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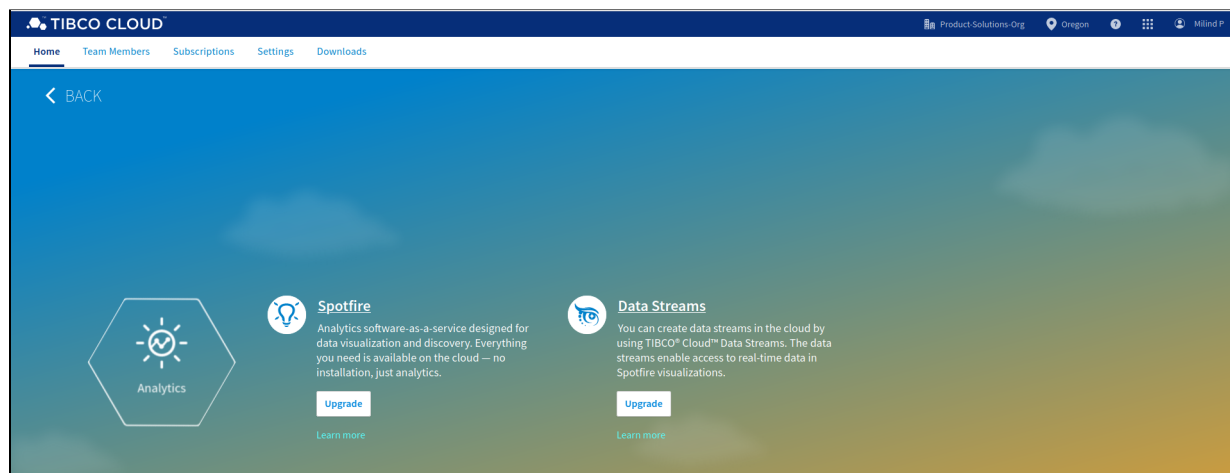# Setup Your TIBCO Cloud Streaming & Visualisation Solutions

Here, we will go through steps that will demonstrate how users can quickly import and configure the outlined data streams and spotfire dashboard in the previous section.

TIBCO Cloud Data Streams

- ❏ **Sign up for TIBCO Cloud Data Streams trial**
    - ❏ TIBCO Cloud Data Streams software brings the power of real-time analytics to the cloud. It is TIBCO's zero-install, browser-based, cloud-based, wizard-driven, real-time streaming business intelligence (BI) and analytics platform.
    - ❏ You can try out TIBCO Cloud Data Streams for free for 30 days. With your trial, you get both TIBCO Cloud Data Streams and a TIBCO Cloud Spotfire trial. You can share your streaming analysis with your team as your free trial includes 2 Analyst, 2 Business Author, and 2 Consumer roles for TIBCO Spotfire.
    - ❏ Click here for more information: https://community.tibco.com/wiki/tibco-cloud-data-streams-trial-toolkit

❏ **Configure Cloud Data Streams to connect to TCM-eFTL**
  ❏ Login to https://account.cloud.tibco.com/
  ❏ Select the Oregon Region and Organisation

  ❏ Click on Data Streams and that will take you to Data Streams page

  ❏ TIBCO Cloud Data Streams supports connecting to open source messaging frameworks like Kafka and MQTT. Here, we are going to use TIBCO Cloud Messaging as our streaming data source. Click on TIBCO

Cloud Messaging and continue.

- ❏ The wizard will automatically discover TCM channels that are running within the same region of your TIBCO Cloud account. If TIBCO Cloud Messaging is running in a different region then you need to click another channel and fill in the TCM channel URL and authentication key that is

provided during the configuration of TCM.

❏ We need to configure 2 Data Streams as below Content Matcher {"_dest":"SydneyBuses_NormalFeedStream"}. One Data Stream will be used to visualise Latest Data and another one will be used for historical

data. Time window will be 60 minutes. Click Continue.

