Quick Note 038

Upgrade Software options and/or VPN Licenses on a Digi Transport router.

November 2016

Contents

1 INTRODUCTION

1.1 Assumptions

This guide has been written for use by technically competent personnel with a good understanding of the communications technologies used in the product and of the requirements for their specific application. It also assumes a basic ability to access and navigate a Digi Transport router.

This guide also assumes that a licence file has been received further to purchasing upgrade options from Digi. Please contact a Digi Sales Representative for further details on how to buy options for Digi Transport routers.

This application note applies only to:

Model: DIGI Transport WR41/44/21

Firmware versions: 5.169 and later

Please note: This application note has been specifically rewritten for firmware release 5.169 and later and will not work on earlier versions of firmware. Please contact tech.support@digi.com if your require assistance in upgrading the firmware of the Transport router.

2 VERSION

Version Number	Status
1.0	Published
1.1	Rebranding + GUI update

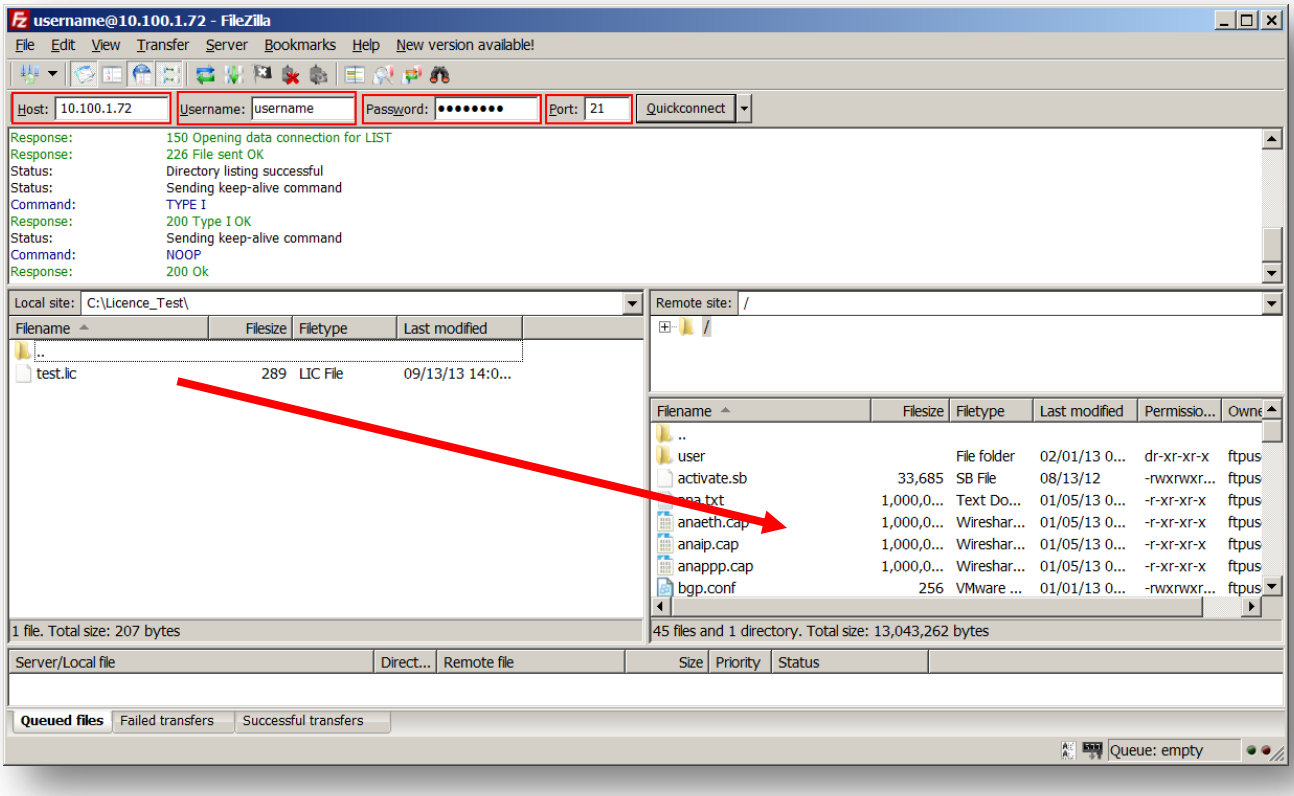
3 CONFIGURATION

3.1 Upload licence file to the router

Example content of a license file:

```
<digi_license>
        <license number="1">
                <unit>213123</unit>
                <option>WR21-SW-B1XE1</option>
                <option>CTR_0_10</option>
                <option>CTR_3_1</option>
                <option>CTR_1_1</option>
                <option>CTR_1_64</option>
        </license>
        <signature>13258bbbbaef4022e8091fa4b9d1eb2f123e991</signature>
</digi_license>
```

3.1.1 Upload license file via FTP



Open an FTP connection to the Transport router that you wish to update. In this example, using FileZilla.

