

Mikrotik WireGuard VPN WHMCS module

The module is intended as an opportunity for IT companies to expand their offer for customers by offering paid WireGuard VPN accounts. After installation, the module will fully manage the creation, edition, and suspension of WireGuard VPN accounts and interact with the WHMCS billing system, exchanging data needed for settlements with customers, activations or service blocking. Initial assumptions: the company uses WHMCS and owns or is able to install Mikrotik routers. Mikrotik routers are necessary to provide VPN service. WHMCS is necessary to manage the WireGuard VPN service.

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Description

Mikrotik WireGuard VPN module

WHMCS

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The module, fully installed and correctly implemented in the system, offers the following functionalities.

Module Functions:

- Auto create and deploy WireGuard VPN account
- Suspend/Unsuspend/Terminate
- Use only Mikrotik API
- Possibility to set Bandwidth speed limits
- Module supports multilingualism (**Arabic, Azerbaijani, Catalan, Chinese, Croatian, Czech, Danish, Dutch, English, Estonian, Farsi, French, German, Hebrew, Hungarian, Italian, Macedonian, Norwegian, Polish, Romanian, Russian, Spanish, Swedish, Turkish, Ukrainian**)
- Link to instructions for setting up the service in the client area.
- Link to VPN clients for setting up the service in the client area.
- In the WHMCS settings, a list of IPs is specified for use by clients.
- Ability to use both private and public IPs for clients

Available options in the admin panel:

- Create users
- Suspend users
- Terminate users
- Unsuspend users
- Change package
- VPN connection status
- Text and QR code configuration types

Available options in the client panel:


- VPN connection status
- Text and QR code configuration types

WHMCS minimal version: 8 +

Mikrotik minimal version: 7 +

The settings of the whmcs module when it comes to upload and download speeds register the opposite values in the mikrotik router (e.g. download speed in whmcs 1mb = upload speed in mikrotik 1mb). This is due to the fact that from the point of view of Mikrotik, the traffic is incoming, and from the point of view of the VPN client, this is outgoing traffic.

Please be aware that to ensure proper functionality of VPN connections, it is essential for you, as an administrator, to correctly configure the Mikrotik router. This entails configuring NAT, Firewall, routing, and all the required settings for VPN to operate correctly on your router.



MikrotikWireGuardVPN
- 10M
MikrotikWireGuardVPN

ACTIVE

Registration Date
Saturday, October 7th, 2023

Recurring Amount
\$0.00

Billing Cycle
Free Account

Next Due Date
-

Payment Method
Bank Transfer

Manage

Network configuration

VPN Protocol:	WireGuard
Bandwidth download/upload:	10/5M

User manual

Download VPN client

Enable	Endpoint	Latest handshake	Transfer RX	Transfer TX

SummaryProfileUsersContactsProducts/ServicesDomainsBillable ItemsInvoicesQuotesTransactionsTicketsEmailsNotes (0)Log

MikrotikWireGuardVPN - 10M

Go

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Product/ServiceMikrotikWireGuardVPN - 10M

Servervpn-test.uuq.pl-WG (2/200 Accounts)

Domain

Dedicated IP192.168.123.2

Username7HQGyKNKj0zsjb9idzHWzW

PasswordkKoODpuLClstEHzgWe0mak

StatusActive

Registration Date2023/10/07

Quantity1

First Payment Amount0.00

Recurring Amount0.00

Next Due DateN/A

Termination Date

Billing CycleFree

Payment MethodBank Tran

Promotion CodeNone

Module Commands

CreateSuspendUnsuspendTerminate

API Connection Status

API Connection OK


Status

Peer: 7HQGyKNKj0zsjb9idzHWzW7jg1HYPE6tQFCTwLqkGlc= (Disabled: false)

Peer info

publicKey	Endpoint	Latest handshake	Transfer RX	Transfer TX
7HQGyKNKj0zsjb9idzHWzW7jg1HYPE6tQFCTwLqkGlc=	213.134.190.109:13421	19h14m25s	11.06 MB	141.48 MB

Config



[Interface]

Address = 192.168.123.2

DNS = 8.8.8.8,1.1.1.1

PrivateKey = kKoODpuLClstEHzgWe0makiAwDrKdp+QBMQzjRW0mLI=

[Peer]

PersistentKeepalive = 60

Endpoint = vpn-test.uuq.pl:7464

PublicKey = EiHHaUOd8Vo06uuQ3qcgB0kssQSYn28D+1BZDEzgaXI=

AllowedIPs = 0.0.0.0/0

Changelog

Mikrotik WireGuard VPN module

WHMCS

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v1.1 Released 15-12-2023

1. Added functionality for changing packages
 2. Minor changes to the admin/client interface
-

v1.0 Released 09-10-2023

First version

Installation and configuration guide

WHMCS

setup(install/update)

Mikrotik WireGuard VPN module

WHMCS

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To install and update a module, you must perform one and the same action.

1. Download the latest version of the module.

PHP 8.1

```
wget http://download.puqcloud.com/WHMCS/servers/PUQ_WHMCS-Mikrotik-WireGuard-VPN/PUQ_WHMCS-Mikrotik-WireGuard-VPN-latest.zip
```

PHP 7.4

```
wget http://download.puqcloud.com/WHMCS/servers/PUQ_WHMCS-Mikrotik-WireGuard-VPN/php74/PUQ_WHMCS-Mikrotik-WireGuard-VPN-latest.zip
```

All versions are available via link:

http://download.puqcloud.com/WHMCS/servers/PUQ_WHMCS-Mikrotik-WireGuard-VPN/

2. Unzip the archive with the module.

```
unzip PUQ_WHMCS-Mikrotik-WireGuard-VPN-latest.zip
```

3. Copy and Replace "puqMikrotikWireGuardVPN" to
"WHMCS_WEB_DIR/modules/servers/"

Setup guide: Mikrotik preparation and configuration

Mikrotik WireGuard VPN module

WHMCS

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Note: **Enter the following commands one by one and wait for the command to complete.**

I. Check RouterOS version

Make sure that the version of RouterOS is 7+

```
system/package/print
```

II. Enabling HTTPS Create your own root CA on your router

```
/certificate  
add name=LocalCA common-name=LocalCA key-usage=key-cert-sign,crl-sign
```

III. Sign the newly created CA certificate

```
/certificate  
sign LocalCA
```

IV. Create a new certificate for Webfig (non-root certificate)

Note: as common-name=XXX.XXX.XXX.XXX You enter public IP address of the router.

```
/certificate  
add name=Webfig common-name=XXX.XXX.XXX.XXX
```

