## Migrate VM from ESXi to TrueNAS Scale

ubuntu 20.04

Application Used: qemu-img
Command line: qemu-img convert -f vmdk -O raw image.vmdk image.img

You will find three vmdk files on the ESXi VM directory. The file named -flat.vmdk is the VM disk to be converted.

1) Consolidate disks to ensure all is consolidated
   From the UI: Virtual Machines → <VM> → Actions → Snapshots → Consolidate Disks

2) Download <vm>-flac.vmdk file and <vm>.vmdk

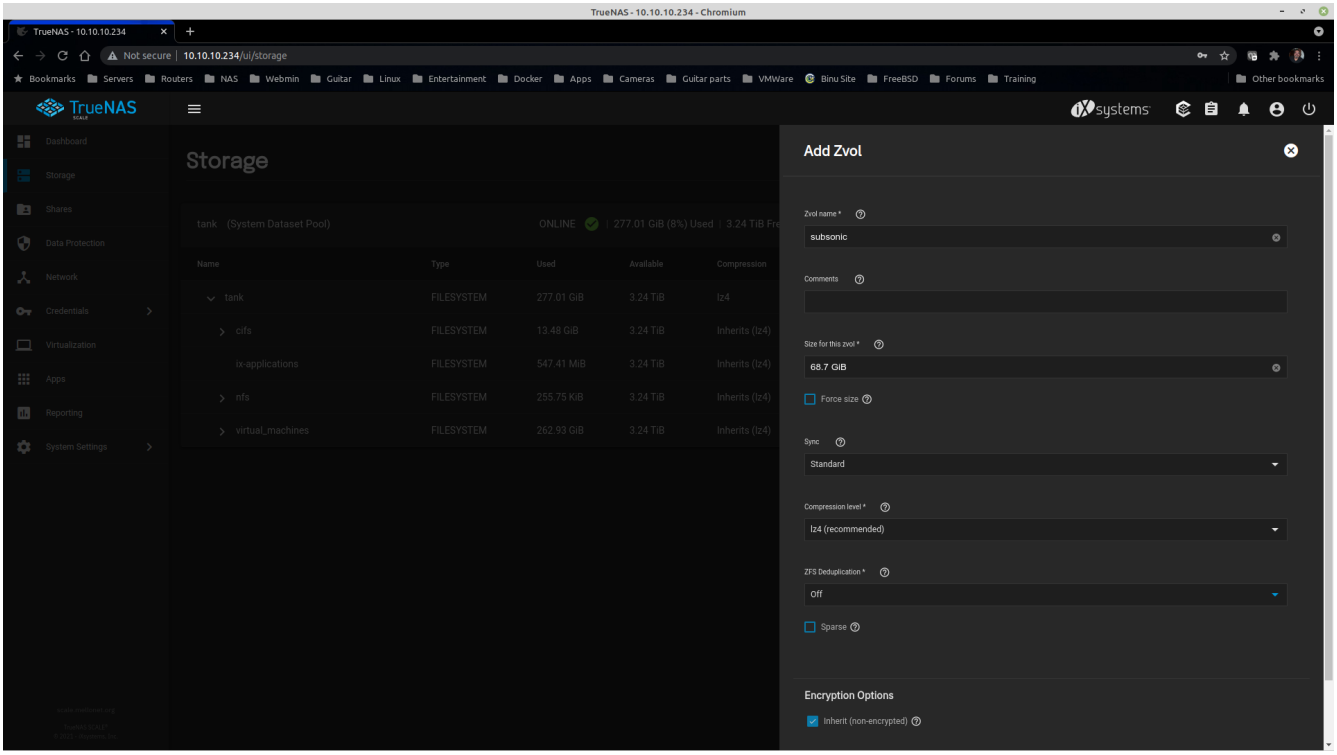
3) Use qemu-img to convert:

*qemu-img convert -f vmdk -O raw <vm>.vmdk <vm>.img*

i.e.:

*mello@olinda:/mnt/volume1/Downloads$ qemu-img convert -f vmdk -O raw subsonic.vmdk subsonic.img*
*mello@olinda:/mnt/volume1/Downloads$ ll subsonic**
*-rw------- 1 mello mello 68719476736 Jul 26 15:18 subsonic-flat.vmdk*
*-rw-r--r-- 1 mello mello 68719476736 Jul 26 16:40 subsonic.img*
*-rw------- 1 mello mello 612 Jul 26 16:24 subsonic.vmdk*

4) create zvol



5) upload raw disk to zvol

*scale# dd if=/mnt/tank/cifs/repository/subsonic.img of=/dev/zvol/tank/virtual_machines/subsonic*
*134217728+0 records in*
*134217728+0 records out*
*68719476736 bytes (69 GB, 64 GiB) copied, 12132 s, 5.7 MB/s*

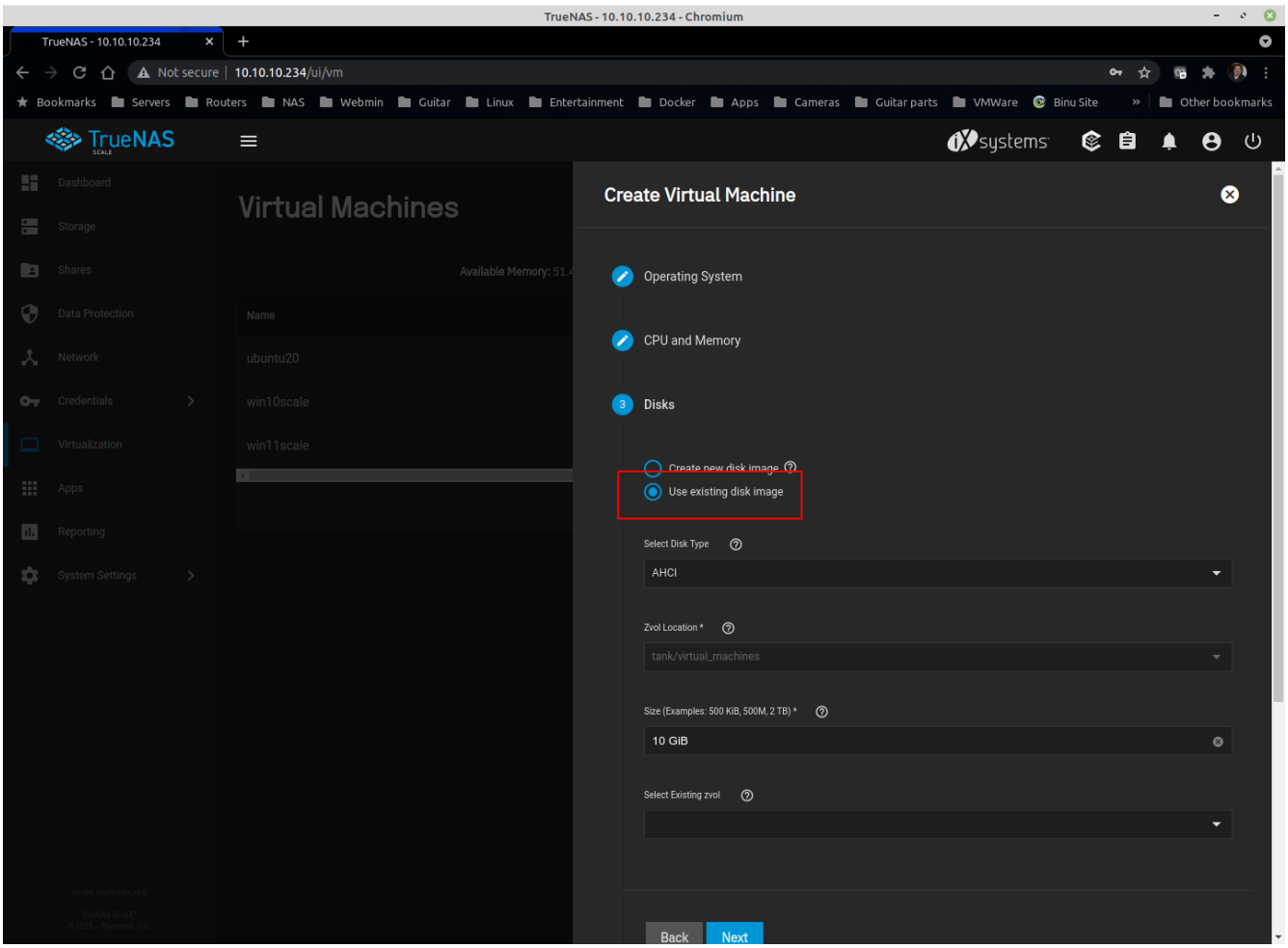
(*) Performed performance test with dd and rsync as above speed was very slow

