

Step-by-Step Guide: Turning an PC into a NAS Server

This guide will walk you through converting an old PC into a Network Attached Storage (NAS) server using Open Media Vault (OMV), Rufus, and GParted.

Requirements:

1. Old PC
2. USB Flash Drive (at least 4GB)
3. External or additional internal hard drives (for storage)
4. Internet connection

1. Download the Necessary Software

Open Media Vault (OMV)

- [Open Media Vault Download] (https://www.openmediavault.org/?page_id=77)

Rufus

- [Rufus Download] (<https://rufus.ie/>)

GParted

- [GParted Download] (<https://gparted.org/download.php>)

2. Prepare the USB Flash Drive with OMV

1. Download OMV: Visit the Open Media Vault download page and download the ISO file.

2. Download and Install Rufus:

- Go to the Rufus website and download the latest version.
- Install and open Rufus.

3. Create a Bootable USB with OMV:

- Insert your USB flash drive into your PC.
- In Rufus, select your USB drive under "Device".
- Click "Select" and choose the OMV ISO file you downloaded.
- Ensure "Partition scheme" is set to MBR and "File system" is FAT32.
- Click "Start" and wait for the process to complete.

3. Install OMV on the Old PC

1. Boot from USB:

- Insert the USB drive into the old PC and power it on.
- Access the BIOS/UEFI settings (usually by pressing F2, F12, Delete, or Esc during startup) and set the USB drive as the primary boot device.

2. Install OMV:

- Follow the on-screen instructions to install OMV.
- Select the appropriate hard drive for the installation (this will be your system drive).
- Complete the installation and remove the USB drive when prompted.

4. Set Up OMV

1. Initial Configuration:

- Boot the PC with OMV installed.
- Open a web browser on another device and navigate to the IP address assigned to your OMV server (this can usually be found on your router's admin page or by using network scanning tools).
- Log in with the default credentials:
 - Username: `admin`
 - Password: `openmediavault`

2. Change the Default Password:

- Navigate to `System` > `General Settings` > `Web Administrator Password`.
- Enter and confirm your new password.

5. Prepare Storage Drives Using GParted

1. Download GParted Live:

- Download the GParted Live ISO from the GParted download page.

2. Create a Bootable USB with GParted:

- Use Rufus to create a bootable USB with the GParted ISO (similar steps as creating the OMV USB).

3. Boot into GParted Live:

- Insert the GParted USB into the old PC and boot from it.
- Use GParted to partition and format your storage drives (external or additional internal drives) as needed. It's recommended to use a file system compatible with OMV, such as EXT4.

6. Configure Storage in OMV

1. Add Storage Drives:

- In the OMV web interface, navigate to `Storage` > `Disks`.
- Verify that your storage drives are detected.

2. Create File Systems:

- Go to `Storage` > `File Systems`.
- Click `Create`, select the appropriate drive, and choose the file system type (e.g., EXT4).
- Mount the file system once it is created.

3. Set Up Shared Folders:

- Navigate to `Access Rights Management` > `Shared Folders`.
- Click `Add` to create a new shared folder.
- Configure the folder's name, path, and permissions.

4. Configure SMB/CIFS:

- Go to `Services` > `SMB/CIFS`.
- Enable the service and configure the workgroup, description, and shares.

7. Access Your NAS

1. Connect to Your NAS:

- On your networked devices (PC, Mac, etc.), open a file explorer and navigate to the NAS IP address or hostname.

- You should see the shared folders you created in OMV.