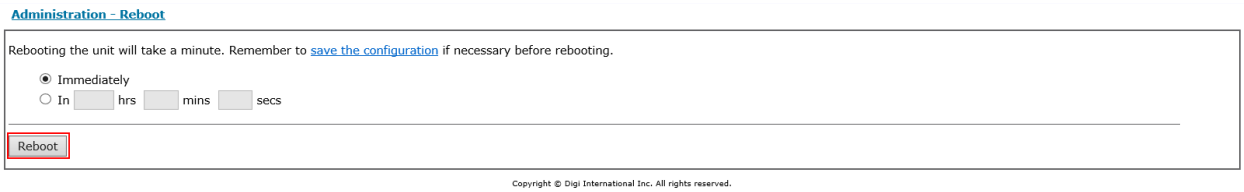
Parameter	Setting	Description
Host	10.100.1.72	IP Address of the Transport router
Username	username	Username with Access Level : Super to log in to the Transport router (default : username)
Password	password	Password for the user with Access Level : Super to log in to the Transport router (default : password)
Port	21	Default FTP port.

Transfer the file received (in .**lic** format) to the root directory of the Transport

Please note: *It is important that the file name do not exceed the 8.3 file format and to keep the file type as the Transport router will be searching for any file name with a .lic extension to read the licence information.*

3.1.1.1 Reboot the router

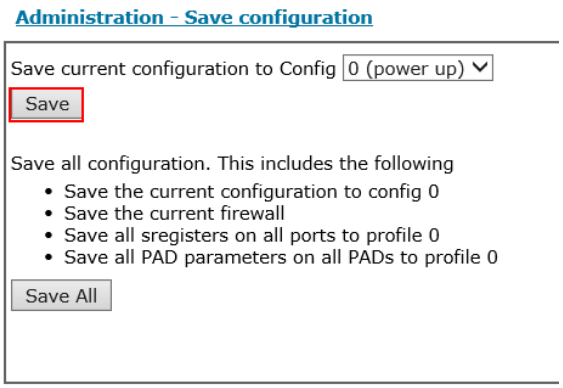
Administration – Reboot



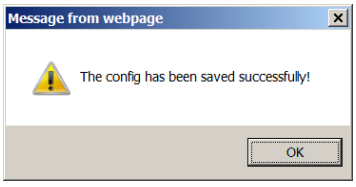
Once the file is uploaded, reboot the router.

3.1.1.2 Write configuration to flash

Administration – Save Configuration

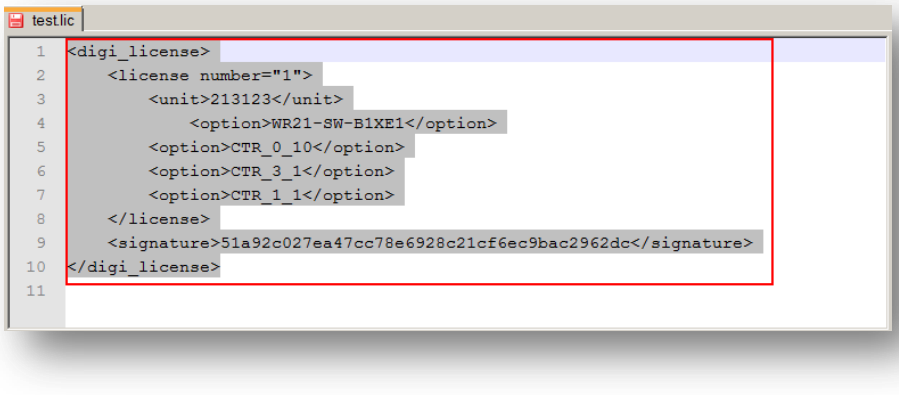


Once the router is rebooted, navigate to the Save Configuration page and click **Save All**



After the success message, **reboot the router once again**.

3.1.2 Upload license file using the File Editor from the web GUI



Open the received license file with a text editor and copy the content

Administration – File Management > File Editor

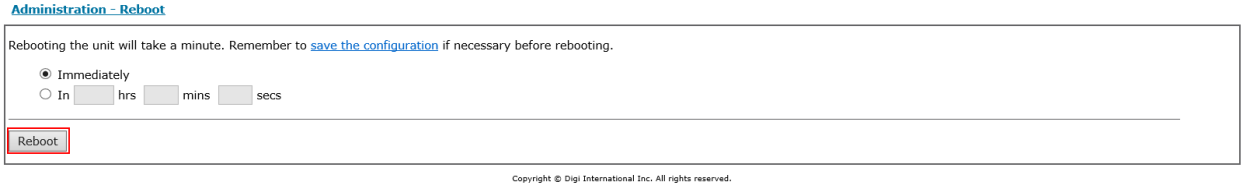
Paste the content of the license file into the file editor box.
Double click on the drop down menu, this will allow you to type the file name. Enter for example test.lic

Please note: *It is important that the file name do not exceed the 8.3 file format and to keep the file type as the Transport router will be searching for any file name with a* ***.lic*** *extension to read the license information.*

Click **save file**.

