RUT955 Failover

The information in this page is updated in accordance with firmware version **RUT9_R_00.07.04.2**.
*Note: **click here** for the old style WebUI (FW version RUT9XX_R_00.06.09.2 and earlier) user manual page.*

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Contents

Summary

This chapter is an overview of the Failover and Load Balancing functions in RUT955 device.

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 "Basic" button under "Mode", which is located at the top-right corner of the WebUI.

	MODE	USER	FW VERSION	
«TELTONIKA | Networks	BASIC	ADMIN	RUT9_R_00.07.00	LOGOUT ⤤

Failover

The **Failover** function allows you to backup your primary WAN connection in case it goes down.

In order to set priorities, simply press left mouse click on the interface, then drag it to the 1st, 2nd or other position and then press Save & Apply.

⌄ FAILOVER / LOAD BALANCING INTERFACES

	METRIC	NAME	TYPE	INTERVAL	STATUS				Failover ⌃
✛	1	wan	Wired	3	Disabled	off on		✏	
✛	2	mob1s1a1	Mobile	3	Disabled	off on		✏	

You can drag & drop an interface in order to change its position on the list. Interfaces that are higher on the list have a higher priority than the ones that are lower, i.e., the device will always use the WAN interface with the highest priority as long as it is available. If it goes down, the device will start using the interface with the second highest priority and so on.

Take note that changing an interface's position in the list here also changes its position in the following pages:

- Network → *Interfaces*
- Network → *WAN*

Failover Interface Configuration

A failover **Interface Configuration** page is used to configure how the device will determine whether an interface is online or offline. To enter an interface configuration page, click the 'Edit' button next to an interface.

⌄ FAILOVER / LOAD BALANCING INTERFACES

	METRIC	NAME	TYPE	INTERVAL	STATUS		
✛	1	wan	Wired	3	Disabled	off on	✎

After this you should be redirected to the configuration page of that interface.

⌄ INTERFACE CONFIGURATION

Enable   off on

Interval   [3]

Flush connections on   [⌄]

⌄ RULE

Method   [Ping ⌄]

Track IP   [1.1.1.1] ⊖

   [8.8.8.8] ⊖ ⊕

Reliability   [1]

Count   [1]

Up   [3]

Down   [3]

SAVE & APPLY

Field	Value	Description
Enable	off | on; default: **off**	Turn the interface on or off.
Interval	integer [1..65000]; default: **3**	Number of seconds between each test

Flush connections on	Connected | Disconnected: **none**	Flushes established connections after the selected scenario occurs to renew the priorities of configured interfaces.
Method	Ping | Wget; default: **Ping**	Defines how health check will be performed on this interface when determining its state.
Track IP	ip | hostname; default: **1.1.1.1,8.8.8.8**	IP address(es) or hostname(s) that will be used to determine an interface's state. If the device receives no response from any of the specified hosts, the interface will be considered as 'Offline'. If this value is missing the interface is always considered up.
Reliability	integer [1..65000]; default: **1**	Number of hosts that must reply for the test to be considered successful. Make sure there are at least this many hosts defined in the 'Track IP' field, otherwise the interface will always be considered as 'Offline'.
Count	integer [1..65000]; default: **1**	Number of pings to send to each host with each test.
Up	integer [1..65000]; default: **3**	Number of successful tests required to considered an interface as 'Online'.
Down	integer [1..65000]; default: **3**	Number of failed tests required to considered an interface as 'Offline'.

Load Balancing

Load Balancing is a method of dividing traffic between multiple WAN interfaces. Load Balancing can be used to share the data load between different interfaces and increase the overall Internet speed for multiple users and connections. It is important to note that <u>Load Balancing does not increase speed for any single connection</u>. For example, if you're downloading a large file, using Load Balancing will not increase the speed of that download.

However, Load Balancing can be used to increase the speed of multiple connections. For example, when used in a WiFi network, Load Balancing would utilize the resources of multiple WAN interfaces to handle the many various requests of different clients.

Both Load Balancing and Failover cannot be used at the same time. If you wish to select Load Balancing, you can do that in the dropdown located in the top-right corner of the page:

Below is an example of the Load Balancing page.

						Load balancing ∨	

GROUP	NAME	TYPE	INTERVAL	STATUS		RATIO	
1 ∨	wan	Wired	3	-	off ⚪ on	1	🖉
1 ∨	mob1s1a1	Mobile	3	-	off ⚪ on	1	🖉

When Load Balancing is selected, you can **assign ratio values** to WAN interfaces. The ratio value represents a percentage of traffic load that will go through an interface. For example, if you set it up like this:

- *Wired WAN Ratio:*   **3**
- *Mobile WAN Ratio:*   **2**

then about 60 % (3/5) of traffic would go through the Wired WAN interface and about 40 % (2/5) would go through Mobile WAN. In this case if you played 100 different videos on the Internet, about 60 would be downloaded through Wired WAN and the other 40 would be downloaded via Mobile WAN.

Rules

A Load Balancing/Failover **Rule** is a set of conditions that define some type of network traffic. The traffic that matches the conditions set in the rule is handled in accordance to the specified **Policy**.

There is one default rule present on the device. You can add more rules with the 'Add' button or you can customize the existing rule by clicking the 'Edit' button next to it:

Protocol	all ∨
Source address	192.168.100.0/24 ⊕
Destination address	0.0.0.0/0 ⊕
Sticky	off ⚪ on
Policy assigned	default (Load Balancing) ∨

Field	Value	Description
Protocol	all | tcp | udp | icmp | esp; default: **all**	Protocol to match this rule.
Source address	ip/netmask; default: **none**	Source IP addresses to match this rule.
Destination address	ip/netmask; default: **0.0.0.0/0**	Destination IP addresses to match this rule.
Sticky	off | **on**; default: **off**	If turned on, traffic from the same source IP address that previously matched this rule within the sticky timeout period will use the same WAN interface.
Sticky timeout	integer [1..1000000]; default: **600**	Timeout in seconds.

Policy assigned	default (Load Balancing) | default (Failover) | Unreachable (Reject) | Blackhole (Drop) | Default (Use main routing table) | custom; default: **default (Failover)**	Selects the policy to apply to traffic that matches the conditions of this rule. You can create custom Load Balancing/Failover policies in the section below.

Policies

A **Policy** dictates what the the device should do when some network traffic matches the condition defined in a Failover/Load Balancing rule. There are two policies by default, one for Load Balancing, the other for Failover. You may create custom policies that use different interfaces for Failover/Load Balancing scenarios.

∨ POLICY

NAME	MODE	MEMBER USED	
default	Failover	wan ∨ mob1s1a1 ∨ mob1s2a1 ∨	✕
default	Load Balancing	wan ∨ mob1s1a1 ∨ mob1s2a1 ∨	✕

∨ ADD NEW INSTANCE

POLICY NAME

POLICY MODE

Failover ∨

ADD