RUT260 Network

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The information in this page is updated in accordance with firmware version **RUT2M R 00.07.07.1**.

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Summary

The **Network** page contains information related to the device's networking. This chapter is an overview of the Network page in RUT260 devices.

If you're having trouble finding this page or some of the parameters described here on your device's WebUI, you should **turn on "Advanced WebUI" mode**. You can do that by clicking the "Advanced" button, located at the top of the WebUI.



Mobile

The **Mobile** tab displays information about the mobile connection. The figure below is an example of the Mobile tab:

field name	description
SIM card state	The current SIM card state. Possible values are: • Inserted - SIM card is inserted and ready to be used • Not inserted - SIM card is not inserted • Unknown - unable to obtain SIM card state value. Possible communication issue between the the device and the modem
Provider	Network operator's name
IMSI	The IMSI (international mobile subscriber identity) is a unique 15 decimal digit (or less) number used to identify the user of a cellular network
ICCID	SIM card's ICCID - a unique serial number used to identify the SIM chip
Operator	Network operator's name

Shows whether the network has currently indicated the registration of the mobile device. Possible values are:

· Unregistered - not registered to a network and the device is not currently searching for a new operator to register to

· Registered (home) - registered, home network

• Searching - not registered to a network, but the device is currently searching for a new operator to register to • Network denied - registration to network denied by operator Operator state

· Unknown - operator state is currently unknown

• Registered (roaming) - registered to network, roaming conditions Data connection state Indicates whether the device has a mobile data connection or not. Show intermediate stages of mobile connection establishing process. Connection stage

Mobile network type. Possible values are:

Network type

• 3G: 3G (WCDMA), 3G (HSDPA), 3G (HSUPA), 3G (HSPA), 3G (HSPA+), 3G (DC-HSPA+), 3G (HSDPA+HSUPA), UMTS

N/A - not possible to determine at the moment

LTE Advanced Carrier Aggregation, CA, is one of the key techniques used to enable the very high data rates of 4G to be achieved. Carrier Aggregation By combining more than one carrier together, either in the same or different bands it is possible to increase the bandwidth available

and in this way increase the capacity of the link.

Bandwidth Bandwidth describes the maximum data transfer rate of Internet connection.

Connected band Currently used mobile frequency band.

Received signal strength indicator (RSSI) measured in dBm. Values closer to 0 indicate a better signal strength RSSI

Data received Amount of data received through the mobile interface Data sent Amount of data sent through the mobile interface Cell ID

The ID of the cell that the modem is currently connected to

• LAC The Location Area Code, abbreviated as LAC is the unique number given to each location area within the network. The served area of a cellular radio access network is usually divided into location areas, consisting of one or several radio cells GSM/3G

• TAC Tracking Area Code is a numerical identifier used in LTE networks to distinguish different tracking areas. A tracking area is a group of cells that share the same identity for tracking and paging purposes. TAC is an essential parameter for the UE to determine

its location within the LTE/5G network.

Physical cell ID Physical Cell ID is an identification of a cell at physical layer.

In mobile cellular networks, an absolute radio-frequency channel number (ARFCN) is a code that specifies a pair of physical radio EARFCN carriers used for transmission and reception in a land mobile radio system, one for the uplink signal and one for the downlink signal.

The Mobile Country Code, abbreviated as MCC, is the code uniquely identifying the home country of a (Glossary:Mobile network

operator (MNO|mobile network operator (MNO).

Mobile Network Code (MNC) is a unique two- or three-digit number used to identify a home Public Land Mobile Network (PLMN) to. Mobile network code

MNC is allocated by the national regulator.

If mobile data limit is set and reached, near Connection column warning mark will appear. E.g.:



Bands

LAC/TAC

Mobile country code

bands information

Name

Connected band

Overall signal quality for different network types is defined by different measurements. Short explanations and recommendations are provided below. Click here for more in-depth information or click on one of the links below:

- 4G

■ RSRP - reference signal received power, measured in dBm. Values closer to 0 indicate better signal strength

Other signal level measurements

- RSRO reference signal received quality, measured in dB. Values closer to 0 indicate a better rate of information transfer
- SINR signal-to-interference-plus-noise ratio, measured in dB. Higher values indicate a better rate of information transfer

- 3G

- EC/IO downlink carrier-to-interference ratio. Values range from -20 to 0 (closer to 0 indicates better signal quality/cleanliness)
- RSCP received signal code power. Values range from -124 to 0 (closer to 0 indicates better signal stength)

LAN

This tab displays information about the device's local network(s). The figure below is an example of the **Network** window:



lan information

Name LAN interface name

Address IP address of the LAN interface

Netmask of the LAN interface. In a sense, a netmask specifies the size of a network. In other words, it indicates which part of the IP Netmask dhcp leases

address denotes the network, and which denotes the device

Interface Interface which leased the address Hostname Hostname of a LAN client IP Address IP address of a LAN client MAC Address MAC address of a LAN client

Remaining lease time for a DHCP client. Active DHCP lease holders will try to renew their DHCP leases after a half of the lease time Leasetime Remaining

Static Lease This action will reserve currently assigned IP address for the device in Network -> Interfaces -> Static leases.

Similarly there is an IPv6 dedicated tab.



lan information

LAN interface name Name

IP address of the LAN interface Address

Delegated prefix The delegated prefix is a smaller subnet given to a device to lease IPv6 addresses for its own DHCPv6 clients.

dhcp leases

Interface Interface which leased the address Hostname of a LAN client Hostname Address IP address of a LAN client

Delegated prefix The delegated prefix is a smaller subnet given to a device to lease IPv6 addresses for its own DHCPv6 clients.

DHCP unique identifier is used by DHCPv6 to identify device. Similar to MAC that is used by DHCPv4. DUID

Remaining lease time for a DHCP client. Active DHCP lease holders will try to renew their DHCP leases after a half of the lease time Leasetime Remaining

Static Lease This action will reserve currently assigned IP address for the device in Network -> Interfaces -> Static leases.

Firewall

This tab displays information about the device's firewall. Info is shown of IPv4 and IPv6 traffic. The figure below is an example of the Firewall page tables:









Description Field name

Reset counters Resets all traffic and packet fields

Name Name of the chain

Traffic Size of traffic that was matched to the chain Packets Count of packets that were matched to the chain

Policy Policy for traffic entering the zone. Rules Count of rules the chain has

References Count of times the chain was referenced in other chains

For more information about specific firewall chain, **INFO** button can be pressed. Window like this should pop up:



Field name Description

Traffic Size of traffic that was matched to the rule Packets Count of packets that were matched to the rule

Target Name of the rule (if highlighted you can click it to open modal to it) Protocol
In
Filters by Internet protocol
In
Filters by inbound interface
Out
Filters by outbound interface
Source
Filters by source address
Destination
Filters by destination address
Options
Additional iptables options
Comment
Filters by comment

Topology

The **Topology** tab allows scanning of WAN, LAN or both interfaces via arp scan to check active connected devices. After scan it shows how many active devices were found and on which interface.



All active devices

This section displays the results of the scan.



field name description

Hostname (Vendor)

IP Address

IP address of scanned device

MAC Address

MAC address of scanned device

Type

The type of connection

Interface The interface the scanned device is connected