

Cross-Platform RAID Storage for RocketStor RAID Enclosures

HighPoint RocketStor RAID enclosures deliver unparalleled flexibility and accessibility. A single RAID array can be configured for access across multiple workstations, regardless of hardware platform, even if each is running a different operating system!

Multiple copies of the RAID array's configuration metadata is stored by each individual disk – this allows customers to quickly and easily move entire storage configurations from one HighPoint RAID solution to another. HighPoint ensures your data is always within reach; exactly when it is needed, exactly where it is needed.

The following demonstration illustrates the ease of which HighPoint RAID storage can be accessed by various editing applications across a series of independent workstations running different operating systems.

RocketStor RAID Storage Solutions



Easily Access & Edit from Different Workstations or Computers





Preparing Cross-Platform RAID Storage for RocketStor 631xA RAID Enclosures

exFAT (Extended File Allocation Table) is a proprietary file system introduced by Microsoft and optimized for use with Flash Drives. exFAT was conceived as an upgrade to the FAT file system, and is capable of supporting partitions over 4GB. exFAT compatible with both Windows and Mac OS X operating systems, and as such, is ideal for storage solutions that were designed to be shared across both operating systems.

The following article describes how to prepare exFAT volumes using Windows, Mac OS X or Linux operating systems, for shared access.

Creating an exFAT partition under Windows

- 1) Once an array has been configured, open Disk Management and right click on the new disk (it will be identified as an unknown drive).
- 2) Select Initialize Disk.

🔗 Disk Manag	gement							-		×
File Action	View	Help								
() () ()	?	28	į.							
Volume		Layout	Туре	File Syste	em Status	Capacity	Free Spa	% Free		
🗀 (C:)		Simple	Basic	NTFS	Healthy (B	55.41 GB	42.53 GB	77 %		
📼 System Rese	rved	Simple	Basic	NTFS	Healthy (S	500 MB	176 MB	35 %		
Basic 55.90 GB Online	System Reserved (C:) 500 MB NTFS 55.41 GB NTFS Healthy (System, Active, Primary Part Healthy (Boot, Page File, Crash Dump, Primary Partition)									
Disk 2 Unknown										_
111.63 GB Not Initiali	Initial	ize Disk								
	Offlin	e								
	Prope	erties								
	Help									
Unallocated	Prim	nary partition								

3) A pop-up window will display, asking you to select between "MBR" and "GPT". Select MBR.

Initialize Disk	×
You must initialize a disk before Logical Disk Manager can access it.	
Select disks:	
Disk 2	
Use the following partition style for the selected disks:	
Use the following partition style for the selected disks: MBR (Master Boot Record)	
MBR (Master Boot Record)	f



4) Next, right click on the "Unallocated" space and select New Simple Volume.

層 Disk Manageme	ent						_	×
File Action View	w Help							
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Volume	Layout	Туре	File System	Status	Capacity	Free Spa	% Free	
📾 (C:)	Simple	Basic	NTFS	Healthy (B	55.41 GB	42.53 GB	77 %	
System Reserved	Simple	Basic	NTFS	Healthy (S	500 MB	176 MB	35 %	
								1
55.90 GB	System Rese 500 MB NTFS Healthy (Syste	rved em, Active, Prim		GB NTFS hy (Boot, Page F	File, Crash Dump	p, Primary Parti	tion)	
Disk 2		///////////////////////////////////////			///////////////////////////////////////		//////	
111.62 GB	111.62 GB	New Simple	Volume					
Online	Unallocat	New Spanne	d Volume					
		New Striped					//////	
		New Mirrore						
		New RAID-5	Volume					
Unallocated P	rimary pa	Properties						
		Help						

5) Windows will ask you to format the partition. Select exFAT from the drop down menu and click Next.

