How to Snapshot and Backup VM on CAPS-OS v5.x

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capsule TECHNOLOGIES

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Principles

This guide describes the steps to create snapshot and backup of VMs on CAPSOS v5.x
If any of this steps is failing please report to support@capsule-vm.com with as much details as possible to allow our support team to reproduce the issue.

WARNING: If you are running a setup with failover features enabled, the failover cluster must be first disable before manipulating VM images.

Automatic Snapshot Operation

The method relies on the tool capsvm_makesnapshot which is available from caps-vm 6.x

capsvm_makesnapshot is creating a snapshot of ALL the VMs in a dedicated space located by default in /VM_SNAPSHOTS
capsvm_makesnapshot is called automatically every Sunday at 1am and store up to 6 snapshots of all the VM.

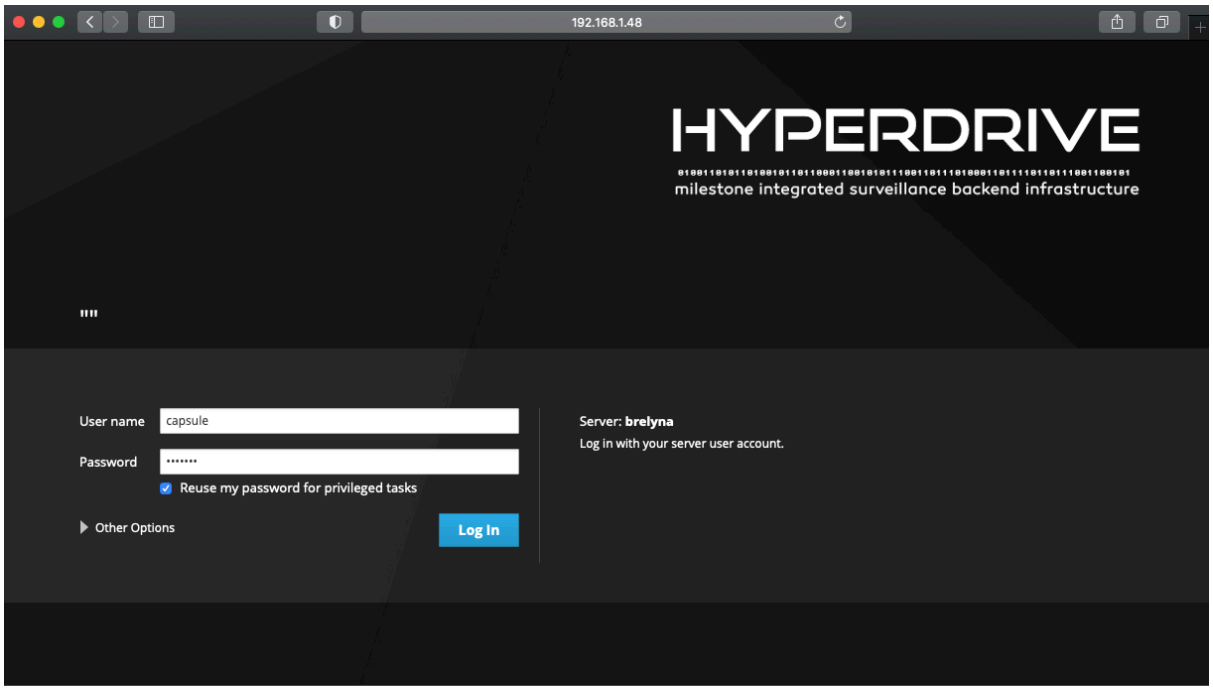
Therefore 6 weeks of snapshots are available from all the VMs for restore operations.

Note: capsvm_makesnapshot can be called manually from command prompt to force a new snapshots to be taken.

