



Application Note 12

**GPRS with Backup to CSD (GSM Data Call)
Siemens/Cinterion modules only.**

UKSupport

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1 INTRODUCTION

1.1 Outline

GPRS technology has proven to be extremely reliable. However, in the case where the Digi Transport has detected a problem on the GPRS network it may be advisable to back up to CSD (i.e. a GSM Analogue Data Call) thus continuing the flow of data even though the maximum data rate will be between 9.6Kb/s and 28Kb/s.

Such a problem might on very rare occasions occur due to power spikes, interference or the network blocking the current connection due to some error or GPRS equipment failure.

After CSD has been inactive for a specified period of time, the GPRS link will attempt to re-establish, returning the Digi Transport to its normal state.

1.2 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.

Configuration: This application note assumes that the router will be connecting to a cellular network.

This application note applies to;

Models shown: Digi Transport WR41v2 router with Cinterion EDGE module.

Other Compatible Models: All Digi Transport products with Siemens or Cinterion EDGE modules.

Firmware versions: 5.123 and above.

Please note: This application note has been specifically rewritten for firmware release 5.123 and later but the original application note was testing and working for routers running 4.694 and later. Routers running earlier firmware will find that the screen shots do not accurately reflect what will be seen on those older routers. Contact uksupport@digi.com if you require this document for the older GUI.

Configuration: This Application Note assumes the devices are set to their factory default configurations. Most configuration commands are only shown if they differ from the factory default.

1.3 Corrections

Requests for corrections or amendments to this application note are welcome and should be addressed to: uksupport@digi.com

Requests for new application notes can be sent to the same address.

1.4 Version

	Status
1.0	Published
1.1	Rebranded
2.0	New Gui version 5.123 onwards

2 DIGI TRANSPORT CONFIGURATION

2.1 Project Overview

To realise this project we need to:

- Configure mobile – The default interface for this project.
- Configure GSM/CSD – The backup interface for this project.
- Configure the default routes – primary via Mobile, secondary via GSM/CSD Dial-up.
- Configure the firewall – permit traffic, mobile interface out of service when failure is detected.

2.2 Mobile Interface Configuration

CONFIGURATION - NETWORK > INTERFACES > MOBILE > MOBILE SETTINGS

If a pin number is required for the mobile connection then enter this also here otherwise for most implementations only the APN will need to be entered. Upon navigating to the Mobile Settings configuration page link above, apply the setting below:

Parameter	Setting	Description
Service Plan / APN:	<Enter APN>	Enter your ISP's APN value here

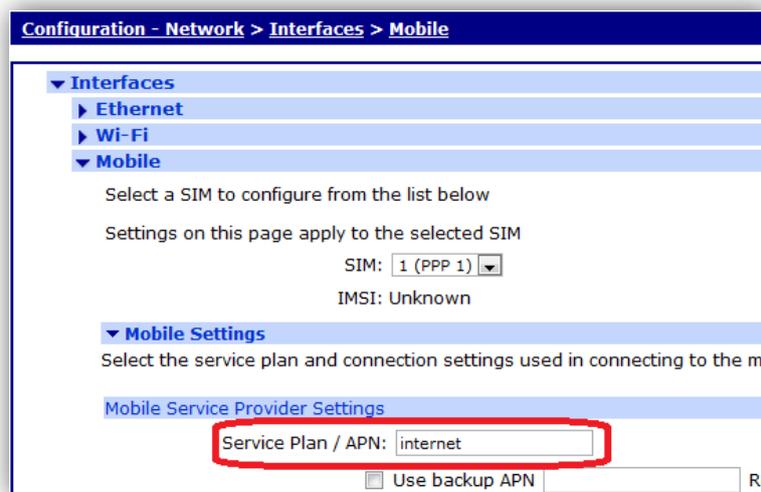


Figure 1: Mobile Interface Configuration

Then click the 'Apply' button.

CONFIGURATION - NETWORK > INTERFACES > ADVANCED > PPP 1 > ADVANCED

On the WR41 and WR44 the mobile interface is PPP 1 on other platforms such as the DR64 this will be PPP 3. This application note was tested using a WR41 and the interface configured for this section is PPP 1.

Navigate to the PPP 1 Advanced configuration page and set the following parameters:

Parameter	Setting	Description
Inhibit this PPP interface if the following PPP instances <n>	5	Enter the PPP instance number of the CSD interface.
Inhibit this PPP interface if the following PPP instances <n> are	Active and not out of service	Inhibit mode to use for activation of the interface.

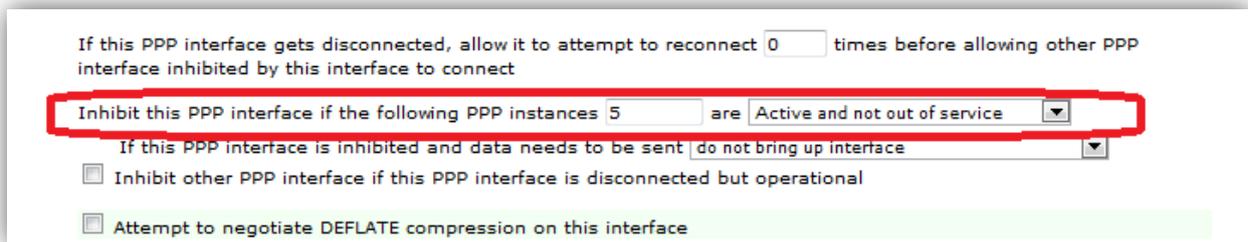


Figure 2: Mobile PPP 1 Advanced Configuration

Then click the 'Apply' button.

