RUT901 DHCP

The information in this page is updated in accordance with firmware version **RUT9M_R_00.07.08**.

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Contents

Summary

The **DHCP** page is used to to set up DHCP settings, which are used to connect device with external networks.

This manual page provides an overview of DHCP page in RUT901 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.

Static Leases

Static IP leases are used to reserve specific IP addresses for specific devices by binding them to their MAC address. This is useful when you have a stationary device connected to your network that you need to reach frequently, e.g., printer, IP phone, etc.

This page displays static IP leases currently existing on this device.

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

The Static Lease list is empty by default. To add a new Static Lease click the 'Add' button.

Appears static lease, which should look similar to this:

Field	Value	Description
MAC	mac; default: **none**	MAC address of a device that will connect to this network interface. Possible variants: MAC address: 01:23:45:56:78:9a, Wildcard: 01:23:45:56:*:*
IP	ip; default: **none**	The IP address that will be reserved for the specified device.
Hostname	string; default: **none**	Name of static lease.

Additionally there is a IPv6 tab for IPv6 static leases.

Field	Value	Description
DUID	DUID; default: **none**	DHCP unique identifier is used by DHCPv6 to identify device. Similar to MAC that is used by DHCPv4.
Host ID	ipv6; default: **none**	Used to define IPv6 address that will be statically leased. To get it from the IPv6 address remove the IPv6 prefix and all semicolons.
Hostname	string; default: **none**	Name of static lease.

After you click 'Save & Apply' static leases will be saved.

DHCP server configuration

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.

IPv4

To edit lan interface DHCPv4 settings click the 'Edit' button.

DHCPv4 general setup

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

Field	Value	Description
Enable	on | off; default: **on**	Turns the DHCPv4 server on or off.
DHCPv4 mode	Server | Relay*; default: **Server**	Specifies DHCPv4 mode • Possible variants: • Server: This device will be used to handle IP assigning • Relay: Specified server will be used to handle IP assigning
Start IP	integer [1..255]; default: **100**	Type an IP address to serve as the start of the IP range that DHCP will use to assign IP addresses.
End IP	integer [1..255]; default: **254**	Type an IP address to serve as the end of the IP range that DHCP will use to assign IP addresses.
Lease time	integer [1..999999] | infinite*; default: **12**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. *Infinite option DHCP address will never expire. **If selected Units is Minutes. ***If selected Units is seconds.
DHCP server	ip; default: **none**	LSpecifies DHCP server's IP address, which directs any requests into server.

Advanced settings

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

Field	Value	Description
Dynamic DHCP	off | on; default: **on**	Dynamically allocate DHCP addresses for clients. If disabled, only clients having static leases will be served.
Force	off | on; default: **off**	Force DHCP on this network even if another server is detected.
IPv4-Netmask	netmask; default: **none**	Override the netmask sent to clients. Normally it is calculated from the subnet that is served.
Custom DHCP Options	-(interactive button)	Custom DHCP options are number and value pairs used to configure advanced DHCP functionality. It does not configure DHCP ipv6!
Force DHCP options	off | on; default: **off**	Force DHCP options to 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
Add	-(interactive button)	To add custom DHCP options.
Option code	Custom | Time offset (2) | Router (3) | DNS (6) | Domain name (15) | NTP server (42) | +Add new; default: **Time offset (2)**	Standartized DHCP option code.
Option value	integer; default: **none**	Value that will be set for selected option.
Do not send	off | on; default: **off**	Force this value to not be sent.

IPv6

To edit lan interface DHCPv6 settings click the 'Edit' button.

DHCP Server: IPv6 Settings

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

Field	Value	Description
Enable	off | on: **on**	Turns the DHCPv6 server on or off.
Router Advertisement Service	Disabled | Server mode | Reley mode | Hybrid mode; default: **Server mode**	• Possible variants: • **Disabled:** Do not advertise any devices as router • **Server:** Advertise this device as a router • **Relay:** Advertise the parent interface as a router • **Hybrid:** Normally works as 'Relay' with automatic fallback to 'Server' if there is no active parent interface
DHCPv6-Service	Disabled | Server mode | Relay mode | Hybrid mode; default: **Server mode**	• Possible variants: • **Disabled:** Do not automatically assign IPv6 addresses • **Server:** This device assigns IPv6 addresses • **Relay:** Forward IPv6 assigning requests between network devices and parent interface • **Hybrid:** Normally works as 'Relay' with automatic fallback to 'Server' if there is no active parent interface
DHCPv6-Mode	Stateless + stateful | Relay mode | Stateful-only; default: **Stateless + stateful**	Specifies whether NDP should be relayed or disabled.

NDP Proxy	Disabled | Relay mode | Hybrid mode; default: **Disabled**	• Possible variants: • **Disabled:** Do not proxy any NDP packets • **Relay:** Forward NDP packets between network devices and the parent interface • **Hybrid:** Normally works as 'Relay' with automatic fallback to 'Disabled' if there is no active parent interface
Always announce default router	off | on; default: **off**	Announce as default router even if no public prefix is available.
Announced DNS server	strin; default: **none**	Supplements DHCP-assigned DNS server entries with ones specified in this field.
Announced DNS domains	string; 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: