

PLATINSTOR[®] EX

HA Enterprise Storage for vast Storage Requirements

Enterprise Reliability and Security

Disaster Tolerant Design

Native Active/Active

Vast Storage Capability



Enterprise HA/DT SAN

- The PlatinStor® EX-4 forms the base system for a comprehensive enterprise HA SAN environment with virtually unlimited storage capacity and far upward scalable I/O performance. Modular design provides a cost-effective and easy removal.

Cascade Cache Technology

- Multilevel Cache Technology: CISC Cache, RISC Cache and SSD Cache provide unsurpassed performance.

Advanced Comprehensive Tiering

- Up to five tiering classes ensure optimum matching of the requirements for the performance of PlatinStor® EX.*

Unified Storage

- A platform for all storage-related applications, presentation of volumes over iSCSI and FC** and full NAS functionality via CIFS, SMB, NFS with native AD integration.

Native Active/Active

- All grid nodes located in the storage can be active and written to simultaneously for one and the same virtual volume and ensure maximum availability, even in the event of failure of one side for SAN and NAS services.

Multi-Tier Investment Protection

- Existing hardware, even from different manufacturers can continue to be used. PlatinStor® EX platforms can also be used in PlatinStor® EX next generation systems. A modular design allows a simple expansion at any given time.

Integrated Capacity Optimization

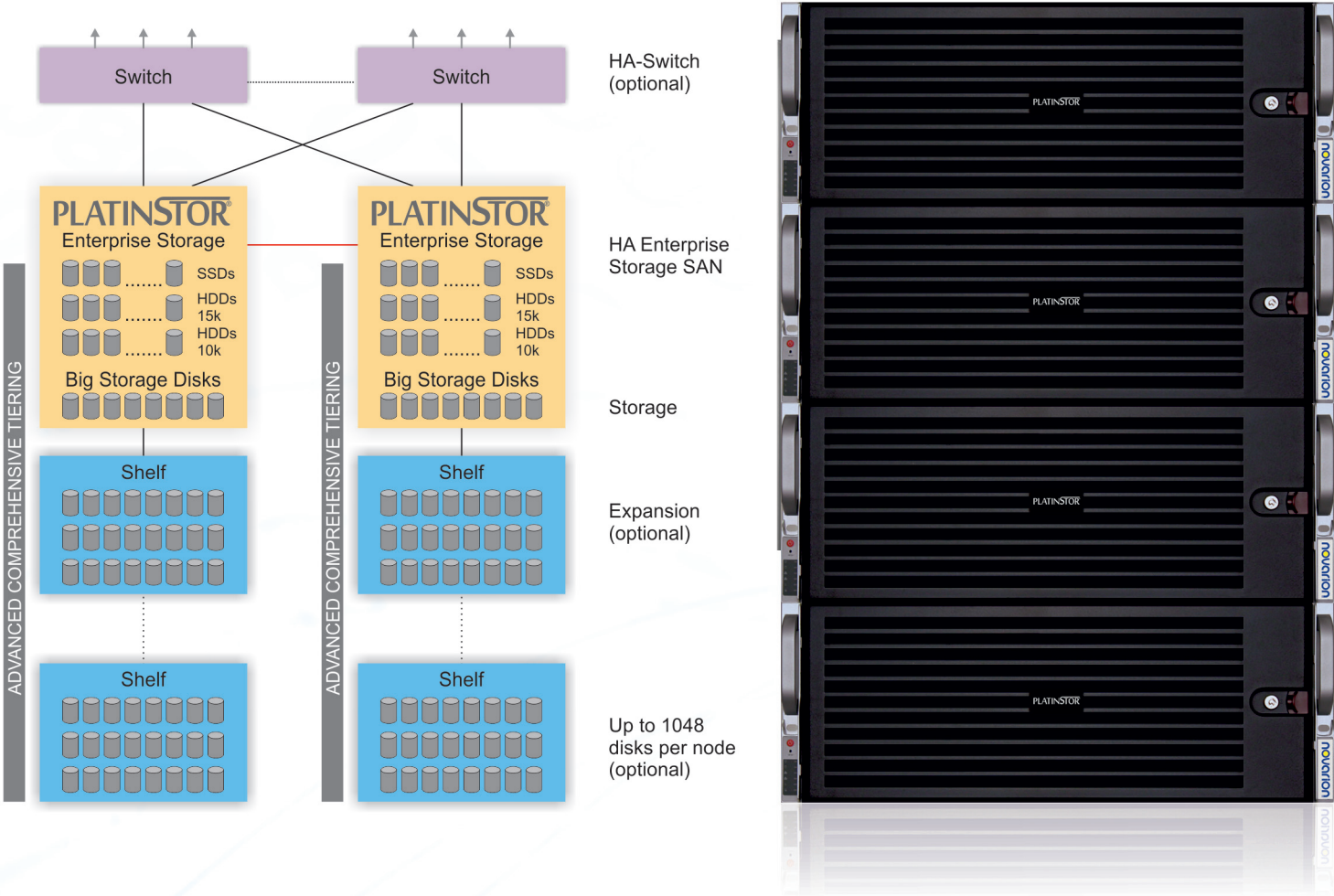
- By Native Thin Provisioning, integrated data flow analysis and optimization, almost 100% of physical memory is available for user data.

