# File Servers

## Overview

- [\*\*ProFTPD - Simple, efficient, lightweight FTP file server\*\*](#proftpd)

- [\*\*Samba - Feature rich file server\*\*](#samba)

- [\*\*vsftpd - Feature rich FTP file server\*\*](#vsftpd)

- [\*\*NFS - Network file system server\*\*](#nfs)

??? info "How do I run \*\*DietPi-Software\*\* and install \*\*optimised software\*\* items?"

To install any of the \*\*DietPi optimised software items\*\* listed below run from the command line:

```sh

dietpi-software

```

Choose \*\*Browse Software\*\* and select one or more items. Finally select `Install`.

DietPi will do all the necessary steps to install and start these software items.

![DietPi-Software menu screenshot](../assets/images/dietpi-software.jpg){: width="643" height="365" loading="lazy"}

To see all the DietPi configurations options, review the [DietPi Tools](../../dietpi\_tools/) section.

[Return to the \*\*Optimised Software list\*\*](../../software/)

## ProFTPD

ProFTPD gives you access to files/music/downloads etc. on your DietPi system quickly and efficiently with minimal overhead.

![DietPi file server software ProFTPD](../assets/images/dietpi-software-fileservers-proftpd.png)

=== "Access with Windows"

The access to ProFTPD with \*\*Windows\*\* is achieved as follows:

- Go to My Computer (Windows Explorer).

- In the address bar at the top type `ftp://dietpi:dietpi@192.168.0.100` press enter.

Change 192.168.0.100 to the IP address of your DietPi system.

=== "Access with an FTP client"

The access to ProFTPD with an \*\*FTP client\*\* is achieved as follows:

- Username = `dietpi`

- Password = The same as your root login password. Default is `dietpi`

- Address = Your IP address (e.g.: 192.168.0.100)

- Port = 21

=== "Destination directory"

The destination directory can be changed by replacing \*\*/Path/To/Directory\*\* to your target directory (within the configuration file `/etc/proftpd/proftpd.conf`):

```sh

systemctl stop proftpd

sed -i '/DefaultRoot /c\DefaultRoot /Path/To/Directory' /etc/proftpd/proftpd.conf

systemctl start proftpd

```

=== "Jailing"

Jailing means to lock users to their home folders.

\*Jailing\* can be enabled in the configuration file `/etc/proftpd/proftpd.conf` via

```sh

systemctl stop proftpd

sed -i '/DefaultRoot /c\DefaultRoot ~' /etc/proftpd/proftpd.conf

systemctl start proftpd

```

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Wikipedia: <https://wikipedia.org/wiki/ProFTPD>

## Samba

The Samba server lets you share files on your DietPi system with ease based on the well known SMB networking protocol.

![DietPi file server software samba](../assets/images/dietpi-software-fileservers-samba.png)

=== "Access to Samba"

The access to the Samba file server is achieved as follows:

- Address = `\\192.168.0.100\dietpi`

- Username = `dietpi`

- Password = `<your global application password>` (default: `dietpi`)

=== "Change the Samba password"

The Samba password can be changed with

```sh

smbpasswd -a dietpi

```

=== "Add/change the valid user"

To add/change the valid user do the following steps:

- Edit `/etc/samba/smb.conf`

- Search the entry `[dietpi]`, change `valid users = username\_i\_require`

- Add the user to Samba with `smbpasswd -a username\_i\_require`

- Restart services with `systemctl restart nmbd smbd`

You can now connect to the samba server with the username and password you entered above.

=== "Destination directory"

The destination directory can be changed by replacing \*\*/Path/To/Directory\*\* to your target directory (within the configuration file `/etc/samba/smb.conf`):

```sh

sed -i '/path = /c\path = /Path/To/Directory' /etc/samba/smb.conf

systemctl restart nmbd smbd

```

\*\*\*

Wikipedia: <https://wikipedia.org/wiki/Samba\_(software)>

YouTube video tutorial (German language): `Raspberry Pi als Datei-Server - einfache Installation eines Fileservers Samba unter DietPi`.

<iframe width="560" height="315" src="https://www.youtube-nocookie.com/embed/XB2F\_Gyjw0s" frameborder="0" allow="accelerometer; autoplay; clipboard-write; encrypted-media; gyroscope; picture-in-picture" allowfullscreen></iframe>

## vsftpd

Very secure FTP file server with feature rich security options.

![DietPi file server software vsftpd](../assets/images/dietpi-software-fileservers-vsftpd.png)

=== "Access with Windows"

The access to vsftpd with \*\*Windows\*\* is achieved as follows:

- Go to My Computer (Windows Explorer).

- In the address bar at the top type `ftp://dietpi:dietpi@192.168.0.100` press enter.

Change `192.168.0.100` to the IP address of your DietPi system.

=== "Access with an FTP client"

The access to vsftpd with an \*\*FTP client\*\* is achieved as follows:

- Username = `dietpi`

- Password = The same as your root login password. Default is `dietpi`

- Address = Your IP address (e.g.: 192.168.0.100)

- Port = 21

=== "Destination directory"

The destination directory can be changed by replacing \*\*/Path/To/Directory\*\* to your target directory (within the configuration file `/etc/vsftpd.conf`):

```sh

sed -i '/local\_root=/c\local\_root=/Path/To/Directory' /etc/vsftpd.conf

systemctl restart vsftpd

```

\*\*\*

Wikipedia: <https://wikipedia.org/wiki/Vsftpd>

## NFS

Network file system server.

![DietPi file server software NFS](../assets/images/dietpi-software-fileservers-nfs.png)

=== "Access to an NFS share"

The access to the NFS share with an \*\*NFS client\*\* is achieved as follows:

- Address = IP address of your DietPi system (e.g.: 192.168.0.100)

- Port = 2049

=== "Access configuration"

The NFS access configuration is done via \*\*export files\*\*.

You can edit the `/etc/exports` file as well as adding further export files within the `/etc/exports.d` directory.

\*\*Explanations of the export file format\*\* are available in the internet or can be read in the man pages (use `man exports`, therefore the package \*\*man\*\* needs to be installed).

After changing the access configuration, the export information can be re-read via command

```

exportfs -ra

```

Alternatively you can restart the service (`systemctl restart nfs-kernel-server`).

The actual access configuration can be displayed with the command

```

exportfs

```

On the client side you can query the mountable exports with the command

```

showmount -e <NFS\_SERVER>

```

=== "Default configuration / increase security"

By default the DietPi NFS installation exports the directory `/mnt/dietpi\_userdata` for everyone. This is configured in `/etc/exports.d/dietpi.exports`. You can edit this file to restrict the access.

E.g. you could limit the access to the NFS share by setting a IP address range:

- Edit the following file: `/etc/exports.d/dietpi.exports`

- To only allow users access with an IP address range of 192.168.0.1-255

```

/mnt/dietpi\_userdata 192.168.0.\*(rw,async,no\_root\_squash,fsid=0,crossmnt,no\_subtree\_check)

```

- Activate the new configuration (`systemctl restart nfs-kernel-server` or `exportfs -ra`)

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Wikipedia: <https://wikipedia.org/wiki/Network\_File\_System>

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