TIBCO Cloud™ Messaging - Filter data source

Content Matcher Setting

To browse available data and create a content matcher with a wizard, click **Assist me**. Or enter the content matcher that defines data for the channel you're interested in.

Entering "{}" as the content matcher returns all the data.

Content matcher

{"_dest":"SydneyBuses_NormalFeedStream"}

e.g. - {"field": "value"}

Assist me

Help   Back   Continue

Filter data source

Set up content matching for your Data Stream.

- Click **Assist me** to select from discovered fields and specify matching values. Matching messages are shown in a Preview area.
- Directly enter one or more {"field":"value"} pairs to match. Separate multiple pairs with commas: {"field1":"value1","field2":"value2"}

Confirm that the content matcher selects only the data that you want to query for in your Data Stream. Memory requirements depend on the content you select and the data collection interval.

Read more about content matching here.

❏ The schema will be automatically fetched. And click Continue

❏ You need to define the retention policy for the data stream and memory size, we need at least 512 MB to store the incoming data. Click Continue.

❏ Provide meaningful name to Data Stream name and select the Authentication method (preferred TIBCO Cloud Authentication). Click

Continue.

TIBCO Cloud™ Messaging - General settings

Data stream name

NormalDataFeed_detail_clone

Authentication method

- ● TIBCO Cloud authentication
- ○ Password protected

● ● ● ● ●

Help | Back | Continue

General settings

Enter a name to identify the Data Stream.

Choose an authentication option. If available, the public option allows anyone to access the Data Stream without authenticating. For a password protected policy, enter and confirm the password (some clients might prompt you for a username, in this case use 'user'). You can also use TIBCO Cloud™ Authentication, if available, to restrict access further.

❏ Final Step before your data stream gets ready for use. Click Fnish.

TIBCO Cloud™ Messaging - Summary

Data source

Data source	TIBCO Cloud™ Messaging
Channel URL	wss://01esnqmkrq3kdr810wjmxqcpzw-apps.messaging.cloud.tibco.com/channel
Authentication key	eyJhbGciOiJSUzI1NiIsInR5cCI6IkpXVCJ9.eyJnc2JjljoiMDFFU05RTUtSUTNLRFI4MTBXSk1YUUN QWIciLCJpYXQiOjE2MTExMTM1MDgsInN1YiI6IjQ4MTNiYTE1YTk2MTQ5YWJiMTE1YmIwNjBhYTZ iMzVmIn0.ifjg-mXXNiDvDocOrthgqWmxlK1MjrYenuhAZblwZkXzq9upHz9Mg_fVNnSH9EkOg9y NqbJ7J-z-qazBgXhXWHXIvm_otXDBUNWlxGHvFv4P-E-LeziIGn3Btz4rr_QFZ6FSN8UF3k5LkL_J 0taRwByRnz49yOJ_r5FOXaJEE9nKi4NPp5-W9tSWProD4_sETqquTlQMljCtCuwjlg_G-2456j8_h1 pBNA2L79Yex62QWo9CudfRuD_4iMRi53o5b-PKUUWZJPkujZUl6NDxmdXjffnWelfnpo9XVYTelT RTNcjgu4tlRnaQHqMapQ3Ahy1wBvnNTBXHU2h_OMmM8g
Content matcher	{"_dest":"SydneyBuses_NormalFeedStream"}

Retention policy

Time window	60 minutes

Fields

v_id	string
delayStatus	string
trip_id	string
route_id	string
congestion_level	string
bearing	double
latitude	double

● ● ● ● ●   Help   Back   Finish

❏ You will see live data coming through as shown below when you start the data stream.

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❏ Repeat above steps for NormalDataFeed_header data stream that will populate the latest stream of data in spotfire dashboard visualisation. Select **Latest** option on the Select data stream type and define the stream's Schema page. And Choose trip_id as a primary_key here.

Content matcher = {"_dest":"SydneyBuses_NormalFeedStream"}

❏ Repeat above steps for incident details data stream that will populate the incident details in spotfire dashboard visualisation.