Please note: that the internal radio module will not allow a simultaneous CSD connection and a GPRS connection. The **Inhibit** parameter will prevent PPP 3 from trying to reconnect whilst a CSD call is up on PPP 5. (Otherwise the Mobile connection attempts would fail and eventually cause the Digi Transport to power cycle the GPRS module).

2.3 GSM CSD Dial-up Interface Configuration

2.3.1 Enable Mux

ADMINISTRATION > EXECUTE A COMMAND

Mux 1 and mux 2 will be used for the mobile/cellular interface Browse to the 'Execute a command' link above, enter the command 'muxon' and click 'Execute'.

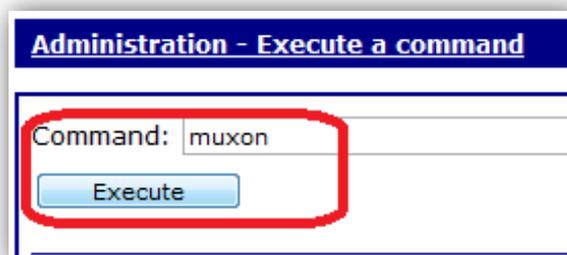


Figure 3: Enable Mux

Command line commands to achieve the above:

```
muxon
```

2.3.2 External Modem CSD Configuration

We need to tell the router which port to use for the CSD modem call, browse to the 'Execute a command' link above, enter the command 'modemcc 1 asy_add "mux0"' and click 'Execute'

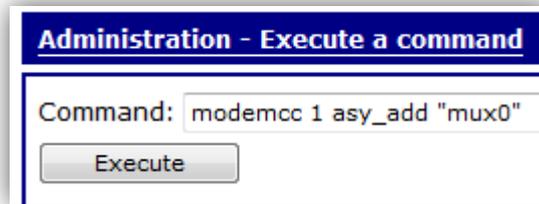


Figure 4: Select Mux0 as CSD Modem

Command line command to achieve the above:

```
modemcc 1 asy_add "mux0"
```

2.3.3 Configure the PPP used for the CSD Dial-Up Interface

CONFIGURATION - NETWORK > INTERFACES > ADVANCED > PPP 5

There are two issues to consider when making these settings:

1. How do we ever return to using GPRS (PPP 1)? Because PPP 1 cannot connect whilst PPP 5 is up, PPP 1 is configured as always on so its routes will be out of service until PPP 5 disconnects.
2. If there is some GSM problem that does not result in PPP 5 being disconnected, but would require a power cycle of the module to fix, this power cycle will never happen whilst PPP 5 is still up.

These can be solved in two ways:

1. Allow PPP 5 to disconnect on an inactivity timer. (Note that if you are sending keep-alive packets this will never occur). This is handled by the **Inactivity timeout** setting of 60 seconds.
2. Force PPP 5 to disconnect after a period of time, whether active or not. This is handled by the Maximum link up-time setting of 1800 seconds (3 minutes).

You may change both these settings according to which suit your application.

Please note: Because the internal radio module cannot support simultaneous CSD/GPRS connections, the GPRS connection cannot be tested before we shut down the CSD connection.

Select an unused PPP instance to associate with the PPTP connection, a good choice would be PPP 5 as PPP 0 – 4 may be in use.

Click on the 'Load dialling defaults' button.

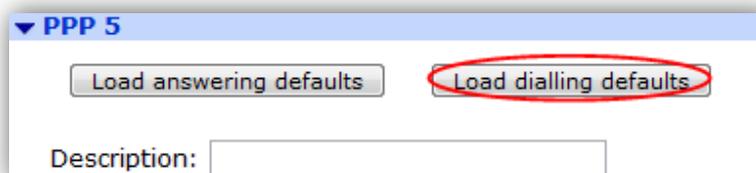


Figure 5: CSD Interface Load Dialling Defaults

GPRS with Backup to CSD

Configure the following variables:

Parameter	Setting	Description
Description:	<Description of Interface>	Use something here that will be meaningful to your setup e.g. "CSD Dialler Interface"
This PPP interface will use	External Modem 0	Select the lower layer device this Dialler instance will use.
Dial out using numbers	<ISP Dial up Number>	Enter the number of your ISP Remote Access dialup Service
Username	<Username>	The username supplied by your administrator or ISP
Password	<Password>	The password supplied by your administrator or ISP
Confirm Password	<Password>	The same value entered above
Allow the remote device to assign a local IP address to this router	Ticked	Allow the ISP to allocate you an IP
Close the PPP connection after	1800	Maximum time in seconds for connection to stay connected
If it has been idle for <n> hrs <n> mins <n> secs	0 hrs 1 mins 0 secs	Maximum time period to stay connected for if connection is not passing traffic

GPRS with Backup to CSD

Description: CSD Dialler Interface

This PPP interface will use External Modem 0

Dial out using numbers: 0845123456

Prefix: to the dial out number

Username: ISP-User

Password: ●●●●●●

Confirm password: ●●●●●●

Allow the remote device to assign a local IP address to this router

Try to negotiate to use 0.0.0.0 as the local IP address for this router

Use 0.0.0.0 as the local IP address for this router (i.e. not negotiable)

Use mask 255.255.255.252 for this interface

Use the following DNS servers if not negotiated

Primary DNS server:

Secondary DNS server:

DNS Port: 53

Attempt to assign the following IP configuration to remote devices

Allow this PPP interface to answer incoming calls

Close the PPP connection

after 1800 seconds

if it has been up for 0 minutes in a day

if it has been idle for 0 hrs 1 mins 0 secs

Alternative idle timer for static routes 0 seconds

if the link has not received any packets for 0 seconds

if the negotiation is not complete in 80 seconds

Figure 6: CSD Dialler Interface Advanced Configuration

Then click the 'Apply' button.