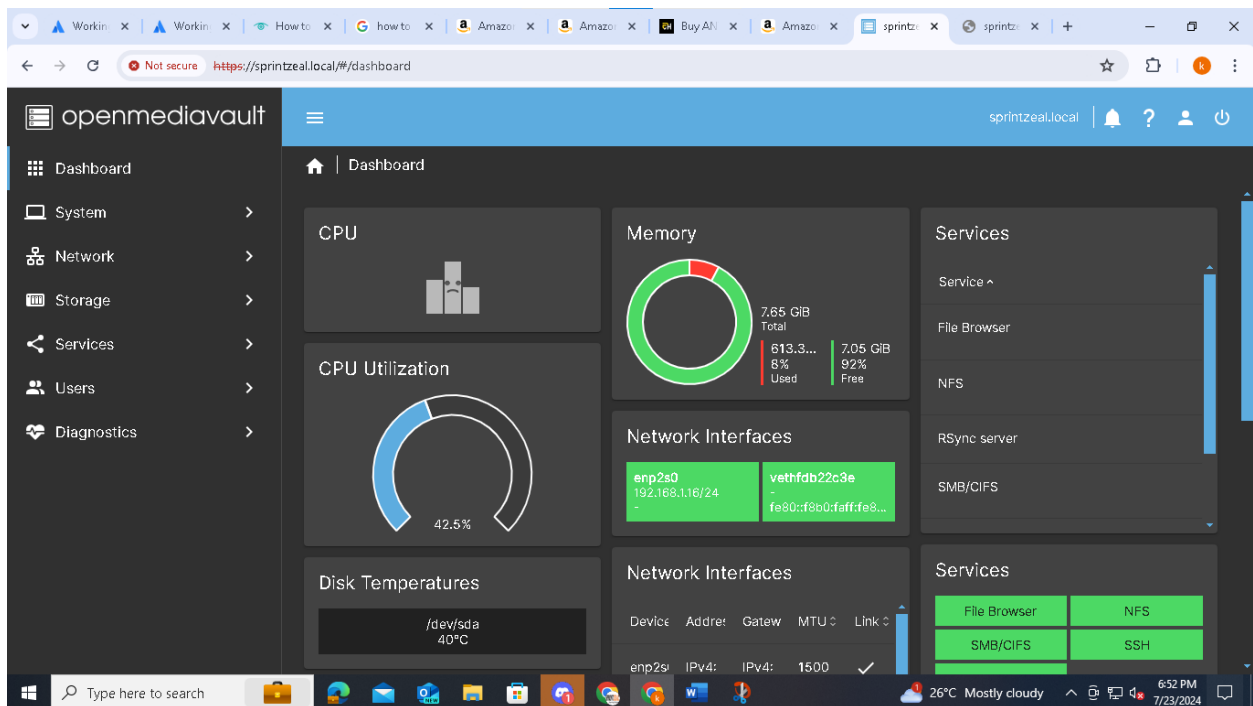
2. Map Network Drives:

- For easier access, you can map the shared folders as network drives on your devices.

Youtube link: <https://youtu.be/isIliqBEqRU?si=rhOOmpomS2CnnN6q>

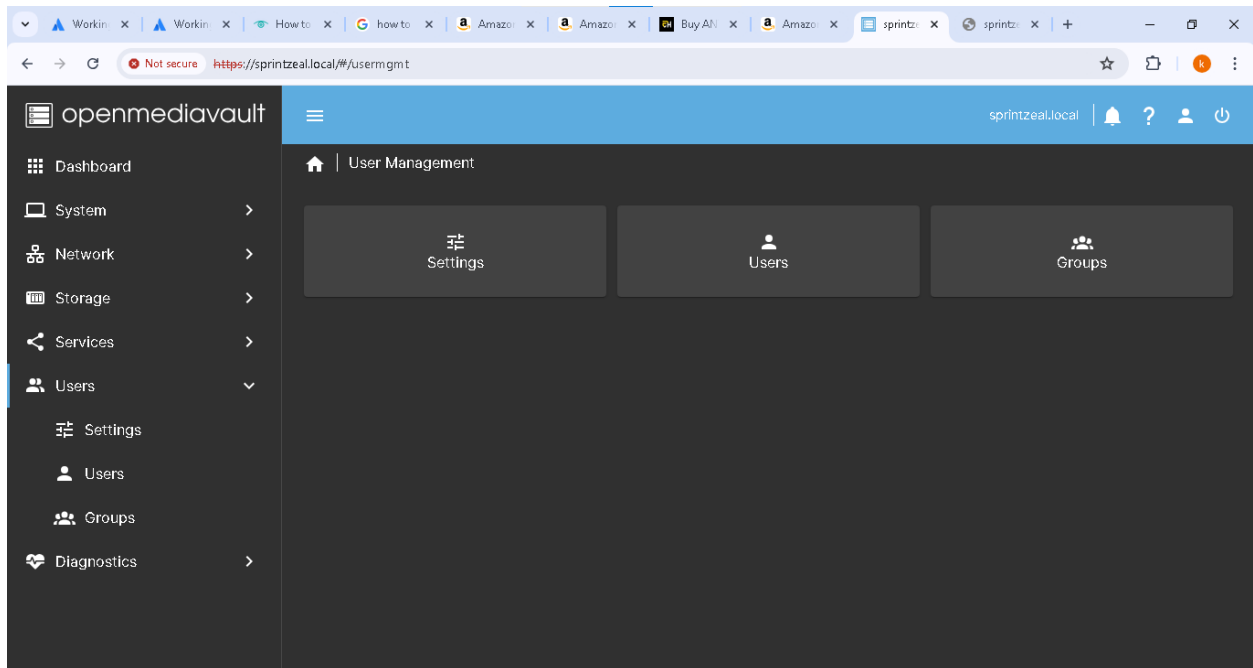
To open the admin panel : type in chrome as `sprintzeal.local`

