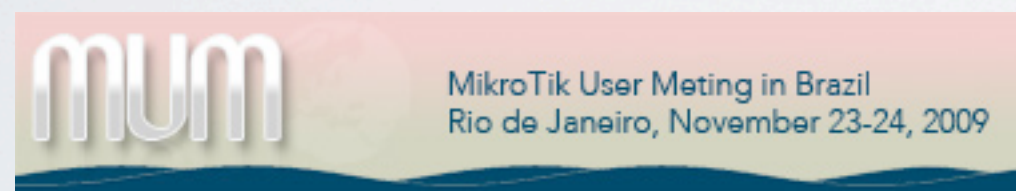
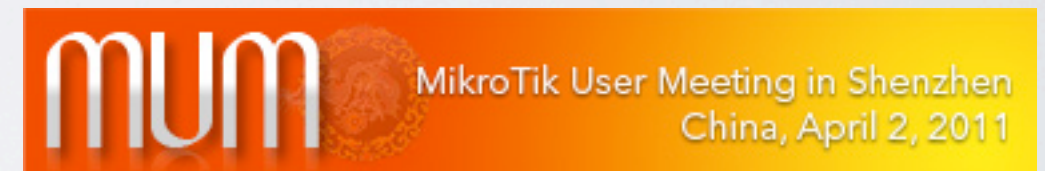
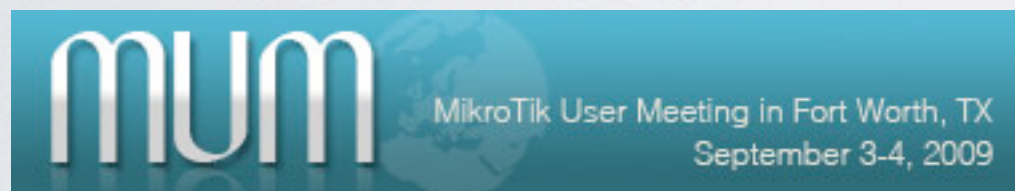
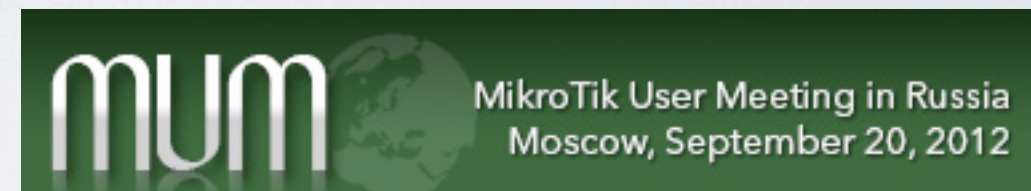
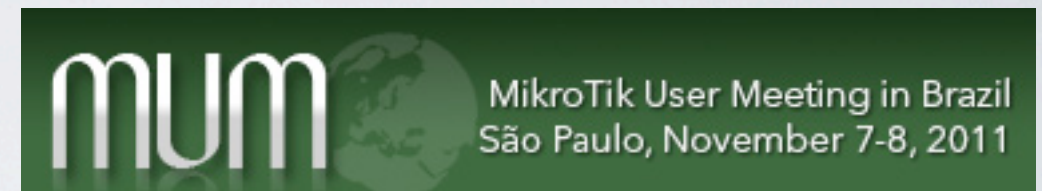
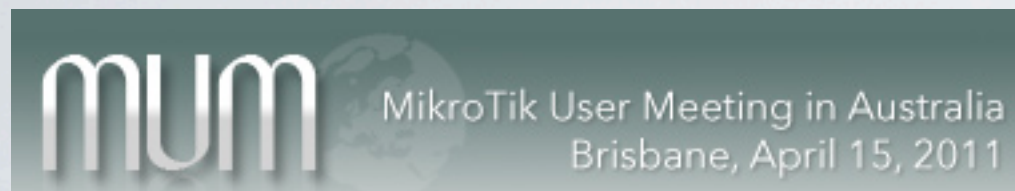
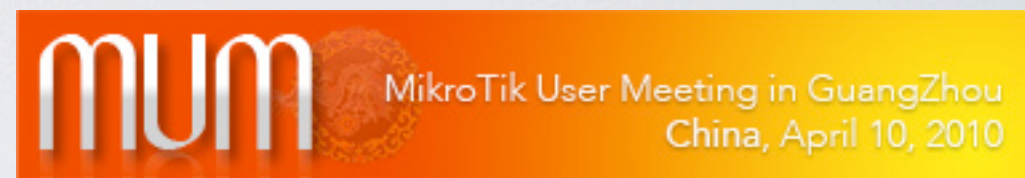
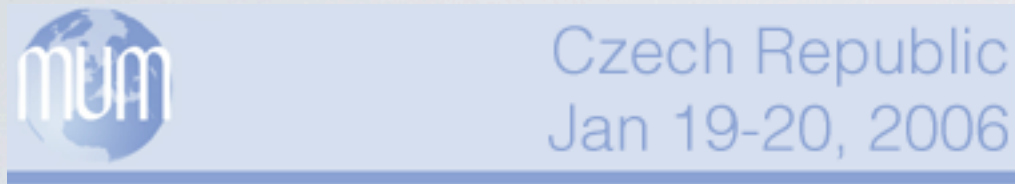




MikroTik User Meeting in Sydney, Australia
October 2012

MUM #39 in Australia!



Who is MikroTik?

80 employees

Established in 1996

RouterOS in 1997

RouterBOARD in 2002

First MUM Prague 2006

Biggest MUM Indonesia 2011

Where is Latvia?

