



Mercury Network Storage System

BlueArc's Next Generation Hybrid-Core Platform

HIGHLIGHTS

- Massive computing parallelism delivers the performance to support multiple, varied applications
- Scales up to 2PB usable capacity, a 256TB file system, and thousands of concurrent users
- Clusters up to eight nodes with Cluster Namespace to enable horizontal scalability
- Concurrent support for iSCSI, NFS and CIFS eliminates storage silos
- Dynamic, policy-based data migration and caching simplify management of infrequently accessed data
- Integration with many legacy third-party network attached storage devices protects prior investment
- Support for multiple, best-in-class storage options for varied workloads

The BlueArc Mercury™ Server is a next generation network storage platform that consolidates multiple applications and simplifies storage management for businesses with mid-range storage requirements—without compromising performance and scalability. Its open architecture excels across a variety of application environments, including general purpose file systems, database, messaging and online fixed content.

The Mercury platform leverages a hybrid-core architecture that delivers the highest performance available in mid-range systems. Employing field programmable gate arrays (FPGAs) and traditional multi-core processors, this architecture separates data movement and management processes that normally compete for system resources. Data is transferred between logical blocks in a point-to-point fashion, preventing conflicts or bottlenecks and ensuring consistently high performance. The hybrid-core architecture works in combination with BlueArc's advanced data management services and an integrated Storage Ecosystem to deliver an optimized storage solution.

Mercury's unique hardware accelerated file system delivers no-compromise system performance while multiple levels of virtualization overcome the complexities of large scale file system management and data availability. BlueArc's Cluster Namespace, or file system virtualization is a global namespace that integrates all elements to provide a single logical view of data regardless of where it resides in physical storage. Mercury also provides a common, policy based management environment allowing administrators to reduce infrastructure costs by automatically placing data on the most cost-effective tier of storage without compromising accessibility. The Mercury Storage Ecosystem supports a wide variety of storage arrays and media, allowing organizations to create an optimal, tiered storage environment, including high-performance online, moderate performance nearline, and infrequently accessed archival data.

Mercury Series

MERCURY 50		MERCURY 100	
System Class	Midrange	System Class	Performance Midrange
NFS Throughput (IOzone)	700 MB/s	NFS Throughput (IOzone)	1100 MB/s
Max Total Storage Capacity	1 PB	Max Total Storage Capacity	2 PB
Max Number of Cluster Nodes	2	Max Number of Cluster Nodes	8

Hardware Specifications

LAN INTERFACE	
Number of 1 GbE Ports (Copper)	6
Number of 10 GbE Ports (Optical)	2
Dual 1GbE/ 10 GbE Connectivity	Yes
Link Aggregation (Like Ports)	Yes

SAN INTERFACE	
Number of FC Ports	4
FC Port Speed	4 Gbps
Aggregate FC Throughput	8 Gbps

CLUSTERING	
Interfaces	2 x 10 GbE (Active/Active)
High Availability	True Active-Active Clustering
Optional Licenses	Cluster Namespace, Clustering

PRIVATE MANAGEMENT NETWORK	
Number of Native Ports	2 x 1GbE
Number of Switch Ports	5 x 100MbE

INTERNAL STORAGE	
Number of Internal Hard Drives (OS Only, not data storage)	2
Type of Internal Hard Drives	2.5" SATA

DIMENSIONS	
Height	3U, 5.1" (130mm)
Width	17.2" (437mm)
Depth	27" (685mm)
Weight (Racked)	55 lbs (25 Kg)
Weight (shipping)	60 lbs (27.2 Kg)

POWER AND COOLING	
Number of Cooling Fans	3 hot-swappable
Number of Power Supplies	2 load-sharing, hot-swappable
Voltage Range	100 to 240 VAC
Amperage (Average / Max)	110 VAC - 2.3A / 2.8A 208 VAC - 1.2A / 1.5A 230 VAC - 1.1A / 1.4A
Power Supply Rating	450W
Average Power Usage	250W
Average Thermal (BTU / hr)	853
Max Power Usage	310W
Max Thermal (BTU / hr)	1057
NVRAM Battery	1 hot-swappable
NVRAM Recovery Window	72 hours