**scale#** dd if=/dev/zero of=tmp.dat bs=2048k count=50k
51200+0 records in
51200+0 records out
107374182400 bytes (107 GB, 100 GiB) copied, 73.1564 s, 1.5 GB/s

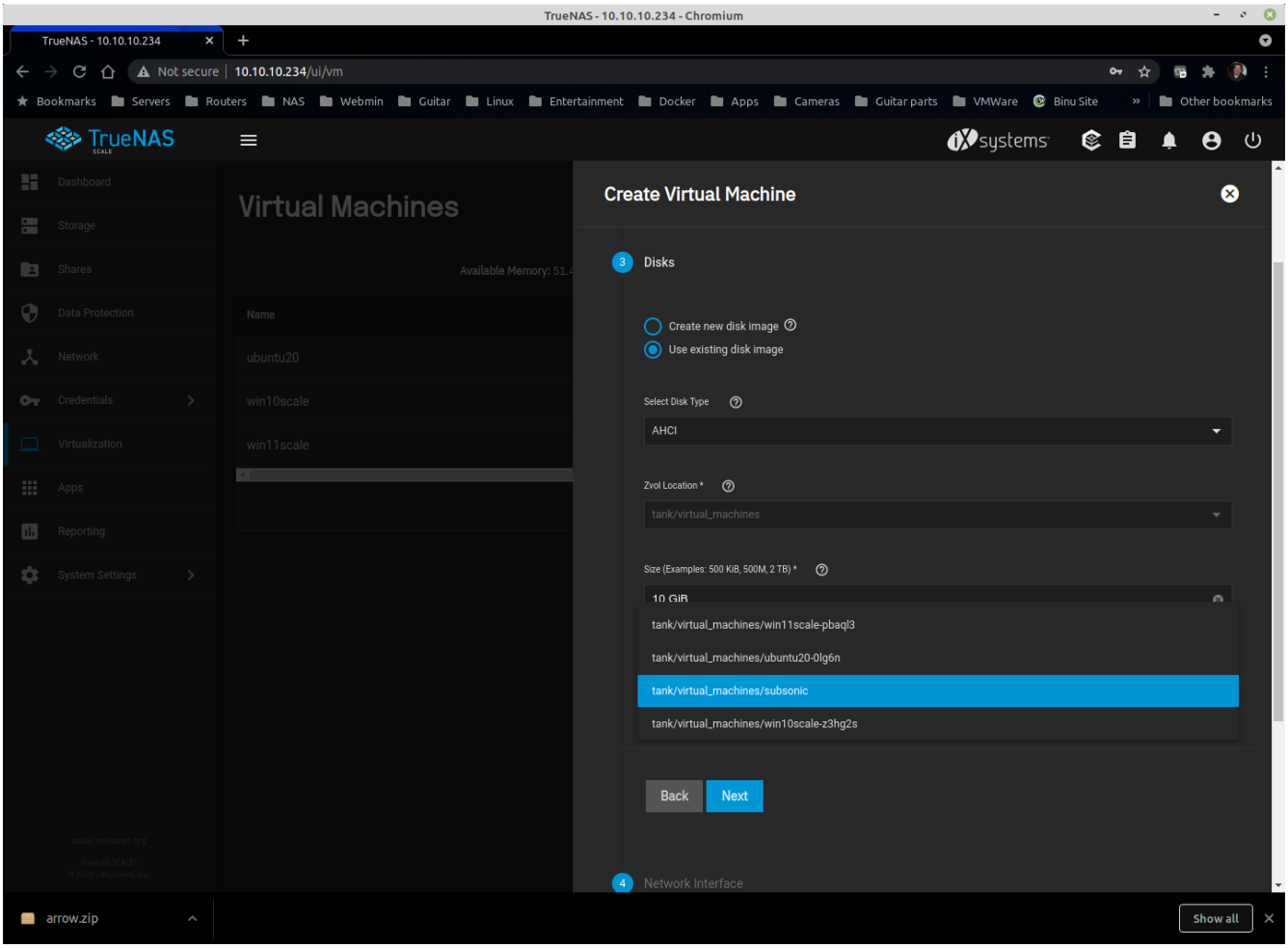
**scale#** rsync -a --progress /mnt/tank/cifs/ ./
sending incremental file list
./
mello/
mello/.bash_logout
          220 100%    0.00kB/s    0:00:00 (xfr#1, to-chk=9/13)
mello/.bashrc
        3,526 100%   88.29kB/s    0:00:00 (xfr#2, to-chk=8/13)
mello/.profile
          807 100%   13.36kB/s    0:00:00 (xfr#3, to-chk=7/13)
repository/
repository/Windows 11 x64 - TheWindowsForum.com.iso
  4,874,553,344 100%   69.57MB/s    0:01:06 (xfr#5, to-chk=5/13)
repository/subsonic.img
 68,719,476,736 100%  299.93MB/s    0:03:38 (xfr#6, to-chk=4/13)
repository/ubuntu-20.04.2-live-server-amd64.iso
  1,215,168,512 100%  112.45MB/s    0:00:10 (xfr#8, to-chk=2/13)

