
Introduction to Oracle NoSQL Database

Introduction

- Oracle NoSQL Database provides multi-terabyte distributed key/value pair storage that offers scalable throughput and performance.
- Oracle NoSQL Database offers full Create, Read, Update and Delete (CRUD)

Introduction(cont.)

- Oracle NoSQL Database is meant for any application that requires network-accessible.
- The typical three-tier architecture: Web Server, Application Server, and Back-End Database.
- Oracle NoSQL Database is meant to be installed behind the application server.

Use in JAVA Application

- An application makes use of Oracle NoSQL Database by performing network requests against Oracle NoSQL Database's data store, which is referred to as the KVStore.
- The requests are made using the Oracle NoSQL Database Driver, which is linked into your application as a Java library (.jar file), and then accessed using a series of Java APIs.

Use in Non-JAVA Application

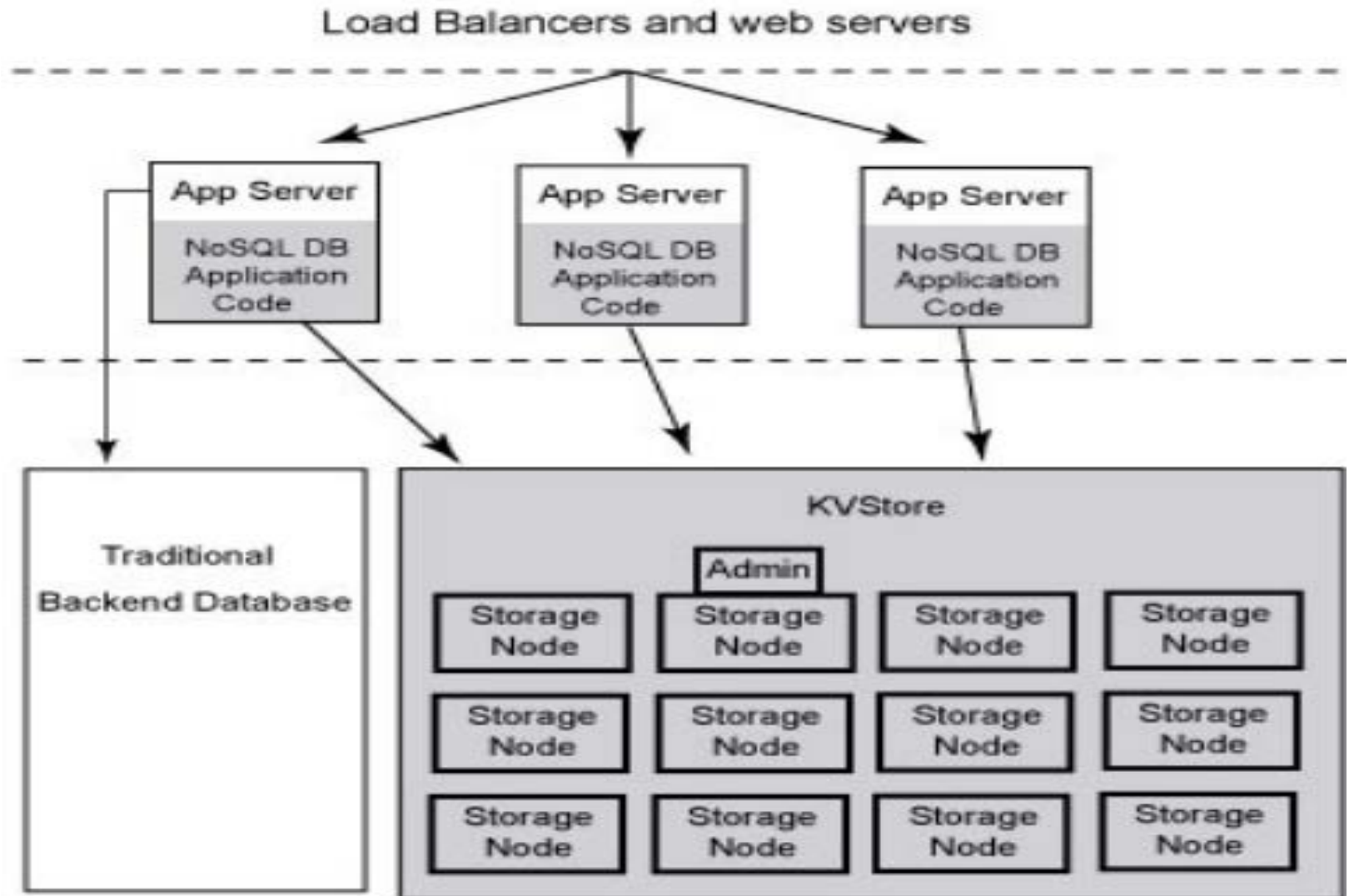
You can also access data stored in Oracle NoSQL Database tables by using a non Java language driver.

- C,
- Node.js
- Python

Architecture Description

- The KVStore is a collection of Storage Nodes which host a set of Replication Nodes.
- A Storage Node is a physical (or virtual) machine with its own local storage.
- A Replication Node can be thought of as a single database which contains key-value pairs
- Every Storage Node hosts one or more Replication Nodes as determined by its capacity, a rough measure of the hardware resources associated with it.

Architecture



Architecture Description

- Oracle NoSQL Database will ensure that a Storage Node is assigned a load that is proportional to its capacity.
- A Replication Node in turn contains at least one and typically many partitions.
- Also, each Storage Node contains monitoring software that ensures the Replication Nodes which it hosts are running or healthy