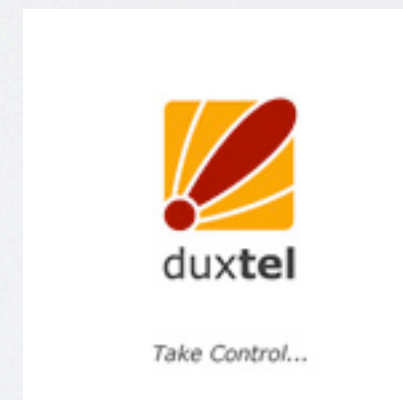
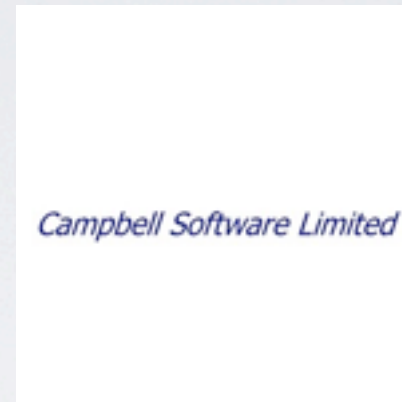


Staff

Janis Jankovskis (Sales)

Sergejs Boginskis (Support)

Exhibitors!



Special Thanks!



Duxtel



BigAir

After MUM!

Presentations slides - **wiki.mikrotik.com**

Presentations videos - **tiktube.com**

License - will be sent by e-mail within few days

NEW PRODUCTS

Q4 2012

Multifunctional Routers

RouterBOARD 2011

RB2011 L-IN

\$99, case and PSU included

5 Ethernet

5 Gbit Ethernet

64MB RAM

RouterOS Level4



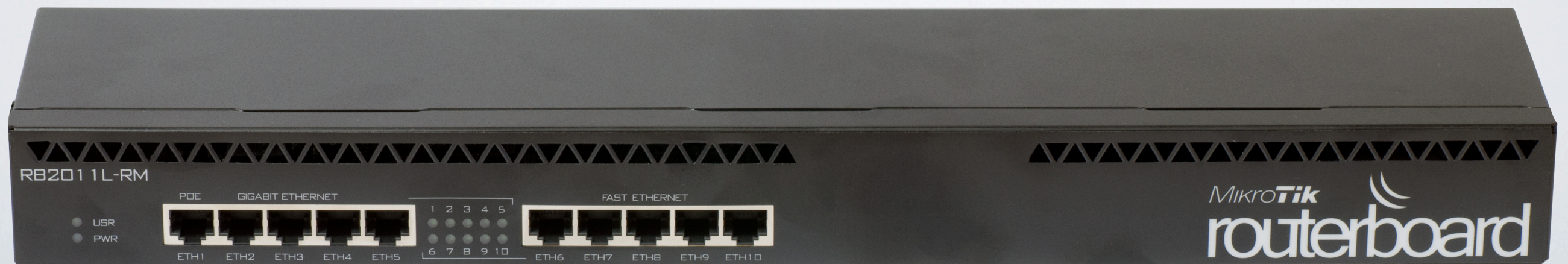
RB2011L-RM

\$99, rackmount

5 Ethernet

5 Gbit Ethernet

RouterOS Level4



RB2011LS-IN

\$109, case and PSU

SFP cage

5 Ethernet

5 Gbit Ethernet

64MB RAM

RouterOS Level4



RB2011UAS-IN

\$119

SFP cage

128MB RAM

Micro-USB, RJ45, LCD

RouterOS Level5



RB2011UAS-RM

\$119

SFP cage

128MB RAM

Micro-USB, RJ45 serial, LCD

RouterOS Level5



RB2011 UAS-2HnD-IN

\$129

SFP cage

128MB RAM

Micro-USB, RJ45 serial, LCD

1W 2.4GHz MIMO



New 2.4GHz devices

RBMetal-2SHPn

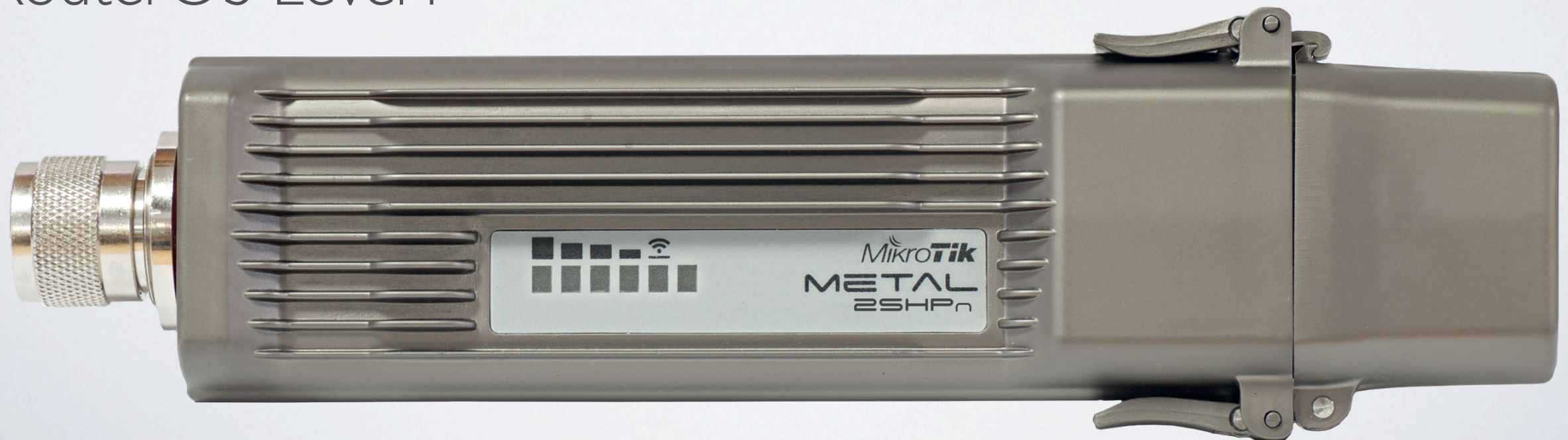
\$99

2.4GHz 1.6W!

