Channel Updates in MDH

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Channel Updates

In this, we will be discussing channel updates and how to resend channel updates in the Master data hub. By the end of this blog, you will be able to understand about model, sources, and its configuration.

What are Channel Updates?

- Channel updates refer to the process of propagating the changes or updates in the Master Data Hub across all the connected systems in an organization.
- When a change is made to the master data record, such as updating the value of any field. These changes need to be synchronized and propagated to all the systems and applications that rely on this master data.
- Channel updates facilitate this synchronization by ensuring that any modification master data are properly distributed to all relevant systems promptly, thereby maintaining the consistency and accuracy of data across the entire organization.
- In Mater Data Hub, we can configure a source in three different ways.

    1. Contribute Data
    2. Accepts Channel updates
    3. Contribute and Accept Data

- MDH will send channel updates to all the sources that are configured as Accepts Channel Updates.

Now we will see how channel updates will work by configuring Models, Sources, and Integration Processes which interact with Master Data Hub. We will begin the implementation by logging into the Boomi platform.

Step 1: Log onto the Boomi platform (https://platform.boomi.com/) with the required credentials (Email Address and Password).
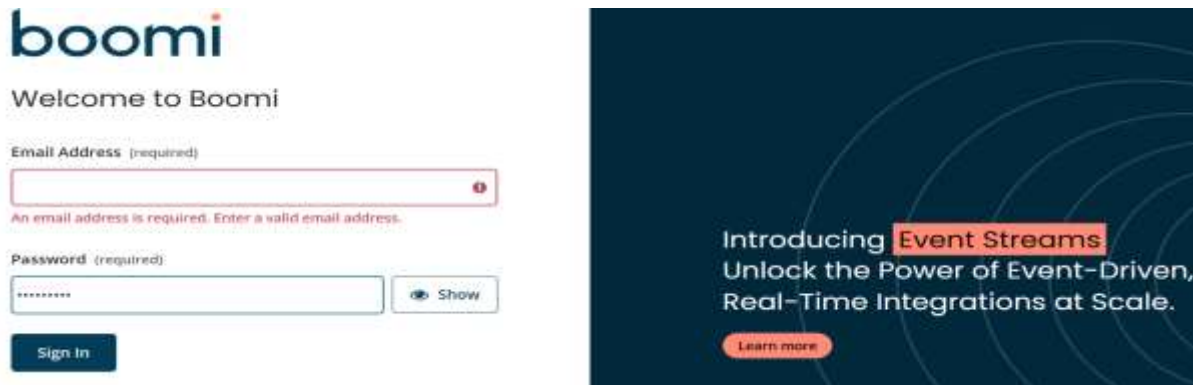
Step 2: Under Services choose Master Data Hub.

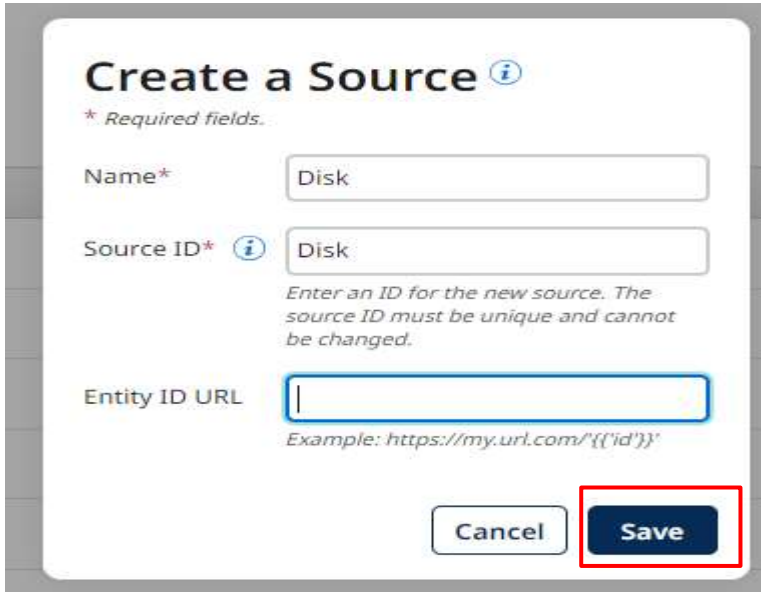**Step 3:** Master Data Hub UI will look as shown below.