V. Sign the newly created certificate for Webfig

```
/certificate  
sign Webfig ca=LocalCA
```

VI. Enable SSL (*www-ssl*) and specify to use the newly created certificate for Webfig

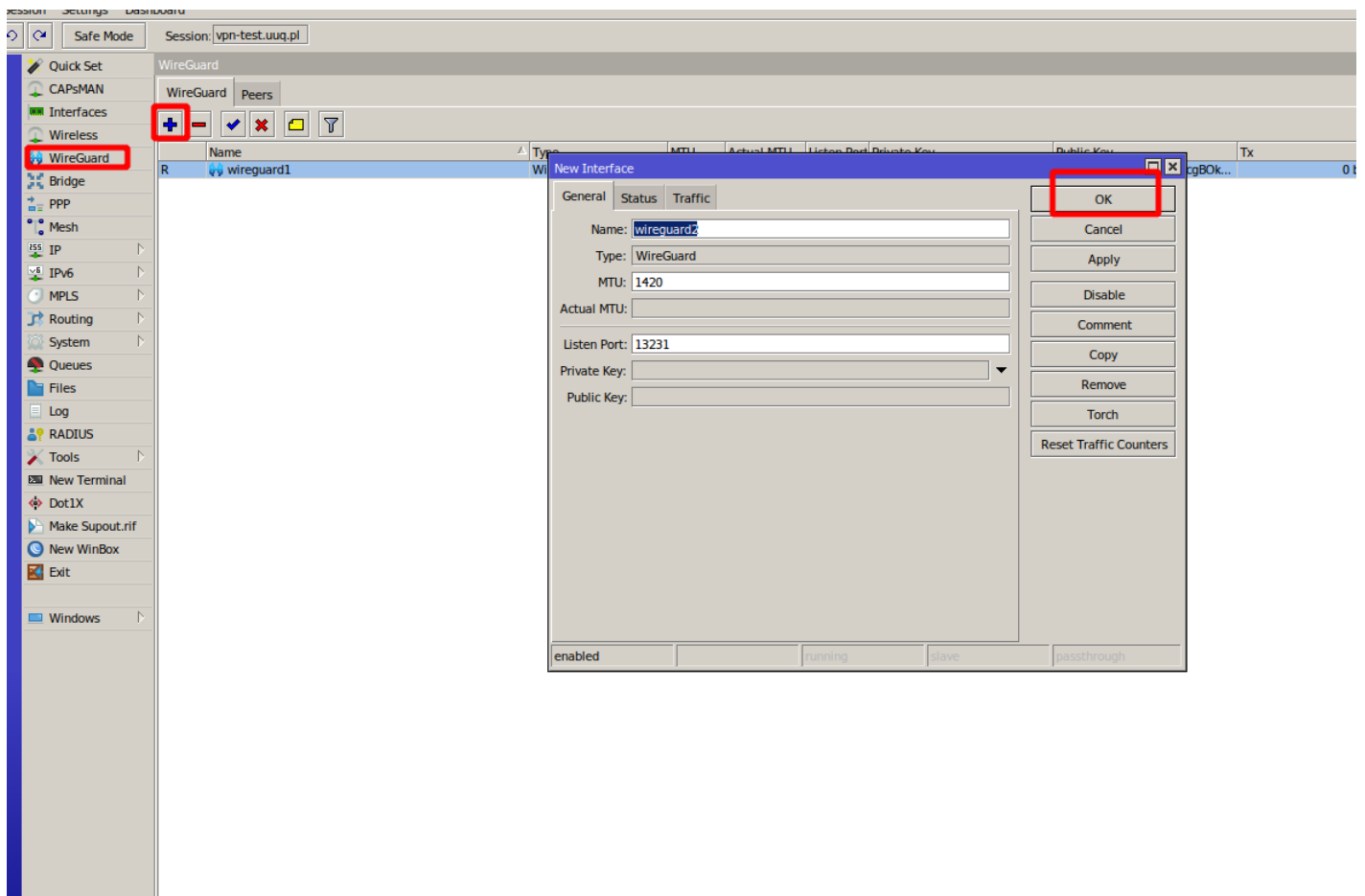
```
/ip service  
set www-ssl certificate=Webfig disabled=no
```

VII. Enable api-ssl and specify to use the newly created certificate for Webfig

```
/ip service  
set api-ssl certificate=Webfig disabled=no
```

VIII. Creating a WireGuard Server

To enable the WireGuard VPN server



Add server (router Mikrotik) in WHMCS

Mikrotik WireGuard VPN module

WHMCS

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Add a new server to the system WHMCS.

System Settings->Servers->Add New Server

- Enter the correct **Name** and **Hostname**

Name is just for Your convenience and You can put there anything You like ie:
Mygreat mikrotik routr

You can choose whatever hostname You want. Valid entries look similar to:
vpn.mydomain.com, ourgreatvpn.mydomain.net. You can also dedicate whole domain ie: myVPNservices.com if You like. The important thing is to resolve the choosen IP address of the Mikrotik router in DNS server for Your domain.

- In the "**Assigned IP Addresses field**", enter a list of IP addresses that will be issued to users.

