

DIVAR IP 3000 Appliance: Creating Mirrored Drive Sets

Purpose

The purpose of this technical brief is to assist with the creation of mirrored drive sets in a DIVAR IP 3000 Recording Appliance.

Introduction

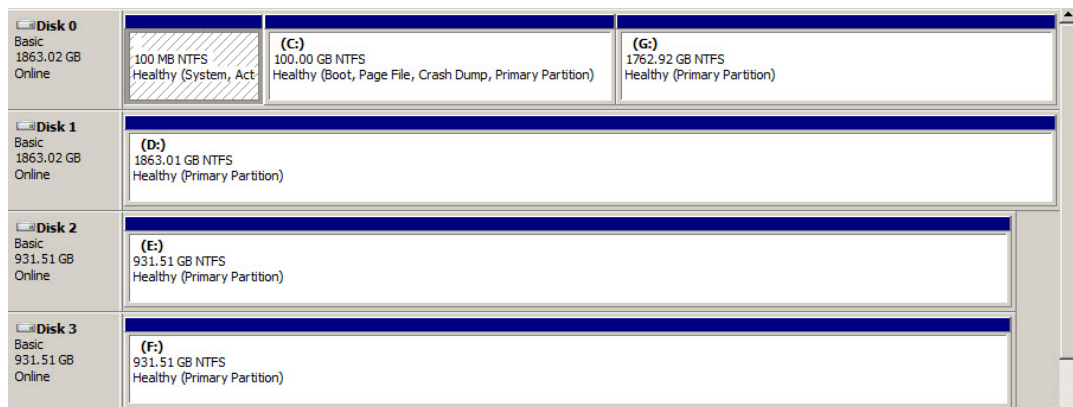
This procedure should be performed on new appliances that have not yet been deployed. Before performing this procedure you must aware of the following:

- Performing this procedure on a commissioned system will result in none specific video loss
- Re-imaging the appliance after performing this procedure will result in loss of all data and mirrored sets
- Mirroring must be performed in “Disk Management” and not with the chipset provided in the hardware
- Creating mirrored sets will result in a performance loss of 20%
- All mirrored drives will be converted to “Dynamic Disks” during the mirror creation process
- This process can be performed on a two or four drive units

Prior to Starting

Prior to starting it is important to understand the basic disk configuration of the DIVAR IP 3000 appliance:

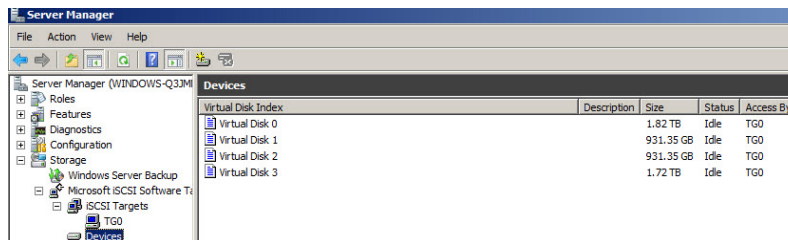
- The appliance performs JBOD disk management (Just a Bunch Of Disks), so there is no redundancy
- The appliance ships with two or four 2TB drives. In this document:
 - o Disk 0 and Disk 1 are factory installed 2TB drives
 - o Disk 2 and Disk 3 are 1TB customer added storage drives
 - o The appliance was reimaged to factory defaults prior to performing this procedure
- Disk 0 contains two partitions which consist of the OS partition (C:) and a Storage partition (G:)
- Partitions D:\ and F:\ will be deleted and used as mirror targets (Disk 1 and Disk 3)



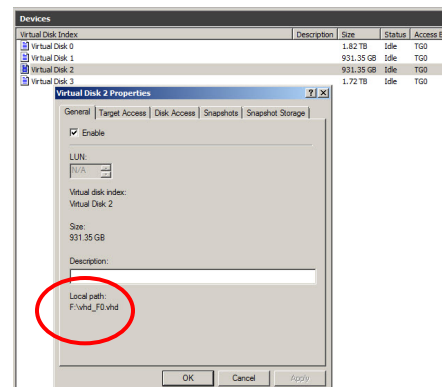
Step 1:

All storage drives contain Virtual Hard Disks (VHDs) that act as iSCSI Targets for Video Recording Manager (VRM). The first step in the mirroring process is to record which VHD is located on which physical hard drive.