Now we will create two sources that will interact with MDH through integration.

Steps to create Source:

Step 1: Navigate to the Sources tab and click on Create a Source.

Step 2: A tab opens as shown below. Configure Name and Source ID as shown below (Entity ID URL is optional) and click on save.
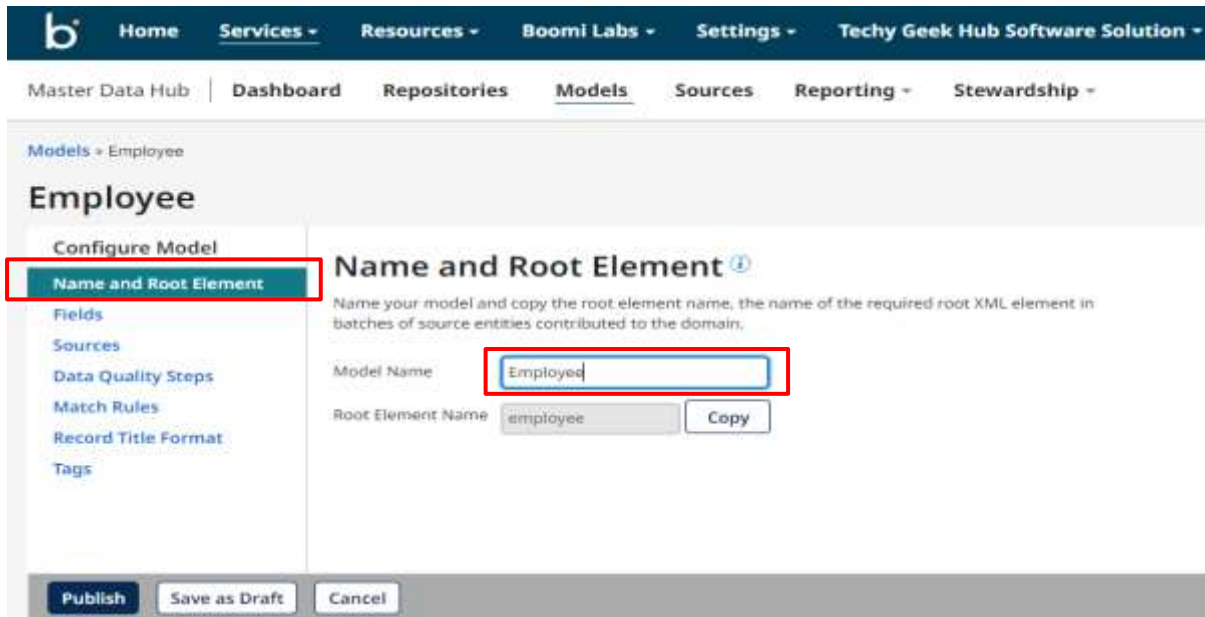

Step3: Now, create MYSQL source as shown below and click on Save.

