

Synology NAS and Logitech Media Server with add-on package

Docker

A guide on how to install Logitech Media Server on your NAS if it supports the Docker add-on package for virtualization. Read the entire document before starting the installation.

*LMS = Logitech Media Server, *DSM7 = DiskStation Manager 7

After updating DSM6 to DSM7, PHP5 has been removed, which means that LMS no longer works on Synology NAS.

WARNING!

I cannot take any responsibility if you make a mistake during the installation. This guide is for you who know what you are doing. Shares some of my experiences I had during the installation to get

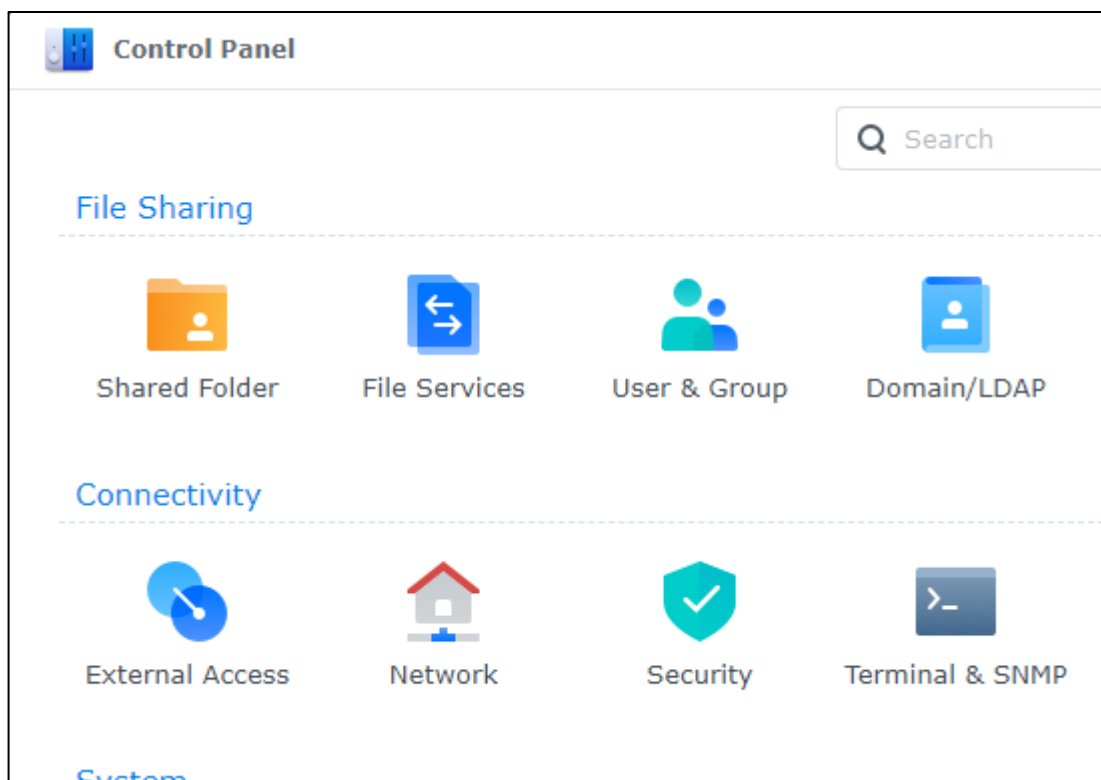
*LMS to work again on my Synology NAS with *DSM7.

See which models of NAS support Docker on Synology's website

<https://www.synology.com/sv-se/dsm/packages/Docker>

Preparations:

1. Install Docker from Package Center.
2. Do you want to use a folder other than the docker folder in the file structure to save the music files? Then steps 3 to 7 must be performed otherwise you can skip on to point 8. But it is still required that you create folders and that you will need to set up Volume mapping. See more at the end of the document.
3. Create user account
You need to create a Docker user account if you want to be able to access the music folder or the corresponding folder in the structure of your NAS and not choose to put the files in a folder under the Docker folder. Open Control Panel and Click the User & Group icon.



Example of account

Name: Docker

Description: Account for LMS installed in Docker can access ex. folder music

Email: <left blank>

Password: <create a difficult password, you will not use it>

Confirm password: <retype the entered password above>

Check "Disallow the user to change account password"

User Creation Wizard

X

Enter user information

Name *:

Docker

Description:

Account for LMS installed in D

Email:

Password *:

.....

Generate Random Password

Strong

Confirm password *:

.....

☐ Send a notification mail to the newly created user

☐ Display user password in notification mail

☒ Disallow the user to change account password

* This field is required.

Next

Press Next

User Creation Wizard

×

Join groups

Name	Description	☐ Add
administrators	System default admin group	☐
http	System default group for Web services	☐
users	System default group	☒

3 items

↻

Back

Next

Press Next

User Creation Wizard

×

Assign shared folders permissions

Name	Preview	Group Permissions	User Permissions		
			☐ No Access	☒ Read/Write	☐ Read Only
docker	Read/Write	-	☐	☒	☐
homes	Default	-	☐	☐	☐
		-	☐	☐	☐
		-	☐	☐	☐
music	Read/Write	-	☐	☒	☐
photo	No Access	-	☐	☐	☐
		-	☐	☐	☐
video	No Access	-	☐	☐	☐

11 items

↻

Note: The permission is dictated by user and group permissions. Permissions priority: **NA** > **RW** > **RO**

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Next

Select the Read/Write permission for the docker and music folders. Press Next

User Creation Wizard

Assign user quota

Volume/Shared Fol...	Effective Quota	Group Quota	User Quota	
^ Volume 1 (btrfs)				
docker	No limit	No limit	Unlimited	GB ▾
homes	No limit	No limit	Unlimited	GB ▾
	No limit	No limit	Unlimited	GB ▾
	No limit	No limit	Unlimited	GB ▾
	No limit	No limit	Unlimited	GB ▾
music	No limit	No limit	Unlimited	GB ▾
photo	No limit	No limit	Unlimited	GB ▾
	No limit	No limit	Unlimited	GB ▾
video	No limit	No limit	Unlimited	GB ▾

11 items

Note: You may specify User quota for individual volume or folder; otherwise, Group quota will be applied.

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Next

Press Next

User Creation Wizard

Assign application permissions

Name	Preview	Group Permissions	User Permissions	
			☐ Allow	☒ Deny
AFP	Deny		☐	☒
Audio Station	Deny		☐	☒
DSM	Deny		☐	☒
Download Station	Deny		☐	☒
FTP	Deny		☐	☒
File Station	Deny		☐	☒
SFTP	Deny		☐	☒
Synology Photos	Deny		☐	☒
Synology Drive	Deny		☐	☒
			☐	☒

14 items

Note: The permission is determined by user and group permissions. Permission priority: Deny > Allow.

