

TW-EAV510AC(b) GRE Application

There are two modes on GRE application.

- Routed(TUN)
- Bridged (TAP)

Routed(TUN)

Scenario: Head Office connect to Branch Office by using GRE tunnel.

Head Office: WAN: EWAN(192.168.200.112)

LAN:192.168.31.254

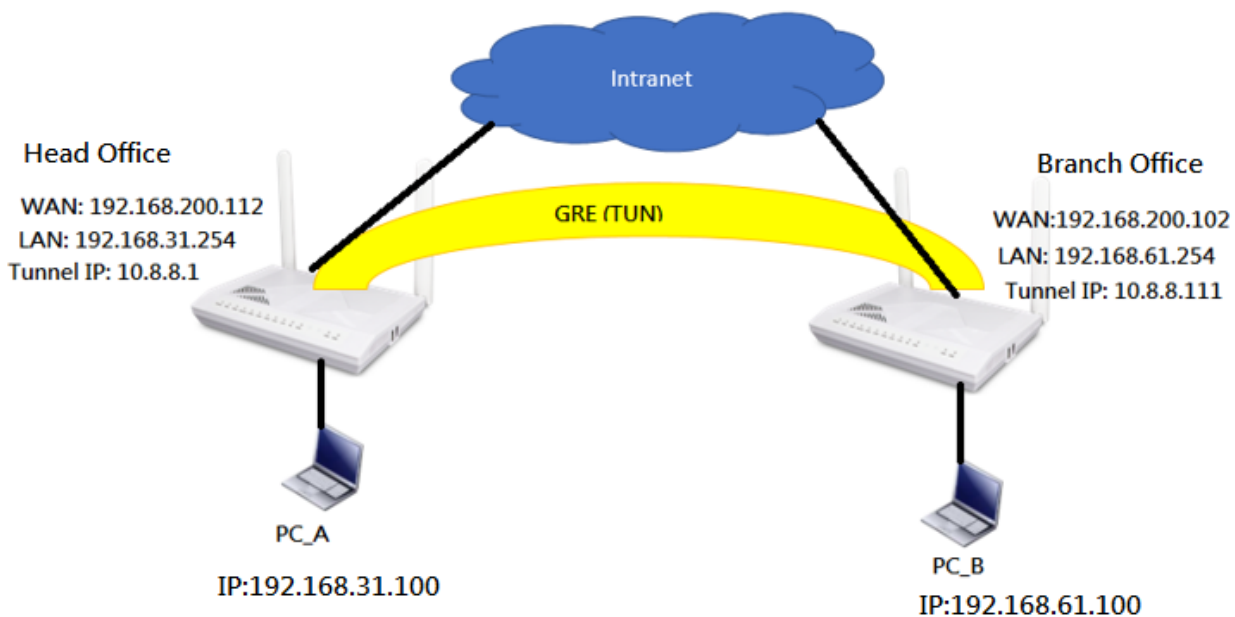
GRE_Tunnel_IP: 10.8.8.1

Branch Office: WAN:ADSL (192.168.200.102)

LAN:192.168.61.254

GRE_Tunnel_IP:10.8.8.111

Network topology:



On Head Office setting:

1. Make sure your WAN setting is EWAN and IP is 192.168.200.112.
2. On VPN>GRE Setting. Select Routed(TUN) on GRE Mode.
Set Branch Office WAN IP on GRE Endpoint IP.
Set Tunnel IP to 10.8.8.1.
Set Branch Office LAN subnet on Remote Access Range.

GRE Configuration

This page is used to configure the parameters for GRE.

GRE Mode Routed (TUN) Bridged (TAP)

Name

Enabled

Interface

GRE Endpoint IP

GRE Option Setting

Checksum Sequencing

Key [0 ~ 4294967295]

Tunnel Network (Virtual interface)

Tunnel IP Netmask

Remote Access Range

Remote subnet Netmask

GRE Table

Select	State	Name	EndPoint	Tunnel IP	remote network	Mode
<input checked="" type="radio"/>	Enable	test_TUNa	192.168.200.102	10.8.8.1	192.168.61.0	Routing

On Branch Office setting:

1. Make sure your WAN setting is ADSL and IP is 192.168.200.102.
2. On VPN>GRE Setting. Select Routed(TUN) on GRE Mode.
Set Head Office WAN IP on GRE Endpoint IP.
Set Tunnel IP to 10.8.8.111.
Set Head Office LAN subnet on Remote Access Range.

GRE Configuration

This page is used to configure the parameters for GRE.

GRE Mode Routed (TUN) Bridged (TAP)

Name

Enabled

Interface

GRE Endpoint IP

GRE Option Setting

Checksum Sequencing

Key [0 ~ 4294967295]

Tunnel Network (Virtual interface)

Tunnel IP Netmask

Remote Access Range

Remote subnet Netmask

GRE Table

Select	State	Name	EndPoint	Tunnel IP	remote network	Mode
<input checked="" type="radio"/>	Enable	test_TUNb	192.168.200.112	10.8.8.111	192.168.31.0	Routing

Result: When tunnel is up, PC_B can ping Head Office Tunnel IP: 10.8.8.1

PC_B can ping Head Office PC_A: 192.168.31.100

PC_B can ping Head Office Router LAN IP: 192.168.31.254

When tunnel is up, PC_A can ping Branch Office Tunnel IP: 10.8.8.111

PC_A can ping Branch Office PC_B: 192.168.61.100

PC_A can ping Branch Office Router LAN IP: 192.168.61.254

Bridged (TAP)

Scenario: Branch Office only allow PC with port 4 can get data from Head Office's special subnet 192.168.92.x .

