

# Template:Networking rutos manual vrrp

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## VRRP

### Summary

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**Virtual Router Redundancy Protocol (VRRP)** is a computer networking protocol used for automatic default gateway selection for clients on a LAN network in case the main router (Master) becomes unavailable. Another VRRP router (Backup) then assumes the role of Master; thus backing up the connection.

This page is an overview of the VRRP section of {{{name}}} devices. **Note:** VRRP is additional software that can be installed from the **System → [{{{name}}} Package Manager|Package Manager]** page.

### VRRP Configuration

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The **VRRP Configuration** section lists VRRP instances currently existing on the device. By default the list is empty thus, you must first create at least one instance in order to begin configuring VRRP.

1. Enter a custom name for the new VRRP configuration in the 'Name' field.
2. Click the 'Add' button.
3. Click the 'Edit' button next to the newly created instance.

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After clicking the 'Edit' button you should be redirected to that VRRP instance's configuration page, which should look similar to this:

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Field	Value	Description
Enable	off   on; default: <b>off</b>	Turns VRRP on or off.
Virtualize MAC	off   on; default: <b>off</b>	Turns the possibility to use virtual MAC addresses on or off.

Virtual ID	integer [1..255]; default: <b>1</b>	The Virtual Router Identifier (VRID) is a field in the VRRP packet IP header used to identify the virtual router in the VRRP cluster. Routers with identical IDs will be grouped in the same VRRP cluster.
Priority	integer [1..255]; default: <b>100</b>	VRRP priority of the virtual router. Higher values equal higher priority. The router with the highest priority is considered to be the <i>Master router</i> while other routers are <i>Backup routers</i> . sends periodic VRRP Advertisement messages <ul style="list-style-type: none"> <li>• <b>Master router</b> - the first hop router in the VRRP cluster (i.e., the router that provides connectivity to LAN devices by default).</li> <li>• <b>Backup router</b> - assumes the role of Master router in case it becomes unavailable. If there multiple Backup routers in the VRRP cluster, the one with the highest priority will assume the role of Master.</li> </ul>
Advertisement interval	integer [1..255]; default: <b>100</b>	Time interval (in seconds) between router advertisements on the VRRP network.
Interface	network interface; default: <b>LAN</b>	Selects which interface VRRP will operate on.
IP address	ip; default: <b>none</b>	Virtual IP address for the router's VRRP cluster.

## Check connection

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The **Check connection** section is used to set the parameters that define how the router will determine whether the connection is still available or not. This is done by periodically sending ICMP packets from interface, configured in [VRRP Configuration](#) section, to a defined host and awaiting responses. If no response is received after a defined period of time, the connection is determined to be down, and thus the role of Master is assumed by another router in the network.

Refer to the figure and table below for information on the fields contained in the Check connection section.



Field	Value	Description
Enable	yes   no; default: <b>no</b>	Turns connection checking on or off.
IP address or hostname	ip   host; default: <b>none</b>	IP address or hostname to which the router will send ICMP packets. This is used to determine whether the connection is still available or not. ICMP packets will be send from interface, configured in <a href="#">VRRP Configuration</a> section, therefore make sure you enter reachable IP address or hostname.
Ping interval	integer; default: <b>10</b>	Time interval (in seconds) between two pings.
Ping timeout	integer; default: <b>1</b>	The maximum amount of time in seconds the router will wait for a response to a ping request. If it does not receive a response within the amount of time defined in this field, the ping request will be considered to have failed.

Ping packet size	integer; default: <b>56</b>	The size (in bytes) of sent ICMP packets.
Ping attempts	integer; default: <b>4</b>	Number of ping packets sent.
Ping retry count	integer; default: <b>5</b>	How many times the router will retry sending ping requests before determining that the connection has failed.