Synology Disk Station 106e

◀ **The Synology Disk Station 106e really pushes the boat out in terms of features, and it's really Mac-friendly, too.**

Price £399 (£340 ex VAT) *storagedepot.co.uk*
Contact Synology 00 88 622 552 1814 + *synology.com*
Pros Powerful + More than a Nas, with web and FTP serving and more + Expansible and upgradable
Cons A little expensive

The casing may look a little drab next to the slick offerings from Maxtor, Western Digital and Iomega, but under the uninspired exterior of the Synology Disk Station 106e beats the heart of a very capable and flexible Nas device.

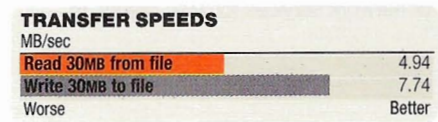
The packaging for the Freecom model makes a big deal about being a '10-in-1' device. The Disk Station 106e's box makes no such claim, which is a shame and a missed opportunity, as although it doesn't offer wireless or router functions, it does pretty much everything else Freecom's Nas drive does, and some more besides.

Top of the list for Mac users is proper support for Apple Filing Protocol connections. It matched the Adaptec Snap Server 110 (which costs nearly twice as much) in our file system test, only tripping up, like the Snap Server, when it came to changing file permissions. All this means is that you can't change the permissions remotely using the Finder or chmod command, but must do it directly – no great hardship for users at this level, though.

The other features are just as impressive. An option to turn on web, FTP, photo and even PHP and MySQL serving means it's very simple to extend the 106e's capabilities. In conjunction with port forwarding on your router and, optionally, some dynamic DNS mapping if you don't have a static IP address, you can easily serve websites from home and access all the data on your Nas drive over FTP. You get full users and groups functionality, printer server, sharing of connected USB and one eSATA disk, and upgradable firmware (even the original Disk Station 101 now shares most of the 106e's features).

Mac friendly, flexible and with a good measure of future-proofing – the Synology Disk Station 106e is a clear winner.

TRANSFER SPEEDS



Features

	ADAPTEC SNAP SERVER 110	BUFFALO LINKSTATION PRO LS500GL	FREECOM FSG-3 WLAN	IOMEGA STORCENTER	MAXTOR SHARED STORAGE PLUS	SYNOLOGY DISK STATION 106E	WESTERN DIGITAL NETCENTER
Rating							
Best online price	£591 (£503 ex VAT) from *lambda-tek.com*	£259 (£221 ex VAT) from *morecomputers.co.uk*	£322 (£274 ex VAT) from *aria.co.uk*	£265 (£225 ex VAT) from *it247.com*	£211 (£180 ex VAT) from *cancomuk.com*	£399 (£340 ex VAT) *storagedepot.co.uk*	£195 (£166 ex VAT) from *digitalkind.co.uk*
Contact	**Adaptec** 01276 854500 + *adaptec.co.uk*	**Buffalo Technology** 01753 555 000 + *buffalo-technology.com*	**Freecom Technologies** 01423 704700 + *freecom.com*	**Iomga** 020 7216 0003 + *iomega-europe.com*	**Maxtor** 01923 712448 + *maxtor.com*	**Synology** 00 88 622 552 1814 + *synology.com*	**Western Digital** 01372 360055 + *westerndigital.com*
Ethernet connections	1	1	4	1	1	1	1
Wireless connection	✗	✗	✓	✗	✗	✗	✗
USB ports	4	2	2	2	2	3	2
FTP server	✓	✓	✓	✓	✗	✓	✗
Print server	✗	✗	✓	✓	✗	✓	✓
Email notification	✓	✓	✓	✗	✗	✓	✗
AFP support	✓	✓	✗	✗	✗	✓	✗
Users & Groups	✓|✓	✓|✓	✓|✓	✓|✗	✓|✓	✓|✓	✗|✗

Tech briefing: Networking protocols

We're very lucky: the Mac is an egalitarian computer. While it works best with peripherals and systems designed to leverage the power of Mac OS X, the adoption of systems of standards and the need to work within the dominant Windows environment mean the Mac can take advantage of a huge range of peripheral hardware and services.

