Business-VPN WHMCS module

The module is intended as an opportunity for IT companies to expand their offer for customers by offering paid VPN accounts. After installation, the module will fully manage the creation, edition, and suspension of VPN accounts and interact with the WHMCS billing system, exchanging data needed for settlements with customers, activations or service blocking.

Description

Business-VPN module **WHMCS**

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The Business VPN module provides an opportunity to sell the Virtual Private Network service for business clients.

The module is designed as a professional solution for companies and corporations, which enables remote access to company resources from anywhere in the world in a safe and monitored manner. The biggest difference from common VPN solutions such as NordVPN, EasyVPN etc. is the professional nature of the service.

What makes Business VPN different from regular, widely offered VPNs

The end customer of the service receives such opportunities as:

- Dedicated permanent IP address
- Full management of VPN accounts to the end buyer: Create, modify, delete and block VPN accounts
- Forward TCP/UDP protocol ports from a public address to any IP address on the internal network
- Convenient and informative VPN account connection statistics

Thanks to our solution, the client does not have to delegate the company's resources to carry out this activity, but focus on the practical side of using it, thanks to which he saves money.

This model of operation allows IT departments in companies to configure in detail and securely internal Firewall, passing specific ports, detailed traffic monitoring, or to keep through internal IDS *which is not possible when using commonly offered solutions.*
Such a VPN becomes an integral part of the company's IT infrastructure and is ideally suited to the conditions of a given client.

Who and why needs such a service that this module

provides.

The service offers to the end customer a fully fledged private network.

1. The service combines all nodes that are connected via VPN into one private network. This allows you to communicate with each other from different physical locations. An example of use is, the remote work of the company's staff, having private remote access to each other. Also, due to the fact that each connected VPN user will be presented on the Internet with the public address of the service, it is possible to configure access to the company's servers only from the IP address of the service. Thus restrict access only to everyone except users of the service.
2. If your employees need to have access to some sites on the Internet and be represented by a public address of a certain geographic location, then this service allows you to implement it. The public address of the service is not changed during the entire time of using the service.
3. Ability to connect network devices, such as measuring instruments, to the same network, creating remote access to network equipment.

Module Functions:

- Auto create and deploy VPN account/accounts
- Suspend/Unsuspend/Terminate/Change Package/Change Password/Reset connection
- Use only Mikrotik API
- Possibility to set Bandwidth speed limits
- Module supports multilingualism
- Account limit per package
- Bandwidth Limit per account

Functions of the client area:

- Creating VPN Accounts
- Deleting a VPN account
- Blocking VPN account
- VPN account online statistics. For control

PUQ Cloud

Overview ⌃

- ℹ Information
- 👤+ Add VPN account
- ▶▶ Port Forwarding
- ☑ Statistics

Dev License: This installation of WHMCS is running under a Development License and is not authorized to be used for production use. Please report any cases of abuse to abuse@whmcs.com

Business-VPN 100

Business-VPN

ACTIVE

Registration Date

Saturday, October 8th, 2022

Recurring Amount

0.00$

Billing Cycle

Free Account

Next Due Date

-

Payment Method

Bank Transfer

🌐 Manage

Network configuration

VPN server:	vpn-test.puq.pl
Dedicated IP:	77.87.125.205
Private internal network:	172.16.205.0/25
VPN Protocols:	PPPtP L2TP
L2TP IPSec PSK key:	QWEqwe123
Number of VPN accounts:	5/10
Bandwidht download/upload:	10/5 M

👤+ Add VPN account ▶▶ Port Forwarding ☑ Statistics

Enabled	Username	Online	Uptime	
✔	1-4806-r1 (172.16.205.2)	✔	1m33s **pptp**	↻ Reset connection ✏ Edit
✔	1-4806-r2 (172.16.205.3)	✔	1m32s **pptp**	↻ Reset connection ✏ Edit
✔	1-4806-r3 (172.16.205.4)	✔	1m31s **pptp**	↻ Reset connection ✏ Edit
✔	1-4806-r4 (172.16.205.5)	✔	1m30s	↻ Reset connection

PUQ Cloud

★ Overview ⌃

ℹ Information

👤+ Add VPN account

⏩ Port Forwarding

📈 Statistics

Add VPN account

Username:		1-4806-	Enter username
Password:	Enter password	Generate
IP address:	172.16.205.7	↕
	👤+ Add VPN account	