Head Office: WAN: EWAN (172.17.21.63)

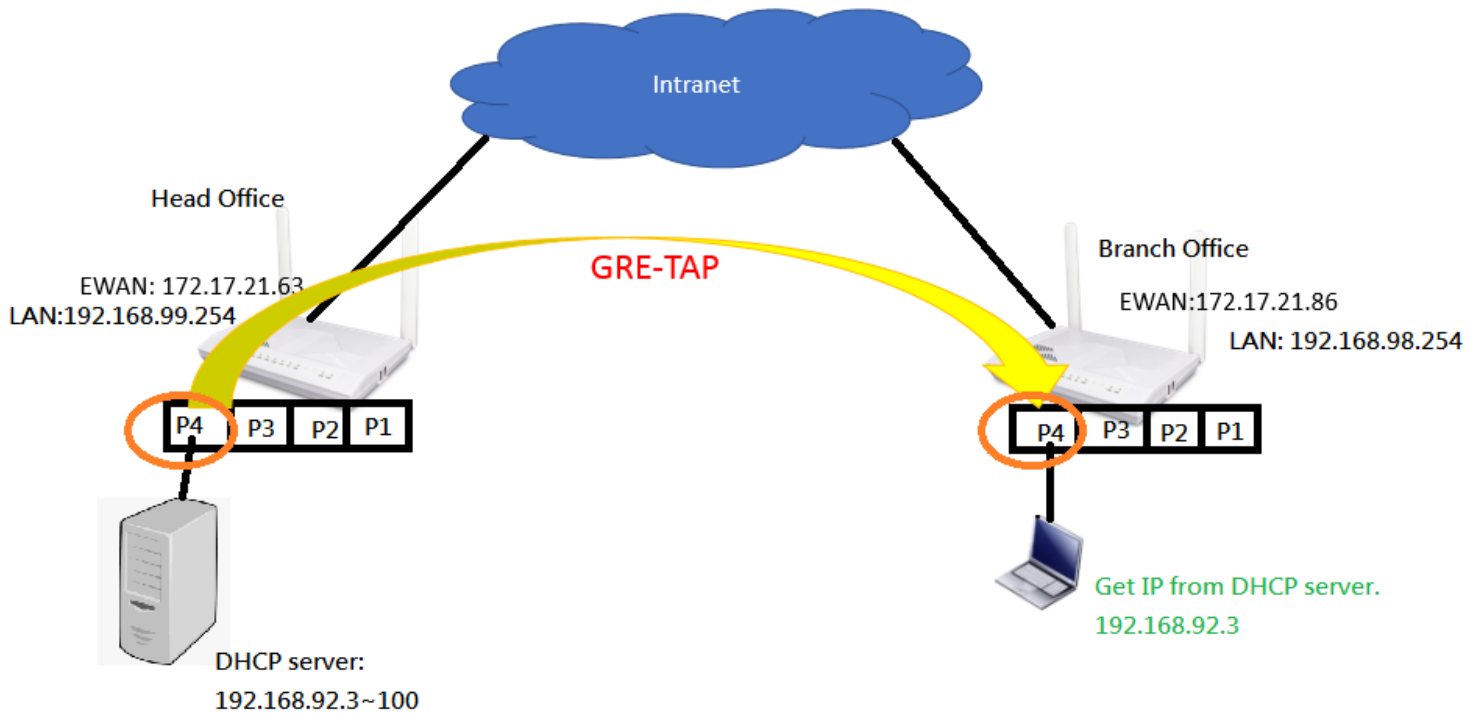
LAN:192.168.99.254

DHCP server on port 4: 192.168.92.3~100

Branch Office: WAN: EWAN (172.17.21.86)

LAN:192.168.98.254

Network topology:



On Head Office setting:

1. Set up WAN on WAN>Ethernet WAN.

Ethernet WAN

This page is used to configure the parameters for EthernetWAN

WAN Interface	nas0_0	
Enable VLAN	<input type="checkbox"/>	
VLAN ID		802.1p_Mark
Channel Mode	IPoE	
Enable Bridge	<input type="checkbox"/>	
Bridge Mode	Bridged Ethernet (Transparent Bridging)	
Enable NAPT	<input checked="" type="checkbox"/>	Enable QoS: <input checked="" type="checkbox"/>
Admin Status:	<input checked="" type="radio"/> Enable <input type="radio"/> Disable	
Connection Type	INTERNET	
MTU	1500	
IGMP Proxy	<input checked="" type="checkbox"/> Enable	

WAN IP Settings

Type	<input type="radio"/> Fixed IP <input checked="" type="radio"/> DHCP	
Local IP Address		
Remote IP Address		
Subnet Mask		IP Unnumbered <input type="checkbox"/>
Request DNS	<input checked="" type="radio"/> Enable <input type="radio"/> Disable	
Primary DNS Server		
Secondary DNS Server		

2. Make sure your WAN IP is 172.17.21.63.
3. On VPN>GRE Settings, please select Bridged (TAP) mode and setup Branch Office WAN IP on GRE Endpoint IP. GRE Option Setting is option but need to have same setting as Branch Office.