3.1.2.1 Reboot the router

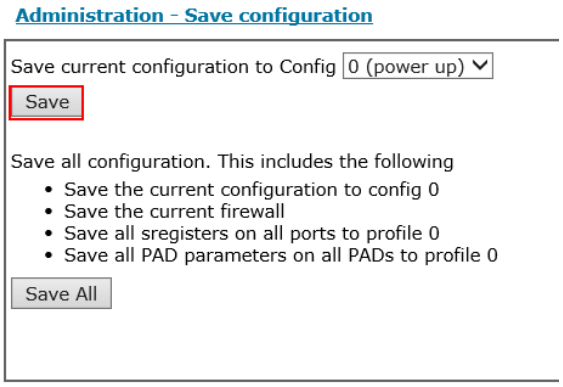
Administration - Reboot



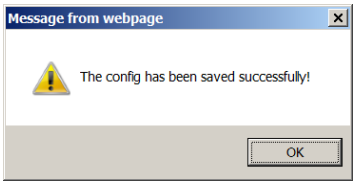
Reboot the router.

3.1.2.2 Write configuration to flash

Administration – Save Configuration



Once the router is rebooted, navigate to the Save Configuration page and click **Save All**



After the success message, **reboot the router once again**.

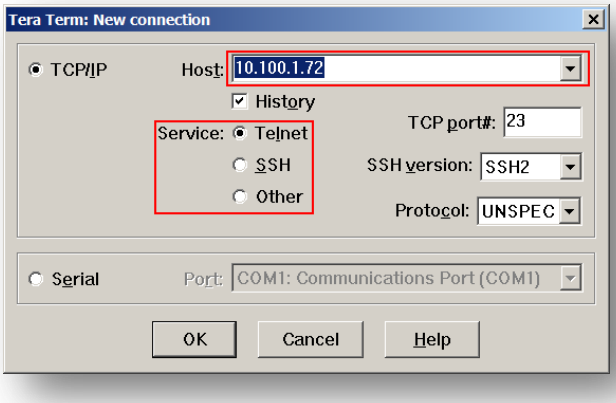
3.1.3 Upload license file via xmodem

Use an xmodem compatible terminal application such as Tera Term (http://ttssh2.sourceforge.jp/)

xmodem file upload can be done via either :

- SSH
- Telnet
- Serial connection

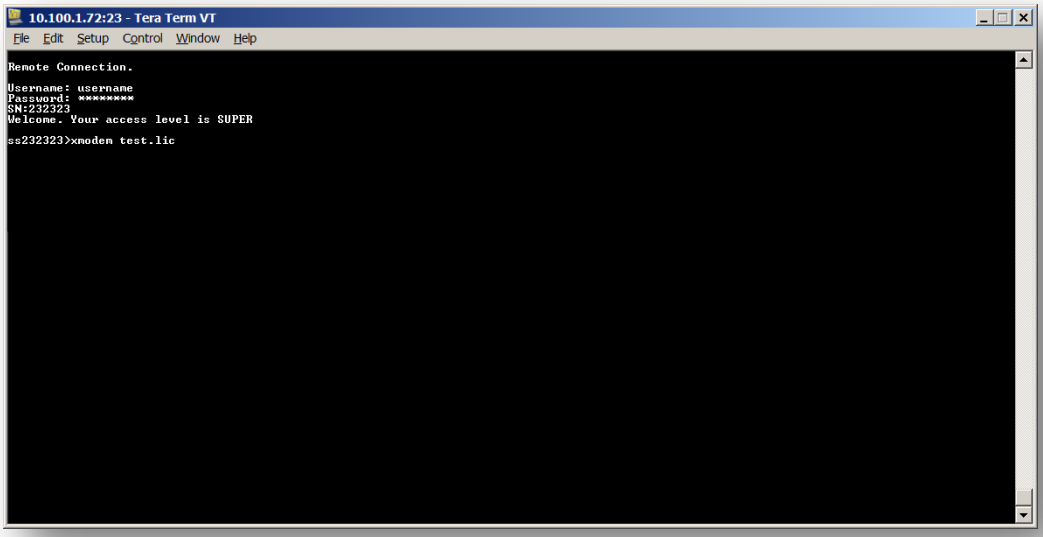
In this example, Telnet will be used.



Open a Telnet connection to the router

Parameter	Setting	Description
Host	10.100.1.72	IP Address of the Transport router
Service	Telnet	Service used to connect to the Transport router
TCP Port	23	TCP Port will be automatically populated based on the service chosen (23 default for Telnet)

