

- CCR EM
- Groove 52
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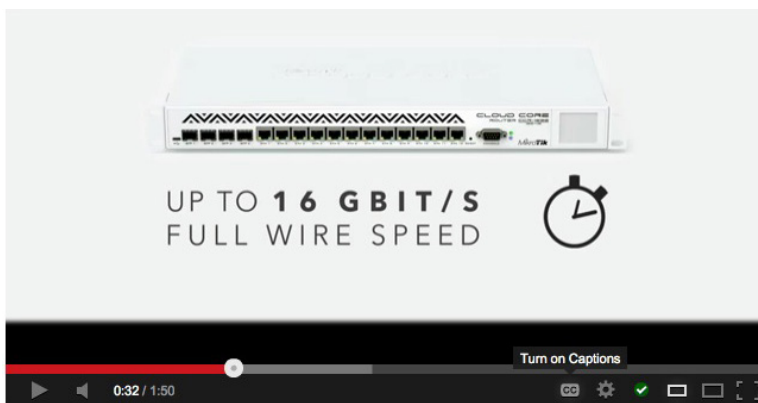
## CCR with 16GB RAM **\$1195**

The CCR is now available with 16GB model (product code CCR1036-12G-4S-EM).

The CCR is our carrier grade router with a cutting edge 36 core Tiler CPU! The Cloud Core supports throughput of up to 24 million packets per second, or up to 16 gigabits - full wire speed.

It has two SODIMM slots, by default it is shipped with **16GB** of RAM, but has no memory limit in RouterOS. It comes with power supply and 1U rackmount case.

Watch our new CCR overview [video on YouTube](#).



## MUM in South Africa



For the second time, MikroTik User Meeting returns to South Africa. Free registration is already open. Register now, for the only African MUM this year!

Head over to <http://mum.mikrotik.com> to register and print your free entry tickets.

Event takes place **July 26, 2013** in Johannesburg

## Groove 52 **\$59**

Now available with a selectable frequency - one device can work in either 2GHz or 5GHz!

RouterBOARD powered by RouterOS. Weatherproof, durable and ready to use. It has one 10/100 Ethernet port with PoE support and a built in wireless radio. It has software selectable 2 or 5GHz wireless mode, and high 1000mW output power!

With the Nv2 TDMA technology, up to 125Mbit aggregate throughput is possible! It has a built-in N-male connector, and pole attachment points, so you can attach it to an antenna directly, or use a standard antenna cable. LED signal indicators make it easy to install and align.

CPE or AP versions are available. Available in middle of June. CPE model \$59, AP model \$79.



Product page:

- <http://routerboard.com/RBGroove-52HPn>
- <http://routerboard.com/RBGrooveA-52HPn>

Model	52HPn	A-52HPn
CPU	AR9342 600Mhz	
Memory	64MB	128MB
Ethernet	One 10/100 Mbit/s Fast Ethernet. L2MTU up to 2030	
Wireless	5 or 2GHz (software selectable)	
Extras	Reset switch, Beeper, Voltage monitor, Temperature monitor	
LEDs	5 wireless signal LEDs, ethernet activity LED (configurable)	
Powe	Passive 9-30V PoE only. 16KV ESD protection on RF port. Up to 0,19A at 24V (4.56W)	
Dimensions	177x44x44mm, 193g. Must be mounted with ethernet pointing down	
Operating temp.	-30C to +70C	
RouterOS	Level3 license (station or ptp)	Level4 license (AP, station or ptp)
Package	Groove unit, mounting loops, PoE injector, 24V power adapter	



## RouterOS6

Our new RouterOS6 has been released, and it's packed with features. This page gives you an overview of what is new since RouterOS5.

You can download RouterOS6 on our download page. Select your architecture type, or RouterBOARD family, and choose "upgrade package". Simply upload this to your router and reboot. If you use non standard packages, download the "all packages" file and choose the ones you have now. Upload and reboot.

<http://mikrotik.com/download>

### General

- Updated drivers and Kernel (to linux-3.3.5)
- [FastPath](#) allows to forward packets without additional processing in the Linux kernel. It improves forwarding speeds significantly
- Initial [OpenFlow](#) support
- New [LCD Touch screen features](#)
- Hotspot [mac-cookie login method](#) (mostly used for smartphones)
- Configurable Kernel options in **/ip settings** and **/ipv6 settings** menu (ip forward, rp filters etc)
- ARP timeout can be changed in **/ip settings**
- Neighbor discovery can be disabled by default on dynamic interfaces in **/ip neighbor discovery settings** menu
- Show **last-logged-in** in users list
- GRE supports all protocol encapsulation, not just ip and ipv6;
- Slave flag shows up for interfaces that are in bridge, bonding or switch group;
- SSH client has new property **output-to-file**, useful for scripting.
- Support for [API](#) over TLS (SSL)
- API is now enabled by default
- DNS retry queries with tcp if truncated results received
- DNS rotates servers only on failure
- DNS cache logs requests to topics "dns" and "packet";
- WebFig RADIUS authentication (via MS-CHAPv2)
- New Web Proxy parameter **max-cache-object-size**
- Increased Max client/server connection count for Proxy
- If NTP client is enabled, logs show correct time and date when router was rebooted.
- [802.1Q Trunking](#) with Atheros switch chip