Content matcher = {"_dest":"SydneyBuses_incidentStream"}

❏ You get final outcome something like below
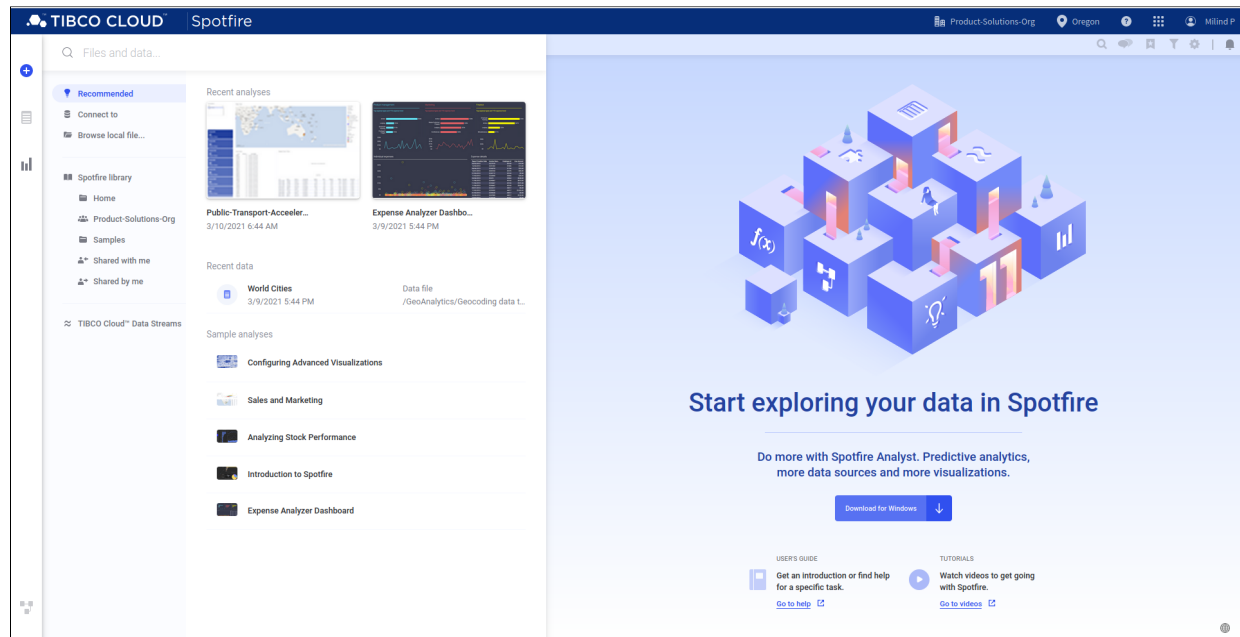
TIBCO Cloud Spotfire

