UNLEASH YOUR APPLICATIONS

Meet the 100% Flash Scale-Out Enterprise Storage Array from XtremIO

EMC² ®

Opportunities to truly innovate are rare. Yet today, flash technology has created the opportunity to not only deliver massive I/O performance, but to transform ease-of-use, array capabilities, and business value. Welcome to the 100% Flash Enterprise Storage Array from EMC XtremIO – where unimaginable performance is only the start.

INCREDIBLY POWERFUL SCALE-OUT

Big, small, or anywhere in between, there's an XtremIO array sized right for you. With a scale-out design that grows according to your needs, additional performance and capacity are added in a building-block approach. XtremIO's advanced architecture ensures that maximum performance is maintained as the system scales – without administrator intervention, configuration or tuning! All resources scale in balance – storage processors, memory, flash capacity, and host ports – so you always get the most out of the system and there are no performance bottlenecks.

XtremIO arrays scale-out to any desired performance or capacity level. Just add more 'X-Brick' scaling units.
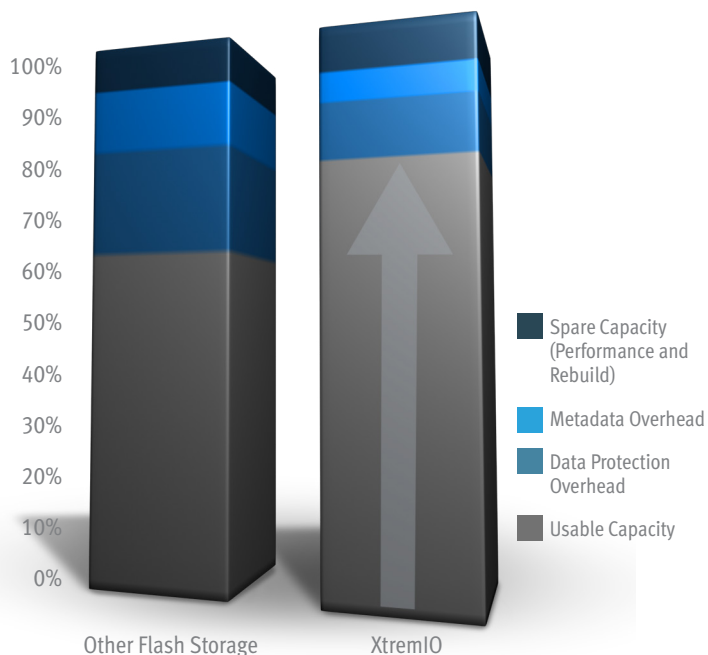
LOW-LATENCY I/O PERFORMANCE

XtremIO delivers its performance under demanding conditions that leave other products gasping for IOPS and delivering inconsistent latency. You don't have to worry about performance dropping as capacity fills, as the flash is written over, or under sustained high load. XtremIO simply delivers.

ULTIMATE EFFICIENCY

Simply put, XtremIO delivers more of what you need – performance and usable capacity, and less of what you don't – overhead, energy consumption, heat generation, and rack space. No matter how you measure it – IOPS, rack units, watts, or BTUs, XtremIO storage is radically efficient.

XtremIO's efficient design means up to 30% more usable capacity. Why pay for flash capacity you can't use?

Legend:
- Spare Capacity (Performance and Rebuild)
- Metadata Overhead
- Data Protection Overhead
- Usable Capacity

Other Flash Storage | XtremIO

With XtremIO, data reduction does not equal performance reduction. The array delivers astoundingly high IOPS and low latency all the time, without compromise.
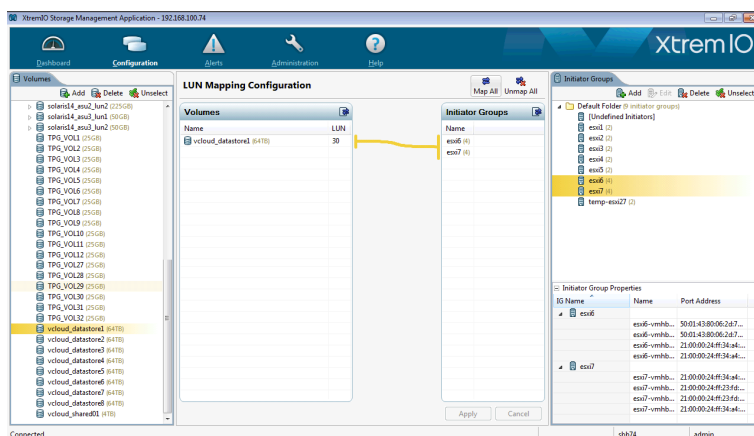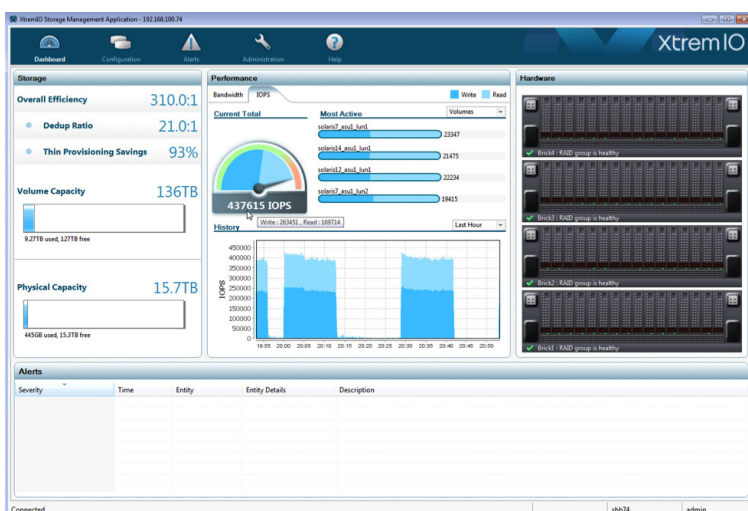
SURPRISINGLY AFFORDABLE