PUQ Cloud

★ Overview ⌃

ℹ Information

👤+ Add VPN account

⏩ Port Forwarding

📈 Statistics

Edit VPN account

Username:	1-4806-r1	
Password:	2A8Jkfs4vbyG	Generate
IP address:	172.16.205.2	↕
Enabled:	☑	
✕ Delete		✏ Save

Overview ^

- **i** Information
- **👤+** Add VPN account
- **▶▶** Port Forwarding
- **📈** Statistics

Port Forwarding

From:

| 77.87.125.205: | Enter port | tcp ⇕ |

To:

| 1-4806-r1 (172.16.205.2) ⇕ | Enter port |

+ Add port forwarding

Public IP:PORT	To IP:PORT	Bytes (Packets)	
77.87.125.205:333 udp	172.16.205.5:50 (1-4806-r4)	0 (0)	✖ Delete
77.87.125.205:500 tcp	172.16.205.3:23 (1-4806-r2)	144 (3)	✖ Delete

Overview ^

- **i** Information
- **👤+** Add VPN account
- **▶▶** Port Forwarding
- **📈** Statistics

| 2022-10-17 | ⇕ |

📈 Show statistics
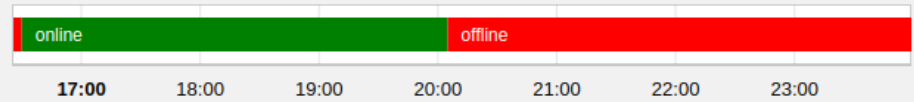
Statistics for: 2022-10-17

Username: 1-4806-r1

| online | online | . | online | offline |

00:00 02:00 04:00 06:00 08:00 10:00 **12:00** 14:00 16:00 18:00 20:00 22:00

Username: 1-4806-r2

| online | online | . | online | offline |

00:00 02:00 04:00 06:00 08:00 10:00 **12:00** 14:00 16:00 18:00 20:00 22:00

Username: 1-4806-r3

| online | o | online | offline |

17:00 18:00 19:00 20:00 21:00 22:00 23:00

Username: 1-4806-r4

| online | offline |

17:00 18:00 19:00 20:00 21:00 22:00 23:00

Business-VPN 100 ▼ | Go | **+** New Addon | More ▾

Order #	208 - View Order	Registration Date	📅 08/10/2022
Product/Service	Business-VPN 100 ▼	Quantity	1
Server	vpn-test.puq.pl-B (▼	First Payment Amount	0.00
Domain	▼	Recurring Amount	0.00 — Recalculate on Save No
Dedicated IP	77.87.125.205	Next Due Date	N/A
Username	1-4806	Termination Date	📅
Password		Billing Cycle	Free ▼
Status	Active ▼	Payment Method	Bank Transfer ▼
		Promotion Code ⓘ	None ▼

Module Commands: Create | Suspend | Unsuspend | Terminate | Change Package

API Connection status: ✔ API answer OK

VPN accounts

Enabled	Username	Online	download/upload
yes	1-4806-r1 (172.16.205.2)	yes (4m35s)	10M/5M
yes	1-4806-r2 (172.16.205.3)	yes (4m34s)	10M/5M
yes	1-4806-r3 (172.16.205.4)	yes (4m33s)	10M/5M
yes	1-4806-r4 (172.16.205.5)	yes (4m32s)	10M/5M
yes	1-4806-ruslan (172.16.205.6)	not	10M/5M

Port Forwarding

From	To	Packets(Bytes)
77.87.125.205:333 (udp)	172.16.205.5:50 (1-4806-r4)	0 (0)
77.87.125.205:500 (tcp)	172.16.205.3:23 (1-4806-r2)	3 (144)

Addons

Reg Date	Name	Pricing	Status	Next Due Date		
No Records Found						

Servers

Edit Server

Name	vpn-test.puq.pl-B
Hostname	vpn-test.puq.pl
IP Address	
Assigned IP Addresses (One per line)	77.87.125.205|25|172.16.205.0|25 77.87.125.206|25|172.16.206.0|25 77.87.125.207|25|172.16.207.0|25 77.87.125.208|25|172.16.208.0|25 77.87.125.209|25|172.16.209.0|25
Monthly Cost	0.00
Datacenter/NOC	
Maximum No. of Accounts	200
Server Status Address	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/
Enable/Disable	☐ Tick to disable this server

