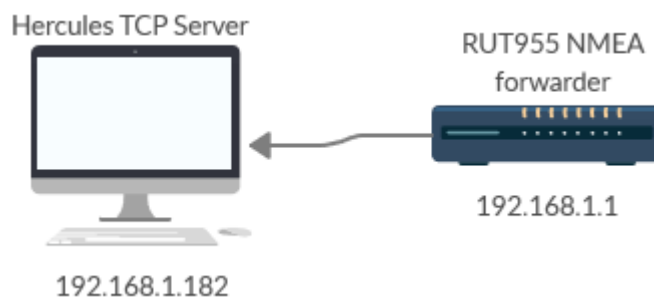


NMEA Data Collecting / Sending to Server

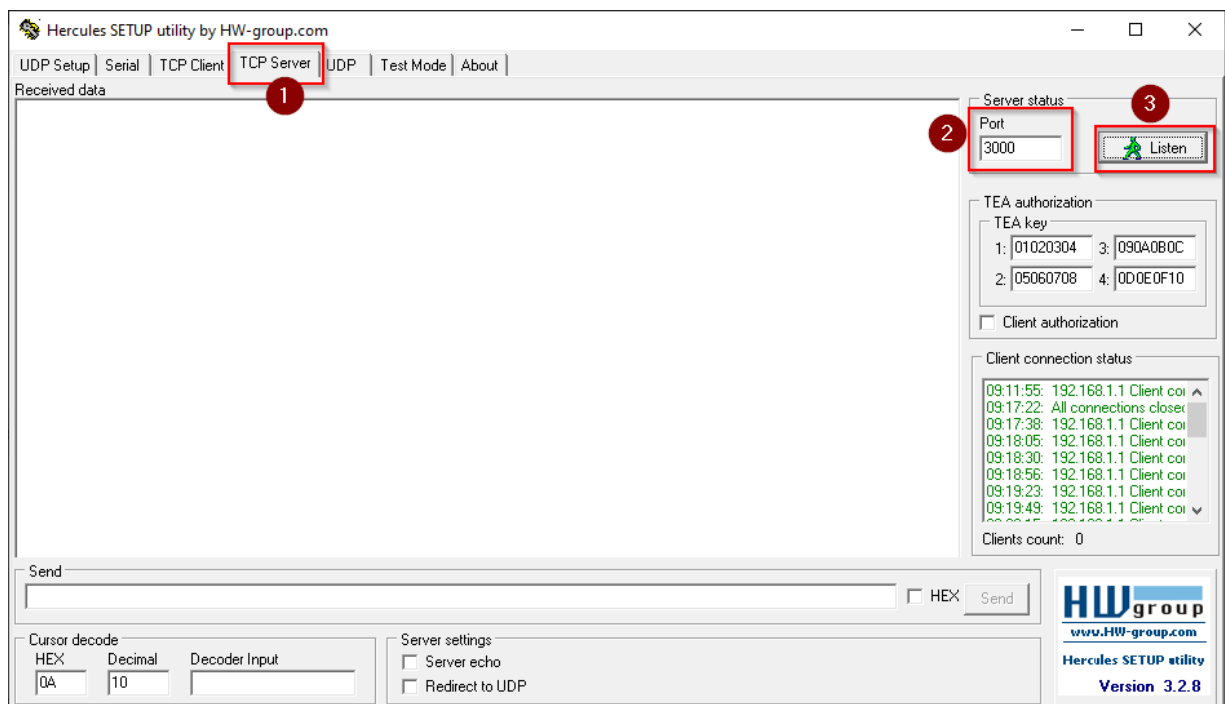
For this example, we are using RUT955 router and Hercules software to read incoming data.

Make sure PC's firewall is not blocking incoming connections on port used.

