

VM-Aware Intelligent Infrastructure Optimized to Power Oracle Databases

Businesses rely on fast and uninterrupted Oracle database access to make critical decisions. However, the complexity and size of Oracle databases make it hard to set up and configure, and a running database can put tremendous demands on underlying storage, which must provide sub-millisecond latency and predictable performance under heavy workloads.



Tintri VMstore delivers intelligent infrastructure that maximizes the performance of databases while simplifying the tasks for people who manage them by ensuring database-level granularity, predictable performance, simplified troubleshooting, and 24x7 availability. Powerful copy data management and end-to-end visibility further extend the benefits to your Oracle databases running on VMstore, uniquely built to store, serve, protect, and manage databases and virtual machine data. VMstore intelligent infrastructure is VM-aware storage (VAS) that addresses these challenges, delivering outstanding performance and helping your organization meet key business requirements for:

- Availability — Guarantee the performance of business-critical databases running 24x7
- Granularity — Troubleshoot performance issues with real-time monitoring and actionable insights
- Resiliency — Failover to one or more DR site(s) to offer databases multiple backup and restore options

Availability with Performance Isolation

With VMstore, you benefit from individual performance lanes with auto tuning, and the elimination of noisy neighbors.

The value of virtualization comes from being able to support multiple mixed workloads on shared infrastructure. The ability to effectively isolate mixed workloads is a must. VMstore delivers the high IOPS at low latency needed for high performance databases while uniquely providing performance isolation for each I/O request. With VMstore, you can achieve guaranteed performance of virtualized Oracle databases including Oracle Real Application Clusters (RAC). Powerful per-VM manageability tools are uniquely suited to enable guaranteed performance for Oracle databases.

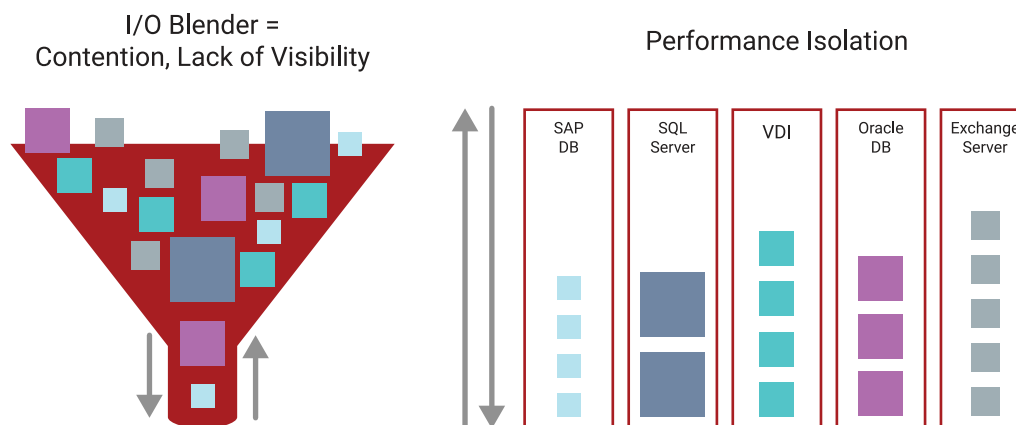


Figure 1 – Performance isolation delivers predictable performance for mixed workloads

Latency and Performance Visualization

VMstore delivers cross-infrastructure troubleshooting that puts an end to finger pointing and accelerates resolution.

When a database encounters a performance issue, it often takes several database administrators (DBAs), plus storage, network, and virtualization admins to figure out the cause. However, since each administrator only has visibility into one part of the infrastructure, problems take longer to resolve, and your business suffers. VMstore ends guesswork as you go straight to the root cause of the issue and solve it in seconds.

VMstore provides end-to-end visibility across the entire infrastructure. So, you get unparalleled visibility at the database level with real-time insight into database-specific latency, IOPS, throughput, utilization space saving factors, and more.



Figure 2 – Tintri end-to-end visibility across host, network and storage

Resiliency with Database Protection

VMstore for Oracle keeps your data safe and your business running 24x7.

Most DBAs are not storage experts; they speak in terms of recovery point objective (RPO), and recovery time objective (RTO) as they are accountable for these metrics down to the second. DBAs often find conventional storage i.e., standard infrastructure based on LUNs, overly complex to manage, which adds additional risk of human error potentially risking business continuity. Standard infrastructure requires constant tuning that becomes obsolete quickly as business needs change.

Nevertheless, availability is a top priority. VMstore ReplicateVM provides efficient synchronous and 1:many replication options to support your Oracle database DR strategy. However, often overlooked is the ability to provide a robust testing ground for snapshots and mirroring, data refresh and restore without impacting production Oracle databases. VMstore SyncVM – a copy data management tool – simplifies the provisioning and distribution of up-to-date test/dev instances to accelerate application development.

VMstore eliminates storage complexity, making it easier for DBAs to achieve their performance and availability goals. Multiple virtualized databases can share the resources of a single Tintri VMstore, with each database getting the storage resources – both capacity and performance – it deserves while achieving low RPOs and RTOs with database level snapshots with zero stun, non-disruptive clones, and synchronous replication.

Experience Different! For more information on how Tintri VMstore can turbo-charge your Oracle databases and business success through a simple, Intelligent Infrastructure, visit tintri.com/vmstore. Or better yet, contact your Tintri representative or infrastructure partner and request a demo of VMstore for Oracle.