Outputs and screenshot are below

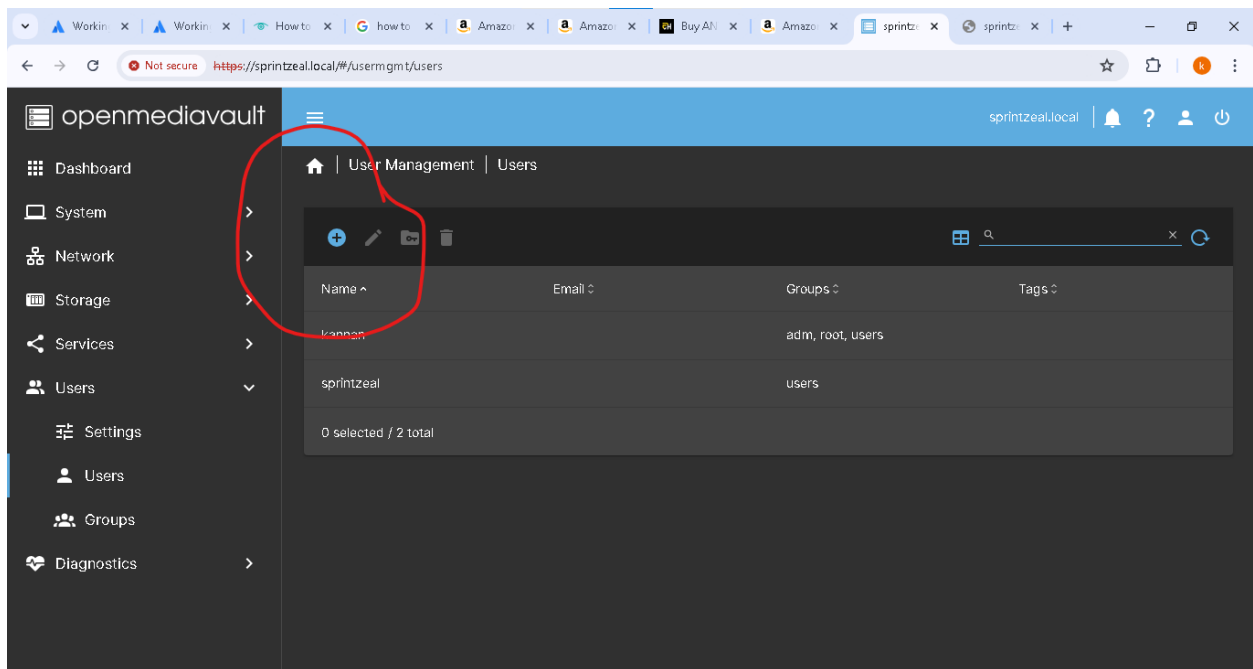


How to create user in this panel

Click this users option



Click the + option



Input the user name and password

The screenshot shows the 'Create' user page in OpenMediaVault. The form includes fields for Name, Email, Password, Confirm password, Shell, Groups, and SSH public keys. The 'Name' field is filled with 'dummy' and the 'Password' field is masked with dots. The 'Shell' is set to '/bin/sh' and 'Groups' is set to 'Select groups ...'. The 'SSH public keys' section shows 'No data to display'.

openmediavault

sprintzeal.local

User Management | Users | Create

Name *
dummy

Email

Password *
.....

