KVM, Windows Server 2019, Samba, et Active Directory

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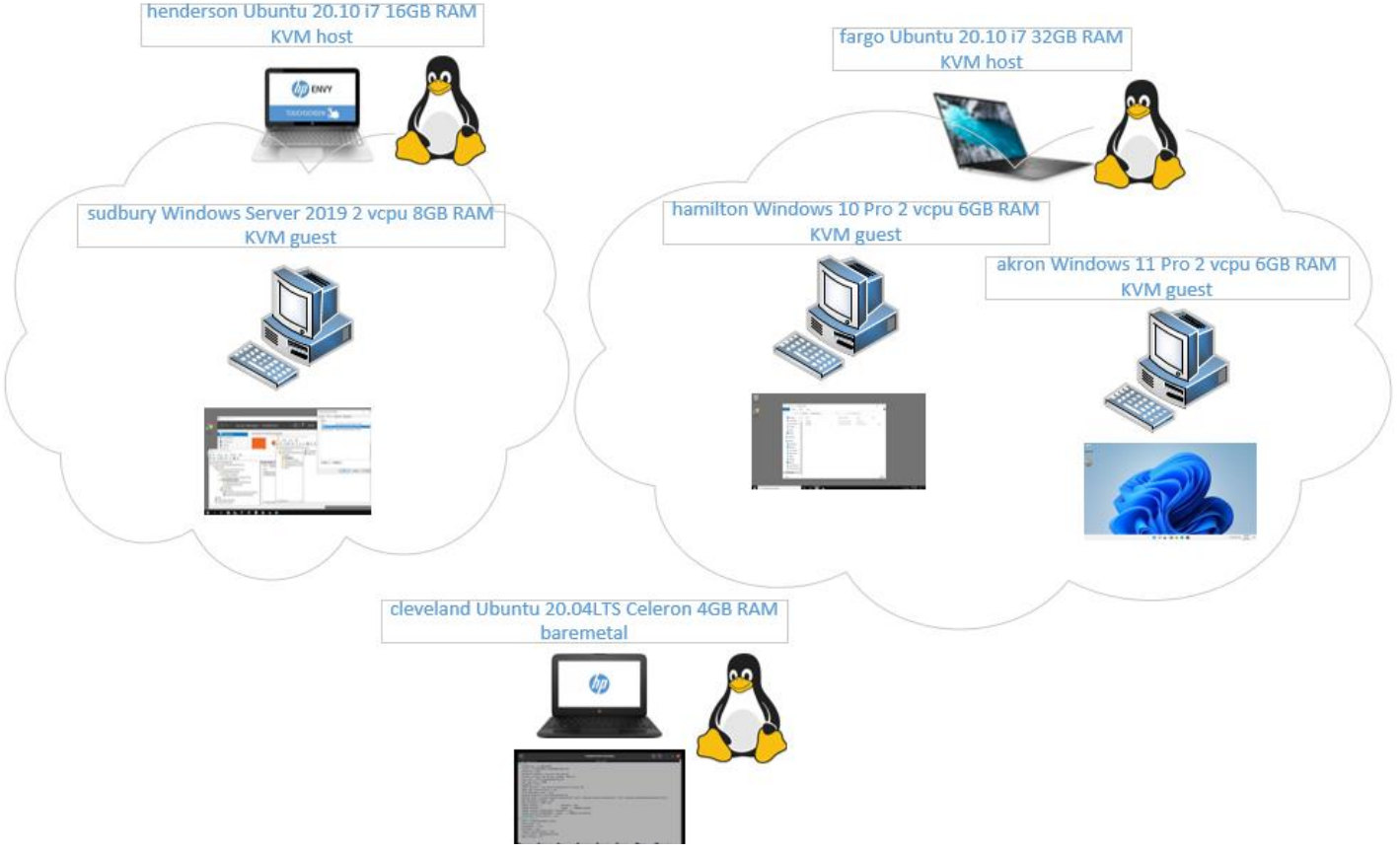