- From “Server Manager” select: Storage/ Microsoft iSCSI Software Target / iSCSI Targets / Devices Submenu
- The systems VHDs should be listed in the “Devices” window

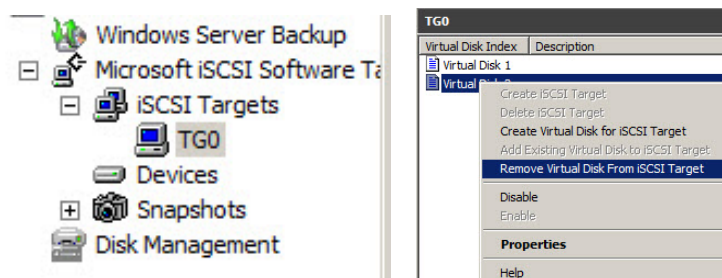


- Right click each of the VHDs and select “Properties”
- Record what drive letter each resides on

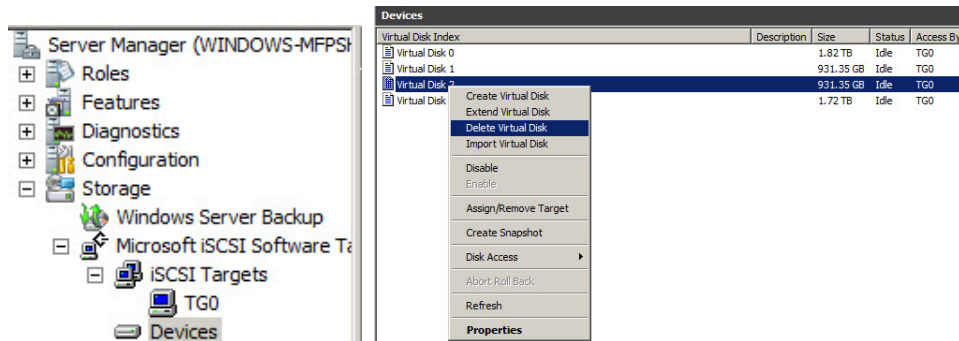
**Step 2:**

After identifying the VHDs on the physical hard drives that will act a mirror targets, the VHDs need to be remove from the system so they do not cause erroneous error messages after the mirroring process.

- Select the “TGO” iSCSI Target icon
 - o With the icon highlighted select and right click the Virtual Disks associated with partitions D: and F:
 - o Select “Remove Virtual Disk From iSCSI Target”



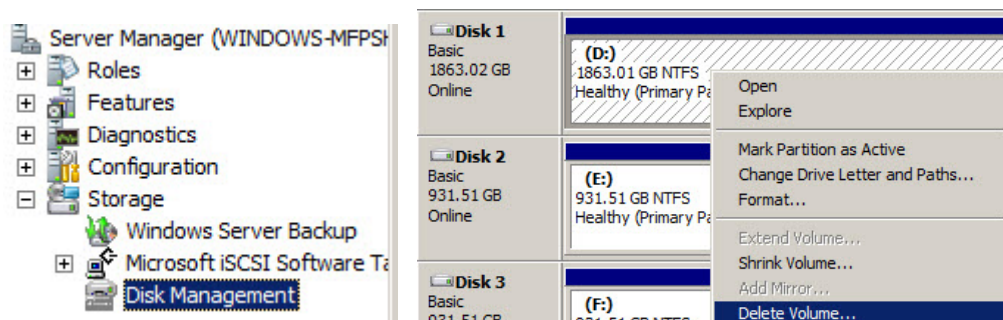
- Select the “Devices” icon
 - With the icon highlighted select and right click the Virtual Disks associated with partitions D: and F:
 - Select “Delete Virtual Disk”



Step 3:

The drives that will act as mirror targets, D: and F: in this example, need to be prepared to be included in the mirror set

