



— VEXATA FOR ORACLE

Solution Brief

Digital Business Demands Performance and Scale

As enterprises shift to online and software-driven business models, Oracle infrastructure is being pushed to run at exponentially higher scale and performance. Businesses need to support an order of magnitude more users, perform complex queries in real-time and run predictive analytics on very large data sets – all while staying within ever-tightening budgets.

While servers and networking infrastructure have risen to this challenge, even today's leading all-flash storage systems have not kept pace. As a result, enterprises have been unable to afford scaling Oracle to meet their digital business needs or have resorted to complex tiering and caching alternatives that solve only part of the problem.



SCALE // TO 10X MORE USERS

With Millions of IOPS available, Oracle databases can scale to more active users. Vexata Array offers consistent ultra-low latencies to ensure that user growth is balanced with user experiences.



RESPOND // LARGER DATA SETS IN REAL-TIME

Vexata enables OLTP, Data Warehouse, Analytics and deliver results in real-time even operating across large active data sets.



SAVE // FEWER ORACLE LICENSES

Vexata helps to dramatically reduce Oracle license spend by realizing the highest performance from existing Oracle investments.



OPTIMIZE // ELIMINATE SILOS AND TIERS

Vexata Array's massive performance and efficiency benefits enable enterprise datacenters to eliminate the cost and complexity of data silos and traditional data storage tiers.



Introducing the Vexata Scalable Data System: Innovation that Matters

The Vexata Scalable Data System is a revolutionary enterprise System that delivers the transformative innovation that digital business needs now. Based on its ground-up ultra-low latency and high throughput architecture, the Vexata System brings 10X scale and performance increases to both analytics and OLTP workloads. And by maximizing server CPU utilization, the Vexata System enables enterprises to achieve these dramatic results without incurring the cost of additional Oracle licenses and servers.

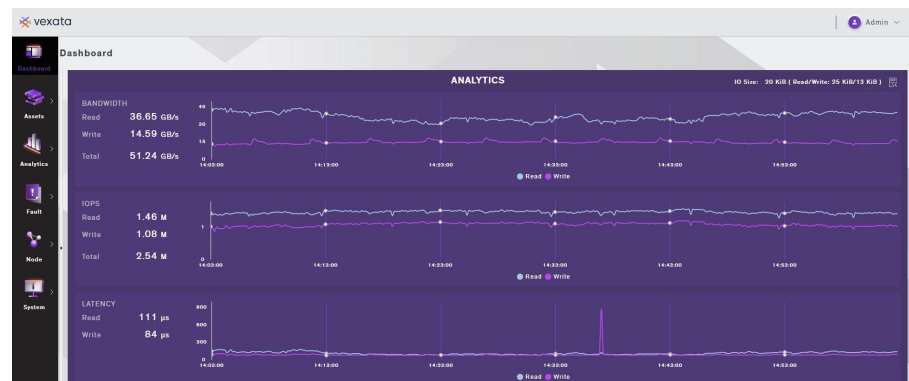
This system simply plugs into existing FC SAN environments, requiring no host or application changes or custom adapters. It leverages off-the-shelf NVMe SSDs from leading suppliers, taking full advantage of ongoing industry advancements in density, cost and performance.



- 16 ports of 8/16/32G Fibre Channel
- 99.999+% availability, A/A controllers, NDU
- Thin provisioning, SE snaps/clones
- Scales to 155TB of RAID 5 or 140TB of RAID 6 protected capacity
- <300µs latency at 6M 8KB random R/W IOPS
- 60GB/s R+W bandwidth (45 + 15)
- Linux, Windows, VMware
- GUI, CLI and REST API management
- 6U form factor

Maximize Your Oracle Investment Across All Workloads

The Vexata Scalable Data System accelerates the full range of Oracle workloads including OLTP and DW/OLAP, random and sequential, ingest and backup/recovery by 10X compared to today's leading all-flash arrays. With Vexata, DBAs and IT professionals no longer need to make the traditional performance/cost trade-offs and compromises required from current enterprise storage solutions.