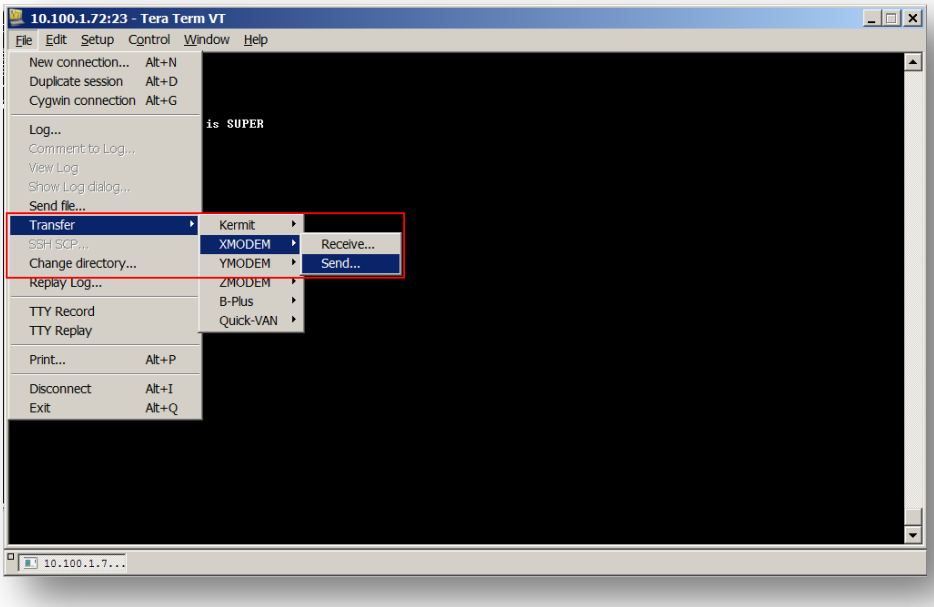
Please note: *If using Serial, TransPort default serial port settings are* ***115 200 8N1*** *and no flow control*

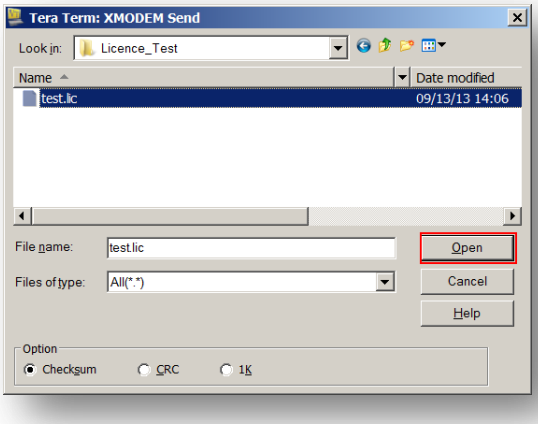


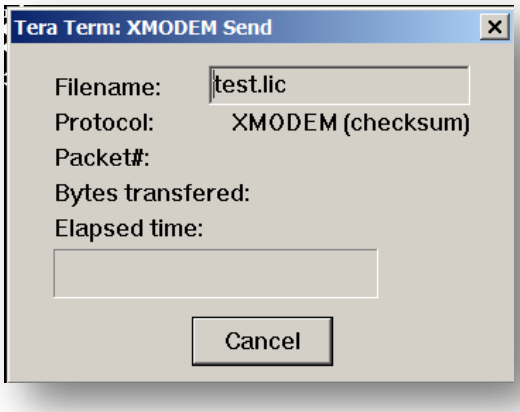
Log in using an account with access level **SUPER** and type **xmodem test.lic** (or the filename of the license file you received) to initiate xmodem file transfer.

Please note: *It is important that the file name do not exceed the 8.3 file format and to keep the file type as the Transport router will be searching for any file name with a* ***.lic*** *extension to read the license information.*

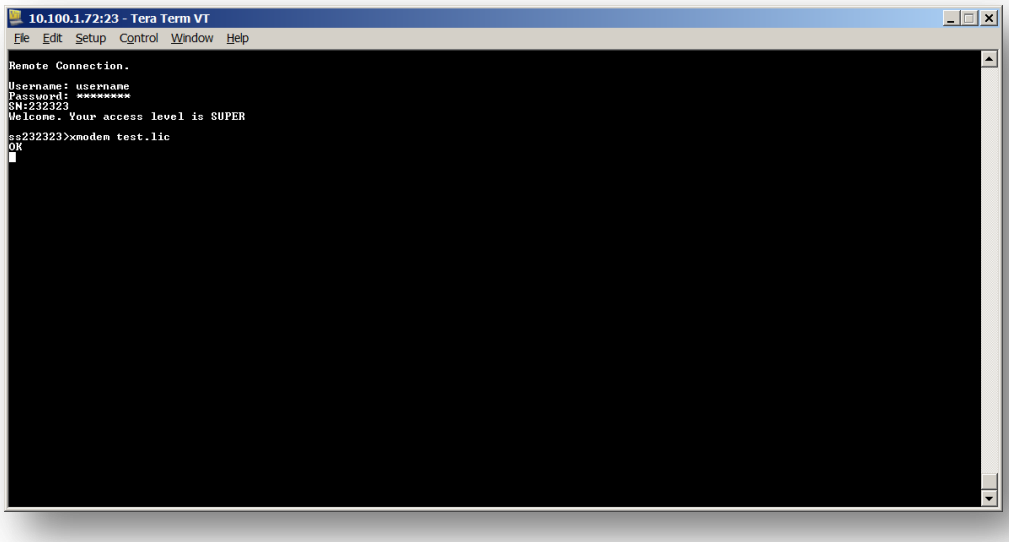
The router is now waiting for the program to send the file, navigate to **File>Transfer>Xmodem>Send** and select the license file



