

# ORACLE®

## NOSQL DATABASE

### KEY FEATURES

- Pure Java based implementation
- Fast, indexed, Btree storage
- Store billions of records and multi-terabytes of data
- ACID (Atomic, Consistent, Isolated, Durable) compliant transactions
- Easy installation and configuration
- Easy administration
- Replication for high availability, fault-tolerance, fail-over, and read-scalability
- Dynamic partitioning (aka "Sharding")
- Designed to scale out to thousands of nodes
- Transparent load balancing
- Node-level backup and restore
- Highly tuned memory management

### USE CASES

- Click-through data capture
- High-throughput event processing
- Social networks
- Online retail
- Customer profile management
- Mobile application backend infrastructure
- Real-time sensor aggregation
- Networking device monitoring and management
- Scalable authentication
- Content management
- Archiving

## ORACLE NOSQL DATABASE 11G

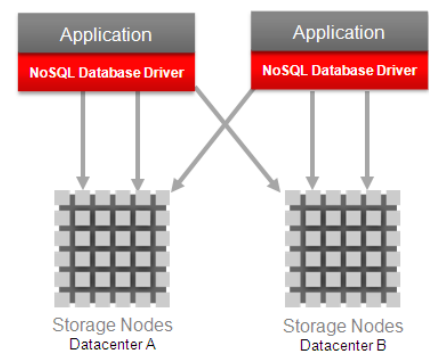
Oracle NoSQL Database provides network-accessible multi-terabyte distributed key/value pair storage with predictable latency. Data is stored in a very flexible key-value format, where the key consists of the combination of a major and minor key (represented as a string) and an associated value (represented as an opaque set of bytes). It offers full Create, Read, Update and Delete (CRUD) operations, with adjustable durability and consistency transactional guarantees.

Oracle NoSQL Database is designed to be a highly available and extremely scalable system, with predictable levels of throughput and latency, while requiring minimal administrative interaction.

### Architecture

Oracle NoSQL Database is built upon the proven Oracle Berkeley DB Java Edition high-availability storage engine, which is in widespread use in enterprises across industries. In addition to that it adds a layer of services for use in distributed environments.

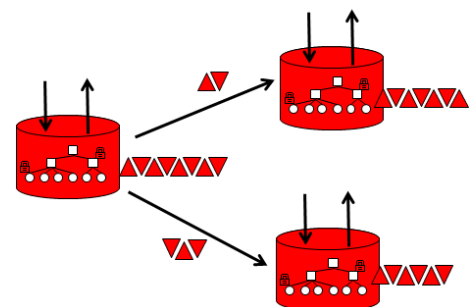
The resulting solution provides distributed, highly available key/value storage that is well suited to large-volume, latency-sensitive applications.



### Horizontal scaling with no-single point of failure

Oracle NoSQL Database provides single-master, multi-replica highly available database replication. Transactional data is delivered to all replica nodes with flexible durability policies per transaction.

In the event the master replica node fails, a PAXOS-based automated fail-over election process minimizes downtime. This allows for scalability, fail-over, and hot-standby.



### Transparent load balancing

Oracle NoSQL Database Driver partitions the data in real time and evenly distributes it across the storage nodes. It is network topology and latency-aware, routing read and write operations to the most appropriate storage node in order to optimize load distribution and performance.

**KEY BENEFITS**

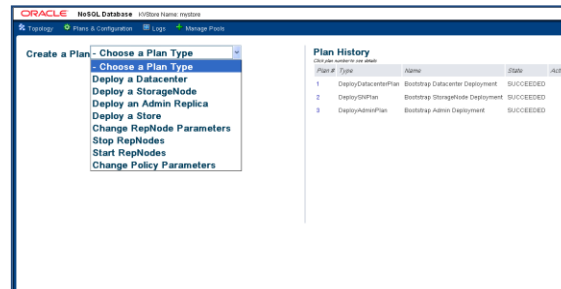
- High throughput
- Bounded latency (sub-millisecond)
- Near-linear scalability
- High Availability
- Short time to deployment
- No conflict resolution requirement
- Commercial-Grade Software and Support

**RELATED PRODUCTS**

- Oracle Big Data Appliance
- Oracle Exadata
- Berkeley DB Java Edition

**Easy Administration**

Oracle NoSQL Database provides an administration service, which can be accessed either from a web console or a command-line interface. This service supports core functionality such as the ability to configure, start, stop and monitor a storage node, without requiring manual effort with configuration files, shell scripts, or explicit database operations.



In addition to facilitating configuration changes, the administration service also

collects and maintains performance statistics and logs important system events, providing online monitoring and input to performance tuning.

**Performance**

Network topology and latency aware Oracle NoSQL Database Driver working in conjunction with highly scalable, fault tolerant, high throughput storage engine enables a more granular distribution of resources and processing, which reduces the incidence of hot spots and provides greater performance on commodity based hardware.

**Simple, Scalable, Highly Available**

Oracle's NoSQL Database brings enterprise quality storage and performance to the highly-available, widely distributed NoSQL environment. Its commercially proven, write-optimized storage system delivers outstanding performance as well as robustness and reliability, and its "No Single Point of Failure" design ensures that the system continues to run and data remain available after any failure.

**Commercial Grade Software and Support**

Oracle NoSQL Database overcomes a significant limitation faced by many enterprises considering the implementation of NoSQL databases—the need for full supportability. Because it is a commercial product fully supported by Oracle, this solution gives organizations the confidence and limited risk they need to deploy Oracle NoSQL Database in the production environments they depend on to manage their business-critical data

**Contact Us**

For more information about Oracle NoSQL Database, visit [oracle.com](http://oracle.com) or call +1.800.ORACLE1 to speak to an Oracle representative.



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