COMPLETING THE JOURNEY TO THE PRIVATE CLOUD: ALL-FLASH STORAGE CONSOLIDATION AND AGILITY

Server virtualization has been a driving force behind data center efficiency gains in the past decade. Despite successful server consolidation, many I/O-intensive workloads are still running on dedicated silos of storage in order to meet distinct Service Level Agreements (SLAs). This is because mixing multiple VMs results in an “I/O Blender,” with storage configuration, tuning, and performance issues threatening most SLAs. XtremIO finally solves this with:

- **Virtualization of all I/O intensive applications**—With XtremIO’s consistent sub-millisecond latency performance, the most I/O intensive applications can be virtualized with no SLA compromises.
- **Cost-effective performance**—With XtremIO, all-flash performance is easy and affordable through sophisticated inline data reduction and space-efficient copy services that require far less capacity to store VMs while actually improving array performance.
- ** Provisioning magic**—XtremIO’s hypervisor integration (with VAAI, etc.), space-efficient snapshots, and data reduction enable administrators to create instantaneous VM clones with nearly zero capacity at cloud-scale.

**XtremIO: BREAKTHROUGH STORAGE FOR VIRTUALIZED AND CLOUD ENVIRONMENTS**

Your private cloud and virtual server workloads deserve a storage infrastructure that can fulfill no-compromise SLAs for the most demanding applications — an infrastructure that can consolidate diverse applications and workloads on a common scale-out storage array, much like what is already done with scale-out server consolidation. And this storage infrastructure must provide new application services and agility. With XtremIO, you finally have all this and more:

- All-flash scale-out enterprise storage with high-availability, data protection, scalability, and advanced data management features.
- Any workload can be virtualized with scalable random I/O performance with ultra-low latency.
- Data-center scale in a half-rack!
- Inline, always-on real-time data reduction for the most cost-effective all-flash solution.
- Space-efficient, writeable snapshots with full performance for huge productivity leaps — make as many copies of your application data volumes as you want.
- Proven deployments with VMware, Microsoft Hyper-V, and Citrix XenServer virtualization.
- Enables key virtualization capabilities such as high availability, failover, and VM migrations.

**BEYOND PERFORMANCE: DATA AND APPLICATIONS SERVICES**

Shared flash storage is the preferred method for boosting I/O performance in virtualized environments. But it has always come with too many compromises across scalability, performance, high availability, enterprise features, and cost. XtremIO’s clean-sheet, all-flash array design was created for not only maximum performance and consistently low latency, but also with enterprise high-availability features, always-on inline data reduction that dramatically lowers cost and footprint, and advanced functions such as thin provisioning, encryption, and tight integration to VMware and Microsoft HyperV. Snapshots with zero metadata and data copy overhead provide you with as many writeable VM clones as you need and enable a huge leap in productivity. **XtremIO delivers performance without sacrifice in capabilities.**

**VIRTUALIZE THE MOST I/O INTENSIVE APPLICATIONS**

Storage performance is impacted by intermixing I/O sizes and profiles — small/big and random/sequential — and by workload virtualization. XtremIO makes it feasible and easy to virtualize and consolidate high-performance, I/O-intensive applications. With scale-out random I/O performance, consistent sub-millisecond latency, data reduction, and in-memory array copy services such as VMware VAAI accelerated provisioning, XtremIO helps drive virtualization rates higher. XtremIO encompasses all applications, even those previously relegated to dedicated servers and storage. Virtualize and consolidate mixed workloads, including mission-critical database applications and development/test for private cloud implementation. **XtremIO empowers you to virtualize key applications and gain previously unattainable benefits.**
With XtremIO, virtualized environments have never run better or more cost-effectively. Real-time data reduction makes an all-flash array affordable, while massive performance and scalability make it suitable for thousands of I/O-intensive VMs. XtremIO is uniquely integrated with all your EMC standards for data protection, disaster recovery, management, and more.

## ARRAY-ACCELERATED PROVISIONING

XtremIO arrays uniquely enable array-based VM provisioning such as VMware’s VAAI (vStorage APIs for Array Integration) through in-memory instant cloning. In combination with the array’s real-time, inline data reduction technology, VAAI allows near instantaneous cloning and provisioning of virtual machines. Administrators can manage large-scale cloud operations with unprecedented efficiency and speed. Even mass rollouts of hundreds of new VMs take place in minutes, all while consuming little additional capacity in the array. Data center operations become far more agile with XtremIO.

## SUPERIOR CAPEX, OPEX, AND TOTAL COST OF OWNERSHIP

XtremIO’s best-in-class data reduction lowers costs and greatly extends the endurance of the flash. With leading usable capacity and power efficiency, XtremIO is the most cost-effective all-flash solution for virtual machine storage, offering Petabyte-scale effective capacities in a single floor tile. For many workloads, server infrastructure costs are lower because less server resources are needed. Operational costs are dramatically reduced with the most simple to manage, no-tuning, scalable storage platform on the market. **XtremIO lasts longer, performs better, costs less.**

## SIMPLE TO DEPLOY. SIMPLE TO SCALE

The system inherently delivers performance at all times without needing any pre-planning or tuning. When application requirements grow, XtremIO meets demand with a scale-out design that not only makes it easy to support additional performance and capacity needs, but that also delivers more performance. XtremIO snapshots speed application deployment and data life cycle management through instantaneous writable copies of the production VMs. You’ll never have to redeploy or refactor the storage system as your requirements grow and change. **XtremIO requires no complex initial setup or tuning and never needs refactoring.**

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<td>Inline, global data reduction</td>
<td>Huge capacity footprint reduction</td>
<td>No loss of performance. Makes all-flash approach affordable with the most effective all-flash solution</td>
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<td>High IOPS and low latency</td>
<td>Virtualize I/O intensive servers</td>
<td>Consolidate mixed workloads, including databases and dev/test, and drive higher data center efficiency</td>
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<td>Scale-out</td>
<td>Add performance to existing VMs on-demand. Grow to support more VMs easily</td>
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<td>VMware VAAI Integration</td>
<td>Simple and rapid provisioning and cloning</td>
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<td>Simple provisioning, no tuning</td>
<td>Deploy quickly and with instant results</td>
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