

# Rethinking How Data is Managed

## FreeStor® - Software Defined Storage with No Surprises

Today's challenges require a new, software-defined approach that eliminates vendor lock-in, proprietary platform silos, increased complexity, and lack of hardware and software compatibility. Only FreeStor addresses those challenges head on and delivers real value to help organizations reduce costs, eliminate silo's while providing real flexibility and freedom.



**Intelligent Abstraction** – Virtualizes existing AND future storage for a more efficient and available data pool



**Intelligent Predictive Analytics** – Provides real-time and historical analytics across the heterogeneous storage pool to better manage capacity, performance, and availability



**Intelligent Action** – Enables users to take action based on real-time information to optimize and maintain their storage environment from a single-pane-of-glass regardless of storage vendor or location

FreeStor gives customers the power to seamlessly migrate, recover, protect, and optimize data – on or off the cloud – without tying their business to specific hardware, networks, or protocols. Whether you are an Enterprise deploying a Private Cloud, or you are an MSP or CSP offering hosted /hybrid cloud services, FreeStor is optimized to deliver common data services at a lower cost to own, implement and manage.



**ADAPT FASTER**  
Provision storage in 6 clicks - less than one minute



**LOWER YOUR COSTS**  
Pay up to 90% less than buying same features and capacity vs. array-by-array



**USE ONE TOOL**  
Single pane of glass for ALL storage; monitor, report and analyze from ONE tool



**NO SURPRISES**  
Track utilization and predict capacity to better forecast budgets and resources

## Your On-Ramp to the Cloud

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### A Compelling Business Case

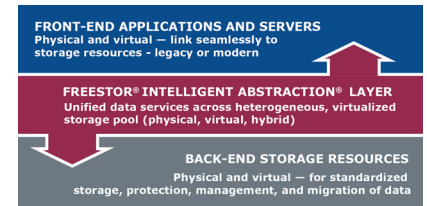
- **Increase Agility**  
Common data services across storage infrastructures regardless of platform, type, or vendor
- **Eliminate Risk**  
16 years of proven data services ensures continuous operations regardless of hardware. Real-time analytics with proactive and re-active alerts maximizes productivity
- **Improve Efficiency**  
Virtualized storage pool, global deduplication, and WAN optimized replication reduce operational and infrastructure costs.
- **Increase Productivity**  
Single-pane-of-glass to provision, orchestrate, and manage capacity and data services
- **Reduce Costs**  
Right-size storage investments based on price-performance needed. Eliminate duplicate licenses for data services and vendor lock-in

## The Power of Intelligent Abstraction®

FreeStor's patented, award-winning Intelligent Abstraction decouples storage hardware, networks, and protocols, enabling the free flow of data and common services between the front-end and the back-end, regardless of environment or location. FreeStor virtualizes underlying physical storage, in-part or in-full, to create a unified storage pool.

From that storage pool, we abstract the provisioning of storage, regardless of vendor, type (Flash, Disk, Hybrid) or location (local, remote, multi-location). This storage pool virtualization is a key enabling technology that delivers better utilization of resources, eliminates storage "silos", and helps re-capture stranded or under-utilized storage resources.

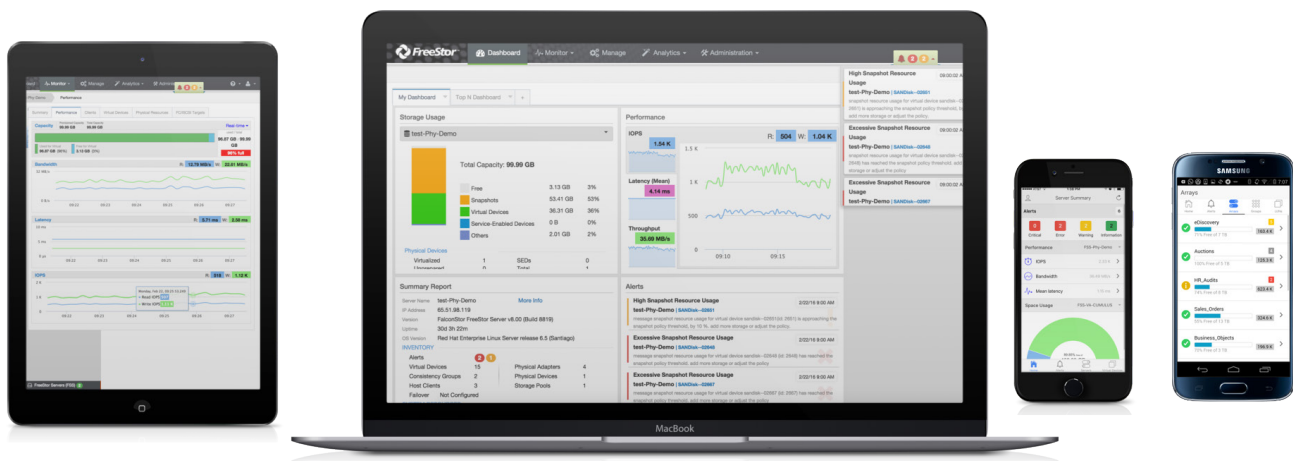
This approach allows FreeStor to dramatically simplify the complexities of shared storage environments through our centralized GUI. In as few as 5 click of a mouse, storage can be deployed. No unique expertise or extensive training is required and a significant decrease in the time and steps it takes vs. using traditional, platform specific approaches.



