

In this newsletter read about

- CCR2116-12G-4S+ • netFiber9 • G1040A-60WF • Rack-holder SR-10U • New IoT products
- UNII-2 support for more products • A little white box for a greener world... • Made For MikroTik
- Donations for Children's Hospital • Our thanks to the best community in the world

CCR2116-12G-4S+

10G networking meets the unparalleled power of a modern ARM CPU.

The most powerful CCR so far.



FORGET ABOUT CPU LIMITATIONS!

MASSIVE BGP PERFORMANCE BOOST!

4x



10G SFP+



16-CORE, 2 GHZ ARM CPU



16 GB DDR4 RAM



M.2 PCIe SLOT



EXCEPTIONAL ENERGY EFFICIENCY:
TYPICAL POWER CONSUMPTION –
60W!



DUAL-REDUNDANT
POWER SUPPLY

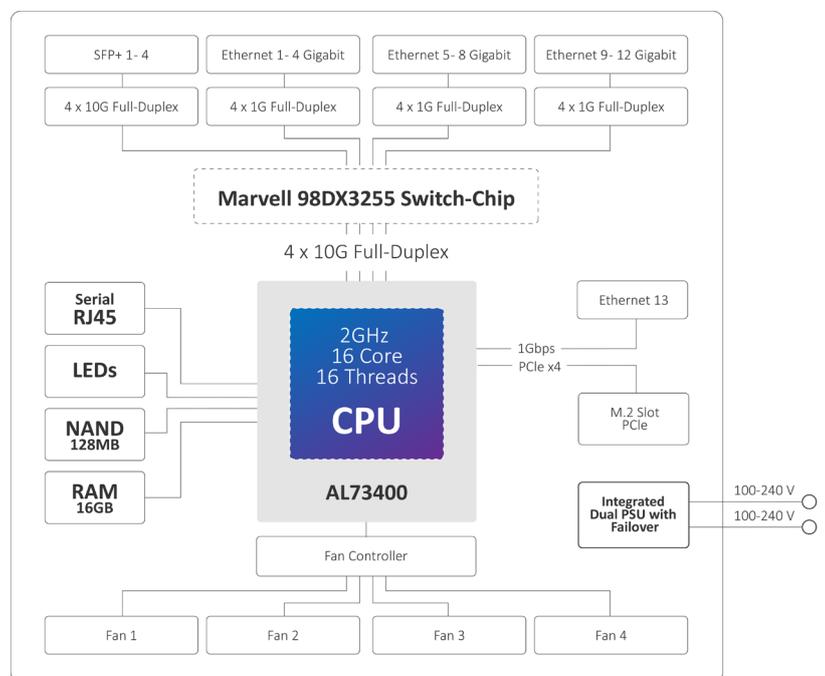
We wanted to see the full potential of the good old, reliable 10G networking combined with a modern CPU. CCR2116-12G-4S+ allows you to forget about CPU limitations in your setup. Like its younger brother – the amazing CCR2004, this router features the mighty Amazon Annapurna Labs Alpine CPU.



But with 16 cores running at 2 GHz, this CCR eats the other one for breakfast. For example, we see at least a 15% increase in single-core performance. And that is the most important aspect when it comes to heavy operations based on per-connection processing. Like queues, for example. CCR2116-12G-4S+ sets a **new standard of single-core performance in the whole MikroTik product family!** And it supports Layer 3 Hardware Offloading!

