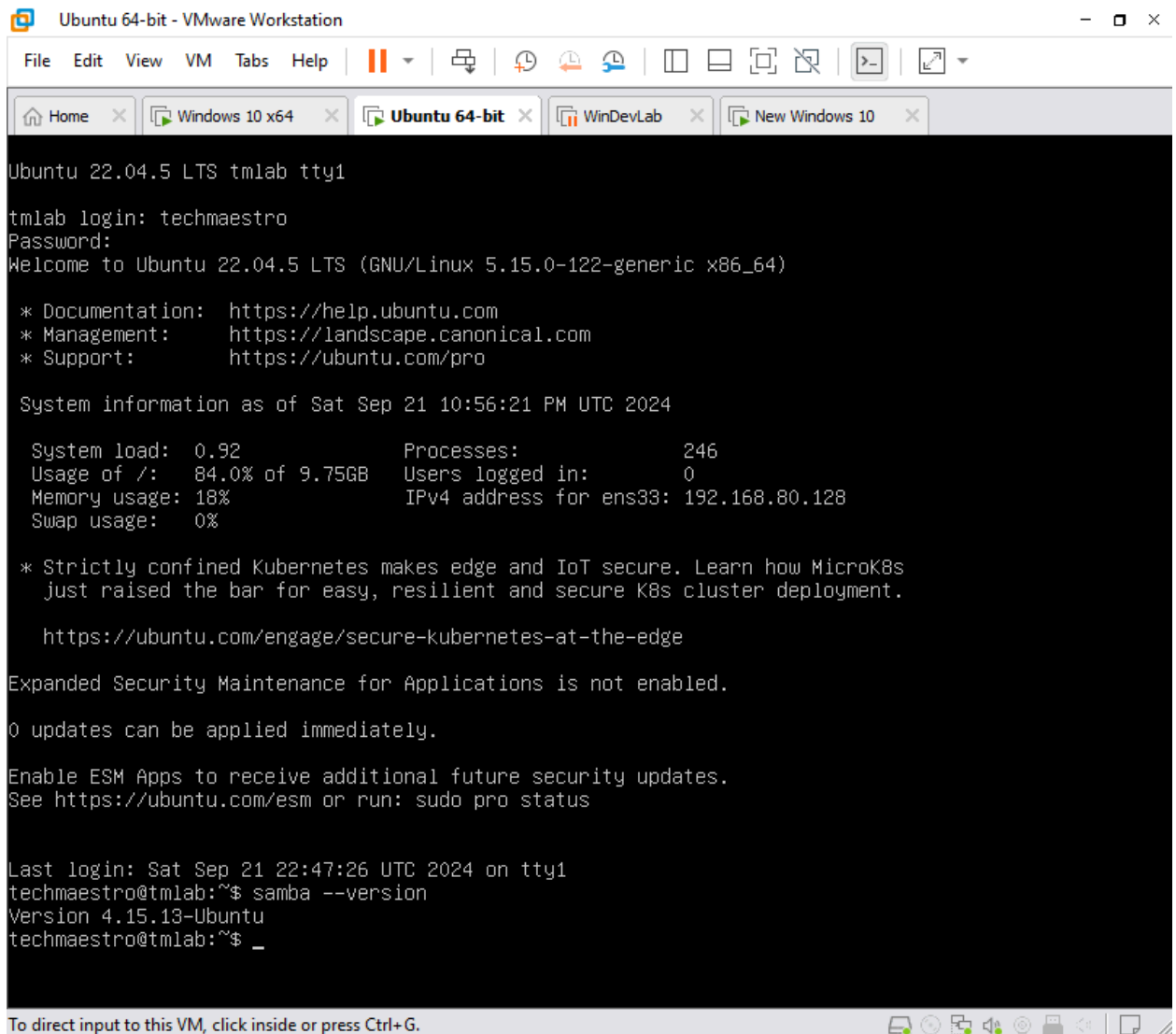


Siraj Abdul-Shahid
9/21/2024
Entry Level IT Project

This project will cover file-sharing configuration, troubleshooting and networking between two Win10 Virtual Machines and Ubuntu.

