



SAS ESP Confluent connector

Leverage the Confluent Connector to stream data directly from your Confluent Cloud cluster into SAS Event Stream Processing (ESP). Operationalize your streaming data with ESP by harnessing advanced analytics, enabling instant insights and AI-driven actions to drive smarter, faster decisions across your business.

Step 1

Access Confluent Cloud

Go to <http://confluent.io> and provide your credentials or create your account. Follow the instructions in the environment.

You will need to access these parameters in your Confluent Cloud environment to initialize a connection from SAS ESP to a Confluent cluster:

- Bootstrap Server
- API Key
- API Secret
- Topic Name

Additional Confluent documentation can be found at the URL:

https://docs.confluent.io/cloud/current/get-started/free-trial.html?ajs_aid=5a6b4b1c-88da-43b5-90a2-9a5932734e41&ajs_uid=2992693

Step 2

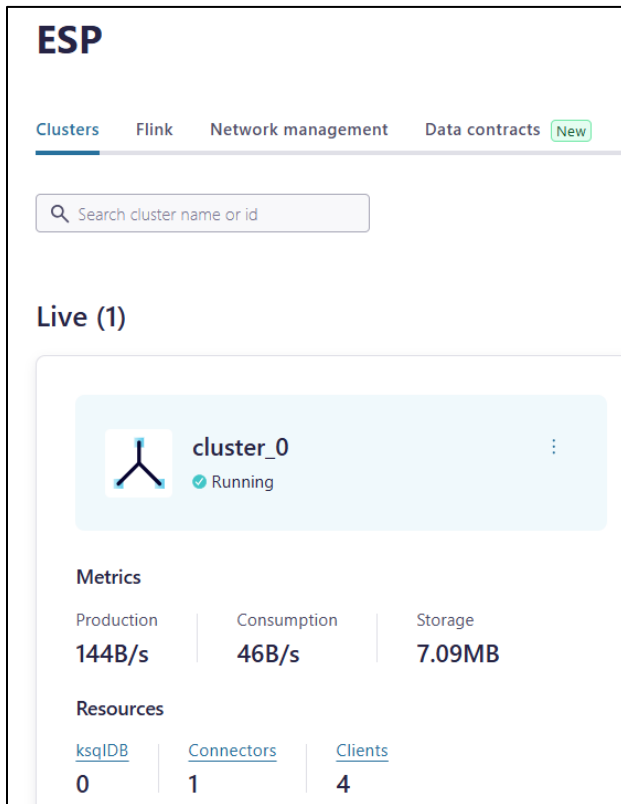
Obtain Bootstrap Server Information

Perform the following steps to retrieve the Bootstrap server:

1. Log in to your Confluent Cloud account.
2. In the left navigation pane, click **Environments** and then click your environment.



3. On the selected environments page, select the **Clusters** tab and click your Cluster.



4. In the left navigation pane, under **Cluster Overview**, click **Cluster Settings**.

Cluster
cluster_0

- Cluster Overview
- Networking
- API Keys
- Cluster Settings**
- Stream Lineage
- Stream Designer
- Topics
- ksqldb
- Connectors
- Clients

5. On the **Cluster settings** page, copy the **Bootstrap server endpoint** and save it securely like any other password. You will use this later in configuring your connector in ESP.

Cluster settings

General Capacity

Identification

Name cluster_0
Cluster ID [blurred]
[✎](#)

Endpoints

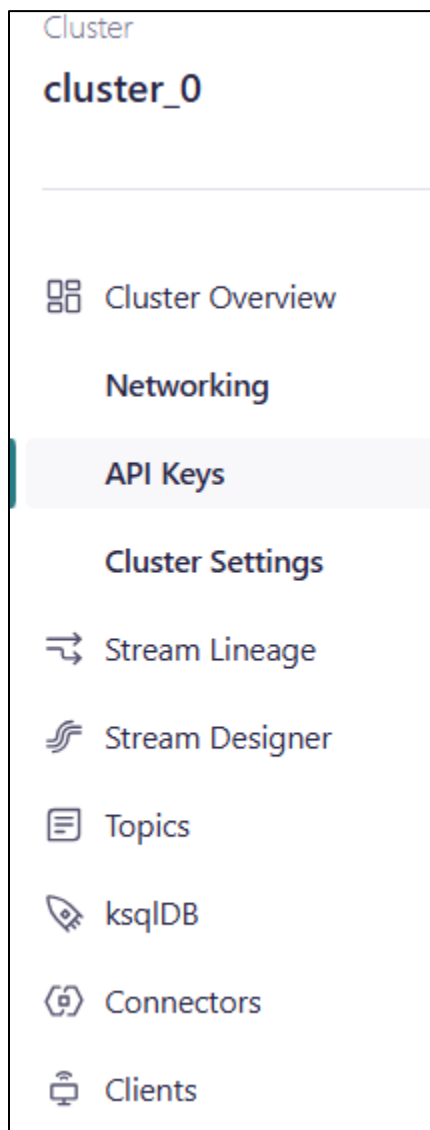
Bootstrap server [blurred]
REST endpoint [blurred]

⚠ Use the [Kafka REST API](#) to interact with your cluster and produce [records](#).

Step 2

Create the API Key and Secret

1. In the left navigation pane, in Environments, under **Cluster Overview**, click **API Keys**.




2. On the **API Keys page**, click **Create key**.
3. On the **Create key page**, do the following:

1. Select **My Account** and click **Next**.

Create key

1. Access control ○ ○ ○ ○ ○


Select account for API key



My account

Create an API key for your user account. Anyone with this credential has all of your access permissions.

**Recommended for development.*



Service account

Create an API key for the specified service account. You should give this service account only the minimally required permissions.

**Recommended for production.*

⚠ 1 of 10 available API keys for clusters have been used for your account.

⚠ 4 of 50 available API keys for cluster "cluster_0" have been used.

Next Cancel

4. In the Get your API key section, click the **Copy icon** corresponding to the Key and Secret to copy them, and save them securely. You will use these credentials for configuration of the connector in ESP.

Create key

1. Access control 2. Get your API key

Use this API key to connect with the cluster. Store the API key and secret below somewhere safe. This is the only time you'll see the secret.

These credentials can take up to one minute to propagate.

Key	[Redacted]	Copy
Secret	[Redacted]	Copy

Description

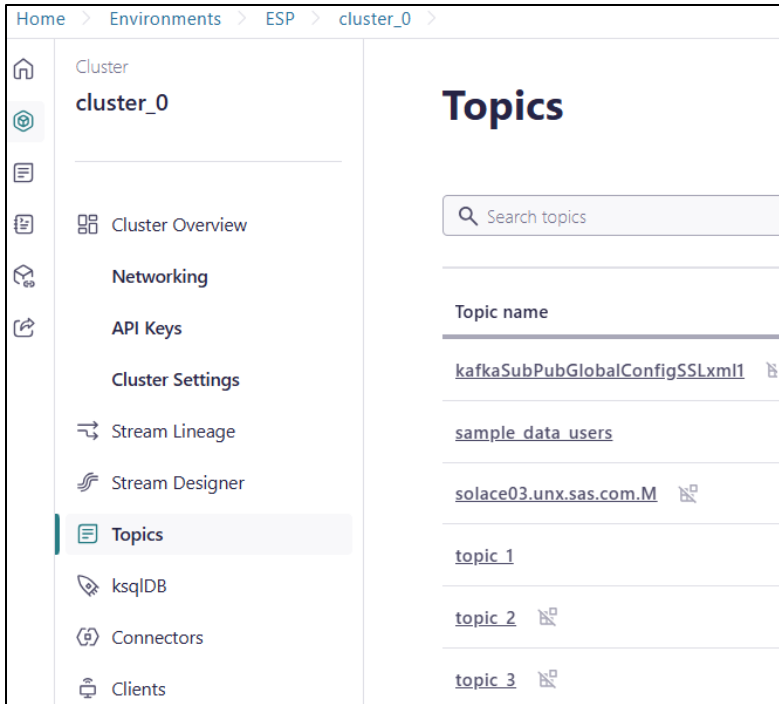
[Download and continue](#)