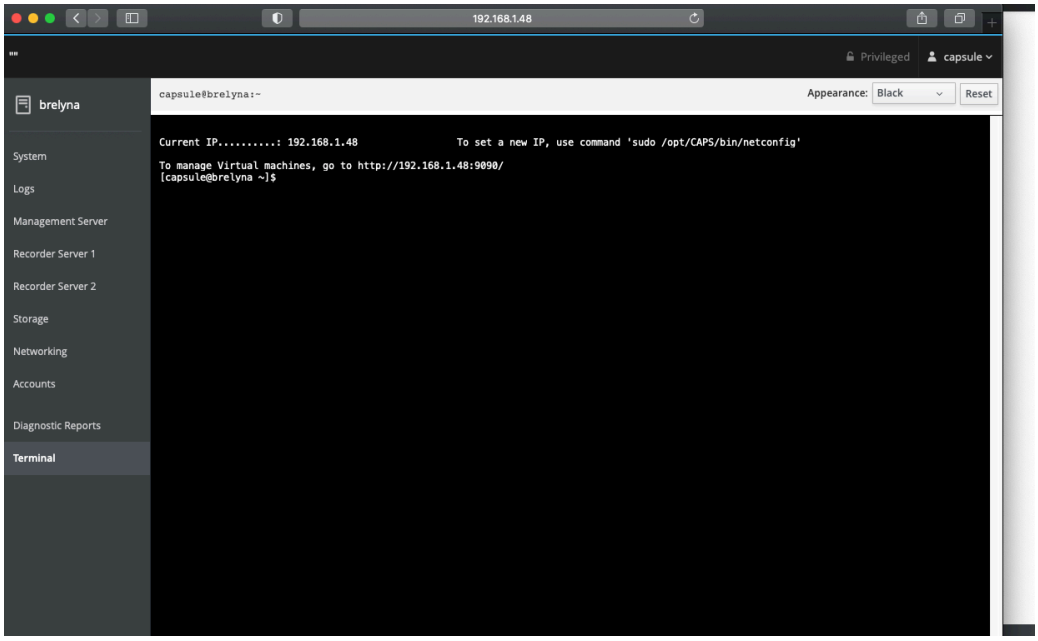
Restore a Snapshots from VM_SNAPSHOTS

Log into the web graphic user interface

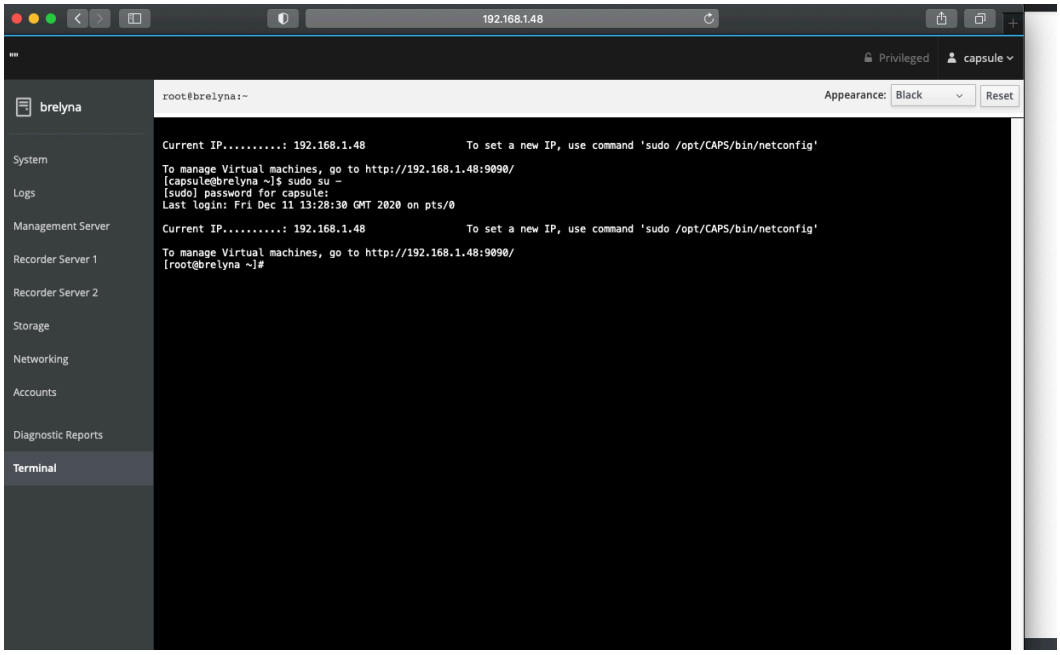
Use the login capsule (password capsule) and make sure you check the box “Reuse my password for privileged tasks”



Switch as root user in the terminal window



Using the command **sudo su -** ,password is **capsule**

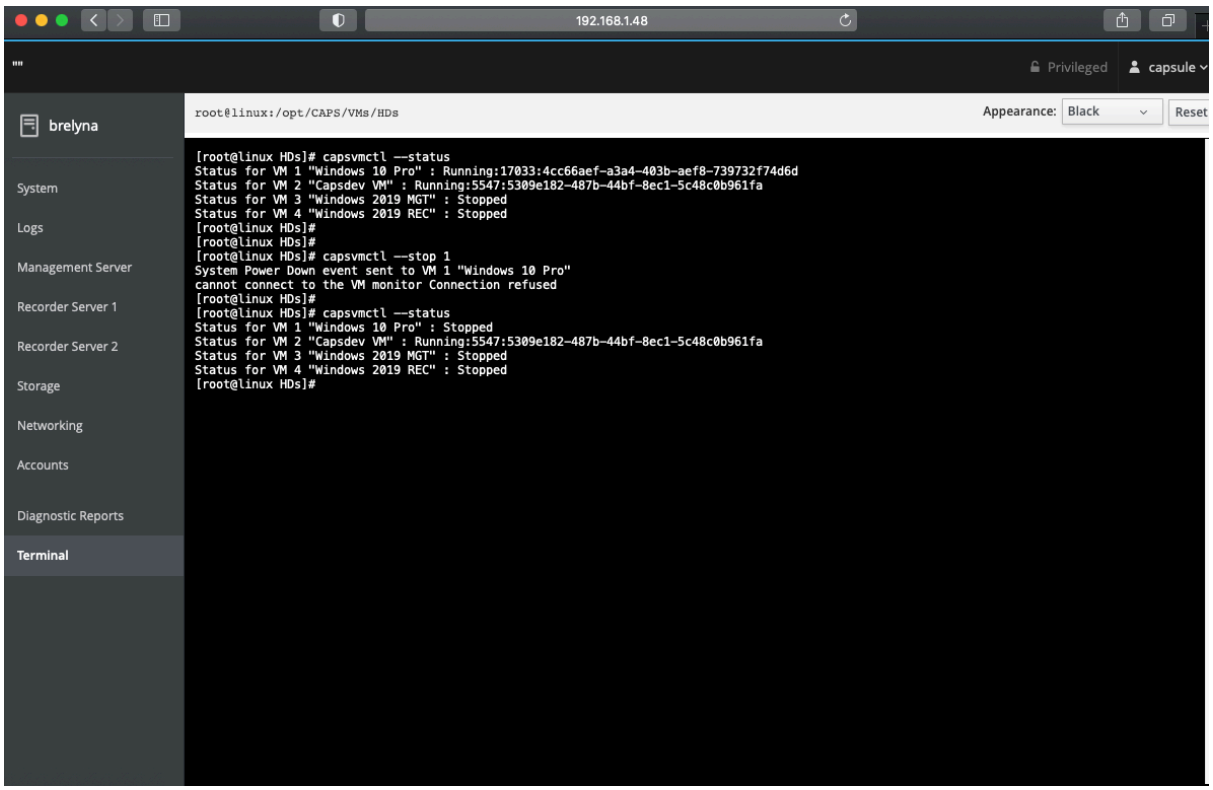


Shutdown of the VM

The VM must be shutdown prior to restore.

Command capsvmctl - -stop can be used

In this example capsvmctl - -stop 1 to shutdown the VM with id 1



Restore snapshot image

From the /VM_SNAPSHOTS folder, determine the latest version of the snapshot, by reading the file lastslot.txt, this information is retuned with the following command:

cat /VM_SNAPSHOTS/lastslot.txt

it will return a number from 1 to 6

if the return number is 4 for example, it means the latest backup of the VMs is available in slot 4.

