Cloudera Streaming Analytics

Release Notes

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What's new in Cloudera Streaming Analytics

Cloudera Streaming Analytics 1.2 covers new features beside the core streaming functionality of Apache Flink.

Cloudera Streaming Analytics 1.2 introduces the following key features:

• Upgrade to Apache Flink 1.10

For more information about Flink 1.10, see the Release Notes in the Apache Flink documentation.

- · Reworked Dashboard to Flink WebUI
- · Reworked Flink CLI
- · Apache Atlas integration
- · Apache Kudu streaming sink connector
- SQL/Table API and SQL client with the following connectors:
 - · Apache Kudu
 - · Schema Registry
 - · Apache Hive
- Connecting to Kafka 2.4.1 that is running on remote CDH6 or HDP3 is also supported.

SQL and Table API supported features

The following SQL and Table API features are supported in Cloudera Streaming Analytics.

StreamTableEnvironment (Blink Planner)	Catalogs
 DataStream conversions: Row Tuple Temporary views SQL update and Query operations Creating and using catalogs Listing catalogs, tables, databases and functions 	 In-memory - Flink default catalog Hive Schema Registry Kudu

Component support

Learn more about which Apache Flink component version is supported in the Cloudera Streaming Analytics (CSA) releases.

CSA version	Component version
CSA 1.2.0	Apache Flink 1.10
CSA 1.1.0	Apache Flink 1.9.1

Related Information

CSA 1.1.0 Release Notes

Known issues and limitations

The following limitations apply to Cloudera Streaming Analytics 1.2.

- The SQL Client is offered as a preview for user convenience, but in itself is not supported.
- The following SQL API features are in preview:
 - · Match recognize
 - Top-N
 - Stream-Table join (without rowtime input)

DataStream conversion limitations

- Converting between Tables and POJO DataStreams is currently not supported in CSA.
- Object arrays are not supported for Tuple conversion.
- The java.time class conversions for Tuple DataStreams are only supported by using explicit TypeInformation: LegacyInstantTypeInfo, LocalTimeTypeInfo.getInfoFor(LocalDate/LocalDateTime/LocalTime.class).
- Only java.sql.Timestamp is supported for rowtime conversion, java.time.LocalDateTime is not supported.

Kudu catalog limitations

- CREATE TABLE
 - Primary keys can only be set by the kudu.primary-key-columns property. Using the PRIMARY KEY
 constraint is not yet possible.
 - Range partitioning is not supported.
- When getting a table through the catalog, NOT NULL and PRIMARY KEY constraints are ignored. All columns
 are described as being nullable, and not being primary keys.
- Kudu tables cannot be altered through the catalog other than simply renaming them.

Schema Registry catalog limitations

- Currently, the Schema Registry catalog / format only supports reading messages with the latest enabled schema for any given Kafka topic at the time when the SQL query was compiled.
- No time-column and watermark support for Registry tables.
- No CREATE TABLE support. Schemas have to be registered directly in the SchemaRegistry to be accessible through the catalog.
- The catalog is read-only. It does not support table deletions or modifications.
- By default, it is assumed that Kafka message values contain the schema id as a prefix, because this is the default behaviour for the SchemaRegistry Kafka producer format. To consume messages with schema written in the header, the following property must be set for the Registry client: store.schema.version.id.in.header: true.

Unsupported features

Unsupported features

The following features are not supported in Cloudera Streaming Analytics 1.2.

- Apache Flink batch (DataSet) API
- SQL Client
- The following features are not supported in SQL and Table API:
 - HBase Table Connector
 - · Old Planner
 - SQL Views
 - Temporal Table operations
 - Non-windowed (unbounded) joins, distinct