2011 - 122 004 014		
Format Partition		
To store data on this partition, you	u must format it first.	
Choose whether you want to form	at this volume, and if so, what setting	gs you want to use.
O Do not format this volume		
Format this volume with the	following settings:	
File system:	NTFS ~	
Allocation unit size:	exFAT NTFS	
Volume label:	New Volume	
Perform a quick form	at	
Enable file and folder	compression	
	< Back Next	> Cancel



6) Once formatted, the RAID disk should be displayed as a New Volume, and report the disk capacity, followed by exFAT.

🖀 Disk Management – 🗆 X									
<u>File Action V</u> iew	/ <u>H</u> elp								
Volume	Layout	Туре	File System	Status	Capacity	Free Spa	% Free		
🗀 (C:)	Simple	Basic	NTFS	Healthy (B	55.41 GB	42.53 GB	77 %		
📾 New Volume (D:)	Simple	Basic	exFAT	Healthy (P	111.62 GB	111.62 GB	100 %		
System Reserved	Simple	Basic	NTFS	Healthy (S	500 MB	176 MB	35 %		
i -									1
Disk 0									
	ystem Reserve	đ	(C:)						
	00 MB NTFS	Antium Daima		B NTFS					
onine r	Healthy (System, Active, Primary Part Healthy (Boot, Page File, Crash Dump, Primary Partition)								
Disk 2									1
DISKE	New Volume (D)							
	11.62 GB exFAT								
Online	Healthy (Primary	Partition)							
Unallocated Pr	imary partition								
	initially partition								

7) The new exFAT volume will be recognized by OS X.

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	New Volume

Creating an exFAT partition under Mac OS X

1) After creating an array, OS X will notify you that a new disk was detected. Using Disk Utility, erase the new RAID disk by selecting **exFAT** from the Format drop-down menu.

		Disk Utility		
Internal APPLE SSD SM025 IO.11 Untitled IO.10 External HPT VD0-0 Media New Volume	Era stor	ase "HPT VDO-0 Media"? sing "HPT VDO-0 Media" will destroy red on it. Enter a name, choose a par nat. Untitled ExFAT GUID Partition Map Cancel		
	Location: Connection: Partition Map: S.M.A.R.T. statu	External SCSI Master Boot Record s: Not Supported	Capacity: Child count: Type: Device:	119.86 GB 1 Disk disk1

2) Once erased, the volume will be mounted to the desktop. The new exFAT volume will be recognized by both Mac OS X and Windows operating systems.



Creating and accessing exFAT partitions under Linux

Linux distributions can also support exFAT partitions via the FUSE (Filesystem in Userspace) module. If the Linux distribution you are working with does not include FUSE, please install a version suitable for your kernel. The following examples illustrate how to install FUSE and use the exFAT utility under CentOS 6.x.

1) Download and install the exfat-utlis and fuse-exfat:

```
[root@localhost ~]# cd Downloads
[root@localhost Downloads]# ls
exfat-utils-0.9.7-1.el6_.x86_64.rpm fuse-exfat-0.9.7-1.el6_.x86_64.rpm
[root@localhost Downloads]# rpm -i exfat-utils-0.9.7-1.el6_.x86_64.rpm
[root@localhost Downloads]#
[root@localhost Downloads]# rpm -i fuse-exfat-0.9.7-1.el6_.x86_64.rpm
[root@localhost Downloads]# m
```

2) After installing the exfat utility, it can be used to mount the existing exFAT partition:

```
[root@localhost Desktop]# mount -t exfat /dev/sdc1 /mnt
FUSE exfat 0.9.7
[root@localhost Desktop]# cd /mnt
```

3) To create a new exFAT partition, use the following command:

```
[root@localhost Desktop]# mkfs.exfat /dev/sda1
mkexfatfs 0.9.7
File system version
                              1.0
Sector size
                            512 bytes
Cluster size
                             32 KB
Volume size
                             20 GB
Used space
                           2843 KB
Available space
                             20 GB
Creating... done.
Flushing... done.
File system created successfully.
[root@localhost Desktop]#
```