
Faster development and deployment of mission-critical applications.

CDP OPERATIONAL DATABASE

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 auto-scale, auto-tune and auto-heal capabilities
- Allow changes to data models without the need for complicated and costly application redesigns

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.

Selecting the right operational database for an application can be a difficult decision to make despite the fact that operational databases have been around for many years. 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 plus the opportunity cost.

CDP Operational Database

CDP Operational Database is a fully managed cloud-native operational 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 are our support for both traditional relational schema alongside evolutionary schema which allows changes to data models without requiring application re-architecture, and wide-column support that enables 2 dimensional table growth through rows and columns. What's more? CDP Operational Database enables both familiarity and flexibility for developers to easily deploy the database of their choice including support for both relational and non-relational interfaces

In addition, CDP Operational Database can be deployed anywhere, be it public cloud or on-premises, and can align with the cloud infrastructure strategy that's best suited for your business.

Performance for business critical applications

CDP Operational Database makes it possible for customers to transact on petabytes of data from a large number of sources at web scale, providing customers 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's Operational Database for use cases ranging from financial transactions to critical healthcare.

Easy to deploy and manage

Operational Database on Cloudera Data Platform enables developers to remove all complexities related to deploying and managing databases. A new database can now be provisioned within minutes and management is frictionless.

Since CDP Operational Database is autonomous, it can automatically improve database performance based on application characteristics, and can resolve failures without manual intervention. With full compatibility with existing HBase deployments, customers can migrate to CDP Operational Database using near real-time bi-directional replication, enabling applications to migrate with zero risk and zero downtime.



Figure 1. CDP Operational Database eliminates operational complexities

Designed for hyper scale

Operational Database is built on a scale-out architecture therefore it can scale infinitely, giving businesses the flexibility in their approach to add capacity without compromising performance or worrying about partitioning and sharding.

Develop how you like, deploy where you want

CDP Operational Database enables enterprises to bring together and process more data of all types and from thousands of sources, and is used for a broad range of applications ranging from gaming, transactional systems, serving machine learning models or supporting mobile applications.

Application developers can choose 3 different modes of operation: key-value, wide-column or relational wide-column using either JDBC/ODBC or our No-SQL client (Java APIs). In addition, 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-prem deployed database or cloud deployed database by changing a single configuration setting. With Cloudera's flexible and portable distribution, developers can elastically and cost-effectively move between data center and the cloud or even between public 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. Guaranteed millisecond response times can also be configured by switching to eventual consistency.

Operational Database supports the deployment of stretch clusters providing strong consistency and seamless resiliency. It can also be deployed with asynchronous replication allowing D/R to be in another data center or the cloud anywhere in the world.

Distributed transaction support

Most applications leverage transactions to support the myriad of needs that enterprises face. However, customers are forced to manually shard the database and manage each sharded database independently when traditional RDBMSs can't scale.

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

About Cloudera

At Cloudera, we believe that data can make what is impossible today, possible tomorrow. We empower people to transform complex data into clear and actionable insights. Cloudera delivers an enterprise data cloud for any data, anywhere, from the Edge to AI. Powered by the relentless innovation of the open source community, Cloudera advances digital transformation for the world's largest enterprises.

Learn more at: cloudera.com

Security and Governance

Cloudera Data Platform 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 SDX enables these diverse analytic processes to operate against a shared data catalog that preserves business context like 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