Confirm password
.....

Shell
/bin/sh

Groups
Select groups ...

SSH public keys

No data to display.

Do not forget apply the changes button after the saving the process

The screenshot shows the 'Users' page in OpenMediaVault. A yellow warning banner at the top states 'Pending configuration changes' and 'You must apply these changes in order for them to take effect.' A red circle highlights the 'Apply' button (a checkmark icon) in the top right corner of the banner. Below the banner, a table lists the users: 'dummy', 'kannan', and 'sprintzeal'. The 'Groups' column shows 'users' for 'dummy' and 'adm, root, users' for 'kannan' and 'sprintzeal'.

openmediavault

sprintzeal.local

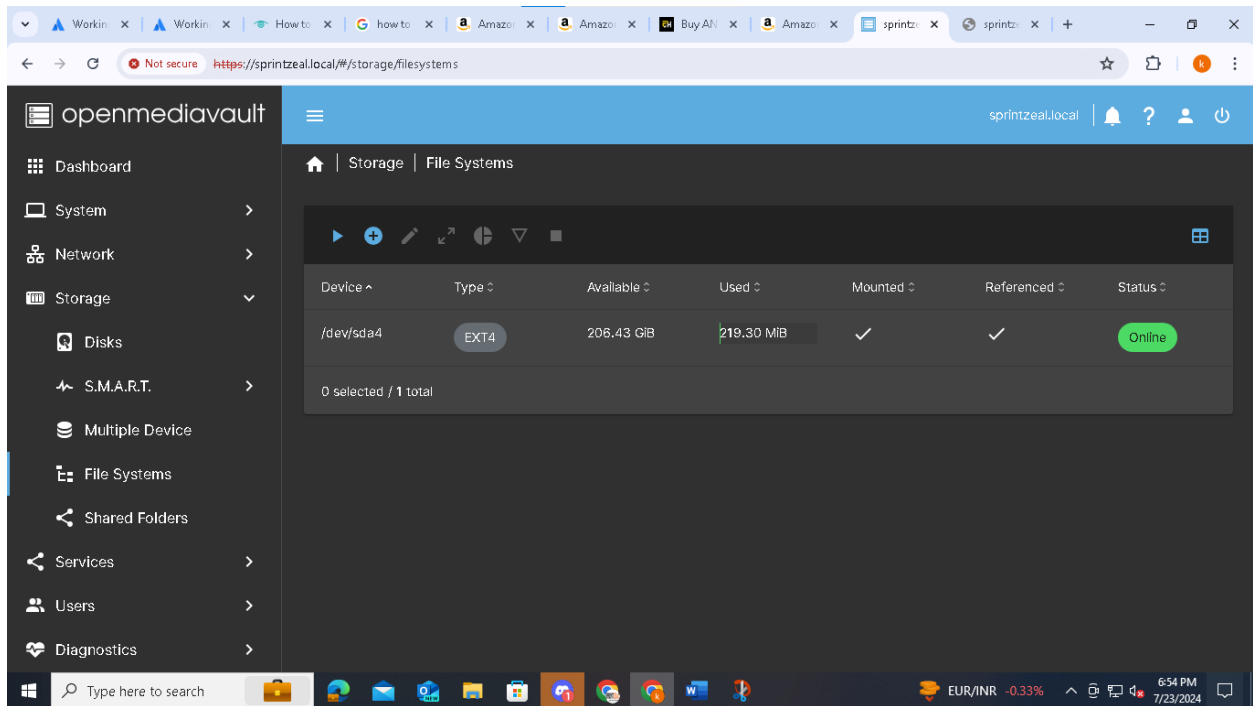
Pending configuration changes
You must apply these changes in order for them to take effect.

