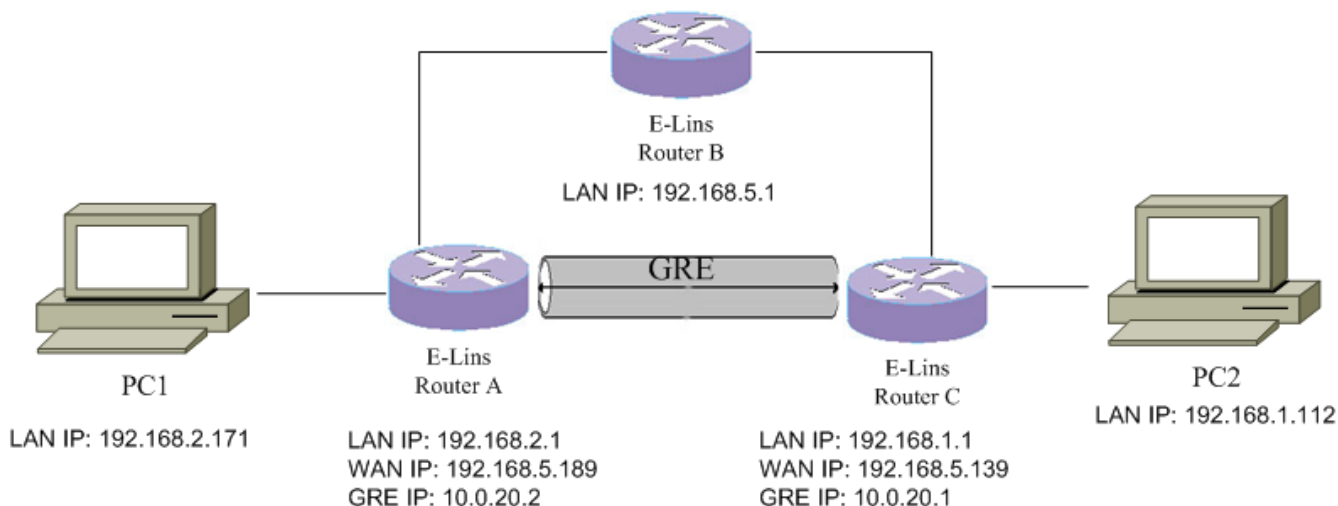


VPN Setting Example - GRE

GRE Topology



- Open GRE Tunnel setting page, set Router C like the following,

Status

System

Services

ICMP Check

VRRP

Fallover

SNMP

DTU

GPS

SMS

VPN

DDNS

Connect Radio Module

Network

Logout

IPSec PPTP L2TP OpenVPN **GRE Tunnel**

GRE Tunnel

GRE Tunnel Configuration

Enable

TTL

MTU

Peer IP Address

Remote Network IP

Remote Netmask

Local Tunnel IP

Local Tunnel Mask

- Peer IP address is the WAN IP address of Router C remote network IP and netmask is the LAN subnet of Router C, the remote Network IP is 192.168.2.0 here, **NOT** 192.168.2.1.

Local Tunnel IP is a virtual IP address, it can be set to any private IP address but cannot be in same subnet as LAN.

3. After setting is done, click button "Save & Apply".
4. Open web management page of Router A. Configure it as below, and click button " Save & Apply".

The screenshot displays the configuration page for a GRE Tunnel. The left-hand navigation menu includes 'Services' and 'VPN', both of which are highlighted with red boxes. The main configuration area is titled 'GRE Tunnel' and contains the following settings:

- Enable:
- TTL: 255
- MTU: 1420
- Peer IP Address: 192.168.5.139
- Remote Network IP: 192.168.1.0
- Remote Netmask: 255.255.255.0
- Local Tunnel IP: 10.0.20.2
- Local Tunnel Mask: 255.255.255.0

At the bottom right of the configuration area, there are three buttons: 'Save & Apply', 'Save', and 'Reset'.

