Quick Note 37

Configuring a Digi Transport serial port for TCP Socket using the Serial Port Wizard

January 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.

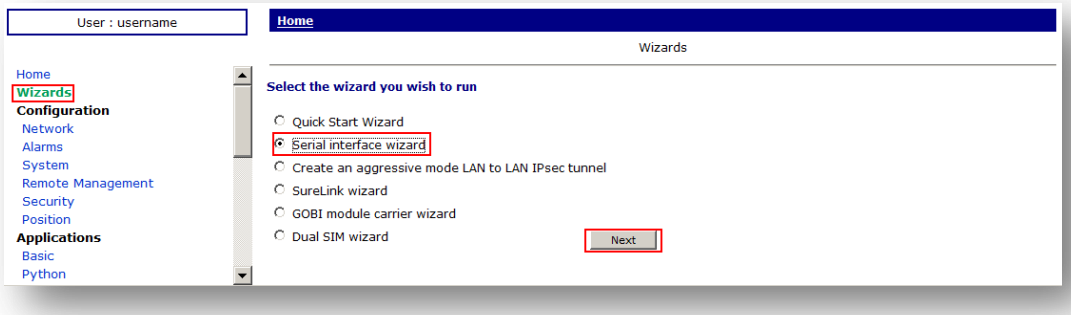
2 VERSION

Version Number	Status
1.0	Published

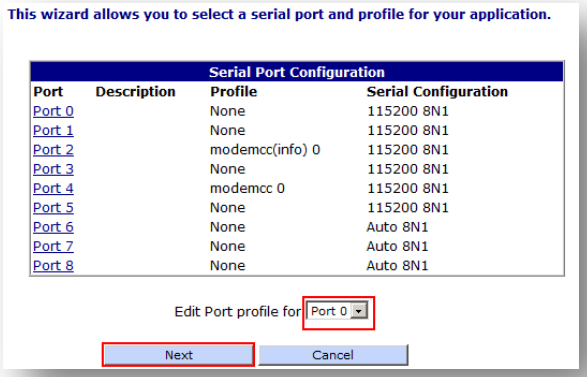
3 CONFIGURATION

3.1 Start Serial Port Wizard

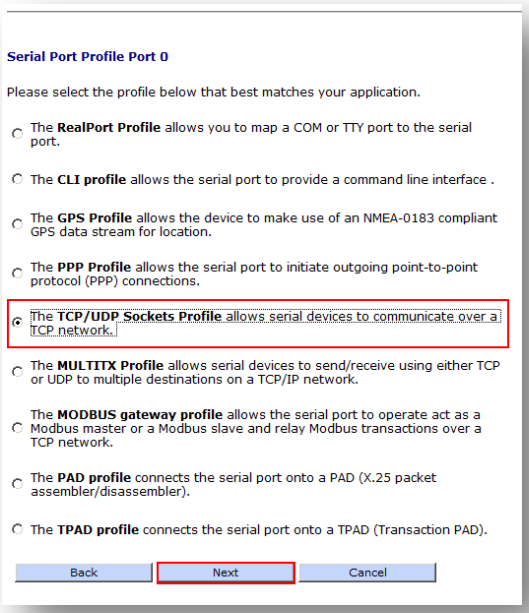
Wizards



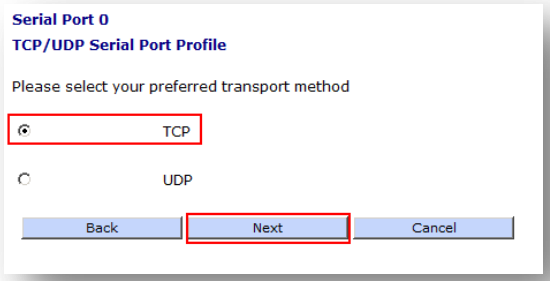
Select Serial interface wizard and click **Next**.



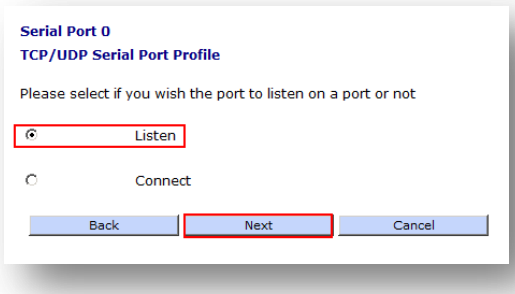
Select the port that will be used, **Port 0** and click **Next**.