Configuring PC with Hercules software for NMEA forwarding



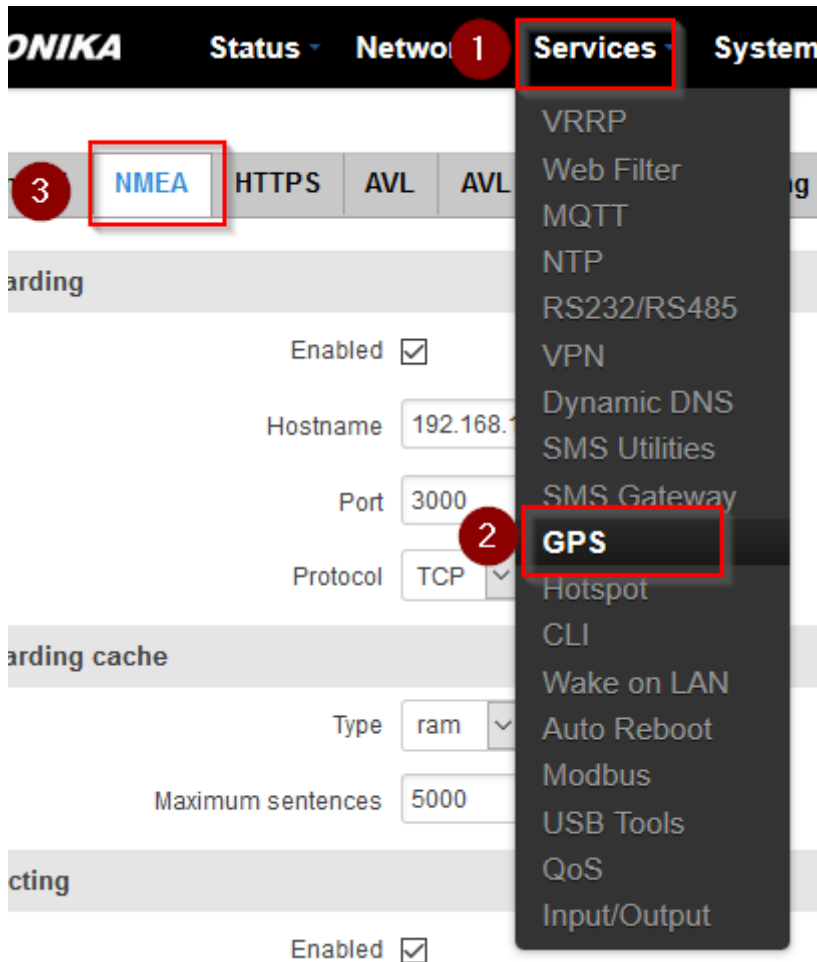
1. Open **Hercules**
2. Select **TCP Server**
3. Enter **Port** (For this example we are using port 3000)
4. Click **Listen**



Now your PC will listen for any connections on port 3000

Configuring NMEA forwarding on router

Go to **Services > GPS > NMEA**



The screenshot shows the Teltonika router configuration interface. The top navigation bar includes 'Status', 'Network 1', 'Services', and 'System'. The 'Services' menu is open, showing options like VRRP, Web Filter, MQTT, NTP, RS232/RS485, VPN, Dynamic DNS, SMS Utilities, SMS Gateway, GPS, Hotspot, CLI, Wake on LAN, Auto Reboot, Modbus, USB Tools, QoS, and Input/Output. The 'GPS' option is selected. The 'NMEA' tab is active, showing settings for enabling NMEA forwarding, hostname, port, and protocol. The 'Enabled' checkbox is checked. The 'Hostname' field contains '192.168.1.1'. The 'Port' field contains '3000'. The 'Protocol' dropdown is set to 'TCP'. The 'Maximum sentences' field contains '5000'.

