# infinite io's Network-based Storage Controller

*A revolutionary solution for reducing on-premises storage capacity by always-on archiving inactive unstructured data to the cloud*

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Keeping your priorities straight with your data is difficult because so much of it (as much as 80%) is written once and never accessed again, but takes up loads of space in on-premises application servers and network-attached storage (NAS) devices.

A new appliance from infinite io solves this waste of space – the company's Network-Based Storage Controller (NSC-110) culls inactive data from on-premises NAS and migrates it to the cloud where it can be archived, while increasing the access to data that is actively used.

The NSC-110 is much different than other hybrid cloud appliances on the market. It combines principles from storage, networking and security silos to migrate data to the cloud and reduce on-premises storage capacity. It uses traffic or packet shaping to regulate the amount of bandwidth allocated to data transfers, to schedule time-of-day for transfers and to limit the amount of data transferred at any one time. Finally, it uses encryption and compression technologies to securely and efficiently transfer data to the cloud and protect it at rest.

## How the NSC-110 works

The NSC installs on a Gigabit Ethernet network connection in front of existing network attached storage device(s). The appliance utilizes 'bump-on-a-wire' Layer-7 proxy technology to be completely transparent to existing applications and storage. The bump-on-a-wire feature and deep packet inspection enables the NSC to perform data migration without the use of a traditional mount-point or data virtualization. Via policies the IT admin sets, it is able to throttle bandwidth, determine the characteristics of data to be migrated and schedule the time-of-day for migration. The NSC provides two benefits: Its primary benefit is to actively migrate inactive data off NAS filers to low-cost cloud storage, while making look and act like local storage; a secondary benefit that comes from keeping all the metadata from attached storage in flash memory, is that it increases the performance of all attached storage whether local or cloud-migrated.

Before culling inactive NFS data off the filer, the NCS compresses it, creates metadata to identify it and its location, determines through policy which data should be migrated off to the cloud and divides the data into chunks (sniblets in infinite io speak) for storing as objects in any S3-compatible cloud, such as from Amazon S3, Microsoft Azure, Rackspace or a private cloud. Each sniblet is keyed and the keys are retained locally.

infinite io's NSC starts at $50,000 for a 2U device with 250GB of DRAM, 6TB of solid state drives, 1 or 10 Gigabit Ethernet ports and fail-to-a-wire functionality. On the roadmap for infinite io, is clustering for high availability, CIFS and Hadoop support, a software-only version of the NSC appliance and support for cloud snapshots.

## Our Take

infinite io's solution to the problem of excessive inactive data is unique to the storage industry. Wasting space storing data that is never going to be accessed again, isn't a workable strategy. The company's Network-Based Storage Controller, which culls inactive data from on-premises arrays and stores it as objects in the cloud, makes a lot of sense for the IT admin who is faced daily with unrelenting storage growth. ●