N-Male connector

Rugged and Waterproof

RouterOS Level4



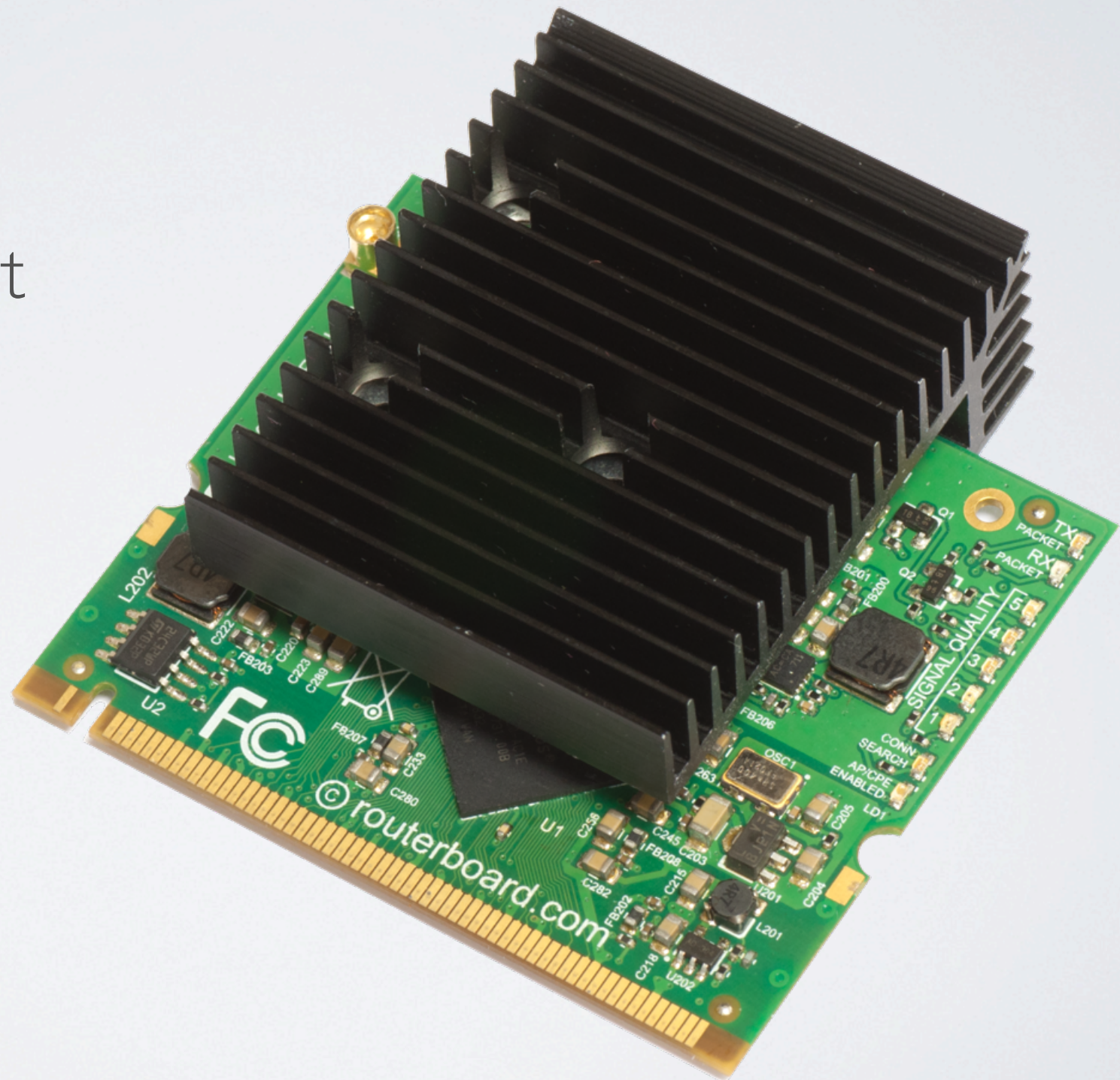
R2SH P_n

Coming November

1.6W output power

125Mbps throughput

MiniPCI format



SXTG-2HnD AP/CPE

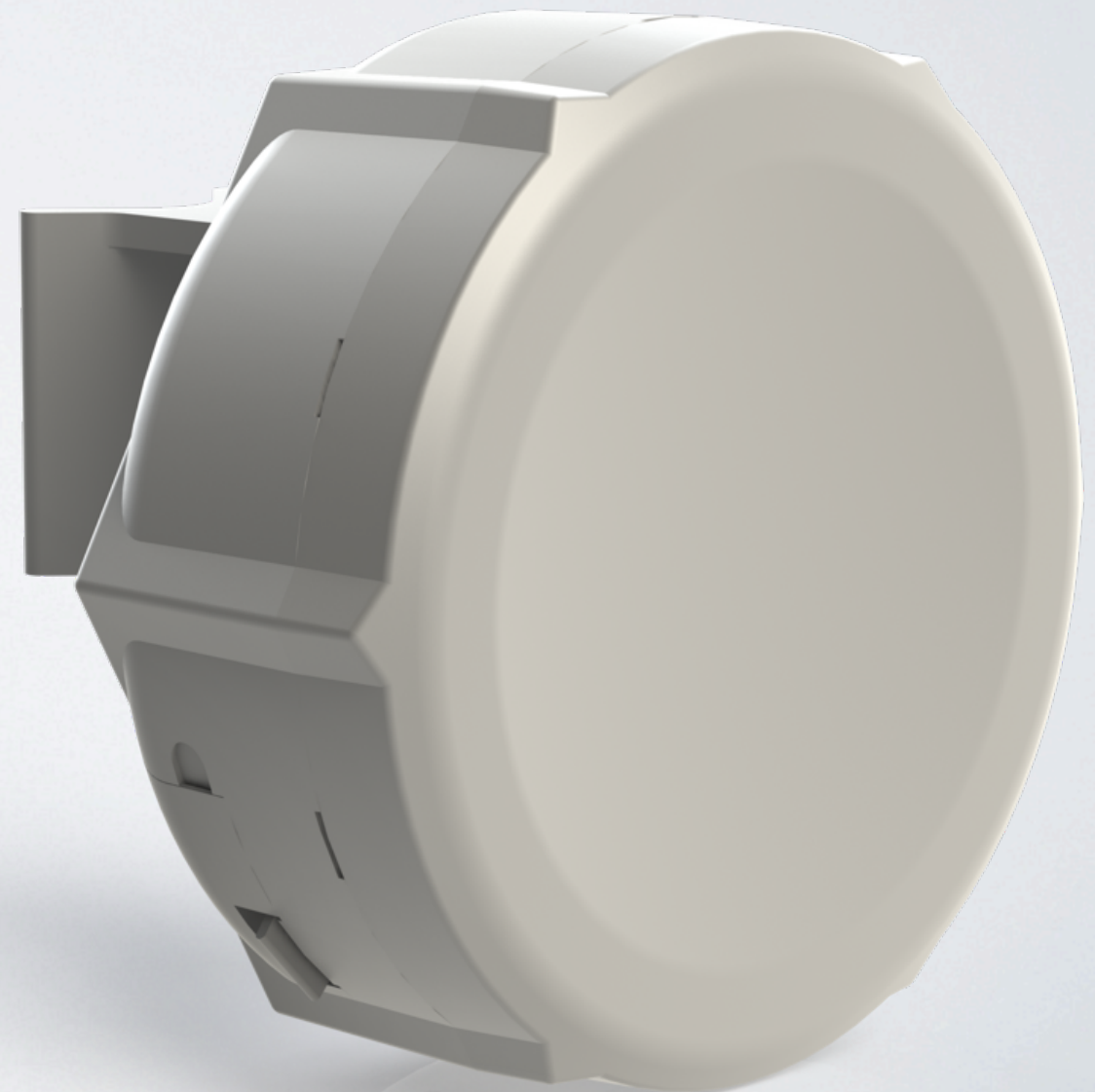
Coming October

10dBi antenna

Antenna 25 degree

Gigabit Ethernet

Point-to-point, AP, CPE, etc.