1. Check **Enabled**
2. Enter your PC's IP as **Hostname**
3. Enter the same **port** you entered in Hercules (In this example - port 3000)
4. Check which data you want to forward to your PC (In this example we are forwarding all the data)
5. Click **Save**

Map General **NMEA** HTTPS AVL AVL I/O GPS Geofencing

NMEA forwarding

1 Enabled ☒

2 Hostname 192.168.1.182

3 Port 3000

Protocol TCP

NMEA forwarding cache

Type ram

Maximum sentences 5000

NMEA collecting

Enabled ☐

NMEA sentence settings

	Forwarding enabled	Forwarding interval	Collecting enabled	Collecting interval
GPGSV	<input checked="" type="checkbox"/>	5	<input type="checkbox"/>	5
GPGGA	<input checked="" type="checkbox"/>	5	<input type="checkbox"/>	5
GPVTG	<input checked="" type="checkbox"/>	5	<input type="checkbox"/>	5
GPRMC	<input checked="" type="checkbox"/>	5	<input type="checkbox"/>	5
GPGSA	<input checked="" type="checkbox"/>	5	<input type="checkbox"/>	5
GLGSV	<input checked="" type="checkbox"/>	5	<input type="checkbox"/>	5
GNGSA	<input checked="" type="checkbox"/>	5	<input type="checkbox"/>	5
GNGNS	<input checked="" type="checkbox"/>	5	<input type="checkbox"/>	5
GAGSV	<input checked="" type="checkbox"/>	5	<input type="checkbox"/>	5
PQGSV	<input checked="" type="checkbox"/>	5	<input type="checkbox"/>	5
PQGSA	<input checked="" type="checkbox"/>	5	<input type="checkbox"/>	5

5 Save

Now all selected GPS data will be sent to Hercules:

Hercules SETUP utility by HW-group.com

UDP Setup | Serial | TCP Client | TCP Server | UDP | Test Mode | About

Received data

The oldest data was removed. Continue...

```

.00,A,5440.028749,N,02515.334899,E,0.0,107.9,200819,5.3,E,A*37
GPGGA,A,2,05,25,29,31,,,,,,,,,1.7,1.4,0.9*32
GPGSV,4,1,13,02,06,052,18,05,29,061,26,16,25,306,19,25,150,41*75
GPGSV,4,2,13,26,50,289,22,29,62,082,30,31,24,232,32,09,03,348,*7A
GPGSV,4,3,13,21,48,208,,39,,,40,40,,,37,49,,,44*4A
GPGSV,4,4,13,51,,34*78
GPGGA,071329.00,5440.028642,N,02515.334914,E,1.04,1.4,137.7,M,28.0,M,,*6F
GPVTG,107.9,T,102.6,M,0.0,N,0.0,K,A*29
GPRMC,071329.00,A,5440.028642,N,02515.334914,E,0.0,107.9,200819,5.3,E,A*34
GPGGA,A,2,05,25,29,31,,,,,,,,,1.7,1.4,0.9*32
GPGSV,4,1,13,02,06,052,18,05,29,061,29,21,48,208,28,25,150,41*79
GPGSV,4,2,13,26,50,289,22,29,62,082,28,31,24,232,33,09,03,348,*72
GPGSV,4,3,13,16,25,306,,39,,,41,40,,,37,49,,,44*4B
GPGSV,4,4,13,51,,34*78
GPGGA,071334.00,5440.028600,N,02515.334927,E,1.05,1.4,137.7,M,28.0,M,,*64
GPVTG,107.9,T,102.6,M,0.0,N,0.0,K,A*29
GPRMC,071334.00,A,5440.028600,N,02515.334927,E,0.0,107.9,200819,5.3,E,A*3E
GPGGA,A,2,05,21,25,29,31,,,,,,,,,1.6,1.4,0.9*30
GPGSV,4,1,13,02,06,052,18,05,29,061,27,21,48,208,27,25,150,41*79
GPGSV,4,2,13,26,50,289,20,29,62,082,23,31,24,232,36,09,03,348,*7E
GPGSV,4,3,13,16,25,306,,39,,,42,40,,,36,49,,,44*49
    
```

