

SOLUTION BRIEF

Software-defined Storage (SDS) for Datacenters
Intel® Xeon® Processor
Intel® SSD Data Center Series
Public-Private Cloud



Rethinking and Simplifying How Data Is Managed with FreeStor®

Software-defined Storage (SDS)-based converged data services powered by Intel® architecture



Unlike other SDS solutions, FreeStor® enables transformation of datacenter storage infrastructures to a true software-defined model, and provides intelligence and unified data services across heterogeneous storage platforms in a way that allows organizations to base storage investments on application and business needs.

FalconStor® Software, Inc. is a software-defined storage company offering a hardware-agnostic, converged data services platform. Our flagship product, FreeStor®, delivers Intelligent, predictable, and actionable SDS-based data services across your existing cloud, hybrid cloud, Intel® SSD Data Center Series, and flash storage environments, allowing IT managers to maximize storage utilization and reduce costs while providing intelligent insight into operational efficiencies—without investing in all-new technology or being forced to replace older technology.

With FreeStor® you can:

- **Decouple** storage hardware, networks, and protocols and enable the free flow of data and common services between the front-end and back-end, regardless of environment or location
- **Unify** data services across environments to form a truly horizontal, SDS platform
- **Abstract** the data services from the underlying hardware
- **Standardize** capability across heterogeneous hardware
- **Lower** cost and complexity

Services

FalconStor's FreeStor® Software-defined Storage (SDS) platform leverages Intel®-based x86 architectures to optimize storage environments from commercial arrays to custom white-box solutions of almost any scale. FreeStor's Intelligent Abstraction® core scales to enterprise-class performance with Intel® processor cores. Additionally, Intel chipset capabilities for encryption—and performance management such as turbo boost mode—are used to optimize storage features.

FreeStor® can be used either as a storage service platform that includes a complete portfolio of data services (migration, continuity, recovery, and optimization), or to support individual services such as data replication; snapshots; and always-on, active-active clustering technology. These two-way and four-way clusters are deployable in either local or stretch configurations.



Technical Features

- Next-generation Intelligent Abstraction® layer
- OEM Ready Web UI w/ REST APIs
- Unified and centralized management, monitoring, reporting, and configuration (via web, tablet, smartphone, etc.)
- Improved failover/HA (active/active) with two- and four-node stretch and local cluster options
- Enhanced I/O performance, with more than 1 million IOPs per IO cluster, using Intel® SSD Data Center Series
- Improved latency (embedded, gateway, cluster)
- In-line, block-level deduplication
- New simple and flexible pricing model

Technical Benefits

- Horizontal architecture with a single platform, and a single price
- Seamless migration of data to, from, and across storage platforms
- Centralized management for enhanced simplicity
- Intelligent analytics and insight across heterogeneous storage environments
- Access to the latest storage venues like the cloud, hybrid cloud, Intel® SSD Data Center Series, and flash

FalconStor's Open Approach to Storage

FalconStor is leveraging Intel's chipset features, add-in cards, and RAID controller technology to optimize cross-vendor and varied interconnect and performance tiers of storage. FalconStor is actively engaged with optimizing IT operations for large, heterogeneous datacenters, MSP/CSP cloud services delivery, and embedded SAN feature capabilities for OEM and commodity storage vendors.



Intel technologies' features and benefits depend on system configuration and may require enabled hardware, software or service activation. Performance varies depending on system configuration. No computer system can be absolutely secure. Check with your system manufacturer or retailer or learn more at intel.com/storage.

Software and workloads used in performance tests may have been optimized for performance only on Intel microprocessors. Performance tests, such as SYSmark and MobileMark, are measured using specific computer systems, components, software, operations and functions. Any change to any of those factors may cause the results to vary. You should consult other information and performance tests to assist you in fully evaluating your contemplated purchases, including the performance of that product when combined with other products.

Configurations: <http://falconstor.com/subpage/911/server-hardware>; http://falconstor.com/resources/files/1261/FalconStor_Server_Hardware_Details.pdf

For more information go to intel.com/performance.

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The FreeStor platform operates with a web-based and mobile-app interface that taps into open REST API calls. This interface is easily embedded into other management consoles and self-service portals to provide a common control plane across storage resources and operational locations. Following in the spirit of "open standards for open source," FreeStor provides an open interface across previously proprietary systems to communize business operation processes and reduce risk and cost across the infrastructure.

Addressing Business Challenges

FreeStor delivers greater efficiencies, reduced downtime, lower IT costs, and improved simplicity with a unique, hardware-agnostic approach.

Intelligent Abstraction

- Horizontal architecture with a single platform and simplified pricing
- Data migration to, from, and across storage platforms
- Common data services across infrastructure vs. licensing and managing an array by array
- Access to the latest storage venues like the cloud, hybrid cloud, Intel® SSD Data Center Series, and flash

Intelligent Predictive Analytics

- Centralized management for enhanced simplicity
- Predictive analytics for real-time heterogeneous monitoring and management—both locally and remotely

Intelligent Action

- Proactive detection and smart rules

Learn more at intel.com/storage.