5GHz AP Sector

SXT G-5HnD

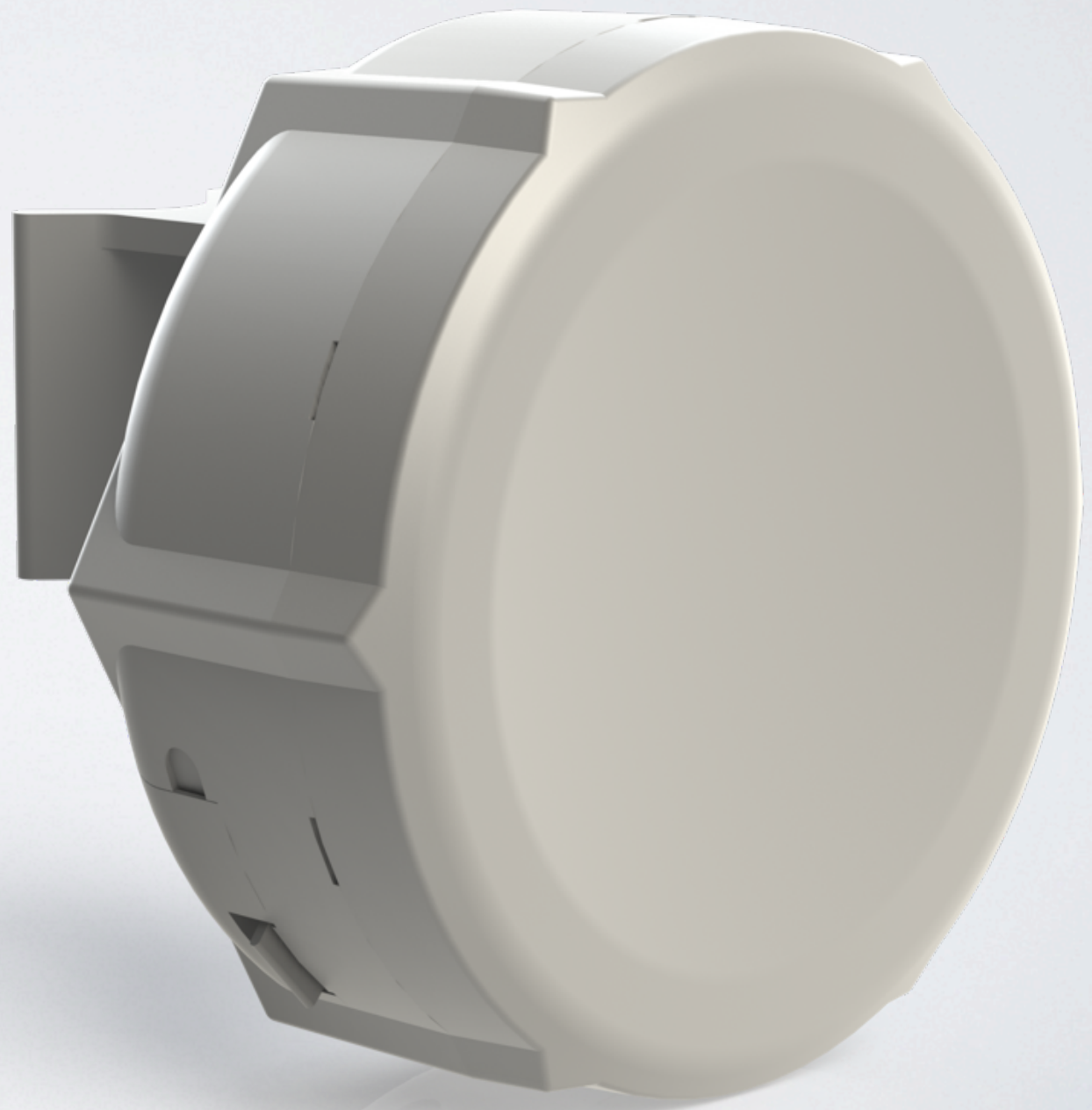
\$99

High TX power 26dBm

License Level4

Works as Sector

Antenna 25 degree



Four Port Gigabit Ethernet Card

RouterBOARD 44Ge

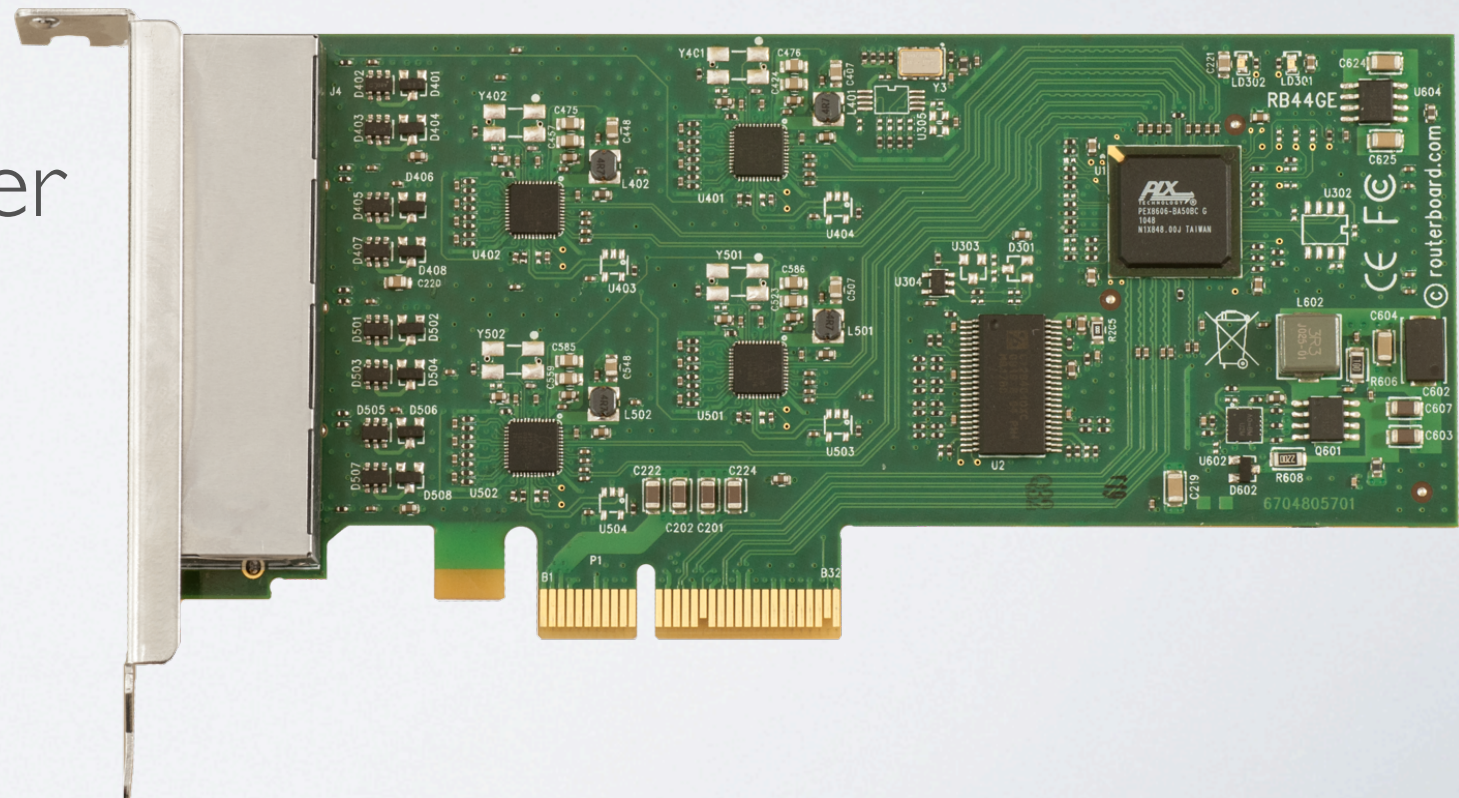
\$99

4 port Gbit Server adapter

PCI-express

RouterOS, Linux, Windows

Make PC in multiport router