Back

Next

Check the box Deny below User Permissions for all applications. Press Next

User Creation Wizard

Set user speed limit

Advanced Settings

Service	Result	Speed Limit	Upload Limit (...)	Download Lim...
File Station	Unlimited / Un...	Apply group settings	-	-
FTP	Unlimited / Un...	Apply group settings	-	-
Rsync	Unlimited / Un...	Apply group settings	-	-
Synology Dr...	Unlimited / Un...	Apply group settings	-	-

4 items

BackNext

Press Next

User Creation Wizard

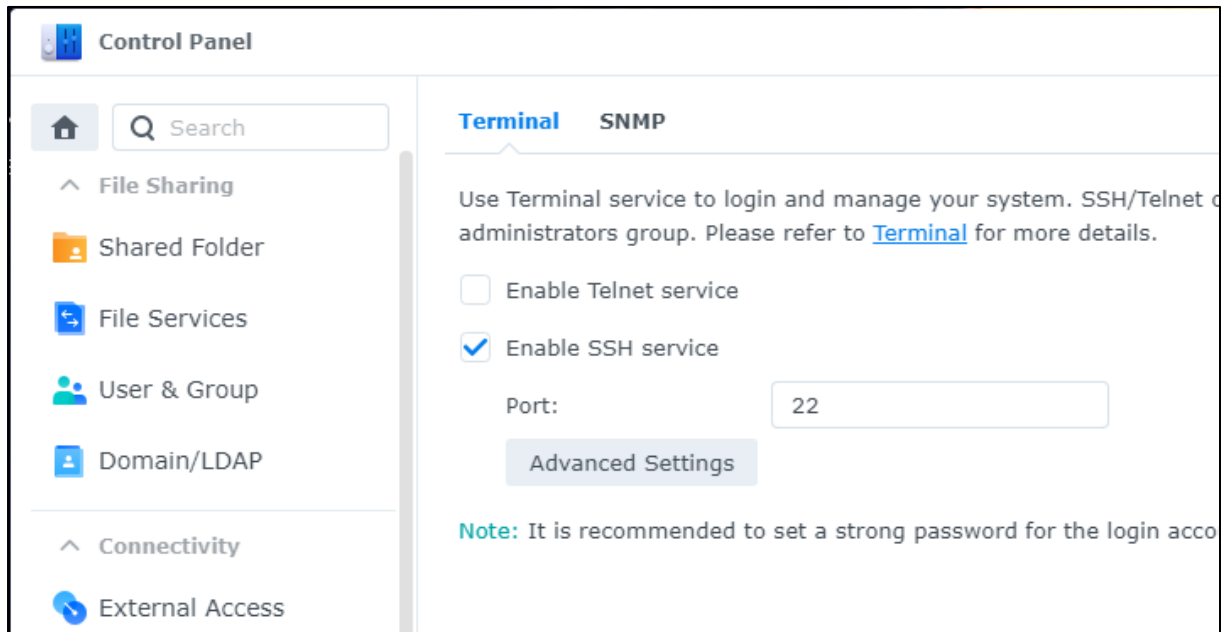
Confirm settings

Item	Value
Name	Docker
Description	Test
Email	
Group List	users
Writeable	docker, music
Read only	
No access	☐ photo, ☐ video, web, web_pac...
Privilege includes	
Privilege excludes	AFP, Audio Station, DSM, Download Station, FTP, File Station, SFTP, Syn...
Speed Limit Settings	

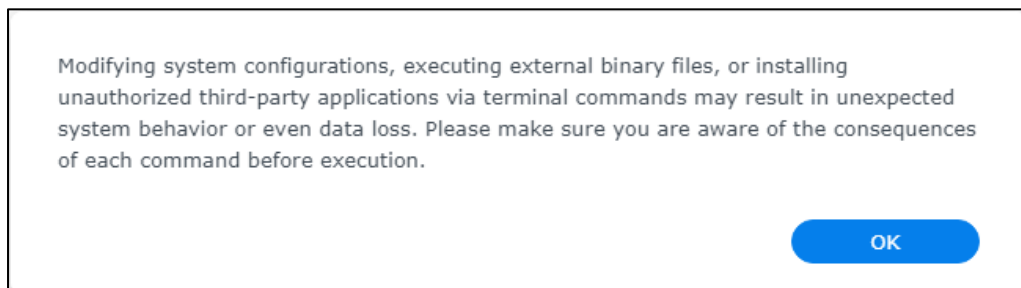
BackDone

Press Done

4. To set up the correct authorization in Docker for *LMS, we must find out which ID the new account Docker account has received. Requires login via SSH for example with the portable application Putty which I use in the example (PUID = Personal User ID and PGID = Personal Group ID).
5. Set connection to allow SSH to the NAS disk.
Open Control Panel and click the Terminal & SNMP icon.



Check "Enable SSH service" and leave it as Port: 22. Press Apply



A warning message is displayed. Press OK

DO NOT FORGET to deactivate the SSH service after finding out account id.

6. Download Putty to get the newly created account id

Download Putty from the link below:

<https://www.chiark.greenend.org.uk/~sgtatham/putty/latest.html>

On the website under the section "Alternative binary files", the standalone version is available for download.