❏ **Configure TIBCO Cloud Spotfire**

The end result of the accelerator is to provide visualisation on the real time data that we have generated through different TIBCO Cloud products for running buses in Sydney.
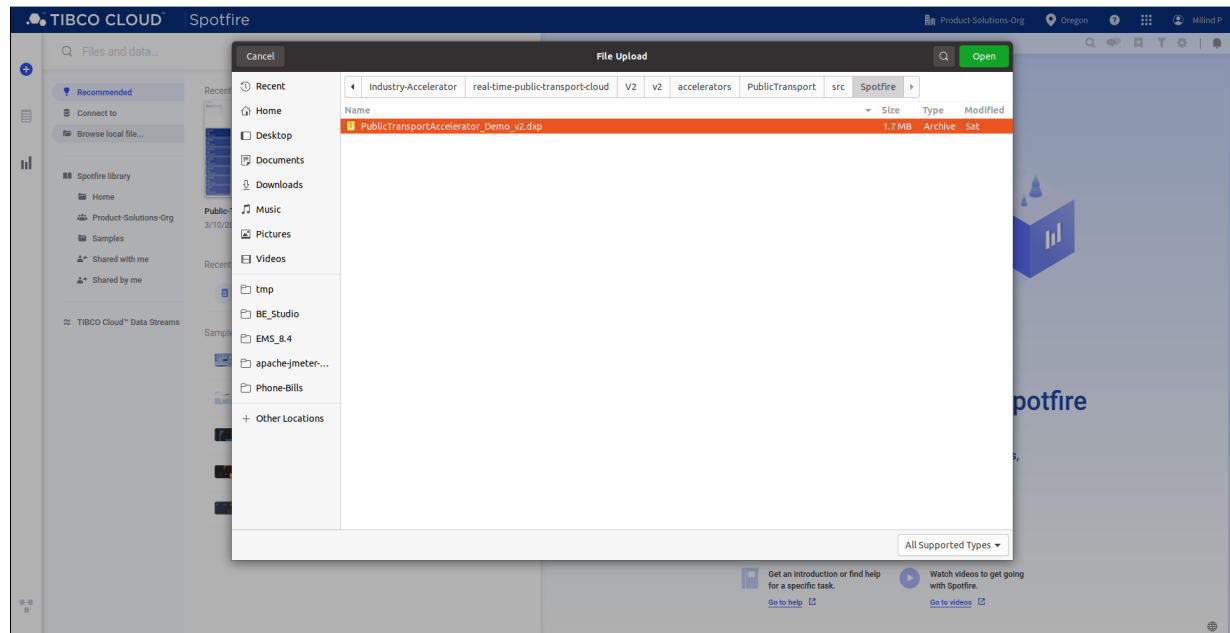
The spotfire dashboard is available under ~/../src/Spotfire/SmartTransportAccelerator_v2.dxp

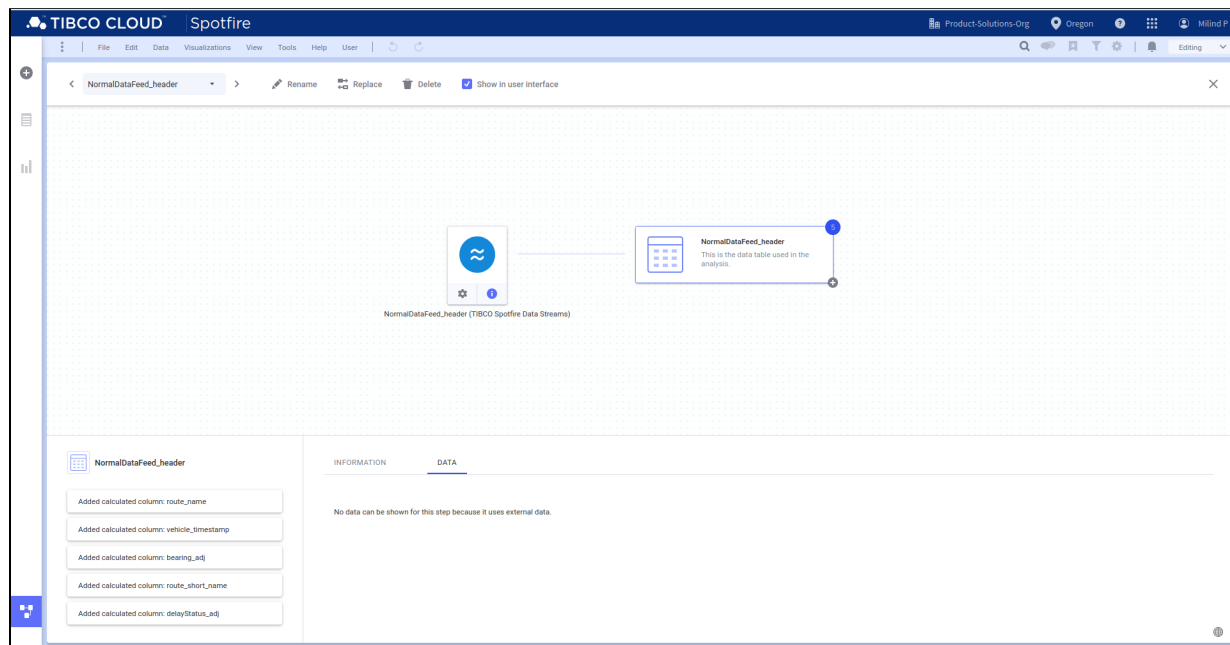To access the spotfire visualisation
   ❏ Log on the TIBCO Cloud and select appropriate Organisation and region
   ❏ Select Analytics --> Spotfire --> This will open the cloud spotfire page

