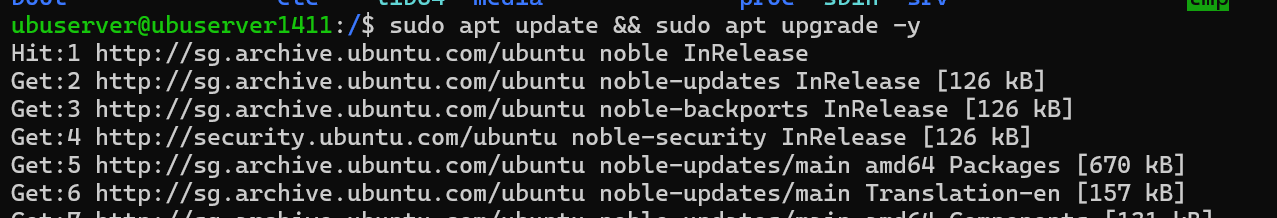
Setting up Samba file share server in Ubuntu Server LTS 24.04

Change directory to the directory you want and create your share folder

A screenshot of a computer

Description automatically generated

Retrieve list of available package and then upgrade all installed packages to latest



Now install samba

A screen shot of a computer

Description automatically generated

Change your created directory intended for sharing to 777 to let everyone edit

A screenshot of a computer

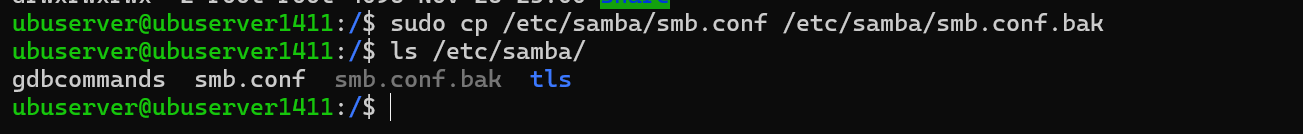
Description automatically generated

However, use 755 for parent folder /ubuserver using sudo chmod 755 /ubuserver so that while yourself have full rights you only grant read and execute. Can also create a private folder.

A screenshot of a computer

Description automatically generated

Back up original samba config incase of rollback



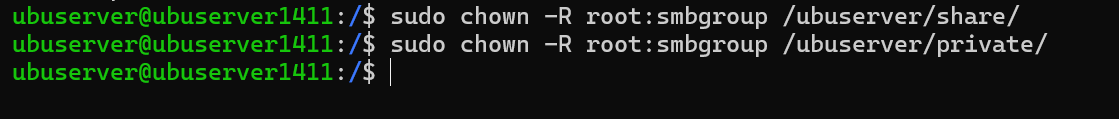
Run a sudo vim/nano and edit the smb.conf and add in the config

Create Samba group

A screenshot of a computer

Description automatically generated

Set user owner of file/directories to root and group owner to be smbgroup. So now, root have the rights to assign group-level access to users in smbgroup.



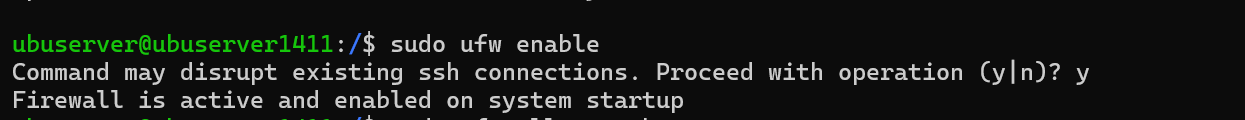
Configure firewall

Before configuring firewall, ensure ssh is still set to allow

A screenshot of a computer

Description automatically generated

Then enable



Add in samba to be allowed and run ufw status again to verify

A screen shot of a computer

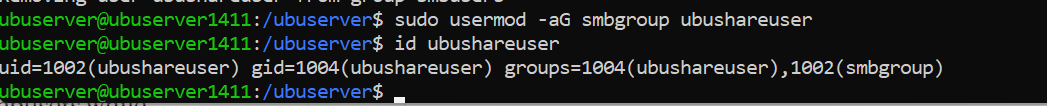
Description automatically generated

Then, create a service account that will be used for accessing the shared folder using useradd -M and add -s /sbin/nologin to make it non-interactive (so it cannot be used to ssh in to system)



Add it to the smbgroup since smbgroup users have access to the folder

-aG will add the service account to smbgroup group while retaining current group memberships.



Set password for the created service account, this is different from using sudo passwd

| **Command** | **Purpose** | **Password Context** |
| --- | --- | --- |
| sudo passwd username | Set or update the **Linux system password**. | Used for OS logins (e.g., SSH). |
| sudo smbpasswd -a username | Add/set the **Samba password**. | Used for accessing Samba shares. |

A screen shot of a computer

Description automatically generated

Enable the samba user

A black background with white text

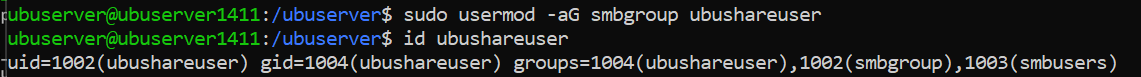
Description automatically generated

Check which account can be used for the samba share access

A screen shot of a computer

Description automatically generated

Also add it to the smbgroup which have access to the samba share folder



For this particular error:

*Unknown parameter encountered: "write cache size"*

*Ignoring unknown parameter "write cache size"*

*lpcfg\_do\_global\_parameter: WARNING: The "encrypt passwords" option is deprecated*

Can remove the 2 config:

write cache size = 262144 # Old way to control write buffering

encrypt passwords = yes # No longer needed as password encryption is now default

Audit configuration

Install Audit daemon

A screen shot of a computer

Description automatically generated

Configure audit rules

sudo auditctl -w /ubuserver -p warx -k samba\_share\_access



-w /ubuserver: Watch this directory path

-p warx: Monitor these types of access:

* w = write access
* a = attribute changes
* r = read access
* x = execute access

-k samba\_share\_access: Key name for identifying these events in logs

However, if you want to view audit logs you will have to use ausearch

*# View all events with our key* **sudo ausearch -k samba\_share\_access**

*# View real-time events* **sudo ausearch -k samba\_share\_access -ts recent**

Add to smb.conf

[global]

log level = 1 auth:3 winbind:3

vfs objects = full\_audit

full\_audit:prefix = %u|%I|%m|%S

full\_audit:success = mkdir rename unlink rmdir pwrite

full\_audit:failure = none

full\_audit:facility = local5

full\_audit:priority = notice

Start and enable smbd and nmbd services

Smbd: file and print services to SMB clients

Nmbd: NETBIOS nameservice and browsing support

A screen shot of a computer

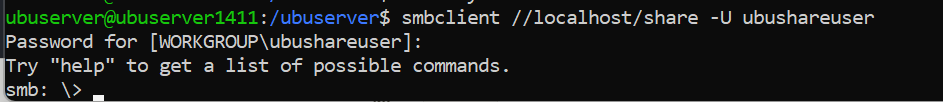
Description automatically generated

Check status of services

A screenshot of a computer

Description automatically generated

If you want to test connection to the share folder first from your smbgroup service account: can use smbclient //localhost/share -U ubushareuser



Now you can try to access the network share from your windows client pc

A screenshot of a computer error

Description automatically generated

Type in the credentials for the service account created (ubushareuser)

A screenshot of a computer screen

Description automatically generated

Now if you create a file in your ubuntu server

A computer screen with text

Description automatically generated

A screenshot of a computer

Description automatically generated