

Release Notes

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CVE-2021-45105 & CVE-2021-44832 remediation for CSA

Learn more about the CVE-2021-45105 and CVE-2021-44832 remediation for Flink and SQL Stream Builder in Cloudera Streaming Analytics (CSA).

Cloudera released maintenance versions for CSA on CDP Private Cloud Base to address CVE-2021-45105 and CVE-2021-44832 identified as critical vulnerability issues for Log4j2.

Cloudera encourages users to upgrade to the following CSA versions to avoid any possibility of exploitation:

- [CVE-2021-45105](#): CSA 1.5.3 or higher version
- [CVE-2021-44832](#): CSA 1.6.1

For more information about the impacts of CVE-2021-45105, see the [TSB 2021-547: Critical vulnerability in log4j2 CVE-2021-45105](#) Knowledge Base article.

Related Information

[CSA 1.5.3 Installation guide](#)

[CSA 1.6.1 Installation guide](#)

What's new in Cloudera Streaming Analytics

Cloudera Streaming Analytics 1.3 covers new features beside the core streaming functionality of Apache Flink.

Cloudera Streaming Analytics 1.3 introduces the following key features:

- SQL Stream Builder service
- Upgrade to Apache Flink 1.12

For more information about Flink 1.12, see the [Release Notes](#) in the Apache Flink documentation.

Component support

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

CSA version	Component version
CSA 1.3.0	Apache Flink 1.12
CSA 1.2.0	Apache Flink 1.10
CSA 1.1.0	Apache Flink 1.9.1

Related Information

[CSA 1.2.0 Release Notes](#)

[CSA 1.1.0 Release Notes](#)

Known issues and limitations

The following limitations apply to Cloudera Streaming Analytics 1.3.

SQL Stream Builder

CSA-1180: SSB generates directory in HDFS

When using SQL Stream Builder a log directory is automatically created in HDFS. This directory can store a bigger amount of data which can lead to performance issues.

None

CSA-1037: Schema Detection fails with invalid key

The automatic schema detection can fail when a key is defined with invalid name. For example, when a key has special characters in the name.

Remove the special character from the key name.

CSA-1023: SQL Stream jobs with large schemas fail when using MySQL

The SQL Stream jobs that have large schemas will fail when you configure SQL Stream Builder with MySQL database. The following error message appears when you run into this issue:

```
_mysql_connector.MySQLInterfaceError: Data too long for column '
sb_job_data' at row
114:14
```

The MySQL 'text' data columns are limited to 64kb length. Make sure that the schema either does not exceed this value, or use the following workaround to change the 'text' data type to 'longtext' which has 4GB length.

1. Log in as the root user to MySQL:

```
mysql -u root -p
Enter password:
```

2. Use the following ALTER TABLE command to change the data types into 'longtext':

```
ALTER TABLE sb_jobs MODIFY sb_job_data LONGTEXT
```

3. Update the schemas in your SQL jobs:
 - a. Open the Streaming SQL Console.
 - b. Select Table tab.
 - c. Search for the Kafka table where you want to update the schema.
 - d. Click Edit.
 - e. Select Schema tab.
 - f. Click Detect schema.
 - g. Click Save changes.
4. Restart your SQL jobs.

Flink

- 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 TypeInfo: 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

The following features are not supported in Cloudera Streaming Analytics 1.3.

SQL Stream Builder

- Direct upgrade of SQL Stream Builder service

For more information, see the [Upgrading SQL Stream Builder](#) section.

Flink

- Apache Flink batch (DataSet) API
- GPU Resource Plugin
- Application Mode deployment
- SQL Client
- The following features are not supported in SQL and Table API:
 - HBase Table Connector
 - Old Planner
 - Non-windowed (unbounded) joins, distinct

Deprecation notices in Apache Flink

Certain features and functionality in Flink are deprecated or removed in Cloudera Streaming Analytics 1.3.0. You must review these changes along with the information about the features in Flink that will be removed or deprecated in a future release.

Removed

The `containerized.heap-cutoff-ratio` and `containerized.heap-cutoff-min` options have been removed in upstream Apache Flink. These options have no affect anymore.