Send

Cursor decode
HEX Decimal Decoder Input

Server settings
☐ Server echo
☐ Redirect to UDP

Server status
Port 3000 Close

TEA authorization
TEA key
1: 01020304 3: 090A0B0C
2: 05060708 4: 0D0E0F10

Client authorization
☐ Client authorization

Client connection status
09:17:22: All connections closer
09:17:38: 192.168.1.1 Client coi
09:18:05: 192.168.1.1 Client coi
09:18:30: 192.168.1.1 Client coi
09:18:56: 192.168.1.1 Client coi
09:19:23: 192.168.1.1 Client coi
09:19:49: 192.168.1.1 Client coi
09:20:15: 192.168.1.1 Client coi
Clients count: 0

HWgroup
www.HW-group.com
Hercules SETUP utility
Version 3.2.8

Configuring NMEA collecting

You can also collect NMEA data for later use.

Prerequisites:

1. Inserted USB flash or MicroSD card into router and

Configure Collecting:

Go to **Services > GPS > NMEA**

1. In NMEA collecting check **Enable**
2. Set location of USB Flash/MicroSD card (In this example location is `/mnt/mmcblk0p1/nmea.txt` nmea.txt can be any filename you want)
3. Enable collecting on data you want to collect (In this example we collect all the data)
4. Click **Save**.

NMEA collecting

1

Enabled ☒

2

Location

NMEA sentence settings

3

	Forwarding enabled	Forwarding interval	Collecting enabled	Collecting interval
GPGSV	<input type="checkbox"/>	<input type="text" value="5"/>	<input checked="" type="checkbox"/>	<input type="text" value="5"/>
GPGGA	<input type="checkbox"/>	<input type="text" value="5"/>	<input checked="" type="checkbox"/>	<input type="text" value="5"/>
GPVTG	<input type="checkbox"/>	<input type="text" value="5"/>	<input checked="" type="checkbox"/>	<input type="text" value="5"/>
GPRMC	<input type="checkbox"/>	<input type="text" value="5"/>	<input checked="" type="checkbox"/>	<input type="text" value="5"/>
GPGSA	<input type="checkbox"/>	<input type="text" value="5"/>	<input checked="" type="checkbox"/>	<input type="text" value="5"/>
GLGSV	<input type="checkbox"/>	<input type="text" value="5"/>	<input checked="" type="checkbox"/>	<input type="text" value="5"/>
GNGSA	<input type="checkbox"/>	<input type="text" value="5"/>	<input checked="" type="checkbox"/>	<input type="text" value="5"/>
GNGNS	<input type="checkbox"/>	<input type="text" value="5"/>	<input checked="" type="checkbox"/>	<input type="text" value="5"/>
GAGSV	<input type="checkbox"/>	<input type="text" value="5"/>	<input checked="" type="checkbox"/>	<input type="text" value="5"/>
PQGSV	<input type="checkbox"/>	<input type="text" value="5"/>	<input checked="" type="checkbox"/>	<input type="text" value="5"/>
PQGSA	<input type="checkbox"/>	<input type="text" value="5"/>	<input checked="" type="checkbox"/>	<input type="text" value="5"/>

4

Save

Now, NMEA data should be collected and saved into your USB flash or MicroSD card and you can view it by connecting to the router using SSH and executing a command or inserting USB flash/MicroSD card into your PC.

Reading file by connecting via SSH:

cat /mnt/mmcblk0p1/nmea.txt (Applicable only for this example as we specified our path to file as /mnt/mmcblk0p1/nmea.txt)

If you configured a different path the syntax would be **cat /path_to_file**

```
root@Teltonika-RUT955:~# cat /mnt/mmcblk0p1/nmea.txt
$GPVTG,,T,,M,,N,,K,N*2C
$GPGSA,A,1,,,,,,,,,,,,,*1E
$GPGGA,,,,,0,,,,,,,,,*66
$GPRMC,,V,,,,,,,,,N*53
$GPGSV,4,1,14,
root@Teltonika-RUT955:~#
```