With network-attached storage, this means the Mac can communicate with devices that don't explicitly support its own network file sharing protocol, Apple Filing Protocol (AFP), but can instead connect using SMB/CIFS, which are Windows-centric protocols.

So if this is the case, why bother with AFP at all? The answer is simple: SMB/CIFS connections don't support the full range of network services for Mac clients. In practice, what this means is that you might see sluggish performance or a few glitches, particularly if you're not simply manually copying a few files to and from your Nas device every so often.

None of the Nas devices on test that don't support AFP, for example, support the server copy command. With AFP-enabled servers, what this does is offload the task of copying data between shares on a server to the server itself, rather than trawling all that data via your client Mac. Neither did these SMB-only Nas boxes deal properly with remotely changed file permissions.

SMB connections also have a tendency to be a little more sluggish than AFP connections – those Nas devices that scored highest in our performance testing in this Labs were those to which we could connect using AFP.

Choosing which protocol to use in connecting to a server is usually a simple choice – if AFP is supported, it's usually the one to go for. First, ensure the server (or Nas box) supports the type of connection you want to initiate – it may need to be enabled from its config page – then simply use the Finder's Connect to Server command and prefix the IP address with the appropriate protocol: *smb://192.168.0.2* will connect to a server at 192.168.0.2 using SMB, while *afp://192.168.0.2* will connect using AFP. You'll be presented with a list of shares with either approach, and authentication details remain the same regardless of the protocol used.

Older servers may only support older versions of AFP, so it may be worth trying to connect over SMB. File System Test from *helios.de* can help check supported services.

Winners

Which Nas drive you should buy has a lot to do with what kind of user you are and in what kind of environment you envisage using it. One thing to note: many of the drives here support gigabit Ethernet, but all were tested on a 10/100Base-T router (not switch) to give performance figures that reflect how we think these drives will be used; faster transfer speeds will be possible with investment in a more powerful network infrastructure.

The more ambitious small workforce would be well suited to the Adaptec Snap Server 110, with its fine-grained control, robust operating system and hardware monitoring systems. Low-demand home users will find Western Digital's excellent-value NetCenter a boon, with its simple setup and friendly, attractive configuration pages. By eschewing the standard users and groups paradigm with which more advanced users will be familiar, and instead implementing a system of what seem like password-protected folders, Western Digital has made a device that's easy to understand.

We were very tempted to award Freecom with the Labs Winner gong. The FSG-3 WLAN is a spectacular, do-anything device that goes a long way to giving you a full-blown server for a fraction of the cost. Its ability to act as a router potentially means removing a redundant box from your setup (saving power points, energy and scope for configuration mistakes), and its support for web hosting augmented by PHP and MySQL could be of immense use as a local testing ground for dynamic as well as static web pages.

◄ The Synology Disk Station 106e pipped the Freecom Nas drive to the post by virtue of its AFP support, which while not essential, does make Mac users' lives easier.

Ultimately, though, its lack of support for Apple Filing Protocol means it's not an ideal network storage device for Mac users; as explained in the tech briefing, (above), SMB-only connections aren't to be dismissed out of hand, but your life will be simpler (and many Nas tasks quicker) if you can connect over AFP.

The winner, therefore, is the excellent Synology Disk Station 106e. This unassuming device does very well with core Nas tasks – although it's not as fast as the other AFP-equipped Nas boxes here – but offers a lot more besides: Web hosting (yes, with PHP and MySQL), media streaming, FTP access, the ability to back up the Nas device to a local USB disk or over the network to another Disk Station, a front-mounted USB port with a 'copy' button to dump files from memory sticks and hard disks into a predefined share, UPS support and a whole lot more. It's not cheap, but it's a worthy investment.