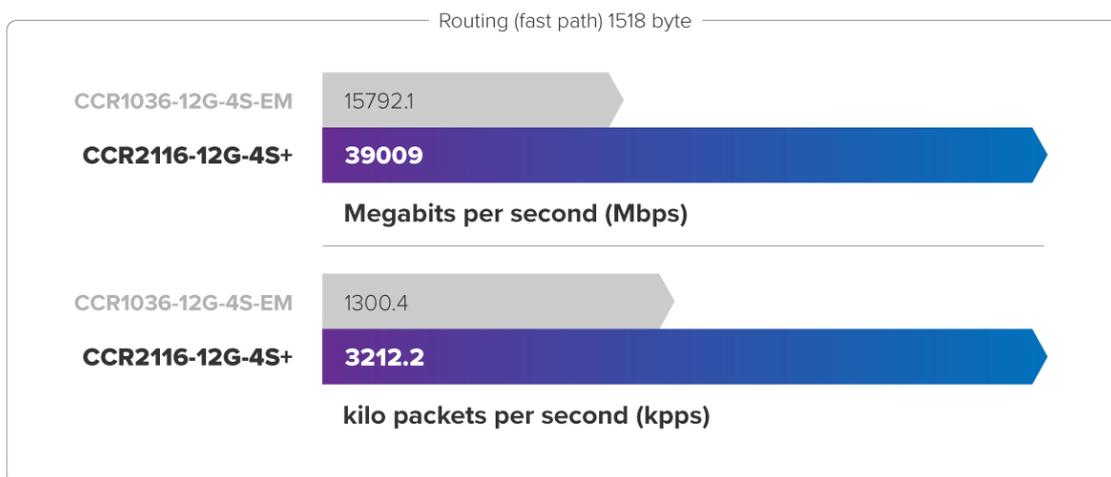


Obviously, you need the right connectivity to harness this power. There are **four 10G SFP+ ports**. They have a separate, full-duplex line connected to the Marvell Aldrin family switch chip. Then we have Gigabit Ethernet ports. 12 of them are running through the Marvel chip. And there is another Gigabit port connected directly to the CPU. For management purposes.



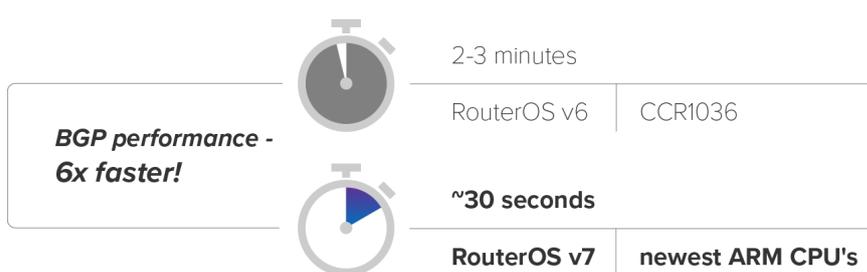
Each group of 4 ports has a separate full-duplex connection to the switch chip. No bottlenecks here. You can expect switch-like throughput in most setups.

The new generation of processors offers mind-blowing performance. If we look at the CCR1036 - the powerhouse with a 36 core CPU, the **new CCR2116 can easily double the performance. 16 cores vs 36 cores. Double the performance. Or even more.**



An average performance increase of 150%!

There is also an M.2 PCIe slot. It supports SSD's up to 8 terabytes. This could be extremely useful for all kinds of Container apps (coming soon in v7). But we are very excited to see what kinds of interesting use-cases you will come up with.



If you are a rather large ISP, dealing with dynamic routing, massive BGPs, complex firewall rules, and intricate quality of service configurations..This is the right device for you. Combination of raw power and utility with the reliable 10G networking. And yes, like with any ISP-level device, we've included a **dual-redundant power supply**. So you have one less thing to worry about.

CCR2116-12G-4S+: technology tested by time, built for the future.

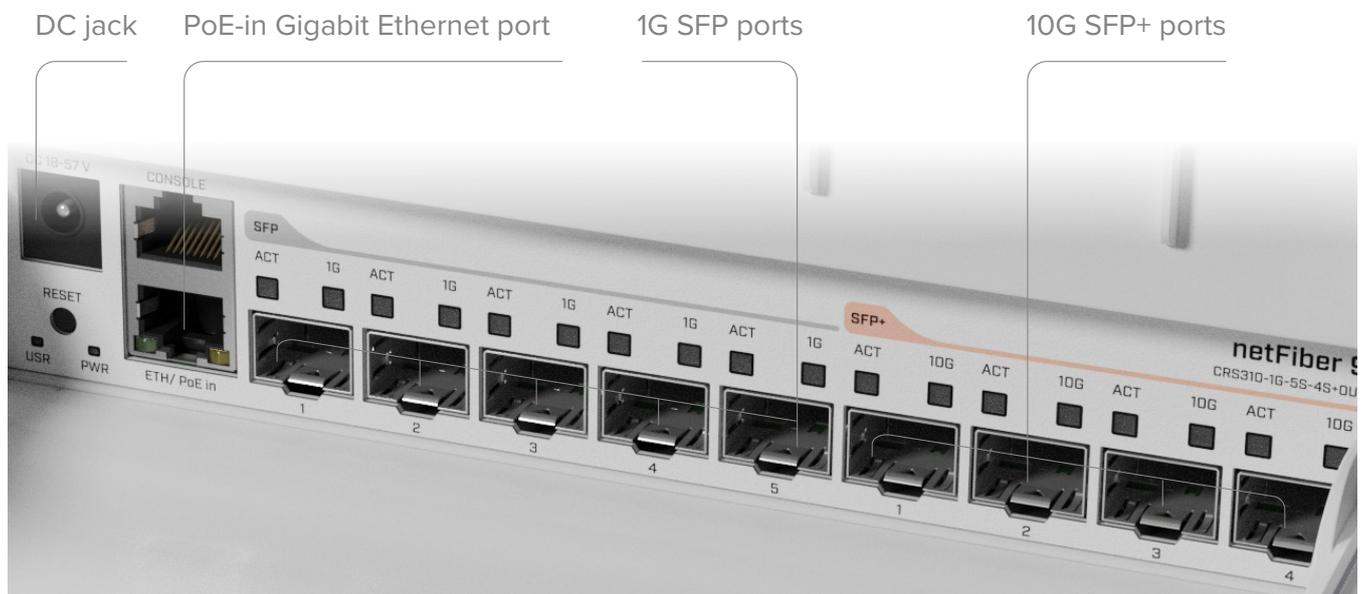
-  MULTIPLE POWERING OPTIONS
-  DIFFERENT MOUNTING OPTIONS
-  STURDY OUTDOOR CASE
-  SFP
-  SFP+
-  GIGABIT ETHERNET
-  POE-IN

