

RouterOS package naming

Since RouterOS 3.0 RC12 packages are separated not by system name, but by processor type. So instead of routerboard-3.0rc12-rb500.npk the new package will be called **routerboard-3.0rc12-mipsle.npk**

This is because some packages work for different types of devices, and some work only for one certain type. The obvious new types are mips-le and mips-be, which mean Little endian and Big endian, which are MIPS processor types. Note that currently only RB400 has the **mipsbe** type.

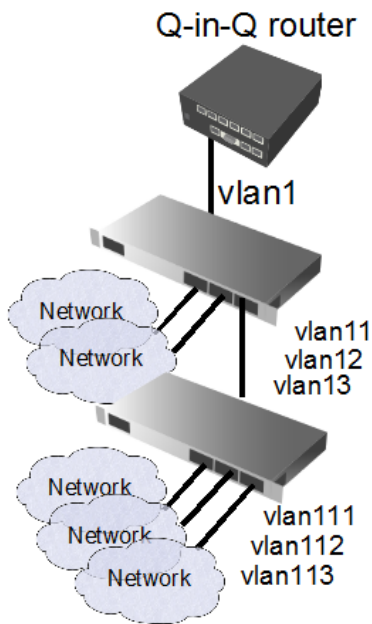
The following is a list of package filenames and the systems that will work with these files:

- x86:** PC, RB200
- mipsle:** RB500, RB100, Crossroads
- mipsbe:** RB400 (new)
- ppc:** RB300, RB600, RB1000

Q-in-Q

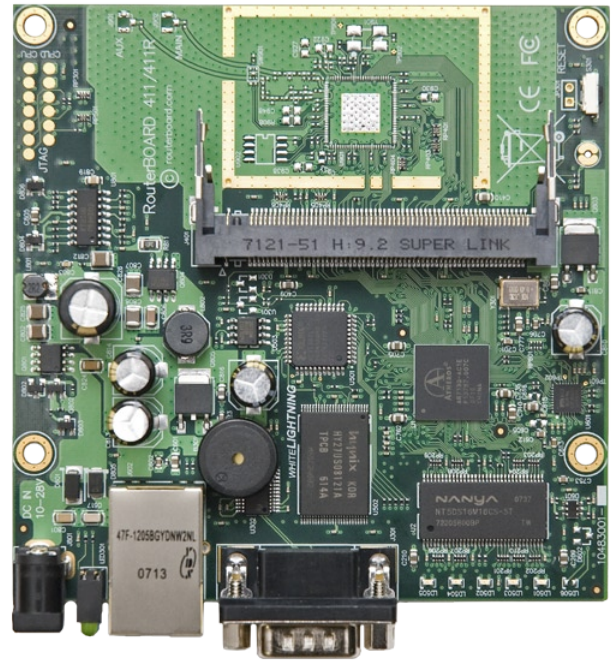
RouterOS version 3 now supports Q-in-Q tagging (VLAN over VLAN). This is useful for centralization of VLAN management. For example you can distribute VLAN tags over multiple switches, to make multihop setups. VLAN has less overhead than other solutions, like VPN.

Interface List		
Interface	Ethernet	EoIP Tunnel
R	ether1-Local	Ethernet
R	vlan1	VLAN
R	vlan11	VLAN
R	vlan111	VLAN
R	vlan112	VLAN
R	vlan113	VLAN
R	vlan12	VLAN
R	vlan13	VLAN



The new RouterBOARD 411

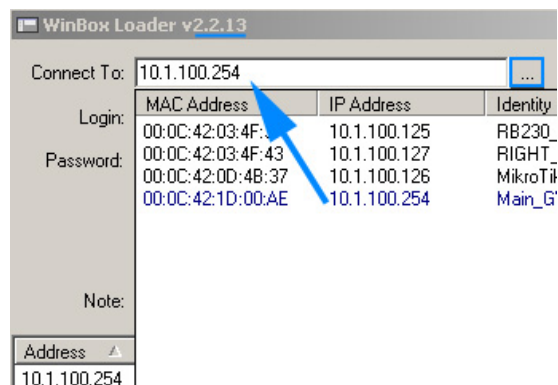
MikroTik is proud to introduce the next generation CPE device, the RouterBOARD RB411. It uses the same form factor as its predecessor - the RB133C, but is many times more powerful. In fact, our throughput tests



indicate that it can reach up to 3 times more throughput. This is the first of RouterBOARD products to use the new Atheros AR7100 CPU, and will require new RouterOS package files (mipsbe, see article on the left).

Winbox news

The new Winbox loader 2.2.13 now includes the possibility to select an IP address from the neighbor list, in addition to the MAC address that worked previously. Just click on it. Also winbox includes new categories feature, which groups list items together for easier viewing.



RouterOS used in NASA project

MikroTik Ltd., the leader in computer network routing software, is pleased to announce the deployment of its RouterOS operating systems within the Aquarius, the world's only underwater habitat and research laboratory.



Located three miles off Key Largo in the Florida Keys National Marine Sanctuary, Aquarius is an underwater complex similar in size to the International Space Station's living quarters that rests 62 feet beneath the surface of the sea. It is supported from the surface by a buoyant platform that provides power, life support and communications capabilities which will now be controlled by MikroTik's network routing software. Aquarius, owned by the National Oceanic and Atmospheric Administration (NOAA), is operated by the University of North Carolina Wilmington and funded by NOAA's Undersea Research Program.

The project is part of the NASA Extreme Environment Mission Operations (NEEMO) tasked to perform biomedical evaluations of medical system concepts as candidate flight hardware in a space analog environment. A shore-based mission control for the Aquarius laboratory in Florida and a control room at the Johnson Space Center will monitor the crew's activities. Further information on Aquarius can be found at

<http://www.uncw.edu/aquarius>.



SMS sending

RouterOS is now able to send SMS messages using GSM AT commands. This will work with any RouterOS supported interfaces that work in the GSM/3G networks.

Example:

```
/tool sms send usb3 "20000000" message="ABCDEF  
GHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrstuv  
wxyz!@#\$%^&*(){}[]\`"~"
```

'**dst**' is phone number of recipient (allowed characters are '0123456789*#abc', '+' notation is currently not supported)

'**smc**' is phone number of SMS service centre.

'**type**' can adjust some properties of SMS message. Currently only supported value is 'class-0', that allows to send class 0 SMS messages (displayed immediately and not stored on phone).

'**body**' is contents of message. It is encoded using GSM 7 encoding (UCS2 currently is not supported), so message is limited at 160 characters (characters ^{} \ []~ are counted as two characters each). Concatenated messages are currently not supported. Sending characters that are not in ASCII character set are currently not supported.

RouterOS Changelog

What's new in 3.0rc12:

- Added ability to specify & disable winbox port under "/ip services";
- Fixed bug - DFS was not taking into account channel usage when selecting channel;
- Fixed bug - simultaneously monitoring wireless interface and changing settings could cause crash;
- Improved memory usage under RB133C;
- Fixed bug - MAC Winbox connection was not very stable;
- Fixed bug in graphing;