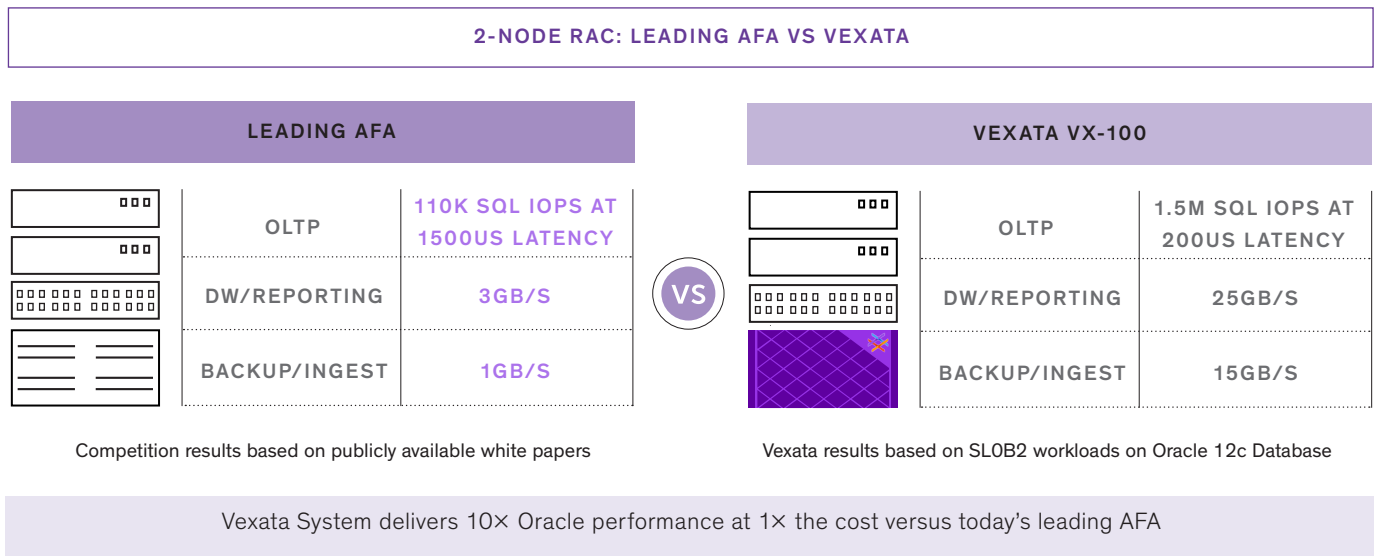
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A Transformative Data Storage Solution

Vexata architecture's focus on ultra-low latency at high I/O throughput enables this System to maximize utilization of database server and network resources. This translates to enormous scale and query processing benefits from existing Oracle licenses. The

