IBM XIV Storage System

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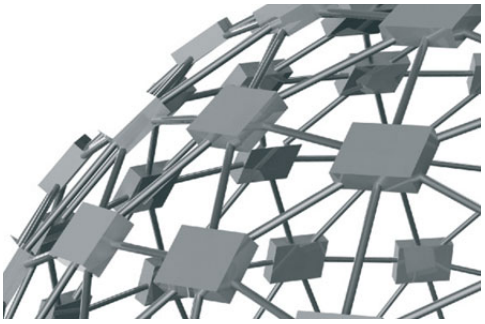
Storage Reinvented

Product Overview

Scalable Grid Architecture



IBM XIV Storage System is a groundbreaking, high-end, open disk system designed to support business requirements for a highly available information infrastructure. The XIV architecture is a grid of standard Intel®/Linux® components connected in any-to-any topology by means of massively paralleled, non-blocking Gigabit Ethernet (GbE), providing outstanding enterprise-class reliability, performance and scalability. IBM XIV is a core component of the IBM Information Infrastructure, which helps clients to address their needs for data availability, security, compliance and information retention.

High-End System

Exceptional Reliability

- **Active-active redundancy.** The XIV platform provides unprecedented data protection and availability, with full, active-active with N+1 redundancy of all disk drives, modules, switches and Uninterruptible Power Supply (UPS) units, as well as concurrent multi-path host connectivity
- **Near-instant self-healing.** IBM XIV takes self-healing to a new level, with a revolutionary rebuild process that returns the system to full redundancy in just minutes
- **Built-in reliability.** The XIV architecture provides built-in system reliability at hardware and software levels, including UPS protection for all disk, cache and electronics, redundant power supply and fans, partition mirroring and proactive error detection and healing.

Superior Performance

- **Massive parallelism.** IBM XIV delivers and sustains excellent performance by collectively orchestrating its massively paralleled architecture, all components (including cache, processors, disks, switches) and unique caching technology
- **No hotspots.** IBM XIV balances the entire load of data across all system components at all times, preventing hotspots from occurring – even on disks.

Flexible Scalability

- IBM XIV provides cache, processors, disks and connectivity in every module, augmenting all resources with every capacity increase. Its automated data distribution and self-tuning ensure hands-free performance scaling.

All-inclusive Features

- **Differential snapshots.** IBM XIV replicates differentially and provides near-unlimited snapshots with no performance hit. Snapshots are created, copied and restored in mere clicks and immediately available
- **Remote mirroring.** IBM XIV supports business continuity through synchronous and asynchronous differential mirroring that offers flexible backup and restore options between dispersed sites for rapid recovery
- **Security.** IBM XIV controls user access through Lightweight Directory Access Protocol (LDAP) authentication, role-based management and centralised challenge response
- **And all the rest.** Every XIV system ships with all software functions, regardless of capacity, including: thin provisioning, storage management interfaces, data migration and host packages for setup and multi-path support.

Exceptional Total Cost of Ownership (TCO)

IBM XIV offers dramatic savings through ease of management, virtualisation and efficiencies in capacity, power and space usage:

- **Ease of Management.** IBM XIV is easily managed and monitored through an intuitive GUI and requires minimal training and skill. Its single-tier platform allows the simple management of different application needs in a unified environment
- **Automated Data Distribution.** IBM XIV is a fully virtualised, self-managed system that provisions and balances load perfectly at all times, minimising management overhead and human error, while staying optimally tuned through changes in capacity, configuration and application behaviour without requiring special software
- **Optimal Capacity Use.** IBM XIV uses less disk space for the same storage needs by applying efficient capacity use system-wide: optimised data allocation on every disk and module and across modules, differential snapshots and use of thin provisioning – logical volumes that exceed the allocated physical capacity and ongoing space reclamation – to defer capacity purchases. Instant space reclamation is also enabled for supported applications which offer thin reclamation
- **Power, Cooling and Space Savings.** IBM XIV's use of very high density drives, together with optimal capacity use, leads to dramatic per terabyte (TB) efficiencies in power, cooling, maintenance and reduced need for physical space
- **Built for Change.** Built of standard components, IBM XIV rapidly adopts new and improved hardware technologies without requiring lengthy certification processes. It enables non-disruptive hardware and firmware upgrades, with minimal performance hit and automated scaling, allowing transparent, on-demand capacity growth.

IBM XIV's intuitive Graphical User Interface (GUI) simplifies management

For more information

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

www.xivstorage.com OR:
ibm.com/systems/storage/news/centre/xiv/

IBM XIV: Single-tier storage based on a scalable grid architecture

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