How To Configure a GRE Tunnel Between IP Appliances on IPSO

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Important Information

Latest Documentation
The latest version of this document is at:
http://supportcontent.checkpoint.com/documentation_download?ID=10951

For additional technical information, visit the Check Point Support Center
(http://supportcenter.checkpoint.com).

Revision History

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Feedback
Check Point is engaged in a continuous effort to improve its documentation.

Please help us by sending your comments
(mailto:cp_techpub_feedback@checkpoint.com?subject=Feedback on How To Configure a GRE Tunnel Between IP Appliances on IPSO ).
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How To Configure GRE Tunnel Between IP Appliances on IPSO

Objective

This document explains how to configure a GRE tunnel on the IPSO 6.X platform.

Supported OS, Products and Versions

- **Supported Operating System**: IPSO 4.X and 6.X
- **Supported Products**: IP Appliances
- **Supported Version**: GRE Tunnel configuration is not related to the Firewall version

Before You Start

Related Documentation

- SecureKnowledge solution sk41126 Why is the default MTU of a GRE tunnel interface set to 65535 (http://supportcontent.checkpoint.com/solutions?id=sk41126)

Impact on the Environment

GRE is not a recommended method for secure communication over the internet.
Configuring a GRE Tunnel Between IP Appliances

The configuration described applies to the following network:

1. In the Network Voyager tree, select Configuration > Interface Configuration > Interfaces
   In the diagram: IP APPLIANCE 1
2. In the Physical column, click Tunnels.

The Tunnels page opens.
3. In the **Create New Tunnel Interface** section of the page, select **GRE**.

4. Click **Apply**.
   
   Each time you select a tunnel encapsulation and click **Apply**, the new tunnel appears in the logical interfaces table.

5. Click the logical interface name in the **Logical** column of the Logical interfaces table to go to the Interface page for the specified tunnel. For example: **tun0c0**

6. Enter the IP address of the local end of the GRE tunnel as the **Local address**.
   The local address cannot be one of the system’s interface addresses and must be the remote address configured for the GRE tunnel at the remote router.

7. Enter the IP address of the remote end of the GRE tunnel as the **Remote address**.
   The remote address cannot be one of the systems interface addresses and must be the local address configured for the GRE tunnel at the remote router.

8. Enter the IP address of the local interface the GRE tunnel is bound to, as the **Local endpoint**.
   The local endpoint must be one of the systems interface addresses and must be the remote endpoint configured for the GRE tunnel at the remote router.
9. Enter the IP address of the remote interface the GRE tunnel is bound to, as the **Remote endpoint**. The remote endpoint must not be one of the systems interface addresses and must be the local endpoint configured for the GRE tunnel at the remote router.

10. In the **Bind Tunnel to Local Endpoint** section, bind the tunnel to the outgoing interface:
   - **Strict** means that all packets that egress through the tunnel will exit through the outgoing interface (local endpoint). If the local endpoint link fails, traffic does not egress through the tunnel. You might use this setting to prevent possible routing loops.
   - **Loose** means that all packets that egress through the tunnel can be routed through any interface. Use this setting to allow the system to use a different interface in case the local endpoint link fails.

![Logical Interface tun0c0](image)
11. Click **Save** to make your changes permanent.

**Verifying that the GRE Tunnel is Up**

To verify the GRE tunnel:

1. Run a ping that will invoke the traffic to be routed through the newly configured tunnel.
2. When the ping is started, use the following `tcpdump` command to view that the tunnel is up. This command listens on the interface configured for the GRE tunnel and filters out everything except protocol 47 which is GRE.

```bash
#tcpdump -i eth-<interface name> proto 47
```