XtremIO utilizes MLC flash combined with sophisticated wear leveling, data reduction, and write abatement technology that delivers extended flash endurance and makes the system both enterprise reliable and reasonably priced. XtremIO arrays get the job done with less flash capacity, making them surprisingly cost effective.

AMAZINGLY SIMPLE

XtremIO's revolutionary internal architecture completely eliminates complex setup and tuning steps, while inherently delivering maximum performance. Create and size volumes in a few clicks, map them to hosts with a few more, and the array is configured. XtremIO can go from shipping box to production in well under an hour. Every volume gets optimal performance and data protection automatically and maintains it as the array scales-out. Rolling out applications has never been easier because an XtremIO array simply cannot be misconfigured. And with true N-way active/active operation, all volumes can be accessed through all ports on all storage processors in the cluster, for ideal multipath I/O and the ultimate in performance aggregation.

XtremIO is managed through a powerful, yet simple graphical interface. A Command Line Interface (CLI) is also available for automation. Configuration takes only a few clicks.

View performance, capacity, and system health in the intuitive XtremIO system dashboard.

FLASH-SPECIFIC DATA PROTECTION

When rethinking flash storage from the ground-up, why not remake data protection in the process? XtremIO's flash-specific data protection algorithms ensure the array is as resilient as it is fast. Every cluster scaling unit (called X-Bricks) has its data protected in an N+2 scheme that tolerates multiple simultaneous SSD failures. Optimal data encoding and decoding processes recover from failed SSDs rapidly with distributed rebuilds. Hot spares are not needed since XtremIO's distributed rebuilding process utilizes free space in the array. And while providing this extreme level of data protection, XtremIO's algorithms also outperform every traditional RAID level while demanding fewer write cycles from the flash. It's data protection that is faster, safer, utilizes less capacity overhead, and yields the highest flash endurance. Only on XtremIO.

PERFORMANCE IS ONLY THE BEGINNING

XtremIO arrays don't just take performance to new levels. They bring the entire state-of-the-art in storage systems to a new dimension. Imagine how these advanced capabilities will transform your data center.

OPTIMAL THIN PROVISIONING

XtremIO arrays allocate capacity to volumes on-demand in granular 4KB chunks. Volumes are always thin provisioned without any loss of performance, overprovisioning of capacity, or fragmentation. With absolutely no drawbacks, XtremIO's thin provisioning allows capacity purchases to be deferred until truly needed.
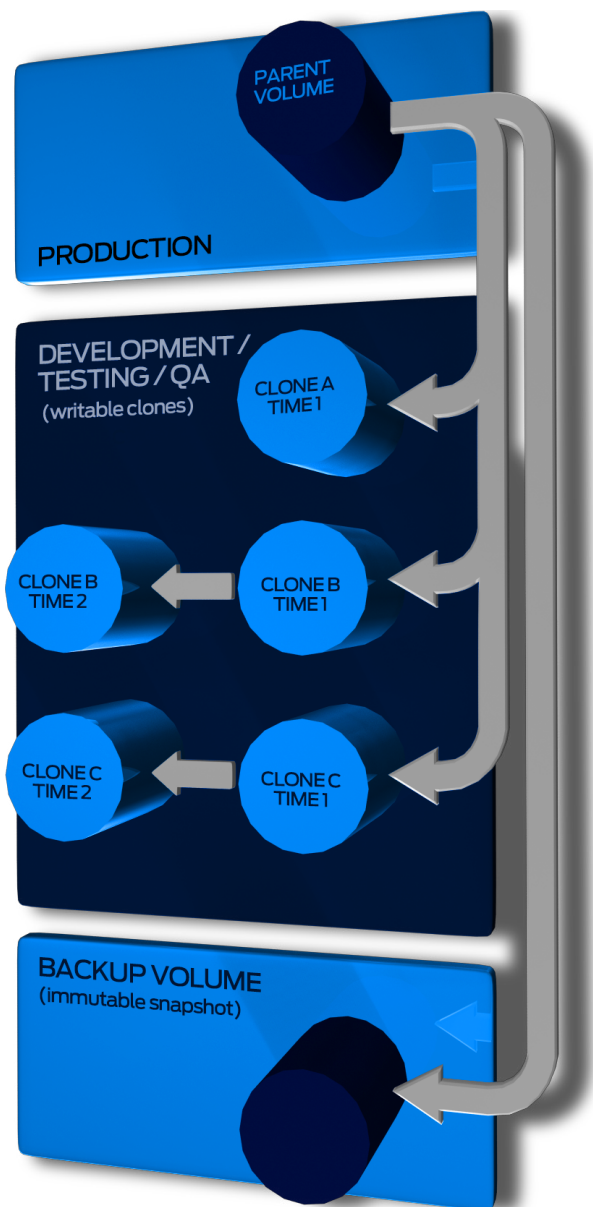
DEDUPLICATION-ENHANCED COPY SERVICES