Alternative binary files

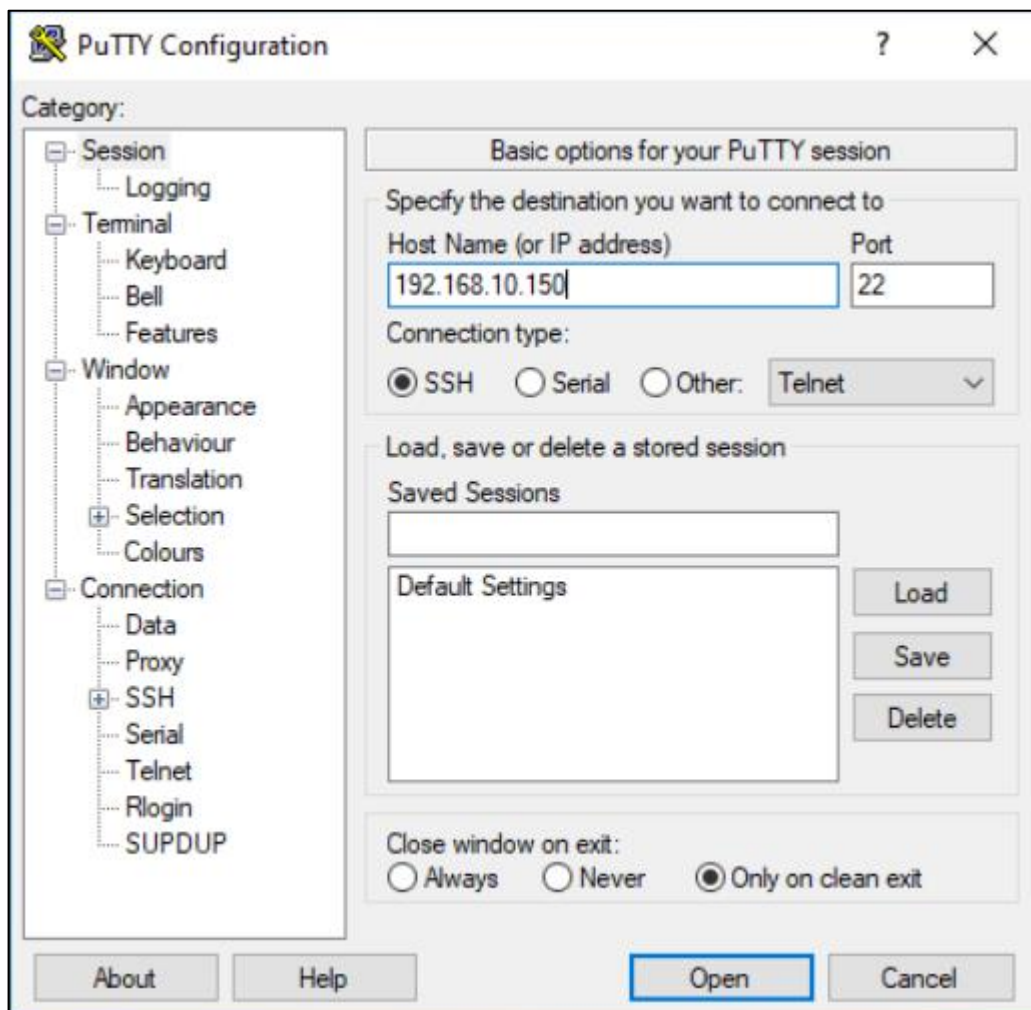
The installer packages above will provide versions of all of these (except PuTTYtel), but you can (Not sure whether you want the 32-bit or the 64-bit version? Read the [FAQ entry](#).)

putty.exe (the SSH and Telnet client itself)

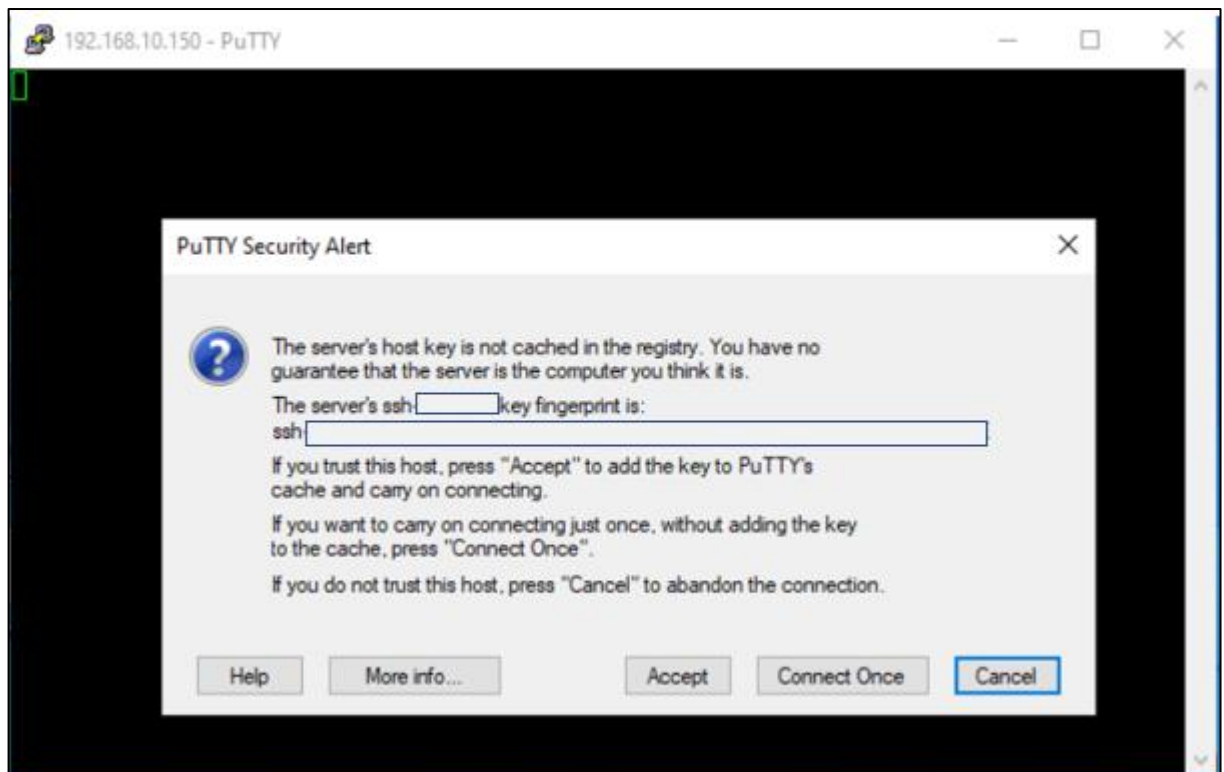
64-bit x86:	putty.exe	(or by FTP)	(signature)
64-bit Arm:	putty.exe	(or by FTP)	(signature)
32-bit x86:	putty.exe	(or by FTP)	(signature)

pscp.exe (an SCP client, i.e. command-line secure file copy)

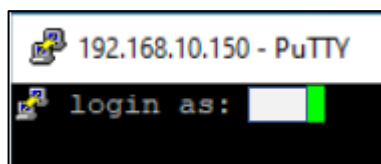
Execute putty.exe



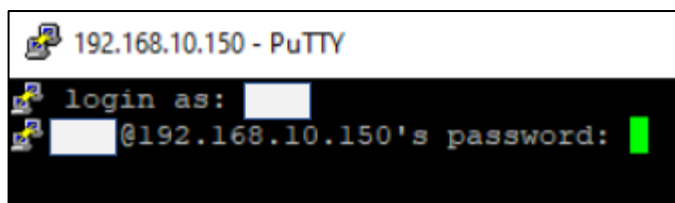
Enter the hostname or IP address of your NAS disk in the "Host Name (or IP address)" box.
Press Open