1. Note: Once you exit this screen, you cannot see the same API key and secret.

Step 3

Create or identify a Topic

1. On the left pane click **Environments** and then select your **Cluster**.
2. On the left pane click **Topics**.



- a. If you don't have an existing Topic, create one by clicking the **Add Topic** button on the **right side of screen**. You can also add a **Connector** to get data flowing by following the prompts in the environment.

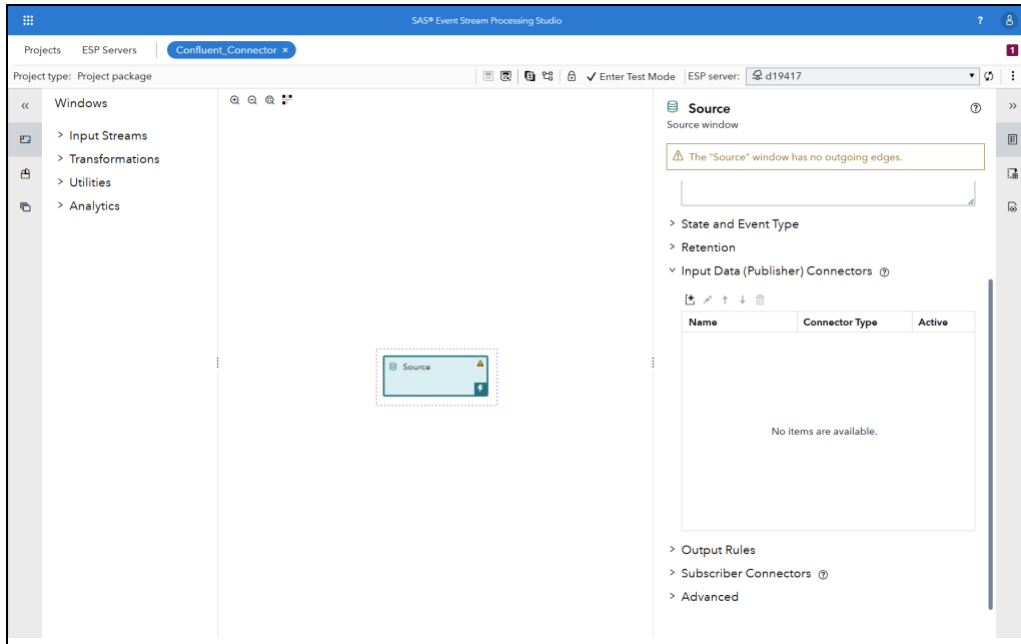
Now that you have data flowing in Confluent Cloud environment, navigate to your ESP environment.

Step 4

SAS ESP Confluent Connector configuration

To configure an ESP source window to connect to Confluent Cloud follow the steps below. Note that these steps may change as the Confluent connector evolves.

1. Create a new **source window** within your **ESP project** by selecting **Input Source** on the left pane, selecting **Source**, and dragging it to the right to the center pane.



2. Click on the new **Source** window, select **Input Data (Publisher) Connectors** on the right pane, and select the **New Publisher** icon.

x

Connector Configuration

Name: *

Confluent

Description:

Connector type: *

Confluent Connector

Connection name:

Use property values from the file "connectors.config" ⓘ

Bootstrapserver: *

This field is required.

Topic: *

This field is required.

Topicformat: *

json

Confluentapikey: *

This field is required.

Confluentapisecret: *

This field is required.

Requires schema registry

All properties...

