Product Overview

IBM XIV Storage System
Tier 1 Storage Reinvented

IBM

Groundbreaking Grid Architecture for the Enterprise

The IBM XIV® Storage System is a revolutionary tier-1 disk system designed to support key current and future business requirements for a highly available information infrastructure. Its design is a grid of standard Intel®/Linux® components, connected in any-to-any topology using Gigabit Ethernet. This groundbreaking architecture provides outstanding enterprise-class performance, scalability, and reliability. It is a core component of the IBM Information Infrastructure which helps clients address their needs for availability, security, compliance and retention of information.

Superior Performance

Massive parallelism
The XIV system's massively parallelized architecture, optimal exploitation of all system components (including disks, CPUs, and switches), and unique caching architecture all translate into excellent performance.

No hot spots
The unique balancing of all data across system components prevents the occurrence of hot spots. With all components working under the same load, performance and reliability are exceptional.

SATA drives for enterprise
The XIV system uses SATA disk drives, capitalizing on the latest in SATA technology to provide huge capacities, high density, and low power consumption. It leverages XIV's unique architecture and caching scheme to deliver high performance that can even outperform FC disk-based systems.

Scalability

The XIV technology is designed to be scalable in all key aspects, including storage, interfaces, cache, CPU power, and internal bandwidth. The architecture supports each aspect to grow independently, yielding a truly scalable system in both capacity and performance.

Total Reliability

N+1 protection
The XIV platform provides unprecedented data protection and availability. All disk drives, modules, switches, and UPS units are fully redundant in an active-active N+1 scheme, ensuring high reliability and excellent performance.

Near-instant self-healing
Protection against disk failure is provided by a revolutionary rebuild process that brings the system back to full redundancy in minutes. The XIV system takes self-healing to the next level: it resumes redundancy even after failures in components other than disks.

Full Snapshot Features

Near-unlimited snapshots, with high performance
The XIV system's unique approach to snapshotting overcomes traditionally known drawbacks and enables a virtually unlimited number of differential snapshots. It does so without any significant impact to performance, no matter how many snapshots are created.

Instant snapshot creation, copy, and restore
The XIV system creates snapshots in practically zero time, providing immediate availability.

Remote mirroring
Remote mirroring provides protection, even against complete site failure situations.
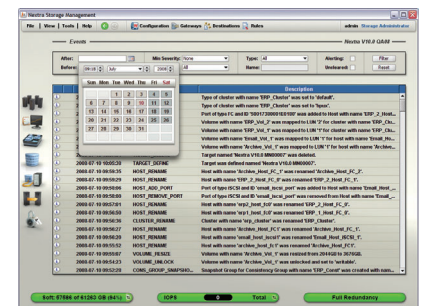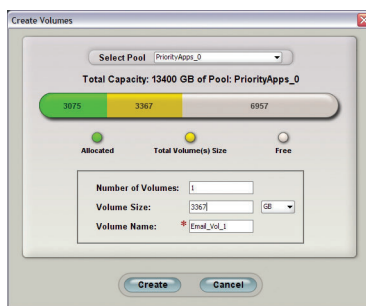
Ease of Management

True system virtualization

Virtualization is inherent to the basic principles of XIV's unique design. Physical drive location and data placement is invisible to the user. This dramatically simplifies storage provisioning, letting the system lay out the user's volume in an optimal way.

Simple GUI

A simple and intuitive GUI enables administrators to manage and monitor all system aspects easily, with practically no learning curve.

Self-tuning

XIV's full data virtualization capability provides automatic, behind-the-scenes distribution of data across all major hardware components at all times. This results in dramatically reduced management efforts and a system that is optimally tuned throughout changes in capacity, configuration, or application behavior.

Easy management through a powerful and intuitive administrator environment

Low Total Cost of Ownership (TCO)

Economical SATA drives

The XIV system leverages the leap in disk drive technology—and without compromising performance or reliability. The bottom line is an always-on system with huge capacities, high density, and considerable savings in power, cooling, and floor space.

Disk space: More with less

The XIV system optimizes the allocation of data per disk, module, and across modules, while totally eliminating orphaned space. Differential snapshots further economize on disk space. The end result is greater use of disk capacity and the ability to meet the same needs using less disk space than with a traditional system.

Needs-reducing thin provisioning

The XIV system's thin provisioning capability allows logical volumes to exceed physical capacity, while the latter only need be large enough to contain the data actually written. This flexibility and XIV technology scalability offer dramatic savings in storage, power, and space costs, and a budget-accommodating approach to growing physical capacity over time.

Minimal use of power and space

With its use of SATA drives and optimized use of disk capacity, the XIV system provides outstanding power consumption efficiency per TB while taking up less physical space for a given capacity.

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For more information

To learn more about IBM XIV Storage System,
contact your IBM representative or IBM Business Partner, or visit:

info@xivstorage.com

www.xivstorage.com

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