Candidats remplacement

Catégorie	Practique actuelle de l'industrie	Alternative open source	Commentaire
Directory	Active Directory	389 Directory Server, Samba AD controller	Pas pratique. rencontrera des résistances au sein de l'entreprise.
Hypervisor	VMware ESX ou Hyper-V	KVM/Qemu/libvirt/virt-manager	Fonctionnalité équivalente, aucun changement dans l'expérience Windows Server 2019. Nous sommes dans un cycle de remplacement pour les installations VMware. La concurrence devrait être entre Hyper-V et KVM pour remplacer VMware.
Stockage/partages	Windows Server 2019 File and Print Sharing ou Synology NAS sous Active Directory	Samba sous Active Directory	Fonctionnalité équivalente, aucun changement dans l'expérience d'un PC joint au domaine en accédant à un partage. Synology NAS valide déjà notre approche avec Samba et Active Directory.

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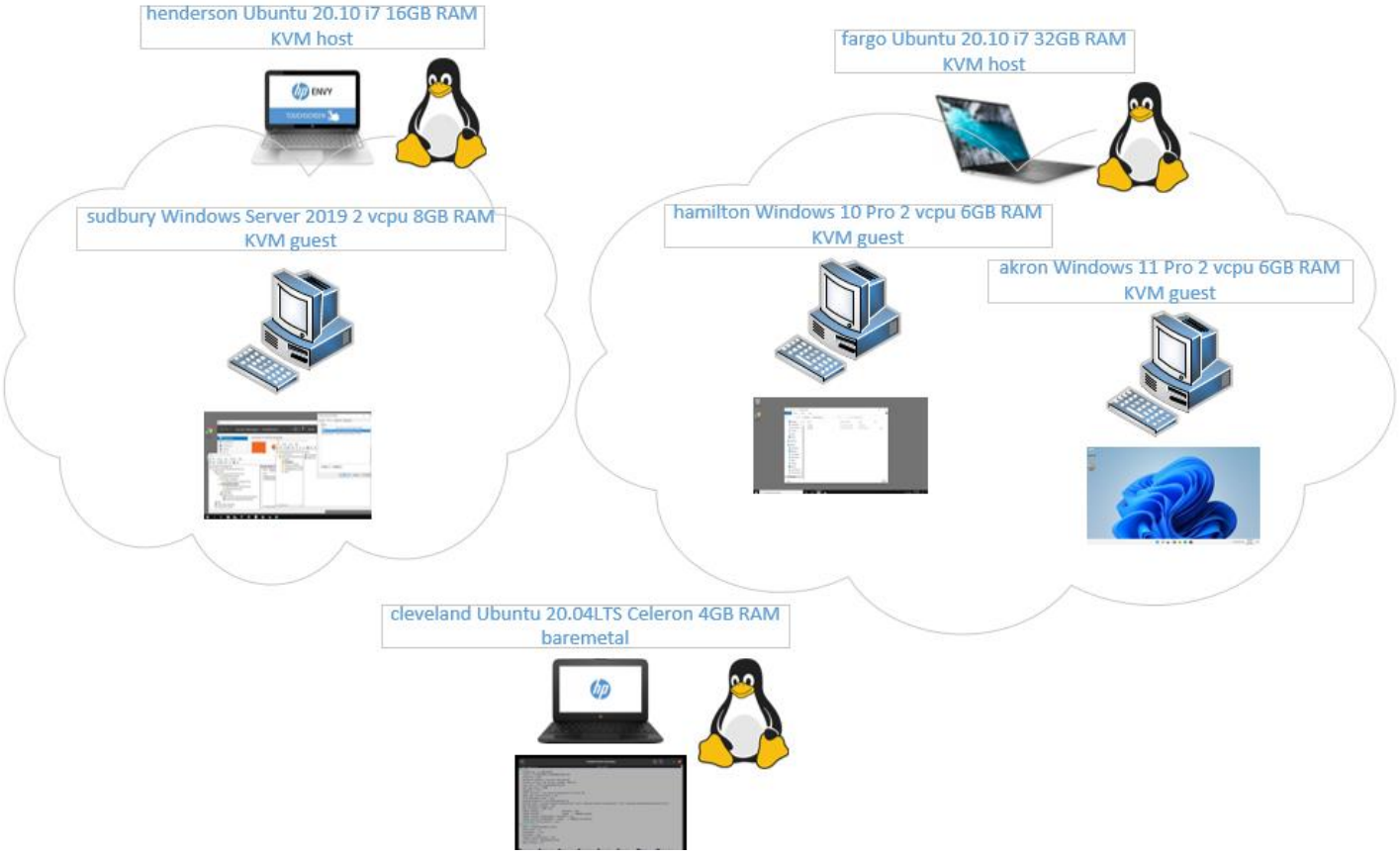
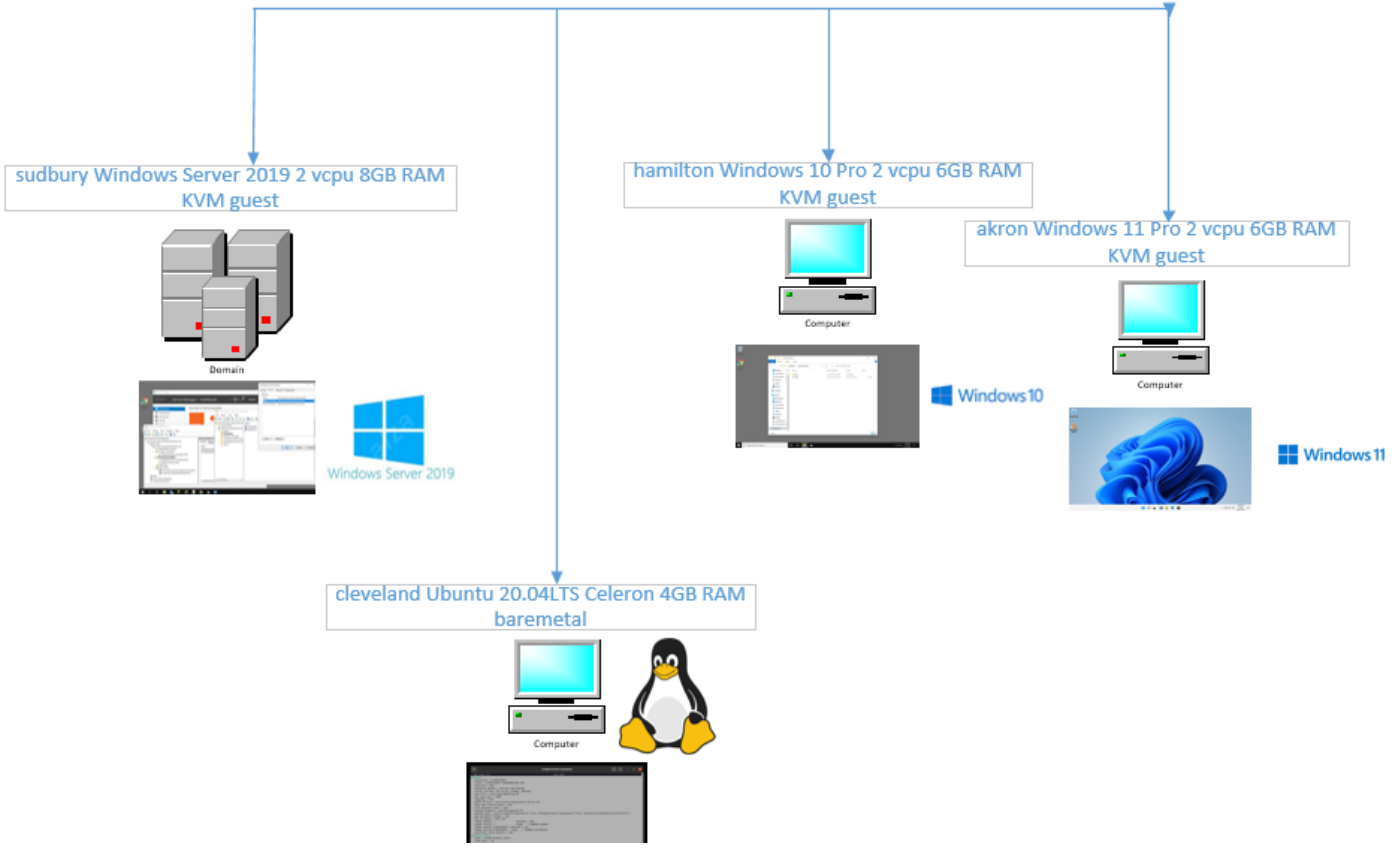
Réseau de test physique