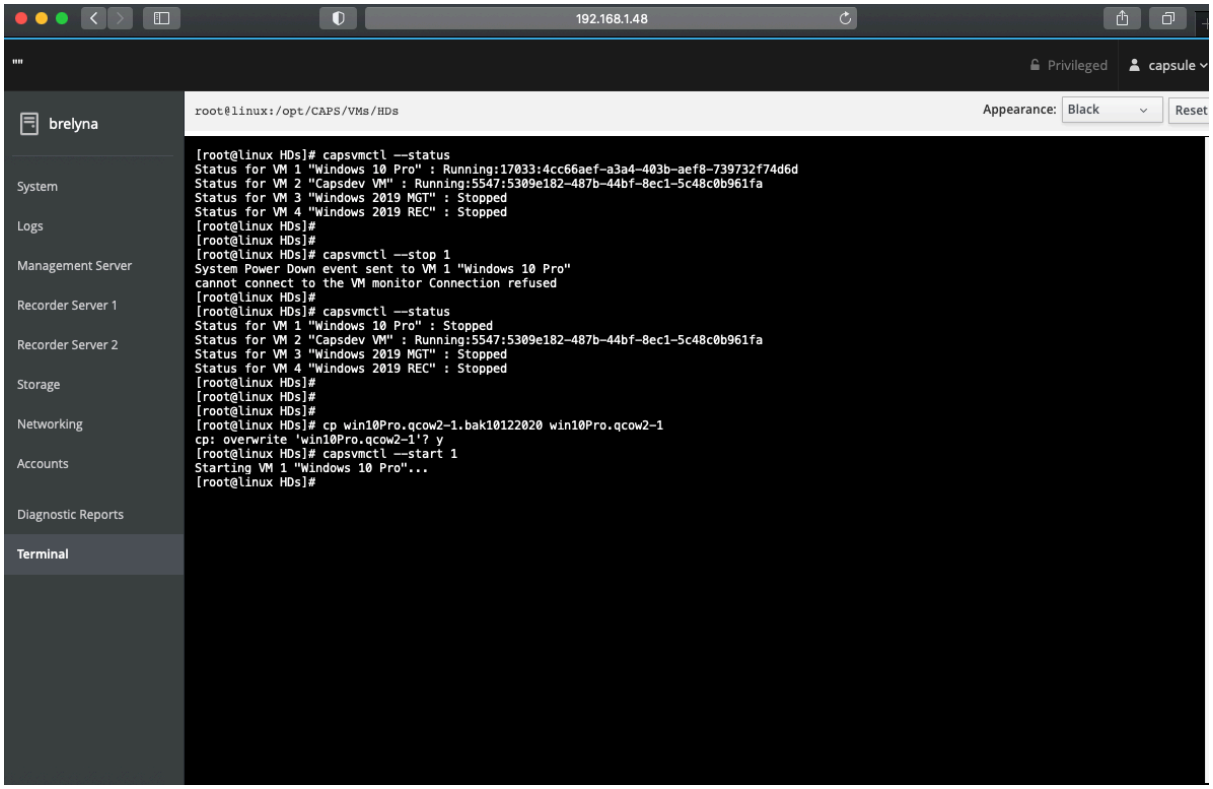
The next step is to restore the VM image into the /opt/CAPS/VMs/HDs folder

For example:

cp /VM_ANSPSHOTS/4/fr_windows2019_std_iot_sysprep_01032021.qcow2-1/opt/CAPS/VMs/HDs

Restart of the restored VM

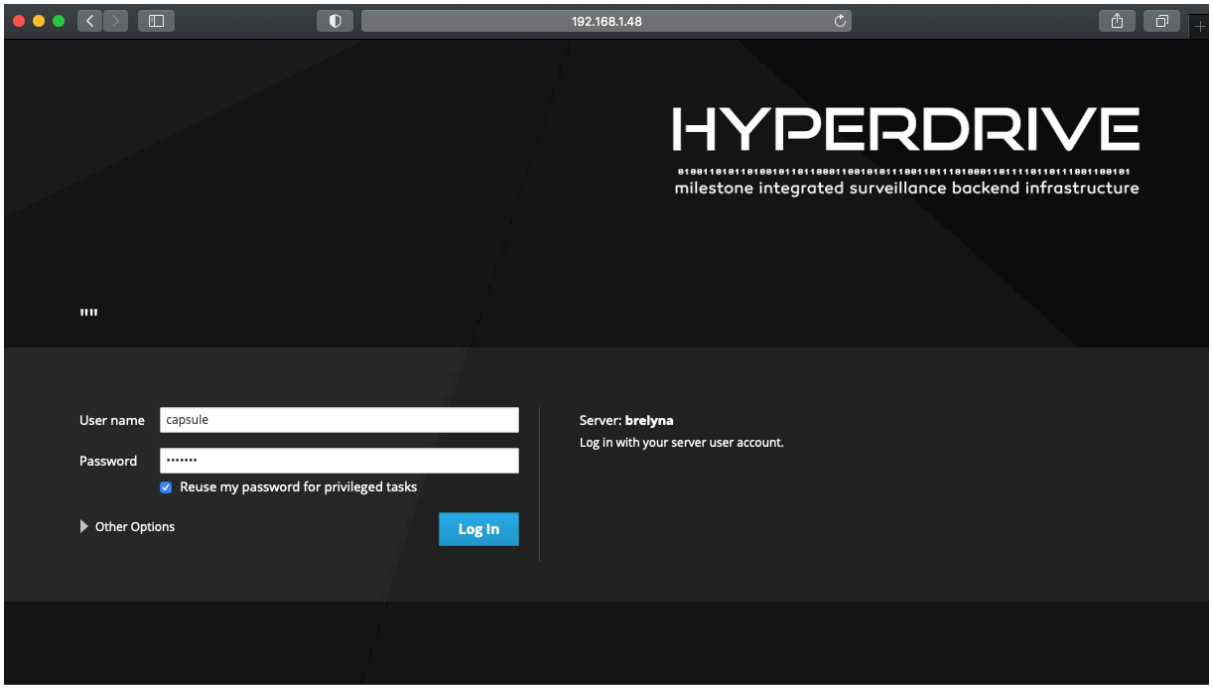
Restart the VM using the capsvmctl - -start command, in this example:
capsvmctl - - start 1



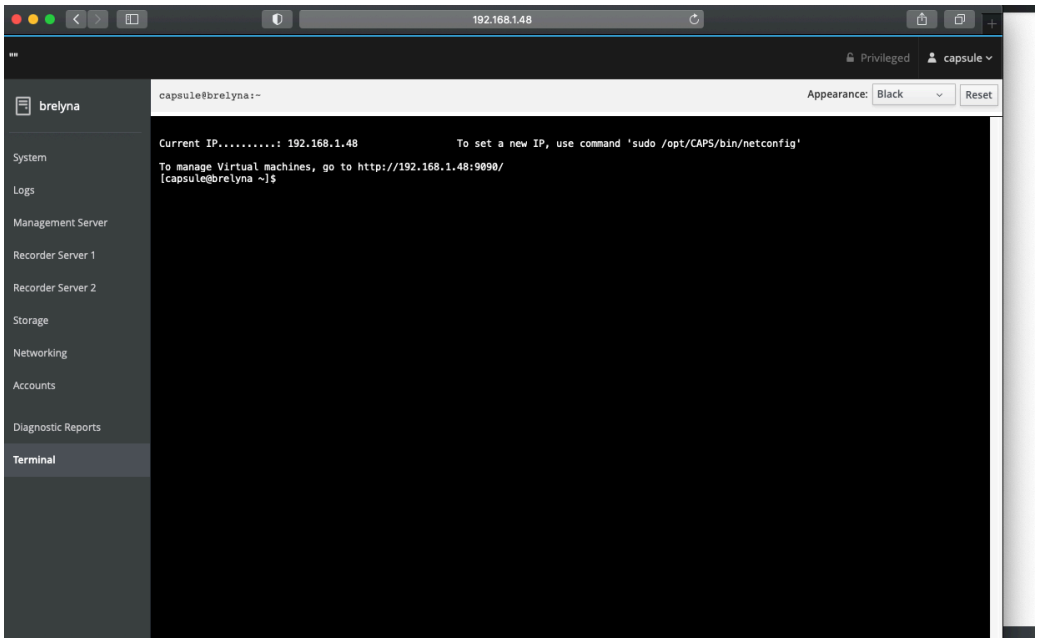
Create a Snapshot and Restore it manually