Cloud Core Router



CCR-1036

36 cores, 1.2GHz per core

Rackmount

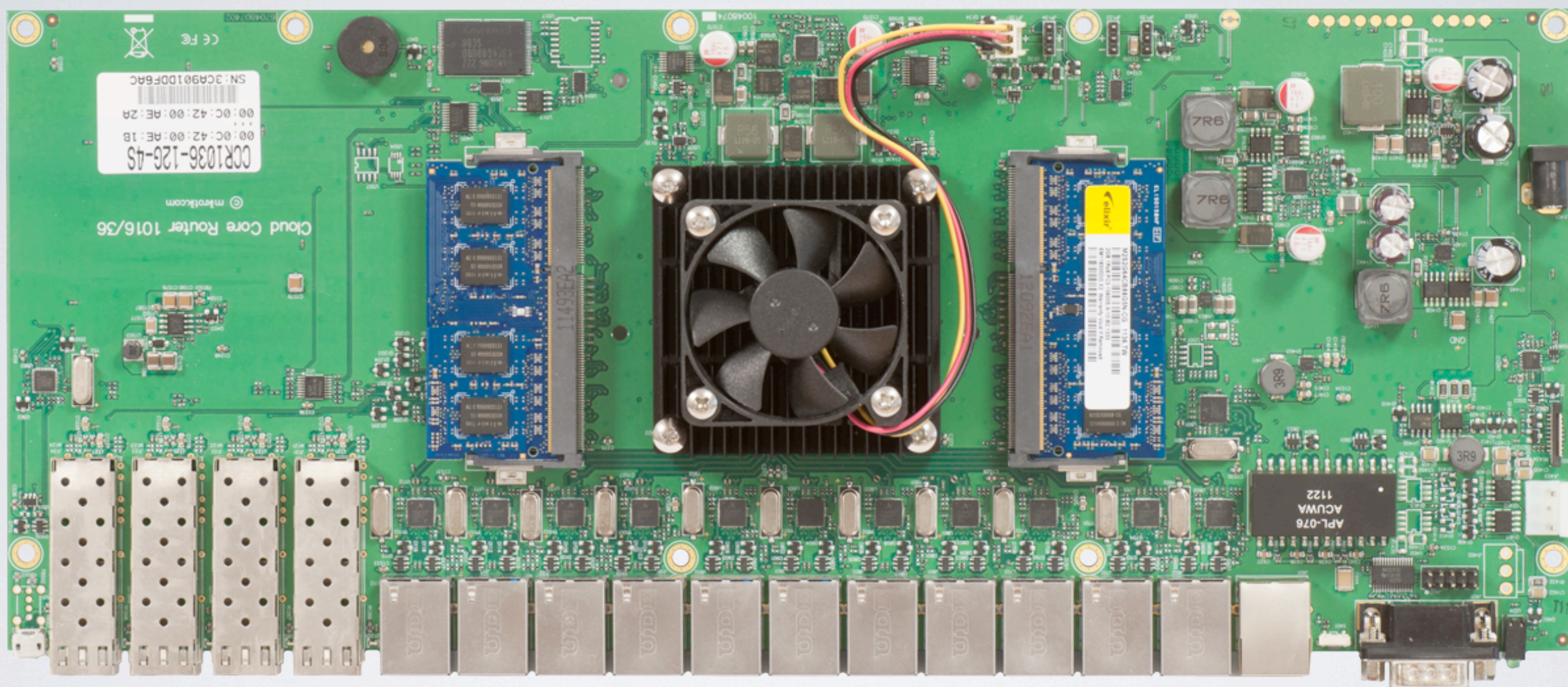
12xGbit Eth, 4xSFP

Touchscreen LCD

2GB RAM

RouterOS Level6

Coming Q4 2012



Do not miss Live demonstration!



Mikro **Tik**
ACADEMY

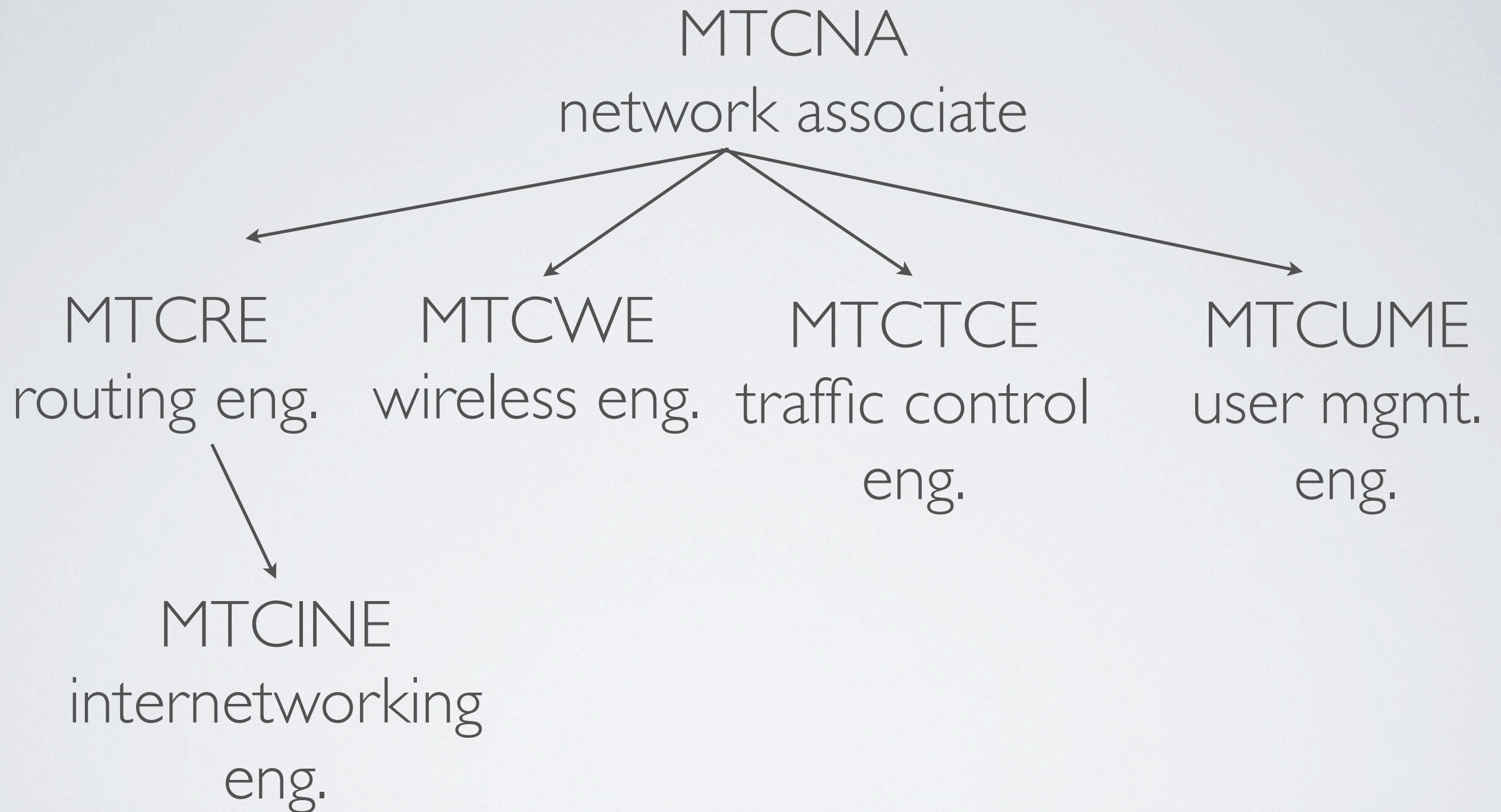
The logo for Mikrotik Academy features the word "Mikro" in a black, italicized serif font. Above the "i" in "Mikro" are two curved lines. The word "Tik" is in a bold, black, sans-serif font. Above "Tik" is a stylized black icon of a building with a triangular roof and horizontal lines. Below "Tik" is the word "ACADEMY" in a black, italicized, sans-serif font, underlined.

