



Emprise™ 5000

High-performance, low-cost storage building block



In this Challenging Economy

you may be struggling to meet growing data storage needs with a budget that is most likely shrinking. It's time to rethink data storage from the ground up.

As with any purchase, you don't want to pay for features you don't need, you want to get everything you pay for, and you want it all for the lowest possible cost. And with regard to storage, rule #1 is to keep your data safe. Xiotech gives you all this and so much more.

The Solution: Emprise 5000

Xiotech's Emprise 5000 system is a revolutionary concept in data storage. It is built on patented Intelligent Storage Element (ISE™) technology—a perfectly balanced building block of performance, reliability, and scalability. With its unique architecture, Emprise 5000 delivers the lowest total cost of ownership (TCO) of any storage area network (SAN) or SAN-like system on the market.

What Does Emprise 5000 Offer?

- **A flexible storage building block**—attach one directly to a server or many via a switch.
- **More IOPS**, important for database, messaging, and Web serving applications.
- **Greater throughput** for applications like data warehousing and decision support.
- **Dense capacity**—use 30 percent less space for the same amount of storage.

- **Linear scaling of performance and capacity.**
- **More than 100 times the reliability** of traditional disk drives—never replace a drive again.
- **Minimal attention or tuning needed.**
- **Lowest TCO** in the industry.

Back to Basics: Don't Pay for What You Don't Need

Typical SAN systems come with high-level functionality you may not need, and all that functionality adds to the price tag. It also consumes performance and introduces a lot of complexity, which often requires high-priced administrators.

Emprise 5000, on the other hand, is a flexible, foundational building block of storage. It is a complete, self-enclosed virtualized storage solution that you can configure to meet your unique needs or optimize for a specific application. It provides superior capabilities in the dimensions that matter most: performance, reliability, ease of use, and cost.

Start Small, Grow Big

You can start with a single Emprise 5000 system direct-attached to a server. It is easy to deploy and requires little ongoing administration. As your needs grow, simply add a switch and plug in more Emprise 5000 systems. You even can use your Emprise 5000 system(s) as the foundation for a full-featured Emprise 7000 SAN solution.

You can grow your storage network virtually without limits, without ever losing your investment.

Use It Right Where You Need It

Emprise 5000 is an easy-to-deploy, cost-effective storage solution for a variety of applications.

- Industry-leading performance for the price (verified by the Storage Performance Council¹) makes Emprise 5000 an [unrivaled solution for Microsoft SQL, Microsoft Exchange, Web serving, and other high-performance applications](#).
- With up to 16 terabytes of ultra-reliable capacity in just 3U of rack space, Emprise 5000 is [perfect for data archiving and backups](#).

Create YOUR Perfect Solution

If you need advanced functionality, let us help you find a solution. Adding an appliance or software to an Emprise 5000 system can give you a best-of-breed solution tailored to **your** requirements—not a one-size-fits-most package.

Get Everything You Pay For

Typical SAN performance is limited by bottlenecks in the system—from SAN controllers that slow data movement to back-end switches that add another point of contact. Scalability also is restricted by how many drives you can effectively put behind a set of controllers.

Emprise 5000 changes this paradigm. It eliminates the storage controllers on the front end and switches on the back, so data is free to flow at screaming speeds. And because storage is decoupled from the servers, you can add servers solely for processing power.

Plug In and Grow

If you want more performance or capacity than one Emprise 5000 system provides, simply connect multiple systems via a switch. You immediately gain the full performance—Gbps, IOPS, MBps—and capacity of all systems. With this approach, you can easily and cost-effectively:

- Increase performance and capacity 2x, 5x, 10x, and more—as you need it.
- Grow virtually without limits.
- Build on the architecture you already have in place, protecting your investment.

Keep Your Data Safe

With typical SANs, disk failure is inevitable and expensive, and puts your data at risk. When a disk fails, someone must replace it, which takes time and mistakes can be devastating. What's more, data must be rebuilt on the new drive. This can take hours or days, introduces further risk to your data, and can cause system performance to plummet.

The Emprise 5000 system's ISE technology provides reliability that other storage systems can't touch. Instead of relying on individual disk drives, Emprise 5000 utilizes sealed DataPacs. Preventive diagnostics keep the disk drives within the DataPacs running longer, and self-healing capabilities repair those that do fail—in-place, without human intervention, and without impacting operations.

Enjoy the Lowest TCO

Switch-connected Emprise 5000 systems cost less to buy and much less to maintain than any other SAN-like solution.