## All New Interface Significantly Improves Management and Monitoring From a Single-Pane-of-Glass

With FreeStor, a single pane of glass delivers a common interface to deploy data services in a simple, consistent manner regardless of the underlying storage type, vendor or location. An all new HTML-5 based GUI with full REST APIs significantly simplifies the implementation, management and monitoring of your storage infrastructure and data services from a single console. Console data can also be viewed on a tablet or smartphone with an IOS- or Android-native mobile app, and receive alerts via text/SMS, email or SNMP. Users can set up customizable dashboards and get both real-time and historical information.

Only FreeStor offers analytics and insight across heterogeneous storage environments with predictive insight. A New Smart Rules engine allows users to take action, both pro-active and reactive, as needed. Everything you need to manage across your entire heterogenous storage infrastructure is presented in a single console. This gives you unprecedented insight into your storage, removes silos, reduces the cost of management and enables better capacity forecasting and budgeting.



## High-Performance Unified Storage Management Platform

FreeStor consists of the FreeStor Management Server centralized database, FreeStor Storage Servers and the FreeStor Global Dedupe Repository. The FreeStor Management Server handles storage virtualization through FreeStor's Intelligent Abstraction® layer. Storage administrators can use the FreeStor GUI from any browser, smartphone or tablet. The high-availability platform includes Active-Active I/O clusters and REST APIs to enable Enterprises, MSP's and Cloud Providers to integrate FreeStor in existing management consoles.

## Core Platform Capabilities

- MIGRATION** A unified platform for legacy and virtual storage resources
- CONTINUITY** Your data is available where and when needed, and optimized to work with the highest performance applications
- RECOVERY** Recover data wherever you travel via your mobile or tablet interface
- OPTIMIZATION** FreeStor's optimization with inline deduplication means lower storage costs and increased backup efficiency
- ANALYTICS** Provides real-time and historical analytics of health and performance metrics (such as IOPs, bandwidth, and latency for reads, writes, and combined performance) across the heterogeneous storage pool to better manage capacity, performance, and availability

## Core Platform Components

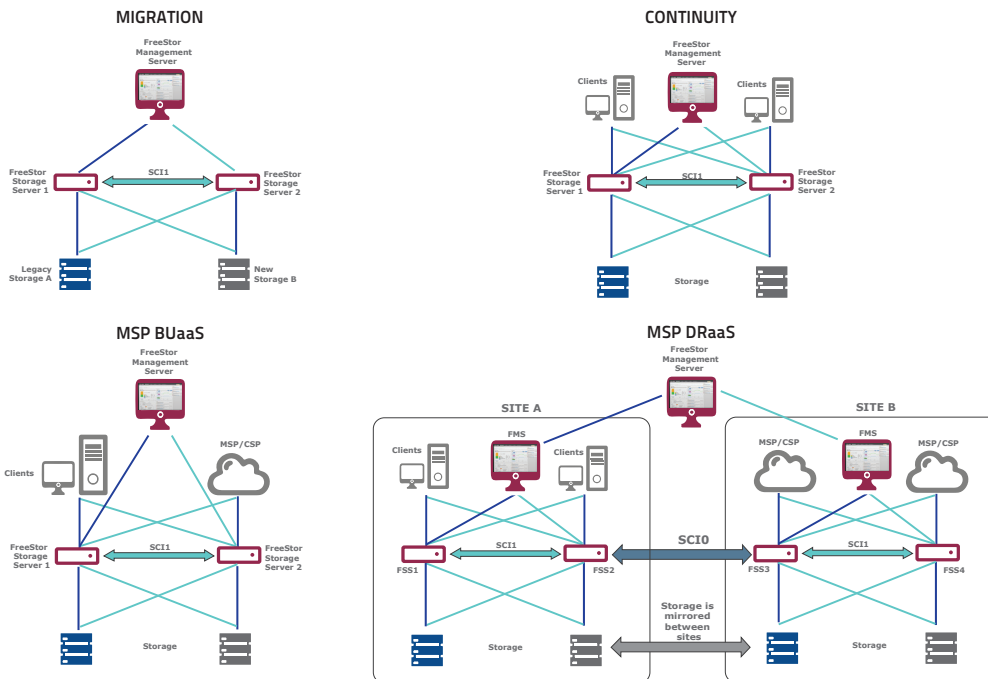
- FREESTOR MANAGEMENT SERVER (FMS)** Running the FreeStor Portal
- FREESTOR STORAGE SERVER (FSS)** Providing comprehensive data services