1. Updated Ubuntu VM and installed Samba for file sharing.



```
Ubuntu 64-bit - VMware Workstation
File Edit View VM Tabs Help
Home x Windows 10 x64 x Ubuntu 64-bit x WinDevLab x New Windows 10 x

Ubuntu 22.04.5 LTS tmlab tty1
tmlab login: techmaestro
Password:
Welcome to Ubuntu 22.04.5 LTS (GNU/Linux 5.15.0-122-generic x86_64)

* Documentation:  https://help.ubuntu.com
* Management:    https://landscape.canonical.com
* Support:        https://ubuntu.com/pro

System information as of Sat Sep 21 10:56:21 PM UTC 2024

System load:  0.92           Processes:            246
Usage of /:   84.0% of 9.75GB Users logged in:        0
Memory usage: 18%           IPv4 address for ens33: 192.168.80.128
Swap usage:   0%

* Strictly confined Kubernetes makes edge and IoT secure. Learn how MicroK8s
  just raised the bar for easy, resilient and secure K8s cluster deployment.

  https://ubuntu.com/engage/secure-kubernetes-at-the-edge

Expanded Security Maintenance for Applications is not enabled.

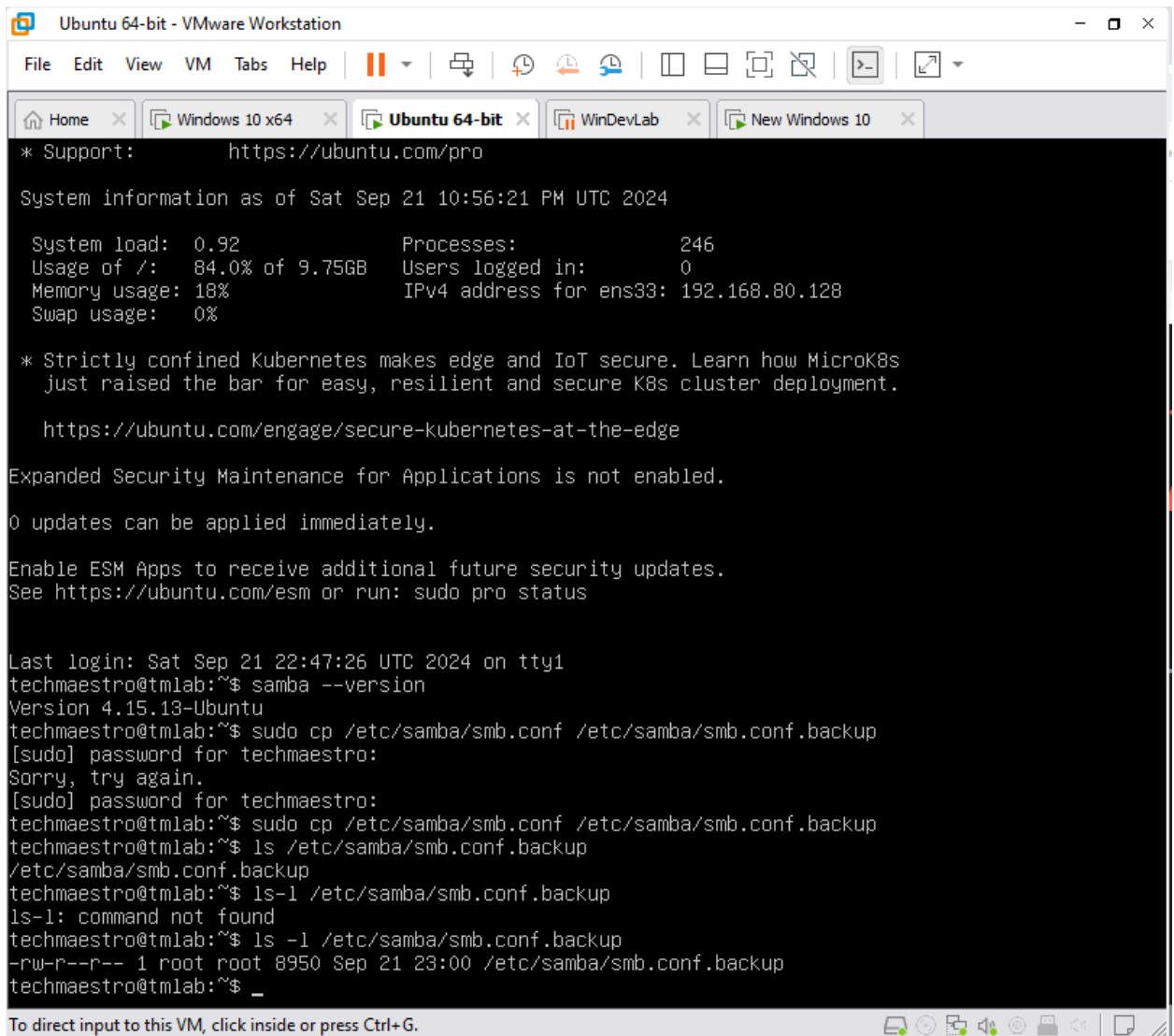
0 updates can be applied immediately.

Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status

Last login: Sat Sep 21 22:47:26 UTC 2024 on tty1
techmaestro@tmlab:~$ samba --version
Version 4.15.13-Ubuntu
techmaestro@tmlab:~$ _

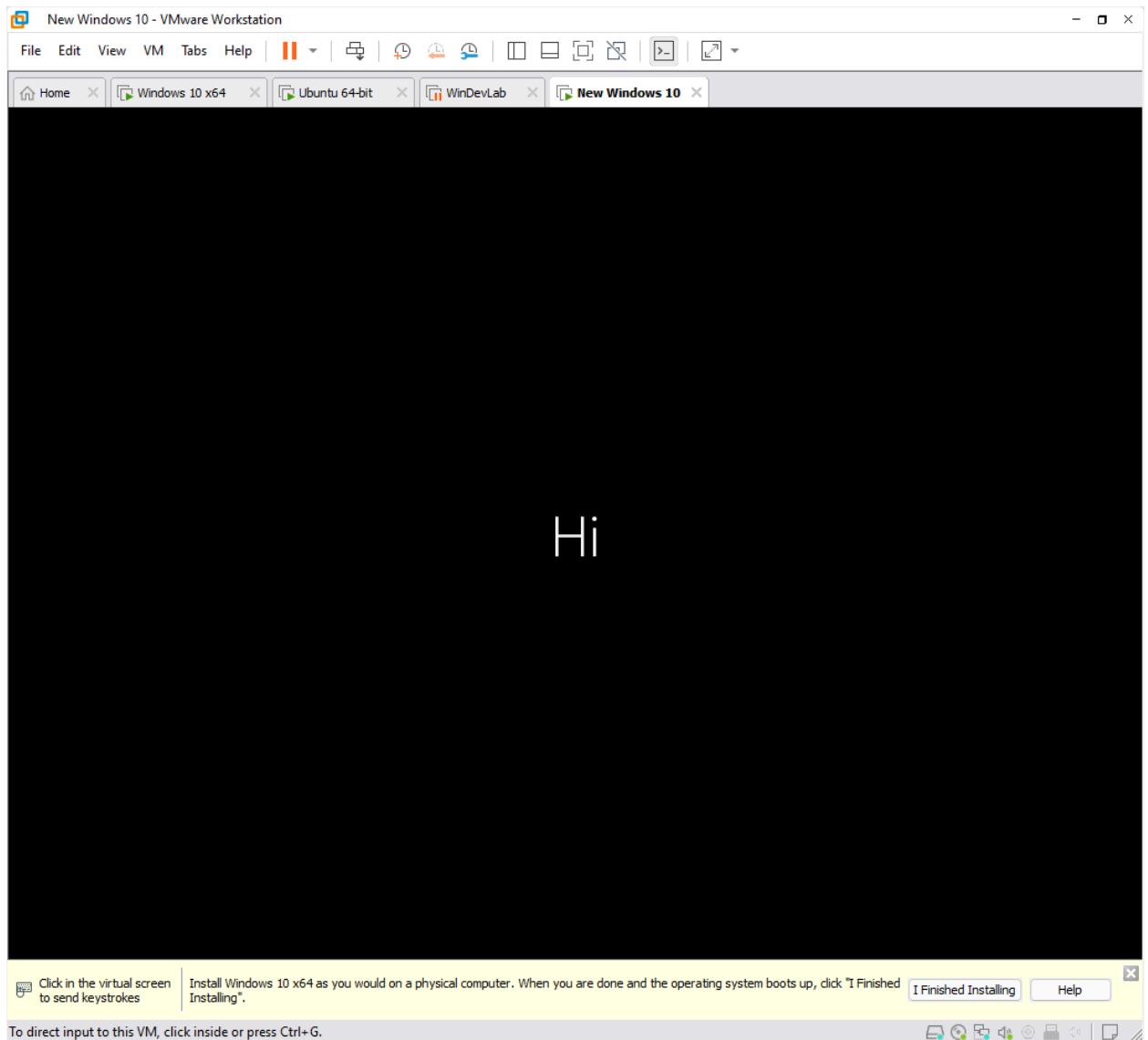
To direct input to this VM, click inside or press Ctrl+G.
```