Log into the web graphic user interface

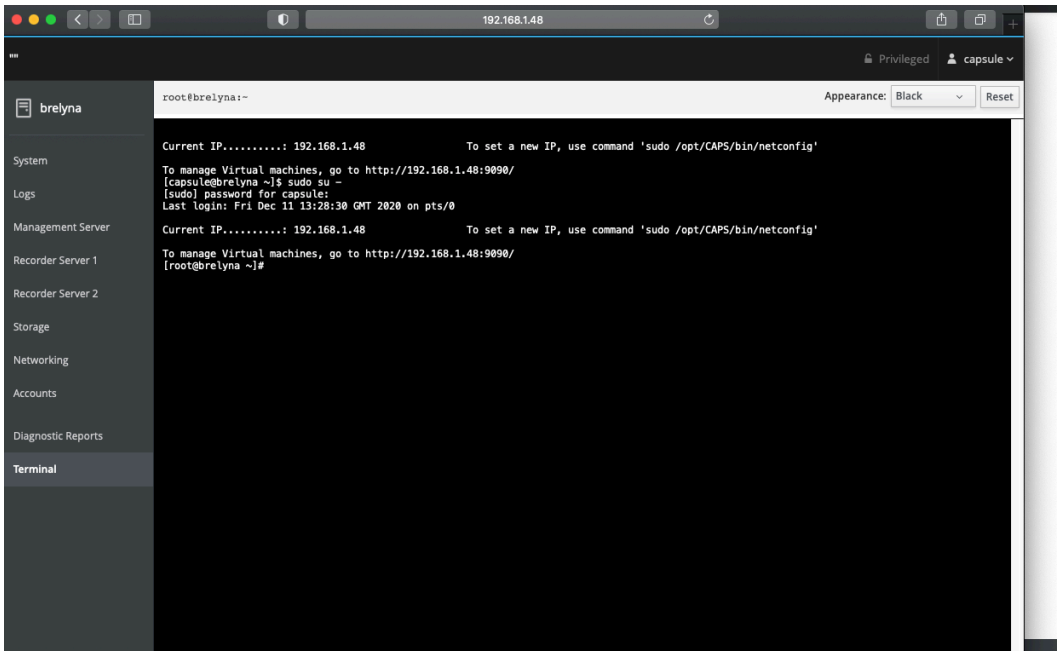
Use the login capsule (password capsule) and make sure you check the box “Reuse my password for privileged tasks”