REGULATORY COMPLIANCE	
RoHS	<ul style="list-style-type: none"> RoHS 6 China RoHS Labelled
Safety	<ul style="list-style-type: none"> EU: EN 60950-1, Low Voltage 73/23/EEC Canada: CSA 60950-1 US: UL 60950-1
EMC	<ul style="list-style-type: none"> EU: 55022 class A, 55024, EN61000 US: FCC Part 15 Subpart B, class A Japan: VDDI class A

FILE SYSTEM SPECIFICATIONS

File system	BlueArc Hardware Accelerated File System
Max File System Size	256 TB
Number of File Systems per Namespace	128
Number of Directory Entries	16 million
Number of Snapshots per File System	1024
Number of Virtual Volumes	10,000
Number of Virtual Servers	64
Number of IP Addresses	256

STORAGE SPECIFICATIONS

Hard Disk Drives	Tiered Storage Supported with Solid State Disk (SSD), Fibre Channel (FC), Serial ATA (SATA), and Serial Attached SCSI (SAS)
BlueArc Storage Arrays	<ul style="list-style-type: none"> • RC12: Dual hardware-based FC RAID controllers in a 12 drive enclosure for SAS and Nearline SAS drives • RC16TB: Dual hardware-based FC RAID controllers in a 16 Drive enclosure for High Performance FC or SATA drives • RC16SA: Dual hardware-based FC RAID controllers in a 16 Drive enclosure for SATA drives only • SA-48: Dual hardware-based FC RAID controllers in a dense 4U sub-system with 48 SATA drives only
Hitachi Data Systems Storage Arrays	<ul style="list-style-type: none"> • HDS Adaptable Modular Storage - WMS 100, AMS 200, 500, 1000, 2100, 2300, 2500 • HDS Universal Storage Platform - USP/NSC and USP-V/USP-VM

SOFTWARE SPECIFICATIONS

Network File System Protocol Support	<ul style="list-style-type: none"> • Common Internet File System (CIFS) • Network Files System (NFS) – v2, v3, v4 • iSCSI
Network Transport Protocols	<ul style="list-style-type: none"> • NDMP v2, v3, and v4 • File Transfer Protocol (FTP) • Ethernet • TCP/IP • UDP
Management Protocols	HTTP, SSL, SSH, SNMP v1 and v2c, NIS, DNS, WINS, NTP, Email Alerts

SYSTEM MANAGEMENT SOFTWARE

Management Interfaces	<ul style="list-style-type: none"> • GUI based: web browser accessible • CLI-based: Telnet, Serial • Scripting for automated management
Hardware Management Includes:	<ul style="list-style-type: none"> • Mercury Storage Servers • RAID Controllers • Disk Subsystems • Fibre Channel Switches
Management Access Control	<ul style="list-style-type: none"> • User/Password authentication • Management port definition • Management access method • Access Control Lists (ACL's) • NIS, Active Directory, and LDAP

SOFTWARE FEATURES

Standard Features:	<ul style="list-style-type: none"> • BlueArc Hardware Accelerated File System • Network File System Protocol Support • Centralized Management • Snapshots & Quick Restore • Virtual Servers • Virtual Volumes • Virtual Storage Pools • Storage Balancing • Quotas - volume, group or user • NDMP (LAN-free backup) • Anti-Virus Support • RAID 1, 10, 5, 6 protection
Optional Features:	<ul style="list-style-type: none"> • Data Migrator • Dynamic Read Caching • Active-Active Clustering • Global Namespace • Replication • File System Rollback from Snapshot • Virtual Server Migration • Secure Virtual Servers

About BlueArc

BlueArc is a leading provider of high performance unified network storage systems to enterprise markets, as well as data intensive markets, such as electronic discovery, entertainment, federal government, higher education, Internet services, oil and gas and life sciences.

Our products support both network attached storage, or NAS, and storage area network, or SAN, services on a converged network storage platform.

We enable companies to expand the ways they explore, discover, research, create, process and innovate in data-intensive environments.

Our products replace complex and performance-limited products with high performance, scalable and easy to use systems capable of handling the most data intensive applications and environments.

Further, we believe that our energy efficient design and our products' ability to consolidate legacy storage infrastructures, dramatically increases storage utilization rates and reduces our customers' total cost of ownership.



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