XtremIO's extraordinarily powerful array-based snapshot and cloning technology not only creates perfectly instantaneous and space-efficient volume copies, it allows you to leverage them completely without limits.

Create any topology of snapshots, clones, consistency groups, and nested snapshots. Every snapshot and clone is able to leverage the full I/O performance of the XtremIO cluster – there is absolutely no degradation in read or write performance, or in latency.

For the first-time leverage volume clones for massive consolidation of test, development, and quality assurance environments, while drastically reducing the capacity footprint and improving organization productivity.

ADVANCED HYPERVISOR INTEGRATION

XtremIO is the only all-flash array to fully integrate (block zeroing, XCOPY, ATS, unmap) to VMware's VAAI (vStorage APIs for Array Integration), allowing the system to provide array-based and data reduction enhanced host offloading of common VMware provisioning tasks. With XtremIO's VAAI integration you can leverage massive data store sizes for simplified management, rapidly create new data stores, and instantly clone VMs and vApps to deliver unprecedented data center agility. XtremIO simply makes your virtual environment come alive.

With XtremIO's array-based and deduplication enhanced copy services, entire high performance application development environments can be created instantaneously and with practically no additional capacity consumption.

LET XTREMIO TRANSFORM YOUR DATA CENTER

XtremIO makes all-flash a reality. Performance, agility, scale, reliability, and advanced capabilities come together to transform IT operations as never before. XtremIO is ideal for Server Virtualization, Database and Analytics, VDI, and more.

WHAT TO LOOK FOR IN AN ALL-FLASH STORAGE SOLUTION

Flash arrays are not all created equal. Even features that sound identical can have vastly different capabilities. When considering flash storage products**,** be sure to consider the following exclusive EMC XtremIO capabilities:

Capability	Importance	XtremIO Value
Flash-Specific Design	Recycling previous designs and software doesn't unlock the true potential of flash.	EMC XtremIO arrays are 100% flash specific, yielding new levels of performance and functionality.
MLC Flash Endurance	MLC flash capacity is far less expensive, but requires specific wear-abatement measures to achieve enter-prise-grade longevity.	XtremIO's architecture specifically addresses MLC flash endurance through data reduction (fewer writes), inherent wear leveling (even writes to each SSD), and efficient algorithms and implementations throughout the array (write abatement).
Linear Scale-Out Architecture	Flash performance quickly bottlenecks any dual-controller design.	Performance and capacity always scale together to any desired level. The array has no performance bottlenecks and performance increases in lock step with the number of X-Bricks in the cluster.
Enterprise High-Availability	Maintaining service and data availability at all times.	XtremIO arrays are N-way active and fully fault-tolerant with no single points of failure. Data is always accessible through any port on any storage processor anywhere in the cluster.
Real-time Inline Global Data Reduction	Minimizes system cost by reducing the amount of flash needed. Real-time data reduction delivers consistent performance and fewer flash write cycles by eliminating background processing. Global data reduction works across all configured volumes and capacity in the array.	XtremIO is the only flash array with true inline, always-on, global data reduction. On XtremIO arrays, only unique data is ever placed on flash, reducing capacity requirements and increasing flash endurance. Data reduction is never switched off and never post-processed. XtremIO's performance actually improves as data reduction rates increase.
Granular Thin Provisioning	Along with scale-out, allows capacity purchases to be deferred until time of need. Granularity avoids over allocation of space.	XtremIO arrays only allocate capacity when data is written, and always match the allocation perfectly to host and operating system demands.
Deduplication Aware Copy Services	Allows creation of instantaneous, high-performance volume clones that do not consume additional flash capacity.	XtremIO's array-based copy services are completely flexible, with snapshots and clones able to achieve the same high performance as their parent volumes and to be utilized without any concessions.
Flash-Specific Data Protection	Provides faster rebuilds, superior performance, lower capacity overhead, better data protection, and greater flash endurance.	Only XtremIO implements flash-specific data protection that is not rooted in disk-based RAID algorithms.
Full VMware VAAI Integration	Allows the array to offload and accelerate several common provisioning tasks.	XtremIO is the only all-flash array with complete deduplication enhanced VAAI support allowing instant VM clones and rapid provisioning.
World-class Service & Support	Having a global organization stand behind the product.	As part of EMC, XtremIO is fully field supported and there is no "startup vendor risk".

CONTACT US

To learn more about how EMC products, services, and solutions help solve your business and IT challenges contact your local representative or authorized reseller—or visit us at www.EMC.com

EMC²