## FreeStor Topology

FreeStor's award-winning SDS architecture works across disparate heterogeneous platforms and locations to deliver a common, unified set data services, as well as analytics on those services, using a single, centralized console.

## Stretch Clusters

The ideal configuration for Business Continuity is a Stretched Cluster: Live data in sync at two dispersed locations. Few storage vendors offer it, and only one does it well - FalconStor. Stretched Clusters achieve the perfect RPO and data RTO - Zero!



### Technical Features

- **NEW:** Predictive Analytics across all storage resources
- **NEW:** Simplified Web UI w/ REST APIs
- **NEW:** SAP Hana Certification
- **NEW:** OpenStack Cinder Driver
- **NEW:** Smartphone apps for Android and iPhone
- Next generation Intelligent Abstraction<sup>®</sup> layer
- Unified, centralized management, monitoring, and reporting via Web, tablet, and smartphone
- Improved Failover/HA (Active/Active)
- IO Cluster and IO Multi-Cluster (4-way)
- Over 1 million IOPs per IO Cluster using SSD
- Improved latency
- Inline block-level deduplication

### 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
- Access the latest storage venues like the public/private/hybrid cloud, SSD and Flash

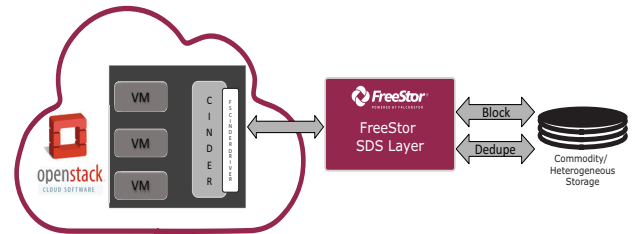


## SAP HANA Certification

FreeStor has been certified by SAP ICC for SAP HANA. This will enable customers for accelerated integration of a FreeStor and SAP Solution that has been pre-tested, can be up and running with minimal integration effort and a proof point for technical alignment with SAP solution.

## FreeStor OpenStack Cinder driver

For organizations that have implemented an OpenStack cloud infrastructure, and are looking for a software defined storage abstraction layer to bring flexibility and hardware agnostic storage solutions to their ecosystem, the new FreeStor Cinder driver brings the added benefits of FreeStor Software Defined Storage to the OpenStack cloud.



## What Our Partners Are Saying About FreeStor

### Sunrise

"FreeStor helps us to provide infrastructure services that support our business to provide the highest levels of availability and data security. It allows us to support the business by driving faster and lower-cost launches of new products and services." *Sandor Orban, Technical Lead Infrastructure Services, Sunrise Communications AG*

### Imptech

"The FreeStor platform provides our customers with an intelligent and flexible technology layer that enables common, efficient, and cost-effective storage services, and centralized management of storage resources across an organization." *Gabriel Enzo Gagliardi, CEO, Imptech*

### Telefonica

"With FreeStor we are able to offer a converged storage ecosystem with a full suite of services. This is how Telefonica can help companies become intelligent enterprises, with collaborative tools that boost the creativity of employees through talent empowerment." *Luis Urzua, Digital Solutions Manager, Telefonica Empresas Chile*



"FreeStor is the first real entry, in my opinion, into the service provider realm...FreeStor is an integral part of the Xterity brand, it's the only DR solution we offer...We feel that it's a unique fit and allows us to address a unique market need." *Scott Harris, Vice President of Services, Egenera*

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