Nameservers

Primary Nameserver		IP Address:
Secondary Nameserver		IP Address:
Third Nameserver		IP Address:
Fourth Nameserver		IP Address:
Fifth Nameserver		IP Address:

Server Details

Module	PUQ Business-VPN ▼ [Test Connection]
Username	admin
Password	••••••••••••
Access Hash	
Secure	☑ Tick to use SSL Mode for Connections
Port	443 ☐ Override with Custom Port

[Save Changes] [Cancel Changes]

Changelog

Business-VPN module **WHMCS**

v2.0 Released 23-09-2024

> **Module is coded ionCube v13**

Supported php version:

- php 7.4 WHMCS 8.11.0 -
- php 8.1 WHMCS 8.11.0 +
- php 8.2 WHMCS 8.11.0 +

v1.1.5 Released 11-10-2023

1. Supported WHMCS v8.8.0
2. Translations added/updated (**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**)

v1.1 Released 03-03-2023

1. Support Mikrotik v7.8
2. Support WHMCS v8.6
3. Support IonCube PHP Loader v12
4. Support for PHP 8.1 and PHP 7.4
5. Change in the way statistics are collected and cleaned
6. Design change, icons added

v1.0 Released 20-10-2022

First version

Installation and configuration guide

Basic concepts and requirements

Business-VPN module **WHMCS**

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Requirements for the successful operation of the module

- Minimal WHMCS version 8+
- Mikrotik/CHR router OS 7+
- Public network for the needs of NAT implementation

> An IP address class must be reserved for the solution. Each end customer receives one IP address after activating the service.

Please refer to the basic mode of operation of the module to better understand its operation and functionality.

The basic logic of the module

During the creation of a service for the end client, the module does the following actions:

1. Automatically selects a free public IP address from the server available in the settings. When choosing an available IP address, services in the terminated state are not taken into account, i.e. previously used IP. *(Previously used IP addresses for services that have not been extended and have expired will be used to activate the service for the new client.)*
2. The module configures the selected public IP address on the network interface of the router.
3. The module *creates firewall rules* such as:
   - NAT rules for accessing the Internet private network
   - Allowing firewall rules for communication between IP's of a private network

- Block rules that block traffic between all other private networks.

Mikrotik management schema

- When a user creates a VPN account, the module creates a VPN user Mikrotik on the router, adds queues with a bandwidth limit.
- When a user deletes a VPN Account, the module deletes the VPN user on Mikrotik and deletes the bandwidth-limiting queue.
- When a user creates port forwarding, the module creates rules on the Mikrotik router in the firewall that implement port forwarding from a public address to a private one.
- During service suspension, the module disables all VPN client accounts and resets all active connections.
- During service unsuspension, the module enables all VPN client accounts.
- During service termination, the module deletes all VPN client accounts, deletes all firewall rules associated with the service, and also deletes the public IP from the router's network interface.

WHMCS setup(install/update)

Business-VPN module **WHMCS**

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> **Module is coded ionCube v13**

Supported php version:

- php 7.4 WHMCS 8.11.0 -
- php 8.1 WHMCS 8.11.0 +
- php 8.2 WHMCS 8.11.0 +

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

1. Download the latest version of the module.

PHP 8.2

```
wget http: //download. puqcloud. com/WHMCS/servers/PUQ_WHMCS-Business- VPN/php82/PUQ_WHMCS-
Business- VPN- latest. zip
```

PHP 8.1

```
wget http: //download. puqcloud. com/WHMCS/servers/PUQ_WHMCS-Business- VPN/php81/PUQ_WHMCS-
Business- VPN- latest. zip
```

PHP 7.4

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

2. Unzip the archive with the module.

```
unzip PUQ_WHMCS-Business-VPN-latest.zip
```

3. Copy and Replace "puqBusinessVPN" from "PUQ_WHMCS-Business-VPN" to "WHMCS_WEB_DIR/modules/servers/"

Mikrotik preparation and configuration

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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 adddress 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. Enable VPN server