netFiber 9 is a powerful outdoor switch with SFP, SFP+, and Gigabit Ethernet. It features a powerful ARM v7 CPU, 256 MB of RAM, 4x 10G SFP+ ports, and an advanced Marvell switch-chip that can handle even the heaviest loads. The Gigabit Ethernet port is not just for management purposes.

It has a direct connection to the switch chip – so you can enjoy full Gigabit speed. This port also supports PoE-in, so you don't have to rely on the DC jack for powering in tight, hard-to-reach spots.

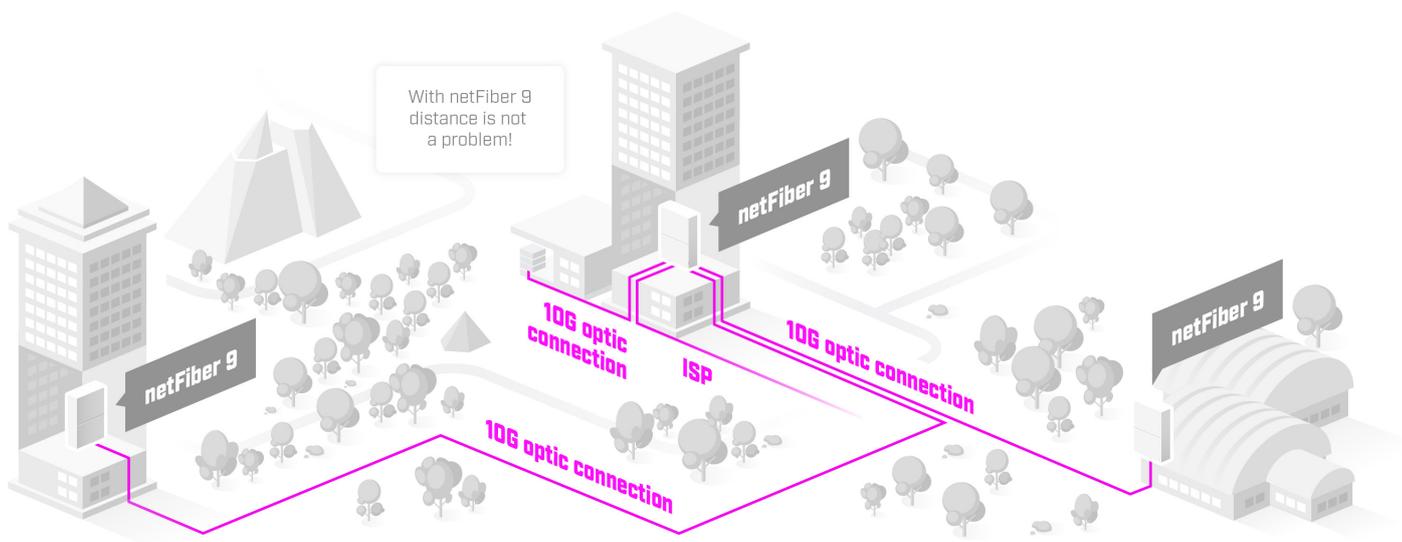
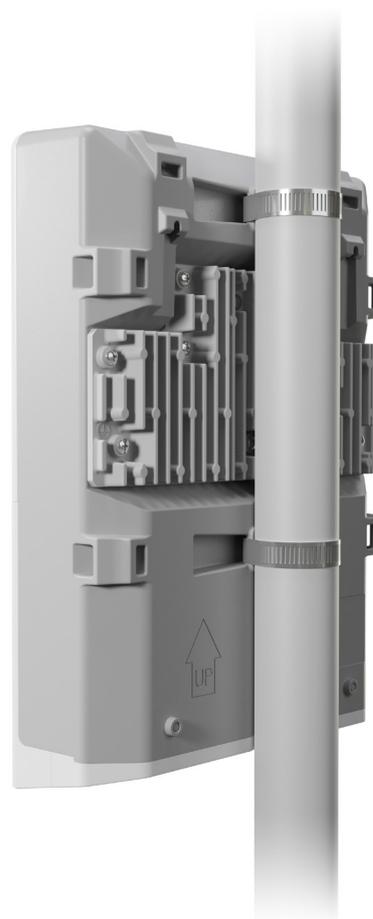