Command line commands to achieve the above:

```

ppp 5 name "CSD Dialler Interface"
ppp 5 phonenum "0845123456"
ppp 5 username "ISP-User"
ppp 5 epassword "PTNgU1Y="
ppp 5 IPaddr "0.0.0.0"
ppp 5 l_addr ON
ppp 5 mask "255.255.255.255"
ppp 5 DNSport 53
ppp 5 IPmin "10.10.10.0"
ppp 5 IPrange 5
ppp 5 maxup 1800
ppp 5 timeout 60
ppp 5 do_nat 1
ppp 5 use_modem 6
ppp 5 metric 1
ppp 5 netip "0.0.0.0"
ppp 5 ip2count 3
ppp 5 ripauth 1
ppp 5 inrip ON
ppp 5 maxneg 80
ppp 5 l_accm "0x00000000"
ppp 5 r_accm "0xffffffff"
ppp 5 l_mru 1500
ppp 5 r_mru 1500
ppp 5 l_acfc ON
ppp 5 r_pap ON
ppp 5 r_chap ON
ppp 5 l_comp ON
ppp 5 l_pfc ON
ppp 5 l_md5 1
ppp 5 r_md5 ON
ppp 5 r_ms1 ON
ppp 5 r_ms2 ON
ppp 5 lcn 1027
ppp 5 defpak 128
ppp 5 baklcn 1027

```

2.4 Default Route Configuration

Two default routes are required in order for the Digi Transport to send outbound traffic through a particular interface.

The router requires one default route for each PPP instance.

- PPP 1 (GPRS interface) will use Default Route 0
- PPP 5 (GSM/CSD data call) will use Default Route 1.

Therefore:

- When PPP 1 (GPRS) is in service then Default Route 0 will be used.
- When PPP 5 (GSM/CSD) is in service then Default Route 1 will be used.

2.4.1 Configure Default Route 1

CONFIGURATION > NETWORK > IP ROUTING/FORWARDING > STATIC ROUTES > DEFAULT ROUTE 1

GPRS with Backup to CSD

Configure Default Route 1 for the GSM dial up interface by navigating to the above link and entering these values:

Parameter	Setting	Description
Interface	PPP	Select the interface type from the drop down box
Interface	5	Enter the instance number of the interface in the second box

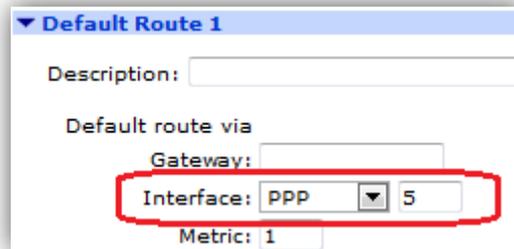


Figure 7: Default Route 1 Configuration

CONFIGURATION > NETWORK > IP ROUTING/FORWARDING > STATIC ROUTES > DEFAULT ROUTE 1 > ADVANCED

This configuration involves putting the route associated with the GPRS link (Default Route 0) out of service for a period of time when a problem is detected on the GPRS network. Therefore, a method of bringing that route back into service is required should the PPP 5 (GSM/CSD link) drop for any reason before the out of service timer. This is done by the removing 'Out Of Service' settings on this interface.

Also, it can take some time for the GPRS connection to start working after power up. The power-up delay setting will prevent the Digi Transport from giving up too early and switching to CSD within 150 seconds of power up.

Click 'Advanced' then enter the values below:

Parameter	Setting	Description
Wait for <n> Seconds after power up before allowing this router to activate the interface	150	Time period in seconds to delay the route from activating the interface
When this route becomes unavailable, remove the 'Out Of Service' stat on	PPP	Select the interface type from the first drop down box
When this route becomes unavailable, remove the 'Out Of Service' stat on	1	Enter the instance number of the interface in the second box

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Advanced

Use metric when the interface is down

Use this route only if the source IP address of the packet matches
IP Address:
Mask:

Include this route in RIP advertisements

Make PPP interface use the alternative idle timeout when this route becomes available

Wait for seconds after power up before allowing this route to activate the interface

If the interface is configured for "dial on demand"
Mark this route as "Out Of Service" if the interface fails to connect after consecutive attempts
If the interface fails to connect, try again in seconds
 Deactivate the interface after it successfully connects
Do not allow this interface to be activated by this route for seconds after last activation attempt

Only queue one packet whilst waiting for the interface to connect

When this route becomes available, deactivate the following interfaces

When this route becomes unavailable, remove the "Out Of Service" state on

Keep this route in service for seconds after OOS state is cleared

Assign this route to recovery group:

Apply

Figure 8: Default Route 1 Advanced Configuration

Then click the 'Apply' button.

Command line commands to achieve the above:

```
def_route 1 ll_ent "PPP"  
def_route 1 ll_add 5  
def_route 1 pwr_dly 150  
def_route 1 unoos_ent "PPP"  
def_route 1 unoos_add 1
```

2.5 Firewall Configuration

CONFIGURATION > SECURITY > FIREWALL

In order to make this configuration useful, it is necessary to have the Digi Transport detect when problems occur on PPP1 so that it can automatically back up to CSD. The firewall rules needed for this application note are very simple. There is only one rule to add:

The rule monitors TCP traffic on PPP 1 to the specified host IP address. When this rule triggers it will mark the routes pointing at interface PPP 1 out of service for 300 seconds (oos 300). If the Digi Transport receives a packet to route within this period of time a CSD call will be made on PPP 5.