2. Backed Up Samba config file:

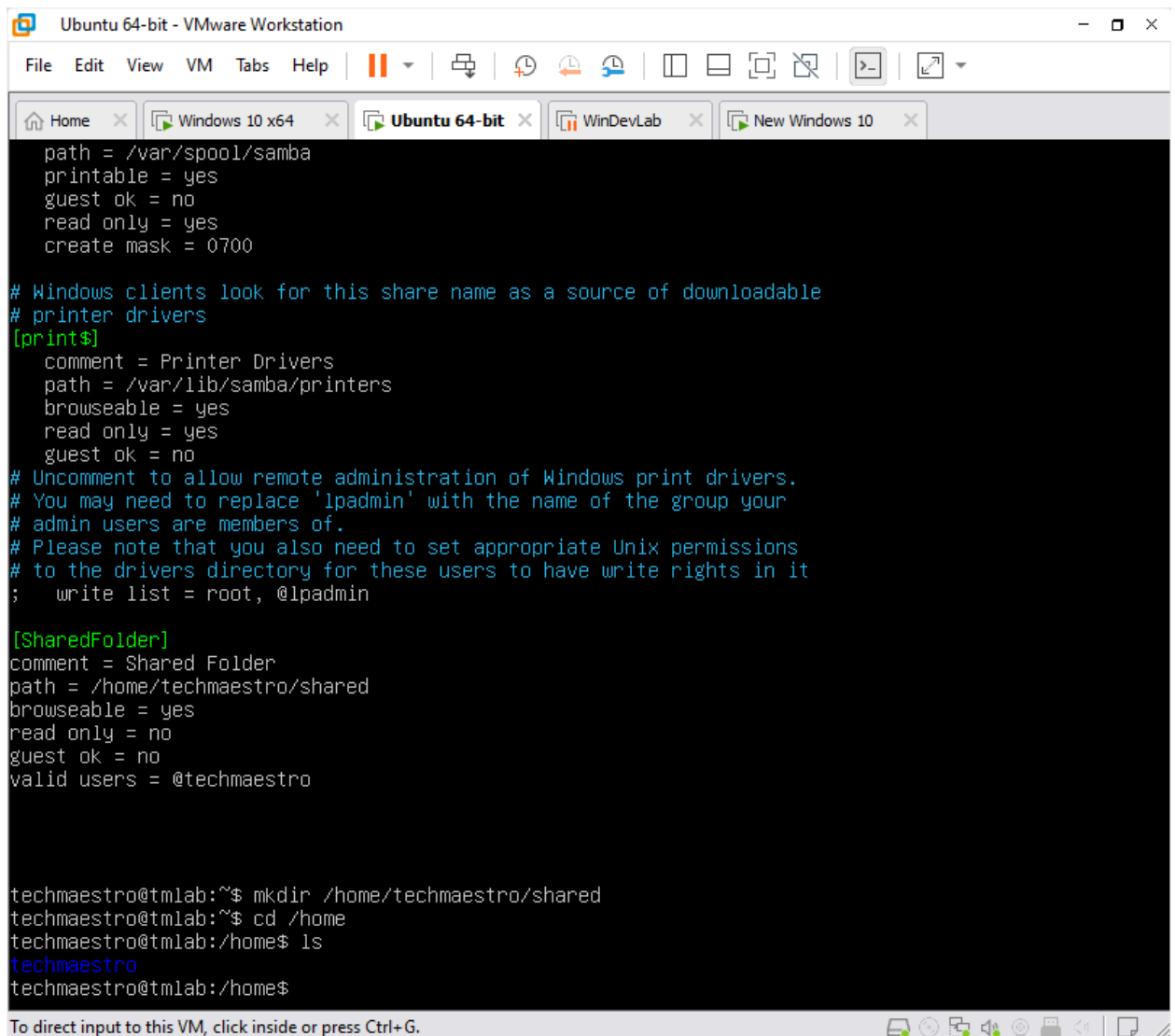


```
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Expanded Security Maintenance for Applications is not enabled.
0 updates can be applied immediately.
Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status
Last login: Sat Sep 21 22:47:26 UTC 2024 on tty1
techmaestro@tmlab:~$ samba --version
Version 4.15.13-Ubuntu
techmaestro@tmlab:~$ sudo cp /etc/samba/smb.conf /etc/samba/smb.conf.backup
[sudo] password for techmaestro:
Sorry, try again.
[sudo] password for techmaestro:
techmaestro@tmlab:~$ sudo cp /etc/samba/smb.conf /etc/samba/smb.conf.backup
techmaestro@tmlab:~$ ls /etc/samba/smb.conf.backup
/etc/samba/smb.conf.backup
techmaestro@tmlab:~$ ls -l /etc/samba/smb.conf.backup
ls-l: command not found
techmaestro@tmlab:~$ ls -l /etc/samba/smb.conf.backup
-rw-r--r-- 1 root root 8950 Sep 21 23:00 /etc/samba/smb.conf.backup
techmaestro@tmlab:~$ _
To direct input to this VM, click inside or press Ctrl+G.
```

3. Setup an additional WIN10 VM:



4. Created a shared folder in Samba using Nano and created a Shared directory. Updated permissions:



```
path = /var/spool/samba
printable = yes
guest ok = no
read only = yes
create mask = 0700

# Windows clients look for this share name as a source of downloadable
# printer drivers
[print$]
comment = Printer Drivers
path = /var/lib/samba/printers
browseable = yes
read only = yes
guest ok = no
# Uncomment to allow remote administration of Windows print drivers.
# You may need to replace 'lpadmin' with the name of the group your
# admin users are members of.
# Please note that you also need to set appropriate Unix permissions
# to the drivers directory for these users to have write rights in it
; write list = root, @lpadmin

[SharedFolder]
comment = Shared Folder
path = /home/techmaestro/shared
browseable = yes
read only = no
guest ok = no
valid users = @techmaestro

techmaestro@tmlab:~$ mkdir /home/techmaestro/shared
techmaestro@tmlab:~$ cd /home
techmaestro@tmlab:/home$ ls
techmaestro
techmaestro@tmlab:/home$
```