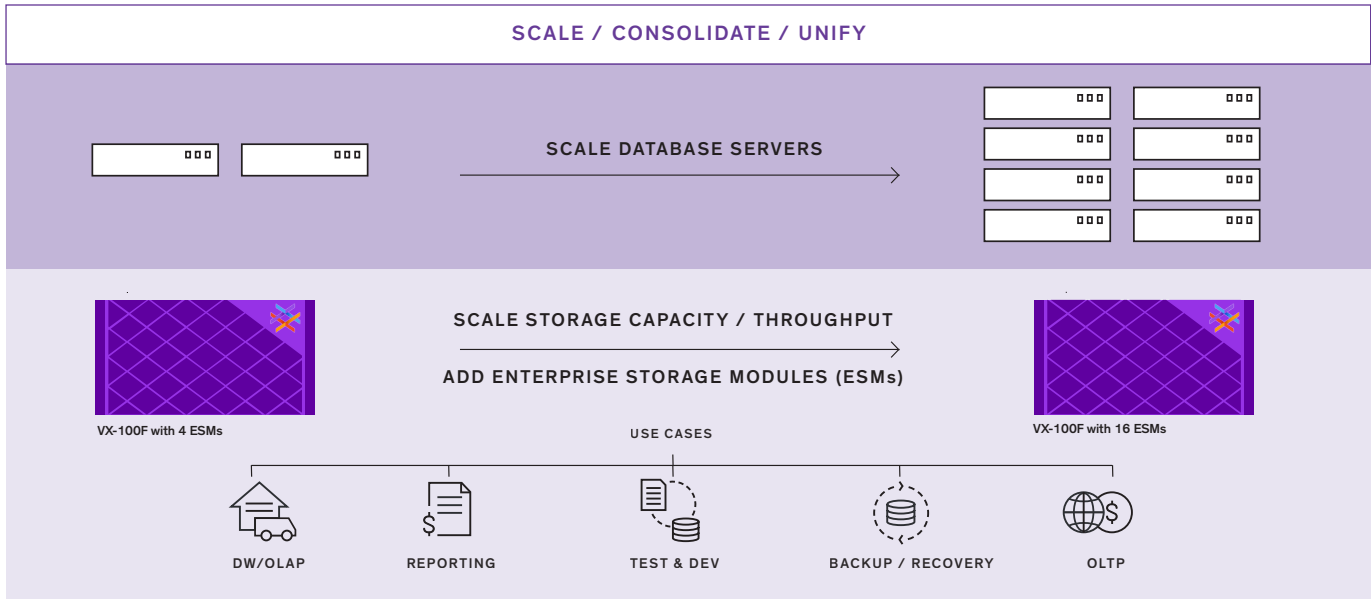
below comparisons illustrate how Vexata-based Oracle RAC solutions far surpass today's leading all-flash array solution and today's leading engineered system solution.



Seamless Database Scaling and Consolidation

Limitations in today's storage architectures have led to datacenter sprawl and data management complexity as Production OLTP, Test/Dev, Data Warehouse and Backup workloads get deployed in their own silos.

With Vexata, enterprises can now seamlessly scale and consolidate onto a unified data infrastructure, starting small and growing incrementally. The figure below shows how customers can non-disruptively scale database capacity and throughput with the Vexata Scalable Data System.



Plug and Play Deployment

Vexata offers simple plug-and-play deployment for Oracle databases, enabling customers to achieve dramatic efficiency gains in three simple steps:

STEP 1

Select the system right-sized for your Oracle needs. The Vexata Scalable Data System comes in several capacities and performance profiles to suit customer needs. Customers can right-size the number of Oracle servers and configure the number of Enterprise Storage Modules (ESMs) per Vexata System to match the database capacity and performance requirements. The figure on the next page provides a reference guide on Oracle-Vexata configuration options.