OK Cancel

3. Name the connector and select **Confluent** from the **Connector Type** drop-down.
4. Insert the following fields using the information obtained from the Confluent Cloud environment prior work.
 - Bootstrapserver:
 - Topic:
 - Topicformat:
 - Confluentapikey
 - Confluentapisecret
5. Be sure to select the correct **Topic Format** for your specified topic (json, avro).
 - a. If using Avro, select the **schema registry checkbox** and Enter the Schema Registry URL, username, and password.

Use property values from the file "connectors.config" ⓘ

Bootstrapserver: *

This field is required.

Topic: *

This field is required.

Topicformat: *

Confluentapikey: *

This field is required.

Confluentapisecret: *

This field is required.

Requires schema registry

Schemaregistry: *

Schemaregistryapikey: *

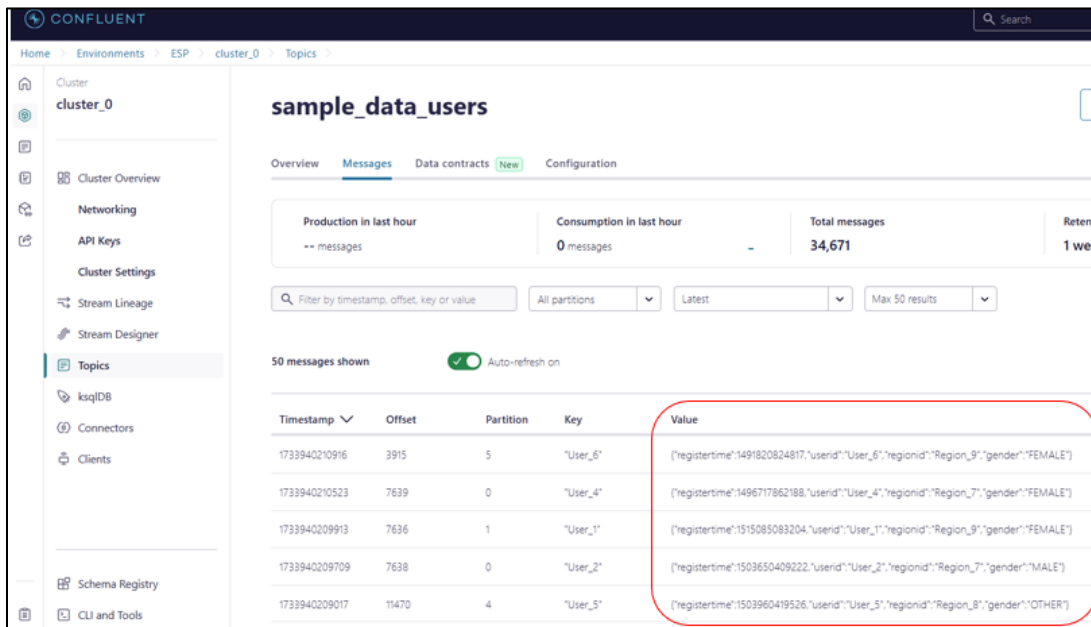
Schemaregistryapisecret: *

6. Click **OK**.

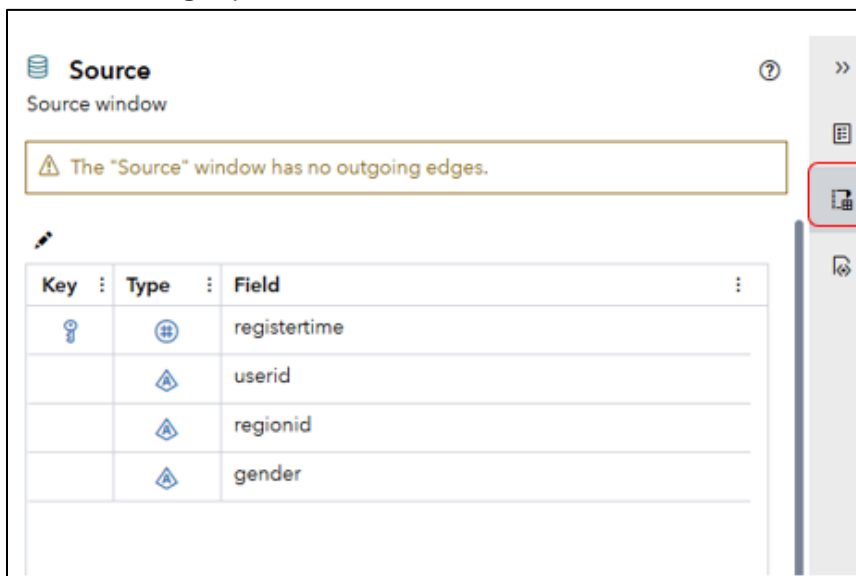
