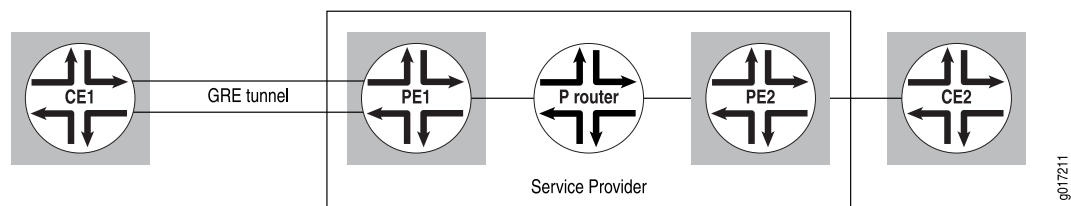


Configuring a GRE Tunnel Interface Between a PE and CE Router

This example shows how to configure a GRE tunnel interface between a PE router and a CE router. You can use this configuration to tunnel VPN traffic across a non-MPLS core network. The network topology used in this example is shown in Figure 1.

Figure 1: GRE Tunnel Between the CE Router and the PE Router



For this example, complete the procedures described in the following sections:

- Configuring the Routing Instance Without the Encapsulating Interface on page 1
- Configuring the Routing Instance with the Encapsulating Interface on page 2
- Configuring the GRE Tunnel Interface on Router CE1 on page 3

Configuring the Routing Instance Without the Encapsulating Interface

You can configure the routing instance either with or without the encapsulating interface. The following sections explain how to configure the routing instance without it:

- Configuring the Routing Instance on Router PE1 on page 1
- Configuring the GRE Tunnel Interface on Router PE1 on page 2
- Configuring the Encapsulation Interface on Router PE1 on page 2

Configuring the Routing Instance on Router PE1

Configure the routing instance on Router PE1:

```
[edit routing-instances]
vpna {
  instance-type vrf;
  interface gr-1/2/0.0;
  route-distinguisher 10.255.14.174:1;
  vrf-import vpna-import;
  vrf-export vpna-export;
  protocols {
    bgp {
      group vpna {
        type external;
        peer-as 100;
        as-override;
        neighbor 10.49.2.1;
      }
    }
  }
}
```

```
}  
}  
}
```

Configuring the GRE Tunnel Interface on Router PE1

Configure the GRE tunnel interface on Router PE1:

```
[edit interfaces gr-1/2/0]  
unit 0 {  
  tunnel {  
    source 192.168.197.249;  
    destination 192.168.197.250;  
  }  
  family inet {  
    address 10.49.2.2/30;  
  }  
}
```

In this example, interface t3-0/1/3 acts as the encapsulating interface for the GRE tunnel.

Configuring the Encapsulation Interface on Router PE1

Configure the encapsulation interface on Router PE1:

```
[edit interfaces t3-0/1/3]  
unit 0 {  
  family inet {  
    address 192.168.197.249/30;  
  }  
}
```

Configuring the Routing Instance with the Encapsulating Interface

If the tunnel-encapsulating interface, t3-0/1/3, is also configured under the routing instance, then you need to specify the name of that routing instance under the interface definition. The system uses this routing instance to search for the tunnel destination address.

To configure the routing instance with the encapsulating interface, you perform the steps in the following sections:

- Configuring the Routing Instance on Router PE1 on page 2
- Configuring the GRE Tunnel Interface on Router PE1 on page 3
- Configuring the Encapsulation Interface on Router PE1 on page 3

Configuring the Routing Instance on Router PE1

If you configure the tunnel-encapsulating interface under the routing instance, then configure the routing instance on Router PE1:

```

[edit routing-instances]
vpna {
  instance-type vrf;
  interface gr-1/2/0.0;
  interface t3-0/1/3.0;
  route-distinguisher 10.255.14.174:1;
  vrf-import vpna-import;
  vrf-export vpna-export;
  protocols {
    bgp {
      group vpna {
        type external;
        peer-as 100;
        as-override;
        neighbor 10.49.2.1;
      }
    }
  }
}

```

Configuring the GRE Tunnel Interface on Router PE1

Configure the GRE tunnel interface on Router PE1:

```

[edit interfaces gr-1/2/0]
unit 0 {
  tunnel {
    source 192.168.197.249;
    destination 192.168.197.250;
    routing-instance {
      destination vpna;
    }
  }
  family inet {
    address 10.49.2.2/30;
  }
}

```

Configuring the Encapsulation Interface on Router PE1

Configure the encapsulation interface on Router PE1:

```

[edit interfaces t3-0/1/3]
unit 0 {
  family inet {
    address 192.168.197.249/30;
  }
}

```

Configuring the GRE Tunnel Interface on Router CE1

Configure the GRE tunnel interface on Router CE1:

```

[edit interfaces gr-1/2/0]

```

```
unit 0 {  
  tunnel {  
    source 192.168.197.250;  
    destination 192.168.197.249;  
  }  
  family inet {  
    address 10.49.2.1/30;  
  }  
}
```

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