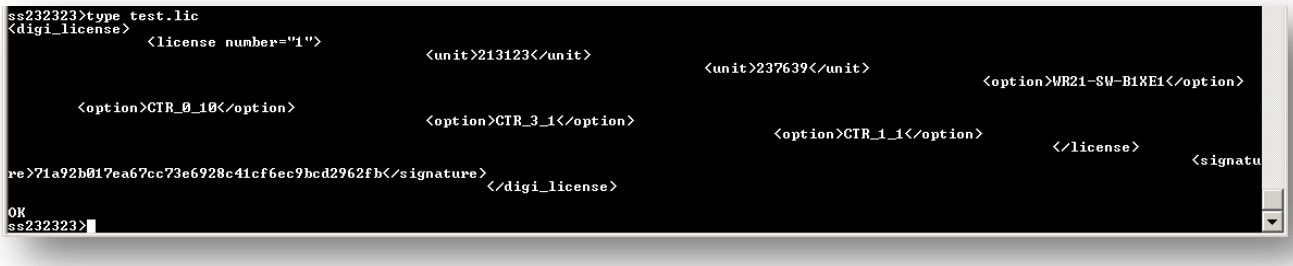




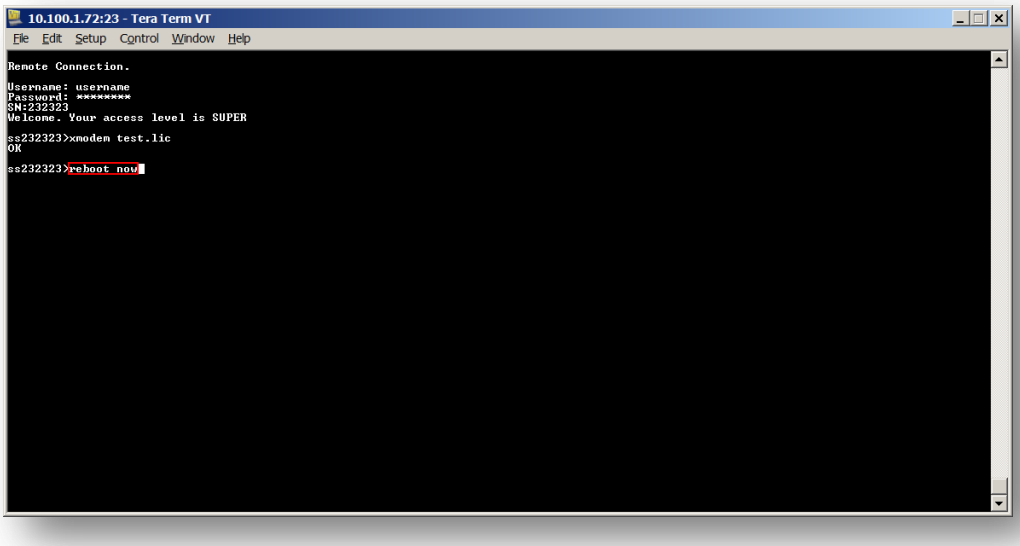
Select the license file and click **Open.** A file upload box will appear, when upload is complete, it will close automatically.



If the file transfer was successful, the router should display an "**OK**" message. To verify that the file is on the router, send the command: type **test.lic** it will show the content of the file.

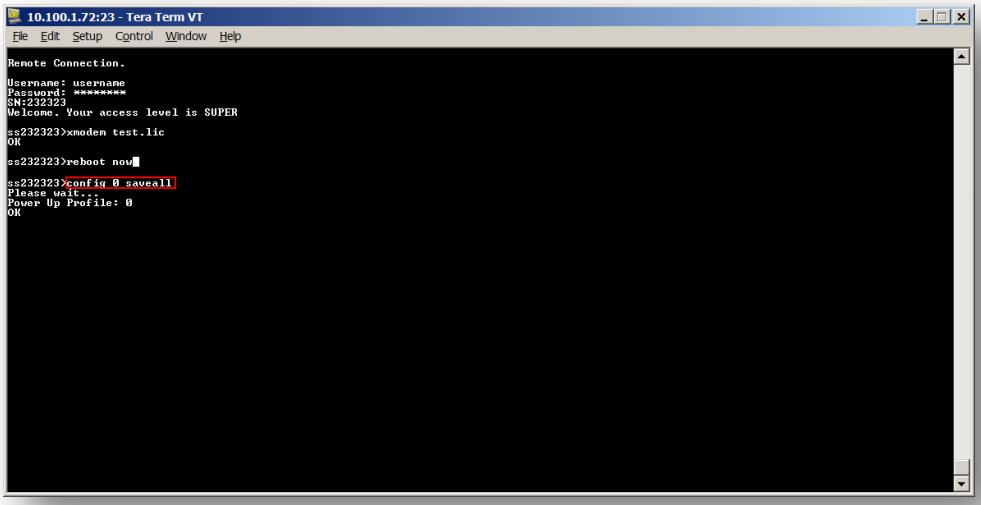


3.1.3.1 Reboot the router



To reboot the router, send the command: **reboot now**

3.1.3.2 Write configuration to flash



Once the router is rebooted, send the command: **config 0 saveall**

After ok message, **reboot the router once again**.