Now we will create a model that represents the structure of the Golden record that we want to manage in MDH.
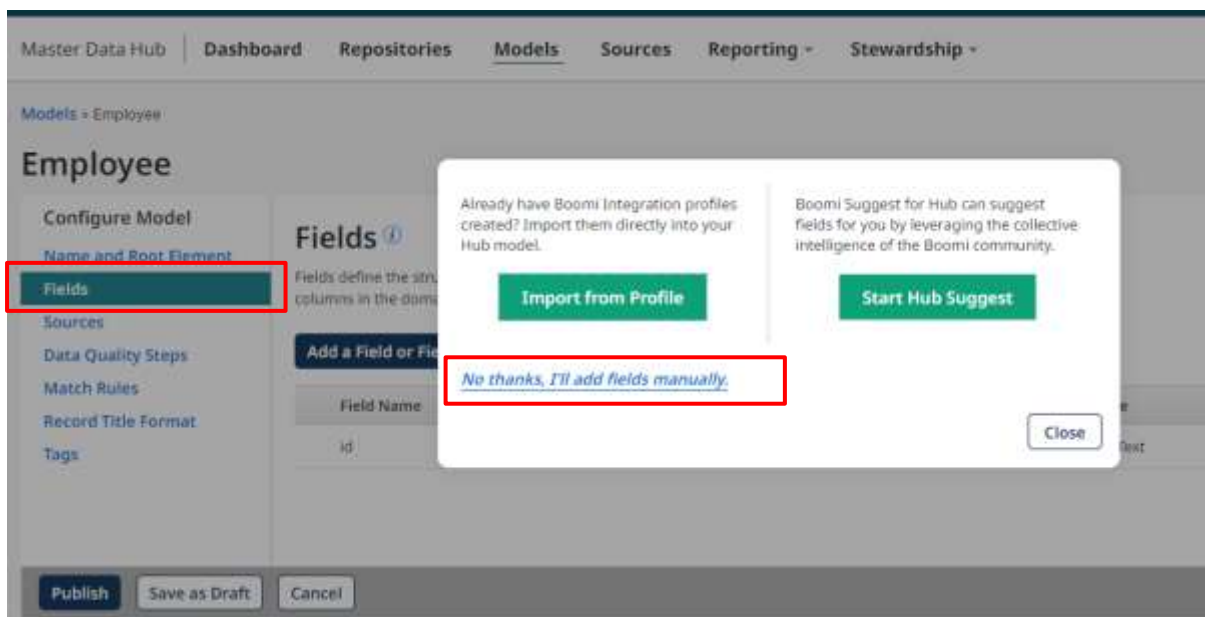
Steps to Create Model:

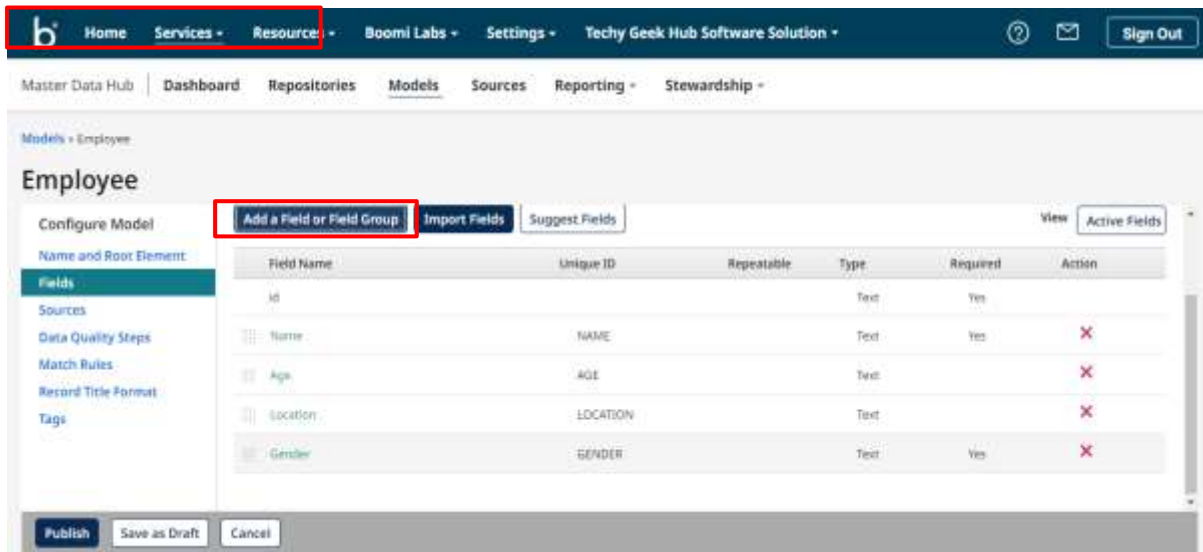**Step 1:** In the MDH, navigate to the Models tab and click on Create a Model.

Step 2: Click on Name and Root Element and give the model's name as Employee as shown below.

Step 3: Navigate to the **Fields** tab and click on **No thanks, I'll add fields manually**.

Step 4: Click on **Add Field or Field Group** and Configure the fields as shown below one by one.

