

ENTERPRISE SOLUTIONS FOR IoT/ANALYTICS



Vexata VX-100 Scalable NVMe

- Breakthrough Economics**
 Vexata delivers more performance, scale, and capacity at half the price of leading all-flash arrays (AFAs)
- Transformative Performance**
 High performance NVMe storage system that delivers unmatched throughput and latency for IoT
- Linear Scaling**
 Linear scaling of capacity from TB's to PB's without trade-offs in performance
- Simple Operations**
 Large deployments run smoothly with lower operational risk
- Reduced Infrastructure Risk**
 Integrates into servers, networking, and hypervisor platforms to reduce infrastructure consumption and lower risk

Data is doubling every two years, driven by human and machine generated data, such as the Internet of Things (IoT). The analysis of patterns and structure in this data and its transformation into actionable insights is driven by applications that use Artificial Intelligence (AI), Machine Learning (ML), and Deep Learning (DL) workloads.

These analytics solutions are often deployed with all-flash arrays (AFAs) and may be starved for I/O or offer poor economics for these business processes. To get the full benefit of these solutions, businesses need high performance storage that delivers the performance and scale to support hundreds of simultaneous analytic sessions that allows data scientists to maximize their effectiveness and achieve their stated business objectives. Vexata delivers transformative performance with breakthrough economics to power these analytic workloads at scale.

Replacing these AFAs with a Vexata array provides users with lower costs, higher performance, flexible scaling, more active users, and increased throughput with better efficiency and faster outcomes. Vexata dramatically increases the performance of analytics solutions at any scale and includes a deep expertise acquired from delivering Vexata to some of the largest names in the industry.

USE CASES

Artificial Intelligence | Machine Learning | Deep Learning | Risk Reduction



"At Pacific Data Center, we are very pleased with the Vexata Product and customer service and look forward to a long relationship ahead."

*Ray Shirkhodai
Executive Director
PDC Global*

"Vexata Flash Array is the highest performing storage for SAS."

*Software Architect
Software Service Group
Intel*

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Benefits of Accelerating IoT Analytics with Vexata

VEXATA SCALABLE NVMe FLASH ARRAYS ARE PURPOSE BUILT TO ADDRESS MANY TYPES OF IoT ANALYTICS

BREAKTHROUGH ECONOMICS	TRANSFORMATIVE PERFORMANCE	LINEAR SCALING	SIMPLIFIED OPERATIONS	REDUCED RISK
<p>Lowest TCO</p> <ul style="list-style-type: none"> Lower cost than most AFAs Improves utilization of server resources Reduces software license consumption Multi-chassis management reduces OPEX 	<p>Unmatched Throughput, IOPS and Latency Performance</p> <ul style="list-style-type: none"> 10x lower latency High ingest rates of 1.5TB/min High scan rates of 3TB/min 5X higher DB query/update performance per server 	<p>Seamless Performance Scaling</p> <ul style="list-style-type: none"> SCSI-FC, NVMe-oF (FC), and NVMe-oF (Ethernet) Scale from TBs to PBs without impacting performance Supports multiple simultaneous workloads Simultaneously a SAN and NAS 	<p>Massive Consolidation</p> <ul style="list-style-type: none"> Multi-chassis management 16x32Gb FC or 16x40Gb Ethernet Non-disruptive rolling upgrades Call-home & predictive analysis 	<p>All Features Needed for Enterprise Workloads</p> <ul style="list-style-type: none"> Continuous operations with 99.9999% availability Immutable and instant snapshots Always-on encryption Thin provisioning RAID 5/6 data protection Certified for vSphere, and supports Hyper-V, KVM, and XenServer hypervisors

Customer Case Study

ANALYTICS / MACHINE LEARNING – “PDC GLOBAL”

Challenges

PDC Global uses using a variety of mapping engines and services that unlock the full potential of data to improve operational results and decision-making processes to promote disaster risk reduction strategies along with providing global disaster updates via the web. One of these tools is ESRI’s powerful GIS spatial data analytics technology running on VMware ESX. PDC’s ESRI applications were taking too long to run because the storage system was not scaling to meet their needs. They needed a solution that would support their real-time disaster risk reduction analytics without changing their applications.

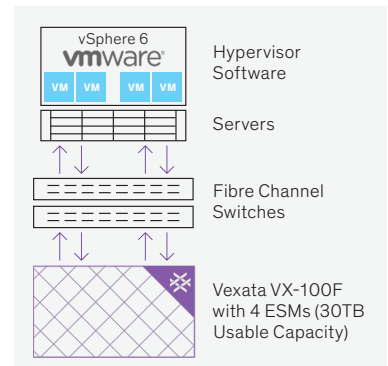
Vexata was consulted to analyze PDC’s current data environment and propose a solution. PDC and Vexata worked to identify the root cause of PDC’s performance bottlenecks which was determined to be the storage stack of PDC’s storage array architecture, so PDC replaced three AFAs with systems with a single Vexata VX-100F Scalable NVMe Flash Array operating at about 25% capacity to allow for room to grow.

Benefits

PDC Global noticed an immediate improvement in overall performance, resulting in faster website refreshes allowing PDC Global to warn users about disasters much quicker and to improve services to their customers.

- 400% performance improvement in their network and computing infrastructure
- Vexata consolidated 3 arrays onto a single VX-100F system, reducing the footprint by 50% from 12U to 6U, while using only 25% (4 of 16) of the available chassis slots, providing ample room for future growth
- Eliminated storage as a bottleneck, exposing network infrastructure performance issues

PDC Global expects further performance enhancements will be gained via Fibre Channel network upgrades.



ABOUT VEXATA: Vexata is the leader in active data management solutions. Vexata’s unique breakthrough enterprise offerings enable transformative performance and scale from database and analytics applications. With unparalleled ability to consume the latest in media like NVMe Flash and now with Intel Optane™ SSDs, Vexata systems deploy simply and seamlessly into existing storage environments. Learn more at www.vexata.com

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