

# NSC-110

## NETWORK-BASED STORAGE CONTROLLER

Transparently integrate cloud storage into existing systems with no workflow or application changes



### KEY BENEFITS

#### COST SAVINGS

Migrate inactive data to a cloud, lowering storage costs by as much as 80%

#### TOTALLY TRANSPARENT

No new mount points, file systems or virtualization

#### ULTRA HIGH-PERFORMANCE

Metadata is served out of memory for local and cloud-migrated data.

#### QUANTIFIABLE ROI

No risk simulation modes calculate expected savings

#### ACTIVE MIGRATION

Using IT-defined policies, data is continuously migrated to a cloud or low-cost NAS.

#### SECURE

Local keys, encryption, and data sniblets™

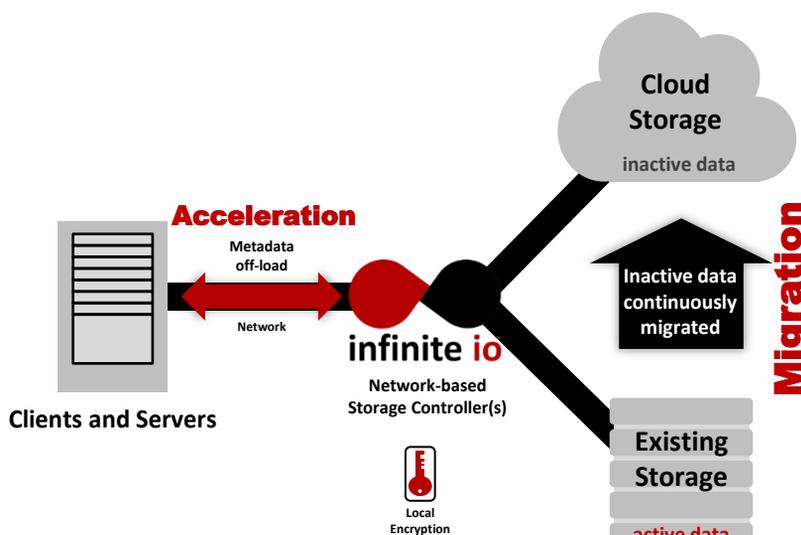
#### FAULT-TOLERANT

Fail-to-a-wire, dual-power and cloud-based system recovery

### The Challenge

In the typical data center, eighty percent or more of all data is accessed briefly and then never accessed again. Inactive data tends to double every twenty four months or less. Considering these challenging growth rates, a new solution is needed. Cloud or object storage provides a means of building massively scalable, low-cost storage in the traditional data center or as a service from a public cloud vendor. Cloud storage is the ideal platform for storing inactive or cold data.

Cloud storage scales out well with low-cost disks, but it does not typically provide the performance required by actively used hot data. Cloud gateways only work well in non-mission critical, low performance applications. What is clearly needed is a solution that intelligently finds and transparently migrates inactive data to a cloud, freeing up existing primary storage to service active data.



*The NSC-110 migrates inactive (cold) data off existing storage to a public/private cloud or low-cost NAS, while making it appear and perform as if it were still on existing storage.*

### Putting Storage Intelligence Directly in the Network

The NSC-110 takes the functions of a traditional storage controller out of the storage subsystem and moves them into the network. Installing in the network in front of onsite primary storage, the NSC-110 is based on a transparent proxy, also known as a bump-on-a-wire, and is totally invisible to installed applications, servers, and clients. It appears as the primary storage that it is supporting, and uses deep packet inspection to manage and respond to file activity.

Data migration policies defined by IT administrators are used to identify inactive data. The NSC-110 converts inactive data into objects that are compressed and encrypted with local keys and then migrated to object storage. The migrated files appear and act as if they are still located on primary storage, and keep their always-on properties. The life and performance of primary storage is extended as data is moved off it.

# OVERVIEW

## BUILT FOR THE CLOUD

- Native migration interfaces to public/private clouds and low-cost NAS
- Local encryption keys for public cloud security

## NON-DISRUPTIVE MODES:

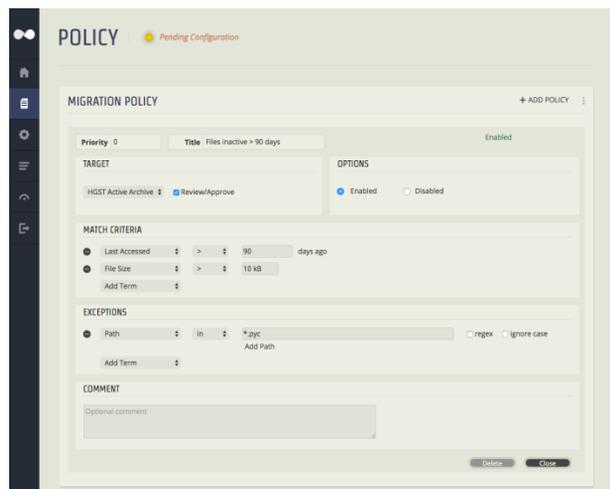
- Out-of-band (simulation)
- In-line (passive)
- In-line (active)

## POLICY-BASED CLOUD MIGRATION VIA:

- Last access
- Last modified
- User ID
- Group
- File size
- File extensions
- Directory
- Wildcards
- Regular expression
- Other

## AGENCY APPROVALS

- UL60950
- CSA 60950
- EN60950
- FCC /ICES-003
- CE – EMC Directive 2004/108EC



*infiniview™ runs on any web browser and provides a unified view of cloud-migrated data and the connected storage systems. Its robust policy-definition interface allows for simple creation of advanced data migration policies.*

## Continuous Policy-based File Migration

Dramatically reduce storage costs with file migration policies that move inactive data to low-cost public or private object storage. Using infiniview™, policies can be created that migrate data based on much more than just file activity. Last access date, file type, user ID, wildcards and other variables and combinations can be used to create policies that continuously migrate files. As opposed to other solutions, all migrated files appear as if they reside on primary storage. If a user accesses a migrated file, it is moved off the cloud, served up, and put back on primary storage until it again meets the criteria established to be migrated back to object storage. There is no need for storage administrators to manually move data. They simply create policies using clear business logic, and the NSC-110 continuously migrates data to the optimum storage location.

## Highest Performance

The NSC-110 collects metadata from the storage systems it is supporting and puts it in a memory-based metadata map. Unlike a cache, it's always hot. After the initial file systems scan, deep packet inspection is used to keep metadata current for both primary and cloud-migrated data. By serving metadata requests out of memory the NSC-110 is able to performance-enhance installed primary storage and make cloud migrated data perform like local storage.

## Clustering and Bypass Models

Clustering models interconnect to form a logical unit. Minimum cluster size is three controllers. Clustered units can withstand controller and storage system failures, and also support rolling system upgrades while in service.

The by-pass model does not cluster. On system or power failure, connected Ethernet port pairs turn into a wire, maintaining connectivity to attached storage systems.

Specifications	NSC-110s-1610	NSC-110-0810	NSC-110-1610B
CPU cores	40	28	28
DRAM	768GB	768GB	768GB
SSD flash	5TB	5TB	5TB
10Gbps Ethernet port pairs	8	4	0
10Gbps Ethernet port pairs with bypass	0	0	8
Form factor	2U	2U	2U