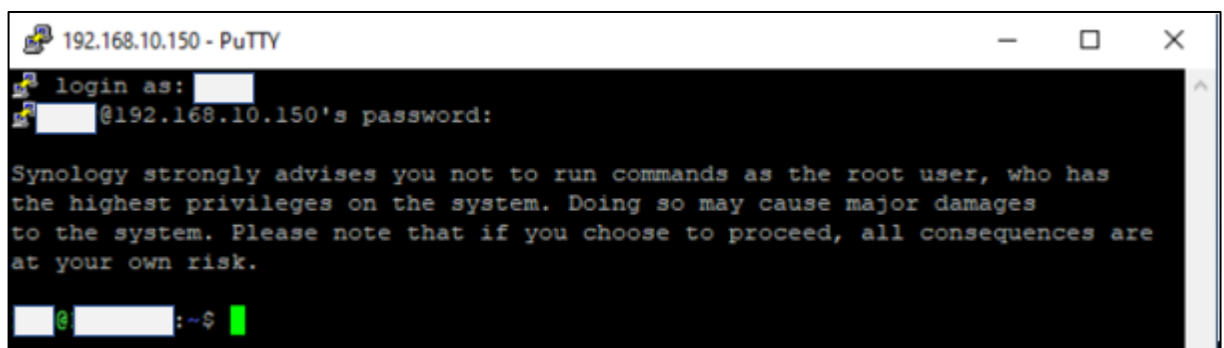
A warning box appears. Press Accept



Enter a username that is the administrator of the NAS. Press Enter



Enter the password for the username. Press Enter



Now you are logged in to the NAS disk via SSH and can enter the command to find out the Docker account id. Enter `id <account name>`, for example: `id docker`. Press Enter

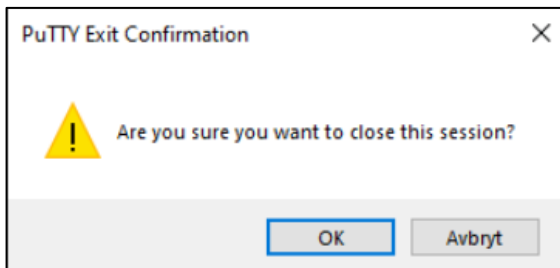
```

[ ]@ [ ] :~$ id Docker
uid=1030(Docker) gid=100(users) groups=100(users)
[ ]@ [ ] :~$

```

Now you see uid 1030 for the account Docker that you are going to use and gid 100 for xxx

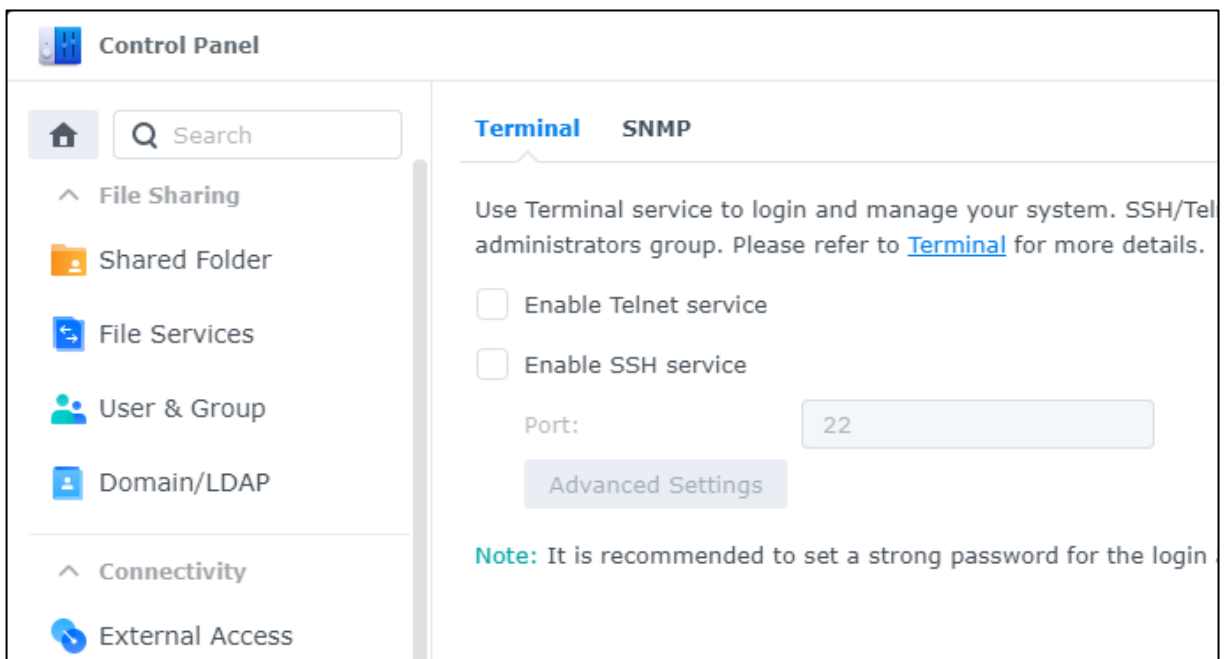
Close PuTTY by clicking on the cross in the upper right corner of the box.



Press OK

Disable SSH

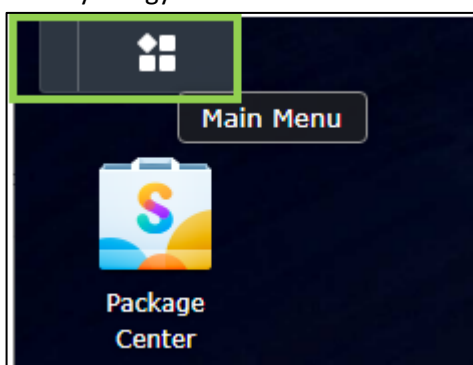
Click the Terminal & SNMP icon.



Click the checkbox in front of text Enable SSH service to remove the X for the "Activate SSH service". Press Apply

7. Start Docker

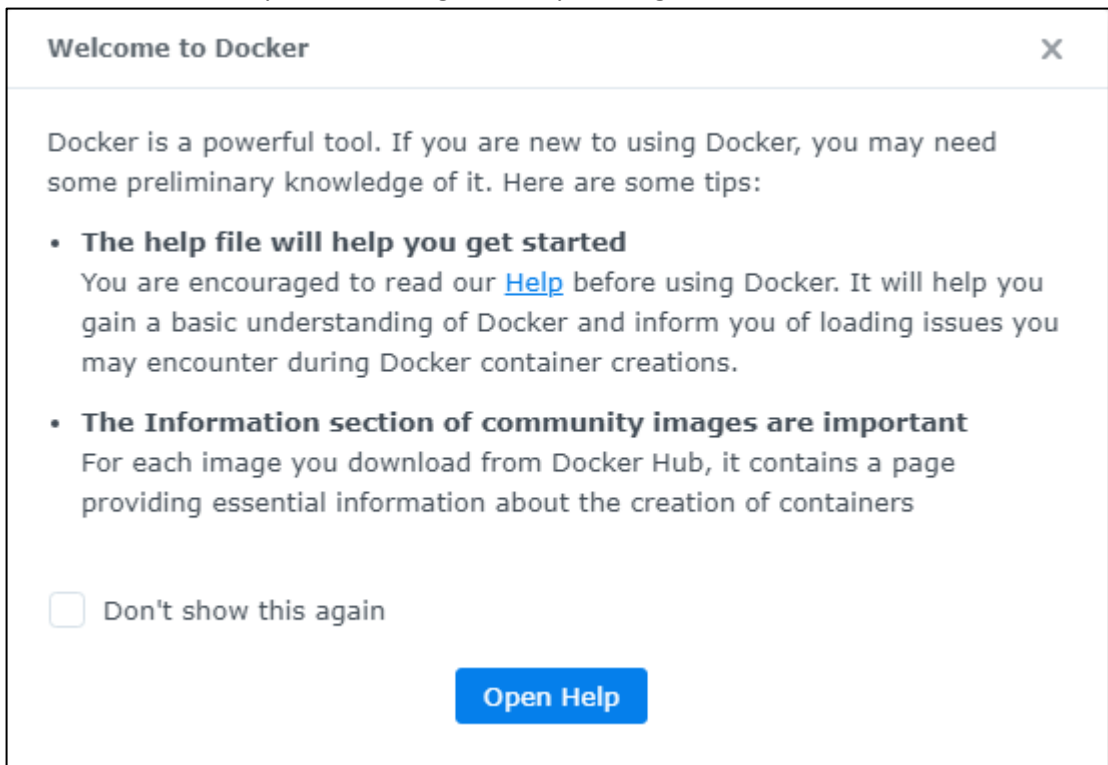
Click Synology NAS *DSM7 Main Menu in the browser window, top left