Purpose

Expand RouterOS learning

- universities
- technical schools
- colleges
- institutions with semester based course

MikroTik Certification



MikroTik Academy

MTCNA

network associate



MTCRE

MTCWE

MTCTCE

MTCUME

routing eng.

wireless eng.

traffic control
eng.

user mgmt.
eng.



MTCINE

internetworking
eng.

Academy Training

Basic Networking course

RouterOS as learning tool

MTCNA certification

MTCNA outline

Academy Coordinators

regional MikroTik Training Centers

supervises implementation of MikroTik Academy program

not exclusive

well informed about the education system in their country

Benefits

for Students:

the most effective way to acquire knowledge in networking

no charges by MikroTik

opportunity to acquire MTCNA certificate during academy studies

Benefits

for Educational Institutions:

upgrade current program with networking course covering the latest technology features

no additional financial investment

opportunity to attract more students by handing MikroTik certificates

Benefits

for Training Centers - Coordinators:

prepare Academy Trainers (sponsored by MikroTik)

presence in MikroTik webpage and newsletters

new students for MikroTik engineer courses

Benefits

for Distributors:

advertising by providing equipment for a class

knowledgeable engineers (new employees?)

more educated users = more requirement for equipment

MikroTik offers

to MikroTik Training centers:

credit to prepare Academy trainers

for free or and the reduced cost

MikroTik offers

to MikroTik Academy:

training outline and materials

Academy Trainer shirts

pens, notepads

RouterBOARD 951-2n for the labs

online MTCNA certificates

RouterOS Level4 software to students

Requirements

for Educational Institutions:

motivation

space and required equipment for the labs

Internet access

MikroTik Academy Trainer

approved training materials

Requirements

for Academy Trainers:

lecturer at the educational institution

MTCNA certificate (>75%)

any MikroTik engineer level certificate (>75%)

appropriate teaching skills

How to apply?

Fill out the form online

mikrotikacademy.com form
and more information

evaluation procedure,
performed by coordinator

Evaluation Procedure

performed by coordinators:

educational institution validation

verification of the Academy Trainer

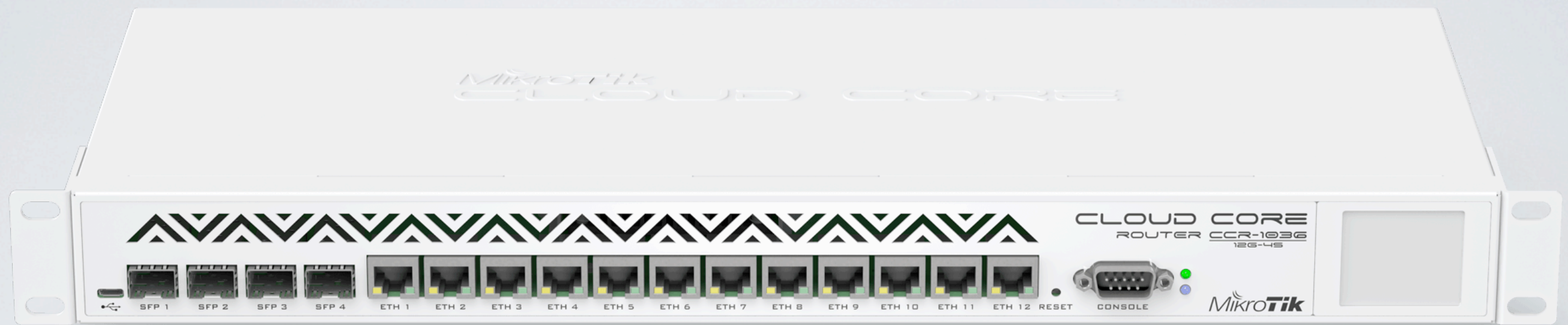
verification of training materials

verification of students

MikroTik RouterOS v6 features

RouterOS v6.0 is almost here!

