

FreeStor[®] - Rethinking How Data is Managed

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

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.

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

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 single console. 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.

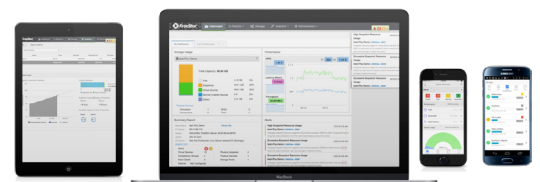
A New Smart Rules engine allows users to take action, both pro-active and reactive, as needed. Everything you need in a single console to manage your entire storage infrastructure, saving costs, and reducing time to manage and deploy!

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[®] layer**
- **Unified, centralized management, monitoring, reporting,** (via Web, tablet, smartphone, etc.)
- **Improved Failover/ HA (Active/Active)**
- **IO Cluster and IO Multi- Cluster (4-way)**
- **Over 1 million IOPs per IO Cluster** using SSD
- **Improved latency (embedded, gateway, cluster)**
- **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 cloud, hybrid cloud, SSD and Flash



FreeStor Software Appliance Kit Hardware Recommendations

| PHYSICAL CHARACTERISTICS | FREESTOR MANAGEMENT SERVER | FREESTOR DEDUPLICATION REPOSITORY | FREESTOR STORAGE SERVER |
|---|--|---|--|
| Server | Dell R730, HP DL380 G9, or equivalent (see FalconStor certification matrix for certified alternates) | | |
| Processor | 2 x Intel Xeon E5-26xx v3 with 8-Cores@ 2.6 GHz recommended minimum | | 2 x Intel Xeon E5-2600v3 with 18-Cores @ 2.3 GHz recommended minimum |
| Memory | 64GB minimum | 128GB minimum | 48GB minimum |
| Storage | 8TB NL SAS (RAID 1) minimum | 2TB NL SAS (RAID 1) minimum | 2TB NL SAS (RAID 1) minimum |
| FC ports | - | 4 x 16Gb ports minimum | 4 x 16Gb ports minimum |
| 1GbE ports | 4 minimum (8 for redundancy) | 2 minimum | 2 minimum |
| 10GbE iSCSI ports | - | - | 2 minimum |
| 10GbE optional ports | - | - | 1 for IO Cluster, 1 for NVRAM |
| PERFORMANCE | | | |
| Performance IOPS (using 8 FC ports) | - | - | 550,000 IOPS per standalone node, over 1 Million IOPS per cluster |
| Latency | - | - | 0.316 ms max per standalone node, 0.329 ms max per cluster |
| Inline Deduplication (with 1,000 virtual machines and 100% random data with a 20:80 read/write ratio) | - | Up to 120,000 IOPS per cluster using the NVRAM option | - |
| Total supported FSS/FDR nodes per FMS | 128 | - | - |

FreeStor Advantages

| DATA SERVICES | MIGRATION | CONTINUITY | RECOVERY | OPTIMIZATION |
|----------------------------|-----------|------------|----------|--------------|
| Unified GUI | ✓ | ✓ | ✓ | ✓ |
| REST API | ✓ | ✓ | ✓ | ✓ |
| Virtualization | ✓ | ✓ | ✓ | ✓ |
| Clustering (Active/Active) | ✓ | ✓ | | ✓ |
| Automated Recovery | | ✓ | ✓ | ✓ |
| Snapshots | | | | |
| Deduplication | | ✓ | ✓ | ✓ |
| Replication | ✓ | ✓ | ✓ | ✓ |
| WAN Optimization | ✓ | | ✓ | |

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