



BLUEARC PLATFORM OVERVIEW

MERCURY 55	Product Class: Lower Mid-range
	Cluster Nodes: 2
	Max Storage Capacity: 4PB
	Max File System Size: 256 TB
	NFS Throughput: 700 MB/s
	Performance (Ops/Sec): 60,000

MERCURY 110	Product Class: Mid-range
	Cluster Nodes: 4
	Max Storage Capacity: 8PB
	Max File System Size: 256 TB
	NFS Throughput: 1100 MB/s
	Performance (Ops/Sec): 100,000

TITAN 3100	Product Class: High End
	Cluster Nodes: 8
	Max Storage Capacity: 8PB
	Max File System Size: 256 TB
	NFS Throughput: 1200 MB/s
	Performance (Ops/Sec): 100,000

TITAN 3200	Product Class: High End
	Cluster Nodes: 8
	Max Storage Capacity: 16PB
	Max File System Size: 256 TB
	NFS Throughput: 1900 MB/s
	Performance (Ops/Sec): 200,000

BlueArc Network Storage Platforms

Hardware Acceleration for Performance and Scalability

BlueArc offers the highest performing, most scalable network storage systems on the market through the Titan and Mercury Servers. BlueArc Titan solutions are designed for customers who require the highest performance and scalability for their most demanding revenue-generating applications, enterprise mission-critical applications, and High Performance Computing (HPC) applications. In comparison, BlueArc Mercury solutions support customers with mid-range storage requirements who wish to reduce their total cost of ownership through consolidation without sacrificing performance and scalability.

Both platforms leverage SiliconFS, BlueArc’s patented hardware accelerated file system, and a full suite of intelligent management tools. Hardware acceleration enables file system performance and scalability without compromise, while multiple layers of storage virtualization overcome the complexities associated with large-scale file system management and data availability.

The Titan and Mercury platforms operate in conjunction with BlueArc’s comprehensive technology framework, which incorporates advanced data management and an integrated storage ecosystem. These integrated components deliver an optimized storage solution that is capable of efficiently addressing a wide range of storage requirements.

TITAN: HIGH-END UNIFIED NETWORK STORAGE

The BlueArc Titan Network Storage System is designed for organizations that require high performance and scalable storage to drive revenue, increase quality and speed time-to-market. Titan offers the highest performance, most scalable network storage on the market today.

HIGHEST PERFORMANCE

Titan is the optimal platform for high performance, data intensive application environments. It is designed to handle very large workloads and continue to deliver high performance through crunch times. Whether rendering complex special effects for a movie, processing Petabytes of geological survey data, or serving the e-mail needs for thousands of users, Titan is up to the task. It provides the highest level of IOPS per server and offers the choice of 10 Gigabit Ethernet or Gigabit Ethernet for high throughput NAS and iSCSI networking connectivity. Additionally, as additional servers are added to a Titan cluster, IOPS performance increases linearly. This makes Titan the ideal solution for customers with growing performance requirements.

MOST SCALABLE

As data and user populations grows, or as performance needs accelerate, Titan can easily scale to eight nodes in a single cluster to meet expanding demands with enhanced access, capacity and performance. Enterprises can add storage at any time to meet new application or business needs, or to consolidate disparate storage into a single point of management, without downtime. A single Titan can support multiple file systems for a total capacity of up to 16PB under a single namespace.

MERCURY: MID-RANGE UNIFIED NETWORK STORAGE

The BlueArc Mercury is a premium, mid-range network storage platform that consolidates storage systems serving multiple applications to lower the total cost of ownership of storage infrastructures. Mercury is built upon a unique hybrid core architecture that uses the best properties of BlueArc's classic FPGA-based design to optimize data movement, coupled with high performance, multi-core processors to efficient data management functions. This unique architecture allows both classes of activity to work at full speed without impacting each other. Like Titan, Mercury leverages the BlueArc SiliconFS file system and parallel RAID striping across arrays to deliver the highest performance and scalability of any product in its class. Simplified management reduces administrative complexity without compromising performance and scalability.

HIGH PERFORMANCE

Mercury based solutions provide the best price/performance profile in the mid-range. They are designed to handle a number of simultaneous workloads such as serving e-mail to thousands of users and hosting large-scale OLTP applications, all while maintaining high levels of performance. The Mercury series provide high IOPs performance and utilizes built-in 10 Gigabit and Gigabit Ethernet for high throughput NAS and iSCSI networking connectivity.

HIGH SCALABILITY

Mercury solutions offer up to four nodes in a single cluster to meet demands for scalable storage with greater access, capacity and performance. Storage can be added at any time to meet new application or business needs, or to consolidate disparate storage all with a single point of management, without downtime. Mercury solutions offer a total capacity of from 4 to 8 PB under a single namespace, all easily managed from a central System Management Unit (SMU) that enables administration via CLI or an intuitive GUI.

A SILICON POWERED FILE SYSTEM

Both the Titan and Mercury storage systems take advantage of SiliconFS, BlueArc's hardware accelerated file system. SiliconFS provides a comprehensive set of storage virtualization tools within the system to simplify the administration of file system functions and ensure high utilization of system resources.

INTELLIGENT DATA MANAGEMENT

Included in SiliconFS is metadata optimization for improved storage efficiency. The number of metadata operations is significantly greater than the regular data operations and contributes to a larger share of the I/O workload mix. This function enables customers to use fewer high performance disks combined with lower cost disks while achieving the same very high performance. It delivers this efficiency by automatically separating the metadata from the user data, placing the metadata on the faster tier of storage being used and placing the user data on the slower, less expensive tier, resulting in improved overall system performance and reduced costs.

The Cluster Namespace functionality provides a single namespace with a directory structure that is independent of where data actually resides in physical storage. The SiliconFS file system serves as the common point of integration for all elements of a storage solution. It spans single nodes, server clusters, virtual servers, external, third-party storage devices and even embeds iSCSI for block data access. Mixed mode security enables simultaneous access to native CIFS and NFS based files from shared directories.

SiliconFS includes core functionality for storage virtualization. Individual file systems belong to Virtual Servers within each physical system, each with its own set of IP addresses, policies and individual port assignments. Virtual Servers are used to group server resources to match the needs of application or organizational requirements. In a clustered environment, file systems can be quickly relocated among physical servers for load balancing, and Virtual Servers automatically migrate in a cluster failover scenario. The file system also organizes RAID storage into a logical pool of shared storage that can simultaneously provision multiple file systems. This allows administrators to provision file systems as needed manually or by setting rules that automatically enforce policies. It also allows them to add storage capacity when necessary, distributing data dynamically across available storage to optimize performance.

ADDRESSING THE FULL RANGE OF NETWORK STORAGE APPLICATIONS

With its Titan and Mercury network storage solutions, BlueArc provides flexible platform options that deploy an industry leading file system - SiliconFS, a full suite of intelligent management tools and a storage ecosystem. These solutions support a full range of IT requirements, price points, application environments and user loads. In particular, Titan solutions are designed to accelerate high-end applications. Mercury solutions reduce costs and improve total cost of ownership for mid-range customers.



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