3.2 Verify license key installation.

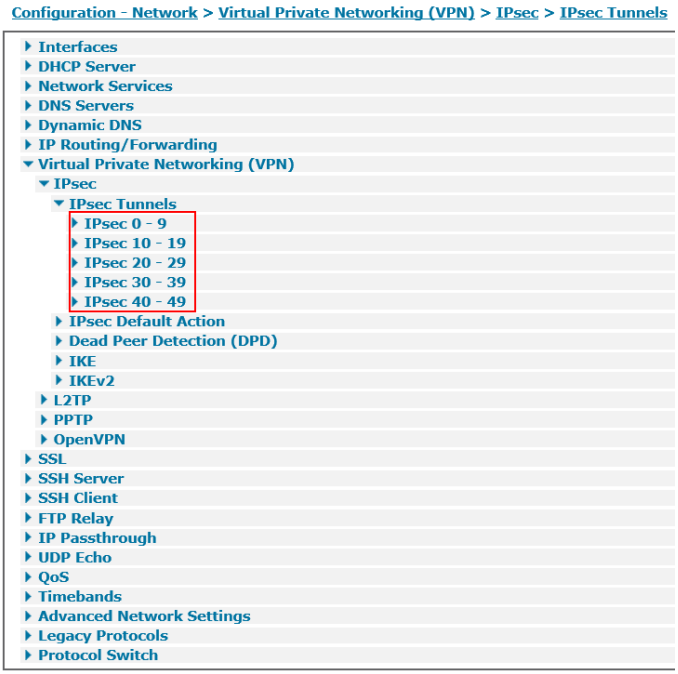
Verify the license key installation for the 3 following options :

- WR41/44 IPsec tunnels upgrade
- WR21 upgrade from Basic to Enterprise
- WR41 encryption upgrade

3.2.1 Verify using the web GUI

3.2.1.1 IPsec Tunnels upgrade

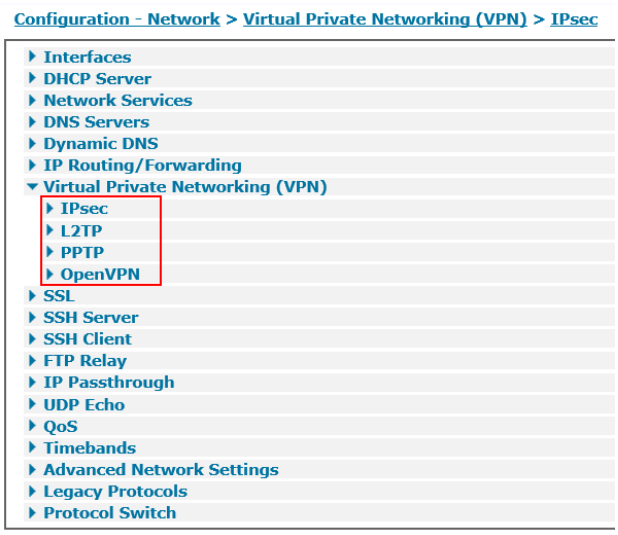
Configuration – Network > Virtual Private Networking (VPN) > IPsec > IPsec Tunnels



In this example, the TransPort router has been upgraded to 50 IPsec tunnels (PN: **WR-SW-5T50**). The new IPsec tunnels are now available in the web interface.

3.2.1.2 WR21 Basic to Enterprise

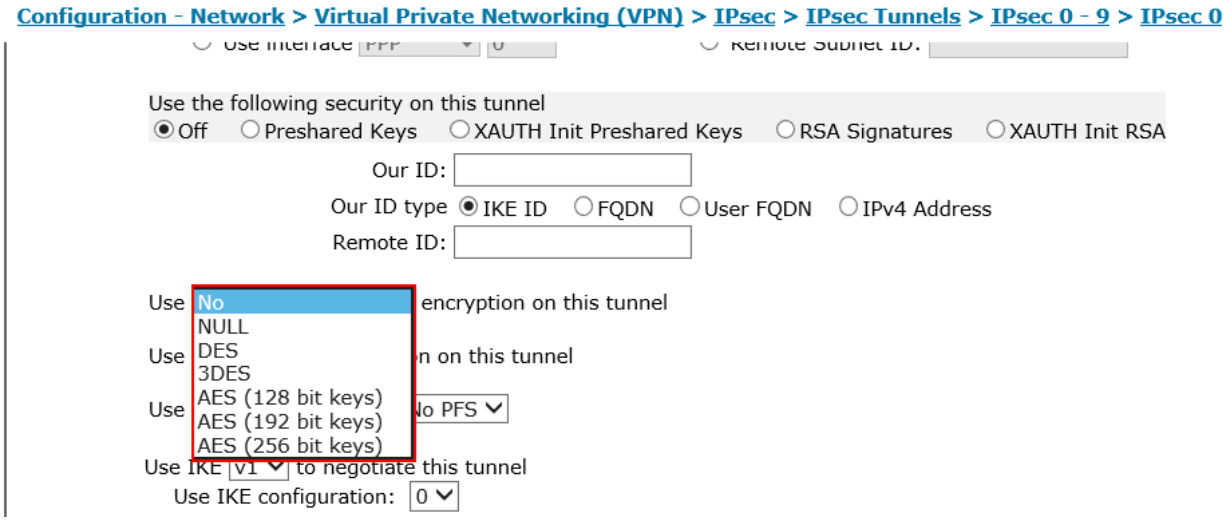
Configuration – Network



In this example, the Transport router was converted from Basic to Enterprise (PN: **WR21-SW-B1XE1**). The Virtual Private Networking menu is now available in the web interface.