Step 5: Navigate to the **Sources** tab and click on **Add a source** and choose the Disk source which we have created earlier. Choose as **"Both"** for **"This source can"** option. Leave all other configurations to default settings and click on Add.

This configuration represents that Disk source can contribute data to the MDH and receive updates from the MDH.
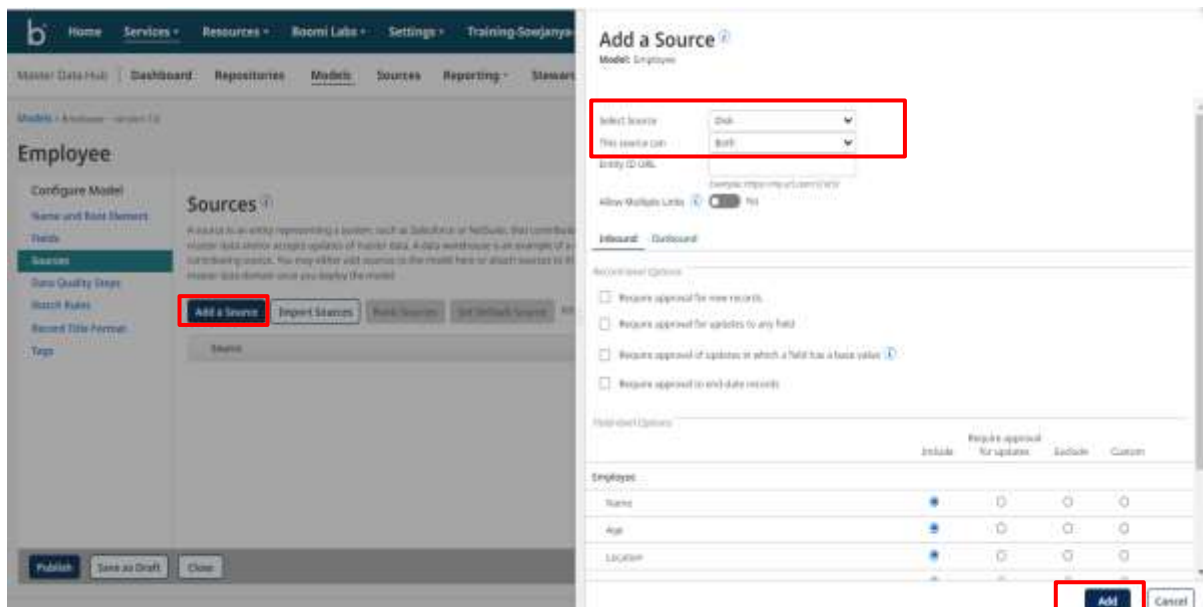
Step 6: Now attach the MYSQL source by following the above step but change

"This source can" option to **"Accept Channel Updates".**

This configuration represents that the MYSQL source is non-contributing. This Source can only Accept channel updates from MDH but it cannot contribute data to the MDH.
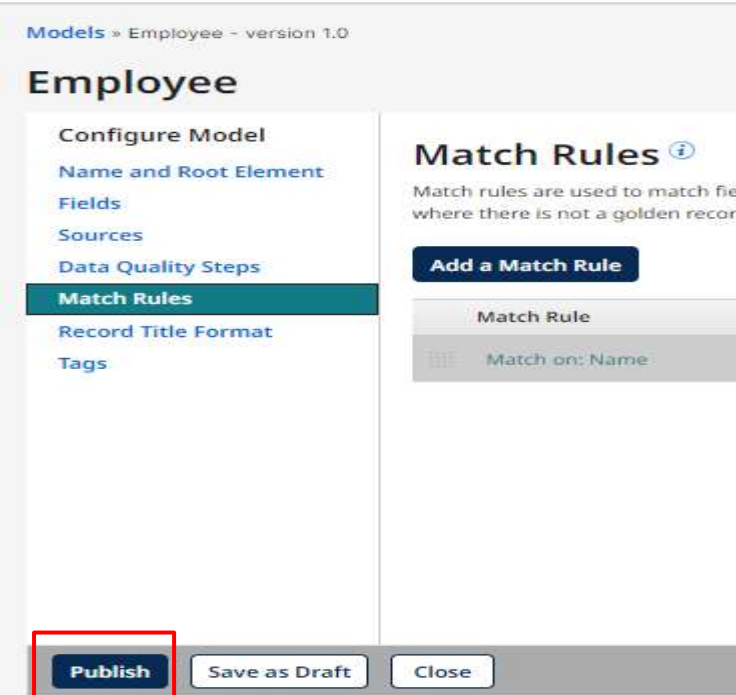
Step 7: Navigate to Match Rules and click on Add a match rule and configure match on Name as shown below and click on Save.

