

Template:Networking rut manual routes

The information in this page is updated in accordance with firmware version .

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Summary

The **Routes** page displays the ARP table and active IPv4/IPv6 routes.

This chapter of the user manual provides an overview of the Routes page for {{{name}}} devices.

ARP

The **Address Resolution Protocol (ARP)** is a communication protocol used for mapping an Internet Protocol address (IP address) to a physical machine's link layer address (MAC address) belonging to the local network.

The ARP section displays the router's **ARP cache** (also known as ARP table) data. The ARP cache contains information on each known MAC address and its corresponding IP address. When the router receives a packet destined for a local host, the ARP program attempts to find a physical host or MAC address in the ARP cache that matches the IP address. If the ARP cache doesn't contain the needed IP address, ARP broadcasts a request packet to all LAN machines in order to find the device with the IP address in question.

The figure below is an example of the ARP cache section:



Field name	Value	Description
IP address	ip; default: none	IP address of a local host.
MAC address	mac; default: none	MAC address of a local host.
Interface	string; default: none	Interface through which the router is associated with the host.

You can also view the ARP cache via shell using the **arp** or **ip neigh** commands, depending on which output you prefer:

```
root@Teltonika-{{{name}}}:~# arp
IP address      HW type        Flags          HW address    Mask
```

```

Device
192.168.1.103    0x1          0x2          ac:e2:d3:00:00:00    *          br-
lan
192.168.1.151    0x1          0x2          18:d6:c7:00:00:00    *          br-
lan

```

```

root@Teltonika-{{{name}}}:~# ip neigh
192.168.1.103 dev br-lan lladdr ac:e2:d3:00:00:00 REACHABLE
192.168.1.151 dev br-lan lladdr 18:d6:c7:00:00:00 REACHABLE

```

Active IP routes

The **Active IP routes** section displays the router's **routing table**. A routing table contains a list of routes to network destinations associated with and known by the router.

The figure below is an example of the Active IP routes section:



Field name	Value	Description
Network	string; default: none	Associated network interface name.
Target	ip ip/netmask; default: none	Destination network address.
IP gateway	ip; default: none	Indicates the IP address of the gateway through which the target network can be reached.
Metric	integer [0..4,294,967,295]; default: none	Metrics help the router choose the best route among multiple feasible routes to a destination. The route will go in the direction of the gateway with the lowest metric value.

You can also view the routing table via shell using the **route** or **ip route** commands, depending on which output you prefer:

```

root@Teltonika-{{{name}}}:~# route
Kernel IP routing table
Destination      Gateway          Genmask          Flags Metric Ref    Use Iface
default          10.1.179.213    0.0.0.0          UG    0     0      0 wwan0
10.1.179.208     *                255.255.255.248 U     10    0      0 wwan0
10.1.179.213     *                255.255.255.255 UH    10    0      0 wwan0
192.168.1.0      *                255.255.255.0   U     0     0      0 br-
lan

```

```

root@Teltonika-{{{name}}}:~# ip route
default via 10.1.179.213 dev wwan0
10.1.179.208/29 dev wwan0 proto static scope link metric 10
10.1.179.213 dev wwan0 proto static scope link src 10.1.179.212 metric 10
192.168.1.0/24 dev br-lan proto kernel scope link src 192.168.1.1

```

Active IPv6 routes

The **Active IPv6 routes** section displays the router's IPv6 routing table.

The figure below is an example of the Active IPv6 routes section:



Field name	Value	Description
Network	string; default: none	Associated network interface name.
Target	ip6 ip6/netmask; default: none	Destination network address.
IP gateway	ip6; default: none	Indicates the IPv6 address of the gateway through which the target network can be reached.
Metric	integer [0..4,294,967,295]; default: none	Metrics help the router choose the best route among multiple feasible routes to a destination. The route will go in the direction of the gateway with the lowest metric value.

You can also view the routing table via shell using the **route -A inet6** or **ip -6 route show** commands, depending on which output you prefer:

```
root@Teltonika-{{{name}}}:~# ip -6 route
fe80::/64 dev wwan0 proto kernel metric 256
```

[[Category:{{{name}}} Status section]]