Reduce Data Center Costs

Emprise 5000 uses 30 percent less space than traditional storage devices to provide the same capacity, significantly reducing your square footage costs. Its unique architecture reduces power and cooling costs. And Emprise 5000 is the only enterprise-class network storage product to incorporate industry-standard Wake on LAN technology—enabling you to power down and power up your system as needed, for even greater energy savings.

Go Faster with Less

Storage controllers, back-end switches, and high-end features of typical SANs not only introduce bottlenecks, they increase up-front costs while adding complexity. Many storage vendors also must load their systems with a large number of disks in order to come close to the performance of a single Emprise 5000 system. This drives up the costs of their systems, while introducing more opportunities for disk-related failures. Emprise 5000 removes the bottlenecks and delivers the performance you need without the extra disk.

Save with an Exclusive 5-Year Warranty

Over a five-year lifespan, service renewal costs typically add 30 percent or more to the cost of most storage systems. Xitech's exclusive five-year hardware warranty eliminates this expense completely.

¹ Best protected disk array price/performance for SPC-1 I/Os per Second (IOPS); industry-leading price/performance for SPC-2 Megabytes per Second (MBps)—composite mirroring and large file mirroring—as of May 12, 2008. Audited reports are available at: www.storageperformance.org/results/benchmark_results_spc1#a00064 and www.storageperformance.org/results/benchmark_results_spc2#b00031.

Emprise 5000 Specifications

System Highlights

Description	Details
Storage Capacity (max)	16TB
DataPac Modules	Single or dual
RAID Levels	ISE RAID 5, ISE RAID 10
Host Interfaces	2 Fibre Channel (4 Gbps); direct- or switch-attached
Server Connections (max)	64
Storage Volumes (max)	128
Cache	1GB – Safe, mirrored, write-back and read-ahead Battery-backed, 96-hour hold time
Operating System Support ²	Microsoft® Windows®, VMware® ESX Server, Red Hat® Enterprise Linux®, SUSE® Linux Enterprise Server
Microsoft Storage Services Support	Virtual Disk Service (VDS), Multipath I/O (MPIO)

DataPac Modules

DataPac Types	Capacity ³	Weight (lb / kg)
High-Performance Tier DataPac	1.2TB	14.90 / 6.76
Performance Tier DataPac	1.2TB	19.65 / 8.90
Balanced Tier DataPacs	2.4TB 3.6TB	19.65 / 8.90 20.80 / 9.44
Capacity Tier DataPac	4.8TB 8.0TB	20.50 / 9.30 20.35 / 9.23

Reliability, Availability, and Management

Parameter	Description
Self-Healing Technology	Patented diagnostic and reconditioning processes prevent issues and repair components in place, avoiding most service events
Hot-Swappable Components	Controllers (dual active-active), DataPacs, power supplies, cooling fans, batteries
Management	Web-based interface, SNMP, CLI
Data Replication	Snapshot
Data Integrity	T10-DIF support (end-to-end data integrity feature)
Energy Efficiency	PowerNAP, based on Wake on LAN technology, enables a system to be powered off and back on through scheduling or by a network message

ExpertCare Support

	Hardware (Parts, Labor)	Software	Response
Basic Warranty	Five years	90 days	<ul style="list-style-type: none"> • 24x7, four-hour on-site support and shipment of replacement parts⁴ • 24x7 toll-free phone support • Same business day email response
Optional Upgrades	Warranty and maintenance extensions		

² Some restrictions apply. Consult your Xiotech account representative for details.

³ 1TB = one trillion bytes

⁴ Support Zone 1 only.



Physical Specifications (3U Rack Mount)

Component	Depth (in/cm)	Width (in/cm)	Height (in/cm)	Weight without DataPac (lb/kg)
Emprise 5000 System	28.5 / 72.39	17.5 / 44.45	5.2 / 13.2	71.0 / 32.2

System Power Specifications

Component	Voltage	Current (Max)	Power (Max)	Heat Dissipation (Max)
Emprise 5000 System	100-240 V	3.3 A / 6.6 A	600 W	2,388 btu/hr

Environmental Specifications

Component	Operating Temperature	Operating Humidity	Maximum Altitude
Emprise 5000 System	50–95° F / 10–35° C	20–80% (noncondensing)	10,000 ft / 3,048 m

Regulatory Approvals

Parameter	Details
Safety	UL 60950-1:2003, CAN/CSA-C22.2 No. 60950-1-03, IEC 60950-1
Electromagnetic Compatibility	EN61000, EN55022 (Class B), EN55024, FCC (CFR 47, Part 15, CISPR 22), CSA C108.8-M1983 (CISPR 22), EC Directive 89/336/EEC, EMC Directive

Specifications subject to change without notice. Visit www.xiotech.com for the most up-to-date information.



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