Réseau de test logique



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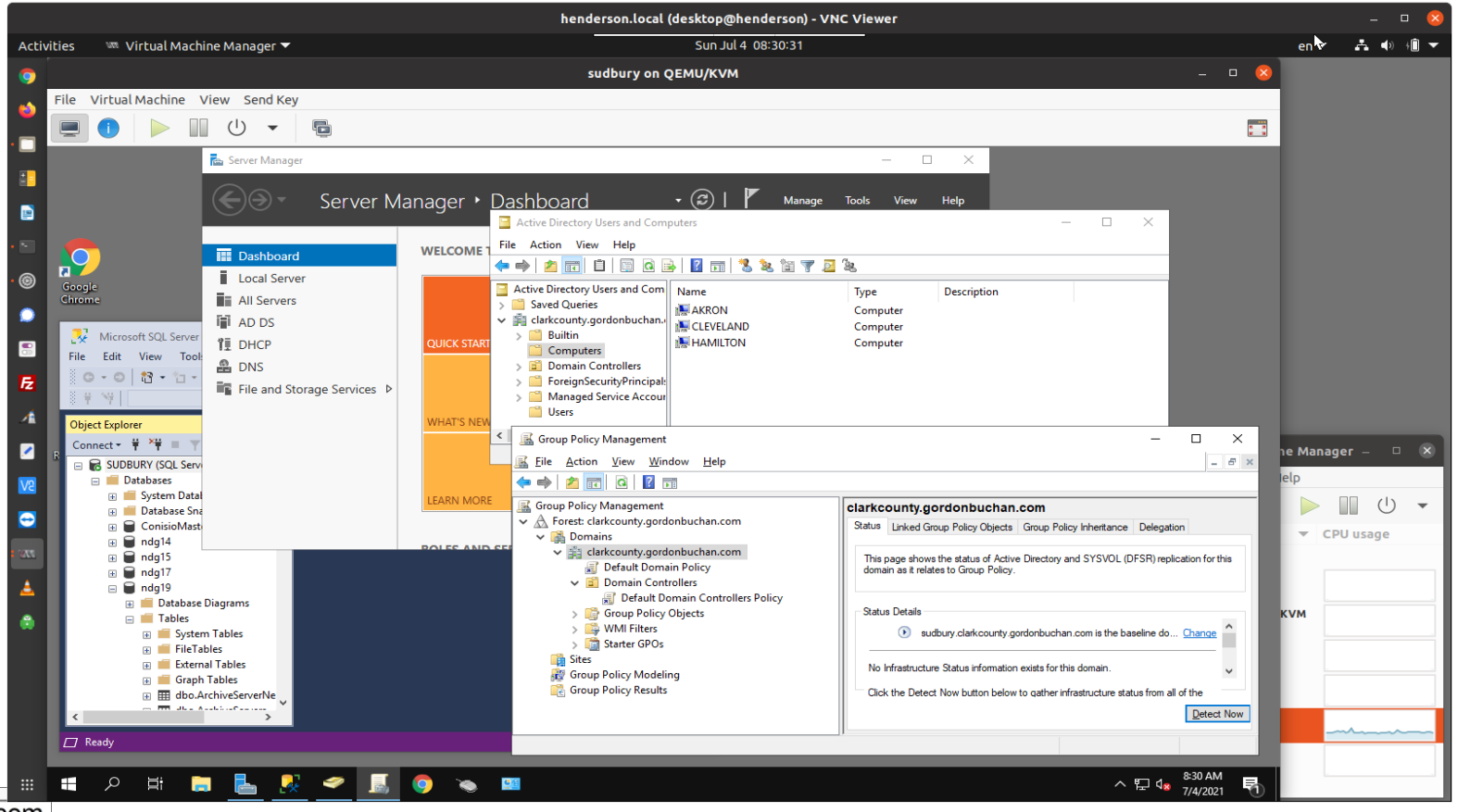
Considérations installation VM de Windows Server 2019