Step 8: For now, we can skip the **Data Quality Steps**, **Record Title Format,** and **Tags** as all these are optional.

Step 9: Now click on **Publish** to Publish the model to a repository.

Step 10: A tab opens as shown. Enter any message(optional) and click on save.

Step 11: We can see the successful published message as shown below.

Step 12: Now click on Deploy to deploy the Employee model to your repository. Make sure you have created a repository in your account before you deploy a model.

Step 13: Choose the repository and version and click on OK.

Deploy Model - Employee
ⓘ
* Required fields.

Repository*	sowjanya_repository ▾
Model Version*	1.0 ▾

Cancel   **OK**

Step 14: A message will be displayed representing the successful deployment.

Leveraging Integration to Interact with MDH:

- Now we will be leveraging the Integrations to interact with MDH.
- Open a duplicate tab (to make the navigation easier) and navigate to Integrations under the services tab.
- Create two processes. One is to contribute data from the Disk source to MDH and the other is to query the channel updates using the MYSQL source.

Process to Contribute Data to MDH:

Step 1: Create a process with the name as **Contribute_Data_To_MDH_Using_Disk_Source.**

Step 2: Drag and drop a message shape attach it to the start shape and paste the below data in the message shape. [Label the message shape as Disk source for your reference(optional)]

Id, Name, Age, Location, Gender

11, Sanjana,25, Hyderabad, F

12, Shreyas,29, Mumbai, M

13, Ananya,32, Bangalore, F

Step 3: Drag and drop a map shape into the process canvas and attach it to the message shape. We will configure the Map shape in further steps.

Step 4: Drag and drop a Boomi master data hub connector into the process canvas and attach it to the map shape**.**

Step 5: Choose the action as upsert and configure the connection and operation component.

Step 6: The connection component will look as shown below.
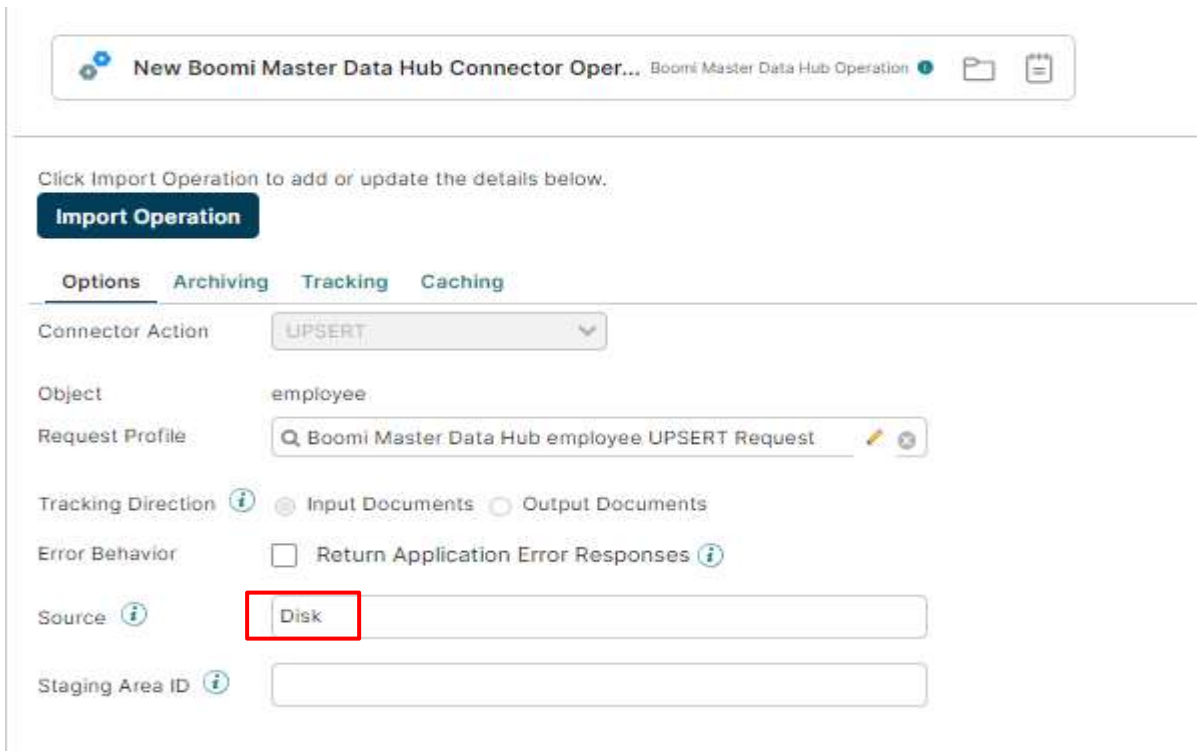