3.2.1.3 WR41, No encryption to with encryption

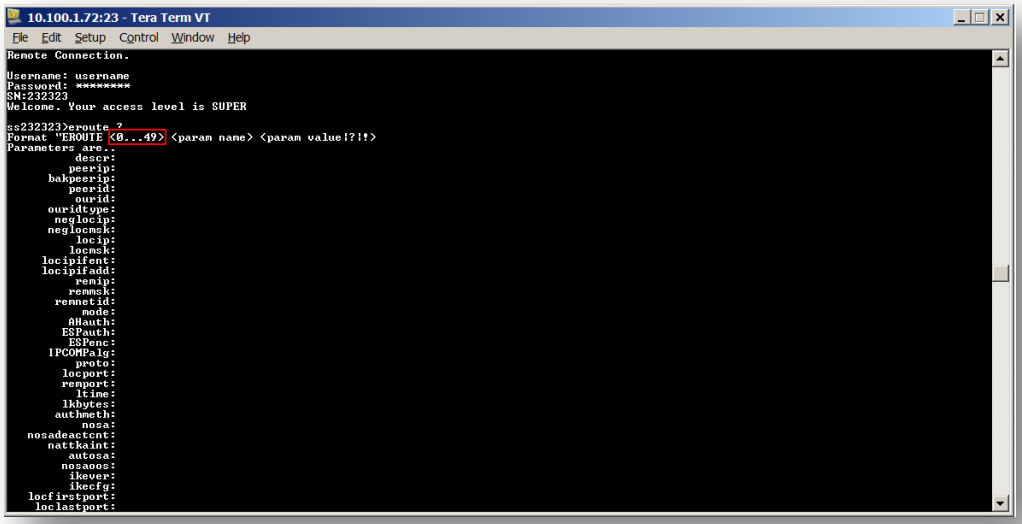
Configuration – Network > Virtual Private Network (VPN) > IPsec > IPsec Tunnels > IPsec 0-9 > IPsec 0



In this example, the Transport router was upgraded with encryption (PN: **WR41-SW-A1XV1**). The tunnel encryptions options are now available in the web interface.