- cartes réseau: créer carte réseau
- macvtap bridge mode, désactiver carte NAT
- addresse IP statique
- désactiver DHCP Server sur Windows Server 2019 après déclaration du domaine
- configuration DNS
- fichiers /etc/hosts et /windows/system32/drivers/etc/hosts

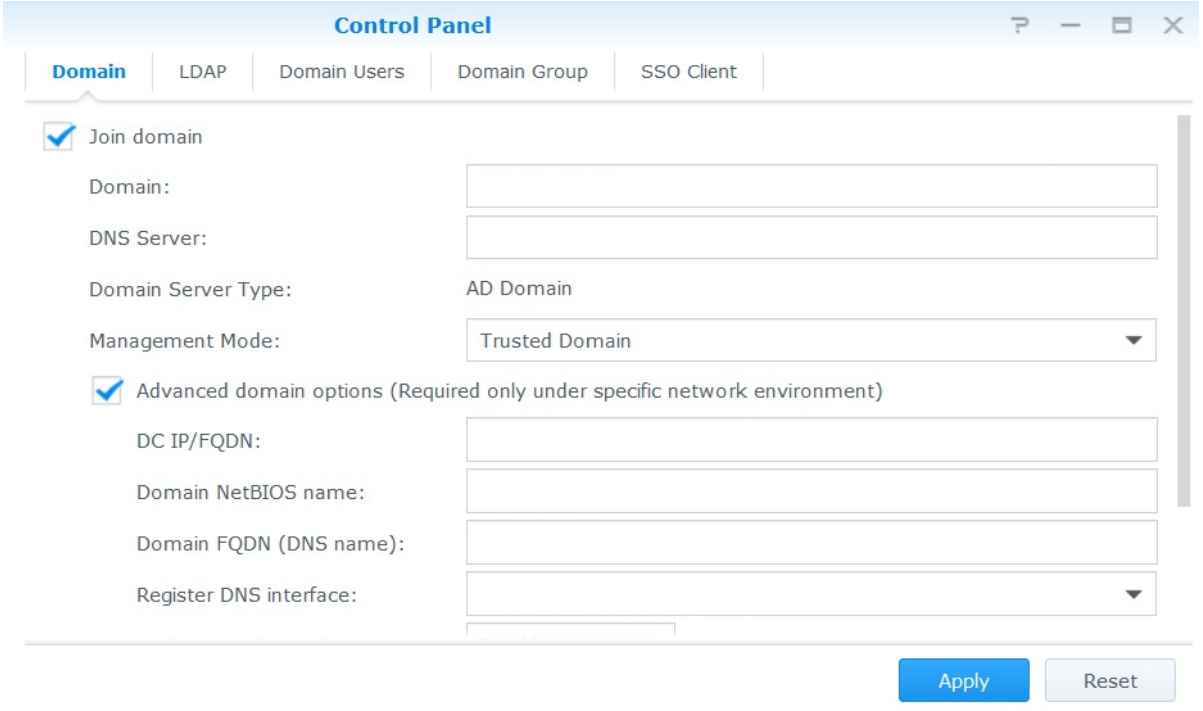
Windows Server 2019 invité virtuel sous KVM



Windows 10 ou 11 Pro
Join Domain

- joindre PC au domaine Active Directory
- cartes réseau: créer carte réseau
- macvtap bridge mode
- addresse IP statique
- configuration DNS
- fichier /etc/hosts

