



Over 2TB in a single partition

Purpose:

Support over 2TB in a single partition.

Product Affect:

SA-4551S, SA-6651S, SA-6651E, SA-8850S, SS-4551E, SS-4552E, SS-6651E, SS-6652E, SS-4501E, SS-4501R, SS-4502E, SS-4502R, SS-6601E, SS-6601R, SS-6602E, SS-6602R, SS-6603E, SS-6603R, SS-8801E, SS-8801R, SS-8802E, SS-8802R

Procedure:

[Check which OS supports over 2TB \(Terabyte\) in a partition.](#)

[Enable GPT \(GUID Partition Table\) to support over 2TB in OS.](#)

[Configure RAID Sector Size.](#)

1. Check which OS supports over 2TB (Terabyte) in a partition.

- a. There is not 2TB limitation in a single partition if using the operating systems support GPT (GUID Partition Table) disk, like Windows XP 64-bit, 2003 server SP1, 2008, Vista, Linux 2.6.x kernel. Please directly [enable GPT to support over 2TB in OS.](#)
(P.S. MacOS 10.4.9 and later default support over 2TB, not necessary to enable GPT)
- b. As for early operating systems, like Windows 2000, Windows XP 32-bit, only support MBR (Master Boot Record) partition table that maximum size of single partition is limited to 2TB. RAID system provides the method of [configure RAID Sector Size](#) to support over 2TB.

Please check the comparison table to know detail as below;

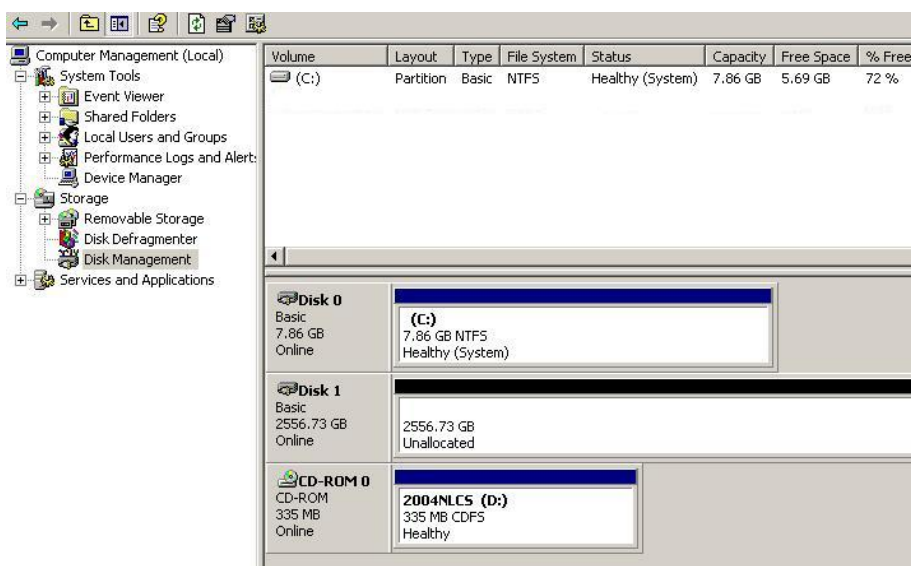
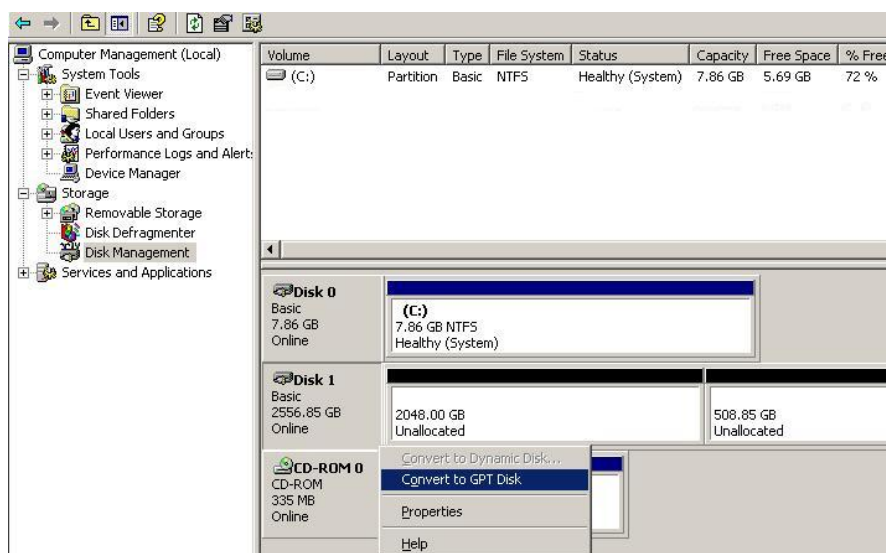
Operation System	Single LUN Capacity	RAID Sector Size
Windows XP 64-bit Windows 2003 server SP1 or later Windows 2008 Windows Vista Linux kernel 2.6.x MacOS 10.4.9 or later	Over 2TB	512 byte(default)
Windows 2000 Windows XP 32-bit	0 ~ 2 TB	512 byte
	2 ~4 TB	1 KB
	4 ~ 8 TB	2 KB
	8 ~ 16 TB	4 KB



2. Enable GPT (GUID Partition Table) to support over 2TB in OS.

For Windows (XP 64-bit, 2003 server SP1, 2008, Vista)

1. Connect RAID system with over 2TB to windows server 2003 sp2.
2. Left-click on **My Computer** icon and select [Management]>[Storage]>[Disk Management], the over 2TB partition will be divided less than 2TB.
3. On the physical disk, left-click to select **Convert to GPT Disk** and then the disk will be combined as a larger partition.



For Linux (Kernel: 2.6.x and later)

1. Connect RAID system with over 2TB to Linux server.
2. To create partition start GNU parted, appear a prompt.
* **Note:** Replace /dev/sdx with actual device. (ex. sda, sdb..)



```
# parted /dev/sdx
```

1. In the parted prompt, creates a new GPT disklabel

```
mklabel gpt
```

2. Create 3TB partition size (press “p” to check total capacity)

```
mkpart primary 0 3001G
```

3. Quit and save the changes:

```
quit
```

4. Use mkfs to format file system

```
# mkfs.ext3 /dev/sdx1
```

3. Configure RAID Sector Size.

For Windows (Windows 2000, XP 32-bit)

1. Create an available LD (ex. DG0LD0) over 2TB.
2. In [RAID management]->[Storage Provisioning], click **Add** to mapping LUN.
3. Click **Advanced Option** and select a proper Sector Size (Refer to the comparison table above to decide which sector size is necessary.)
4. Click **Apply**, and the setting is effective immediately.

