**Storage Expansion Procedures**

* **Task 1: Add New Disk in vCenter**
* Log in to vCenter and select the virtual machine.
* Go to Edit Settings > Add Device > Hard Disk > Add a new hard disk size which is specified in GB/TB.
* Save the configuration.
* The new virtual hard disk will now appear to the server as an uninitialized disk.
* **Task 2: Expanding Storage on the server:-**
* Step 1: Identify the new disk by running the below command

Command: **lsblk**

* Step 2: Create a new partition on /dev/sdx

Command: **sudo fdisk /dev/sdx**

* Press n to create a new partition.
* Select p for a primary partition.
* Accept default values for partition number, first sector, and last sector.
* Set type to LVM by pressing t, then entering 8e.
* Write and exit by pressing w.
* Step 3: Verify the partition

Command: **lsblk /dev/sdx1**

* Step 4: Create a Physical Volume (PV) (If the server has LVS & VGS)

Command: **sudo pvcreate /dev/sdx1**

* Step 5: Extend the Volume Group (VG) (If the server has LVS & VGS)

Command: **sudo vgextend volume\_group\_name /dev/sdx1**

**(Volume Group Name according to the Server)**

* Step 6: Extend the Logical Volume (LV)

Command: **sudo lvextend -L+size\_in\_gb(G)/tb(T) /dev/mapper/volume\_group\_name-mount\_point**

* Step 7: Resize the Filesystem if the file system is XFS

Command: **sudo xfs\_growfs /mount\_point**

* Step 8: Resize the Filesystem if the file system is ext4

Command: **sudo resize2fs /dev/mapper/ volume\_group\_name-mount\_point**

* **Step 8: Verify Expansion**

**Command**: **df -h | grep /mount\_point**

Note:- The above procedures are for RPM based Servers and sdx must will specified with the correct name in place of ‘x’

* **Task 1: Add New Disk in vCenter**
* Log in to vCenter and select the virtual machine.
* Go to Edit Settings > Add Device > Hard Disk > Add a new hard disk size which is specified in GB/TB.
* Save the configuration.
* The new virtual hard disk will now appear to the server as an uninitialized disk.
* **Task 2: Mounting Storage on server to New Mounting Point**
* Step 1: Identify the new disk

Command: **lsblk**

* Step 2: Create a Partition

Command: **sudo fdisk /dev/sdx**

* Press n to create a new partition.
* Select p for a primary partition.
* Accept default values for partition number, first sector, and last sector.
* Write and exit by pressing w.
* Step 3: Format the Partition if the file system is ext4

Command: **sudo mkfs.ext4 /dev/sdx1**

* Step 4: Format the partition if the file system is xfs

Command: **sudo mkfs.xfs /dev/sdx1**

* Step 5: Create a Mount Point

Command: **sudo mkdir -p /new/mount\_point**

* Step 6: Mount the New Partition

Command: **sudo mount /dev/sdx1 /created\_new/mount\_point**

* Step 7: Make Mount Persistent so if the server got reboot the mount point will be the same

Command: **echo '/dev/sdb1 /mnt/logging ext4 defaults 0 2' | sudo tee -a /etc/fstab**

* Step 8: Verify Mounting

Command: **df -h | grep /created\_new/mount\_point**

Note:- The above procedures are for Deb based Servers and sdx must will specified with the correct name in place of ‘x’