Synology NAS est validation de Samba et Active Directory



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Samba et Active Directory Configuration 1/2

sudo su hostnamectl set-hostname myubuntu.example.com
hostnamectl set-hostname cleveland.clarkcounty.gordonbuchan.com
systemctl disable systemd-resolved
systemctl stop systemd-resolved
unlink /etc/resolv.conf
cd /etc
nano resolv.conf
apt -y install realmd libnss-sss libpam-sss sssd sssd-tools adcli samba-common-bin oddjob oddjob-mkhomedir packagekit
realm discover clarkcounty.gordonbuchan.com
realm join -U adminbuchang clarkcounty.gordonbuchan.com
realm list
cd /usr/share/pam-configs/
nano mkhomedir
pam-auth-update
cd /etc/sssd
cp sssd.conf sssd.conf.factory
nano sssd.conf
systemctl restart sssd
systemctl status sssd
id gordon.buchan
id adminbuchang

Samba et Active Directory Configuration 2/2

```
cd /etc
nano sudoers
nano group
visudo
groupadd linux_sudoers
apt install samba
cd /etc/samba
cp smb.conf smb.conf.factory
nano smb.conf
net groupmap add sid=S-1-5-32-546 unixgroup=nogroup type=builtin
apt install acl
cd /home
mkdir example_share
chmod 2770 /home/example_share
chown root:example_group /home/example_share
setfacl -m g:example_group:rwx,d:g:example_group:rwx /home/example_share
getfacl /home/example_share
systemctl enable smbd
systemctl start smbd
```

/etc/resolv.conf

```
# Generated by NetworkManager
search clarkcounty.gordonbuchan.com
# nameserver 127.0.0.53
nameserver 192.168.56.80
```

/etc/sudoers.conf

```
#
# This file MUST be edited with the 'visudo' command as root.
#
# Please consider adding local content in /etc/sudoers.d/ instead of
# directly modifying this file.
#
# See the man page for details on how to write a sudoers file.
#
Defaults        env_reset
Defaults        mail_badpass
Defaults        secure_path="/usr/local/sbin:/usr/local/bin:/usr/sbin:/usr/bin:/sbin:/bin:/snap/bin“
# Host alias specification
# User alias specification
# Cmnd alias specification
# User privilege specification
root    ALL=(ALL:ALL) ALL
# Members of the admin group may gain root privileges
%admin ALL=(ALL) ALL
%linux_sudoers ALL=(ALL) ALL
# Allow members of group sudo to execute any command
%sudo   ALL=(ALL:ALL) ALL
# See sudoers(5) for more information on "#include" directives:
#includedir /etc/sudoers.d
```