There is a console port, followed by five regular SFP ports and four SFP+ ports for that sweet 10 Gbps networking. This means there might be quite a lot of wires for you to organize at some point. That's why we designed the case to have some handy little additional features on the bottom of the case to help you keep everything neat and tidy.



The sturdy case provides decent protection in dusty environments with occasional splashes of water. Perfect for outdoors with some light coverage – like a roof overhang or a simple cabinet.

There is a massive heatsink on the back that serves two purposes. Not only it provides outstanding heat dissipation, it also moves the center of mass towards the side with all the mounting options – keeping the board firm and strong upon installation. The package includes metal hose clamps and screws, so you can attach the netFiber to a pole, wall, or mast right away.



netFiber 9 is an amazing tool for anyone working with connections over 100 meters while keeping data loss and ping low. Optic fiber can be a great alternative to copper if you are worried about electromagnetic interference or maybe even tampering and eavesdropping. With 10 ports, a powerful CPU, and a rugged case, netFiber 9 is a real bargain that will make your network management so much easier!



Hot-swap power supply for the CCR2004 – so you can replace the power supply without having to turn off or even restart the router. Zero downtime!

CCR2004-16G-2S+ comes with two hot-swap dual redundant power supplies. If one of them goes out of order at some point, the other one will take over. Then you can use this kit to replace the old power supply – and you don't even have to restart the router!

Specifications

Product code	G1040A-60WF
Input	100-240 V 1.5 A MAX
Output	12 V - 5 A
Total DC output	60 W

Rack-holder SR-10U

\$ 49



A 19" 10U desktop rack with adjustable angle and additional space for cable management.



Mount it under the table or put it on the table – like we do it in our testing department. You can even attach a multi-plug extension cord to the back of this sturdy and lightweight aluminium rack.

The package includes screws for 10 devices, as well as nuts and screws for mounting the rack itself. While this is not a revolutionary product, we hope it can make the lives of system administrators, engineers, and testers a little bit easier.



Compatible with all MikroTik (and other vendor!) devices that would fit in a standard 19" rack. But there's more! With the small K-79 accessory kit, you can fit up to four RB5009UG+S+IN routers in a single 1U rackmount space or up to 40 routers in total!



Specifications

Product code	SR-10U
Weight	1,85 kg
Dimensions	318 x 511 x 507 mm

New MikroTik IoT products:

Internet of Things has never been so affordable, yet powerful

Free worldwide spectrum!

No duty cycle limitations!



wAP LR2 kit

Our newest out-of-the-box solution for LoRa® technology. Like the previous wAP LR kits, it contains a pre-installed UDP packet forwarder to any public or private LoRa® servers and an outdoor weatherproof wireless access point with 2.4 GHz WLAN interface and Ethernet port with PoE-in that could be used as a backend.

Here's the difference: this device works with the 2.4 GHz frequency for LoRa®. That means **significantly higher bandwidth, higher data rate, and less air time**. And because of the Chirp modulation technology, **it doesn't interfere with the 2.4 GHz WLAN signal!** A perfect solution for industrial setups with a high density of sensors.

There is a built-in 2 dBi WLAN / 4.7 dBi LoRa® antenna, but you can add an external antenna for extra coverage. We suggest using the TOF-2400-8V-4 Omni antenna for best results.

We've decided to keep the classic wAP form-factor that has been tested in many other MikroTik products – it can deliver excellent and stable performance in almost any weather conditions. Functional and non-intrusive design, astonishing durability, and great value remain at the core of this design.