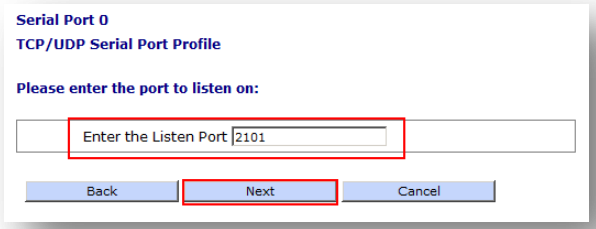
Chose **TCP/UDP Sockets Profile** and click **Next**



Select **TCP** for the desired transport method and click **Next.**



Select **Listen** (The server will initiate connection to the Transport) and click **Next.**

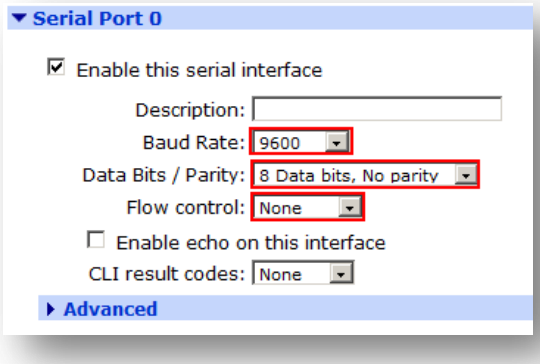


Enter **2101** as the port to listen to and click **Next.**

Click **Confirm** to finalize the serial port configuration wizard.

3.1.1 Configure serial settings

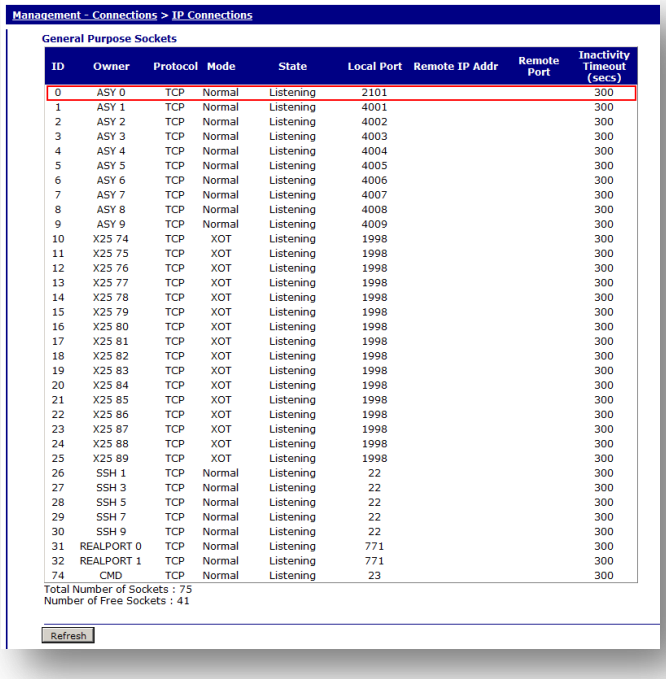
Configuration – Network > Interfaces > Serial > Serial Port 0



Adjust serial settings to the device connected on the Transport, in this example, **9600 8N1** , **No Flow Control**.

3.1.2 Verify listening socket

Management – Connections > IP Connections > General Purpose Sockets


Management – Connections > IP Connections

General Purpose Sockets

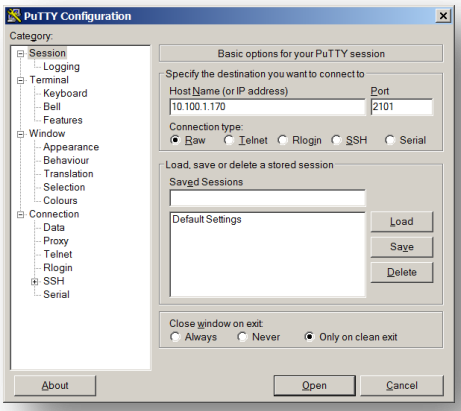
ID	Owner	Protocol	Mode	State	Local Port	Remote IP Addr	Remote Port	Inactivity Timeout (secs)
0	ASY 0	TCP	Normal	Listening	2101			300
1	ASY 1	TCP	Normal	Listening	4001			300
2	ASY 2	TCP	Normal	Listening	4002			300
3	ASY 3	TCP	Normal	Listening	4003			300
4	ASY 4	TCP	Normal	Listening	4004			300
5	ASY 5	TCP	Normal	Listening	4005			300
6	ASY 6	TCP	Normal	Listening	4006			300
7	ASY 7	TCP	Normal	Listening	4007			300
8	ASY 8	TCP	Normal	Listening	4008			300
9	ASY 9	TCP	Normal	Listening	4009			300
10	X25 74	TCP	XOT	Listening	1998			300
11	X25 75	TCP	XOT	Listening	1998			300
12	X25 76	TCP	XOT	Listening	1998			300
13	X25 77	TCP	XOT	Listening	1998			300
14	X25 78	TCP	XOT	Listening	1998			300
15	X25 79	TCP	XOT	Listening	1998			300
16	X25 80	TCP	XOT	Listening	1998			300
17	X25 81	TCP	XOT	Listening	1998			300
18	X25 82	TCP	XOT	Listening	1998			300
19	X25 83	TCP	XOT	Listening	1998			300
20	X25 84	TCP	XOT	Listening	1998			300
21	X25 85	TCP	XOT	Listening	1998			300
22	X25 86	TCP	XOT	Listening	1998			300
23	X25 87	TCP	XOT	Listening	1998			300
24	X25 88	TCP	XOT	Listening	1998			300
25	X25 89	TCP	XOT	Listening	1998			300
26	SSH 1	TCP	Normal	Listening	22			300
27	SSH 3	TCP	Normal	Listening	22			300
28	SSH 5	TCP	Normal	Listening	22			300
29	SSH 7	TCP	Normal	Listening	22			300
30	SSH 9	TCP	Normal	Listening	22			300
31	REALPORT 0	TCP	Normal	Listening	771			300
32	REALPORT 1	TCP	Normal	Listening	771			300
74	CMD	TCP	Normal	Listening	23			300