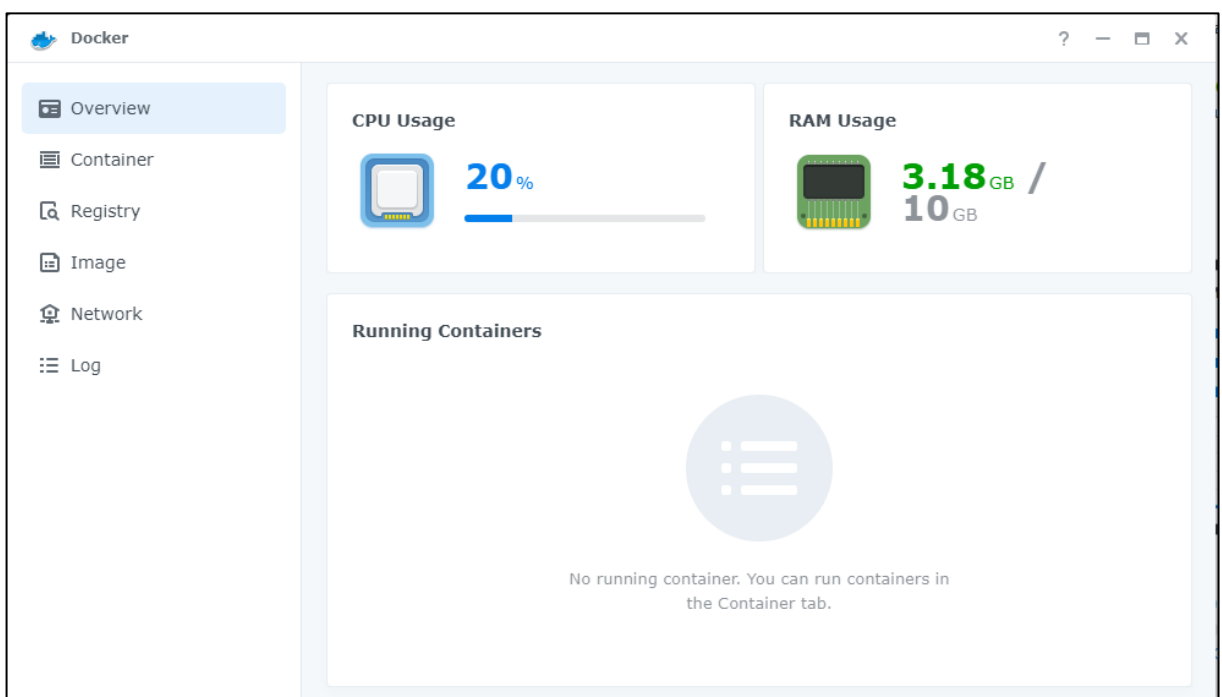
Locate the Docker icon



If this is the first time you are starting Docker, you will get an information box

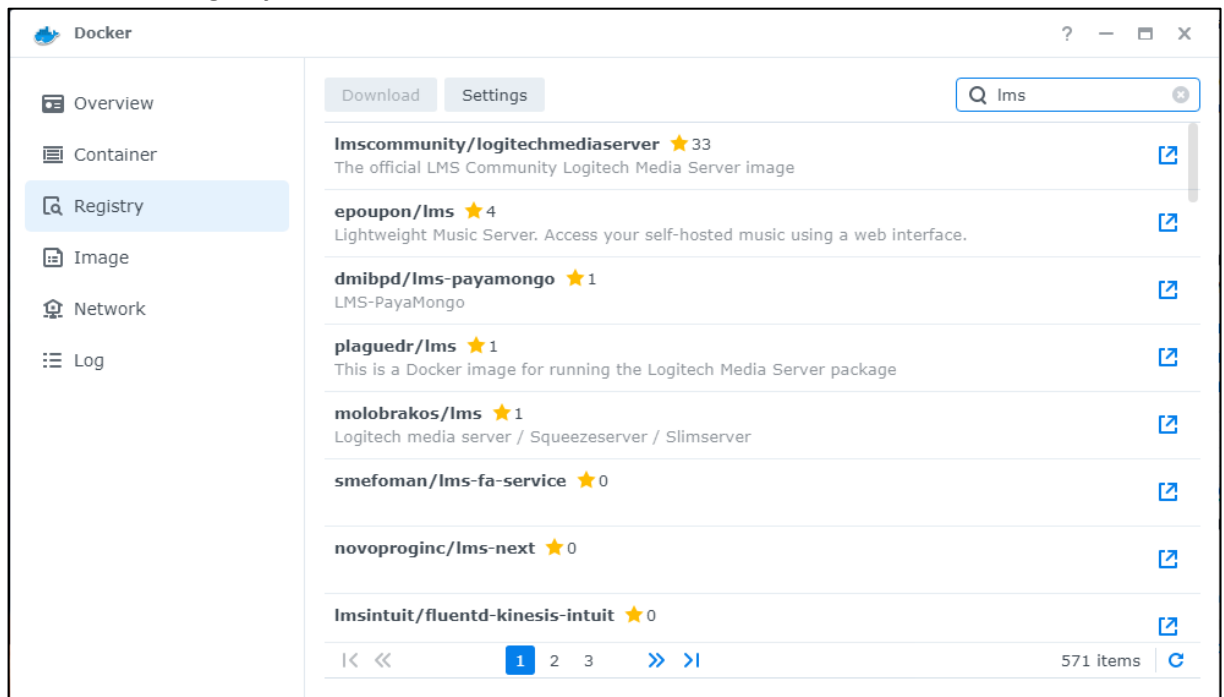


If you do not want to see this information next time, check "Do not show this again".
Close the information box by pressing the X in the upper right corner of the window.