Switch as root user in the terminal window

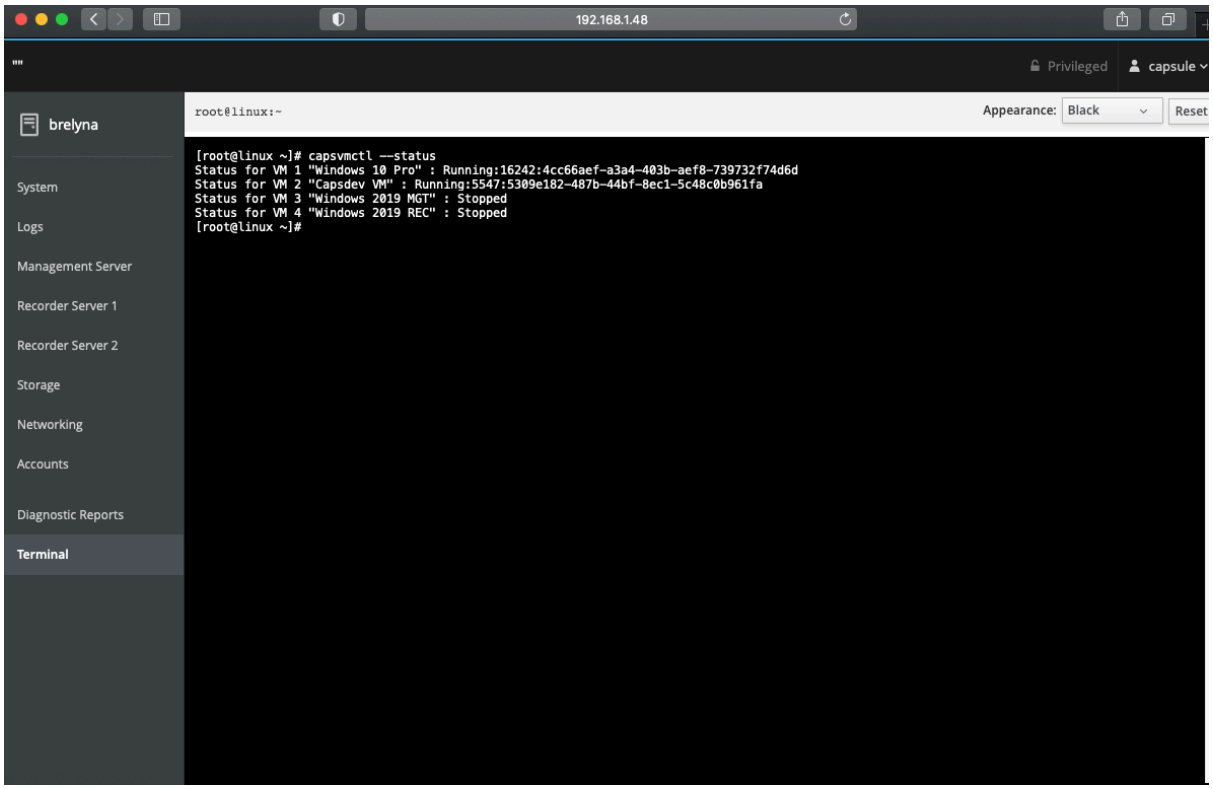


Using the command **sudo su -** ,password is **capsule**

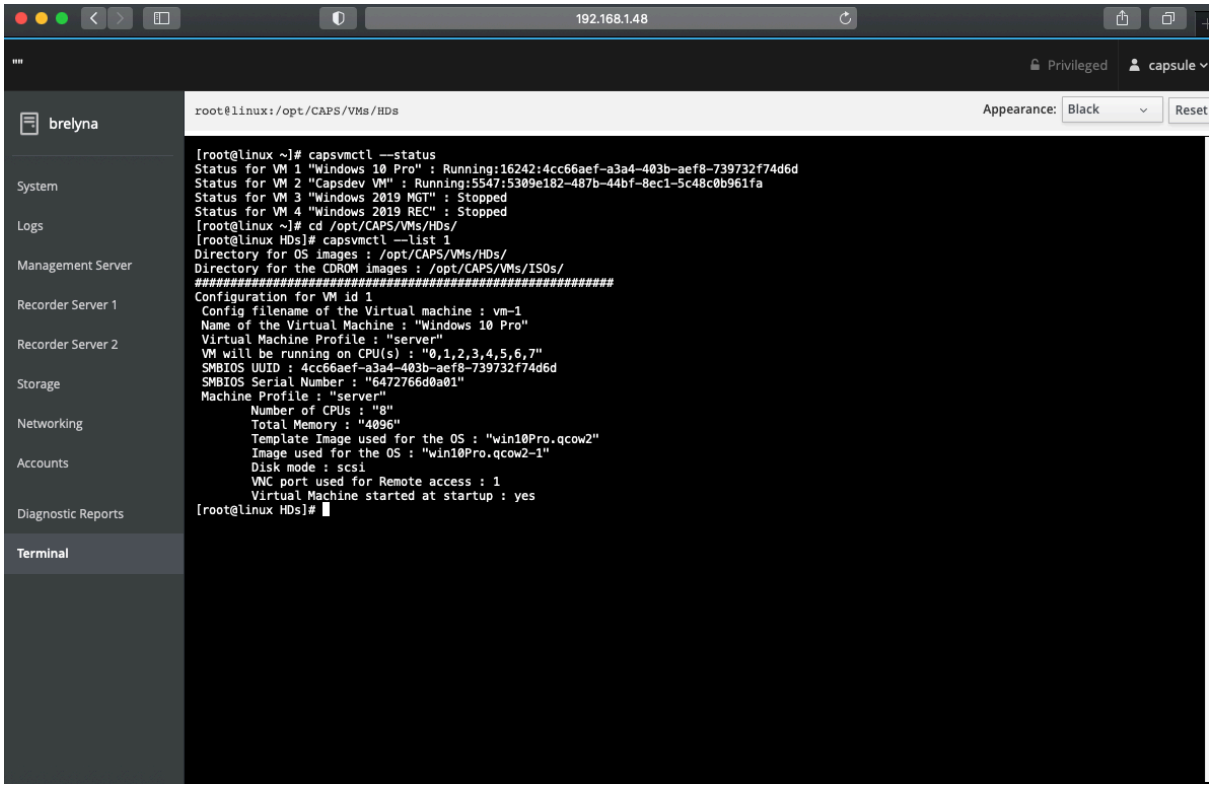


Identify running VMs on the system

Run the command capsvmctl --status to identified which VM is running currently.



Determine the filename of the VM image using capsvmctl --list n command where n is the id of the VM as listed with the command capsvmctl --status



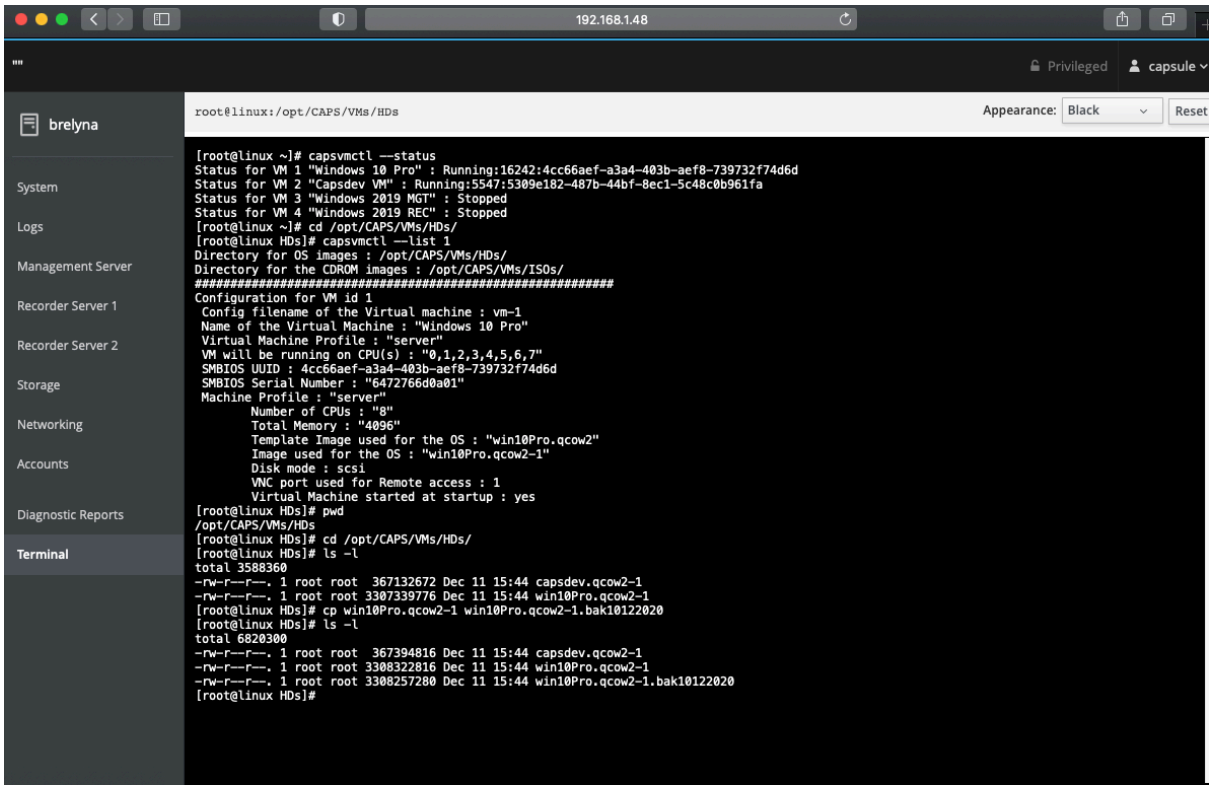
In this example the Working image is **win10Pro.qcow2-1** and the Template image is **win10Pro.qcow2**

On CAPS-OS v4 and higher:

Working images are stored in **/opt/CAPS/VMs/HDs**
Template images are stored in **/opt/CAPS/VMs/Templates**