To enable the VPN server
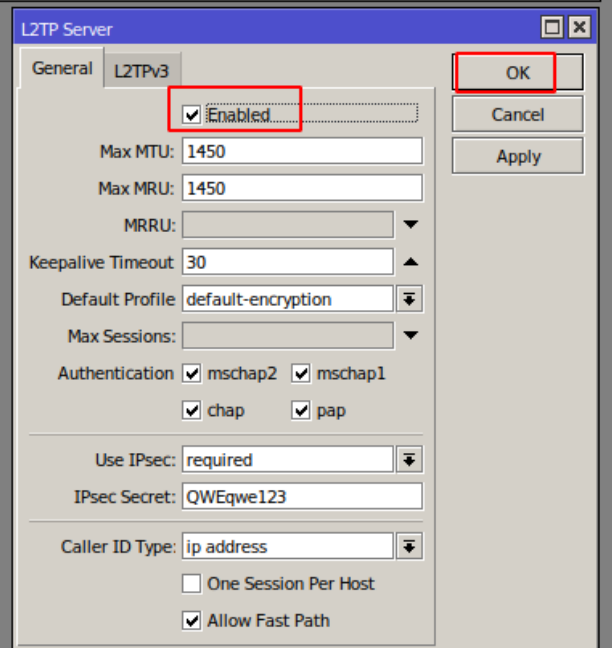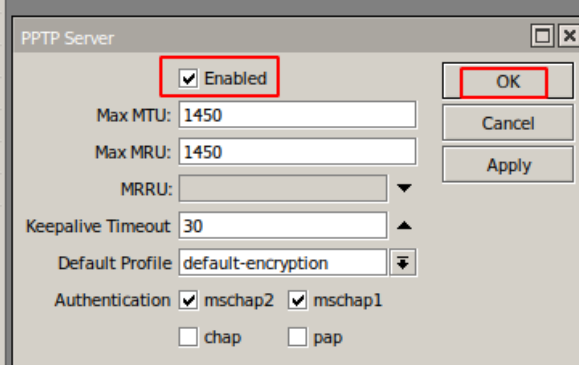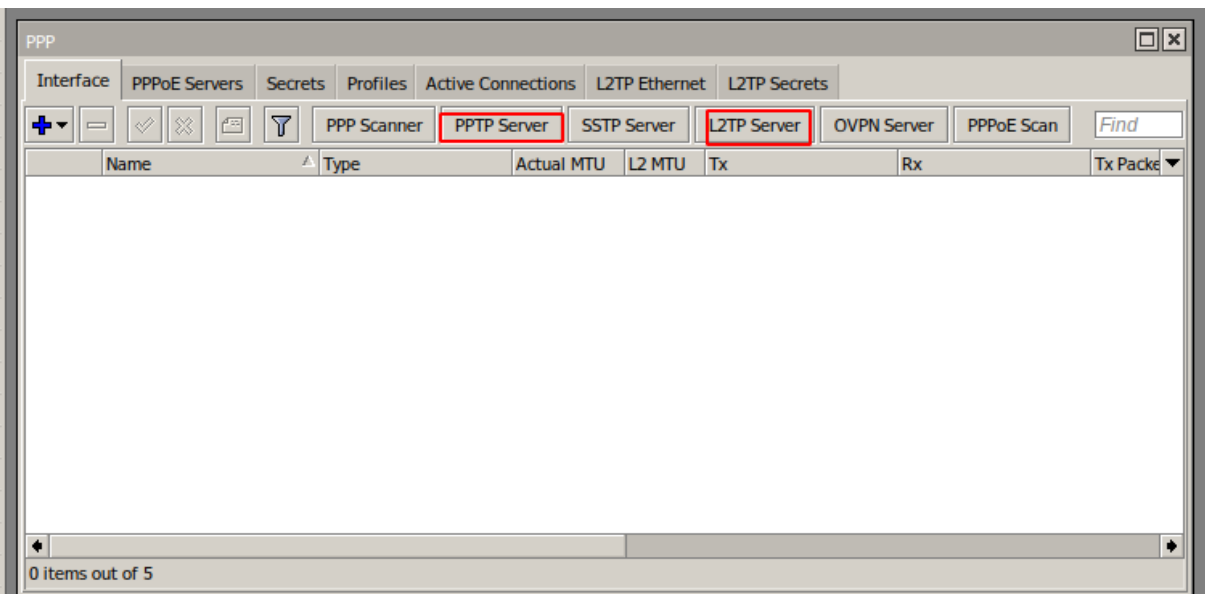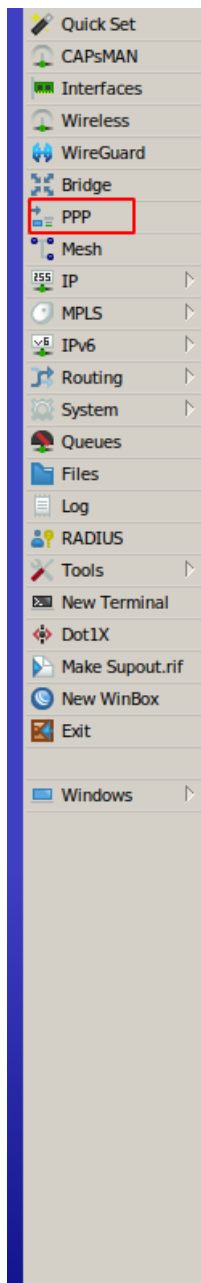
Add server (router Mikrotik) in WHMCS