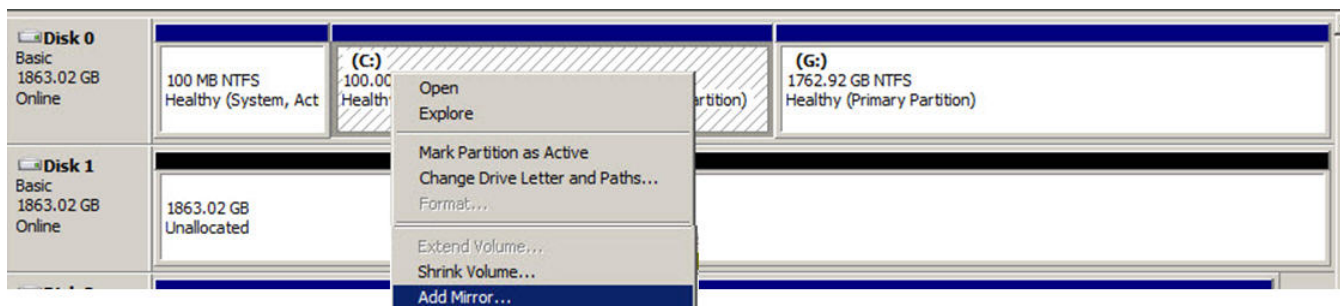
- Select the “Disk Management” icon
- Right click the D: drive (Disk 1) and select “Delete Volume”
- You will receive a message that states “The partition (D:) is currently in use. To force deletion select yes”
 - Select “Yes”
- Repeat this process for the F: drive (Disk 3). Both Drives should appear as “Unallocated”



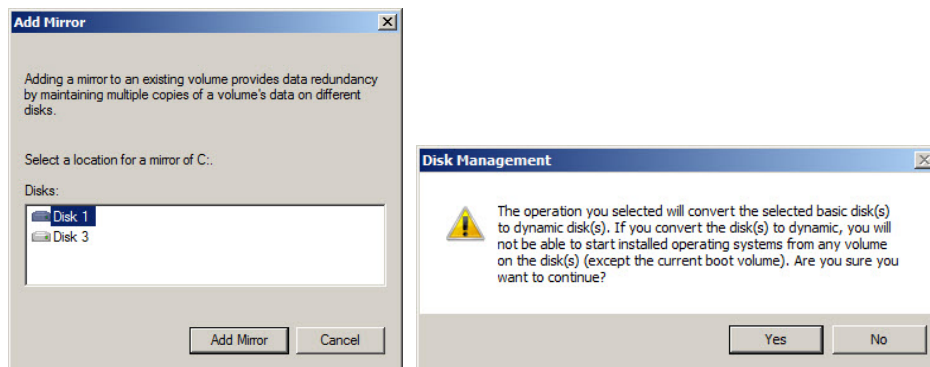
Step 4:

The last step is to create mirrored sets

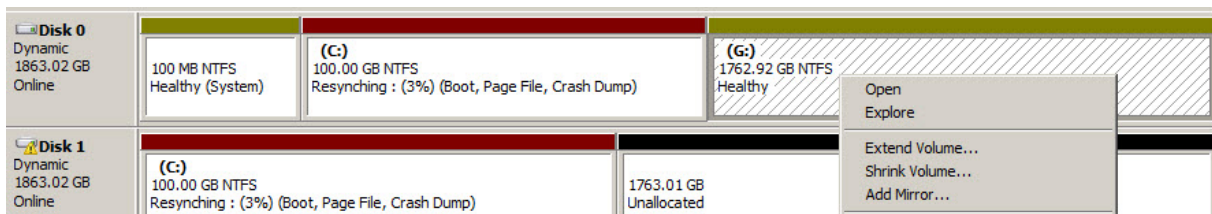
- Right Click the C: drive and select the “Add Mirror....” Menu option



- The add mirror pop-up menu will appear
 - o Select the Disk 1.
 - o If the device is equipped with disks of different sizes, mirror set should be made with drives of the same physical size
- You will receive a “Disk Management” warning that the drives involved will be converted from basic to dynamic disks
- Select “Yes”



- After selecting yes the C: drive and the mirror target drive should convert to dynamic and appear red
 - o Repeat this process with the G: and E: storage drives
 - G: drive Disk 0 mirrored to the remaining space on Drive 1
 - E: drive Disk 2 mirrored to Disk 3



- After establishing the mirror sets are established they will go through a synchronization period
 - o During synchronization performance may be reduced