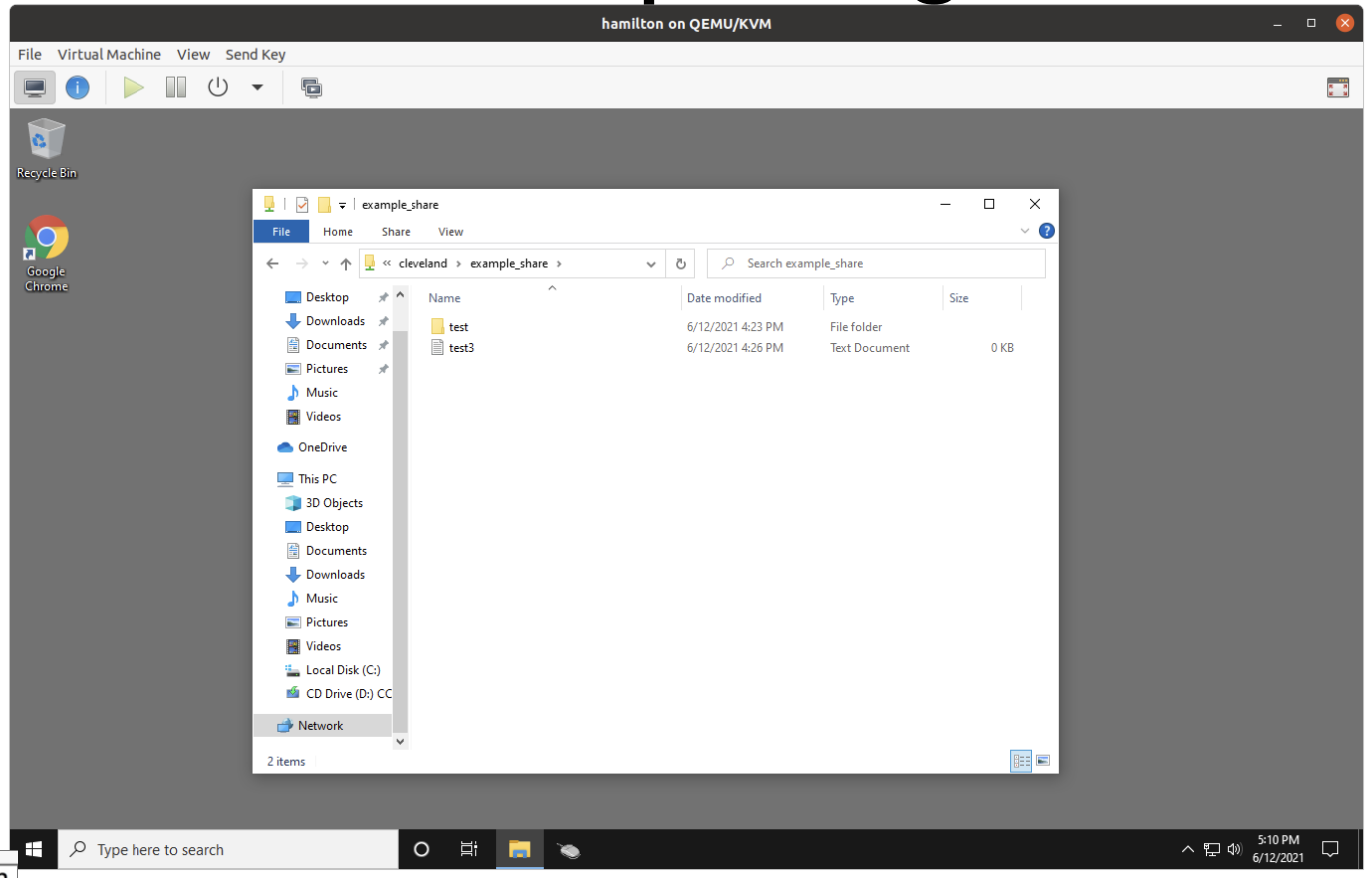
/etc/sssd/sssd.conf

```
[sssd]

domains = clarkcounty.gordonbuchan.com
config_file_version = 2
services = nss, pam
default_domain_suffix = clarkcounty.gordonbuchan.com

[domain/clarkcounty.gordonbuchan.com]

default_shell = /bin/bash
krb5_store_password_if_offline = True
cache_credentials = True
krb5_realm = CLARKCOUNTY.GORDONBUCHAN.COM
realmd_tags = manages-system joined-with-adcli
id_provider = ad
fallback_homedir = /home/%u@%d
ad_domain = clarkcounty.gordonbuchan.com
# use_fully_qualified_names = True
ldap_id_mapping = True
access_provider = ad
full_name_format = %1$s
```

/etc/samba/smb.conf

```
[global]
   workgroup = CLARKCOUNTY
   realm = CLARKCOUNTY.GORDONBUCHAN.COM
   security = ads
   kerberos method = secrets and keytab
   server string = %h server (Samba, Ubuntu)
   log file = /var/log/samba/log.%m
   max log size = 1000
   logging = file
   panic action = /usr/share/samba/panic-action %d
   obey pam restrictions = yes
   unix password sync = yes
   passwd program = /usr/bin/passwd %u
   passwd chat = *Enter\snew\s*\spassword:* %n\n *Retype\snew\s*\spassword:* %n\n *password\supdated\ssuccessfully* .
   pam password change = yes
   map to guest = bad user
   idmap config * :           backend = tdb
   idmap config * :           range   = 100000-199999
   idmap config CLARKCOUNTY: backend = sss
   idmap config CLARKCOUNTY: range   = 200000-2147483647
   usershare allow guests = yes
[example_share]
   path = /home/example_share
   read only = no
   browsable = true
   writable = yes
   inherit permissions = yes
   valid users = @example_group
   map archive = no
```

