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Network-attached drives for here and there

By Michael Lasky on April 22, 2015 in Best Hardware

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The latest network-attached storage drives provide secure and redundant backups, personal cloud storage, and high-speed media streaming. Here's an example.

Plus: Two hard-drive adapters that let you resuscitate old internal drives, and an indestructible flashlight that charges via USB.

A net drive with Swiss Army–knife versatility

As I reported in an earlier column, last year my external backup drive unexpectedly bit the dust and I was forced to pay for expensive data-recovery services. I vowed then and there I'd use only an external drive that had a second, mirrored drive. A simple form of RAID (Redundant Array of Independent Disks), a multiple-drive system provides better data integrity and performance.

For about the past year, I've been using Western Digital's My Cloud Mirror (more info). It's served me well — with "served" being the operative word. It not only archives my data but also operates as an Internet-accessible streaming-media server and a personal cloud-storage bank. Its dual-drive setup means that if one drive fails, my data is still safe on the other.

Now Western Digital has upped the ante with the My Cloud Expert Series — storage primarily designed for professional photographers, videographers, and graphic designers. But the WD My Cloud EX2 device (more info) I tested is also entirely appropriate for other consumers with scads of videos, photos, music tracks, and documents they want to preserve, stream, and share.

The drive runs on a dual-core Marvell ARMADA 385 1.2GHz processor designed specifically to support simultaneous HD media streaming. My two-bay review unit came equipped with a pair of 4TB WD Red drives, but you can also purchase the device without drives.

Western Digital boasts that the EX2 works right out of the box — and at its most generic level, that's true. After I connected the box to my network router and powered it up, the drive immediately showed up in Window Explorer under Networks. But at that point its functions were limited to simple reads and writes. Enabling the EX2's more interesting capabilities required installing the device's setup software. Moreover, the skeletal startup instructions included with the drive were virtually useless; I had to hunt for the full user guide on WD's website and download setup software (site).

Figure 1. Western Digital's EX2 external drive has dual drive bays for secure, mirrored backups.

The setup software enables a versatile cornucopia of advanced functions. But watch out: the software required a system reboot. No problem — except that my Win7 was somehow reverted back to a three-year-old restore point that wiped out all updates and personal configurations I had made since. Whether that was a WD software bug or a Windows blip, I can't say. But after selecting a recent restore point and a half-hour's work adding lost updates, I got my system back to the present.

Aside from this installation misstep, the EX2 performed smoothly. The device uses both a desktop control dashboard and a browser-based management application. The two let you manage files, monitor the drives, manage users, use the integrated FTP server, control energy-saving features such as scheduled power on/off or disk spin-down, and various other options.
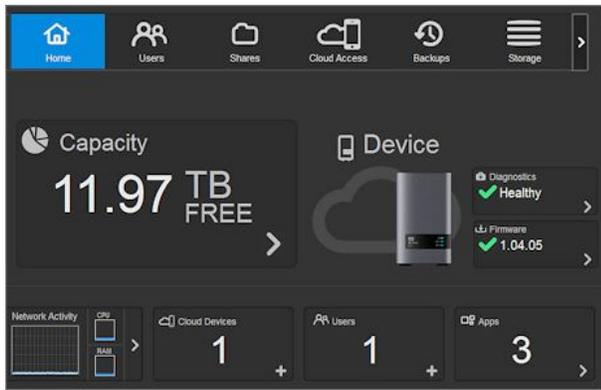

Figure 2. The EX2's software- and browser-based dashboard provides easy access to drive stats and management tools.

The twin drives in the EX2 are hot-swappable, which lets you swap out one drive but still give others on the network access to their EX2-stored data. To test this, I opened the EX2 while the system was running. Each drive bay has a simple pull lever to release each drive. I swapped drives 1 and 2 and, sure enough, everything I had copied to drive 1 was on drive 2 as well.

Western Digital offers My Cloud Mobile Apps for iOS and Android. I was able to view files on the EX2 on my iPad, and a two-hour movie I selected started playback instantly. If Apple's iTunes is loaded on your PC, the My Cloud EX2 will create a virtual iTunes server to stream tracks — even to non-iTunes devices. You can also download various third-party apps for peer-to-peer networking, creating and maintaining blogging and content management with WordPress, and built-in access to Dropbox.