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Home Windows 10 x64 Ubuntu 64-bit WinDevLab New Windows 10

```
create mask = 0700

# Windows clients look for this share name as a source of downloadable
# printer drivers
[print$]
comment = Printer Drivers
path = /var/lib/samba/printers
browseable = yes
read only = yes
guest ok = no
# Uncomment to allow remote administration of Windows print drivers.
# You may need to replace 'lpadmin' with the name of the group your
# admin users are members of.
# Please note that you also need to set appropriate Unix permissions
# to the drivers directory for these users to have write rights in it
; write list = root, @lpadmin

[SharedFolder]
comment = Shared Folder
path = /home/techmaestro/shared
browseable = yes
read only = no
guest ok = no
valid users = @techmaestro

techmaestro@tmlab:~$ mkdir /home/techmaestro/shared
techmaestro@tmlab:~$ cd /home
techmaestro@tmlab:/home$ ls
techmaestro
techmaestro@tmlab:/home$ sudo chown -R username:techmaestro /home/techmaestro/shared
chown: invalid user: 'username:techmaestro'
techmaestro@tmlab:/home$ sudo chown -R techmaestro:techmaestro /home/techmaestro/shared
techmaestro@tmlab:/home$ sudo chmod 2770 /home/techmaestro/shared
techmaestro@tmlab:/home$ _
```

To direct input to this VM, click inside or press Ctrl+G.