Create a live snapshot

It can be done without shutting down the VM by using the cp command



In this example:

cd /opt/CAPS/VMs/HDs
cp win10Pro.qcow2-1 win10Pro.qcow2.bak10122020

win10Pro.qcow2.bak10122020 is the name of the snapshot

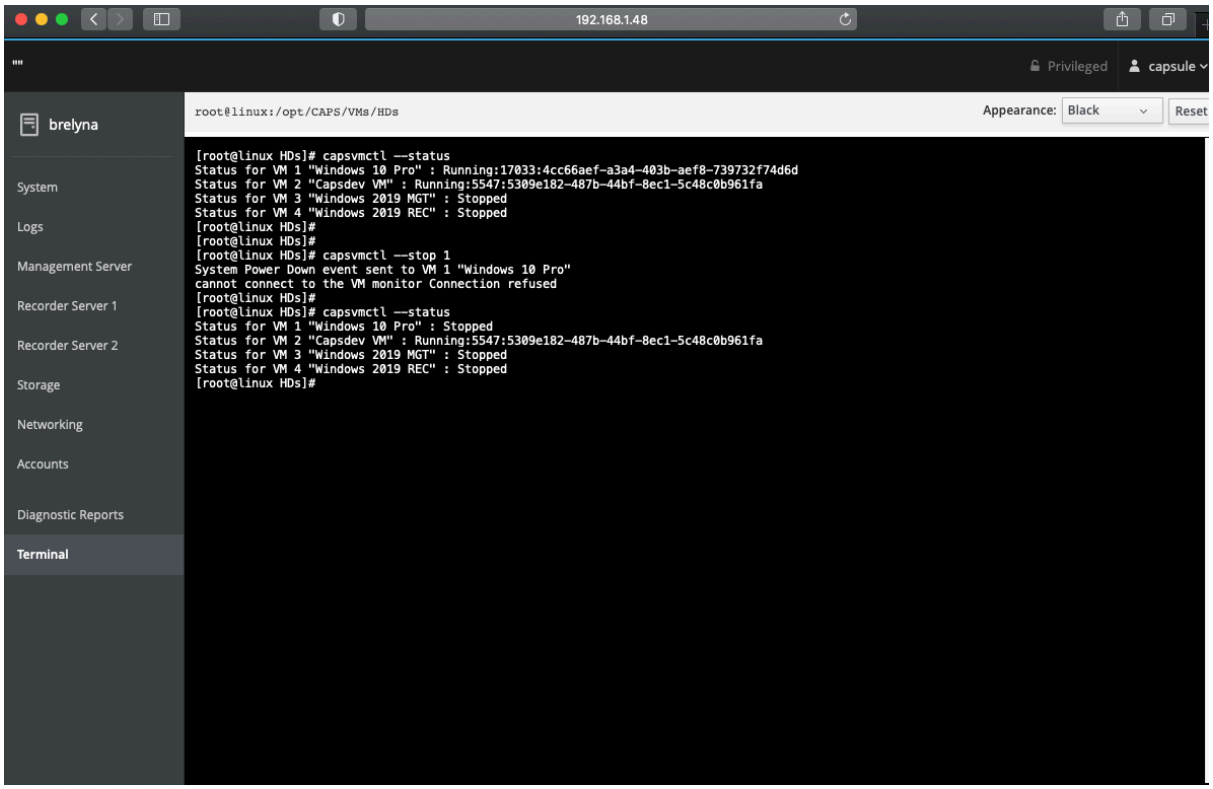
Restoring the snapshot image

Shutdown of the VM

The VM must be shutdown prior to restore.

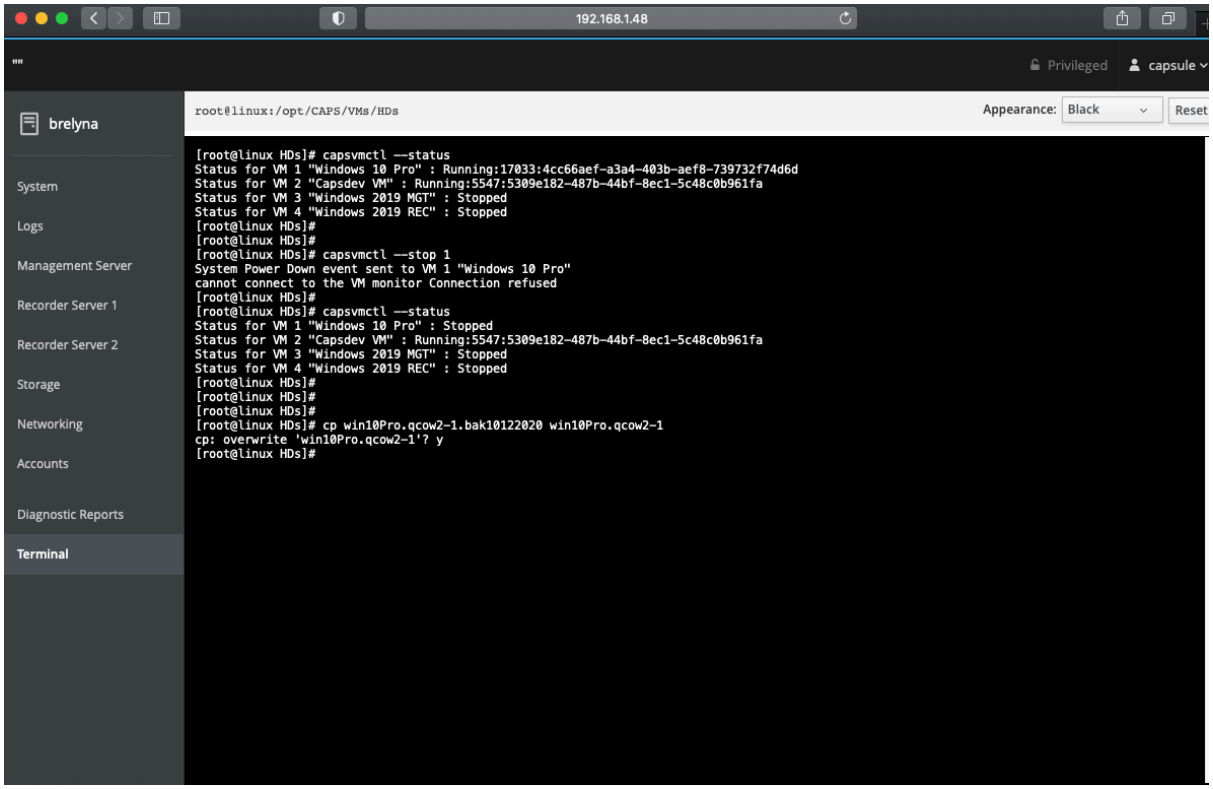
Command capsvmctl - -stop can be used

In this example capsvmctl - -stop 1 to shutdown the VM with id 1



Restore snapshot image

From the /opt/CAPS/VMs/HDs folder copy back the snapshot on the working image:

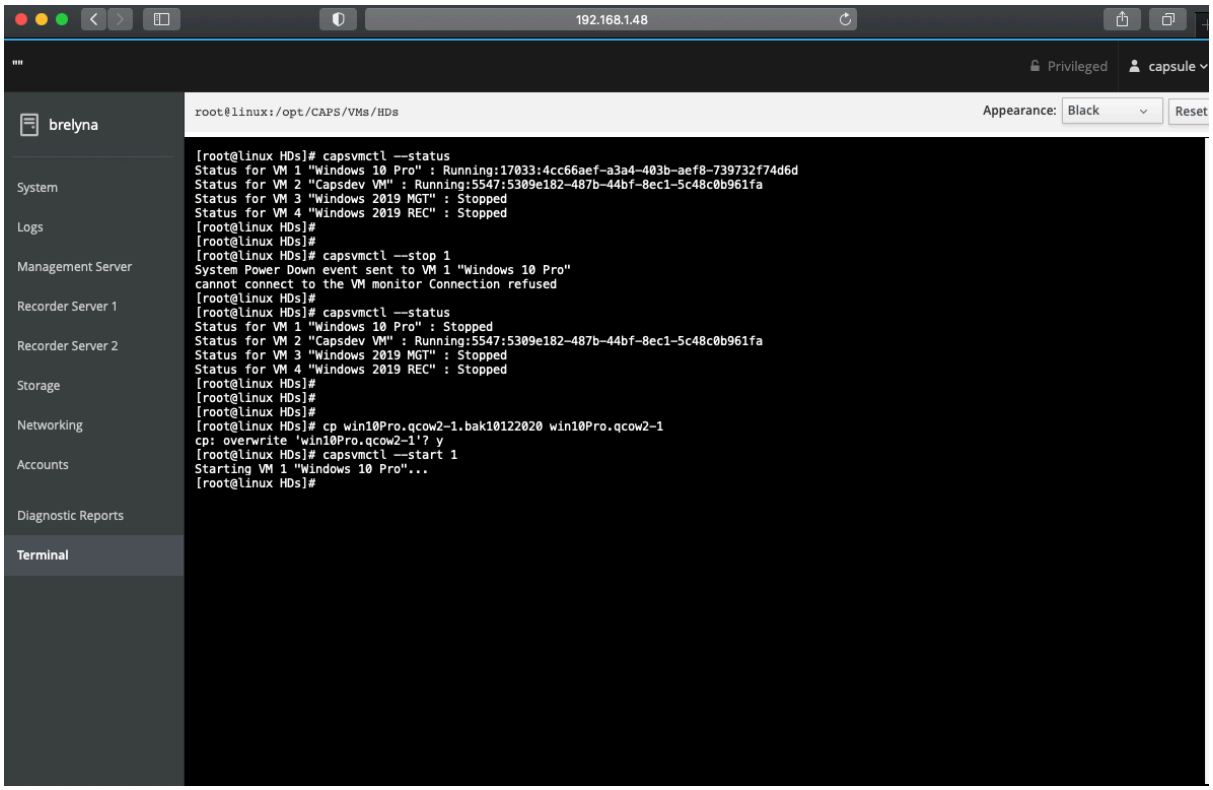


In this example:

cd /opt/CAPS/VMs/HDs
cp win10Pro.qcow2.bak10122020 win10Pro.qcow2-1

Restart of the restored VM

Restart the VM using the capsvmctl - -start command, in this example:
capsvmctl - - start 1



Commit of working image into template image

The principle is to commit the state of the current working image into the template image.

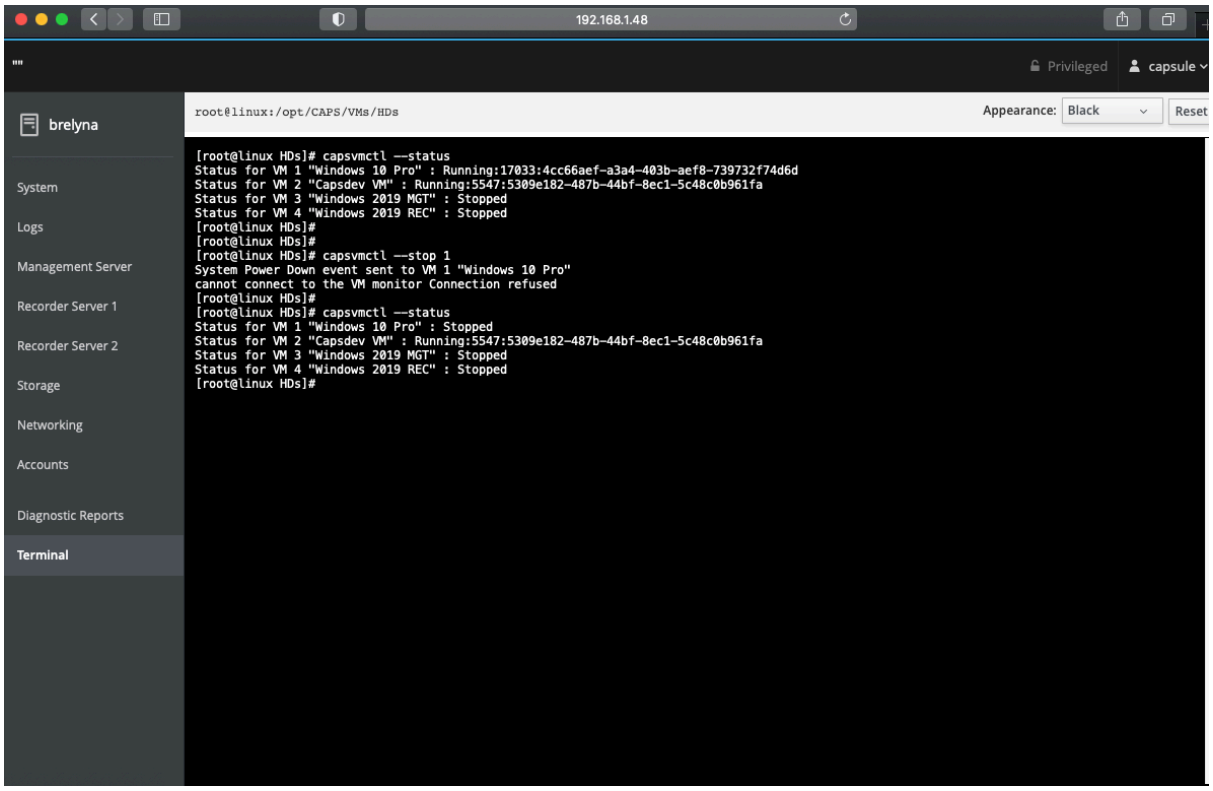
Please note that in a failover setup the template images must be identical between the primary and the secondary server.

Shutdown of the VM

The VM must be shutdown prior to restore.