Enterprise Security and Reliability

- Unique features such as: Continuous Data Protection*, Advanced Snapshot, Enterprise Storage Virtualization, WSAN, Asynchronous Mirroring*, Advanced Site Recovery*, MPIO and special service levels make PlatinStor® EX one of the safest and most reliable storage systems in the world.

* Feature optional
** FC models

PlatinStor® EX-4/100-T24



saved! forever

True Synchronous Mirroring

- Each block that is confirmed by PlatinStor® EX, is guaranteed to exist on both nodes, data loss due to failure of one side is thus avoided optimally.

Convergent Connectivity

- All popular media and protocols are supported. iSCSI over GB, 10GB copper and optical (RJ-45/SFP+), FC 4GB and 8GB.**.

Easy Maintenance

- The PlatinStor® EX Management Console provides centralized control of the entire SAN grid, email notification as well as IPMI enable continuous monitoring, analysis and reporting tools ensure more efficient operation of PlatinStor® EX. In addition to the graphical user interface, there is a command line available.

TECHNICAL SPECIFICATIONS

Enterprise Security and Reliability

- Native Active/Active
 - PlatinStor® provides true native Active/Active. A volume can receive I/Os via each node and path.
- Load Redirection
 - In case of I/O errors or other failures on one node the load can be redirected via MPIO to the other node without any time loss.
- Disaster Tolerance
 - Enterprise Disaster Tolerance provides a maximum of data integrity by storing all I/Os on two independent nodes with its own storage arrays. Installation in two fire compartments grants the highest security and availability.
- Advanced Synchronous Mirroring
 - The real time cache mirroring on both nodes guarantees the storage of each I/O event even in the case of unforeseeable circumstances concerning a site or the network.
- Write Hole Prevention
 - With two separate storage units, a write-hole, as may occur with many systems, is ruled out with certainty, a concomitant comprehensive loss of data is no longer possible.

Performance

- RISC RAID
 - PlatinStor® EX systems are based solely on RAID LUNs with high-performance RISC striping, both I/O and throughput achieve the highest performance values.
- RISC Cache
 - RISC technology with a sophisticated write-ahead cache and I/O stream optimization increases the values of the physical storage media drastically.
- CISC Cache
 - By matching the CISC caches and read/write buffering, maximum performance for all read and write operations with minimum latency is achieved in the cache.
- SSD Caching
 - Of non-volatile storage media, SSDs feature the best values, the PlatinStor® EX can be equipped with SSD caching to be able to treat frequently used data quickly.
- ACT
 - Advanced Comprehensive Tiering allows the best use of different performance classes of storage hardware such as SSDs or SAS drives, the data is distributed automatically by frequency of use for the different speeds of tiers optimally.
- MPIO
 - The use of multiple network paths in parallel with the data stream split via two nodes allows the maximum bandwidth utilization.
- Load Balancing
 - The optimized load balancing across two nodes using MPIO maximizes the overall performance of the storage system and the server environment.
- IWO
 - Improved Write Stream Optimization groups and sorts the data stream and optimizes it for the write operation on the memory hardware, and reduces the movements of the head of a disk drastically.

