

TELTONIKA RUT950 PROCEDURE – STANDARD SETUP FOR TELSTRA, CONNECTED VIA ETHERNET CABLE

Document Properties

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Control: External

Scope

This guide covers basic configuration steps for a Teltonika RUT950 to operate with a standard Telstra SIM card. The term ‘standard Telstra SIM card’ refers to a SIM card provisioned for the access of Post-Paid Telstra Mobile Broadband services, and does not apply to Pre-Paid, BigPond, or Telstra Corporate/Enterprise/Government SIM cards.

As the RUT950 is an industrial modem this guide assumes an audience with general IT skills.

Prerequisites

- Basic IT skills
- SIM card has been inserted into SIM1 slot
- RUT950 connected to computer via Ethernet cable
- Web browser (Firefox, Chrome, Safari, etc.)
- Ethernet adapter set on DHCP (Automatically obtain IP)
- No other connections active (WiFi turned off, etc.)

General Notes

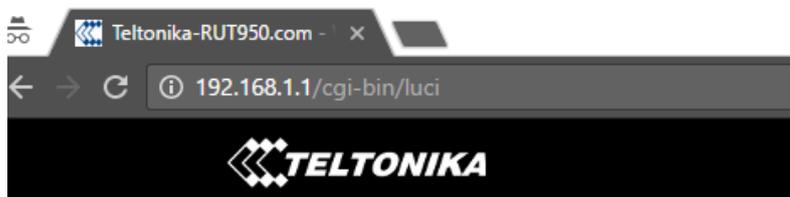
For most users, your Ethernet adapter should already be configured to obtain an IP address automatically. If you are unsure, please follow the easy to understand guide below.

<http://www.its.hku.hk/fag/network/lan/obtain-ip-auto>

For users who often access devices at 192.168.1.1, you may find your browser will attempt to autocomplete the URL. To avoid autocomplete and caching issues it may be helpful to use your browser’s Incognito Mode.

Procedure

1. Open web browser and type 192.168.1.1 into search bar. Log in using default username and password of “admin”, and password “admin01” (no quotation marks).



Authorization Required

Please enter your username and password.

Username

Password

Login

- If this is the first time configuring the unit, you may be presented with a setup wizard. You will also be notified to change router default password. For the purposes of this guide we will skip the wizard and start from the home page which comprises of the Status Overview. This particular unit has already detected the APN from the SIM card which is why it shows as already being connected.

The screenshot shows the Teltonika RUT950 web interface. At the top, there is a navigation bar with the Teltonika logo and menu items: Status, Network, Services, and System. A red notification banner at the top states: "You haven't changed the default password for this router. To change router password click here." Below this is the "Overview" section, which is divided into several panels:

- System:** Shows 9.0% CPU load, Router uptime (0d 0h 31m 17s), Local device time (2016-10-17, 04:27:56), Free memory (84 MB (68%) RAM, 5.6 MB (93%) FLASH), and Firmware version (RUT9XX_R_00.02.723).
- Mobile:** Shows -73 dBm signal strength, Data connection (0d 0h 30m 41s), State (Registered (home); Telstra Mobile; 4G (LTE)), SIM card slot in use (SIM 1 (Ready)), and Bytes received/sent (6.3 KB / 7.4 KB).
- Wireless:** Shows ON status with a Wi-Fi icon, SSID (Teltonika_Router (AP)), and Mode (1- AP; 4 CH (2.427 GHz)).
- WAN:** Shows Mobile status with a cellular icon, IP address (123.209.211.106), and Backup WAN status (Backup link is disabled).
- Local Network:** A panel with an information icon.
- Access Control:** A panel with an information icon.

- Navigate to Network -> Mobile in order to access cellular configuration settings.

This screenshot shows the same Teltonika RUT950 web interface, but with the "Network" menu item expanded. The expanded menu lists the following options: Mobile, WAN, LAN, Wireless, VLAN, Firewall, Routing, and Load Balancing. The "Mobile" option is highlighted, indicating the next step in the configuration process.

- Under Mobile Configuration, all fields should be left at their default values, excepting APN which you must type "telstra.internet". If you've accidentally deleted settings, the key fields are the APN (telstra.internet), Dialling number (*99#), and Authentication method (None). If the dialling number is empty but the field greyed out, you may need to drop down Connection Type from NDIS to PPP in order to re-enter the number. Scroll to the bottom of the page and click save.

The screenshot shows the Teltonika RUT950 web interface. The browser address bar displays the URL: `192.168.1.1/cgi-bin/luci/stok=0e4eef1a83a833bf9ea9dd7a693697f5/admin/network/mobile`. The navigation menu includes **TELTONIKA**, **Status**, **Network**, **Services**, and **System**, along with a **Logout** button. A red notification bar at the top states: "You haven't changed the default password for this router. To change router password [click here](#)." Below this, a tabbed interface shows **General**, **SIM Management**, **Network Operators**, **Mobile Data Limit**, and **SIM Idle Protection**. The **Mobile Configuration** section is active, with tabs for **SIM 1** and **SIM 2**. The configuration fields for SIM 2 are as follows:

- Connection type: NDIS
- Mode: NAT
- APN: telstra.internet
- PIN number: (empty)
- Dialing number: *99#
- Authentication method: None
- Service mode: Automatic
- Deny data roaming:
- Use IPv4 only:

- The unit will now reload its configuration scripts internally. Afterwards, you can proceed back to the Overview page by clicking the Teltonika Logo, or via Status -> Overview.

This partial screenshot shows the bottom portion of the web interface. It includes the **system** menu item and the **Logout** button. A red notification bar is visible, and a loading spinner is present next to the file path `/etc/config/sim_conf_switch`.

6. The final step is to check that Data connection is now active. Data connection should show the length of time the unit has been connected, for example below the unit states that it has been connected for 1 minute 48 seconds. We can now close the browser and enjoy the internet connection.

TELTONIKA Status Network Services System Logout

You haven't changed the default password for this router. To change router password [click here](#).

Overview

System  		Mobile  	
12.5% CPU load		-75 dBm 	
Router uptime	0d 0h 41m 54s (since 2016-10-17, 03:56:40)	Data connection	0d 0h 1m 48s (since 2016-10-17, 04:36:46)
Local device time	2016-10-17, 04:38:34	State	Registered (home); Telstra Mobile; 4G (LTE)
Free memory	84 MB (68%) RAM 5.6 MB (93%) FLASH	SIM card slot in use	SIM 1 (Ready)
Firmware version	RUT9XX_R_00.02.723	Bytes received/sent *	8.4 KB / 10.4 KB

7. If your unit is showing Data connection: Disconnected, the unit may not have correctly reloaded its scripts in which case you simply need to reboot the unit via System -> Reboot.

Troubleshooting

- If after a reboot the unit still has not connected to the network, you should check that your network settings correctly match those listed in Step 4. Most common issue is a typographical error in the spelling of telstra.internet, or a missing dialling number.
- The next common oversight is lack of signal strength. The modem will need at least 1-2 bars (at least -100 dBm) of service to consistently enter the network.
- Should the unit still not connect, ensure the unit is on the latest firmware version, accessible via: <http://www.teltonika.com.au/downloads>
- Should the unit still not connect, ensure your SIM card is working in another device.
- If your SIM has been confirmed active and your device still will not connect please contact your Telco or Teltonika sales representative for further troubleshooting help.
- If you've encountered an issue accessing the unit in the beginning of the guide, you may have a DHCP leasing issue. To rule this out, set a static IP address for your computer by following the below guide: http://kb.netgear.com/app/answers/detail/a_id/27476/~/how-to-set-a-static-ip-address-in-windows

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