6) Create the VM

- Follow the screens to set the OS, CPU and Memory.
- On Disks screen, select Use existing disk image



- Select the zvol created on step 4




- Finish the VM configuration as required/needed
- Start the VM

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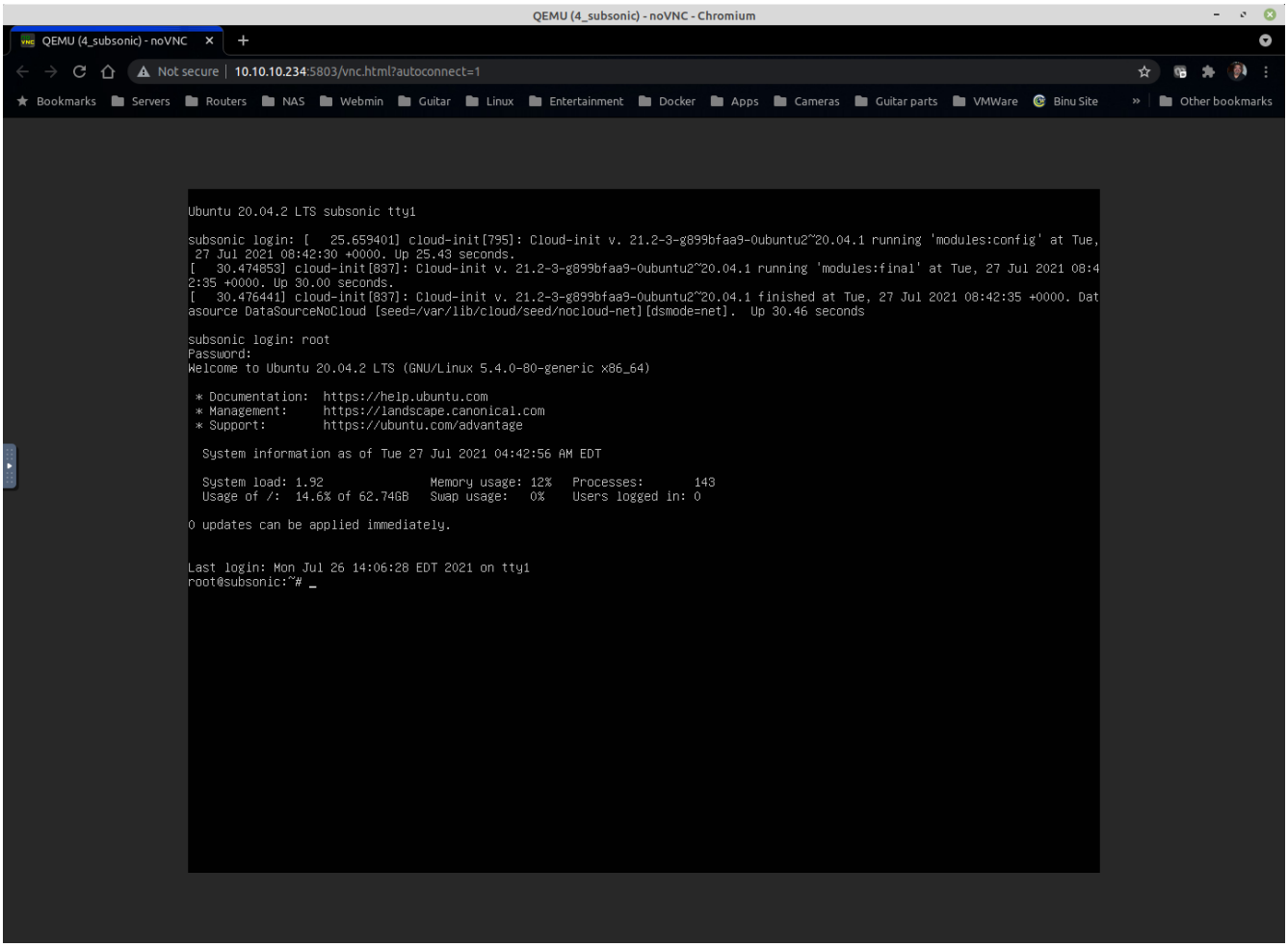
QEMU (4_subsonic) - noVNC - Chromium
QEMU (4_subsonic) - noVNC
Not secure | 10.10.10.234:5803/vnc.html?autoconnect=1
Bookmarks Servers Routers NAS Webmin Guitar Linux Entertainment Docker Apps Cameras Guitar parts VMWare Binu Site Other bookmarks
Ubuntu 20.04.2 LTS subsonic tty1
subsonic login: [ 25.659401] cloud-init[795]: Cloud-init v. 21.2-3-g899bfaa9-0ubuntu2~20.04.1 running 'modules:config' at Tue, 27 Jul 2021 08:42:30 +0000. Up 25.43 seconds.
[ 30.474853] cloud-init[837]: Cloud-init v. 21.2-3-g899bfaa9-0ubuntu2~20.04.1 running 'modules:final' at Tue, 27 Jul 2021 08:42:35 +0000. Up 30.00 seconds.
[ 30.476441] cloud-init[837]: Cloud-init v. 21.2-3-g899bfaa9-0ubuntu2~20.04.1 finished at Tue, 27 Jul 2021 08:42:35 +0000. Datasource DataSourceNoCloud [seed=/var/lib/cloud/seed/nocloud-net][dsmode=net]. Up 30.46 seconds
subsonic login: root
Password:
Welcome to Ubuntu 20.04.2 LTS (GNU/Linux 5.4.0-80-generic x86_64)
* Documentation: https://help.ubuntu.com
* Management: https://landscape.canonical.com
* Support: https://ubuntu.com/advantage
System information as of Tue 27 Jul 2021 04:42:56 AM EDT
System load: 1.92 Memory usage: 12% Processes: 143
Usage of /: 14.6% of 62.74GB Swap usage: 0% Users logged in: 0
0 updates can be applied immediately.
Last login: Mon Jul 26 14:06:28 EDT 2021 on tty1
root@subsonic:~# _

Issues

1) No IP address

Cause:

- Original VM from ESXi had interface named ens160;
- Migrated VM has an interface configured as ens3

Solution:

- Edit the configuration file under /*etc*/netplan and change the interface name from the old to the new one. File type `yaml`.
- Execute *netplan apply* to obtain an ip address