



Big Thing in a Small Package

Synology Disk Station DS409slim

BY DAVID CHIENG

We've reviewed a fair number of network-attached storage (NAS) boxes over the past year, but none has really made us go "Wow!" the way the Synology Disk Station DS409slim has. Why? Because this one is built to use 2.5-inch laptop hard drives – four of them, in fact – and isn't very much bigger than, say, a pair of soft drink cans.

The DS409slim accepts four Serial ATA hard drives of the 2.5-inch variety usually seen in laptop computers and portable hard drives. As such, it is way smaller than most of Synology's other NAS solutions. The use of smaller hard drives means less power drawn, and in turn, less heat generated, which also means cooling requirements are lower. To illustrate, there is a 60mm thermally controlled fan mounted below the unit. Throughout our testing, the fan wasn't even needed once.

Internally, the DS409slim packs a decent set of hardware: 1.2GHz Marvell 6281 processor and 128MB of DDR2 memory. Networking

is handled by a Gigabit Ethernet port, while you also get two USB 2.0 ports (one in front and one at the rear), as well as a single eSATA port located above the network connector. If anything, the one nitpick we have with the DS409slim is the external power adapter, which is actually pretty small, but looks huge when put next to the drive itself. Let's not even mention the amount of space the power cable takes up.

Unfortunately, we didn't have enough regular laptop hard drives on hand to fill up the 409slim, except for a pair of Western Digital WD2500BEVT drives. We did scrounge up a quartet of Intel 32GB SSD drives (model number SSDSA2SH032G1GN). In RAID 1 with the WD drives, the DS409slim managed average read and write speeds of 45MB/s and 44MB/s respectively. RAID 0 with the WD drives produced 37MB/s and 49MB/s respectively. With the SSDs installed, RAID 5 produced 48MB/s and 37MB/s for both read and write, while RAID 0 managed 49MB/s for both read

and write. While the numbers are impressive overall, this just goes to show that it doesn't really matter what kind of drives you stick into your NAS, the bottleneck will not be at the hard drive interface, but either the network stack, or the NAS hardware itself. Still, with the SSDs installed, it must be said that the DS 409slim was literally dead silent.

Bottom line, the DS409slim certainly has its advantages, including its compact size, performance and a feature set that rivals just about any other NAS solution in their product line-up. Don't forget, the DS409slim's also powered by Synology's excellent Ajax-based Disk Station Manager, which is the best NAS management interface we've seen bar none. On the other hand, the asking price of approx US\$440 is a little more than we'd care to pay, especially since laptop drives not only carry a price premium over conventional 3.5-inch HDDs, but are also limited to 500GB each. That said, it's quite amazing to not actually hear any disk activity, something we've gotten used to with conventional external storage solutions. If you've got the extra change to spare, and are willing to spend on what will undoubtedly also double up as a geek conversation piece, then the Synology Disk Station DS409slim is definitely worth considering.

SPECIFICATIONS

CPU	Memory	Internal HDD	LAN	Price
1.2GHz	128MB	2.5" SATA (II)/SSD X4	Gigabit x1	US\$440

CPU: 1.2GHz
Memory: 128MB
Internal HDD: 2.5" SATA (II)/SSD X4
Max Internal Capacity: 2TB (4x 500GB hard drives)
External HDD Interface: USB 2.0 port X2, eSATA port X1
Size: 120mm X 105mm X 142mm
Weight: 0.66kg
LAN: Gigabit x1
Fan: 60mmX60mm x1
Power Consumption: 19W (Access), 12W (Hibernation)
File System: EXT3, FAT (External Disk Only), NTFS (External Disk Read Only)
File Sharing: Max User Accounts: 1,024; Max Groups: 128; Max Shared Folder: 256; Max Concurrent Connections (SMB, FTP, AFP): 64
RAID Management: Basic, JBOD, RAID 0, RAID 1, RAID 5, RAID 5+Spare, RAID 6
Website: www.synology.com

HWM'S VERDICT

Features: **9.0**
Performance: **8.5**
Value: **7.0**

8.0
Out of 10

A unique spin on an NAS solution, but a little too pricey for our liking.



The hard disk drives simply slot in and, unlike previous Synology Disk Stations such as the DS409 and the DS207+, can be removed without having to open up the chassis.



The hard drives are installed in 2.5-inch caddies, though they need to be screwed in.