

Netgear ReadyNAS 716

A screamingly fast NAS appliance that's 10GbE-ready out of the box and supports unlimited snapshots

» **PRICE** Diskless, £1,666 exc VAT
» **SUPPLIER** www.broadbandbuyer.co.uk

Netgear claims its ReadyNAS 716 is the fastest desktop NAS on the market – and while Qnap's larger desktop units support optional 10GbE upgrades, the 716 is the first NAS appliance to come equipped with 10GbE as standard.

The ReadyNAS 716 uses the same well-built chassis as the ReadyNAS 516 (web ID: 385654), but power has been beefed up with a 2.5GHz Intel Xeon E3-1265L v2 and 16GB of ECC DDR3 RAM. Expansion potential is equally good, with three rear eSATA ports that can each be used to hook up an EDA500 five-bay desktop expansion box.

Two Gigabit ports are embedded and 10GbE support comes courtesy of a dual-port 10GBase-T card in the single expansion bay. Unlike Qnap's appliances, which support a range of standard Intel and Emulex 10GbE cards, Netgear's is proprietary and can't be changed for another brand.

The front door has an OLED display, which is used to scroll

through various status displays using the central backlit touchpad. A proximity sensor wakes up the touchpad when you wave your hand in front of it, lending a touch of class to the design, but we found the display itself quite difficult to read in bright light.

Initial installation is simple using Netgear's web-based ReadyCloud portal, which discovers your appliance and sets it up for you. Unlike the old RAIDar utility, the ReadyCloud portal can see all appliances registered to your account regardless of their location, and

lets you set up users who can view, add or delete files and folders from the portal. Files can be copied to the appliance directly from the desktop by dragging them into the portal's Browse page.

A key feature of all Netgear's new ReadyNAS appliances is the switch from EXT4 to BTRFS – a move that brings support for unlimited block-level snapshots for both NAS shares and iSCSI LUNs. These are easy to create at hourly, daily or weekly intervals. For shares, you can permit network access to snapshots or hide them. File, folder or LUN recovery is just as simple: open the Dashboard's timeline graph, choose a

snapshot and select the rollback option.

Our review sample arrived with all six hot-swap bays fitted with 100GB Intel SSDs. Clearly that's not a great choice if capacity is a priority, but it gave us an opportunity to see how quickly the 716 could transfer data over 10GbE.

For our testing, we rustled up a Broadberry Data Systems rack server with dual 2.6GHz E5-2670 Xeons, 48GB of DDR3 RAM and Windows

Server 2012 R2. We added an Emulex OCe11102-NT dual-port 10GBase-T card and used a direct connection to the ReadyNAS 716.

Performance was impressive, with Iometer recording raw sequential read and write speeds for a mapped share of 1,032MB/sec and 600MB/sec – or around 8Gbits/sec and 4.7Gbits/sec. This translates to very fast real-world speeds: a 22.4GB mix of 10,500 small files transferred from the server's RAID5 array to the share

at an average of 220MB/sec.

To measure sustained NAS throughput we also copied our 50GB Iometer test file to and from the share, which returned read and write speeds of 300MB/sec. For IP SANs we saw copies of the 50GB test file to a 100GB target return read rates of 316MB/sec, while a backup of the 22.4GB test folder averaged 249MB/sec.

It's worth noting that using Netgear's real-time antivirus scanner hits performance hard. With this enabled we saw 10GbE speeds for our 22.4GB NAS copy drop by 40% to 132MB/sec. Frustratingly, although the new Anti-Virus Plus app adds a scheduler for regular on-demand scans on selected folders, to use it you must enable the real-time scanner as well. The only way around this is to declare certain

folders, or all of them, exempt from scanning.

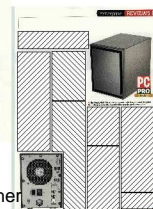
Backup options are very similar to those of the previous ReadyNAS generation. You define sources and targets, which can be any local NAS share or folder on other systems, and the appliance will manage them all for you.

The 716 natively supports Dropbox, plus Netgear's ReadyDrop private cloud system for those who prefer not to entrust their data to third parties. An app adds support for Symform cloud backup, while replication across ReadyOS 6 devices using the separate cloud portal is now free.

With dual 10GBase-T ports as standard, the ReadyNAS 716 is good value, and scores over the competition with its unlimited share and LUN snapshots. The clincher is performance: you won't find a faster desktop NAS appliance. **DAVE MITCHELL**


KEY SPECS

Desktop chassis • 2.5GHz Intel Xeon E3-1265L v2 • 16GB ECC DDR3 RAM • 6 x hot-swap LFF/SFF SATA drive bays • supports RAID0, 1, 5, X-RAID2, JBOD • 2 x USB 3 • USB 2 • 2 x Gigabit Ethernet • 2 x 10-GbBase-T • 3 x eSATA • HDMI • internal PSU



192 x 288 x 259mm (WDH) • 5yr RTB warranty

OVERALL ★★★★★
PERFORMANCE ★★★★★
FEATURES & DESIGN ★★★★★
VALUE FOR MONEY ★★★★★



PC PRO
A-LIST

• The ReadyNAS 716 natively supports both Dropbox and Netgear's ReadyDrop private cloud system for securely storing your data