Total Number of Sockets : 75
Number of Free Sockets : 41

Refresh

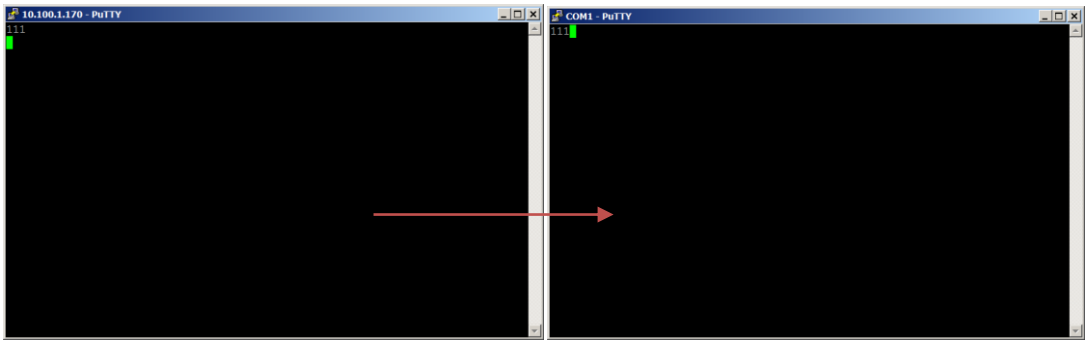
This figure shows that the Transport is listening on TCP port 2101 for connections to ASY 0 (Serial Port 0)

3.2 Testing



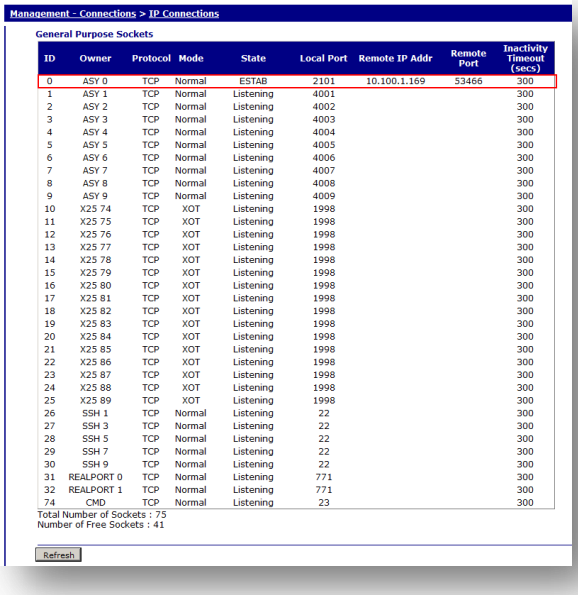
Connect the Transport to the Local COM port of a computer or another serial device.

Open a terminal application like PuTTy to the IP address of the Transport and TCP Port 2101



Data is sent from TCP socket and received on COM1

Management – Connections > IP Connections > General Purpose Sockets



Connection to the serial port is shown as ESTAB (established)

4 CONFIGURATION

```
eth 0 IPaddr "10.100.1.170"
eth 0 DNSserver "10.49.8.62"
eth 0 gateway "10.100.1.1"
addp 0 enable ON
rport 0 enabled ON
lapb 0 ans OFF
lapb 0 tinact 120
lapb 1 tinact 120
lapb 3 dtemode 0
lapb 4 dtemode 0
lapb 5 dtemode 0
lapb 6 dtemode 0
ip 0 cidr ON
def_route 0 ll_ent "PPP"
def_route 0 ll_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"
ppp 1 phonenum "*98*1#"
ppp 1 username "guest"
ppp 1 IPaddr "0.0.0.0"
ppp 1 timeout 0
ppp 1 use_modem 1
ppp 1 aodion 1
ppp 1 autoassert 1
ppp 1 ipanon ON
ppp 1 r_chap OFF
ppp 3 defpak 16
ppp 4 defpak 16
modemcc 0 asy_add 4
modemcc 0 info_asy_add 2
modemcc 0 init_str "+CGQREQ=1"
modemcc 0 init_str1 "+CGQMIN=1"
modemcc 0 apn " Your.APN.goes.here"
modemcc 0 link_retries 10
modemcc 0 stat_retries 30
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
ana 0 anon ON
ana 0 l1on ON
ana 0 lapdon 0
ana 0 asyon 1
ana 0 logsize 45
cmd 0 autocmd "tcpperm ASY 0 0.0.0.0 2101  -l2101 "
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
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
cloud 0 ssl ON

Power Up Profile: 0
```