Command capsvmctl - -stop can be used

In this example capsvmctl - -stop 1 to shutdown the VM with id 1



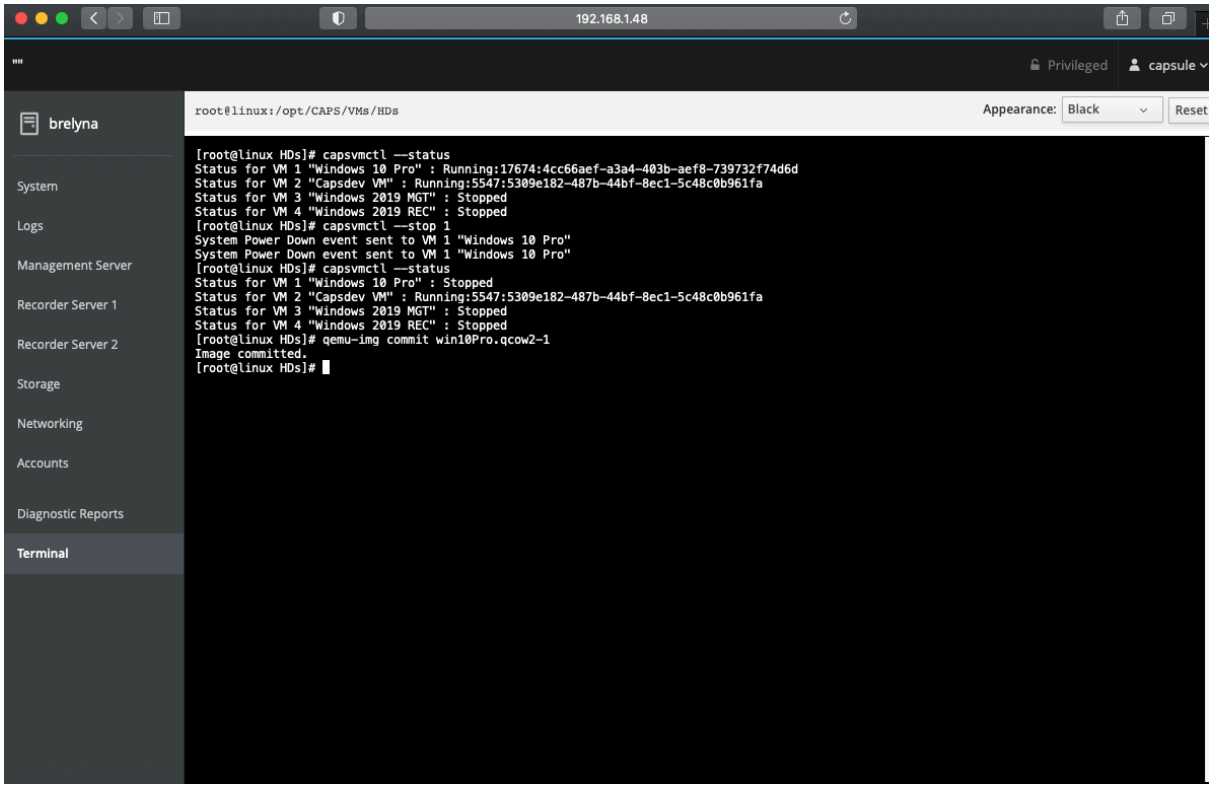
Commit working VM image

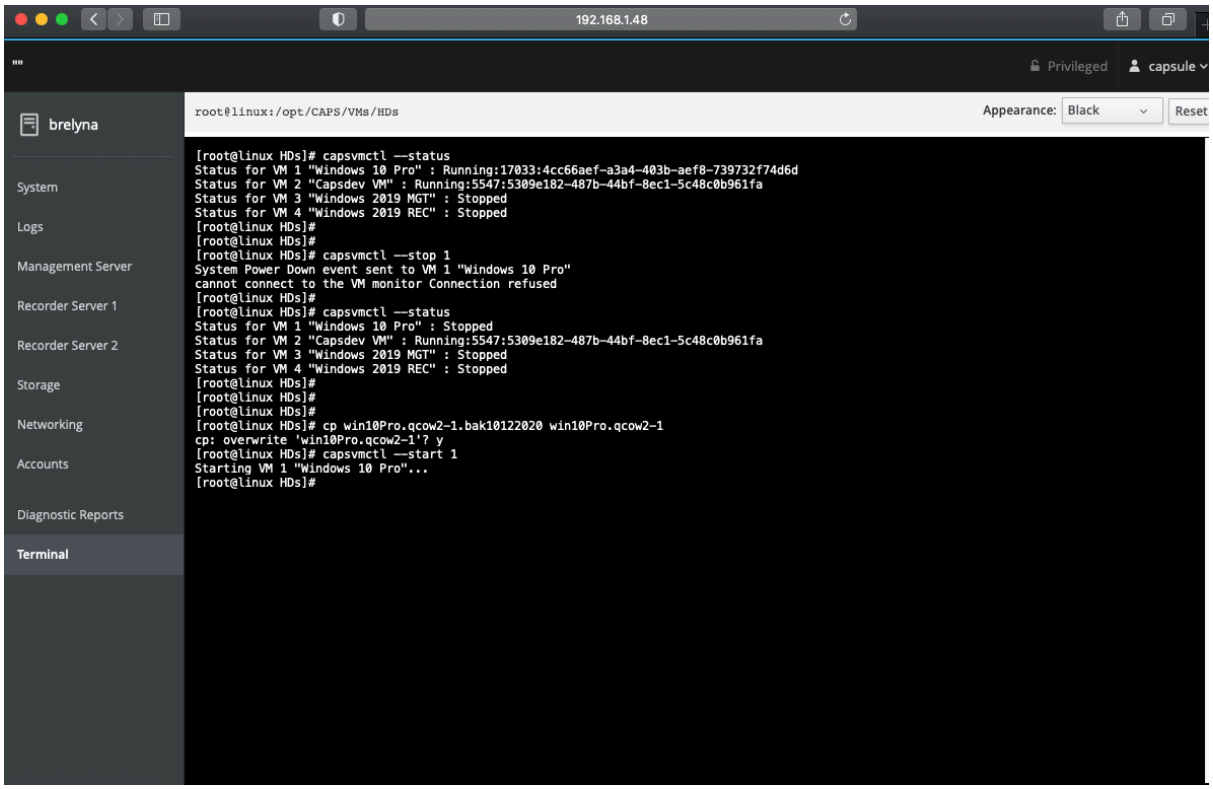
From the /opt/CAPS/VMs/HDs folder use the qemu-img commit command to commit the working image state into the template images.

In this example:

qemu-img commit win10Pro.qcow2-1

Note : this operation can take several minutes



Restart of the VM

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capsvmctl - - start 1