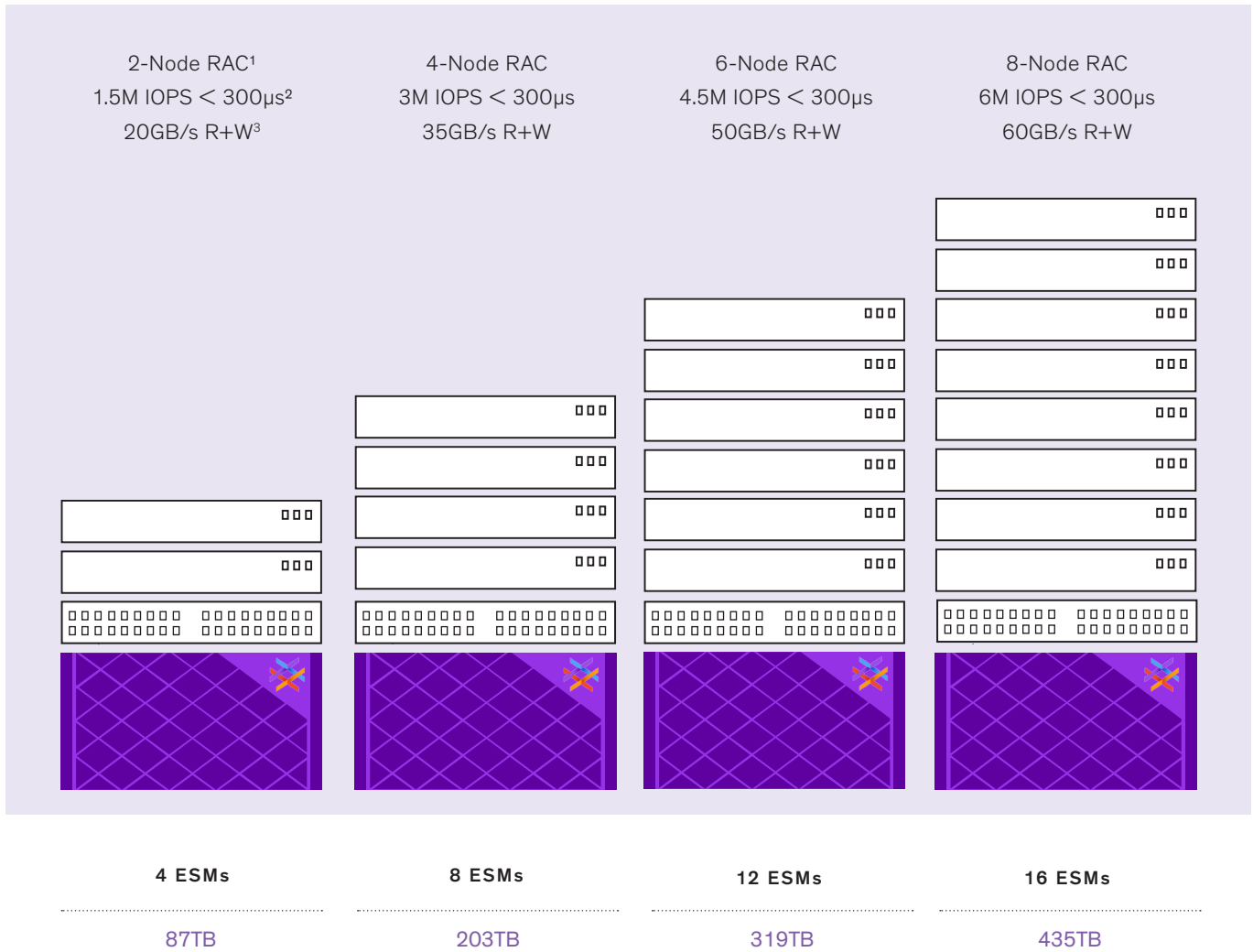
STEP 2

Migrate your database with Vexata-assisted Oracle Database integration. The massive data ingest performance of our System helps make database migration almost effortless. Vexata makes use of the extensive functionality provided by Oracle including Oracle Data Guard, Oracle Heat Map, Automatic Data Optimization (ADO) and other features to help migrate data seamlessly from existing SAN-based arrays into Vexata Systems.

STEP 3

Consolidate multiple databases on to your Vexata System. Vexata enables enterprises to consolidate multiple databases on to a single dense, reliable and high-performance array. Incrementally scale-out storage capacity and throughput by adding Enterprise Storage Modules (ESMs) and seamlessly add or consolidate databases onto Vexata without application downtime.

VEXATA SCALABLE DATA SYSTEM AND ORACLE RAC CONFIGURATION GUIDE



- Each RAC node is a dual socket x86 server with 4×32G FC connectivity to FC switch.
- Random 8KB IOPS with 75/25 R/W mix.
- Aggregate R+W bandwidth for 75/25 R/W mix.
- Vexata Systems use 8TB SSDs and 1-16 Enterprise Storage Modules (ESMs).
- RAID 5 uncompressed usable capacity with always-on encryption and thin provisioning. RAID 6 is also supported.

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 with Optane™ SSDs, Vexata systems deploy simply and seamlessly into existing storage environments. Learn more at www.vexata.com