Ubuntu 64-bit - VMware Workstation

File Edit View VM Tabs Help

Home Windows 10 x64 Ubuntu 64-bit WinDevLab New Windows 10

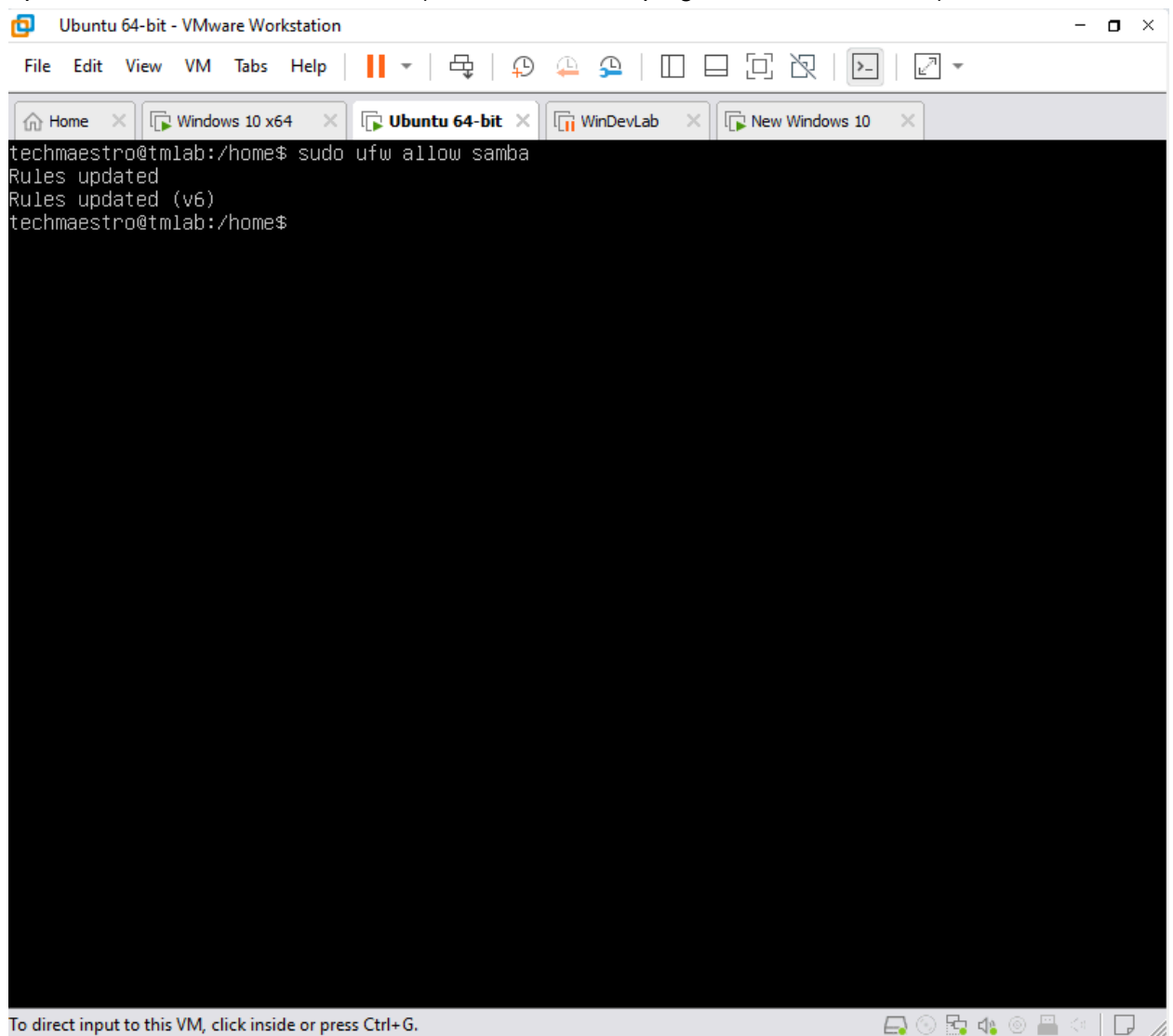
```
comment = Printer Drivers
path = /var/lib/samba/printers
browseable = yes
read only = yes
guest ok = no
# Uncomment to allow remote administration of Windows print drivers.
# You may need to replace 'lpadmin' with the name of the group your
# admin users are members of.
# Please note that you also need to set appropriate Unix permissions
# to the drivers directory for these users to have write rights in it
; write list = root, @lpadmin

[SharedFolder]
comment = Shared Folder
path = /home/techmaestro/shared
browseable = yes
read only = no
guest ok = no
valid users = @techmaestro

techmaestro@tmlab:~$ mkdir /home/techmaestro/shared
techmaestro@tmlab:~$ cd /home
techmaestro@tmlab:/home$ ls
techmaestro
techmaestro@tmlab:/home$ sudo chown -R username:techmaestro /home/techmaestro/shared
chown: invalid user: 'username:techmaestro'
techmaestro@tmlab:/home$ sudo chown -R techmaestro:techmaestro /home/techmaestro/shared
techmaestro@tmlab:/home$ sudo chmod 2770 /home/techmaestro/shared
techmaestro@tmlab:/home$ sudo smbpasswd -a techmaestro
New SMB password:
Retype new SMB password:
Added user techmaestro.
techmaestro@tmlab:/home$ sudo systemctl restart smbd
techmaestro@tmlab:/home$ _
```

To direct input to this VM, click inside or press Ctrl+G.