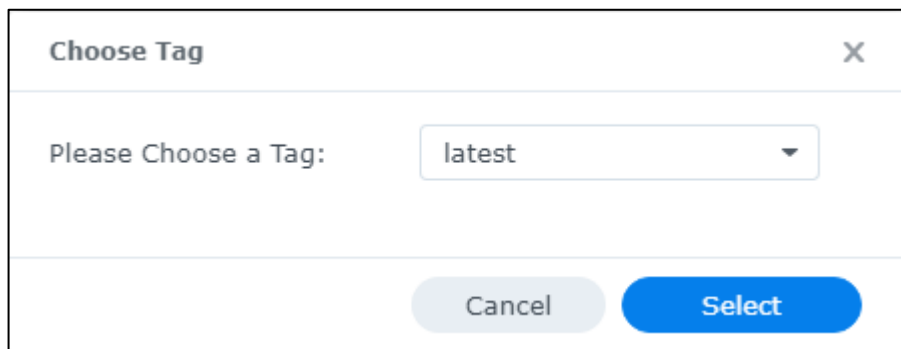
8. Download installation container for *LMS

Select the tab **Registry**



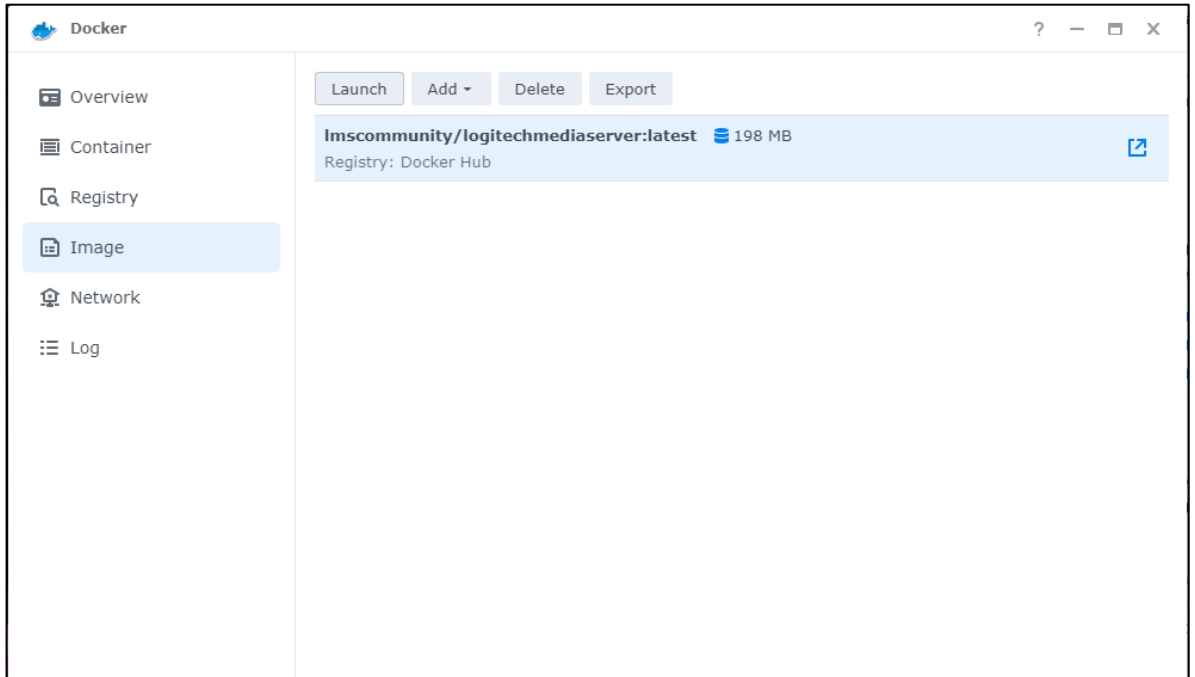
Type *lms in the box to the right and press Enter to start search.

Mark lmscommunity/logitechmediaserver, click Download.

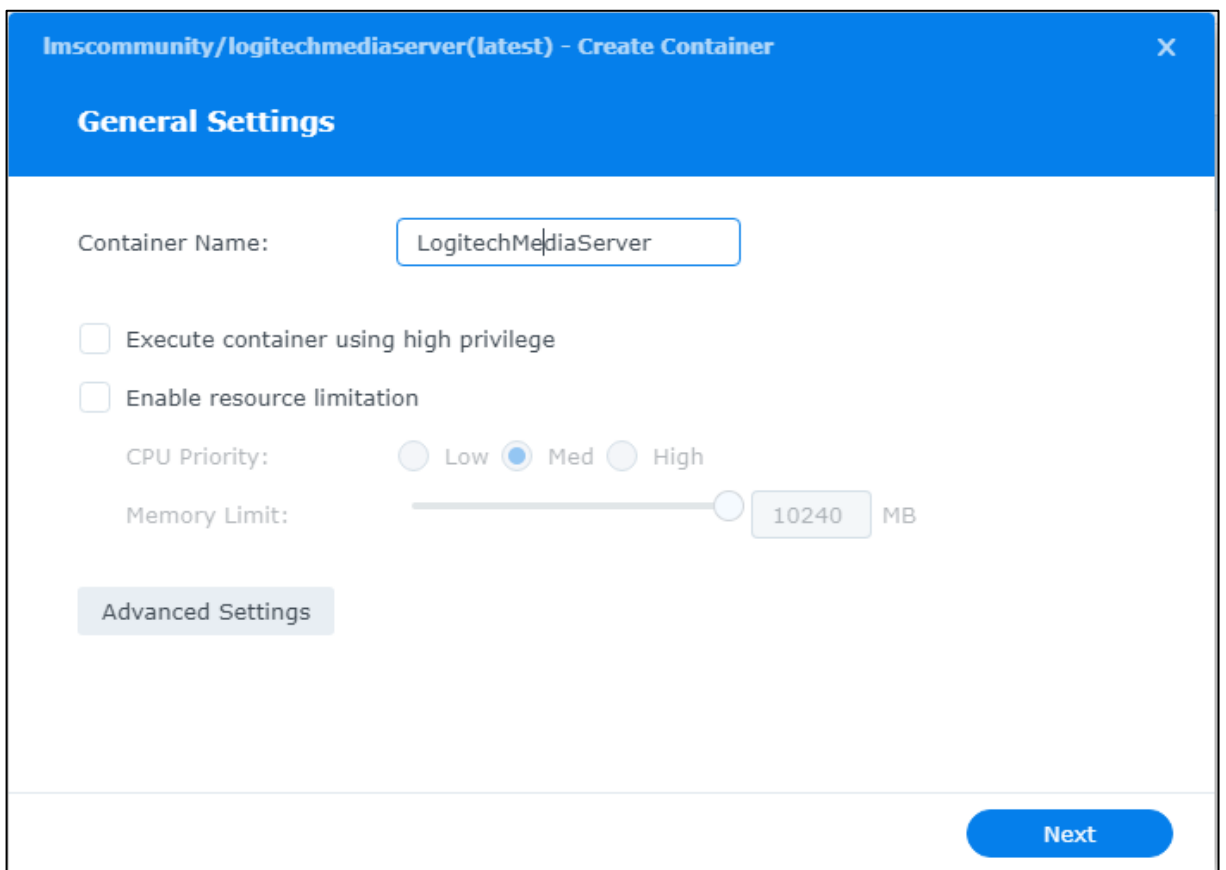


Leave it on "latest" and press Select

Click the Image tab



After download is ready, mark Imscommunity/logitechmediaserver:latest. Press Launch