User Management | Users

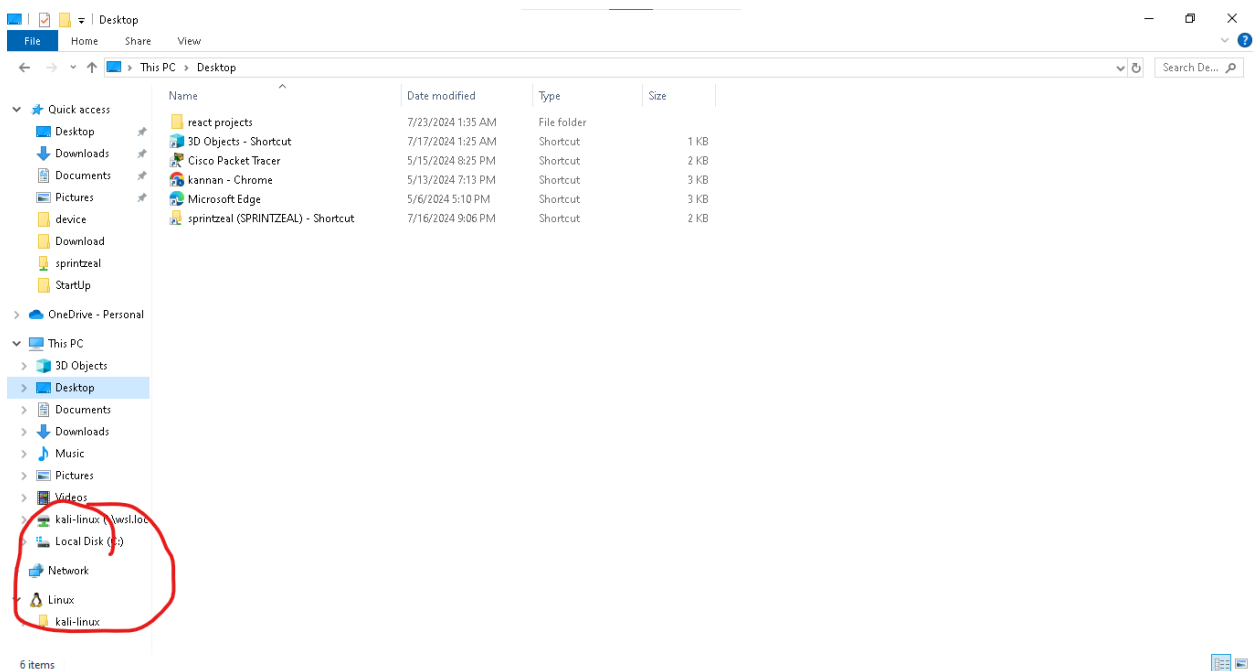
| Name | Email | Groups | Tags |
|------------|-------|------------------|------|
| dummy | | users | |
| kannan | | adm, root, users | |
| sprintzeal | | users | |

