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NSC-055s NETWORK-BASED METADATA ACCELERATOR

Optimize performance and add more life to existing NAS systems

Challenge

As data continues to grow at exponential rates, many storage systems struggle to keep up. Poor performance and an inability to scale creates bottlenecks for file system performance as storage system resources become overwhelmed by data requests, up to 90 percent of which are for metadata.

This scenario is particularly challenging for IT administrators with limited budgets and a desire to extend the life of existing systems.

NSC-055s KEY BENEFITS

ULTRA-HIGH PERFORMANCE

3,200,000 metadata operations per second

Average latency
40 – 100 microseconds

TOTALLY TRANSPARENT

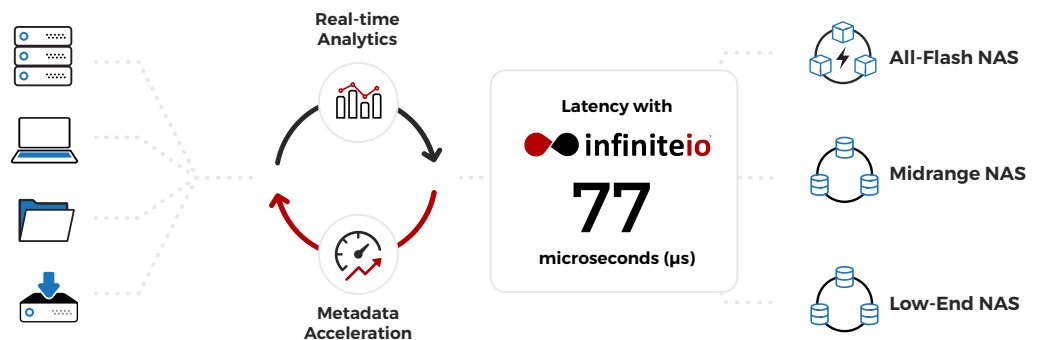
Installs like a network switch. No new mount points, file systems or virtualization

ALWAYS HOT

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

COMPATIBLE

Works with all NAS systems supporting NFSv3



Accelerates file metadata by up to 50X without requiring access to original file, storage or file system.

Solution

The NSC-055s Network-based Metadata Accelerator optimizes performance and adds more life to existing storage solutions through a low-cost and simple solution that improves metadata performance by up to 50X.

The NSC-055s sits in front of existing NAS systems, making it completely invisible to installed applications, servers and clients. With appearance of primary storage, the NSC-055c uses deep-packet inspection to manage and respond to metadata requests without any changes to existing workflows. It requires no new file systems, mount points, virtualization software or storage domain mapping. The NSC-055s is completely transparent.

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NSC-055s OVERVIEW

FAULT-TOLERANT

Clusterable for system fault-tolerance and port scaling

CONNECTIVITY

Eight 10Gbps port pairs per accelerator.
Minimum twenty-four port pairs in a cluster.

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 enhances the performance of existing NAS products by scanning all file systems to create a memory-based metadata map and using deep-packet inspection to keep metadata current and hot for file requests. It even optimizes the performance of flash-based NAS systems by serving metadata requests out of DRAM memory as fast as 40 microseconds and delivering up to 3.2 million metadata operations per second.

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 regarding 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.

SPECIFICATIONS

The NSC-055s is configured in a single node or as part of a three-node cluster. Units are clustered with a backplane switch. Clustered accelerators act as a single logical unit and provide fault-tolerance that meets or exceeds attached storage and withstands network, controller and storage failures. The minimum cluster size is three accelerators with 24 10Gbps port pairs. Clustered accelerators support rolling upgrades that can be conducted while in service. Additional accelerators can be added as needed to meet connectivity and file system requirements.

Specifications	NSC-055s-1610B	NSC-055s-1610-3
CPU cores	40	120
DRAM	768GB	2304GB
SSD flash	5TB	15TB
10Gbps Ethernet port pairs	8	24
Form factor	2U	7U

Upgradeable to a NSC-110s

The NSC-055s is software upgradeable to a full-featured NSC-110s Network-based Storage Controller for a simple and optimized hybrid cloud storage environment with existing NAS systems.

ABOUT US

InfiniteIO makes hybrid cloud storage simple and fast, ensuring information flows to people and applications that need it most, without disruption. Based in Austin, Texas, InfiniteIO provides real-time insights to analyze, optimize and scale capacity and performance throughout the hybrid cloud for global enterprises, research organizations and media companies. InfiniteIO offers customers and partners the fastest way to implement a hybrid cloud strategy and maximize the value of cloud storage. Learn more at www.infinite.io or follow the company on Twitter @infiniteio and LinkedIn.

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