5. Updated Firewall to allow Samba. (also ensured can ping from Windows VMs):



Ubuntu 64-bit - VMware Workstation

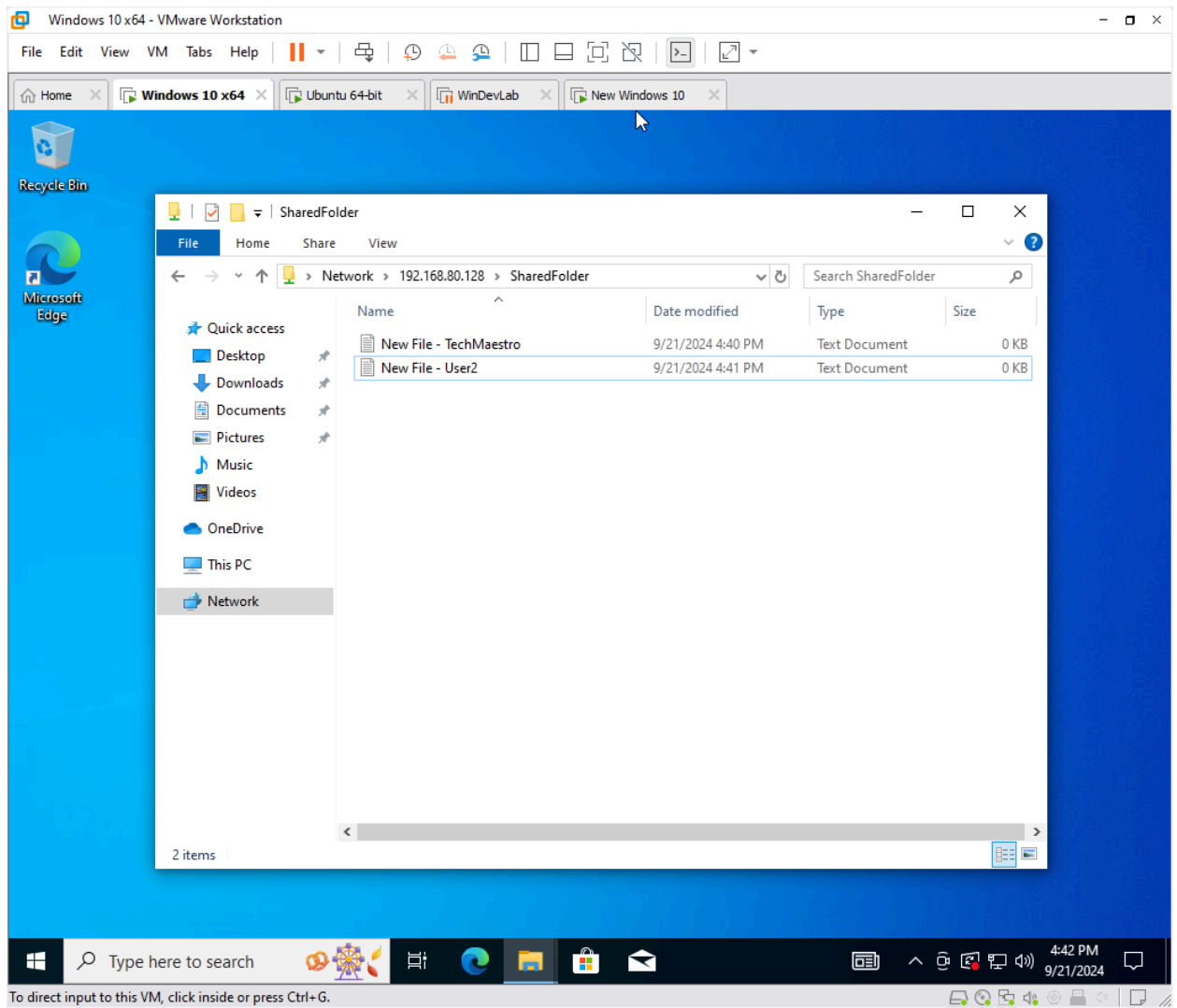
File Edit View VM Tabs Help

Home Windows 10 x64 **Ubuntu 64-bit** WinDevLab New Windows 10

```
techmaestro@tmlab:/home$ sudo ufw allow samba
Rules updated
Rules updated (v6)
techmaestro@tmlab:/home$
```

To direct input to this VM, click inside or press Ctrl+G.

6. Successfully connected to Shared Folder via Windows VMs:



\\192.168.80.128\SharedFolder