

Drobo FS

Prezzo: April 25, 2012 at the Cove Apple Club by Bob Proctor

What is the Drobo?

- The name Drobo is derived from Data Robotics or Data Robot
- Drobo FS is a huge disc that's network attached
- Storage Solution That's Safe, Redundant and Expandable
- Without the complexities of traditional RAID
- <http://www.drobo.com/>

Topics mentioned here but covered in previous Apple Club Meetings

- Ask for details on these after the meeting, or "one-on-one"
- Time Machine
- SuperDuper!
- Gemini
- Grand Perspective
- Path Finder

My Drobo FS

- Purchased: 4/10/12
- Expensive: \$1000
- Drobo FS: 5-bay box: mix and match discs of different sizes
- 3 3TB Seagate Discs (~9TB of disc space)
 - 5.41TB for storage
 - 2.77TB for protection
 - 9.55GB for overhead
- If one disc goes bad, just swap it out for another ...*In Theory!*

Drobo Dashboard

- Utility that runs on each Mac
- Used to control all your Drobos
- Used to get status of the Drobo
- Used to schedule a Copy Event

Why Drobo?

- My Messy Data is exploding
- I have lots of External USB or FireWire Discs and some are not working
- I have lots of duplicated data
- Keeping Master Data is difficult, time consuming, error prone and confusing

What I want

- Keep Master Data in one SAFE place w/o duplicates
- Access my Busy Data with any of my Macs
- Seamless Read/Write/Sync
- Strengthen my BU Strategy
- Keep the process simple

Terms Used

- **Master Data** Stable Data with No Duplicates
- **Busy Data** Frequently changing data with dupliates allowed

My Backup Strategy

- **Time Machine** for every Mac (Saved on **Backups** partition on Drobo FS)
- **SuperDuper!**
 - for partitions not covered by Time Machine (Saved to Local disc, Off-Site disc)
 - for each Mac (Used periodically, like every 4 weeks)
 - Drobo FS
- **Drobo FS**

Tools Used

- **Gemini** (Duplicate Finder and Eliminator]
- **Grand Perspective** (Graphic view of disc space used)
- **Path Finder** (Finder on Steroids)
- **find** command in terminal
- **tar** (Utility to create tar files...) "Tape ARchive"
- **gzip** (Utility to compress files...) "GNU Zip"

Tools Needed

- **Identify NON Duplicates**
 - Compare "This Directory" with "Master Data"
 - Files in "This Directory" and "Master Data" could be safely deleted from "This Directory"
 - Files ONLY in "This Directory" should be moved to "Master Data"

Performance Requirements for Drobo FS

- Busy Data: As fast as possible
- Master Data: Average speed
- Time Machine BU: Average speed

Actual Performance

- Works best with big files (50Mb or bigger)
- Big data that's composed of thousands of tiny files slows the Txfr rate
- Data Deletion can takes a long time, almost as long as writing data
- Max Speed: 24.5MBps (Bytes/second)
- Slow Speed: 250KBps (Bytes/second)

What's in my Master Data?

- Stable files, shared between my Macs on my network
 - Disc Images, Movies, Media, Photos, Music, etc.
- Seldom Used files of any size which I want to keep

Advantages of moving Master Data to DroboFS

- frees up space on local machine
- BU of Local machine is easier

How I use Drobo FS

- Install Drobo Dashboard on each Mac
- Drobo is Ethernet connected to my home network
- Connect each Mac to Home Network w/ Ethernet or WiFi
- When connected, “Shared” directories are mounted on Mac automatically

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Use tar and compress to consolidate big nested data

- Start a terminal window
- Use the tar command to group several files (or all files in a directory) into one file.
- You may want to compress the tar file.

```
tar cvhf "New_Tar_File" "Input Files or Directories"
```

```
gzip "New.tar"
```

How I use my Drobo FS

- Local Mac has directory: **Drobo FS Storage**
- That directory has one soft-linked directory (Public) and one local directory (Local Files)
- If I need fast access to data on Drobo, I copy that data into (Local Files)
- I can easily delete data in (Local Files) when it’s no longer needed. It remains on Drobo

Configuration and Startup

- Install Drobo Dashboard on each Mac
- Set Firewall
- Fill Checkboxes in **Share** for “[] Public” and “[] DroboApps”
- Create **Share** for **Backups** (for Time Machine)
- UPS
 - Plug Mac into UPS and set Power Parameters for power failure
 - Plug Drobo FS into UPS. On Power Failure, the Mac shuts down, the Drobo FS goes to sleep,

then powers off when the UPS dies.

DroboApps (I haven't tried any of these)

- See web page: <http://www.drobo.com/products/professionals/drobo-fs/apps.php>
- Apache - a secure, efficient and extensible server that provides HTTP services in sync with the current HTTP standards.
- Drobo Apps Admin Utility - makes installing, configuring, updating, and uninstalling DroboApps even easier. It can temporarily disable a DroboApp to keep it from starting automatically.
- FUPPES - a free, multiplatform UPnP A/V Media Server with DLNA support.
- Firefly - serves digital music residing on the Drobo FS to the Roku Soundbridge and iTunes.
- CTorrent - a command-line bittorrent client.
- Dropbear - a small SSH 2 server and client
- lighttpd - a HTTP server with a focus on security, speed, compliance, and flexibility
- Pure-FTPD - a free (BSD), secure, production-quality and standard-conformant FTP server.
- rsync - an open source utility that provides fast incremental file transfer.
- UNFSD - UNFS3 is a user-space implementation of the NFSv3 server specification. It provides a daemon for the MOUNT and NFS protocols, which are used by NFS clients for accessing files on the server.
- Wake on LAN - This program generates and transmits a Wake-On-LAN (WOL) "Magic Packet", used for restarting machines that have been soft-powered-down (ACPI D3-warm state).
- Perl - a stable, cross platform programming language. Note: Perl is installed on your Mac by default.

Startup Problems

- Took awhile to realize I had to open up the firewall to allow **DDService64d**, and **DDServiced**
 - Took a few days to find method of starting Time Machine BU
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Conclusions (Pro)

- Drobo is a great company with a rock-solid product
- Customer Service is really good, responsive, helpful, knowledgeable
- Documentation, FAQ, Forums are very good

Conclusions (Con)

- Expensive - (\$500 for Drobo and \$xxx / Disc)
- Slower than I expected

Conclusion

- It's a Great Product
 - 5 Apples 🍏 🍏 🍏 🍏 🍏
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