



NSC-110

NETWORK-BASED STORAGE CONTROLLER

KEY BENEFITS

COST SAVINGS

Continuously 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

1,500,000 metadata operations per second

Average latency less than 20 microseconds

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.

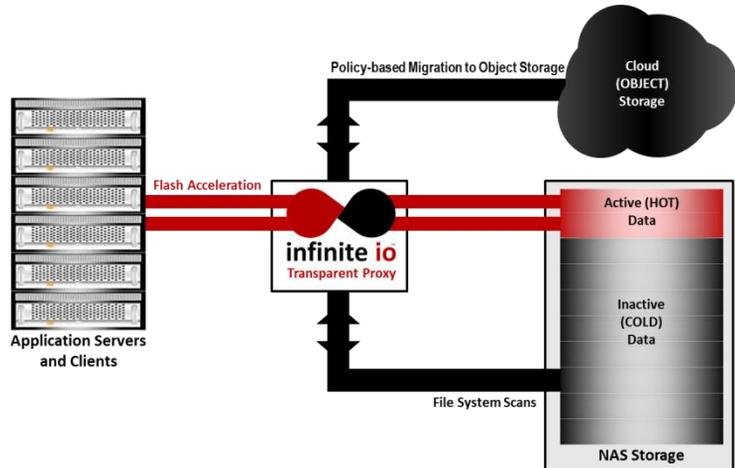
SECURE

Local keys, encryption, and data sniblets™

FAULT-TOLERANT

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

The NSC-110 transparently integrates public or private cloud storage into existing environments with no new file systems, no mount point changes, and no changes to existing applications or storage systems



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

The Challenge

In the typical datacenter eighty percent or more of all data is accessed briefly and never accessed again. Inactive data tends to double every twenty four months or less. Considering these challenging data 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. Object storage is the ideal platform for storing inactive or “cold” data.

Object 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 an object store, freeing up existing primary storage to service active data.

An “Out of the Box” Solution

The NSC-110 takes the functions of a traditional storage controller out of the storage subsystem “box” and moves them into the network. Installing in the network in front of onsite primary storage, the NSC-110 is based on a layer-7 transparent proxy, or 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:

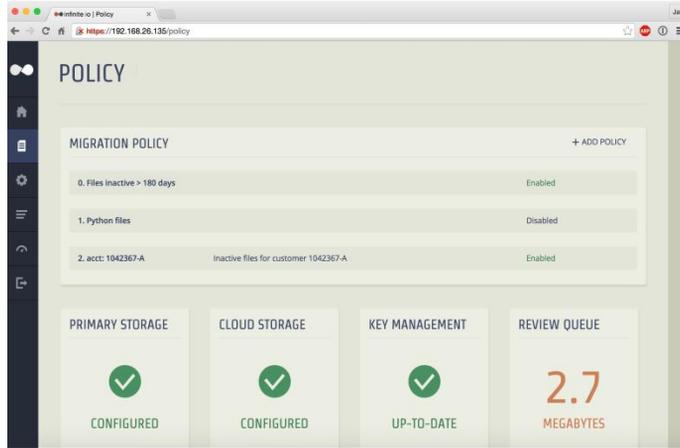
- Out-of-band (simulation)
- In-line (passive)
- In-line (active)

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 by using file migration policies to 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 variable 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 object store, served up, and put back on primary storage until it 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 will continuously migrate 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 object-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.

Models

| Specifications | NSC-110s-1610B | NSC-110-0810B | NSC-110-1201B |
|------------------|----------------|---------------|---------------|
| CPU Cores | 24 | 12 | 12 |
| DRAM | 384GB | 256GB | 256GB |
| Flash SSD | 5TB | 5TB | 5TB |
| 1 Gbit Ethernet | 0 | 0 | 12 |
| 10 Gbit Ethernet | 16 | 8 | 0 |
| Bypass Ports | 16 | 8 | 12 |
| Form Factor | 2U | 2U | 2U |