Business-VPN module **WHMCS**

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Add a new server to the system WHMCS.

Login to Your WHMCS panel and create new server in WHMCS (*System Settings->Products/Services->Servers*)

```
System Settings->Servers->Add New Server
```

Products/Services
Configurable options
Product Addons
Product Bundles
Domain Pricing
Domain Registrars

- 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.

The format in which you need to enter a list of public IP addresses and private subnets is as follows.

To define the available pool of IP addresses, for each available IP number you should enter another line where the data is separated by the "|" separator. Each line with an IP number definition hasthe following structure:

<PUBLIC_IP>|<MASK_OF_PUBLIC_NETWORK>|<PRIVATE_NETWORK>|<MASK_OF_PRIVATE_NETWORK>

Servers

Edit Server

Name	vpn-test.puq.pl-B
Hostname	vpn-test.puq.pl
IP Address	
Assigned IP Addresses (One per line)	77.87.125.205|25|172.16.205.0|25 77.87.125.206|25|172.16.206.0|25 77.87.125.207|25|172.16.207.0|25 77.87.125.208|25|172.16.208.0|25 77.87.125.209|25|172.16.209.0|25
Monthly Cost	0.00
Datacenter/NOC	
Maximum No. of Accounts	200
Server Status Address	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/
Enable/Disable	☐ Tick to disable this server

Enter the correct data in the username and password field

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

Server Details

Module	PUQ Business-VPN ▾ [Test Connection]
	✔ Connection successful. Some values have been auto-filled.
Username	admin
Password	••••••••••••
Access Hash	
Secure	☑ Tick to use SSL Mode for Connections
Port	443 ☐ Override with Custom Port

Product Configuration

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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 Business-VPN"** module

- **License key:** A pre-purchased license key for the **"PUQ Business-VPN"** module. For the module to work correctly, the key must be active
- **Interface for public IP:** Interface on the router on which the public IP address will be set
- **PPP Profile:** PPP secret profile on Mikrotik router

VPN users settings

- **Number of VPN users:** The number of VPN accounts that a client can create
- **Bandwidth Download:** Download bandwidth that will apply per VPN connection
- **Bandwidth Upload:** Upload bandwidth that will apply per VPN connection

Mikrotik configuration

- **Public IP on interface:** If checked, the module will automatically set the IP address on

the interface in the Mikrotik router

- **NAT rules on public ip:** If checked, then the module will automatically make firewall rules that will make NAT, for Internet access of all connected VPN accounts of the client in the Mikrotik router
- **Firewall Accept Rules:** If checked, then the module automatically creates firewall rules that will allow traffic between VPN client accounts
- **Firewall Drop Rules:** If checked, then the module automatically creates firewall rules that will drop traffic between VPN client accounts and other private networks on the router

Basic settings

- **Description prefix:** The prefix that will appear in all descriptions that will be on the Mikrotik router
- **Service:** A service that will be available to a VPN user on a Mikrotik router
- **Support PPtP/Support L2TP:** If checked, it will be reflected in the client zone
- **L2TP IPSec PSK key:** it will be reflected in the client zone

Client Area

Home screen

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Basic information on client panel page

VPN server: The VPN server address that is entered when creating a VPN connection for the end user

Dedicated IP: The public IP address that is reserved for the service and through which all users of the VPN service will be represented on the Internet.

Private internal network: Private subnet whose IP addresses are available to the client to create VPN accounts. When adding a new VPN account, it will be assigned an IP address from this internal pool of addresses.

VPN Protocols: VPN protocols that are available *(by default you can easily enable two protocols in Mikrotik router: PPPtP i L2TP)*

L2TP IPSec PSK key: In the case of L2TP, this is the encryption key

Number of VPN accounts: Number of used and available VPN client accounts from the pool available based on the defined package.