The whole IoT community is exploring the 2.4 GHz LoRa® possibilities – join them and be among the first ones to benefit from the increased data rates.

R11e-LR2

A new Concentrator Gateway card for LoRa® technology in mini PCIe form – so you can create or customize your own 2.4 GHz IoT projects. It enables 2.4 GHz LoRa® connectivity for any MikroTik product that has a mini PCIe slot with connected USB lines.

It supports 4 different RX channels and 1 TX channel.



TOF-2400-8V-4 Omni antenna

For extra network coverage (up to 3-4km in the line of sight), we suggest adding an external 8dBi Omni antenna - the TOF-2400-8V-4. If necessary, this antenna can be used for any 2.4 GHz device. Not only it works with the 2.4 GHz LoRa® connectivity, it also supports the regular 2.4 GHz WLAN. It comes with a 1m long SMA cable and a mechanical holder for quick and easy mast attachment – when you need that extra network coverage. Compact size and increased durability without sacrificing the power – this antenna will get the job done.



Support for U-NII-2 for more products

The following information is only for the United States and Canada customers, who use -US locked wireless products.

We have FCC certified and added support in RouterOS for the U-NII-2 wireless frequency band for even more products:

- **RB952Ui-5ac2nD-US (hAP ac lite);**
- **RB952Ui-5ac2nD-TC-US (hAP ac lite TC);**
- **RBcAPGi-5acD2nD-XL-US (cAP XL ac);**
- **RB911G-5HPacD-QRT-US (QRT 5 ac).**



This update gives a wider range of 5GHz channels to choose from - not only U-NII-1 (5.170-5.250 GHz) and U-NII-3 (5.725-5.835 GHz), but also U-NII-2 (5.250-5.350 GHz and 5.470-5.725 GHz).

To use U-NII-2, you need to update your product to the latest version (at least stable 6.49.1). We are working to enable U-NII-2 support for more products. The next products in line are:

- **RBOmniTikG-5HacD (OmniTIK 5 ac);**
- **RBOmniTikPG-5HacD (OmniTik 5 PoE ac);**
- **RBMetalG-52SHPacn (Metal 52 ac);**
- **RBGrooveGA-52HPacn (GrooveA 52 ac).**



A little white box for a greener world...

Prizren is an ancient and beautiful place, surrounded by mountains and rivers. The climate there is extremely varied – summers can be very dry, while autumn can bring uninterrupted rainfall for several days. Obviously, the Municipality of Prizren has to take all of this into account when designing the city bus stops. In the past, the perfect bus stop was supposed to protect you from the heat, rain, and wind. But it's 2021 – people also want free wireless network, charging options, and interactive screens with bus schedules.



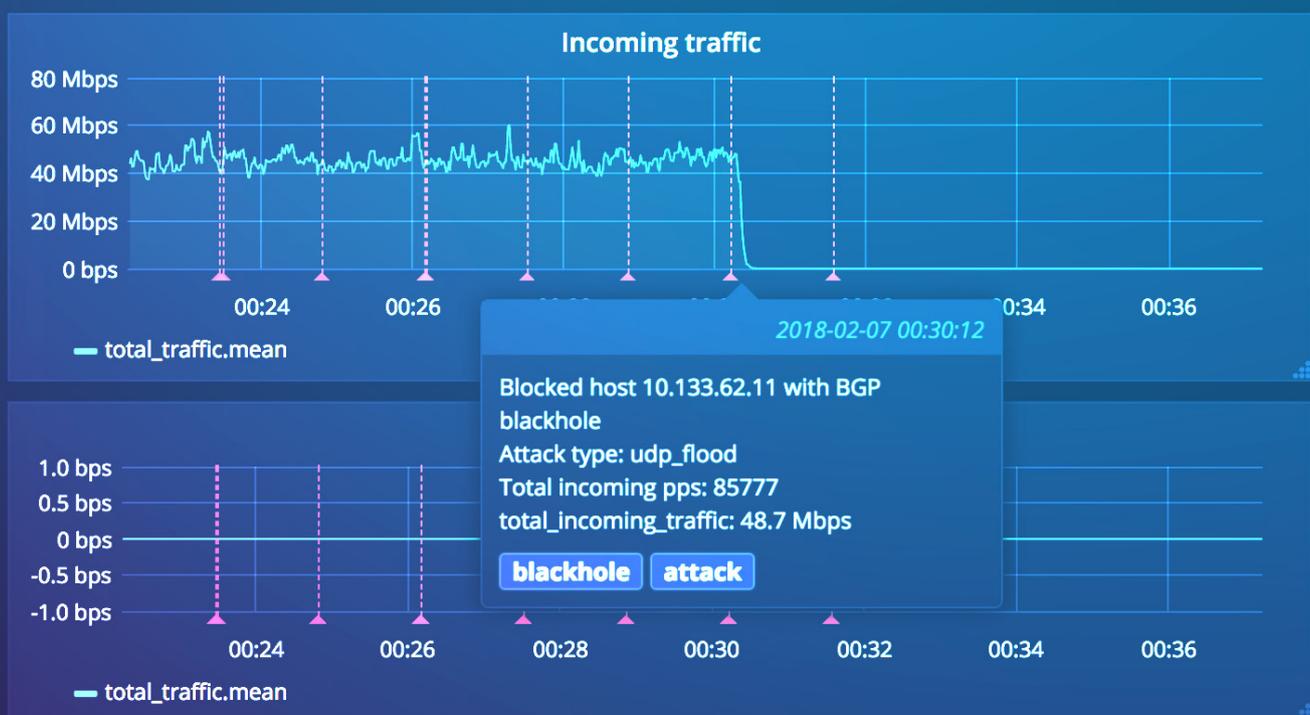
There are countless ways to make the perfect smart bus stop, but here's how Prizren did it: wAP ac and wAP LTE kit. This weatherproof setup is brilliant in its simplicity. And if that helps more people switch to public transportation, making our planet a greener place, that's all we can wish for.