A second USB 3.0 port lets you piggy-back another external drive or set up communications with an uninterruptible-power-supply (UPS) device.

For businesses, the EX2 includes numerous management tools such as setting up user quotas and support for Microsoft Active Directory. A 4TB box carries a U.S. $430 price tag (or $560 for the 8TB model). That's a reasonable cost, given the drive's capabilities. What's your data worth?

Transform a drive from internal to external

If you're like me, you remove and retain hard drives before sending obsolete computers to the technology graveyards. There's the security aspect, but those old drives also often have files and archived music tracks that I might want to access someday.

The best way to access those retired drives is with an external drive adapter. I recently looked at the $28 NewerTech Universal Drive Adapter (info). Sure, there are hundreds of these adapters for sale, but this model supports USB 3.0, which should give faster transfer speeds. NewerTech claims transfer rates of up to 300 megabytes per second and support for drives of up to 4TB.

The device (shown in Figure 3) has ports for almost any drive, whether IDE/ATA or SATA. An AC power adapter is also included.

Figure 3. NewerTech's Universal Drive Adapter supports USB 3.0 for faster data transfers.

Powering up a bare (formerly internal) drive is exceptionally easy — no tools needed, no extra cables to lose. Simply match up the correct port on the adapter to the drive, connect the power adapter to the drive, and plug the USB cable into your PC or Mac. An LED connection/activity light confirms that the drive is properly connected. If the drive is fully functional (not always the case with old drives), it'll immediately show up in Windows Explorer.

With its various communication and power cables, the Universal Drive Adapter isn't as neat on the desktop as a drive docking station. But it's certainly less expensive. It's one of those computing essentials that will keep your old drives humming.

The leather-wallet drive-adapter solution

One of the charms of technology is the many novel solutions for common problems. For example, VisionTek's $20 Wallet Drive (info; Figure 4) can transform an old internal drive into a sleek, leather-bound USB 3.0 data wallet. No tools are needed to set up the Wallet; just slide a drive into the Wallet's tray until an audible click tells you that the drive is correctly secured.

Figure 4. VisionTek's Wallet Drive takes a novel approach to recycling old internal hard drives.

The Wallet Drive is powered through the USB 3.0/2.0 cable, so there's no AC adapter. A steady blue LED light signals a proper data connection; a blinking blue light signals data streaming.

The glove-soft leather covers a solid plastic enclosure to keep the drive firmly in place, and a wraparound magnetic clasp secures the drive and USB cable. As you might expect, the Wallet supports only 2.5-inch 7mm and 9.5mm SATA drives. If you need do-it-yourself portable storage, the Wallet Drive is a bargain.

USB-charged flashlight has lumens to spare

Like many of its kind, my desktop PC lives under my desk. It's dark down there. So I keep a flashlight handy for those occasions when I need to insert another cable into the back of the machine. Unfortunately, the silver-on-black lettering most computer manufacturers are fond of using requires a really bright light. And it seems every time I need the light, the batteries are dead.

One solution is Streamlight's ProTac HL USB rechargeable light (info; Figure 5). This small, rugged flashlight has adjustable light settings that max out at a room-filling 850 lumens.

Figure 5. The Streamlight ProTac HL USB rechargeable flashlight is small, rugged, bright, and rechargeable via a USB port.

Okay, so a rugged, anodized aluminum–encased light is overkill for troubleshooting computer components. But I also found the ProTac HL handy for hikes that took longer than expected, setting up my camp stove, emergency lighting at home, and (dare I forget) walking the dog at night.

What makes the ProTac more interesting than your old Eveready flashlight is its use of a lithium-ion battery that can be recharged through a USB port or AC adapter. In a pinch, it can also use two replaceable three-volt CR123A batteries. Another nice touch: Its anti-roll cap makes it stay put on flat surfaces.

A pushbutton lets you change light intensities from low (85 lumens) to medium (350 lumens) to full (850 lumens). (For some perspective: most 60-watt LED light bulbs are rated at 600 lumens.) There is also an emergency strobe-light setting which can reportedly be seen for half a mile.

The ProTac HL USB is definitely constructed to take a beating over many years. It better had, given its astounding $180 price tag.

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