Unified Storage

- SAN
 - PlatinStor® EX supports all relevant SAN protocols (iSCSI / FC) on all popular media (Gigabit and 10 Gigabit Ethernet and 2/4/8 Gb Fibre Channel).
- NAS
 - File services are presented by CIFS, SMB and NFS, the PlatinStor® EX represents a universal storage.

Network

- Convergent Connectivity
 - Universal support for all common transmission media and connections provides unprecedented comfort in the planning and establishment of a new storage environment, as well as re-use of an existing one. These include 8 Gbit Fibre Channel (LC), iSCSI GBit (RJ-45), and 10 Gbit iSCSI (RJ-45, SFP +)

Storage Space Optimization and Efficiency

- Native Thin Provisioning (NTP)
 - By means of intelligent thin provisioning only so much space from the pool is actually reserved as in fact is used. In this way, multiple servers or partitions reserve the physical space available for real demand dynamically, optimal utilization is guaranteed.
- Global CloudGateway (GCG)
 - The Global Cloud Gateway provides the technology for integration of storage space in the cloud, and flexibility in the future is granted.

Enterprise Flexibility

- Managed Storage-Pools
 - By intelligent storage pooling resources can be added or removed during operation. Pools are the basis for virtual volumes, they supply the foundation for maximum flexibility in dealing with the storage media at all represented levels.
- Pass Through Volumes
 - The possibility of passing through existing volumes from present infrastructure ensures a smooth transition into a high-performance storage system through Cascade Cache and Grid technologies.
- Advanced Storage Migration
 - By means of using the pooling technology and the possibility of adding existing systems a migration can be made during operation, and full advantage of PlatinStor EX can be taken.
- Vendor Independent Storage Integration
 - The standardization of PlatinStor® EX4 allows integration of common storage hardware from most vendors based on FC and iSCSI with all the PlatinStor® EX media.

Maintenance and Management

- Native AD Support
 - By Native Active Directory support the PlatinStor EX allows not only the importing of users but it can be completely integrated into Active Directory, thereby releases can be centrally managed using the domain controller.
- Storage Remote Management
 - The management of all nodes via a central management can be performed remotely via the Storage OS respectively through a hardware connection on IPMI standard.
- Hardware Monitoring
 - A series of sensors supply an overview of the state of the system, both directly through implemented hardware monitoring as well as via OS-based monitoring. By e-mail, status and warning messages are sent to an administrator, this is possible hardware based as well as on OS level.
- Analyse & Reporting
 - To analyze different scenarios, reports can be created, this optimizes the planning and administration of the entire storage area.
- Advanced Centralized Management
 - The storage grid can be easily managed by a central management console.

Resources

- Bays
 - 24 internal bays
 - With optional shelves up to 1024 HDDs/SSDs expandable
- Capacity
 - Up to 1PB expandable per node
- CISC Cache
 - 64GB
 - Up to 512GB expandable
- RISC Cache
 - 1GB
 - Up to 5x 1GB with Shelves

Snapshot

- Features
 - Create snapshots
 - Promote to full snapshot (create a complete image)
 - Update of the image
 - Update of the source (revert to an earlier snapshot)

Warranty

- Base warranty
 - 3 year On-Site service level NBD
 - Upgrade to 5 years On-Site Service (optional)
 - Upgrade to 5 years On-Site Service 24x7/4h Time to Fix* (optional)
 - PlatinStor® OS Support 24x7/4h for 3 years included

Licenses

- Storage
 - License 4TB included
 - Expansion of License up to 1PB available
- Licensed Features
 - Virtual Disk Pooling
 - Cascade Cache Technology
 - Native Thin Provisioning
 - Advanced Synchronous Mirroring
 - Easy Centralized Management
 - iSCSI Target Functionality
 - iSCSI Initiator Supply
 - Advanced Snapshots
 - Pass-through Volume Presentation
 - Advanced Storage Migration
 - Real-time Tracking
 - Analysis & Reports
 - Microsoft System Center Pack
 - VMware vSphere Plug-in
 - Continuous Data Protection (CDP)
 - Advanced Comprehensive Tiering
 - Asynchronous Replication
 - Advanced Site Recovery
- Optional Features

Dimensions

- Formfactor
 - 4U rackmount black
- Physical Dimensions
 - 437x178x660mm
- Weight
 - ~40kg (dependent on configuration)

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