

# RUT951 LAN

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The information in this page is updated in accordance with firmware version [RUT9M\\_R\\_00.07.07](#).



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## Summary

The **LAN** page is used to create and set up local area network interfaces.

This manual page provides an overview of the LAN windows in RUT951 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.



## LAN

The **LAN** section displays LAN interfaces currently existing on this device.



If you hover mouse over the question mark  global IPv6 prefix assignment addresses will be displayed.



The **Add New Instance** section is used to create additional network interfaces. To create a new interface, simply enter a custom name for it and click the 'Add' button.



To begin configuring an interface, click the 'Edit' button on the right side of the interface:



## Interface configuration

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### General settings

The **General Settings** section is used to configure the main parameters of LAN.



Field	Value	Description
Enable	off   on; default: <b>on</b>	Enable interface
Protocol	Static   None; default: <b>Static</b>	
IPv4 address	ip4; default: <b>192.168.1.1</b>	Your router's address on the network
IPv4 netmask	netmask; default: <b>255.255.255.0</b>	The IPv4 netmask of this interface. A <a href="#">netmask</a> is used to define how "large" a network is by specifying which part of the IP address denotes the network and which part denotes a device.

### IPv6 settings

The **IPv6 settings** section is used to configure the IPv6 parameters of LAN.



Field	Value	Description
Delegate IPv6 prefixes	off   on; default: <b>on</b>	Enable downstream delegation of IPv6 prefixes available on this interface.
IPv6 assignment length	Disabled   64   Custom - integer [0..6]; default: <b>60</b>	Assign a part of given length of every public IPv6-prefix to this interface.
IPv6 assignment hint	A hexadecimal string of symbols: a-f, A-F and 0-9 is accepted; default: <b>none</b>	Assign prefix parts using this hexadecimal subprefix ID for this interface.
IPv6 suffix	Allowed values: "eui64", "random", fixed value like "::1" or "::1:2"; default: <b>none</b>	Optional. Allowed values: 'eui64', 'random', fixed value like '::1' or '::1:2'. When IPv6 prefix (like 'a:b:c:d::') is received from a delegating server, use the suffix (like '::1') to form the IPv6 address ('a:b:c:d::1') for the interface.

### Advanced settings

The **Advanced settings** section is used to configure the advanced parameters of LAN.



Field	Value	Description
Force link	off   on; default: <b>on</b>	Set interface properties regardless of the link carrier (If set, carrier sense events do not invoke hotplug handlers).
Use gateway metric	integer [0..10000]; default: <b>0</b>	The configuration by default generates a routing table entry. In this field you can alter the metric of that entry. Lower metric means higher priority.
Override MAC address	Mac address of six groups of two hexadecimal digits are accepted. E.g. 00:23:45:67:89:AB; default: <b>none</b>	Override MAC address of the interface. For example, your ISP (Internet Service Provider) gives you a static IP address and it might also bind it to your computers MAC address (i.e., that IP will only work with your computer but not with your router). In this field you can select your computer's MAC address and fool the gateway in to thinking that it is communicating with your computer. You can select the MAC address of a currently connected computer, or use a custom one. When changing MAC address on LAN interface be careful to avoid MAC address collisions.
Override MTU	integer [98..65535]; default: <b>none</b>	Maximum Transmission Unit (MTU) - specifies the largest possible size of a data packet.
IP4 table	Value must be a valid unsigned integer; default: <b>none</b>	IPv4 routing table for routes of this interface.

## Physical settings

The **Physical settings** section is used to configure the physical parameters of LAN.



Field	Value	Description
Bridge interfaces	off   on; default: <b>on</b>	Creates a bridge over specified interface(s).
Enable STP	off   on; default: <b>off</b>	Enables the Spanning Tree Protocol on this bridge.
Enable IGMP	off   on; default: <b>off</b>	Enables IGMP snooping on this bridge.
Interface	network interface(s); default: <b>lan physical interface</b>	Physical interface name to assign to this section, list of interfaces if type bridge is set.

## Firewall settings

The **Firewall settings** section is used to configure the firewall parameters of LAN.



Field	Value	Description
Create / Assign firewall-zone	firewall zone; default: <b>lan</b>	Choose the firewall zone you want to assign to this interface. Select 'Unspecified' to remove the interface from the associated zone or define a new zone and attach the interface to it.