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t=5 specifies the length of time in seconds the unit will wait for a response to the packet that matched the rule.

c=3 specifies the number of times that the stateful inspection engine must trigger on the rule before the route is marked as out of service.

d=3 specifies the number of times that the stateful inspection engine must trigger on the rule before the PPP interface is deactivated.

Note: **c=n** and **d=n** should be the same value.

The default firewall rule set included in a production device will by default allow all outgoing traffic and restrict incoming traffic. You may want to filter more traffic than this using the extensive capabilities of the DIGI Transport firewall – please see chapter 16 of the manual for more details on what the firewall can do for you. The manual is available from the Digi website at www.digi.com/support/.

- Navigate to **Configuration > Security > Firewall** on the Digi Transport web gui and click on the 'insert' button and type/paste in the rule listed below:

```
pass out break end on ppp 1 proto tcp from any to <remote IP address> inspect-state oos 300  
t=5 c=3 d=3
```

- Click 'OK' button to save the rule.

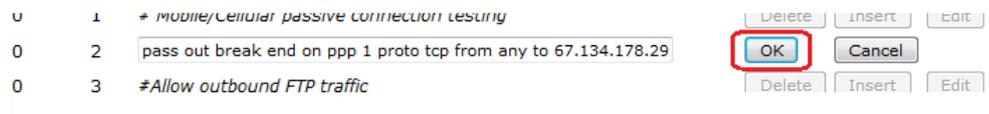


Figure 9: Edit a Firewall Rule and Save

- Click 'Save' button, wait for page to reload.



Figure 10: Save the Firewall Configuration

- Scroll down to the Enabled Interface list and click on the empty box to enable on PPP 1 as follows:

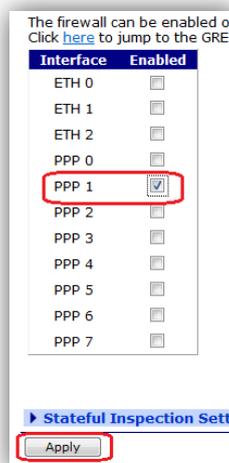


Figure 11: PPP 1 Firewall Activation

Command line command to achieve the above

ppp 1 firewall on

- Click the "Apply" button to enable the firewall on those two interfaces.
- Scroll back up and click "Restore" button to ensure that the new rule set is activated on these two interfaces.



Figure 12: Reload the Firewall Rule Base

You can also add these two lines to a txt file called fw.txt and upload this via Xmodem or ftp to the router and then issue this command to activate the rule set on the interfaces:

fw

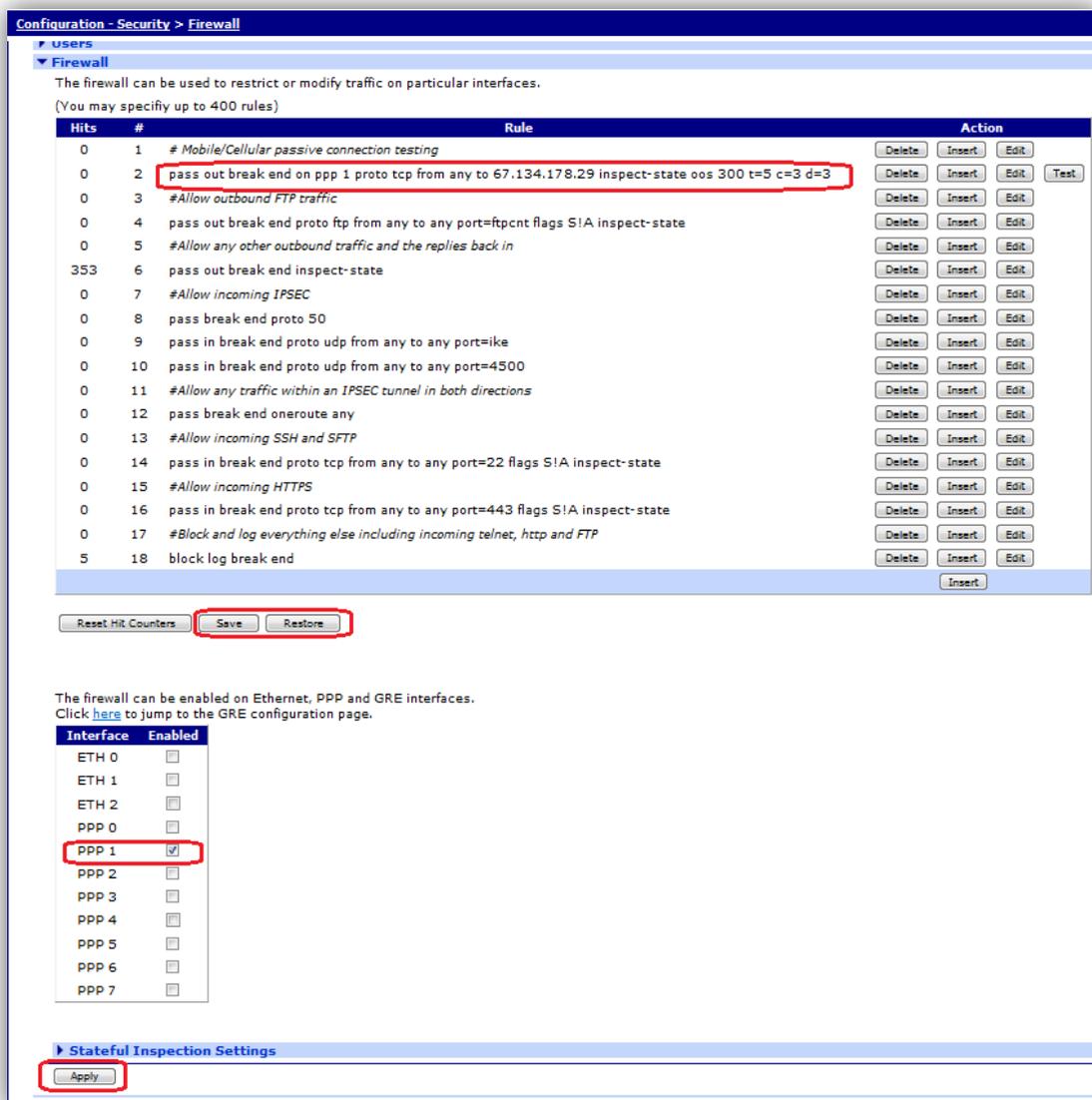


Figure 13: Firewall Configuration

Rule base after editing will look like this:

```
# Mobile/Cellular passive connection testing
pass out break end on ppp 1 proto tcp from any to 67.134.178.29 inspect-state oos 300
t=5 c=3 d=3
```

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```
#Allow outbound FTP traffic
pass out break end proto ftp from any to any port=ftpcnt flags S!A inspect-state
#Allow any other outbound traffic and the replies back in
pass out break end inspect-state
#Allow incoming IPSEC
pass break end proto 50
pass in break end proto udp from any to any port=ike
pass in break end proto udp from any to any port=4500
#Allow any traffic within an IPSEC tunnel in both directions
pass break end oneroute any
#Allow incoming SSH and SFTP
pass in break end proto tcp from any to any port=22 flags S!A inspect-state
#Allow incoming HTTPS
pass in break end proto tcp from any to any port=443 flags S!A inspect-state
#Block and log everything else including incoming telnet, http and FTP
block log break end
```

2.6 Save Configuration

ADMINISTRATION > SAVE CONFIGURATION

The only thing remaining is to save the configuration to retain the config after reboot. Navigate to the 'Save Configuration' menu item and click 'Save'.

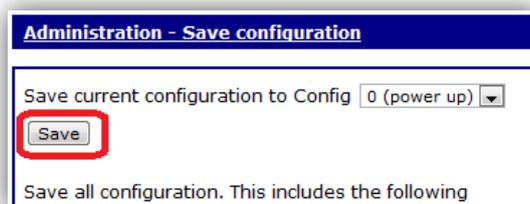


Figure 14: Save Configuration

Command line commands to achieve the above:

```
config 0 save
```

3 TESTING

MANAGEMENT > NETWORK STATUS > INTERFACES > ADVANCED > PPP > PPP 1

Firstly, check that the GPRS network connection is connected. Browse to the link above and you will be able to view the network status of the PPP 1 connection. In this example you can see the IP address issued to the Digi Transport by the GPRS network provider. This means that a GPRS connection has been properly established between the Digi Transport unit and the GPRS network.

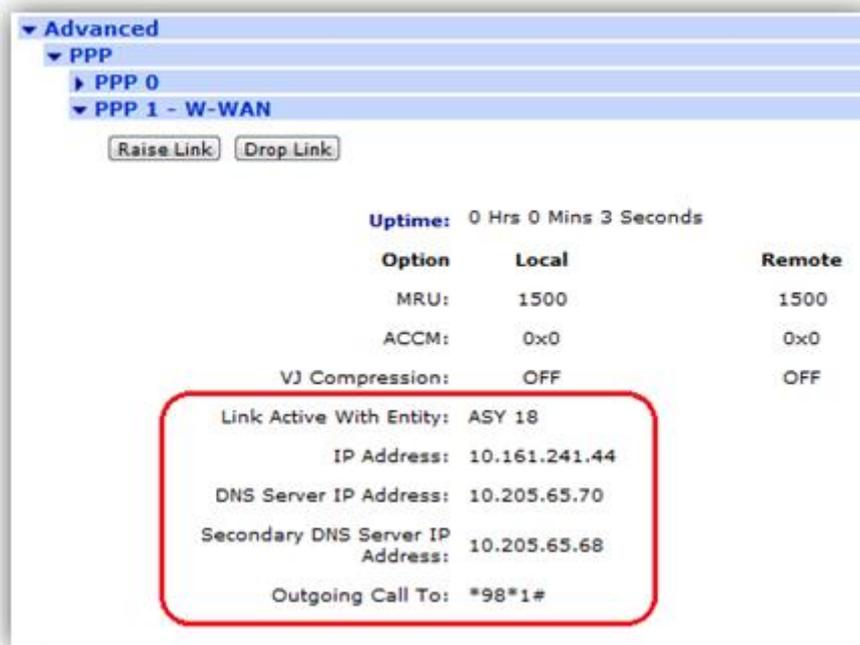


Figure 15: Mobile/Cellular Network Status

MANAGEMENT > EVENT LOG

Navigate to the link above which will show the event log, here you will see that the PPP 1 (GPRS link) is up.

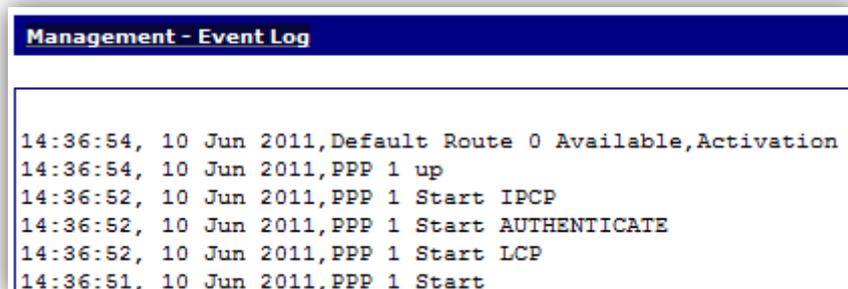


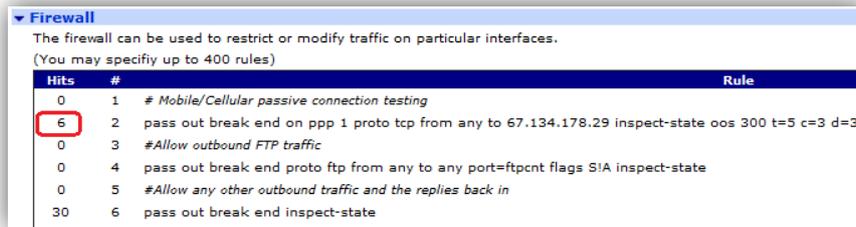
Figure 16: Mobile/Cellular Interface Active

Now we need to cause the GPRS link to fail, e.g. by removing the antenna or by blocking the TCP traffic at the destination address.

CONFIGURATION > SECURITY > FIREWALL.

Browse to the link above and observe the hit counter (Hits) on the Stateful Route Inspection rule has incremented.

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The Firewall can be used to restrict or modify traffic on particular interfaces.
(You may specify up to 400 rules)

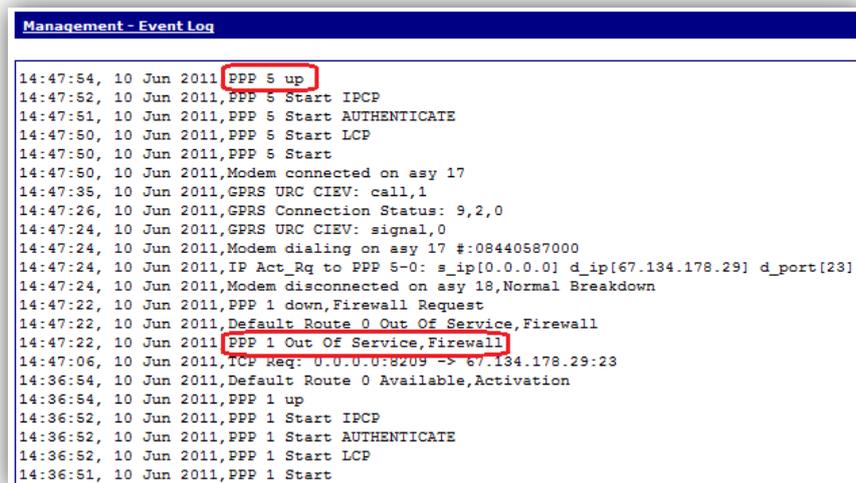
Hits	#	Rule
0	1	# Mobile/Cellular passive connection testing
5	2	pass out break end on ppp 1 proto tcp from any to 67.134.178.29 inspect-state oos 300 t=5 c=3 d=3
0	3	#Allow outbound FTP traffic
0	4	pass out break end proto ftp from any to any port=ftpcnt flags SIA inspect-state
0	5	#Allow any other outbound traffic and the replies back in
30	6	pass out break end inspect-state

Figure 17: Firewall Rule Gets Hits

This illustrates the rule has been triggered n number of times. When the SRI rule has been triggered the appropriate number of times (c=n, d=n), check the status of the GSM/CSD link in both the event log and the PPP 5 status page to confirm that PPP 5 has been activated.

MANAGEMENT > EVENT LOG

Browse to the event log link above to view the event log. When the Stateful Route Inspection firewall is triggered the appropriate number of times, you will see PPP 1 drop at the behest of the firewall, the modem dial the number for the ISP and raise PPP 5 raise in the Eventlog.



```
Management - Event Log
14:47:54, 10 Jun 2011, PPP 5 up
14:47:52, 10 Jun 2011, PPP 5 Start IPCP
14:47:51, 10 Jun 2011, PPP 5 Start AUTHENTICATE
14:47:50, 10 Jun 2011, PPP 5 Start LCP
14:47:50, 10 Jun 2011, PPP 5 Start
14:47:50, 10 Jun 2011, Modem connected on asy 17
14:47:35, 10 Jun 2011, GPRS URC CIEV: call,1
14:47:26, 10 Jun 2011, GPRS Connection Status: 9,2,0
14:47:24, 10 Jun 2011, GPRS URC CIEV: signal,0
14:47:24, 10 Jun 2011, Modem dialing on asy 17 #:08440587000
14:47:24, 10 Jun 2011, IP Act_Rq to PPP 5-0: s_ip[0.0.0.0] d_ip[67.134.178.29] d_port[23]
14:47:24, 10 Jun 2011, Modem disconnected on asy 18, Normal Breakdown
14:47:22, 10 Jun 2011, PPP 1 down, Firewall Request
14:47:22, 10 Jun 2011, Default Route 0 Out Of Service, Firewall
14:47:22, 10 Jun 2011, PPP 1 Out Of Service, Firewall
14:47:06, 10 Jun 2011, TCP Req: 0.0.0.0:8209 -> 67.134.178.29:23
14:36:54, 10 Jun 2011, Default Route 0 Available, Activation
14:36:54, 10 Jun 2011, PPP 1 up
14:36:52, 10 Jun 2011, PPP 1 Start IPCP
14:36:52, 10 Jun 2011, PPP 1 Start AUTHENTICATE
14:36:52, 10 Jun 2011, PPP 1 Start LCP
14:36:51, 10 Jun 2011, PPP 1 Start
```

Figure 18: PPP 5 Activated and Connected

MANAGEMENT - NETWORK STATUS > INTERFACES > ADVANCED > PPP > PPP 5

Browse to the above link, here you can see the IP address issued to the Digi Transport on PPP 5 by the Internet Service Provider.

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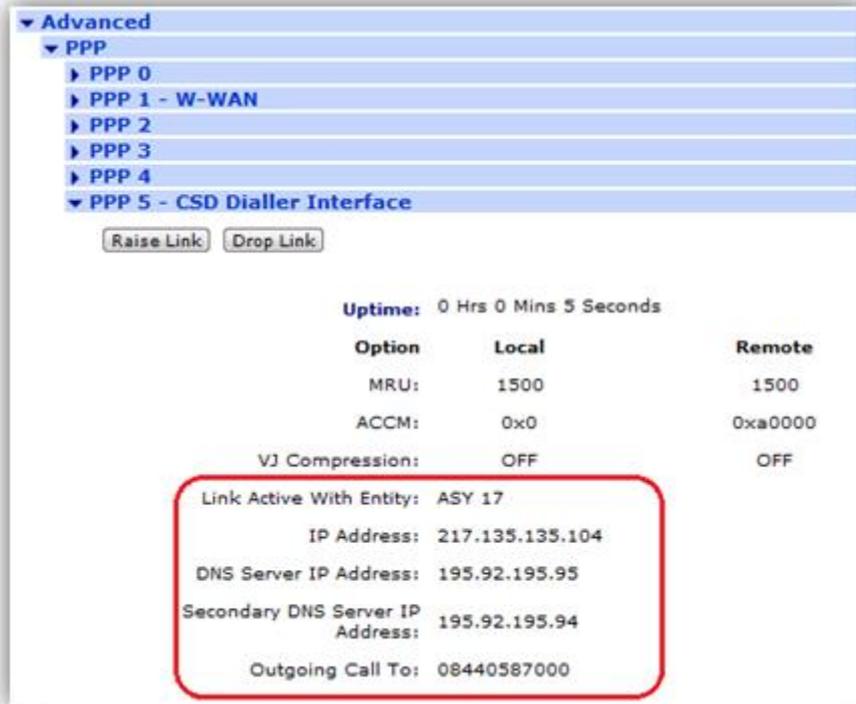


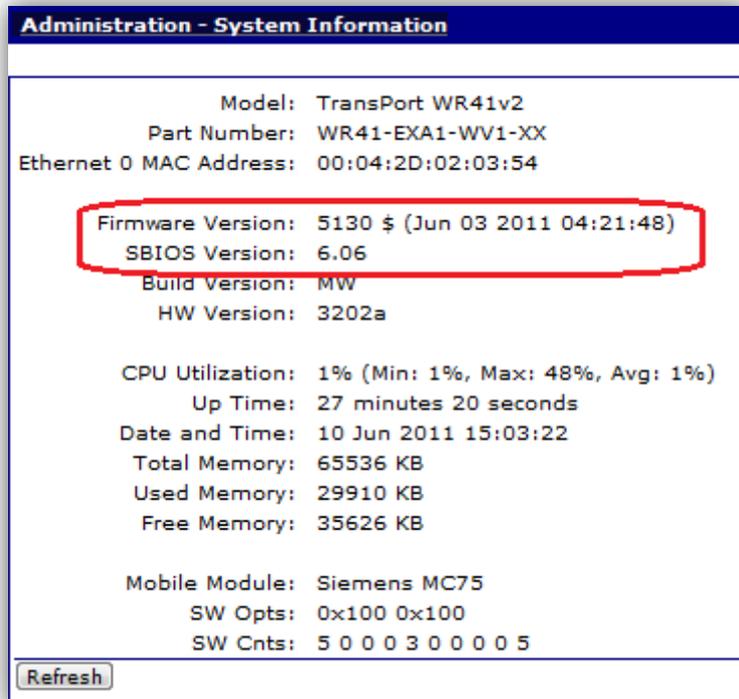
Figure 19: GSM/CSD Dial-up Connection Successful

If you are seeing the ISP link on PPP 5 come up automatically as above, all is working, congratulations!

4 FIRMWARE VERSION

ADMINISTRATION - SYSTEM INFORMATION

Below you can see the firmware version used for this project:



The screenshot displays the 'Administration - System Information' page. The title bar is blue with white text. The main content area is white with a blue border. The text is organized into several sections. The 'Firmware Version' line is circled in red. At the bottom left, there is a 'Refresh' button.

Administration - System Information	
Model:	TransPort WR41v2
Part Number:	WR41-EXA1-WV1-XX
Ethernet 0 MAC Address:	00:04:2D:02:03:54
Firmware Version:	5130 \$ (Jun 03 2011 04:21:48)
SBIOS Version:	6.06
Build Version:	MW
HW Version:	3202a
CPU Utilization:	1% (Min: 1%, Max: 48%, Avg: 1%)
Up Time:	27 minutes 20 seconds
Date and Time:	10 Jun 2011 15:03:22
Total Memory:	65536 KB
Used Memory:	29910 KB
Free Memory:	35626 KB
Mobile Module:	Siemens MC75
SW Opts:	0x100 0x100
SW Cnts:	5 0 0 0 3 0 0 0 0 5
<input type="button" value="Refresh"/>	

Figure 20: Firmware Version

5 CONFIGURATION FILE

5.1 WR41 Configuration File

This is the config.da0 file used for the purpose of this Application Note