GRE Configuration

This page is used to configure the parameters for GRE.

GRE Mode Routed (TUN) Bridged (TAP)

Name

Enabled

Interface

GRE Endpoint IP Branch Office WAN IP.

GRE Option Setting

CheckSum Sequencing

Key [0 ~ 4294967295]

GRE Option Setting is option but need to have same setting as Branch Office.

GRE Table

Select	State	Name	EndPoint	Tunnel IP	remote network	Mode
<input checked="" type="radio"/>	Enable	router1	172.17.21.86			Bridged

4. On Advance> Bridge Grouping. Please bind with LAN4 and gretp0.

Configuration

To manipulate a mapping group:

1. Select a group from the table.
2. Select interfaces from the available/grouped interface list and add it to the grouped/available interface list using the arrow mapping of the ports.
3. Click 'Apply Changes' button to save the changes.

Note that the selected interfaces will be removed from their existing groups and added to the new group.

Grouped Interfaces

Available Interfaces

Select	Interfaces
<input type="radio"/>	Default LAN1, LAN2, LAN3, TW-EAV510AC_5G_00A1, TW-EAV510AC_2.4G_00A1
<input checked="" type="radio"/>	LAN4, gretp0
<input type="radio"/>	
<input type="radio"/>	
<input type="radio"/>	

On Branch Office setting:

1. Set up WAN on WAN>Ethernet WAN.

Ethernet WAN

This page is used to configure the parameters for EthernetWAN

WAN Interface	nas0_0	
Enable VLAN	<input type="checkbox"/>	
VLAN ID		802.1p_Mark
Channel Mode	IPoE	
Enable Bridge	<input type="checkbox"/>	
Bridge Mode	Bridged Ethernet (Transparent Bridging)	
Enable NAPT	<input checked="" type="checkbox"/>	Enable QoS: <input checked="" type="checkbox"/>
Admin Status:	<input checked="" type="radio"/> Enable <input type="radio"/> Disable	
Connection Type	INTERNET	
MTU	1500	
IGMP Proxy	<input checked="" type="checkbox"/> Enable	

WAN IP Settings

Type	<input type="radio"/> Fixed IP <input checked="" type="radio"/> DHCP	
Local IP Address		
Remote IP Address		
Subnet Mask		IP Unnumbered <input type="checkbox"/>
Request DNS	<input checked="" type="radio"/> Enable <input type="radio"/> Disable	
Primary DNS Server		
Secondary DNS Server		

2. Make sure your WAN IP is 172.17.21.86.
3. On VPN>GRE Settings, please select Bridged (TAP) mode and setup Head Office WAN IP on GRE Endpoint IP. GRE Option Setting is option but need to have same setting as Head Office.

GRE Configuration

This page is used to configure the parameters for GRE.

GRE Mode Routed (TUN) Bridged (TAP)

Name

Enabled

Interface

GRE Endpoint IP

GRE Option Setting

Checksum Sequencing

Key [0 ~ 4294967295]

GRE Table

Select	State	Name	EndPoint	Tunnel IP	remote network	Mode
<input checked="" type="radio"/>	Enable	router2	172.17.21.63			Bridged

4. On Advance> Bridge Grouping. Please bind with LAN4 and gretp0.

Configuration

To manipulate a mapping group:

1. Select a group from the table.
2. Select interfaces from the available/grouped interface list and add it to the grouped/available interface list using the arrow buttons to
3. Click 'Apply Changes' button to save the changes.

Note that the selected interfaces will be removed from their existing groups and added to the new group.

Grouped Interfaces

->

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Available Interfaces

Select	Interfaces
Default	LAN1, LAN2, LAN3, TW-EAV510AC_5G_4647, TW-EAV510AC_2.4G_4647
<input checked="" type="radio"/>	LAN4, gretp0
<input type="radio"/>	
<input type="radio"/>	
<input type="radio"/>	

5. Try to ping LAN site PC in Head Office to make sure GRE tunnel is up.
6. Put one PC in port 4 of Branch Office Router. Release and renew IP, the PC in port 4 will get DHCP from DHCP server of Head Office. IP will be 192.168.92.3 as below:

```
Ethernet adapter Ethernet:

    Connection-specific DNS Suffix  . : 
    Link-local IPv6 Address . . . . . : fe80::1809:3050:6767:a1c8%3
    IPv4 Address. . . . . : 192.168.92.3
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : 192.168.92.254
```

Result:

Port 4 PC in Branch office are in same subnet as Head Office's special subnet 192.168.92.x and can get more data from Head Office now.