Bandwidtht download/upload: The bandwidth rate that will be available on each VPN client account

Function buttons for service management.

- **Add VPN account:** To create a new VPN account
- **Port Forwarding:** To configure port forwarding from a public IP address to a private one
- **Statistics:** To access connection statistics of VPN

List of VPN accounts with technical/dynamic data and also buttons **Edit** and **Reset connections**

Network configuration

🖳 **VPN server:**	vpn-test.puq.pl
📇 **Dedicated IP:**	77.87.125.205
🖧 **Private internal network:**	172.16.205.0/25
🪪 **VPN Protocols:**	**PPPtP** **L2TP**
🔑 **L2TP IPSec PSK key:**	QWEqwe123
☰ **Number of VPN accounts:**	8/10
⬇⬆ **Bandwidtht download/upload:**	10/5 M

👤+ Add VPN account **⏩ Port Forwarding** **📈 Statistics**

◐ Enabled	👤 Username	▁▃▅ Online	🕒 Uptime	
✓	1-4806-4 (172.16.205.7)	✗		✏ Edit
✓	1-4806-asd (172.16.205.8)	✗		✏ Edit
✓	1-4806-dupa (172.16.205.17)	✗		✏ Edit
✓	1-4806-r1 (172.16.205.2)	✗		✏ Edit
✓	1-4806-r2 (172.16.205.3)	✗		✏ Edit
✓	1-4806-r3 (172.16.205.4)	✗		✏ Edit
✓	1-4806-r4 (172.16.205.5)	✗		✏ Edit
✓	1-4806-ruslan (172.16.205.6)	✗		✏ Edit

Add VPN account

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This is how the page for adding a new VPN account looks like.

> Each VPN account has a unique client ID, the ID is generated according to the scheme <user_id>-<service_id>-Manually entered value. <user_id>-<service_id> are generated automatically by module. You can modify manually the last part.

Add VPN account

👤 Username: | 1-4806- | Enter username |

🔒 Password: | Enter password | 🔑 Generate |

📇 IP address: | 172.16.205.9   ⬍ |

👤+ Add VPN account

To create a new account, the client must enter the following.
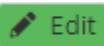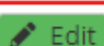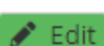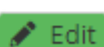
Username, Password, Select an available IP address from the dropdown list. Then click the **Add VPN account** button.

Edit VPN account

Business-VPN module **WHMCS**

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In order to edit a VPN account, you must click on the **Edit** button on the selected account.

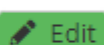| ⬤ Enabled	👤 Username	📶 Online	🕐 Uptime	
✓	1-4806-4 (172.16.205.7)	✗		✏ Edit
✓	1-4806-asd (172.16.205.8)	✗		✏ Edit
✓	1-4806-dupa (172.16.205.17)	✗		✏ Edit
✓	1-4806-r1 (172.16.205.2)	✗		✏ Edit
✓	1-4806-r2 (172.16.205.3)	✗		✏ Edit

You can edit the following parameters:

- Password
- IP address
- Enable/Disable VPN account

Also on the editing page there is an opportunity to delete a VPN account.
By pressing the DELETE button

Edit VPN account

👤 Username:	1-4806-r2
🔒 Password:	C1CS81fejEdu 🎲 Generate
📇 IP address:	172.16.205.3 ⬍
◑ Enabled:	☑
✖ Delete	✏ Save

Statistics

Business-VPN module **WHMCS**

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The module provides visual online statistics of VPN accounts.

It is possible to select a specific data to display statistics.

Statistics are available for the last 60 days.

2022-10-17 ⇕ 📈 Show statistics

Statistics for: 2022-10-17

Username: 1-4806-r1

online					online		o..	online	offline

00:00 02:00 04:00 06:00 08:00 10:00 **12:00** 14:00 16:00 18:00 20:00 22:00

Username: 1-4806-r2

online					online		o..	online	offline

00:00 02:00 04:00 06:00 08:00 10:00 **12:00** 14:00 16:00 18:00 20:00 22:00

Username: 1-4806-r3

online	o..	online	offline

17:00 17:30 **18:00** 18:30 **19:00** 19:30 **20:00** 20:30 **21:00** 21:30 **22:00** 22:30 **23:00** 23:30