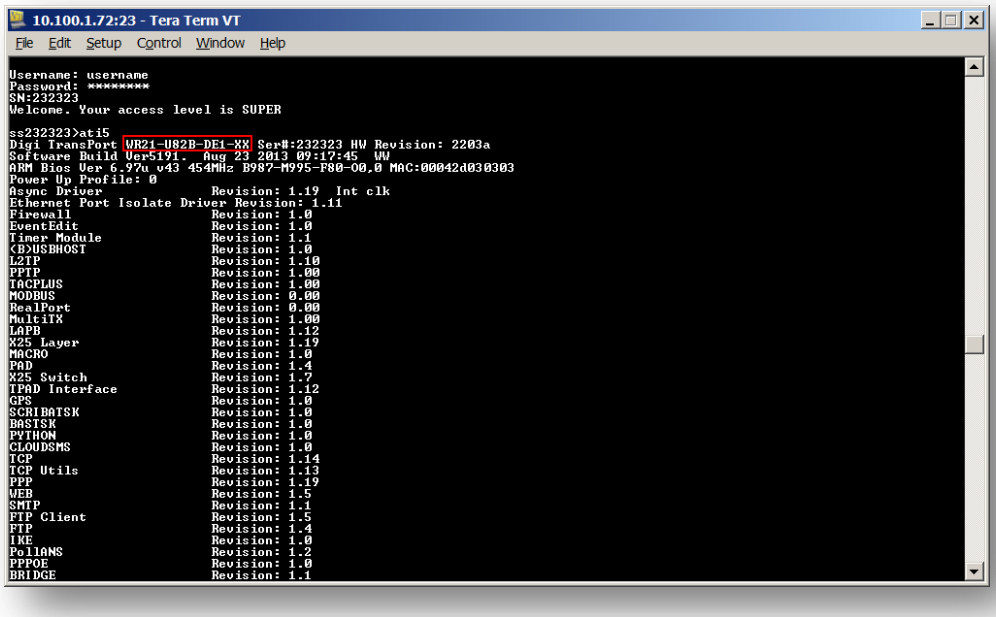
3.2.2 Verify using CLI

3.2.2.1 IPsec Tunnels upgrade



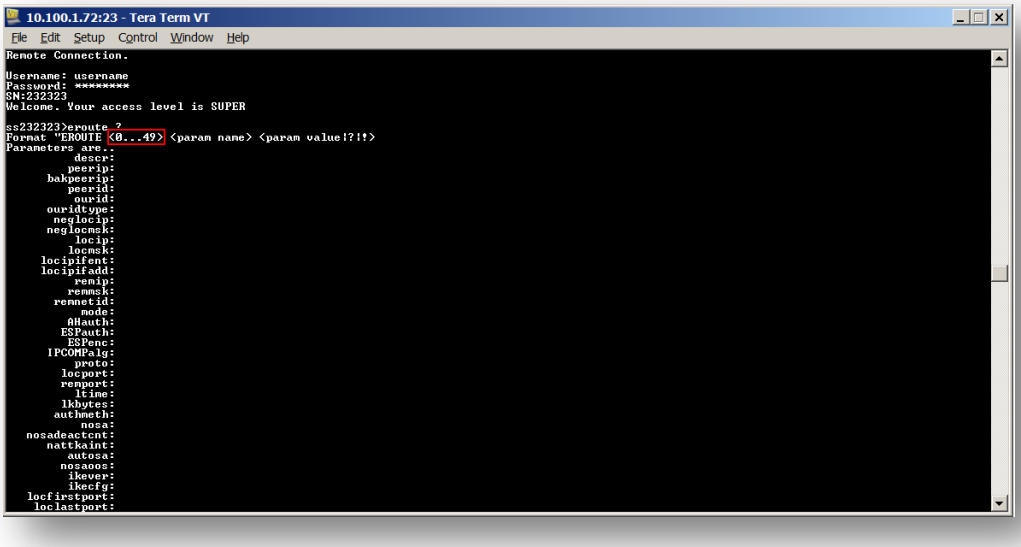
Send the following command: **eroute ?** (if the command result still shows : EROUTE <0…4> (5 tunnels by default) the upgrade was not successful)

3.2.2.2 WR21 Basic to Enterprise



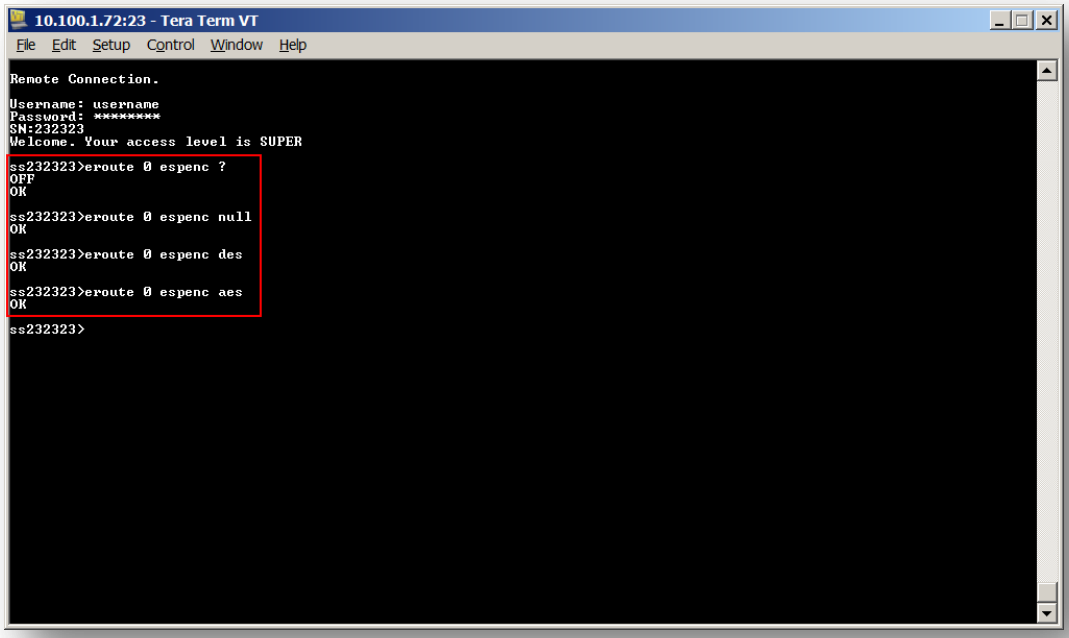
Send the following command: **ati5 .** The part number of the WR21 will show the Enterprise upgrade:

- WR21-XXXX-X**B**X-XX : Basic
- WR21-XXXX-X**E**X-XX : Enterprise



- The following command: **eroute ?** Can also be used to verify that the IPsec tunnels are now available. (if **ERROR** is received, the upgrade was not successful)

3.2.2.3 WR41, No encryption to with encryption



- Sent the following command :
    - **eroute 0 espenc ?** (check the current encryption on IPsec tunnel 0)
    - **eroute 0 espenc null** (set the encryption on IPsec tunnel 0 to none)
    - **eroute 0 espenc des** (set the encryption on IPsec tunnel 0 to DES)
    - **eroute 0 espenc aes** (set the encryption on IPsec tunnel 0 to AES)

This command will show an **OK** result. The encryption upgrade was successful.

If the upgrade was not successful, an **ERROR** result will be shown after each command.