❏ You need to click on the on the left side menu bar and select 'Browse local file…' and select the dashboard from the local file system.

❏ You need to configure the data streams for the dashboard to supply the data from the TCM-eFTL channel. Click on the Data Canvas on Left - Bottom corner of the dashboard.
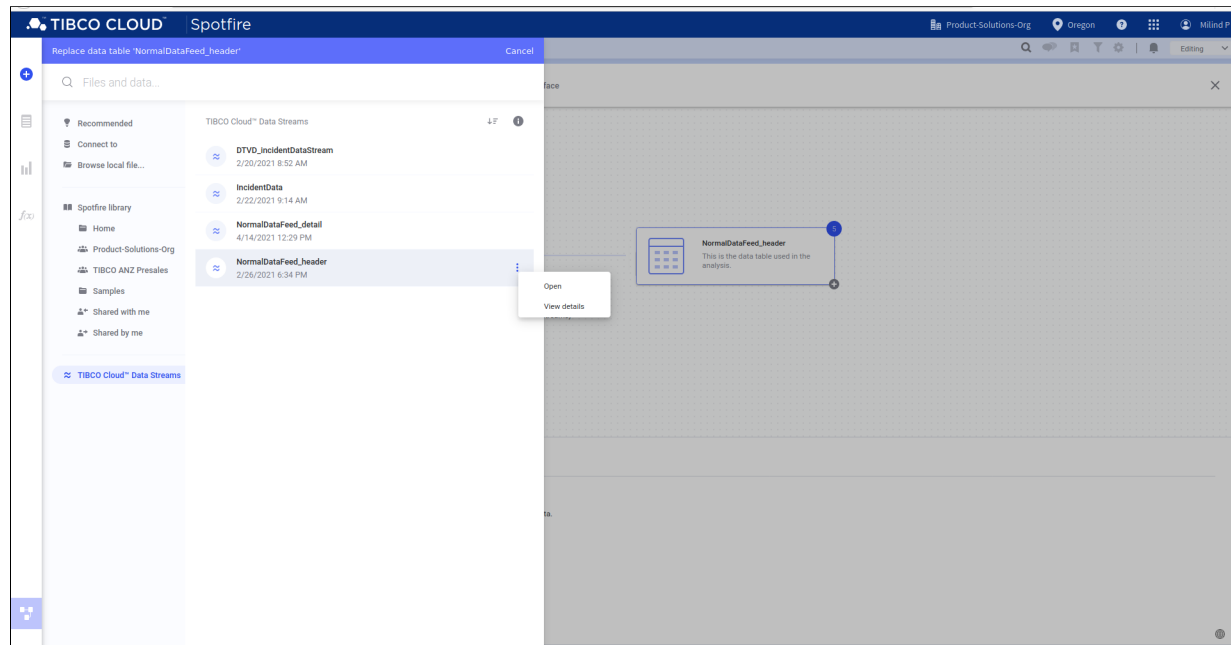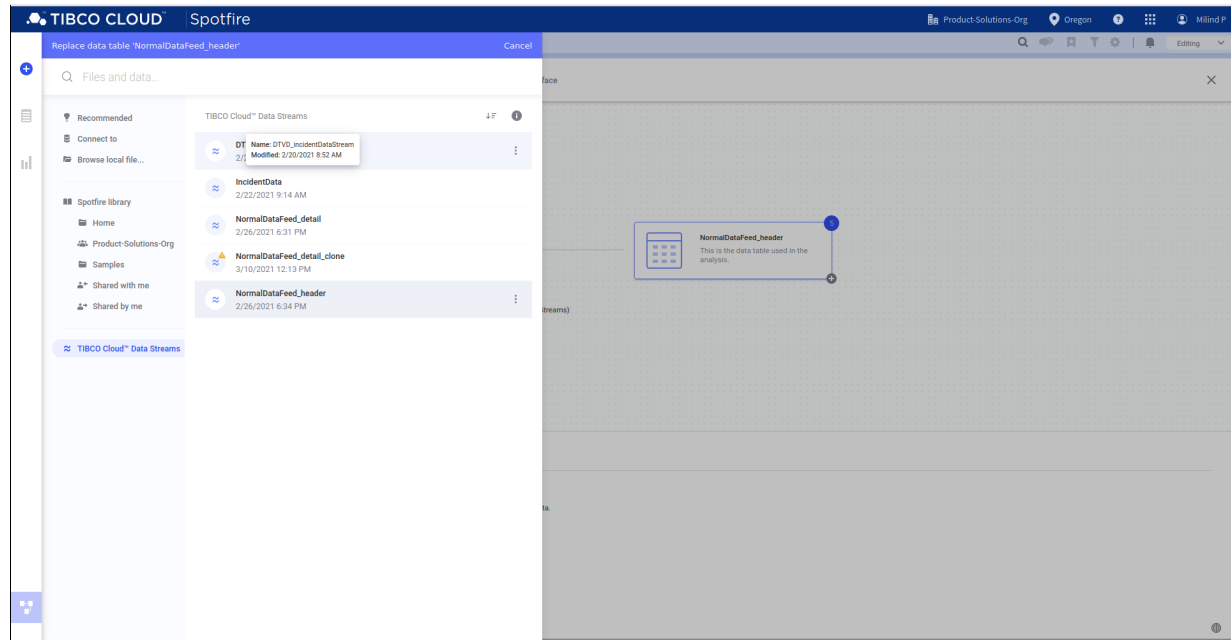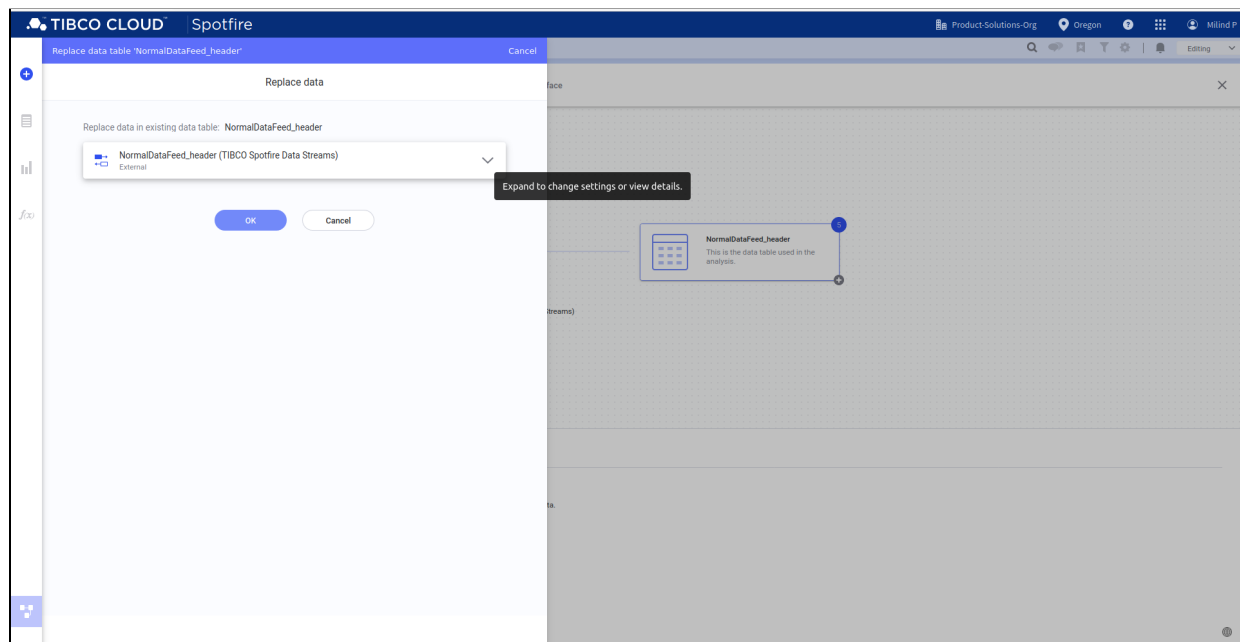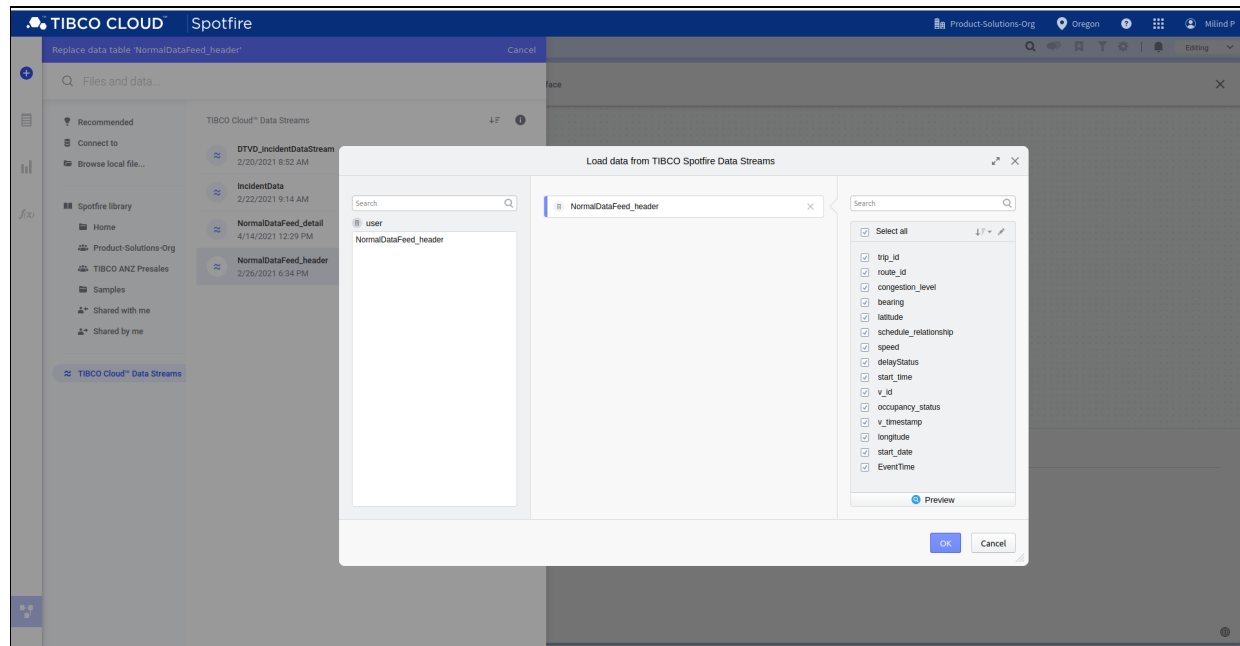
❏ Select the data stream from drop-down box and click on the **⇄ Replace** button and click on the **≈ TIBCO Cloud™ Data Streams** and select appropriate data streams as shown in below snaps and click OK.

❏ Repeat the above process for all the TIBCO Cloud Data Streams that you have created in the first half.

❏ Once you configure all the TIBCO Cloud Data Streams for the dashboard then exit the mode.

❏ Now, you will be able to visualise the incoming data from TIBCO Cloud Datastream in TIBCO Cloud Spotfire.