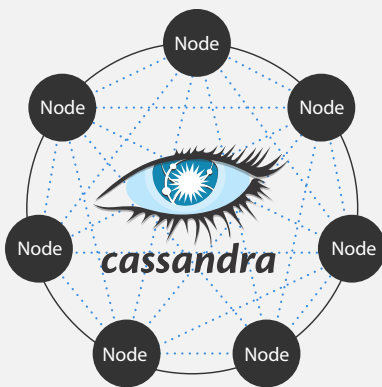


TIBCO® Gemini— Powered by Apache Cassandra®



TIBCO® Gemini—Powered by Apache Cassandra® is an open-source, distributed NoSQL database explicitly designed to handle large datasets across many commodity servers. The architecture is decentralized, with fault tolerance and disaster recovery options to prevent a single point of failure.

As datasets grow to hundreds of terabytes, the limitations of traditional database solutions become apparent as they often struggle to scale horizontally. TIBCO Gemini—Powered by Apache Cassandra, features a unique architecture that eliminates bottlenecks when dealing with large datasets. Designed with a flexible schema in mind, it offers an architecture and data model that encourages horizontal scalability and lightning-fast performance in a distributed, fault-tolerant pattern.

Attributes and capabilities

Distributed architecture

TIBCO Gemini—Powered by Apache Cassandra's peer-to-peer architecture, evenly distributes data across all nodes in a cluster. Data is automatically partitioned and replicated, which provides enterprise-grade performance, reliability, and fault tolerance.

Linearly scalable performance

TIBCO Gemini is optimized for environments where scalability and high performance are key requirements. Its ability to linearly scale up and down allows businesses to add or remove nodes without downtime, ensuring performance and capacity match current and future requirements.

High availability and fault tolerance

Data is replicated across multiple nodes in the cluster, ensuring no single point of failure. TIBCO Gemini—Powered by Apache Cassandra provides tunable consistency levels to balance consistency and availability.

Powerful data model

TIBCO Gemini uses a data model that offers more flexibility to store structured, unstructured, or semi-structured data. Inspired by its NoSQL roots, it can support dynamic schema and collections. This all combines to make data access efficient and circumvent the need for things like joins, which can be slow and don't scale linearly.

Low latency and integrated caching

TIBCO Gemini stores data using multiple nodes distributed throughout a system, including multiple data centers. This allows applications to access the closest data available, intelligently requiring only short network hops and providing low latency. Furthermore, it uses an integrated caching mechanism for rows, significantly reducing the latency of reads.

Minimal configuration

Setting up an on-prem, cloud, or hybrid architecture is quick and easy, and supporting documentation on running in Kubernetes simplifies the setup and management of TIBCO Gemini—Powered by Apache Cassandra.

Flexible consistency

TIBCO Gemini allows applications to configure the consistency level of reads and writes, allowing developers to select the appropriate balance between availability and consistency requirements for their exact use case.

Familiar SQL-like access with CQL

TIBCO Gemini provides familiar SQL-like access through its Cassandra Query Language, which enables access to the database using syntax similar to SQL. This allows easy access and a familiar interface to transition users familiar with SQL to TIBCO Gemini—Powered by Apache Cassandra.

Enterprise-class support

Professional, enterprise-class, 24/7 “follow-the-sun” support for TIBCO Gemini, delivered by the industry leader in data grid solutions for over 20 years.

Features at a glance

- Integrated in-memory data caching
- Distributed persistence
- High availability and fault-tolerance
- Elastic grid sizing
- Language and platform independence
- Comprehensive security
- Flexible data model
- Tunable consistency levels
- Support for multi-datacenter deployment
- Native integration with TIBCO® Platform—Integration



TIBCO Software
a business unit of
Cloud Software Group, Inc.
4980 Great America Pkwy
Santa Clara, CA 95054
www.tibco.com

TIBCO, a business unit of Cloud Software Group, has helped global enterprises solve their most complex business challenges for more than 25 years. The TIBCO Platform delivers industrial-strength solutions that meet the highest performance, throughput, reliability, and scalability needs while offering the widest range of technology and deployment options to deliver real-time data where it's needed most. Learn how TIBCO solves its customers' mission-critical software needs at www.tibco.com.

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