0 selected / 3 total

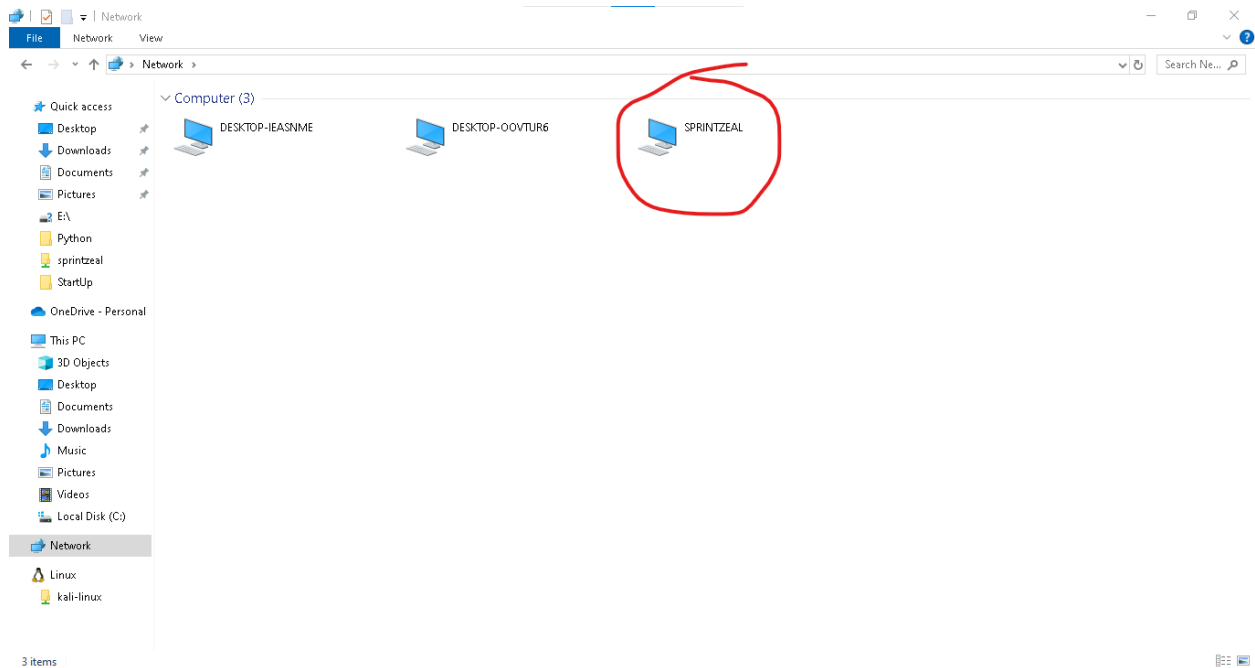
To see the storage how much it is used



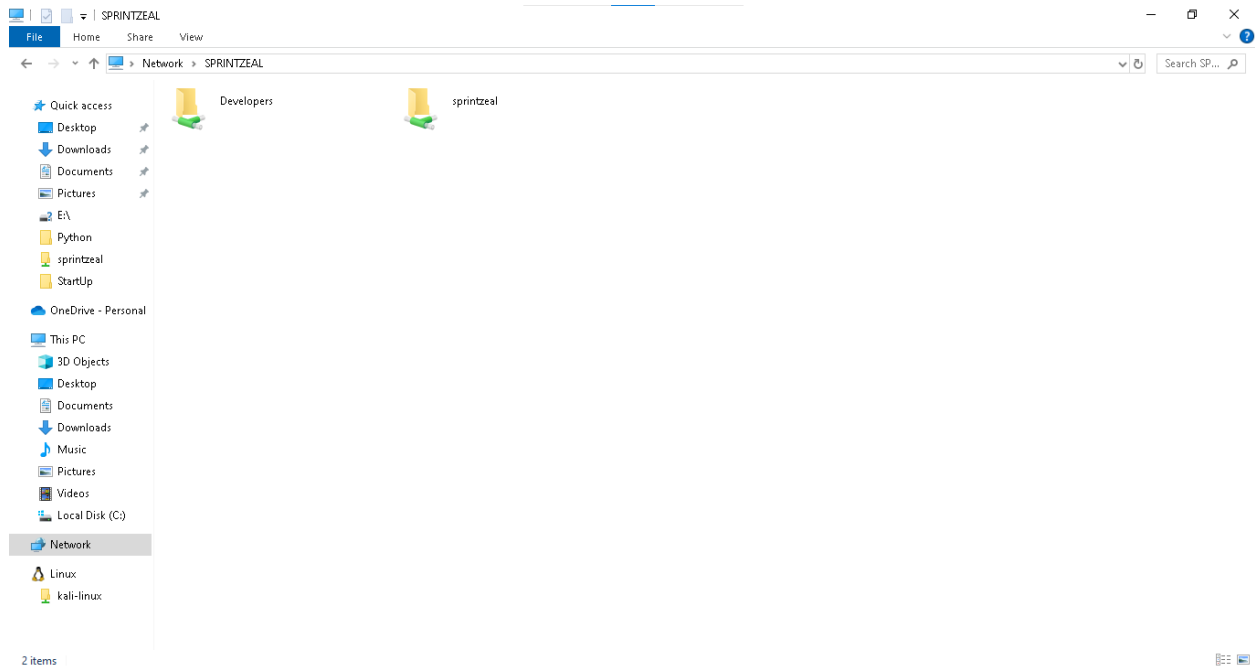
To use the server click network