New Products Support



Support of announced and unannounced CloudCore devices will be added only for v6.x (and above)

New Kernel

RouterOS 5.21 - Linux kernel v2.6.35

RouterOS 6.x - Linux kernel v3.3.5+

More information: kernel.org

New Kernels Features

Newest driver support for x86 systems

Interface management - up to 1000 interfaces and more

Less space - works well on 32MiB flash

New CPU support

v5.x were 4 architectures:

Mipsle (RB1xx, RB5xx), Mipsbe (RB4xx, RB7xx, RB9xx, RB2011), ppc(RB1xxx, RB6xx, RB8xx), x86

v6.x adds one more:

Tile (CCR1xxx)

RouterOS Tile!

Only on CCR devices

64-bit operating system (more RAM)

Dual Memory channel support

Hardware accelerated Multi-threading (no need for RPS and IRQ management)

What else is new?

Lifted 16 CPU core limit

Improved RouterOS performance on multi-cpu systems (up to 20%)

Improved RouterBOARD driver performance (up to 30%)

RouterBOARD package merged into system

Fast Path

Forwarding packets without additional processing

Supported on RouterBOARDs

More information on wiki.mikrotik.com

QoS System Reworked

global-in, global-out, global-total in /queue tree are replaced with **global**

PCQ queue type is tied to connection tracking and now is NAT aware

Simple queue happen at the very end of Postrouting and Input sections

Queues

Now handles tens of thousands queue rules

Improved router performance when simple queues are used (up to **600%** improvement)

Simpler Simple Queue

target-interface and interface are joined into **target** parameter, and supports multiple interfaces

dst-address is changed to **dst**, and now supports destination interface matching

Separate **priority** for download, upload and total

Simple Queue Interface v5.x

New Simple Queue

General Advanced Statistics Traffic Total Total Statistics

Name: queue_from_v5

Target Address: 192.168.1.254

☒ Target Upload ☒ Target Download

Max Limit: 20M 20M bits/s

Burst

Burst Limit: unlimited unlimited bits/s

Burst Threshold: unlimited unlimited bits/s

Burst Time: 0 0 s

Time

Time: 00:00:00 - 1d 00:00:00

☒ sun ☒ mon ☒ tue ☒ wed ☒ thu ☒ fri ☒ sat

enabled

New Simple Queue

General Advanced Statistics Traffic Total Total Statistics

P2P:

Packet Marks:

Dst. Address:

Interface: all

Target Upload

Limit At: 2M 2M bits/s

Queue Type: pcq-upload-default pcq-download-default

Parent: none

Priority: 8

Target Download

OK

Cancel

Apply

Disable

Comment

Copy

Remove

Reset Counters

Reset All Counters

Torch

enabled

Simple Queue Interface v6.x

New Simple Queue

General Advanced Statistics Traffic Total Total Statistics

Name: queue_from_v6

Target: 192.168.1.254

Dst.: ether7

Target Upload

Target Download

Max Limit: 20M 20M bits/s

Burst Limit: unlimited unlimited bits/s

Burst Threshold: unlimited unlimited bits/s

Burst Time: 0 0 s

Time: 00:00:00 - 1d 00:00:00

☒ sun ☒ mon ☒ tue ☒ wed ☒ thu ☒ fri ☒ sat

enabled

New Simple Queue

General Advanced Statistics Traffic Total Total Statistics

Packet Marks:

Target Upload

Target Download

Limit At: 2M 2M bits/s

Priority: 6 7

Queue Type: pcq-upload-default pcq-download-default

Parent: none

OK

Cancel

Apply

Disable

Comment

Copy

Remove

Reset Counters

Reset All Counters

Torch

enabled

SCEP Protocol Support

Simple Certificate Enrollment protocol

Get CA certificate from CA server

Create self-signed certificate with temporary key

Send certificate request to the server

More information:

Other changes

Slave flag for interface in bridge, bonding or switch

/export compact is default for /export, use /export verbose to get previous behavior

dhcp-options can be specified by mixing different data types

dhcp-client has custom dhcp-option feature

Wireless Advanced Channels

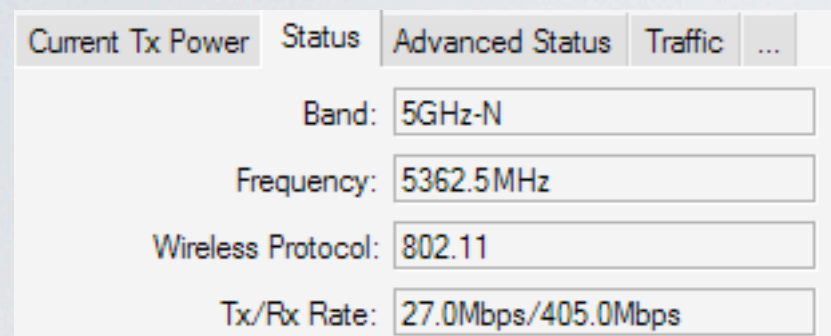
Works on AR92xx chips, center frequency range 2192-2734 MHz and 4800-6100 MHz

Choose center frequency (0.5MHz step)

Choose channel width (2.5-30 MHz, 0.5 MHz step)

Free superchannel license is required

Advanced Channel Test



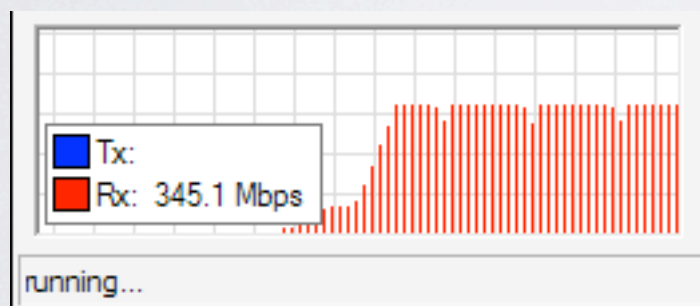
Center frequency 5362.5 MHz

Channel-width 30MHz

Extension-channel above

Maximal data-rate - 405Mbps

Wireless Protocol 802.11N



Cheers mates