Name	vpn [REDACTED] pl
Hostname	vpn [REDACTED] pl
IP Address	
Assigned IP Addresses (One per line)	<div> 192.168.222.14 192.168.222.15 192.168.222.16 192.168.222.17 192.168.222.18 192.168.222.19 192.168.222.20 192.168.222.21 </div>
Monthly Cost	0.00
Datacenter/NOC	
Maximum No. of Accounts	200
Server Status Address	<div></div> <p>To display this server on the server status page, enter the full path to the server status folder (required to be uploaded to each server you want to monitor) - eg. https://www.example.com/status/</p>
Enable/Disable	<input type="checkbox"/> Tick to disable this server

- In the **Server Details** section, select the "**PUQ Mikrotik WireGuard VPN**" module and enter the correct **username** and **password** for the **Mikrotik** router.
- To check, click the "**Test connection**" button

Module	PUQ Mikrotik WireGuard VPN	Test Connection	✓ Connection successful. Some values have been auto-filled.
Username	admin-dev-MWG		
Password	*****		
Access Hash	<div></div>		
Secure	<input checked="" type="checkbox"/> Check to use SSL Mode for Connections		
Port	<div>443</div> <input type="checkbox"/> Override with Custom Port		

Save Changes

Cancel Changes

Product Configuration in WHMCS

Mikrotik WireGuard VPN module

WHMCS

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Add new product to WHMCS

System Settings->Products/Services->Create a New Product

In the **Module settings** section, select the "**PUQ Mikrotik WireGuard VPN**" module

Edit Product
License key: A pre-purchased license key for the "**PUQ Mikrotik WireGuard VPN**" module. For the module to work correctly, the key must be active

- **WireGuard interface:** A pre-created WireGuard server on a Mikrotik router, which will serve as peers for clients of this service.

- **Comment PREFIX:** The prefix that will be added to the VPN user's comment on the Mikrotik router

- **Bandwidth Download:** Download Bandwidth Limit in M/s

- **Bandwidth Upload:** Upload Bandwidth Limit M/s

- **DNS Servers:** Option in WireGuard client configuration

- **AllowedIPs:** Option in WireGuard client configuration

- **Persistent Keepalive:** Option in WireGuard client configuration

- **Link to instruction:** Link to the instruction, if filled out, it will be reflected in the client area

- **Link to VPN clients:** The URL that will be shown to the client in the client panel in order to download the VPN client

Client Area

Home screen

Mikrotik WireGuard VPN module

WHMCS

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The end customer, after logging in to his own customer panel, has access to the following information and options:

- Link to the user manual (*which was defined by the administrator when setting up the service.*).
- Link to the VPN clients (*which was defined by the administrator when setting up the service.*).
- Information about available VPN protocols and statuses
- Button to download WireGuard client configuration
- VPN WireGuard client configuration text and QR-code

Registration Date

Admin Area

Product Information

Mikrotik WireGuard VPN module

WHMCS

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Product Information Screen

SummaryProfileUsersContactsProducts/ServicesDomainsBillable ItemsInvoicesQuotesTransactionsTicketsEmailsNotes (0)Log

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PasswordkKoODpuLClstEHzgWe0mak

StatusActive

Registration Date2023/10/07

Quantity1

First Payment Amount0.00

Recurring Amount0.00

Next Due DateN/A

Termination Date

Billing CycleFree

Payment MethodBank Tran

Promotion CodeNone

Module CommandsCreateSuspendUnsuspendTerminate

API Connection StatusAPI Connection OK

StatusPeer: 7HQGyKNKj0zsjb9idzHWzW7jg1HYPE6tQFCTwLqkGlc= (Disabled: false)

peer info	publicKey	Endpoint	Latest handshake	Transfer RX	Transfer TX
	7HQGyKNKj0zsjb9idzHWzW7jg1HYPE6tQFCTwLqkGlc=	213.134.190.109:13421	19h14m25s	11.06 MB	141.48 MB

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[Peer]

PersistentKeepalive = 60

Endpoint = vpn-test.uuq.pl:7464

PublicKey = EiHHaUOd8Vo06uuQ3qcgB0kssQSyN28D+1BZDEzgaXI=

AllowedIPs = 0.0.0.0/0