Enter a suitable Container Name: for example, LogitechMediaServer (spaces cannot be used).
Click Advanced Settings

Advanced Settings

Advanced Settings

Volume

Network

Port Settings

Links

Environment

☐ Enable auto-restart

☒ Create shortcut on desktop

☐ Status page

☒ Web page

Cancel

Apply

Click Create shortcut on desktop. Click Website. Enter the hostname or IP address of the NAS disk as well as the colon and the port you select, for example 9002.

Click the Volume tab

Advanced Settings

Advanced Settings

Volume

Network

Port Settings

Links

Environment

Add File

Add Folder

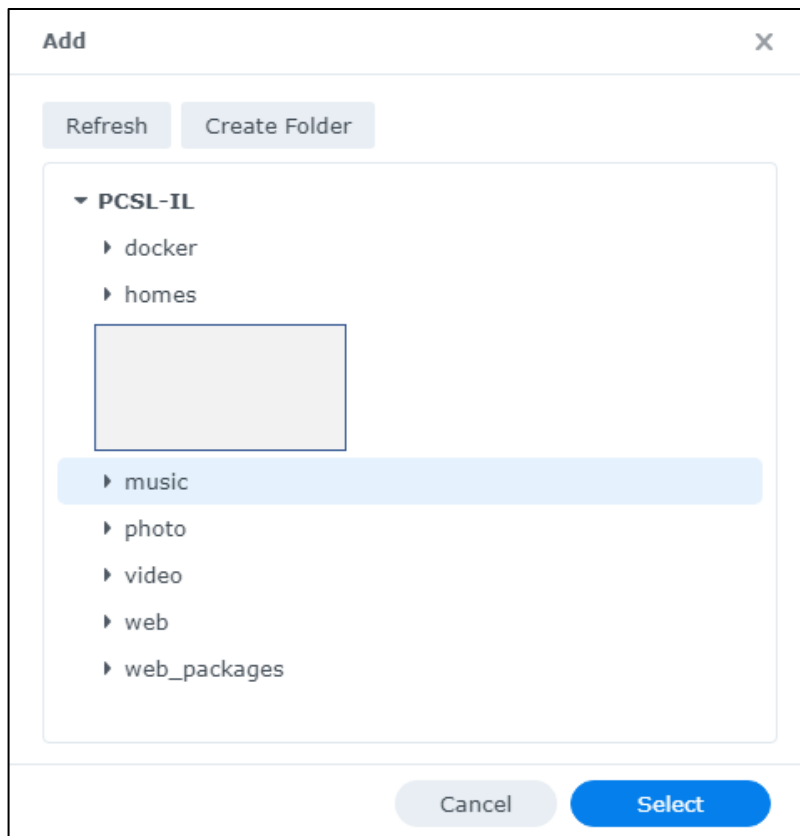
Delete

File/Folder	Mount path	☐ Read-Only
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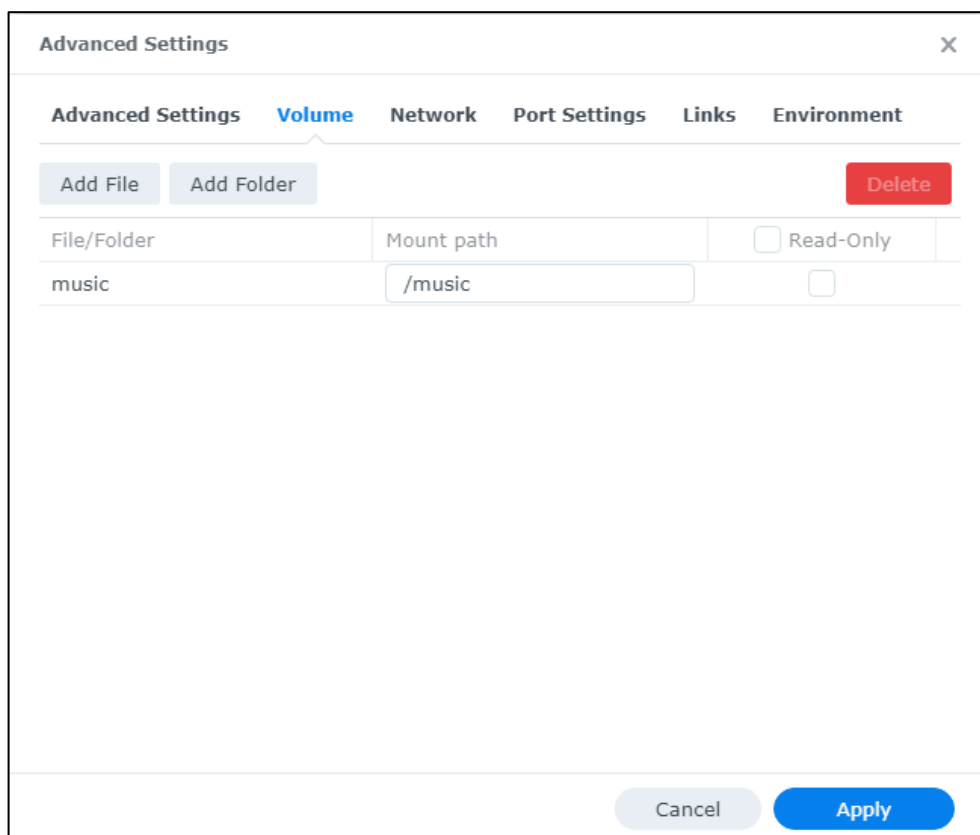
Cancel

Apply

Click Add Folder.



