



# NSC-055s

## NETWORK-BASED METADATA ACCELERATOR

### KEY BENEFITS

#### ULTRA-HIGH PERFORMANCE

1,500,000 metadata operations per second

Average latency less than 20 microseconds

#### TOTALLY TRANSPARENT

No new mount points, file systems or virtualization

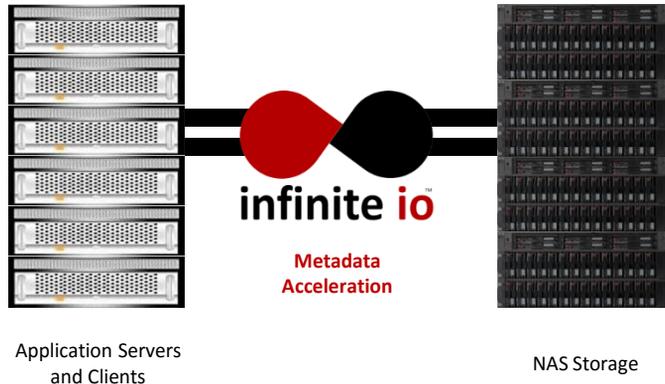
#### ALWAYS "HOT"

Metadata map collects metadata for all stored files regardless of usage patterns

#### COMPATIBLE

Works with all NAS systems supporting NFSv3

### Enhance the performance and extend the life of NAS Systems



*The NSC-055s installs in-band, like a network switch, and uses a combination of DRAM and flash memory to off-load metadata requests from attached NAS storage systems*

#### The Challenge

As data continues to grow at exponential rates, storage administrators are burdened with storage systems that cannot scale to the performance required. All too often storage systems become the bottleneck to actual file system performance. End-users experience poor and unpredictable performance as storage system resources become overwhelmed by requests for data. In many workloads, over eighty percent of this burden comes from metadata requests.

IT administrators face the additional challenge of limited budgets and the desire to extend the life of existing systems.

#### The Solution

The NSC-055s Network-based Metadata Accelerator offers IT managers a low-cost, easy-to-install and easy-to-integrate solution for improving the metadata performance of existing NAS systems.

Installing in the network in front of existing NAS systems, the NSC-055s is based on a layer-7 transparent proxy, or bump-on-a-wire, and is 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 metadata activity. The NSC-055s introduces no new file systems, no new mount points, no virtualization, and no storage domain mapping – it is completely transparent.



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### OVERVIEW

#### FAULT-TOLERANT

Fail-to-a-wire and dual-power

#### CONNECTIVITY

Eight 10-Gigabit port pairs

#### NON-DISRUPTIVE MODES:

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

#### AGENCY APPROVALS

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



The NSC-055s is packaged in a standard 2U form factor x86 platform

#### Highest Metadata Performance

The NSC-055s creates a memory-based “metadata map” by initially scanning all the file systems and mounts it is supporting. After the initial file systems scan, deep packet inspection is used to keep metadata current and respond to requests. Unlike a cache, it is always hot

By serving metadata requests out of DRAM memory at 20 microseconds and delivering up to 1,500,000 metadata operations per second, the NSC-055s is able to performance-enhance even flash-based NAS systems.

#### Easy to Manage and Deploy

The NSC-055s is easily managed with a standard web browser using the embedded infiniview™ software. IT administrators can view real-time analytics on which metadata operations are being off-loaded to the NSC-055s across all NAS systems. The NSC-055s can even be installed in an out-of-band or passive in-line mode, allowing IT administrators to view metadata analytics.

#### Model

Specifications	NSC-055s-1610B
CPU Cores	24
DRAM	384GB
Flash SSD	5TB
10 Gbit Ethernet	16
Bypass Ports	16
Form Factor	2U

The NSC-055s is upgradeable to a full-featured NSC-110s Network-based Storage Controller via the purchase of a NSC-110U software upgrade. In addition to metadata acceleration, the NSC-110s provides seamless integration of a private or public cloud into existing NAS systems.