

IBM XIV Storage System

Storage Reinvented

The IBM XIV® Storage System is a high-end disk system designed to support key current and future business requirements for a highly available information infrastructure. Built from a grid of standard Intel®/Linux® components, it is connected in an any-to-any topology using Gigabit Ethernet.

The ground-breaking XIV architecture delivers outstanding performance, scalability, availability, and reliability. Based on SATA disks, the XIV system applies a unique parallel architecture, caching algorithms and more, eliminating hotspots and achieving performance levels beyond those of FC disk-based systems.

The XIV system provides a true single-tier solution.

Capacity and Resources

Number of Disks	180
Number of FC Ports	24
Number of iSCSI Ports	6
Raw Capacity	180 TB
Net Capacity	79 TB*
Internal Switching Capacity	168 Gbps
Memory	120 GB
Cache to Disk Bandwidth	240 Gbps
CPUs (Quad-core)	15

*Includes effect of mirroring and spares

Physical Features (per rack)

Disks

- Interface: SATA II
- 7,200 RPM supported
- Capacity: 1 TB

Physical Specifications (single rack)

- Rack dimensions: 191 cm high, 60 cm wide, 109 cm deep
- 1,912 lb/869 kg
- Clearance: front, 120 cm; rear, 100 cm

Power and Cooling (single rack)

- Input voltage: 180 to 264 VAC
 - Minimum – maximum, 180 – 264 VAC, at 60A
 - Nominal, 200 – 240 VAC, at 60A
- Power consumption: Typical, 7.7 kW; Maximum, 8.4 kW
- Heat dissipation: 26K BTU/hour
- Redundant power feed

Operating Environment

- Temperature: 10 – 35°C
- Altitude: 0 – 2,133 m
- Humidity: 25 – 80%, non-condensing



Functional Specifications

Protection Features

- Active-active N+1 redundancy on disks, modules, switches and UPS units
- All system components (disks, modules, UPS units, switches) are hot-swappable
- Data mirroring
- Self healing:
 - 30-minute rebuild time after 1 TB disk failure (minimizing double-failure risk)
 - Rebuild after module failure

Functionality

- Differential snapshots
 - Up to 16,000 snapshots
 - Instant snapshot creation
 - Writable snapshots
 - Near-zero performance overhead
- Synchronous remote copy
- Instant volume copy

Connectivity

- Fibre Channel rates: 1 Gbps, 2 Gbps, 4 Gbps
- iSCSI over Gigabit Ethernet
- SCSI-3 protocol for both FC and iSCSI

For more information

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

www.xivstorage.com

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