Step 5

Match Schema

1. You will need to match the output schema of the source window to the value produced by your Confluent cluster.
2. In your Confluent environment your topic output format can be found here.








3. In your ESP environment, select the **Source window**, then select the **Output Schema** icon on the right pane.



4. Click the **edit fields** icon to modify and set the schema.
 - a. This should match the schema above in the confluent environment.

Output Schema x

Key	Field Name	Type
<input checked="" type="checkbox"/>	registertime	double
<input type="checkbox"/>	userid	string
<input type="checkbox"/>	regionid	string
<input type="checkbox"/>	gender	string

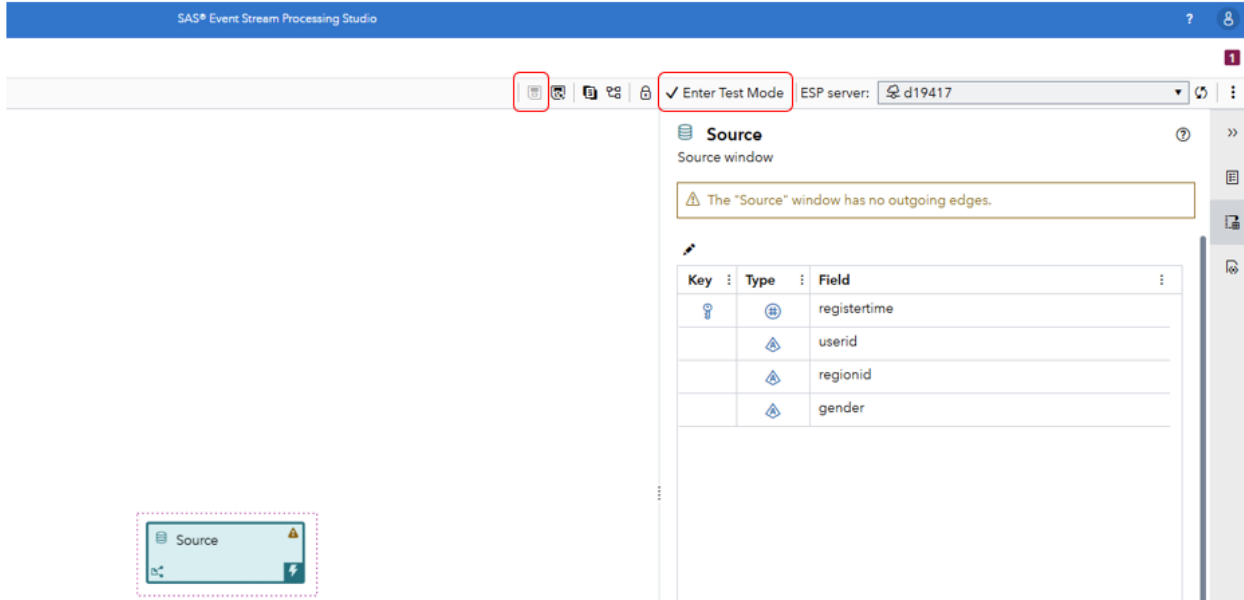
1 - 4 of 4 items

Automatically generate the key field ⓘ

Step 6

Test your project and observe output

5. Click the **save project icon** and then click **Enter Test Mode**.



6. Click **Run Test** and observe output.