(c) UNDP Kosovo and the Municipality of Prizren

Made for MikroTik: FastNetMon DDoS detector

One of the things that inspire us the most is the global MikroTik community. Your endless curiosity and creativity keep us humble and focused. You always find new ways to apply RouterOS in the most clever setups. That's why we launched the "Made for MikroTik" program – so everyone can see the results of your inventive work within the MikroTik ecosystem! So far, we've certified 253 producers of turnkey solutions, accessories, and other MikroTik-based products.



Today we wanted to showcase FastNetMon - a very high-performance DDoS detector built on top of the NetFlow and IPFIX packet capture engines. It can detect malicious traffic in your network and block it immediately. FastNetMon offers fast detection times and impressive scalability – up to Terabits! They are currently offering a free one-month trial, so if you're looking for a new DDoS detector – give FastNetMon a try!

Want to join the "Made for MikroTik" program? Let us know!

Donations for Children's Hospital

We have been working with the Children's Clinical University Hospital for many years. A lot has already been done to support the children who need it the most: new playgrounds and recreational areas – accessible to children with special needs, new instruments for the musical therapy, maintenance of chapels and the Parents' house, as parents also need support and a safe environment to take a break.



Usually, these young and brave patients have to spend at least 1-2 months in the hospital. More often than not, this time can reach even 6 months or more. If we can make this time a little easier, it is a great privilege that must be used. Therefore, in addition to all the big projects, we are providing a special Christmas greeting to the children of the Clinical University Hospital – with presents, smiles, and laughter.

But we are not the only ones trying to help. Three students of the International School of Riga are trying to raise more money and toys for the little patients. Every little bit helps. And we promise to match your donations with another contribution, so now is the best time to donate. Let's create a little Christmas miracle together!

Our thanks to the best community in the world

The Nasdaq Riga Stock Exchange and the financial consulting company Prudentia have announced the “Top 101 Most Valuable Enterprises 2021” in Latvia. Alongside state-owned companies, MikroTik is also at the top, becoming the third most valuable company in Latvia. According to Nasdaq Riga, we are also the first private equity firm in Latvia to exceed one billion euro evaluation.

With all that being said, we would like to mention someone whose value cannot be measured. Someone who is standing above all the tops, lists, and stocks. Someone we owe everything to. It's you!

Every single MikroTik user, trainer, distributor... The hobbyists and the system administrators, the technicians and the engineers, old and young, and everyone in between – we salute you! You are the fire that keeps us going. Thank you so much for your continued support!

The MikroTik logo is centered on the page. It features the word "MikroTik" in a white, sans-serif font. The "i" in "Mikro" has a small white arc above it, resembling a stylized bird or a signal. The "T" in "Tik" is bold and has a horizontal bar that is slightly offset to the right. The background of the page is a dark blue gradient with a faint, light blue hexagonal grid pattern.

» Here you can download all the visuals used in this newsletter «