5. Ping PC2 from PC1,

```
C:\Users\Administrator>ping 192.168.1.112

Pinging 192.168.1.112 with 32 bytes of data:
Reply from 192.168.1.112: bytes=32 time=73ms TTL=62
Reply from 192.168.1.112: bytes=32 time=475ms TTL=62
Reply from 192.168.1.112: bytes=32 time=188ms TTL=62
Reply from 192.168.1.112: bytes=32 time=362ms TTL=62

Ping statistics for 192.168.1.112:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 73ms, Maximum = 475ms, Average = 274ms

C:\Users\Administrator>
```

6. Ping PC1 from PC2,

```
Request timeout for icmp_seq 994
64 bytes from 192.168.2.171: icmp_seq=995 ttl=62 time=6.008 ms
64 bytes from 192.168.2.171: icmp_seq=996 ttl=62 time=5.476 ms
64 bytes from 192.168.2.171: icmp_seq=997 ttl=62 time=5.350 ms
64 bytes from 192.168.2.171: icmp_seq=998 ttl=62 time=6.179 ms
64 bytes from 192.168.2.171: icmp_seq=999 ttl=62 time=6.684 ms
64 bytes from 192.168.2.171: icmp_seq=1000 ttl=62 time=5.640 ms
64 bytes from 192.168.2.171: icmp_seq=1001 ttl=62 time=5.284 ms
64 bytes from 192.168.2.171: icmp_seq=1002 ttl=62 time=5.063 ms
64 bytes from 192.168.2.171: icmp_seq=1003 ttl=62 time=6.062 ms
64 bytes from 192.168.2.171: icmp_seq=1004 ttl=62 time=6.067 ms
64 bytes from 192.168.2.171: icmp_seq=1005 ttl=62 time=6.575 ms
64 bytes from 192.168.2.171: icmp_seq=1006 ttl=62 time=3.398 ms
64 bytes from 192.168.2.171: icmp_seq=1007 ttl=62 time=5.990 ms
64 bytes from 192.168.2.171: icmp_seq=1008 ttl=62 time=9.059 ms
^C
--- 192.168.2.171 ping statistics ---
1009 packets transmitted, 882 packets received, 12.6% packet loss
round-trip min/avg/max/stddev = 2.429/6.462/17.386/1.705 ms
dentvdeMacBook-Pro-3:~ apple$
```

7. If the ping is failed, check Route status at both side,

Status

- Overview
- Network
- Firewall
- Routes**
- System Log
- Kernel Log
- Reboot Log
- Realtime Graphs
- VPN
- System
- Services
- Network
- Logout

Routes

The following rules are currently active on this system.

ARP

IPv4-Address	MAC-Address	Interface
192.168.5.139	90:22:06:c0:10:01	eth0.2
192.168.5.1	00:1e:42:13:38:a2	eth0.2
192.168.2.171	00:e0:66:af:f1:b7	br-lan

Active IPv4-Routes

Network	Target	IPv4-Gateway	Metric	Table
wan	0.0.0.0/0	192.168.5.1	0	main
gre	10.0.20.0/24		0	main
gre	192.168.1.0/24		0	main
lan	192.168.2.0/24		0	main

if the route rule of 192.168.1/0/24 or 192/.168.2.0/24 with network gre is missing here, try to reconfigure Remote Network IP and Remote Netmask.

The screenshot shows the 'GRE Tunnel Configuration' page. The 'Remote Network IP' field is set to '192.168.2.0' and the 'Remote Netmask' field is set to '255.255.255.0'. These two fields are enclosed in a red rectangular box. Other fields include 'Enable' (checked), 'TTL' (255), 'MTU' (1420), 'Peer IP Address' (192.168.5.189), 'Local Tunnel IP' (10.0.20.1), and 'Local Tunnel Mask' (255.255.255.0). At the bottom right, there are three buttons: 'Save & Apply', 'Save', and 'Reset'.

8. if the Remote Netmask is 255.255.255.128, the Remote Network IP should be XXX.XXX.XXX.AAA(AAA shall be 128 or 0).
If the Remote Netmask is 255.255.255.192, the Remote Network IP should be XXX.XXX.XXX.AAA(AAA should be 0, 64,128 or 192).