

Apache HBase Overview

Date published: 2020-02-29

Date modified: 2020-07-28

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Overview of Apache HBase

Apache HBase database provides random, persistent access to data. HBase is ideal for scenarios that require real-time analysis and tabular data for end-user applications.

As a natively nonrelational database, Apache HBase can combine data sources that use a wide variety of structures and schemas. HBase is designed for resilient data storage and is intended for hosting very large tables with sparse data. Apache HBase can host big data tables because it scales linearly to handle very large (petabyte scale), column-oriented data sets. The data store is predicated on a key-value model that supports low latency reads, writes, and updates in a distributed environment.

Use cases for HBase

As an operational data store, you can run your applications on top of HBase. You can also integrate your application with HBase. You can use HBase in CDP alongside your on-prem HBase clusters for disaster recovery use cases.

Some of the other use cases of HBase in CDP include:

- Support customer mission-important/mission-critical scale-out applications
- Query data with millisecond latency
- Perform fraud model serving and detection
- Enable serving analytics on mobile and web applications directly to end-customers
- Operationalize Artificial Intelligence/Machine Learning to drive revenue or manage operational cost
- Surfacing useful data in your applications (for example, customer 360 applications for customer support)
- Use as a key-value store for applications
- Bring together data spanning sources, schemas and data types and leverage in your applications
- Use as a small file store. You can use HBase to store logs from various devices into HBase

Related Information

[Getting Started: Operational database cluster](#)

[Importing data into HBase](#)

[Writing data to HBase](#)

[Using Apache HBase Backup and Disaster Recovery](#)

[Using HBase Replication](#)

HBase on CDP

If you are already using a CDH or HDP cluster, and want to start using HBase for new or existing use cases, you must understand the following differences.

How is HBase in CDP Different from HBase in CDH?

If you currently use HBase in CDH, and want to start using HBase in CDP:

- Configure Ranger ACLs in CDP corresponding to the HBase ACLs in your existing CDH cluster.
- Note that Ranger that is present in your Data Lake is used to provide HBase authentication.

How is HBase in CDP Different from HBase in HDP?

If you currently use HBase in HDP, and want to start using HBase in CDP:

- Configure Ranger ACLs in CDP corresponding to the HBase or Ranger ACLs in your existing HDP cluster.
- Migrate your applications to use the new HBase-Spark Connector because the Spark HBase Connector (SHC) is no longer supported in CDP.

Related Information[Getting Started: Operational database cluster](#)[Using the HBase-Spark connector](#)[HBase authorization using Apache Ranger](#)