

# Installation and Configuration Guide

Step-by-step instructions for installing, configuring, and setting up the Synology WHMCS module, including Synology DSM preparation, WHMCS integration, email templates, and product configuration.

- [WHMCS setup \(install/update\)](#)
- [Synology part setup guide](#)
- [WHMCS part setup guide](#)
- [Email Template \(puqSynology Notification disk limit\)](#)
- [Add server \(Synology NAS\)](#)
- [Product Configuration](#)

# WHMCS setup (install/update)

## Synology module **WHMCS**

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## System requirements

Requirement	Minimum version
PHP	7.4 or higher (7.4 / 8.1 / 8.2)
WHMCS	8.x or higher
ionCube Loader	v13 or newer (v14, v15)
Synology DSM	7.x or higher

“ **Note:** The module uses ionCube encoding. Make sure ionCube Loader is installed and active on your server.

## Backward compatibility

This module supports older PHP versions and older WHMCS versions for maximum compatibility with existing hosting environments. PHP-version-specific builds are provided:

- **PHP 7.4** — for legacy WHMCS 8 installations running PHP 7.4
- **PHP 8.1** — for WHMCS 8 installations running PHP 8.1
- **PHP 8.2** — for WHMCS 8/9 installations running PHP 8.2

Each build is encoded with the appropriate ionCube version for the target PHP runtime.

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# Download

The module can be ordered and downloaded from PUQ Cloud:

- **Order / Download:** <https://puqcloud.com/whmcs-module-synology.php>
- **Community:** <https://community.puqcloud.com/>
- **Direct download links for the latest version:**

```
# PHP 7.4
wget https://download.puqcloud.com/WHMCS/servers/PUQ_WHMCS-Synology/php74/PUQ_WHMCS-Synology-latest.zip

# PHP 8.1
wget https://download.puqcloud.com/WHMCS/servers/PUQ_WHMCS-Synology/php81/PUQ_WHMCS-Synology-latest.zip

# PHP 8.2
wget https://download.puqcloud.com/WHMCS/servers/PUQ_WHMCS-Synology/php82/PUQ_WHMCS-Synology-latest.zip
```

After downloading, extract the archive:

```
unzip PUQ_WHMCS-Synology-latest.zip
```

---

# Installation

## Step 1: Upload files

Extract the module archive and copy the `|puqSynology|` directory to the WHMCS servers module directory:

## Step 2: Add server

Navigate to **System Settings** → **Servers** → **Add New Server**:

1. Enter the correct **Name** and **Hostname**
2. In Server Details, select the **PUQ Synology** module
3. Enter valid Synology DSM credentials (username and password)
4. Click **Test connection** to verify

## Step 3: Create product

Navigate to **System Settings** → **Products/Services** → **Create a New Product**:

1. Select the **PUQ Synology** module in the Module settings section
2. Configure the product parameters

---

# Update

## Step 1: Backup

Before updating, it is recommended to back up:

- WHMCS database
- Module files in `modules/servers/puqSynology/`

## Step 2: Upload new files

Download and extract the new version, then overwrite all files in:

WHMCS\_WEB\_DIR/modules/servers/puqSynology/

## Step 3: Verification

1. Log in to the WHMCS admin panel
2. Check the module is functioning correctly
3. Verify product settings

“ **Important (v3.0):** Product reconfiguration is required after updating to version 3.0.

# Synology part setup guide

## Synology module **WHMCS**

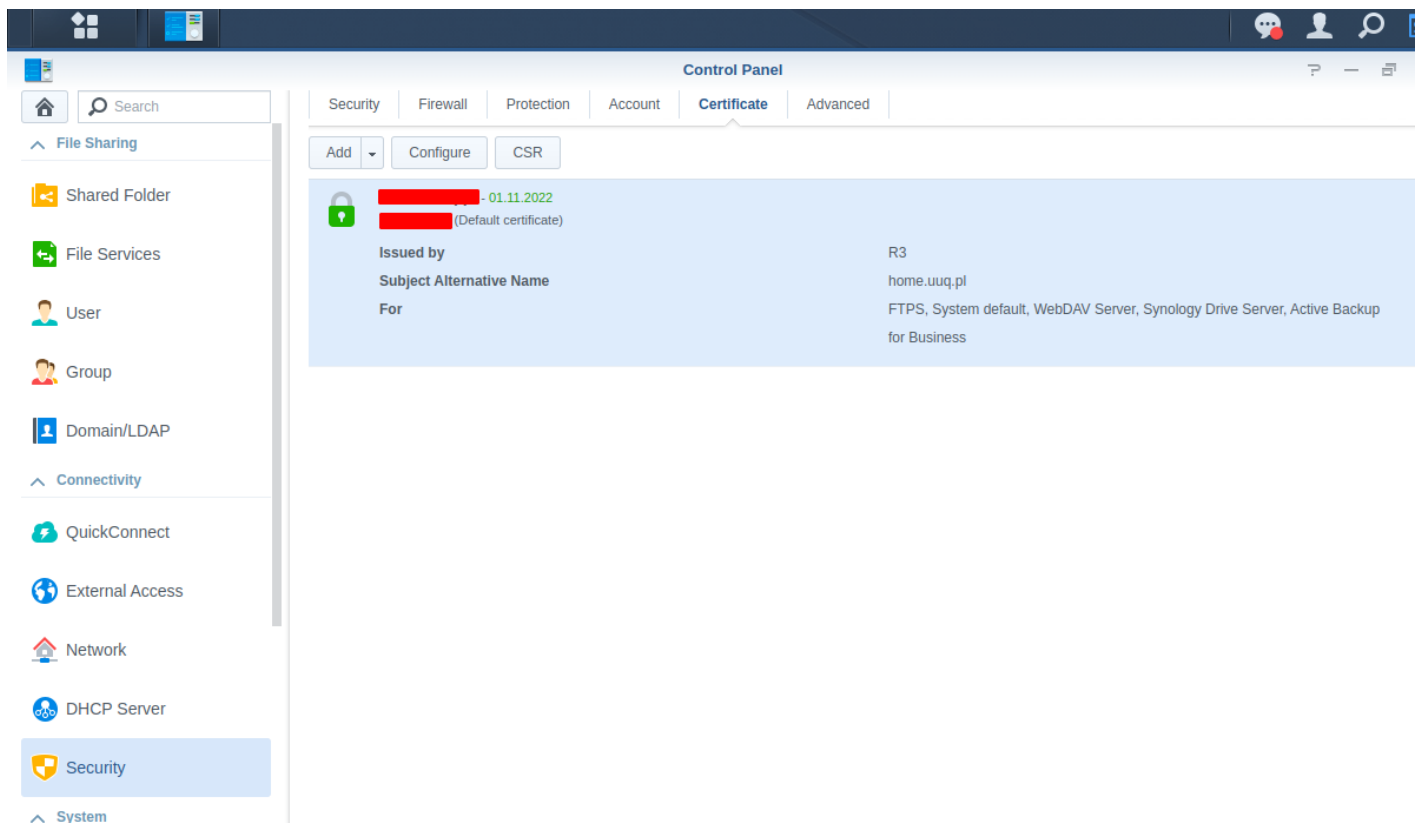
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Here are the initial steps of configuring Synology devices to prepare them for use with the WHMCS module.

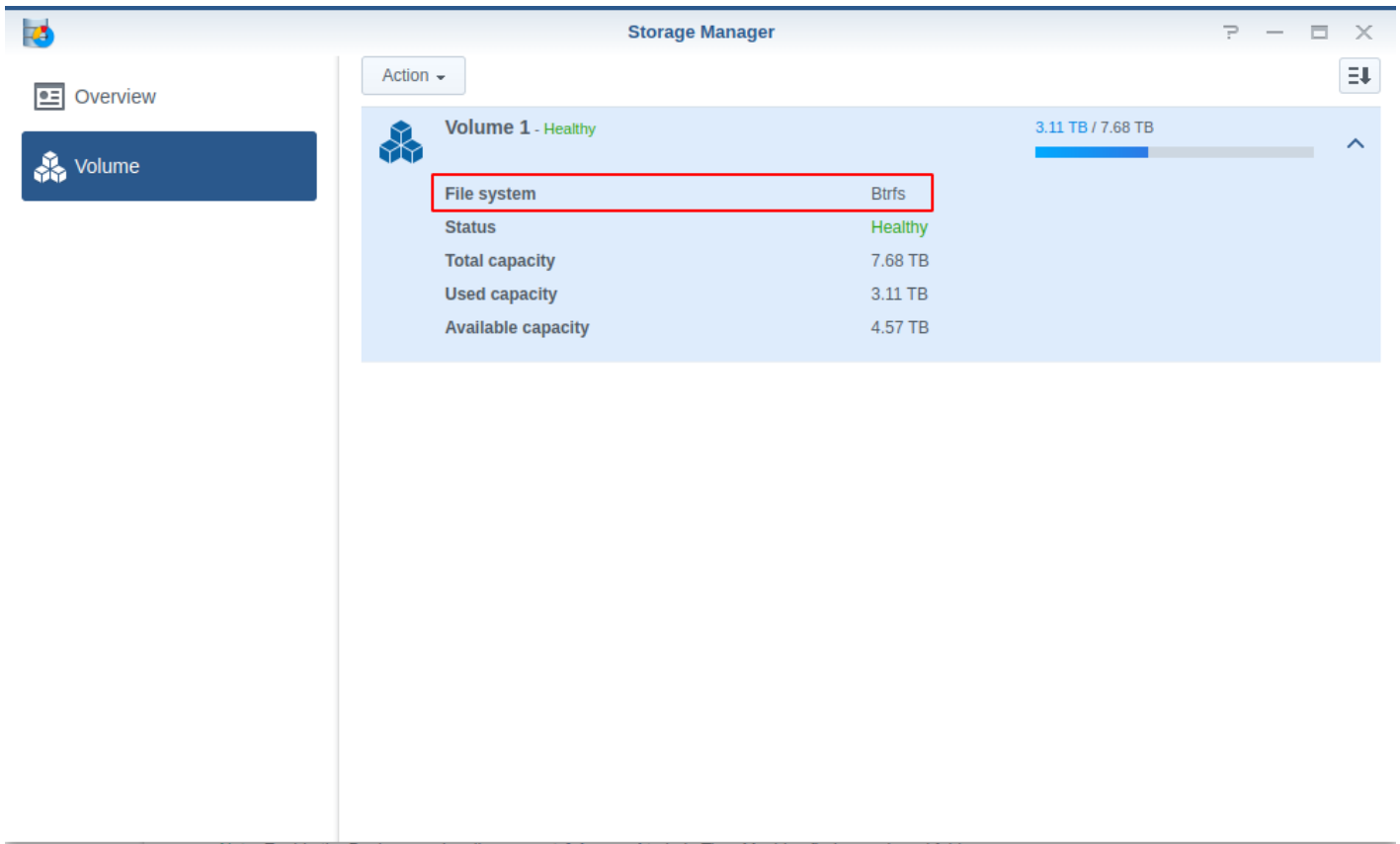
“ **Note:** At the beginning, you should prepare the appropriate domain with the correct DNS entries so that you can generate a correct SSL certificate for Your Synology NAS server.

### 1. Generate an SSL certificate for your domain.

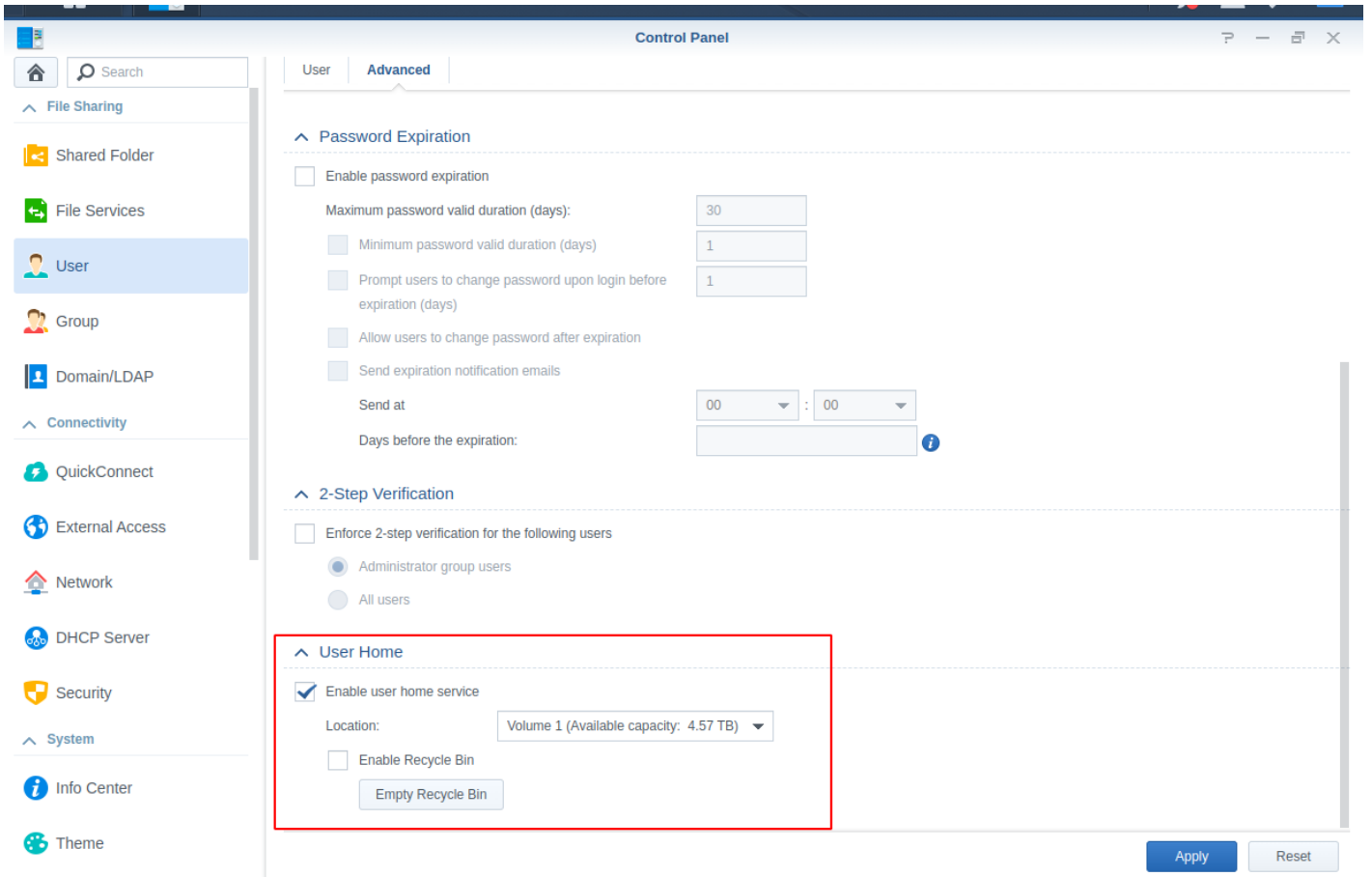
Connect the certificate for all services that will be used in the server.(FTPS, System, Synology Drive, etc...)



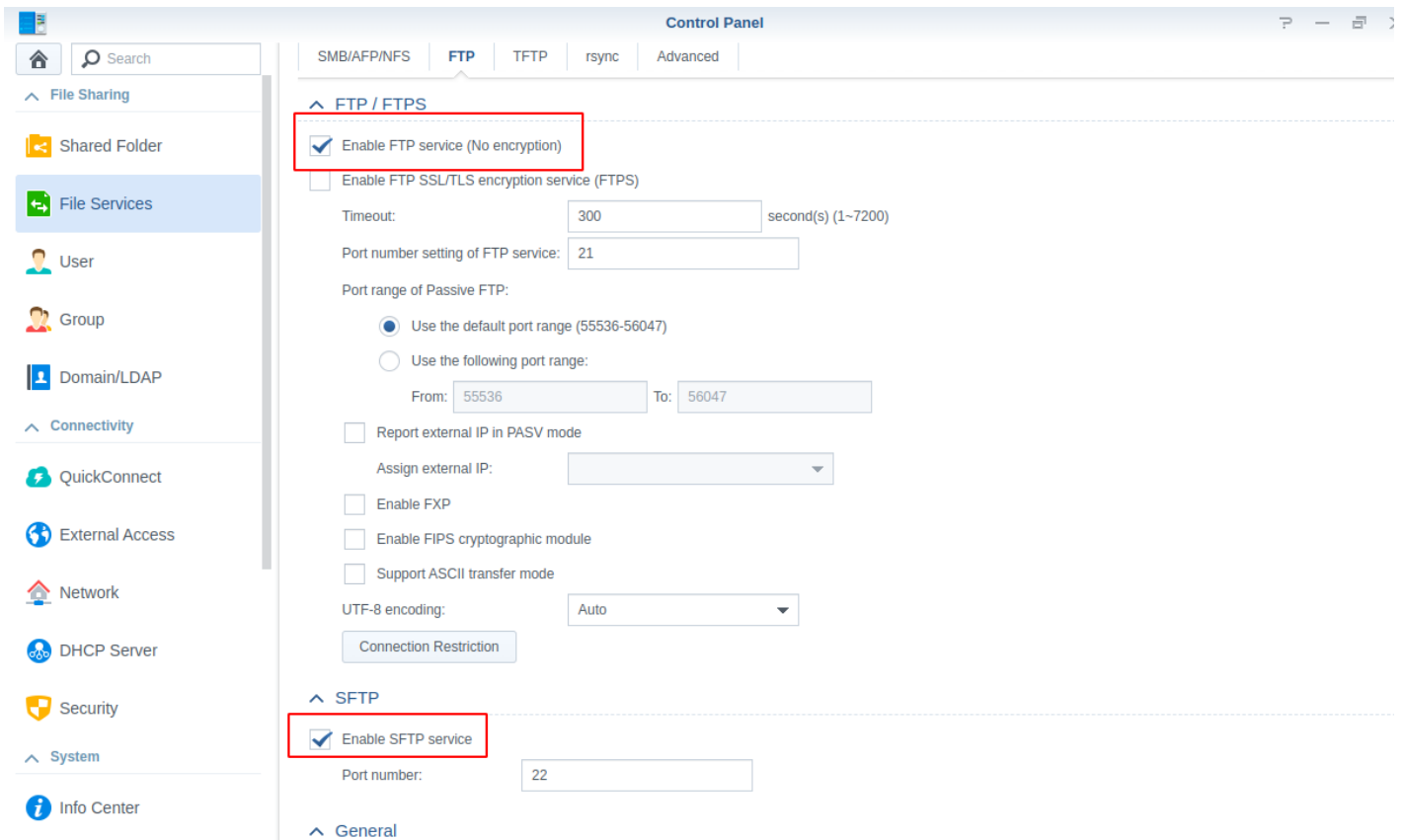
## 2. Make sure the partition is formatted in BTRFS



## 3. Enable the user's home folder.



#### 4. Enable all necessary file services (ie: FTP, FTPS, SFTP, etc.).



## 5. Create user groups with the necessary quotas and permissions.

The screenshot shows the Windows Control Panel interface for managing user groups. The left sidebar contains navigation options: File Sharing, Shared Folder, File Services, User, Group (selected), Domain/LDAP, Connectivity, QuickConnect, External Access, Network, DHCP Server, and Security. The main area displays a list of groups with columns for Name and Description. The '10G' group is selected, and a dialog box titled '10G' is open, showing the 'Quota' tab. This dialog contains a table with columns for Volume/Shared folder, Description, Quota, Unit, and an 'Enable quota' checkbox. The 'homes' row is highlighted with a red box, showing a quota of 10 GB and the 'Enable quota' checkbox checked. Other rows include ActiveBackup, music, NetBackup, video, and web, all with 0 GB quotas and unchecked checkboxes. 'OK' and 'Cancel' buttons are at the bottom right of the dialog.

Volume/Shared fol...	Description	Quota	Unit	Enable quota
Volume 1	-			
ActiveBacku...	-	0	GB	<input type="checkbox"/>
homes	user home	10	GB	<input checked="" type="checkbox"/>
music	System default sh...	0	GB	<input type="checkbox"/>
NetBackup	System default sh...	0	GB	<input type="checkbox"/>
video	-	0	GB	<input type="checkbox"/>
web	System default sh...	0	GB	<input type="checkbox"/>

Control Panel

10G

Group Information | Permissions | Quota | **Applications** | Speed Limit

Name	<input type="checkbox"/> Allow	<input type="checkbox"/> Deny	By IP
Active Backup for Busin...	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Active Backup for Busin...	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Audio Station	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Active Backup for Busin...	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Cloud Sync	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
DSM	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Download Station	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
File Station	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
FTP	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Moments	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Note Station	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Synology Drive	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Synology Contacts	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Synology Calendar	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Universal Search	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Video Station	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
WebDAV Server	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
rsync (Shared Folder S...	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

OK Cancel

Search

File Sharing

Shared Folder

File Services

User

Group

Domain/LDAP

Connectivity

QuickConnect

External Access

Network

DHCP Server

Security

System

Info Center

Theme

# WHMCS part setup guide

## Synology module **WHMCS**

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### 1. Download the latest version of the module

Choose the build that matches your server's PHP version:

PHP 8.2

```
wget https://download.puqcloud.com/WHMCS/servers/PUQ_WHMCS-Synology/php82/PUQ_WHMCS-Synology-latest.zip
```

PHP 8.1

```
wget https://download.puqcloud.com/WHMCS/servers/PUQ_WHMCS-Synology/php81/PUQ_WHMCS-Synology-latest.zip
```

PHP 7.4

```
wget https://download.puqcloud.com/WHMCS/servers/PUQ_WHMCS-Synology/php74/PUQ_WHMCS-Synology-latest.zip
```

“ **Note:** All versions are available here:

[https://download.puqcloud.com/WHMCS/servers/PUQ\\_WHMCS-Synology/](https://download.puqcloud.com/WHMCS/servers/PUQ_WHMCS-Synology/)

### 2. Unzip the archive with the module

```
unzip PUQ_WHMCS-Synology-latest.zip
```

### 3. Copy "puqSynology" to "WHMCS\_WEB\_DIR/modules/servers/"

## 4. Add the Synology NAS server in WHMCS

System Settings -> Servers -> Add New Server

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

### Servers

#### Edit Server

Name	<input type="text" value="████████.pl"/>
Hostname	<input type="text" value="████████.pl"/>
IP Address	<input type="text"/>
Assigned IP Addresses (One per line)	<input type="text"/>
Monthly Cost	<input type="text" value="0.00"/>
Datacenter/NOC	<input type="text"/>
Maximum No. of Accounts	<input type="text" value="200"/>
Server Status Address	<input type="text"/> 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. <a href="https://www.example.com/status/">https://www.example.com/status/</a>
Enable/Disable	<input type="checkbox"/> Tick to disable this server

- In the **Server Details** section, select the **PUQ Synology** module and enter the correct **username** and **password** of the **Synology DSM** account.
- Click **Test connection** to verify.

## Server Details

Module	PUQ Synology	<input type="button" value="Test Connection"/>
✓ Connection successful. Some values have been auto-filled.		
Username	ruslan	
Password	.....	
Access Hash		
Secure	<input checked="" type="checkbox"/> Tick to use SSL Mode for Connections	
Port	5001	<input type="checkbox"/> Override with Custom Port

“ **Warning:** The **ACCESS HASH** field is used to store the server access key and is updated automatically — do not edit it manually.

For more details, see [Add server \(Synology NAS\)](#).

## 5. Create the product

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

In the **Module Settings** section, select the **PUQ Synology** module and the **Server Group** that contains your Synology server, then click **Save Changes** to load the configuration panel.

Module Name	PUQ Synology
Server Group	DSM-7-2-2
License key	XXXX-XXXX-XXXXX-XXXXX-XXXXX success: 2027-12-17T13:44:28+01:00

### Disk

**Display only.** The disk size/unit below are shown to the client in the client area (and used for the usage-percentage chart and notifications). They do not enforce a limit on Synology. The real quota/limits must be configured on the Synology group selected below (Control Panel → User & Group → Group → Quota).

**Disk size**  
  
 Disk space shown to the client (display only). 0 = Unlimited.

**Disk unit**  
  
 Unit for the displayed disk space

**Synology group (enforces the real limits)**  
   
 Pre-configured Synology group assigned to provisioned users (loaded from the server). Configure the actual disk quota / permission limits on this group in DSM.

### Notifications

**Notify at %**  
  
 Threshold to notify the user about low disk space

**Email template**  
  
 Email template used for low disk space notifications

### History

**Save history (days)**  
  
 Number of days to keep usage statistics in WHMCS

### Client Area

**Link to instruction**  
  
 A link to the instruction will be reflected in the client area.

**Show password**  
  
 Defines how the password is displayed in the client area

### User

**Username rule**

Every setting in this panel (License key, Disk, Synology group, Notifications, History, Client Area and User rules) is described in detail on the [Product Configuration](#) page.

# Email Template

## (puqSynology Notification disk limit)

Synology module **WHMCS**

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Create an email template for customer notifications.

System Settings->Email Templates->Create New Email Template

- **Email Type:** Product/service
- **Unique Name:** puqSynology Notification disk limit

### Create New Email Template

Email Type

Product/Service

Unique Name

puqSynology Notification disk limit

Cancel

Create

**Subject:**

Disk space usage {\$disk\_used\_percentage} % - {\$username}

**Body:**

Dear {\$client\_name},

This letter informs you that the disk space usage limit is coming to an end.

Product/Service: {\$service\_product\_name}

Due Date: {\$service\_next\_due\_date}

Username: {\$username}

Disk limit: {\$disk\_limit\_bytes\*\$unit\_coefficient} {\$unit}

Disk used: {\$disk\_used\_unit} {\$unit} ({\$disk\_used\_percentage} %)

Disk free: {\$disk\_free\_unit} {\$unit} ({\$disk\_free\_percentage} %)



{\$signature}

Subject:

Disk space usage  $\{\$disk\_used\_percentage\} \% - \{\$username\}$

File ▾ Edit ▾ View ▾ Insert ▾ Format ▾ Table ▾ Help ▾

Paragraph ▾ Verdana ▾ 11pt ▾ **B** *I* ~~S~~ U A ▾ **A** ▾  

 ▾  ▾

         ▾        

Dear  $\{\$client\_name\}$ ,

This letter informs you that the disk space usage limit is coming to an end.

Product/Service:  $\{\$service\_product\_name\}$

Due Date:  $\{\$service\_next\_due\_date\}$

Username:  $\{\$username\}$

Disk limit:  $\{\$disk\_limit\_bytes*\$unit\_coefficient\} \{\$unit\}$

Disk used:  $\{\$disk\_used\_unit\} \{\$unit\} (\{\$disk\_used\_percentage\} \%)$

Disk free:  $\{\$disk\_free\_unit\} \{\$unit\} (\{\$disk\_free\_percentage\} \%)$

$\{\$signature\}$

# Add server (Synology NAS)

Synology 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**

# Servers

## Edit Server

Name	<input type="text" value="████████.pl"/>
Hostname	<input type="text" value="████████.pl"/>
IP Address	<input type="text"/>
Assigned IP Addresses (One per line)	<div style="border: 1px solid #ccc; height: 100px;"></div>
Monthly Cost	<input type="text" value="0.00"/>
Datacenter/NOC	<input type="text"/>
Maximum No. of Accounts	<input type="text" value="200"/>
Server Status Address	<input type="text"/> 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. <a href="https://www.example.com/status/">https://www.example.com/status/</a>
Enable/Disable	<input type="checkbox"/> Tick to disable this server

- In the **Server Details** section, select the "**PUQ Synology**" module and enter the correct **username** and **password** for the **Synology NAS web interface**.
- To check, click the "**Test connection**" button

## Server Details

Module	PUQ Synology	<input type="button" value="Test Connection"/>
✓ Connection successful. Some values have been auto-filled.		
Username	ruslan	
Password	.....	
Access Hash	<div style="border: 1px solid #ccc; height: 100px;"></div>	
Secure	<input checked="" type="checkbox"/> Tick to use SSL Mode for Connections	
Port	5001	<input type="checkbox"/> Override with Custom Port

“ **Warning:** WARNING: **ACCESS HASH** field Used to store the access key to the server and is updated automatically.

# Product Configuration

## Synology module **WHMCS**

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### Add a new product to WHMCS

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

In the **Module Settings** section, select the **PUQ Synology** module and the **Server Group** that contains your Synology server, then click **Save Changes**. The module then renders its modern configuration panel.

The screenshot shows the configuration interface for the PUQ Synology module. At the top, there are dropdown menus for 'Module Name' (set to 'PUQ Synology') and 'Server Group' (set to 'DSM-7-2-2'). Below these is a 'License key' field with a placeholder 'XXXX-XXXX-XXXX-XXXX-XXXX' and a success message 'success: 2027-12-17T13:44:28+01:00'. The main configuration area is divided into several sections:

- Disk**: Contains a 'Display only' note, a 'Disk size' input field (set to '1'), a 'Disk unit' dropdown (set to 'GB'), and a 'Synology group (enforces the real limits)' dropdown (set to '1GB').
- Notifications**: Includes a 'Notify at %' input field (set to '90'), an 'Email template' dropdown (set to 'None'), and a 'Save history (days)' input field (set to '364').
- Client Area**: Includes a 'Link to instruction' input field (set to 'https://puq.info/') and a 'Show password' dropdown (set to 'Show button').
- User**: Includes a 'Username rule' input field.

“ **Note:** Select the **Server Group** and save the product first — the **Synology group** drop-down (in the Disk section) is populated live from the server assigned to that group.

At the top of the panel:

- **Module Name** — the provisioning module (**PUQ Synology**).
- **Server Group** — the WHMCS server group whose Synology server this product is provisioned on.
- **License key** — your pre-purchased **PUQ Synology** license key. The validation status and the paid-through date are shown right below the field; the key must be **active** for the module to work.

## Disk

 Disk

**Display only.** The disk size/unit below are shown to the client in the client area (and used for the usage-percentage chart and notifications). They do **not** enforce a limit on Synology. The real quota/limits must be configured on the Synology group selected below (Control Panel → User & Group → Group → Quota).

**Disk size**

Disk space shown to the client (display only). 0 = Unlimited.

**Disk unit**

Unit for the displayed disk space

**Synology group (enforces the real limits)**

Pre-configured Synology group assigned to provisioned users (loaded from the server). Configure the actual disk quota / permission limits on this group in DSM.

“ **Note: Display only.** The disk size/unit are shown to the client in the client area (and used for the usage-percentage chart and notifications). They do **not** enforce a limit on Synology. The real quota/permission limits must be configured on the **Synology group** selected here (Control Panel → User & Group → Group → Quota).

- **Disk size** — disk space shown to the client (display only).  = Unlimited.
- **Disk unit** — unit (MB / GB / TB) for the displayed disk space.
- **Synology group (enforces the real limits)** — the pre-configured Synology group assigned to provisioned users, chosen from a live drop-down of the groups that actually exist on the server. Use the refresh button to reload the list. Configure the real disk quota

/ permissions on this group in DSM.

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## Notifications

**Notifications**

**Notify at %**  
  
Threshold to notify the user about low disk space

**Email template**  
  
Email template used for low disk space notifications

- **Notify at %** — usage threshold; when a client exceeds it, a low-disk-space notification is sent.
  - **Email template** — the WHMCS email template used for low-disk-space notifications (  to disable).
- 

## History

**History**

**Save history (days)**  
  
Number of days to keep usage statistics in WHMCS

- **Save history (days)** — how many days of disk-usage statistics to keep in WHMCS.
- 

## Client Area

## Client Area

### Link to instruction

A link to the instruction will be reflected in the client area.

### Show password

Defines how the password is displayed in the client area

- **Link to instruction** — an optional URL; when set, a **User manual** button is shown in the client area.
- **Show password** — how the password is presented in the client area (**Show button** / plain text / hidden).

# User

## User

### Username rule

Username template using macros.

#### Base macros:

`{client_id}` - Client ID

`{service_id}` - Service ID

#### Random macros:

`{random_digit_x}` - Random digits, where `x` is length

(example: `{random_digit_4}`)

`{random_letter_x}` - Random letters (A-Z, a-z), where `x` is length

(example: `{random_letter_6}`)

#### Date & time macros:

`{unixtime}`, `{year}`, `{month}`, `{day}`, `{hour}`, `{minute}`, `{second}`

#### Example:

`{client_id}-{service_id}-{random_digit_4}`

### Password rule

Generated password length (minimum 8). Example: `12` for a 12-character password.

The generated password always includes lowercase, uppercase, digit and special characters to satisfy Synology DSM password-strength rules.

- **Username rule** — template for the generated username, using macros:
  - Base: `{client_id}|{|service_id|}`

- Random: `{random_digit_x}`, `{random_letter_x}` (where x is the length, e.g. `{random_digit_4}`)
- Date & time: `{unixtime}`, `{year}`, `{month}`, `{day}`, `{hour}`, `{minute}`, `{second}`
- Example: `{client_id}-{service_id}-{random_digit_4}`
- The generated name is automatically normalised to be Synology/DSM compliant, and collisions with other services are resolved automatically.
- **Password rule** — generated password length (minimum 8), e.g. `12`. The generated password always includes lowercase, uppercase, digit and special characters to satisfy the Synology DSM password-strength rules.