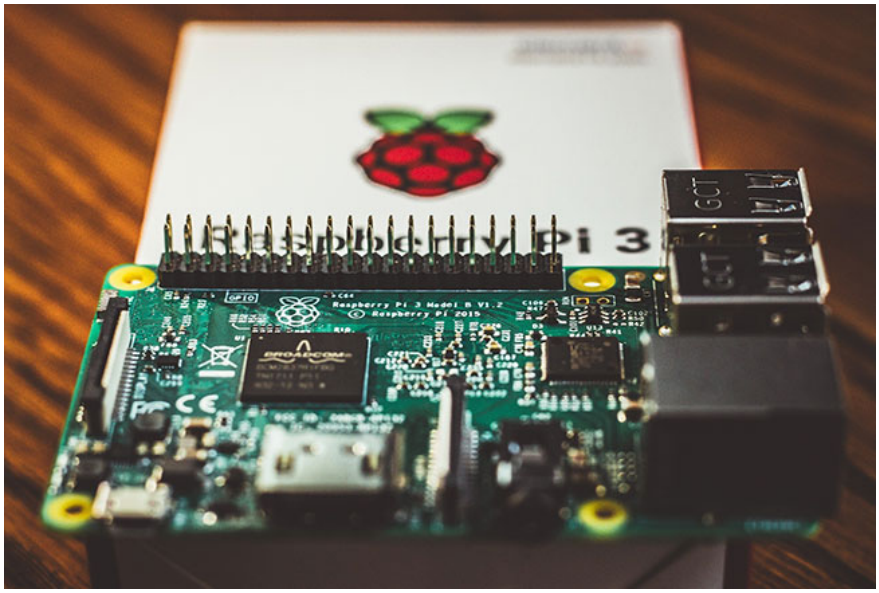
# How to turn Raspberry Pi into a personal cloud server

In this tutorial, we will show you how to turn your Raspberry Pi into a personal cloud server. Before proceeding, make sure you've booted up your Pi, have a mouse and keyboard connected, and finally the Raspbian operating system installed on it.

## Raspberry Pi - A "small but martial" device

The Raspberry Pi is a miniature computer with the power of an inexpensive PC or smartphone, yet powerful enough to let you build custom devices, media centers, and even servers. You can turn your Raspberry Pi into an ubiquitous cloud service, like Dropbox or Google Drive, to access your files remotely and share them with other devices.



The Raspberry Pi is a miniature computer with the power of a low-cost PC or smartphone

## Turn Raspberry Pi into a personal cloud server with OwnCloud

OwnCloud is one of the best Raspbian software out there to help you create your own protected cloud storage service. With OwnCloud, you can sync and share your files, and access it from any Internet-connected device.

OwnCloud also offers the ability to encrypt and keep older versions of all changed files, allowing you to return to older versions with ease. Here's how to install and set up OwnCloud on a Raspberry Pi.

1. Open a terminal session and add the OwnCloud repository, then install OwnCloud using the following commands:

```
wget http://download.opensuse.org/repositories/isv:OwnCloud:community/Debian_7.0/
```

( **sudo apt-get install owncloud** installs the MySQL database as a dependency and will ask you to set a root password).

If you want to upload files larger than 2MB, open the PHP configuration file located at **/ etc / php5 / apache2** in the text editor, look for the strings **upload_max_filesize** and **post_max_size_variables** , then change the value of they go from **2M** to the capacity limit you want, for example **2G** or **512M.**

You can also install an accelerator with **sudo apt-get install apc** and create an ini file at **/etc/php5/cgi/conf.d/apc.ini** and then add the following lines to the file:

```
extension=apc.so apc.enabled=1 apc.shm_size=30
```

2. Plug the media into the Pi and enter the command **sudo blkid** in the terminal - the memory will most likely be mounted at **/ dev / sdXx.** Notice the drive's UUID, which should be of the form **xxxx-xxxx,** and then mount the drive using the following commands. This command assumes that your drive has a FAT32 file system.

```
sudo mkdir/media/owncloud sudo mount -t vfat -o umask=007,auto,uid=33,gid=33/dev/
```

Enter the command to enable auto-mount:

```
sudo nano /etc/fstab UUID=6154-F660 /media/owncloud/vfat rw, umask=007,auto,uid=3
```

3. Launch a web browser and navigate to the OwnCloud service at **192.168.xx / owncloud** , where **192.168.xx** is the Raspberry Pi's IP address. Since this is a new setting, you will be asked to create a new user account.

4. Configure OwnCloud to use a MySQL database and store files in the connected storage device. Click the **Storage & Database** menu , then type **/ media / owncloud / data** in the text box next to the **Data Folder** , then select the **MySQL / MariaDB option** under **Database.**

Use **localhost** as the host, **root** as the username, and then the password you set earlier when setting up OwnCloud.

At this point, you can start uploading files to your server, install clients, and explore OwnCloud's other features.