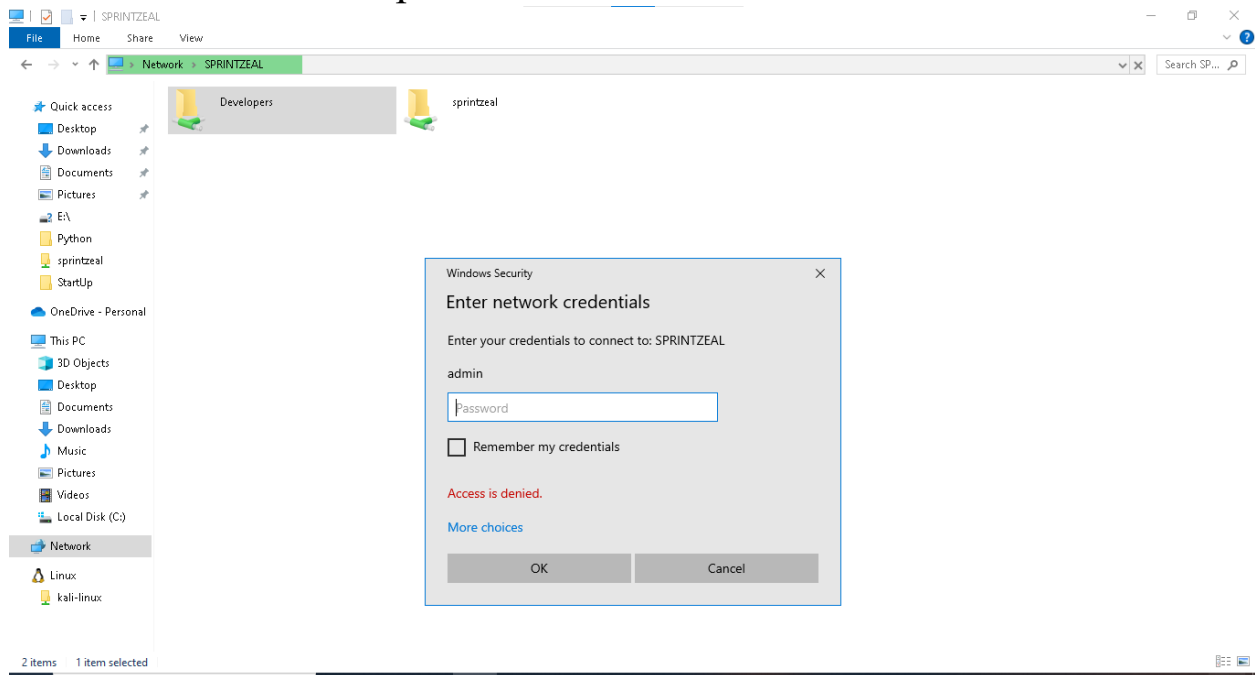
Then we can see the name the server here



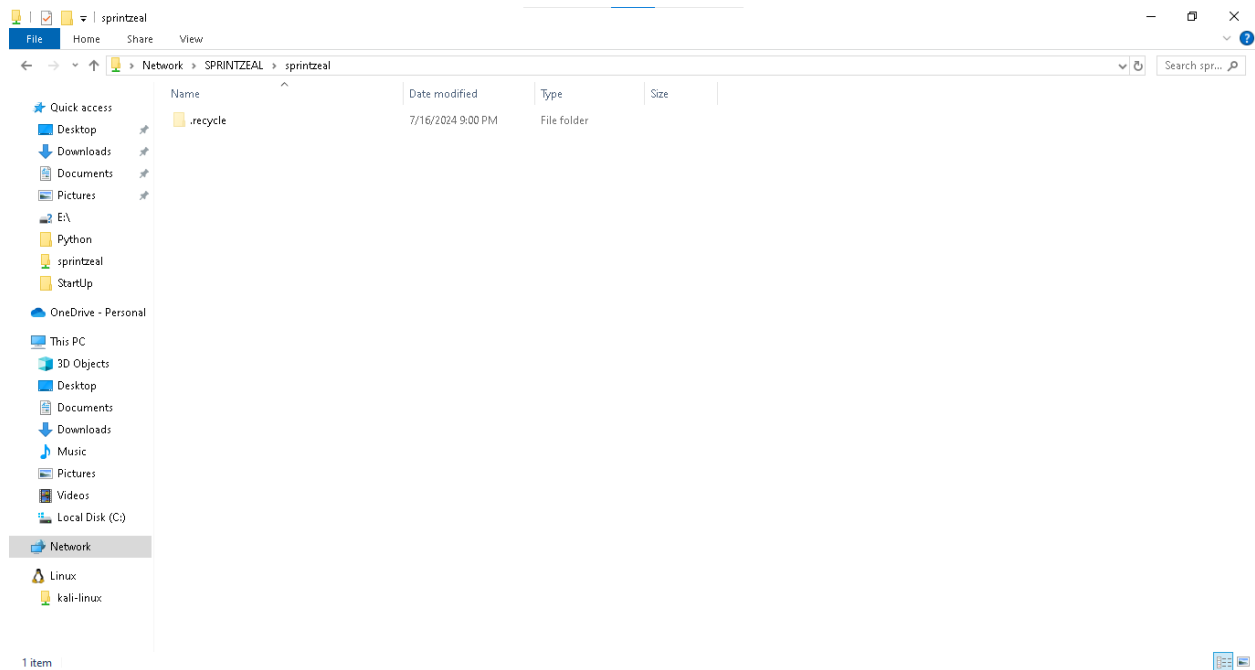
You only access the folder which the admin given permission to youi



