

# Increase CTERA Gateway Cache Storage in ESXi

The amount of storage that can be used by a CTERA Edge Filer (gateway) is dependent on the license:

- For an EV16 license the maximum is 16TB.
- For an EV32 license the maximum is 32TB.
- For an EV64 license the maximum is 64TB.
- For an EV128 license the maximum is 128TB.

CTERA recommends that the maximum storage is defined as a single disk when the virtual gateway is created, as described in the *CTERA Edge Filer (Gateway) Installation Guide* for the platform.

**Note:** A VMware ESXi host limits disks to a maximum of 62TB. To support storage greater than 62TB, you need to create multiple disks, each less than 62TB and then create a JBOD or RAID0 array.

You can increase the storage available for a gateway:

- When the volume defined in the gateway does not use all the available storage.
- When the volume defined in the gateway does use all the available storage, for example, when a license is changed, allowing for more storage, or when the initial storage allocated was not the maximum and needs to be increased up to the maximum.
- When the storage was defined over multiple disks in an array.

When first setting up the gateway, CTERA recommends formatting the disk as described in the *CTERA Edge Filer (Gateway) Installation Guide* for the platform, before creating the volume or defining a JBOD array for the disk. The formatting is done as part of the setup wizard, in the Easy Setup Setup screen.

## Increasing a Volume Size When Additional Storage is Available for the Volume

**To enlarge a volume in an ESXi virtual gateway:**

1. Log on to the gateway as an administrator.
2. In the **CONFIGURATION** tab, select **Storage > Volumes** in the navigation pane.  
The Volumes page is displayed.
3. Select the volume and click **Edit**.  
The Specify Volume Details screen is displayed.
4. Move the **Volume Size** slider to increase the volume storage.

**Note:** XFS volumes cannot be shrunk.

## Increasing a Volume Size When Additional Storage is Not Available

The following procedure assumes that when first setting up the gateway, as described in *CTERA Edge Filer (Gateway) Installation Guide* for the platform, an array was not created. If this is not the case, and a JBOD or RAID0 array was created, refer to *Increasing Available Storage When an Array was Defined*. If the volume was not formatted and an array was not created, do the following:

1. Make sure that the portal is fully synced with the gateway.
2. Disconnect the gateway from the portal.
3. Delete the volumes.
4. Format the disk.
5. Redefine the volumes.

When the gateway is reconnected with the portal, it will be repopulated with the data from the portal. However the procedure can take many hours during which time the gateway will be unavailable.

**To enlarge a volume in an ESXi virtual gateway:**

1. In the vSphere Client, power off the virtual machine.
2. Right-click the Virtual Gateway VM and select **Edit Settings**.  
The configuration is displayed for the Virtual Gateway.
3. Change the disk size to be greater than it was. The maximum disk size is dependent on the virtual gateway license.  
For an EV16 license the maximum is 16TB.  
For an EV32 license the maximum is 32TB.  
For an EV64 license the maximum is 64TB.  
For an EV128 license the maximum is 128TB.  
**Note:** A VMware ESXi host limits disks to a maximum of 62TB. To support storage greater than 62TB, you need to create multiple disks, each less than 62TB and then create an array of these disks in RAID 0.
4. Click **OK**.
5. Power on the virtual machine and follow the instructions in *Increasing a Volume Size When Additional Storage is Available for the Volume*

## Increasing Available Storage When an Array was Defined

**Note:** Adding a disk, for example when the original disk is already 62TB, which is the maximum VMDK size supported by an ESXi host, does not enable increasing the volume size unless the original disk was configured as a JBOD or RAID0 array, since the two disks are separate. If a JBOD or RAID0 array was defined for the original disk, then after adding a new disk, it can be added to the array.

### To increase storage in an ESXi virtual gateway:

1. In the vSphere Client, power off the virtual machine.
2. Right-click the Virtual Gateway VM and select **Edit Settings**.  
The configuration is displayed for the Virtual Gateway.
3. Click **ADD NEW DEVICE** and select **Hard Disk** from the drop-down menu.
4. Specify the disk size. When configured as a Caching Gateway, CTERA recommends storage at least 20% of the Portal Global Name Space. The maximum storage is dependent on the license.  
For an EV16 license the maximum is 16TB.  
For an EV32 license the maximum is 32TB.  
For an EV64 license the maximum is 64TB.  
For an EV128 license the maximum is 128TB.  
**Note:** A VMware ESXi host limits disks to a maximum of 62TB. To support storage greater than 62TB, you need to create multiple disks, each less than 62TB and then create a JBOD or RAID0 array.
5. Expand the New Hard Disk item and set the Virtual Device Node to a SCSI controller.  
If a SCSI controller is not defined, you can add one by clicking Add other device and selecting SCSI Controller.
6. Click **OK**.
7. Power on the virtual machine.
8. Log on to the gateway as an administrator.
9. In the **CONFIGURATION** tab, select **Storage > Arrays** in the navigation pane.
10. Select the array and click **Edit**.  
The **Select drives to join this array** wizard is displayed, which shows you all drives available and asks you to select drives to join the array.
11. Check the **Member** box for each drive to include in the array.
12. Click **Next** to the end of the wizard and then click **Finish**.
13. Follow the instructions in *Increasing a Volume Size When Additional Storage is Available for the Volume*.