



Quick Note 5

Converting GRE configurations from old to new method

Digi Technical Support

February 2016

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1 INTRODUCTION

1.1 Reason for the change

The old method of using Eroute's and enabling GRE on the external interface is no longer supported from TransPort firmware version 4955 onwards. Any configurations that use the old method of configuring GRE will need to be upgraded to version 4955 or higher and then have the configuration converted to the new method. The primary reason for changing GRE is so that it can be used as a routable interface for use with static and dynamic routing protocols.

When upgrading a unit remotely, and if the connection to the remote unit relies on GRE, then extra care is required. It will be necessary to upgrade the config.dax file and the firmware at the same time.

2 VERSION

Status	
1.0	Published
2.0	Updated and rebranded
2.1	Updated to new Web GUI
2.2	Updated screenshots and instructions for new web interface, rebranding (Feb 2016)

2.1 Corrections

Requests for corrections or amendments to this Quick Note are welcome and should be addressed to:
tech.support@digi.com

Requests for new Quick Notes can be sent to the same address.

3 CONFIGURATION

The first part of this process is to collect the relevant information from the existing configuration and remove these settings from the Eroute and PPP sections. The second part is to update the firmware on the device. The final part is to translate the configuration settings to the new method and apply the changes.

3.1 Old Settings

The following table shows some example old settings that need to be collected from the Eroute section. As they are being collected, the settings can be removed from the configuration.

Parameter	Setting	Description
Eroute o - Peer IP	123.123.123.123	Remote routers WAN IP address
Eroute o - local IP	172.16.0.0	Network range of the local LAN
Eroute o - Local mask	255.255.255.0	Subnet mask of the local LAN
Eroute o - remote IP	192.168.0.0	Network range of the remote LAN
Eroute o - remote mask	255.255.255.0	Subnet mask of the remote LAN
Eroute o - GRE	On	Enables GRE
PPP 1 - GRE	On	Enables GRE on this interface, the interface IP address is used as the source address for the GRE packets

3.2 Update firmware

The next step is to upgrade the firmware of the router.

This will ensure that the new features are available prior to configuring the new version of GRE tunnels.

Please refer to the following Knowledge Base article for TransPort firmware update instructions:

http://knowledge.digi.com/articles/Knowledge_Base_Article/How-to-upgrade-the-firmware-on-a-Digi-TransPort-router

3.3 New Settings

The new GRE Tunnel method has a different location on the web interface:

Configuration – Network > Interfaces > GRE > Tunnel o.

Below is a table of settings and a screenshot of the settings entered into the web interface.

For the purposes of doing simple GRE without using a dynamic routing protocol, the IP address field will be irrelevant but it requires some value or the tunnel will never come up.

Parameter	Setting	Description
Tunnel GRE o - Description	<text>	This is a free text field to describe the tunnel
Tunnel GRE o - IP address	127.0.0.1	When not using routing Protocols this field is unimportant, the same IP can be used on all devices. This field cannot be left blank.
Tunnel GRE o - Interface for Tunnel Source IP	PPP	Select the WAN interface for the source of the GRE packets
Tunnel GRE o - Interface number for Tunnel Source	1	Select the WAN interface Number
Tunnel GRE - Destination IP address / hostname	123.123.123.123	IP address of the WAN interface of the remote router, this can either be an IP Address or a Full qualified domain name.

[Configuration - Network > Interfaces > GRE > Tunnel 0](#)

▼ Tunnel 0

Description:

IP Address:

Mask:

Source IP Address: Use interface ▾
 Use IP Address

Destination IP Address or Hostname:

Enable keepalives on this GRE tunnel

► Advanced

Figure 1: Configure tunnel 0

3.4 Configure the route

The last part of the configuration involves setting up a route to the remote network. This route uses Tunnel 0 as the destination interface. If there are multiple networks that need to be reached at the remote end, simply add a route to each network via Tunnel 0.

Navigate to **Configuration - Network > IP Routing/Forwarding > Static Routes > Routes 0 – 9 > Route 0**

Parameter	Setting	Description
Route o IP Address	192.168.0.0	IP Address of the remote network
Route o Mask	255.255.255.0	Network Mask of the remote network
Route o Interface	Tunnel	Interface to send the packets to
Route o Interface #	0	Interface number to send the packets to

[Configuration - Network > IP Routing/Forwarding > Static Routes > Routes 0 - 9 > Route 0](#)

▼ **Route 0**

Description:

Destination Network: Mask:

via

Gateway:

Interface: ▾

Use PPP sub-configuration:

Metric:

► **Advanced**

Figure 2: Configure IP Route 0

4 CONFIGURATION FILES

The following is a small section of a configuration to show the command line parameters:

4.1 Old method example:

```
ppp 1 gre ON  
  
eroute 0 peerip "123.123.123.123"  
eroute 0 locip "172.16.0.0"  
eroute 0 locmsk "255.255.255.0"  
eroute 0 remip "192.168.0.0"  
eroute 0 remmsk "255.255.255.0"  
eroute 0 gre ON
```

4.2 New method example:

```
route 0 IPAddr "192.168.0.0"  
route 0 ll_ent "TUN"  
  
tun 0 IPAddr "127.0.0.1"  
tun 0 mask "255.255.255.255"  
tun 0 source_ent "PPP"  
tun 0 source_add 1  
tun 0 dest "123.123.123.123"  
tun 0 descr "Tunnel to head office"
```