Username: 1-4806-r4

online	offline

17:00 17:30 **18:00** 18:30 **19:00** 19:30 **20:00** 20:30 **21:00** 21:30 **22:00** 22:30 **23:00** 23:30
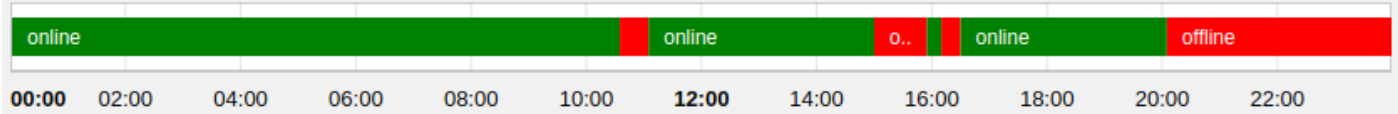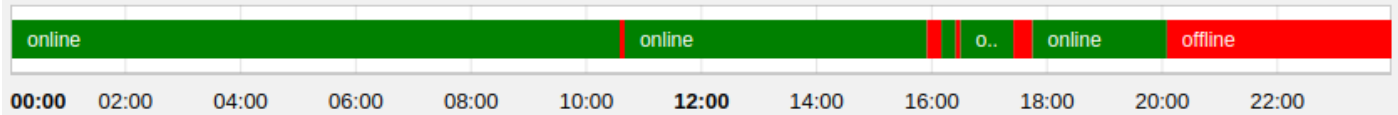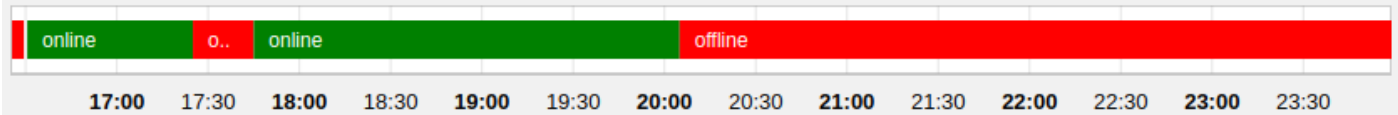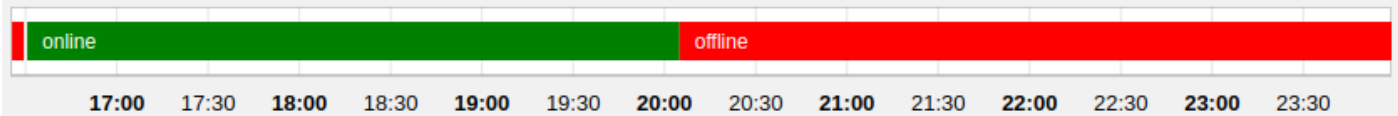
Admin Area

Product Home Screen

Business-VPN module **WHMCS**

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The main screen of the product contains the following items.

- List of VPN client accounts
- List of all forwarded client ports.

Business-VPN 100 ▼ [Go]   **+ New Addon**   [More ▾]

Order #	208 - View Order
Product/Service	Business-VPN 100 ▼
Server	vpn-test.puq.pl-B (▼
Domain	▼
Dedicated IP	77.87.125.205
Username	1-4806
Password	
Status	Active ▼

Registration Date	📅 08/10/2022
Quantity	1
First Payment Amount	0.00
Recurring Amount	0.00 Recalculate on Save [No]
Next Due Date	N/A
Termination Date	📅
Billing Cycle	Free ▼
Payment Method	Bank Transfer ▼
Promotion Code ⓘ	None ▼

Module Commands   [Create] [Suspend] [Unsuspend] [Terminate] [Change Package]

API Connection status   ✔ API answer OK

VPN accounts

Enabled	Username	Online	download/upload
yes	1-4806-r1 (172.16.205.2)	yes (4m35s)	10M/5M
yes	1-4806-r2 (172.16.205.3)	yes (4m34s)	10M/5M
yes	1-4806-r3 (172.16.205.4)	yes (4m33s)	10M/5M
yes	1-4806-r4 (172.16.205.5)	yes (4m32s)	10M/5M
yes	1-4806-ruslan (172.16.205.6)	not	10M/5M

Port Forwarding

From	To	Packets(Bytes)
77.87.125.205:333 (udp)	172.16.205.5:50 (1-4806-r4)	0 (0)
77.87.125.205:500 (tcp)	172.16.205.3:23 (1-4806-r2)	3 (144)

Addons

Reg Date	Name	Pricing	Status	Next Due Date		
No Records Found						