DATASHEET

Cloudera Operational Database

Faster development and deployment of mission-critical applications.



Developers are routinely tasked with building innovative applications and platforms that leverage the large volumes of structured and unstructured data generated by businesses today. These applications can support a complex set of business needs and drive business processes that range in criticality from mission-important to mission-critical.

Despite the fact that operational databases have been around for many years, selecting the right one for an application can be a difficult decision. Developers need to consider multiple factors while selecting a database and the margin of error is extremely small, since rearchitecting an application often tends to be a multi-year effort and can require an investment of millions of dollars.

Cloudera Operational Database

Cloudera Operational Database is a fully-managed cloud-native NoSQL database with unparalleled scale, performance, and reliability. It enables developers to leverage the power of data while preserving flexibility in application design. Core to this approach is our support for both traditional relational schema alongside evolutionary schema, which enables changes to data models without requiring application re-architecting. Additionally, wide-column support provides the capability for 2-dimensional table growth through rows and columns. Cloudera Operational Database also provides both familiarity and flexibility, so developers can easily deploy the database of their choice with support for both relational and non-relational interfaces.

In addition, Cloudera Operational Database can be deployed anywhere, including public clouds and on premises, and can align with the infrastructure strategy that's best suited for your business.

Performance for Business Critical Applications

With Cloudera Operational Database, customers can transact on petabytes of data from a large number of sources at web scale, providing them with the foundation required for new user experiences. Additionally, optimization capabilities and features designed for easy replication help developers manage available resources efficiently without compromising performance. Businesses across industries trust Cloudera Operational Database for use cases ranging from financial transactions to critical healthcare.

Easy to Deploy and Manage

Cloudera Operational Database enables developers to remove all complexities related to deploying and managing databases. They can now provision a new database in minutes.

Since Cloudera Operational Database is autonomous, it improves database performance based on application characteristics and resolves failures without manual intervention. Customers can migrate to Cloudera Operational Database using near real-time bi-directional replication, enabling applications to move from other Cloudera deployments with zero risk and zero downtime.

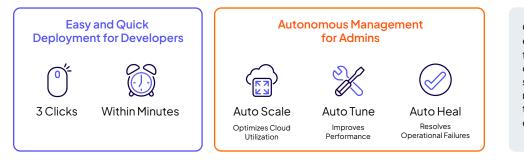
Designed for Hyper Scale

Cloudera Operational database is built to scale infinitely, giving businesses the flexibility to add capacity without compromising performance or worrying about partitioning and sharding.

Cloud-native operational database with unparalleled scale, performance, and reliability.

- Easily provision a new database within minutes and start building applications
- Eliminate operational overhead with autoscaling, auto-tuning and auto-healing capabilities
- Enable changes to data models without the need for complicated and costly application redesigns

Figure 1: Cloudera Operational Database eliminates operational complexities



Cloudera Operational Database enables both familiarity and flexibility for developers to easily deploy the database of their choice including support for both relational and nonrelational interfaces, support for traditional star schema alongside evolutionary schema, and more.

Develop How You Like, Deploy Where You Want

Cloudera Operational Database enables enterprises to unify and process more data of all types and from thousands of sources, and companies use it for a broad range of applications ranging from gaming, transactional systems, serving machine learning models, or supporting mobile applications.

Application developers can use 3 different modes of operation: key-value, wide-column, or relational wide-column using either a JDBC/ODBC driver or a NoSQL client with Java APIs. Additionally, as Operational Database supports evolutionary schema, developers don't have to re-architect their applications each time the data models change. Once built, the application can use an on-premises database or cloud database by changing a single configuration setting. With Cloudera's flexible and portable distribution, developers can elastically and costeffectively move between data centers and clouds.

High Fault Tolerance

Operational Database is designed for high availability out of the box. It provides seamless and automated failover between nodes without impacting applications. Switching to eventual consistency guarantees millisecond response times.

Operational Database supports the deployment of stretch clusters that provide strong consistency and seamless resiliency. It can also leverage asynchronous replication to enable disaster recovery in another data center or cloud anywhere in the world.

Distributed Transaction Support

Most applications leverage transactions to support many enterprise needs. However, customers are forced to manually shard the database and manage each one independently when traditional relational database management systems can't scale.

Cloudera Operational Database brings together complex transaction support combined with ANSI SQL support and the scale-out nature of Apache HBase, providing developers with a combination that can significantly reduce operational complexity of managing growth.

Security and Governance

Cloudera eliminates costly and unnecessary application silos by bringing your operational database, data warehouse, data science, and data engineering workloads together on a single, integrated data platform. Cloudera Shared Data Experience (SDX) enables these diverse analytic processes to operate against a shared data catalog that preserves business context, including security and governance policies and schema.

This common services framework persists even in transient cloud environments and makes it easier for IT to set and enforce policies while enabling business access to self-service analytics.

Visit us on our website and learn more:

cloudera.com/products/operational-db

CLOUDERA

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Cloudera is the only true hybrid platform for data, analytics, and AI. With 100x more data under management than other cloud-only vendors, Cloudera empowers global enterprises to transform data of all types, on any public or private cloud, into valuable, trusted insights. Our open data lakehouse delivers scalable and secure data management with portable cloud-native analytics, enabling customers to bring GenAI models to their data while maintaining privacy and ensuring responsible, reliable AI deployments. The world's largest brands in financial services, insurance, media, manufacturing, and government rely on Cloudera to be able to use their data to solve the impossible—today and in the future.

To learn more, visit Cloudera.com and follow us on LinkedIn and X.

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