### PPP

- SSTP can now force AES encryption instead of default RC4
- PPP profile now has **bridge-path-cost** and **bridge-port-priority** parameters
- Secrets shows **last-logged-out** date and time
- Hotspot and PPP now support multiple address-lists
- Only 2 change mss mangle rules are created for all ppp interfaces;

### Firewall

- New **all-ether,all-wireless,all-vlan,all-ppp** interface matchers
- Priority matcher
- New change-dscp options **from-priority** and **from-priority-to-high-3-bits**
- New Mangle Actions **snif-tzsp,snif-pc**

### Wireless

- Wireless [Channels options](#) - creating custom channel lists

### DHCP

- DHCP client now support custom options
- DHCP v4 client now have **special-classless** option for **add-default-route** parameter
- Possibility to add DHCP relay agent information option (Option 82)
- DHCPv6 DNS option support
- DHCPv6 Relay support
- DHCP server RADIUS framed route support
- DHCP option configuration per lease

### IPsec

Significantly improved Road Warrior setup usage with Mode Configuration support.

Detailed configuration example can be found in the [manual](#).

Full list of new features:

- Mode Conf support (unity split include, address pools, DNS)
- Ipsec peer can be set as passive - will not start ISAKMP SA negotiation
- Xauth support ( xauth PSK and Hybrid RSA)
- Policy templates - allow to generate policy only if src/dst

address, protocol and proposal matches the template

- Peer groups
- Multiple peers with the same IP can be used.
- For peers with full IP address specified system will auto-start ISAKMP SA negotiation.
- generate-policy now can have **port-strict** value which will use port from peer's proposal

## Certificates

- CA keys are no more cached, every CA operations now requires a valid CA passphrase. Use **set-ca-passphrase** for scep server to cache CA key in encrypted form;
- For certificates marked as **trusted=yes**, CRL will be automatically updated once in an hour from http sources;
- Ipsec and SSTP respects CRLs
- SCEP server/client support

## Routing

- New OSPF parameter **use-dn**. Forces to ignore DN bit in LSAs.
- Changed BGP MED propagation logic, now discarded when sending route with non-empty AS\_PATH to an external peer
- Connected routes become inactive when Interface goes down. It also means that dynamic routing protocols will stop distributing connected routes without Active flag.

## Queues

- improved overall router performance when simple queues are used
- improved queue management (/queue simple and /queue tree) - easily handles tens of thousands of queues;
- /queue tree entries with parent=global are performed separately from /queue simple and before /queue simple;
- new default queue types: **pcq-download-default** and **pcq-upload-default**;
- simple queues have separate priority setting for download/upload/total;
- global-in, global-out, global-total parent in /queue tree is replaced with **global** that is equivalent to global-total in v5;
- simple queues happen in different place - at the very end of postrouting and local-in chains;
- simple queues target-addresses and interface parameters are joined into one target parameter, now supports multiple interfaces match for one queue;
- simple queues dst-address parameter is changed to **dst** and now supports destination interface matching;

## Compact configuration export

Now by default configuration is exported in compact mode. To make full config export verbose parameter should be used:

```
/export verbose file=myConfig
```

## Tools

- Renamed e-mail **tls** to **start-tls** and added it as a configurable parameter
- **Fetch tool** now has HTTPS support
- Added ipv6 header support for traffic generator
- Playback pcap files into network using new **trafficgen inject-pcap** command
- NAND Flash **can be Partitioned** on routerboards and separate RouterOS versions can be installed on each of the partitions

Complete list can be found in our [WIKI](#). The list is continuously updated and expanded. If you have questions or need more information, ask in our [Forum](#) or [email Support](#).

<http://wiki.mikrotik.com/wiki/Manual:Whatsnew>

The screenshot shows the MikroTik WebFig v6.0 interface. The main content area displays a table titled 'Interface List' with 14 items. The table columns are: #, Name, Type, L2 MTU, Tx, Rx, Tx Packet (p/s), and Rx Packet (p/s). The table lists various interfaces including LAN, ether1-10, remote\_LAN, and wlan1.

#	Name	Type	L2 MTU	Tx	Rx	Tx Packet (p/s)	Rx Packet (p/s)
1	eth-LAN	Bridge	1500	106.2 kbps	16.4 kbps	25	23
2	ether1	Ethernet	1500	530.8 kbps	724.9 kbps	927	865
3	ether2	Ethernet	1500	0 bps	0 bps	0	0
4	ether3	Ethernet	1500	108.7 kbps	18.9 kbps	23	23
5	ether4	Ethernet	1500	0 bps	0 bps	0	0
6	ether5	Ethernet	1500	717.7 kbps	522.7 kbps	856	917
7	ether6	Ethernet	1500	0 bps	0 bps	0	0
8	ether7	Ethernet	1500	0 bps	0 bps	0	0
9	ether8	Ethernet	1500	0 bps	0 bps	0	0
10	ether9	Ethernet	1500	0 bps	0 bps	0	0
11	ether10	Ethernet	1500	0 bps	0 bps	0	0
12	remote_LAN	Bridge	1500	7.8 kbps	15.8 kbps	10	20
13	rdp1	Ethernet	1500	0 bps	0 bps	0	0
14	wlan1	WirelessAthres 489 2290	0 bps	0 bps	0 bps	0	0