```
eth 0 descr "Test Wan 41"
eth 0 IPaddr "192.168.3.2"
eth 0 bridge ON
addp 0 enable ON
lapb 0 ans OFF
lapb 0 tinact 120
lapb 1 tinact 120
lapb 3 dtemode 0
lapb 3 asyport 5
lapb 3 mux_0710 ON
lapb 4 dtemode 0
lapb 4 dlc 1
lapb 4 asyport 5
lapb 4 virt_async "mux0"
lapb 4 mux_0710 ON
lapb 5 dtemode 0
lapb 5 dlc 2
lapb 5 asyport 5
lapb 5 virt_async "mux1"
lapb 5 mux_0710 ON
lapb 6 dtemode 0
lapb 6 dlc 3
lapb 6 asyport 5
lapb 6 virt_async "mux2"
lapb 6 mux_0710 ON
ip 0 cidr ON
def_route 0 ll_ent "ppp"
def_route 0 ll_add 1
def_route 1 ll_ent "PPP"
def_route 1 ll_add 5
def_route 1 pwr_dly 150
def_route 1 unoos_ent "PPP"
def_route 1 unoos_add 1
dhcp 0 IPmin "192.168.1.100"
dhcp 0 respdelms 500
dhcp 0 mask "255.255.255.0"
dhcp 0 gateway "192.168.1.1"
dhcp 0 DNS "192.168.1.1"
ppp 0 timeout 300
ppp 1 name "W-WAN (Edge 2.5G)"
ppp 1 phonenum "*98*1#"
ppp 1 IPaddr "0.0.0.0"
ppp 1 timeout 0
ppp 1 firewall ON
ppp 1 use_modem 1
ppp 1 aodion 1
ppp 1 autoassert 1
ppp 1 inhibitno "5"
ppp 1 ipanon ON
ppp 1 r_chap OFF
ppp 3 defpak 16
ppp 4 defpak 16
ppp 5 name "CSD Dialler Interface"
ppp 5 phonenum "0845123456"
```

GPRS with Backup to CSD

```
ppp 5 username "ISP-User"
ppp 5 IPaddr "0.0.0.0"
ppp 5 l_addr ON
ppp 5 mask "255.255.255.255"
ppp 5 DNSport 53
ppp 5 IPmin "10.10.10.0"
ppp 5 IPrange 5
ppp 5 maxup 1800
ppp 5 timeout 60
ppp 5 do_nat 1
ppp 5 use_modem 6
ppp 5 metric 1
ppp 5 netip "0.0.0.0"
ppp 5 ip2count 3
ppp 5 ripauth 1
ppp 5 inrip ON
ppp 5 maxneg 80
ppp 5 l_accm "0x00000000"
ppp 5 r_accm "0xffffffff"
ppp 5 l_mru 1500
ppp 5 r_mru 1500
ppp 5 l_acfc ON
ppp 5 r_pap ON
ppp 5 r_chap ON
ppp 5 l_comp ON
ppp 5 l_pfc ON
ppp 5 l_md5 1
ppp 5 r_md5 ON
ppp 5 r_ms1 ON
ppp 5 r_ms2 ON
ppp 5 lcn 1027
ppp 5 defpak 128
ppp 5 baklcn 1027
modemcc 0 asy_add "mux1"
modemcc 0 info_asy_add "mux2"
modemcc 0 init_str "+CGQREQ=1"
modemcc 0 init_str1 "+CGQMIN=1"
modemcc 0 apn "internet"
modemcc 0 link_retries 10
modemcc 0 stat_retries 30
modemcc 0 sms_interval 1
modemcc 0 sms_access 1
modemcc 0 sms_concat 0
modemcc 0 init_str_2 "+CGQREQ=1"
modemcc 0 init_str1_2 "+CGQMIN=1"
modemcc 0 apn_2 "Your.APN.goes.here"
modemcc 0 link_retries_2 10
modemcc 0 stat_retries_2 30
modemcc 1 asy_add "mux0"
modemcc 1 link_retries 10
ana 0 anon ON
ana 0 llon ON
ana 0 lapdon 0
ana 0 asyon 1
ana 0 logsize 45
cmd 0 unitid "ss%s>"
cmd 0 cmdnua "99"
cmd 0 hostname "digi.router"
cmd 0 asyled_mode 2
cmd 0 tremto 1200
user 0 access 0
```

GPRS with Backup to CSD

```
user 1 name "username"
user 1 access 0
user 2 access 0
user 3 access 0
user 4 access 0
user 5 access 0
user 6 access 0
user 7 access 0
user 8 access 0
user 9 access 0
local 0 transaccess 2
sslsvr 0 certfile "cert01.pem"
sslsvr 0 keyfile "privrsa.pem"
ssh 0 hostkey1 "privSSH.pem"
ssh 0 nb_listen 5
ssh 0 v1 OFF
wifinode 0 enabled OFF
wifinode 0 ssid "digi.router.SN:%s"
```