

Apache Cassandra™

Enterprise-Class NoSQL for Web, Mobile and IOT Applications

Apache Cassandra™, an Apache Software Foundation project, is a massively scalable open-source NoSQL distributed database. Cassandra is designed to handle big data workloads across multiple data centers and clouds with no single point of failure, providing enterprises with extremely high database performance and availability.

Cassandra's "masterless" architecture, which can include hundreds to thousands of identical nodes, protects from data loss and business disruption because there is no single point of failure. Cassandra is designed to deliver fast performance for both read and write workloads, and scales linearly with the addition of new nodes.

Key features of Cassandra include:

- Masterless architecture
- Linear scale performance
- Transparent fault detection and recovery
- Flexible / dynamic schema
- Guaranteed data safety
- Built-in advanced data security
- Location independent, read/write anywhere design
- Multi-data center support (multi-directional)
- Tunable data consistency
- Cloud enabled
- Data compression
- CQL (Cassandra Query Language), a SQL-like language
- Optimized well for SSD deployments and commodity hardware
- No caching layer required
- Simple install and setup
- Supports all key development languages (e.g. Java, Python, .NET, etc.)

DataStax and Apache Cassandra

DataStax delivers Apache Cassandra to the enterprise. Supporting both the open source community and modern businesses, DataStax supplies the following solutions for those needing help in building and managing today's Web, mobile and IOT applications:

1. DataStax Enterprise Edition is a complete distributed database platform, built on Apache Cassandra, architected to manage real-time, analytic, and enterprise search data workloads in the same database cluster. Targeted at modern businesses needing a production-ready, enterprise-class NoSQL data management solution for online applications, DataStax Enterprise is comprised of the DataStax Enterprise Server, OpsCenter – DataStax's visual management console, and Expert Support.

2. DataStax Community Edition is a free packaged solution aimed at helping people new to NoSQL and/or Cassandra get Cassandra installed and running as quickly as possible. It include the most up-to-date version of Apache Cassandra, the OpsCenter management tool for basic admin functions, a sample application and demo database, and smart installers for Windows.

To download DataStax Enterprise, visit www.datastax.com. To download DataStax Community Edition, visit <http://planetcassandra.org/>.

Built for Scale

- Massively scalable masterless architecture
- Fast read/write performance across all nodes in a cluster
- Linear performance gains via new node additions

Continuous Availability

- No single point of failure
- Built-in replication and redundancy of data and function
- Best-in-class for multi-data center and cloud multi-availability zone support

Dynamic Data Model

- Flexible schema for managing modern data types
- Supports structured, semi-structured, and unstructured data

Operationally Simple

- Add new nodes/capacity online
- No headaches with outdated master/slave, manually sharded architectures
- All nodes are peers and can be added easily

DataStax Enterprise

- Production-Certified Cassandra
- Comprehensive enterprise security
- Automatic management services
- Visual management and monitoring
- Around-the-clock expert support and services
- Built-in enterprise search
- Integrated streaming, real-time, batch analytics, and Hadoop integration
- In-memory option for lightning-fast transactional and analytic workloads

DataStax Community Edition

- The fastest way to learn and use Apache Cassandra
- The most up-to-date version of Apache Cassandra
- Sample application and demo database
- Smart installers for Windows