PC joint au domaine, accédant au partage Samba



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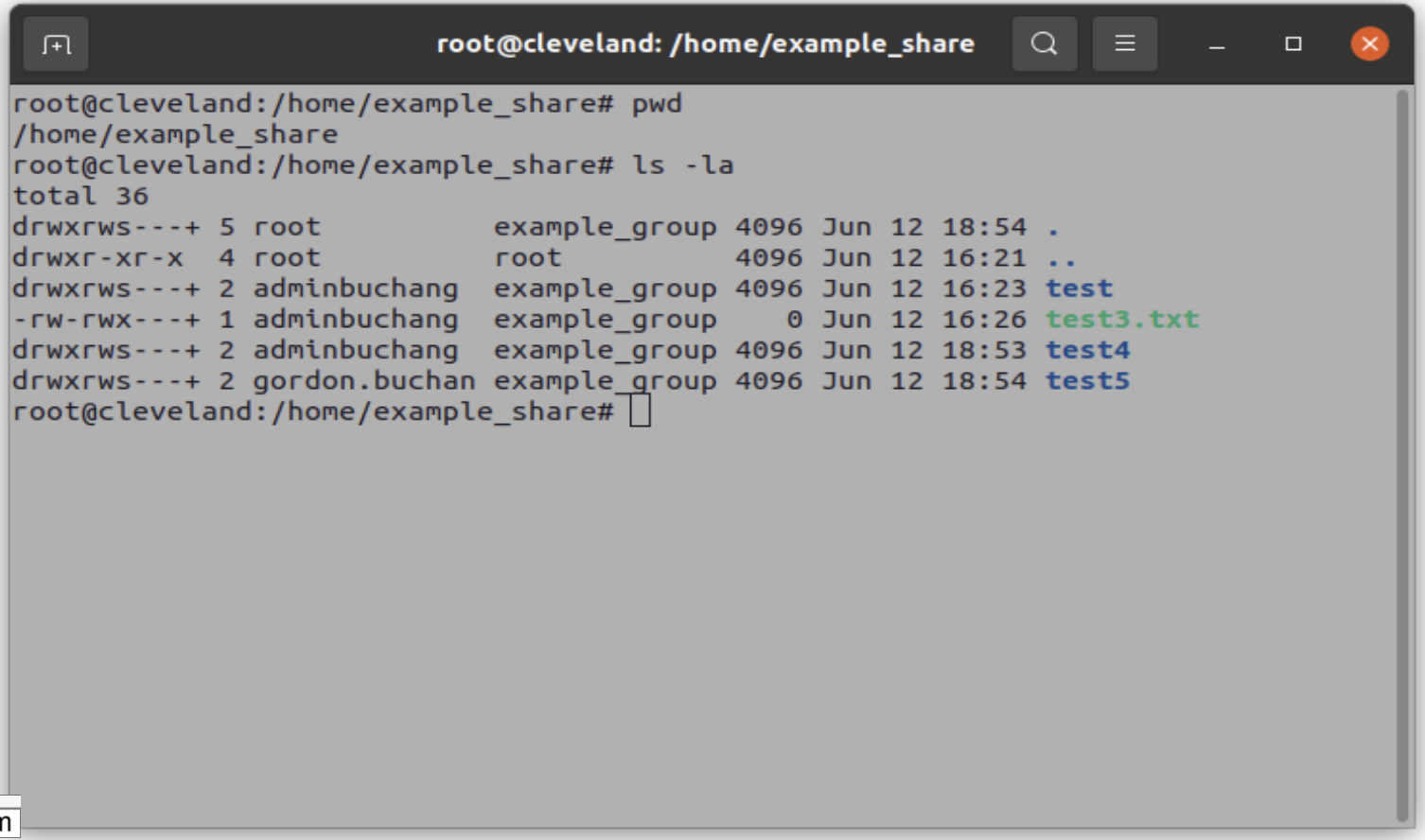
Permissions



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Liens vers des ressources

https://www.moderndeployment.com/windows-server-2019-active-directory-installation-beginners-guide/

http://blog.jrg.com.br/2021/02/01/ubuntu-focal-fossa-samba-domain-member-shares-1/