## DHCP server configuration

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A **DHCP (Dynamic Host Configuration Protocol)** server is a service that can automatically configure the TCP/IP settings of any device that requests such a service. If you connect a device that has been configured to obtain an IP address automatically, the DHCP server will lease out an IP address from the available IP pool and the device will be able to communicate within the private network.



To make the DHCP Server section visible, **set interface protocol to Static**.

### General setup

The **General Setup** section is used to set up the main operating parameters of the DHCP server.



Field	Value	Description
Enable DHCP	Enable   Disable   Relay*; default: <b>Enable</b>	Turns the DHCP server on or off or enables DHCP relay*. If DHCP Relay* is selected, you will be prompted to enter an IP address of another DHCP server in your LAN. In this case, whenever a new machine connects to this device, it will redirect any DHCP requests to the specified DHCP Server.
Start IP	integer [1..255]; default: <b>100</b>	The DHCP server's IP address range start value.
End IP	integer [1..255]; default: <b>254</b>	End IP, i.e., the last possible IP in the selected range for the DHCP server.
Lease time	integer [1..999999]; default: <b>12</b> integer [2..999999]*integer [120..999999]**	A DHCP lease will expire after the amount of time specified in this field and the device that was using the lease will have to request a new one. However, if the device stays connected, its lease will be renewed after half of the specified amount of time passes (e.g., if lease time is 12 hours, then every 6 hours the device will ask the DHCP server to renew its lease). The minimal amount of time that can be specified is 2 minutes. *If selected Units is Minutes. **If selected Units is seconds.
Units	Hours   Minutes   Seconds; default: <b>Hours</b>	Lease time measurement units.

### Advanced settings

Refer to the table below for information on the **Advanced Settings** section.



Field	Value	Description
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Dynamic DHCP	off   on; default: <b>on</b>	Enables dynamic allocation of client addresses. If this is disabled, only clients that have static IP leases will be served.
Force	off   on; default: <b>off</b>	The DHCP force function ensures that the device will always start it's DHCP server, even if there is another DHCP server already running in the its network. By default the device's DHCP server will not start when it is connected to a network segment that already has a working DHCP server.
IPv4-Netmask	netmask; default: <b>none</b>	Sends a different netmask than the LAN netmask to DHCP clients.
Custom DHCP Options	-(interactive button)	Opens the edit window of DHCP options.
Force DHCP options	off   on; default: <b>off</b>	If enabled, DHCP options will be sent even if it's not requested.

### Custom DHCP options

Custom DHCP options are number and value pairs used to configure advanced DHCP functionality. It does not configure DHCP ipv6!. The **DHCP options** modal is used to 'Add', 'Delete', 'Save' multiple options.



Field	Value	Description
Option code	Custom   Time offset (2)   Router (3)   DNS (6)   Domain name (15)   NTP server (43); default: <b>Time offset (2)</b>	Standartized DHCP option code.
Option value	Custom   Time offset (2) - integer   Router (3)- IPv4   DNS (6) - IPv4   Domain name (15) - string   NTP server (43) - IPv4; default: <b>empty</b>	Value that will be set for selected option.

### DHCP Server: IPv6 Settings

Refer to the table below for information on the **IPv6 Settings** section.



Field	Value	Description
Router Advertisement Service	Disabled   Relay mode   Server mode   Hybrid mode; default: <b>Disabled</b>	Specifies whether router advertisements should be enabled (server mode), relayed or disabled.
DHCPv6 Service	Disabled   Relay mode   Server mode   Hybrid mode; default: <b>Disabled</b>	Specifies whether DHCPv6 server should be enabled (server), relayed (relay) or disabled (disabled).
NDP Proxy	Disabled   Relay mode   Hybrid mode; default: <b>Disabled</b>	Specifies whether NDP should be relayed or disabled.
Announced DNS server	ip; default: <b>none</b>	Supplements DHCP-assigned DNS server entries with ones specified in this field.

Announced DNS  
domains

ip; default: **none**

DNS domain handed out to DHCP clients.

\* When an interface is set to act as a DHCP Relay, it redirects all received DHCP request messages to another specified DHCP server:

