comment-installer-jellyfin-media-server-sur-debian-12

Jellyfin is free software for building a media server. It lets you collect, manage, and stream your media files from multiple devices or clients. Jellyfin is a free and self-hosted application that can be installed on your server, so you can create your own media server in your local environment, such as at home, and then allow multiple clients and devices to access all your media files.

Jellyfin is an alternative media file server to proprietary like Emby and Plex. It allows you to manage media files from any device and anywhere.

This guide will show you how to install the Jellyfin media server on Debian 12. You will install Jellyfin via a pre-built binary package and secure it with UFW (Uncomplicated Firewall), SSL/TLS certificates from Letsencrypt, and the Apache2 reverse proxy.

Prerequisites

To begin the process, ensure you have the following:

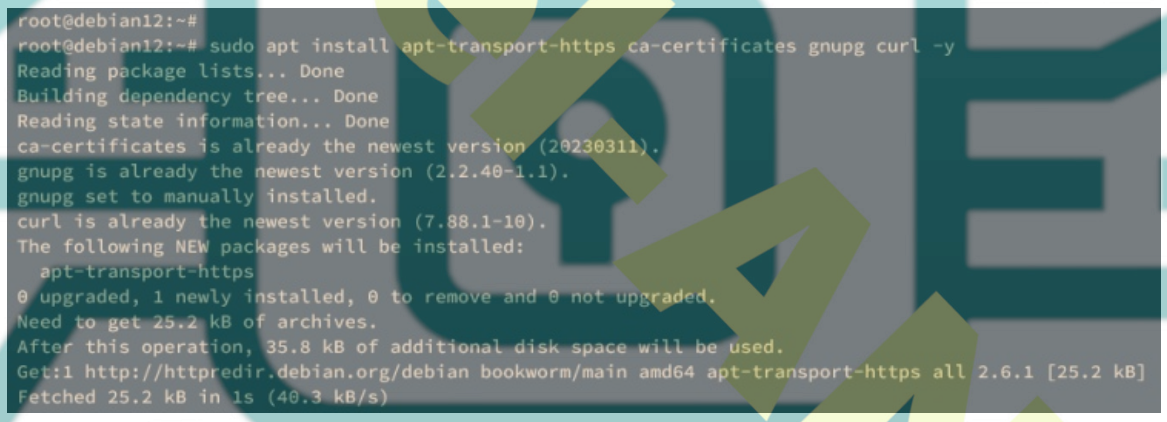
- A Debian 12 server with 2 or 4 GB of memory.
- A non-root user with administrator privileges.
- A domain name pointed to the server IP address.

Adding Jellyfin Repository

The Jellyfin media server can be installed in many ways, manually or via a pre-built package that is available for most Linux distributions. In this first step, you will add the Jellyfin repository to your Debian server.

First, run the following apt command to install dependencies to your Debian machine.

```
sudo apt install apt-transport-https ca-certificates gnupg curl -y
```



Once dependencies are installed, execute the following command to add the GPG key of the jellyfin repository, which will be stored at */etc/apt/keyrings/jellyfin.gpg*.

```
sudo mkdir -p /etc/apt/keyrings
curl -fsSL https://repo.jellyfin.org/jellyfin_team.gpg.key | sudo gpg --dearmor -o /etc/apt/keyrings/jellyfin.gpg
```

Now execute the command below to add the jellyfin repository to your Debian server. After executing the command, the repository file */etc/apt/sources.list.d/jellyfin.sources* will be created.

```
cat <<EOF | sudo tee /etc/apt/sources.list.d/jellyfin.sources
Types: deb
URIs: https://repo.jellyfin.org/$( awk -F'=' '/^ID=/{ print $NF }' /etc/os-release )
Suites: $( awk -F'=' '/^VERSION_CODENAME=/{ print $NF }' /etc/os-release )
Components: main
Architectures: $( dpkg --print-architecture )
Signed-By: /etc/apt/keyrings/jellyfin.gpg
EOF
```

```
root@debian12:~#
root@debian12:~# sudo mkdir -p /etc/apt/keyrings
root@debian12:~# curl -fsSL https://repo.jellyfin.org/jellyfin_team.gpg.key | sudo gpg --dearmor -o /etc/apt/keyrings/jellyfin.gpg
root@debian12:~#
root@debian12:~# cat <<EOF | sudo tee /etc/apt/sources.list.d/jellyfin.sources
Types: deb
URIs: https://repo.jellyfin.org/$( awk -F'=' '/^ID=/{ print $NF }' /etc/os-release )
Suites: $( awk -F'=' '/^VERSION_CODENAME=/{ print $NF }' /etc/os-release )
Components: main
Architectures: $( dpkg --print-architecture )
Signed-By: /etc/apt/keyrings/jellyfin.gpg
EOF
Types: deb
URIs: https://repo.jellyfin.org/debian
Suites: bookworm
Components: main
Architectures: amd64
Signed-By: /etc/apt/keyrings/jellyfin.gpg
root@debian12:~#
```

Lastly, update and refresh your Debian package index using the *apt update* command below.

```
sudo apt update
```

You should see the jellyfin repository added to the system repository list.

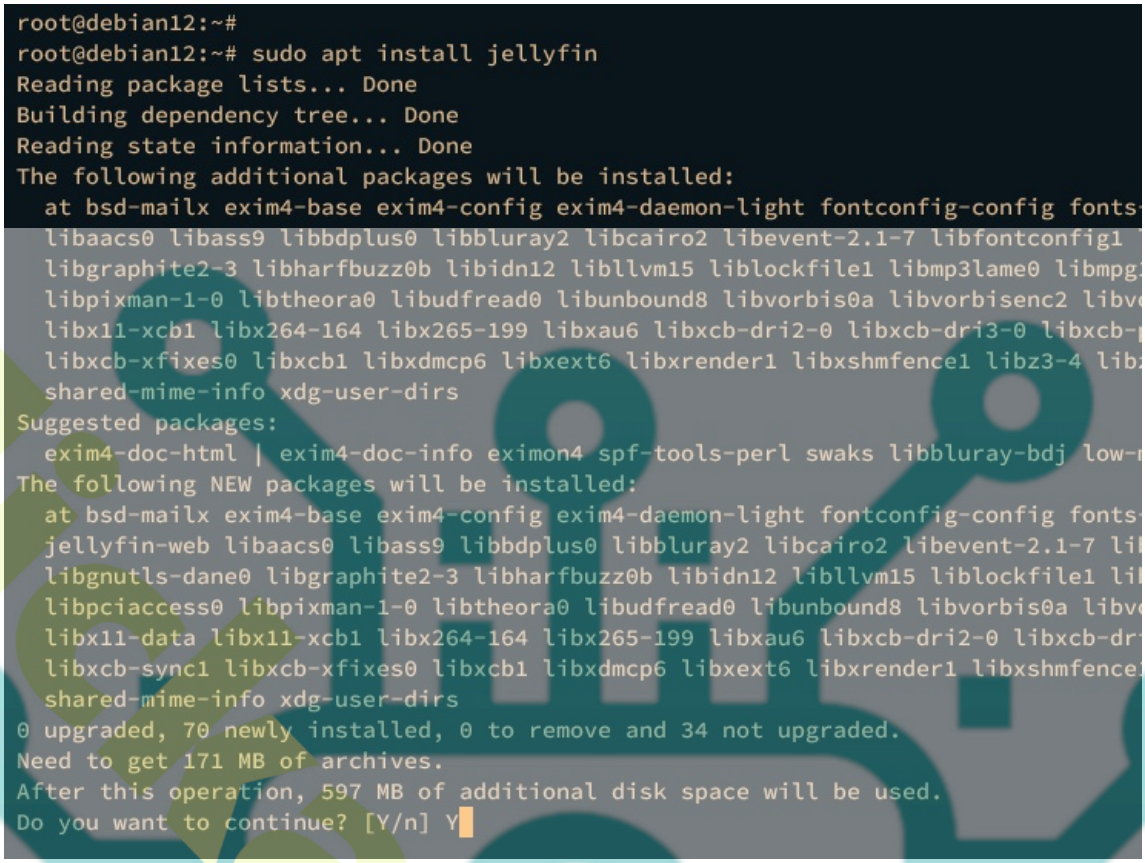
```
root@debian12:~#
root@debian12:~# sudo apt update
Get:1 http://security.debian.org/debian-security bookworm-security InRelease [48.0 kB]
Get:2 http://httpredir.debian.org/debian bookworm InRelease [151 kB]
Get:3 http://security.debian.org/debian-security bookworm-security/main Sources [42.0 kB]
Get:4 http://security.debian.org/debian-security bookworm-security/non-free-firmware Sources [784 B]
Get:5 http://security.debian.org/debian-security bookworm-security/main amd64 Packages [53.6 kB]
Get:6 https://repo.jellyfin.org/debian bookworm InRelease [6,639 B]
Get:7 http://security.debian.org/debian-security bookworm-security/main Translation-en [31.0 kB]
Get:8 http://security.debian.org/debian-security bookworm-security/non-free-firmware amd64 Packages [680 B]
Get:9 http://security.debian.org/debian-security bookworm-security/non-free-firmware Translation-en [464 B]
Get:10 http://httpredir.debian.org/debian bookworm-updates InRelease [52.1 kB]
Get:11 http://httpredir.debian.org/debian bookworm/main Sources [9,640 kB]
Get:12 https://blr1.mirror.jellyfin.org/debian bookworm/main amd64 Packages [1,972 B]
Get:13 http://httpredir.debian.org/debian bookworm/non-free-firmware Sources [6,156 B]
Get:14 http://httpredir.debian.org/debian bookworm/main amd64 Packages [8,906 kB]
75% [14 Packages 8,300 kB/8,906 kB 93%]
```

Installing and Managing Jellyfin

With the jellyfin repository added, you're ready to install the jellyfin media server. Complete these steps to install jellyfin and learn how to manage the jellyfin service via systemctl.

Execute the apt install command below to install the jellyfin media server. Type y for the confirmation and press ENTER to proceed.

```
sudo apt install jellyfin
```



After installation, ensure the Jellyfin service is running and enabled using the command below.

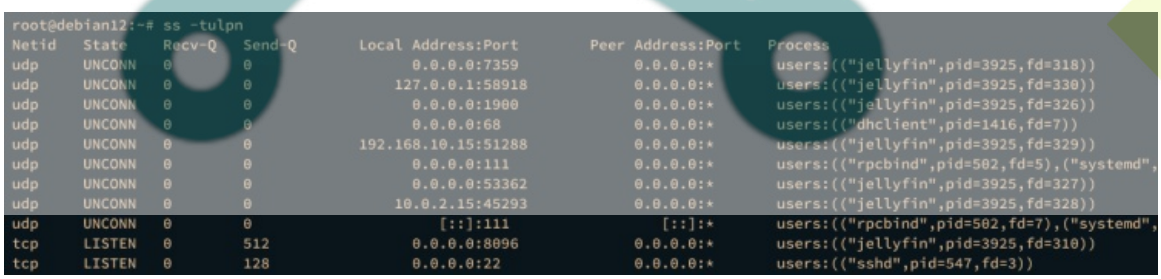
```
sudo systemctl is-enabled jellyfin
sudo systemctl status jellyfin
```

If running, you should see the output **active (running)**. When enabled, the output you should get is enabled. This means the Jellyfin will start automatically upon the system boot.

By default, Jellyfin is running in localhost with port 8096. Execute the ss command below to verify the ports list on your Debian system.

```
ss -tulpn
```

You can expect to see port **8096** is used by the Jellyfin media server.



Lastly, run the following systemctl command to start, stop, or restart the Jellyfin service.

```
sudo systemctl start jellyfin
sudo systemctl stop jellyfin
sudo systemctl restart jellyfin
```

Security Settings with UFW

In the following section, you will secure your Jellyfin media server via UFW. You will install UFW and and then open HTTP and HTTPS protocols for client access. You must open HTTP and HTTPS protocols because you will be using Apache2 as a reverse proxy.

First, install UFW via the apt install command below.

```
sudo apt install ufw -y
```

Once UFW installed, run the ufw command below to add the **OpenSSH** service, then start and enable UFW.

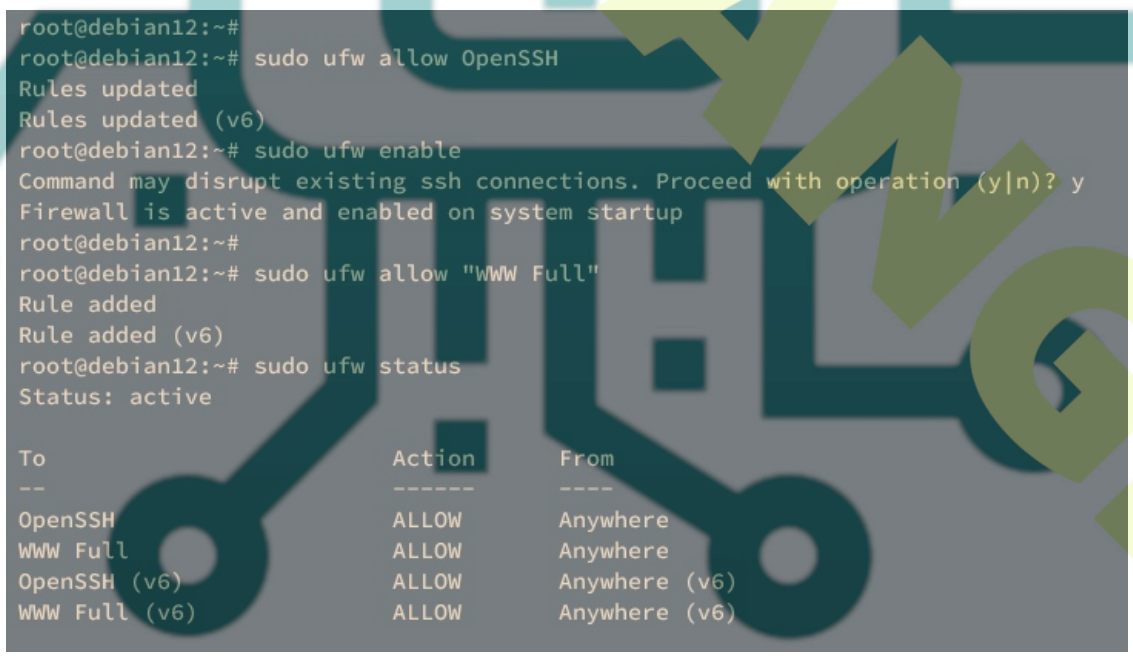
```
sudo ufw allow OpenSSH
sudo ufw enable
```

Type y when prompted and UFW should be running and enabled.

Now run the command below to add the **WWW Full** profile and verify the UFW status. The **WWW Full** profile will open both HTTP and HTTPS protocols on your Debian system.

```
sudo ufw allow "WWW Full"
sudo ufw status
```

The output should indicate that UFW is active with enabled OpenSSH and WWW Full profiles.



Installing and Configuring Apache2 as Reverse Proxy

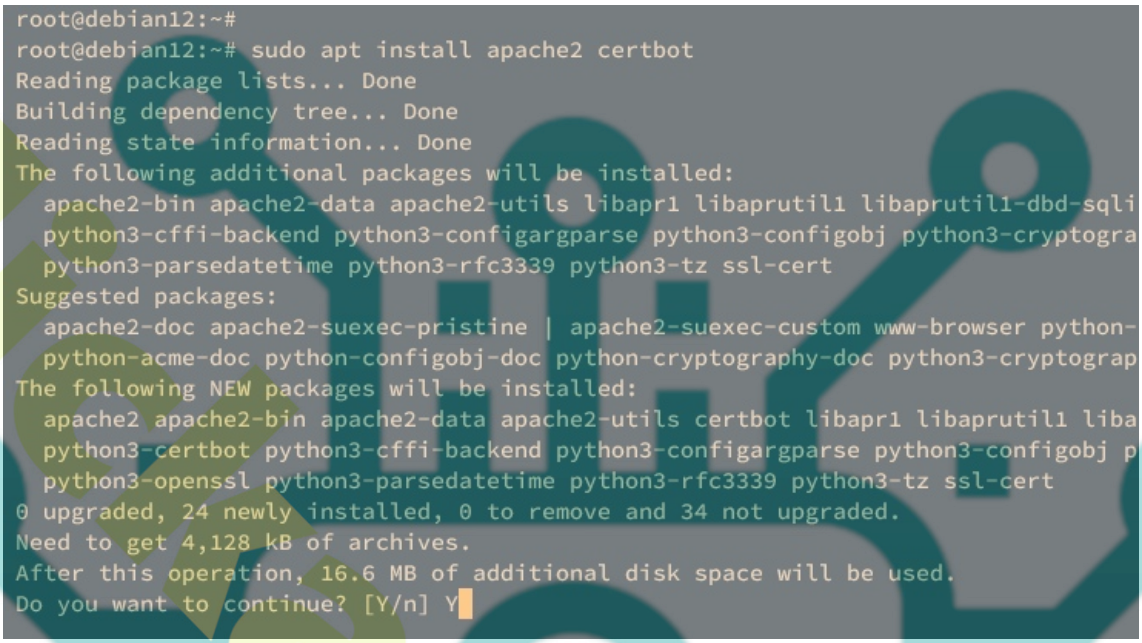
In this guide, you will run the Jellyfin media server within Apache2 as a reverse proxy. You'll also secure your installation with SSL/TLS certificates generated via Certbot and Letsencrypt.

Now, complete the following tasks: install Apache2 and Certbot, generate SSL/TLS certificates, and create the Apache2 virtual host configuration for the Jellyfin media server.

Installing Apache2 and Certbot

First, run the following command to install the Apache2 web server and Certbot. Type y for the confirmation and press ENTER.

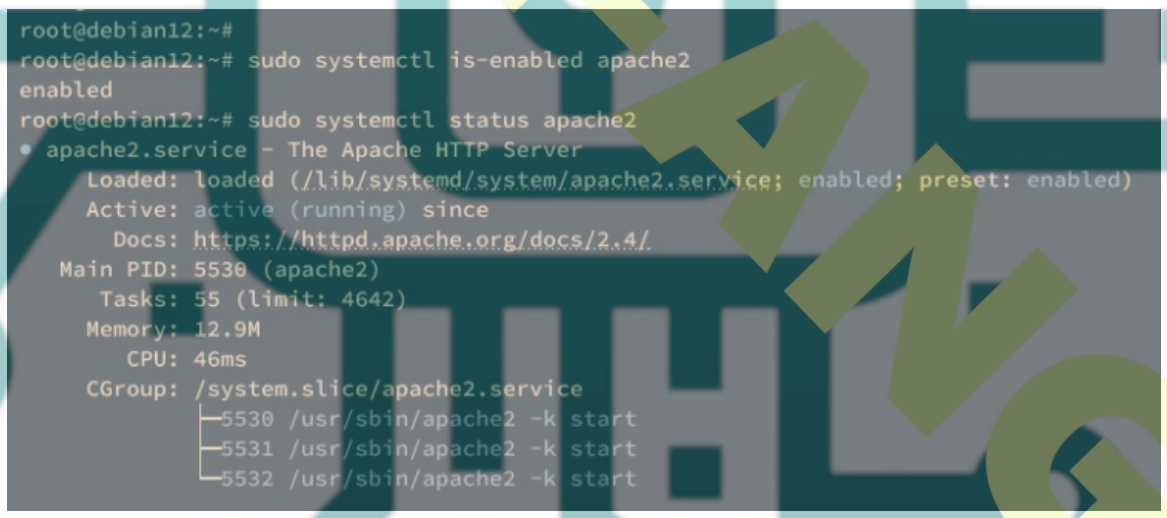
```
sudo apt install apache2 certbot
```



After installation is finished, the apache2 service should be running and enabled by default. Verify it using the *systemctl* command below.

```
sudo systemctl is-enabled apache2
sudo systemctl status apache2
```

The output enabled indicates that the apache2 service will start automatically at boot. And the output **active (running)** indicates the status of the service is running.



Generating SSL/TLS Certificates with Certbot

Before generating SSL/TLS certificates, enable some Apache2 modules via the a2enmod command and restart the Apache2 service.

```
sudo a2enmod proxy proxy_http ssl proxy_wstunnel remoteip http2 headers
sudo systemctl restart apache2
```

Now run the following command to create a new directory */var/www/html/jellyfin/public_html* and change the ownership to the *www-data* user and group. This directory will be used as a temporary web-root directory for generating SSL/TLS certificates.

```
sudo mkdir -p /var/www/html/jellyfin/public_html
sudo chown -R www-data:www-data /var/www/html/jellyfin/public_html
```

Next, run the certbot command below to generate new SSL/TLS certificates. Ensure to change the email address and

domain name before executing the command.

```
sudo certbot certonly --agree-tos --email user@email.com --no-eff-email --webroot -w /var/www/html/jellyfin/public_html -d media.hwdomain.io
```

After the process, your SSL/TLS certificates will be available in */etc/letsencrypt/live/domain.com* directory. The file *fullchain.pem* is the public key and the *privkey.pem* is the private key.

Configuring Apache2 as a Reverse Proxy

Create a new virtual host configuration */etc/apache2/sites-available/jellyfin.conf* using the following nano editor command.

```
sudo nano /etc/apache2/sites-available/jellyfin.conf
```

Insert the configuration below and be sure to change the domain name, the path of SSL/TLS certificates, and the server IP address with your information. With this, you will set up Apache2 as a reverse proxy for the jellyfin media server that is running on port **8096**.

```
<VirtualHost *:80>
    ServerName media.hwdomain.io

    # Comment to prevent HTTP to HTTPS redirect
    Redirect permanent / https://media.hwdomain.io/

    ErrorLog /var/log/apache2/media.hwdomain.io-error.log
    CustomLog /var/log/apache2/media.hwdomain.io-access.log combined
</VirtualHost>

# If you are not using an SSL certificate, replace the 'redirect'
# line above with all lines below starting with 'Proxy'
<IfModule mod_ssl.c>
<VirtualHost *:443>
    ServerName media.hwdomain.io
    # This folder exists just for certbot(You may have to create it, chown and chmod it to give apache permission to read it)
    DocumentRoot /var/www/html/jellyfin/public_html

    ProxyPreserveHost On

    # Letsencrypt's certbot will place a file in this folder when updating/verifying certs
    # This line will tell Apache to not to use the proxy for this folder.
    ProxyPass "/.well-known/" "!"

    # Tell Jellyfin to forward that requests came from TLS connections
    RequestHeader set X-Forwarded-Proto "https"
    RequestHeader set X-Forwarded-Port "443"

    ProxyPass "/socket" "ws://192.168.10.15:8096/socket"
    ProxyPassReverse "/socket" "ws://192.168.10.15:8096/socket"

    ProxyPass "/" "http://192.168.10.15:8096/"
    ProxyPassReverse "/" "http://192.168.10.15:8096/"

    SSLEngine on
    SSLCertificateFile /etc/letsencrypt/live/media.hwdomain.io/fullchain.pem
    SSLCertificateKeyFile /etc/letsencrypt/live/media.hwdomain.io/privkey.pem
    Protocols h2 http/1.1

    # Enable only strong encryption ciphers and prefer versions with Forward Secrecy
    SSLCipherSuite HIGH:RC4-SHA:AES128-SHA:!aNULL:!MD5
    SSLHonorCipherOrder on

    # Disable insecure SSL and TLS versions
    SSLProtocol all -SSLv2 -SSLv3 -TLSv1 -TLSv1.1

    ErrorLog /var/log/apache2/media.hwdomain.io-error.log
    CustomLog /var/log/apache2/media.hwdomain.io-access.log combined
</VirtualHost>
</IfModule>
```

Save the file and exit the editor when finished.

Next, run the a2ensite command below to activate the virtual host *jellyfin.conf*, then verify your Apache2 syntax.

```
sudo a2ensite jellyfin.conf
sudo apachectl configtest
```

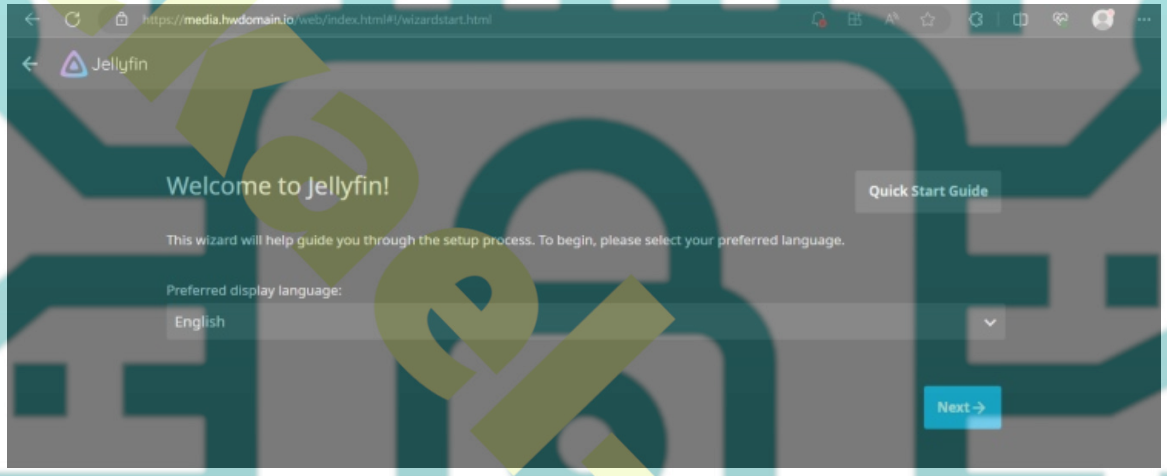
If you've proper Apache2 syntax, you should get an output **Syntax OK**.

```
root@debian12:~#
root@debian12:~# sudo nano /etc/apache2/sites-available/jellyfin.conf
root@debian12:~#
root@debian12:~# sudo a2ensite jellyfin.conf
Enabling site jellyfin.
To activate the new configuration, you need to run:
  systemctl reload apache2
root@debian12:~#
root@debian12:~# sudo apachectl configtest
AH00558: apache2: Could not reliably determine the server's fully qualified doma
 to suppress this message
Syntax OK
root@debian12:~#
```

Now restart the apache2 service using the below command to apply the changes. Your jellyfin installation should be running and secured under the Apache2 reverse proxy.

```
sudo systemctl restart apache2
```

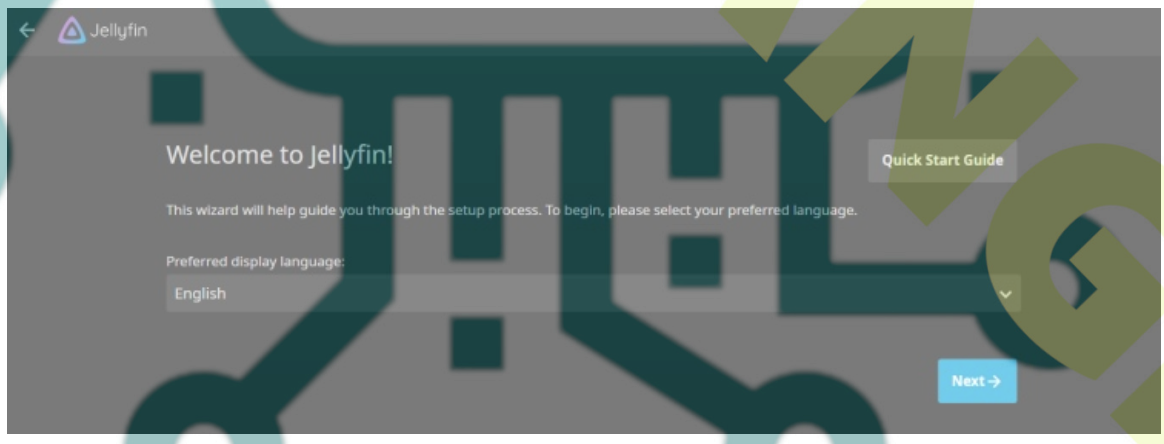
Lunch your web browser and visit the domain name of your Jellyfin installation, such as https://media.hwdomain.io/. If the configuration is successful, you should get the Jellyfin installation wizard like this:



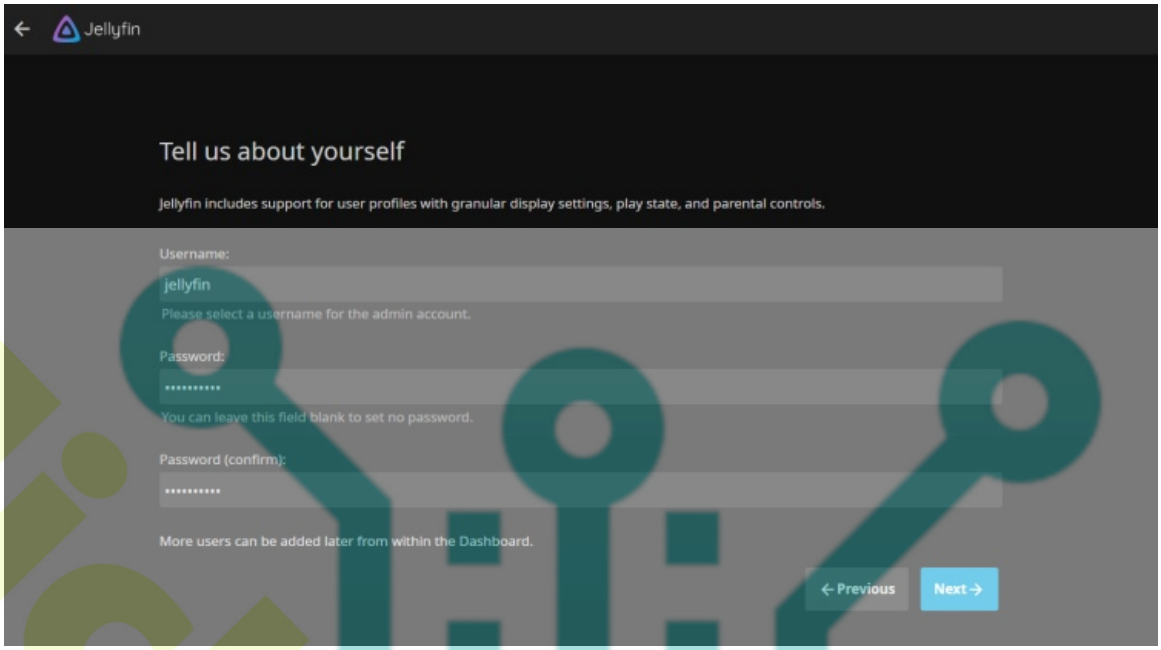
Jellyfin Media Server Installation

In the following step, you'll complete the Jellyfin media server configuration via the installation wizard.

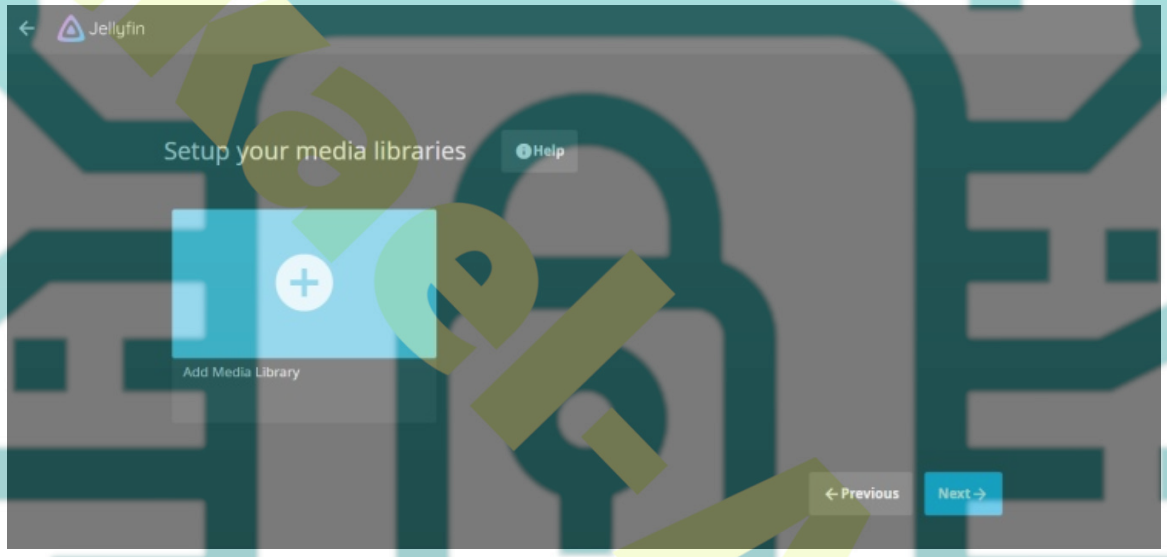
First, select the default language for your Jellyfin installation and click **Next**.



Now, create a new admin user for your Jellyfin installation. Input your username and password, then click **Next**.

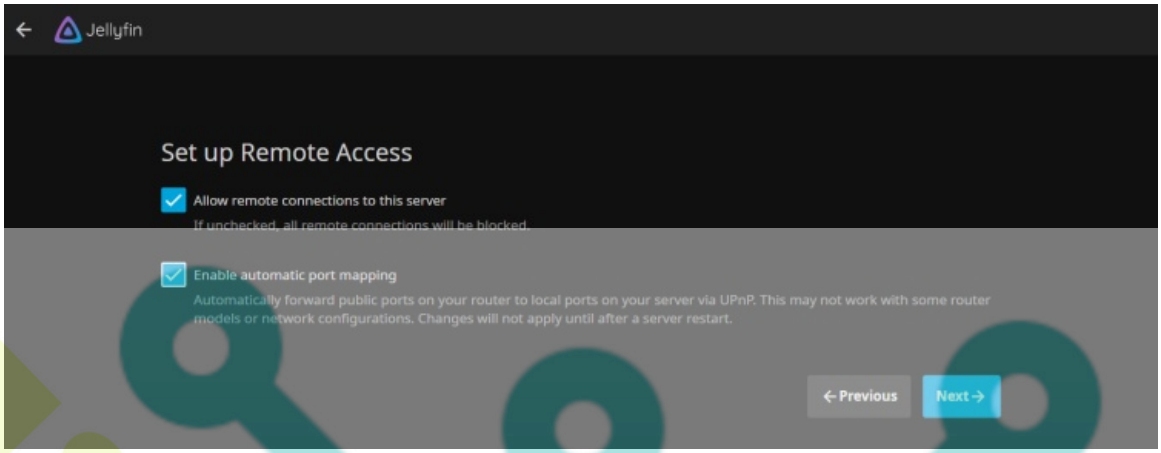


For the media libraries, you can configure them later. Click **Next** to continue.

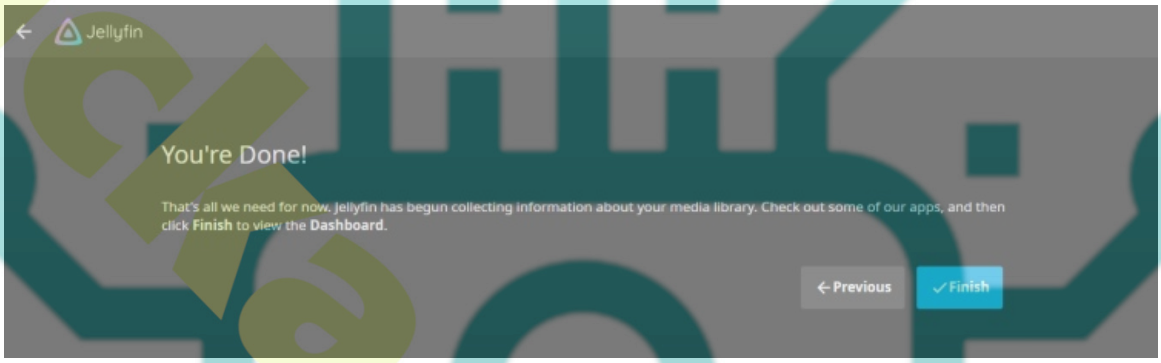


Select your preferred **Metadata** language for your libraries and click **Next**.

Check the option Allow remote connections to enable remote access to your jellyfin media server. Also, you can enable port mapping by checking the option. Then, click **Next**.

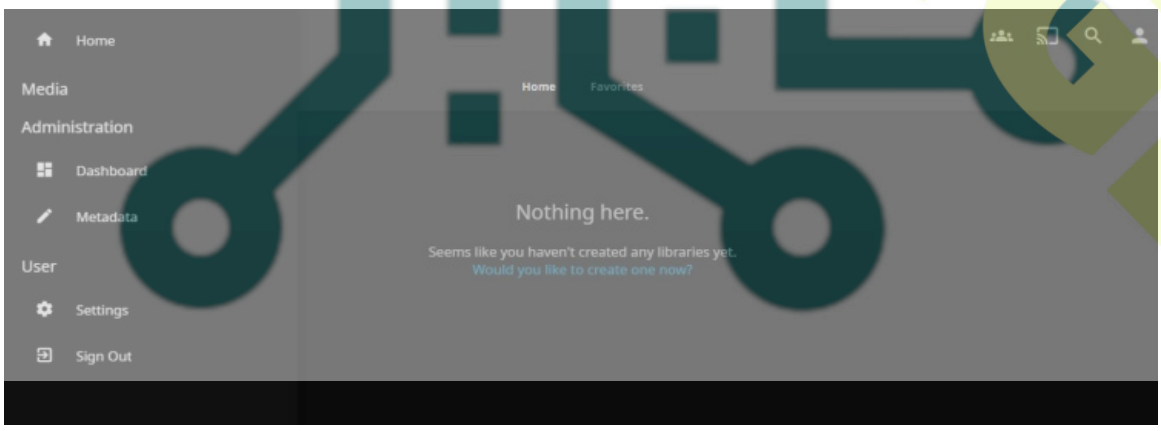


If your configuration is successful, you should get the message **You're Done!**. Click **Finish** to complete the jellyfin installation.

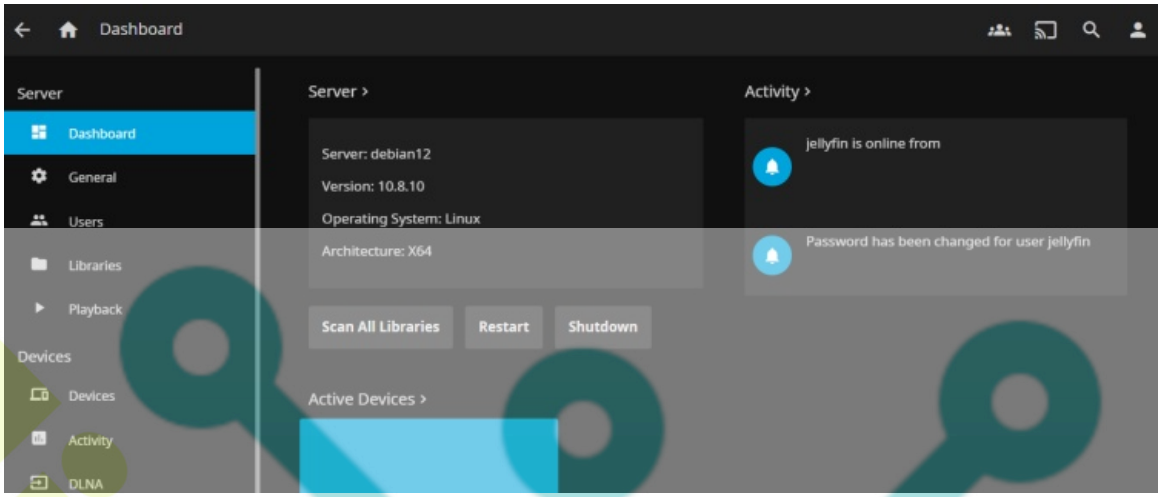


Now, you should be redirected to the Jellyfin login page. Input your admin user and password for Jellyfin, then click **Sign In**.

If everything goes well, you should get the Jellyfin administration dashboard like this:



Lastly, click on the **Dashboard** menu in the **Administration** section. You should see detailed information about your Jellyfin media server installation:



Conclusion

As a wrap-up of this guide, you have finished the installation of the Jellyfin media server on Debian 12 with Apache2 reverse proxy and SSL/TLS from Letsencrypt. You've also secured your jellyfin server with UFW and completed the basic configuration of the Jellyfin media server. You can create a new media library and upload your media files to Jellyfin.
