

Cloudera Surveyor for Apache Kafka Overview

Date published: 2024-06-11

Date modified: 2025-07-14

CLOUDERA

Legal Notice

© Cloudera Inc. 2025. All rights reserved.

The documentation is and contains Cloudera proprietary information protected by copyright and other intellectual property rights. No license under copyright or any other intellectual property right is granted herein.

Unless otherwise noted, scripts and sample code are licensed under the Apache License, Version 2.0.

Copyright information for Cloudera software may be found within the documentation accompanying each component in a particular release.

Cloudera software includes software from various open source or other third party projects, and may be released under the Apache Software License 2.0 (“ASLv2”), the Affero General Public License version 3 (AGPLv3), or other license terms. Other software included may be released under the terms of alternative open source licenses. Please review the license and notice files accompanying the software for additional licensing information.

Please visit the Cloudera software product page for more information on Cloudera software. For more information on Cloudera support services, please visit either the Support or Sales page. Feel free to contact us directly to discuss your specific needs.

Cloudera reserves the right to change any products at any time, and without notice. Cloudera assumes no responsibility nor liability arising from the use of products, except as expressly agreed to in writing by Cloudera.

Cloudera, Cloudera Altus, HUE, Impala, Cloudera Impala, and other Cloudera marks are registered or unregistered trademarks in the United States and other countries. All other trademarks are the property of their respective owners.

Disclaimer: EXCEPT AS EXPRESSLY PROVIDED IN A WRITTEN AGREEMENT WITH CLOUDERA, CLOUDERA DOES NOT MAKE NOR GIVE ANY REPRESENTATION, WARRANTY, NOR COVENANT OF ANY KIND, WHETHER EXPRESS OR IMPLIED, IN CONNECTION WITH CLOUDERA TECHNOLOGY OR RELATED SUPPORT PROVIDED IN CONNECTION THEREWITH. CLOUDERA DOES NOT WARRANT THAT CLOUDERA PRODUCTS NOR SOFTWARE WILL OPERATE UNINTERRUPTED NOR THAT IT WILL BE FREE FROM DEFECTS NOR ERRORS, THAT IT WILL PROTECT YOUR DATA FROM LOSS, CORRUPTION NOR UNAVAILABILITY, NOR THAT IT WILL MEET ALL OF CUSTOMER’S BUSINESS REQUIREMENTS. WITHOUT LIMITING THE FOREGOING, AND TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, CLOUDERA EXPRESSLY DISCLAIMS ANY AND ALL IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO IMPLIED WARRANTIES OF MERCHANTABILITY, QUALITY, NON-INFRINGEMENT, TITLE, AND FITNESS FOR A PARTICULAR PURPOSE AND ANY REPRESENTATION, WARRANTY, OR COVENANT BASED ON COURSE OF DEALING OR USAGE IN TRADE.

Contents

What is Cloudera Surveyor for Apache Kafka?.....	4
---	----------

What is Cloudera Surveyor for Apache Kafka?

Cloudera Surveyor is a standalone application that allows you to efficiently monitor and manage your Kafka clusters through a graphical user interface. As a proprietary Cloudera application, Cloudera Surveyor provides an optimized and fully supported solution for managing Kafka within your Cloudera ecosystem, simplifying operations and enhancing visibility beyond standard open-source tools.

Main benefits

- **Enhanced Kafka management** – Cloudera Surveyor provides a user-friendly interface for managing Kafka clusters, topics, and consumer groups. This reduces the need for command-line tools and streamlines administrative tasks.
- **Scalability** – Cloudera Surveyor is designed to efficiently monitor and manage a large number of Kafka clusters and topics, adapting to growing data streams and infrastructure demands.
- **Flexible deployment and configuration** – Packaged as a Helm chart, Cloudera Surveyor leverages Helm's capabilities to simplify application installation and deployment, configuration, as well as management in Kubernetes environments.
- **High availability** – Cloudera Surveyor supports active-active high availability configurations. This ensures minimal downtime and enables rolling restarts for updates and upgrades.

Key features

Cloudera Surveyor provides a comprehensive set of features for Kafka cluster management and monitoring.

User interface (UI)

Cloudera Surveyor offers a centralized and intuitive interface for managing and monitoring Kafka clusters. The UI eliminates the need for command-line tools and provides a single pane of glass for interacting with your Kafka deployments.

Multi-Cluster support and tagging

You can manage multiple Kafka clusters from a single interface. Adding or removing clusters is as simple as specifying basic Kafka cluster connection properties in Cloudera Surveyor's configuration. Once registered, clusters are available for management and monitoring through the UI.

Administrators can assign tags to clusters for organizational purposes. For example, tags can be used to group clusters by department, geographical location, or environment (such as production, development, or QA). Tags can also indicate cluster versions, making it easier to filter and organize clusters in the UI.

Periodic Kafka snapshots

Cloudera Surveyor periodically fetches real-time operational metrics and metadata from configured Kafka clusters, providing up-to-date insights into cluster activity and performance trends.

- Kafka entities such as brokers, topics (including internal topics), and consumer groups.
- Metadata quorum, log directories, and configurations for topics and brokers.
- Offset information for partitions.

Kafka entity alerts

Cloudera Surveyor includes robust alerting capabilities for various Kafka entities. Each entity instance has an associated status and alerts, helping you quickly identify and address issues. Alerts from sub-entities are rolled up into their parent entities for a comprehensive view. For example, cluster-level details include alerts from brokers, log directories, topics, partitions, and replicas.

You can configure trigger conditions for certain alerts on a per-cluster basis. Alerts are available for the following entities.

- Clusters
- Brokers
- Log directories
- Topics
- Partitions
- Replicas
- Consumer groups

Broad Kafka compatibility

Cloudera Surveyor is compatible with any Kafka distribution that provides an API compatible with Apache Kafka 2.4.1 or higher. This includes Kafka clusters deployed with the Strimzi Cluster Operator in Cloudera Streams Messaging - Kubernetes Operator, Kafka clusters running in Cloudera on premises and Cloudera on cloud, as well as third-party Kafka distributions.

Management capabilities

Cloudera Surveyor offers a range of features allowing you to manage your Kafka environment.

- **Cluster management** – View all configured Kafka clusters and their details, including status, alert summaries, and information on brokers, topics, partitions, replicas, consumer groups, and log directories.
- **Consumer group management** – Manage consumer groups, including viewing details and assignments, deleting consumer groups, and resetting consumer group offsets.
- **Topic management** – Manage topics within a cluster, including creating, deleting, increasing partition counts, as well as viewing and modifying topic configurations.

Security and authorization

Cloudera Surveyor prioritizes security with a secure-first deployment approach. It supports LDAP-based authentication, allowing you to verify user identities and manage access to the application. TLS encryption ensures that all communication channels are secure, protecting sensitive data in transit. Additionally, Kafka ACLs provide fine-grained authorization, enabling you to define and enforce access control policies for your Kafka environment.