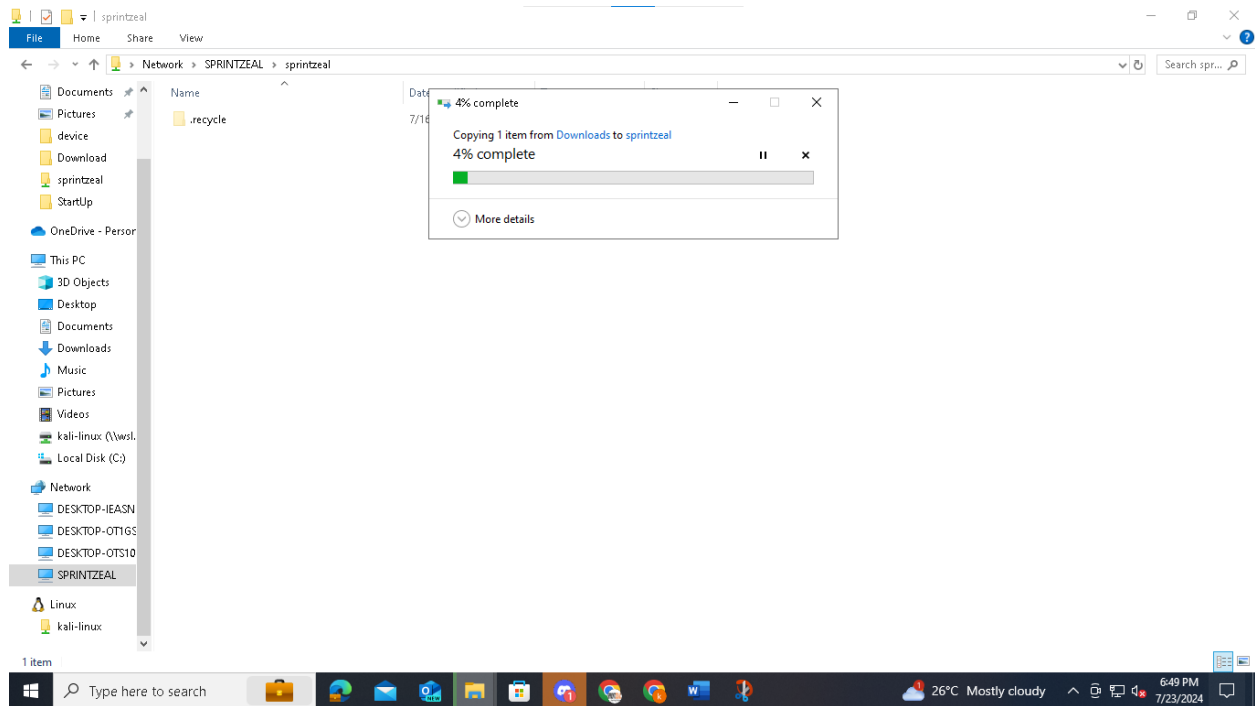
Put the user name and password



Now you can successful access the server



Just drag and drop the files and folder that you wanted to transfer and store in the server



Now everyone in connect router or to the same neetwork can access or see your files

