Configuring VRF aware 6RD Tunnels

This chapter describes how to configure VRF aware 6RD tunnels on Cisco 7600 series routers. Following are the sections:

Understanding VRF aware 6RD Tunnels

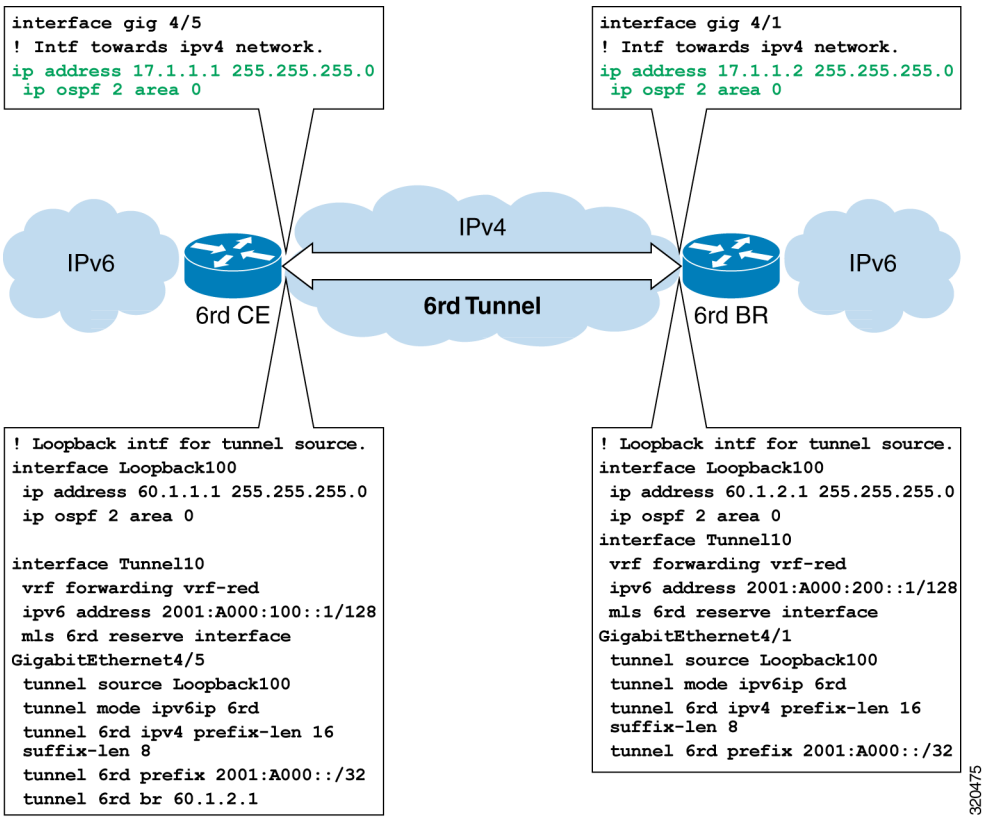
Currently the 6RD tunneling feature on c7600 does not support virtual routing and forwarding (VRF) awareness. The forwarding table lookups for IPv6 overlay addresses and IPv4 transport addresses are performed in global routing tables. This feature extends the 6RD tunneling support for IPv6 overlay addresses and IPv4 transport addresses in VRF.

These scenarios explain the VRF aware 6RD tunnel function:

- IPv6 overlay address in VRF and IPv4 transport address in Global routing table (RT).
- IPv6 overlay address in VRF and IPv4 transport address in VRF.

Figure 37-1 Topology for the IPv6 overlay address in VRF, and the IPv4 transport address in GRT.

The VRF Aware IPv6 over IPv4 Tunnel should have an ES+ line card towards the tunnel facing side.



Restriction for VRF aware 6RD Tunnels

- Currently the c7600 supports only 256 VRF instances for IPv6.
- The incoming physical interface, and the tunnel interface should have the same VRF instance defined.
- The tunnel transport VRF and the egress physical interface, through which the traffic leaves should have the same VRF instance defined.
- For 6RD customer edge router configuration, the tunnel source and the border relay (BR) address should have the same VRF instance defined as the physical interface, through which the traffic flows.

Configuring VRF aware 6RD Tunnels

For information on VRF aware 6RD tunnels configuration, see:

http://www.cisco.com/en/US/docs/routers/7600/install_config/ES40_config_guide/es40_chap13.html#wp1529332