Select the folder that contains your music files, for example it is music. Press Select



Enter Mount Path /music.
Select Port Settings tab

Advanced Settings

Advanced Settings

Volume

Network

Port Settings

Links

Environment

Add

Delete

Local Port	Container Port	Type
Auto	3483	TCP
Auto	3483	UDP
Auto	9000	TCP
Auto	9090	TCP

Change settings below Local port from Automatic to the same ports as it says as Container port except for port 9000 which is changed to 9002 both as Local port and as Container port

Advanced Settings

Advanced Settings

Volume

Network

Port Settings

Links

Environment

Add

Delete

Local Port	Container Port	Type
3483	3483	TCP
3483	3483	UDP
9002	9002	TCP
9090	9090	TCP

Cancel

Apply

Click the tab on the Environment tab

Advanced Settings

Advanced Settings

Volume

Network

Port Settings

Links

Environment

Add

Delete

variable	Value
PATH	/usr/local/sbin:/usr/local/bin:/usr/s...
DEBIAN_FRONTEND	noninteractive
LC_ALL	C.UTF-8
LANG	en_US.UTF-8
LANGUAGE	en_US.UTF-8
PUID	99
PGID	100

Execution Command

Entrypoint: start-container

Command:

Cancel

Apply

Scroll down to PUID and enter uid 1030 which was charged for the Docker account via the SSH login. Check that PGID is the same as you got under gid when you were logged in with SSH. Scroll down to the end to see HTTP_PORT and change it to 9002 as we changed it to.

Advanced Settings

Advanced Settings

Volume

Network

Port Settings

Links

Environment

Add

Delete

variable	Value
DEBIAN_FRONTEND	noninteractive
LC_ALL	C.UTF-8
LANG	en_US.UTF-8
LANGUAGE	en_US.UTF-8
PUID	1030
PGID	100
HTTP_PORT	9002

Execution Command

Entrypoint: start-container

Command:

Cancel

Apply

Press Apply

lmscommunity/logitechmediaserver(latest) - Create Container

X

General Settings

Container Name:

LogitechMediaServer

☐

Execute container using high privilege

☐

Enable resource limitation

CPU Priority:

Low

Med

High

Memory Limit:

10240

MB

Advanced Settings

Next

Press Next

lmscommunity/logitechmediaserver(latest) - Create Container

X

Summary

Item	Value															
Container Name	LogitechMediaServer															
CPU Priority	Auto															
Memory Limit	No Limit															
Entrypoint (Default)	start-container															
Port Settings	<table><tr><th>Local Port</th><th>Container Port</th><th>Type</th></tr><tr><td>3483</td><td>3483</td><td>TCP</td></tr><tr><td>3483</td><td>3483</td><td>UDP</td></tr><tr><td>9002</td><td>9002</td><td>TCP</td></tr><tr><td>9090</td><td>9090</td><td>TCP</td></tr></table>	Local Port	Container Port	Type	3483	3483	TCP	3483	3483	UDP	9002	9002	TCP	9090	9090	TCP
Local Port	Container Port	Type														
3483	3483	TCP														
3483	3483	UDP														
9002	9002	TCP														
9090	9090	TCP														
Network	bridge															

☒ Run this container after the wizard is finished

BackDone

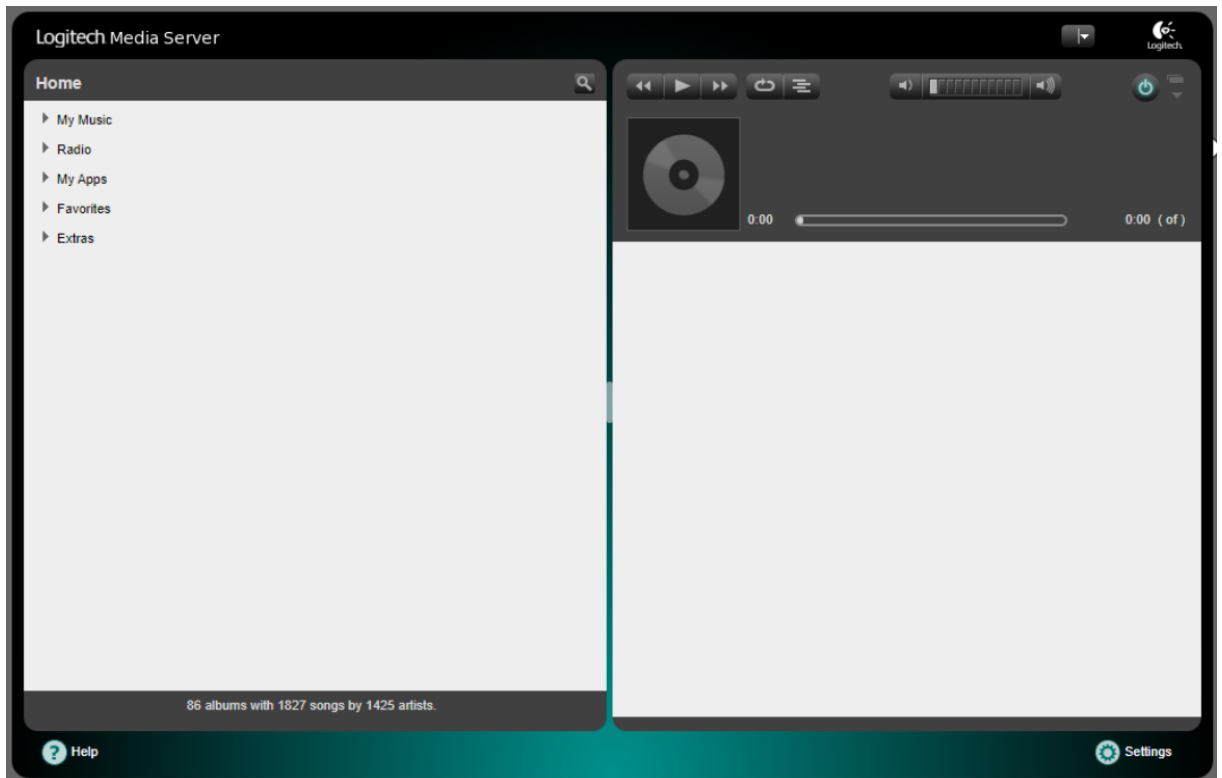
Checkbox Run this container after the wizard is finished, checked. Press Finish

9. Start Logitech Media Server



Click on the icon docker LogitechMediaServer on the NAS desktop

If everything has been set up correctly, you should be able to start up the page with Logitech Media Server



In the lower right corner you have Settings for changing languages and other settings for *LMS but it is not described in this guide.

Good luck and hope this guide can give someone a tip for installing *LMS with Docker.

Some pages that I have collected ideas to make it work on my NAS disk:

Synology additional packages Docker

<https://www.synology.com/sv-se/dsm/packages/Docker>

The official *LMS Community page for Logitech Media Server pictured for installing *LMS with Docker

<https://registry.hub.docker.com/r/lmscommunity/logitechmediaserver/>

Create an account for access to Docker container

<https://drfrankenstein.co.uk/creating-users-and-obtaining-their-ids/>

Synology: How to find UID (userID) and GID (groupID)

<https://mariushosting.com/synology-how-to-find-uid-userid-and-gid-groupid/>

See also the youtube video, "Using Docker on Synology NAS | 4K TUTORIAL" with installation of the Handbrake application
<https://youtu.be/s0HdfxjUtx8>