Step 7: Configure the operation component by importing the Employee model upsert profile related to MDH. The operation component will look as shown below.

Step 8: Now configure the map shape by choosing the flat file as the source profile and imported the MDH profile as target Profile and do mappings as shown in the below figure.
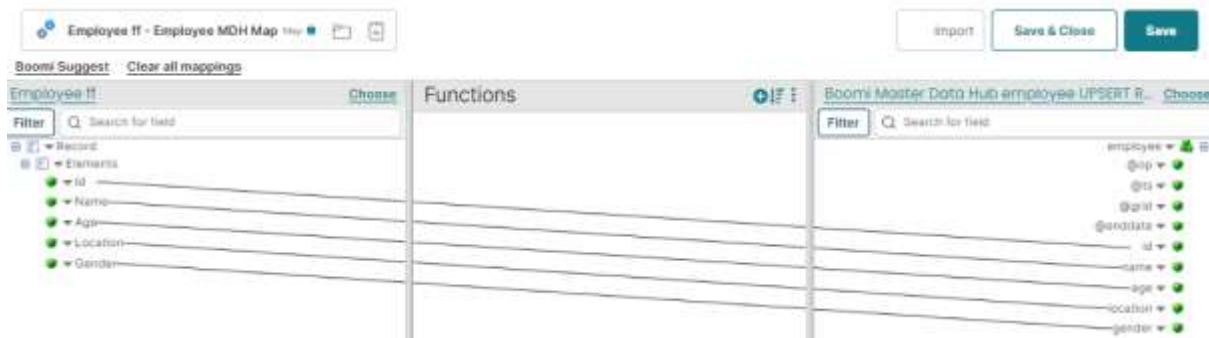
Step 9: Now drag and drop a stop shape into the process canvas and attach it to the Boomi Master Data Hub Connector.

Step 10. Click on save to save the changes made to the process. The entire process should look as shown below.
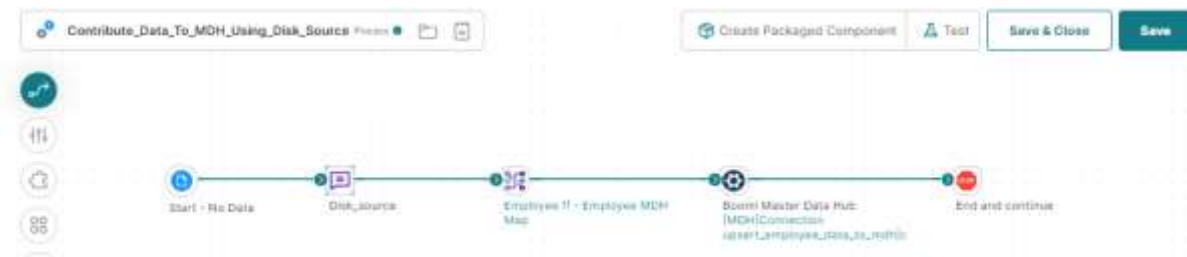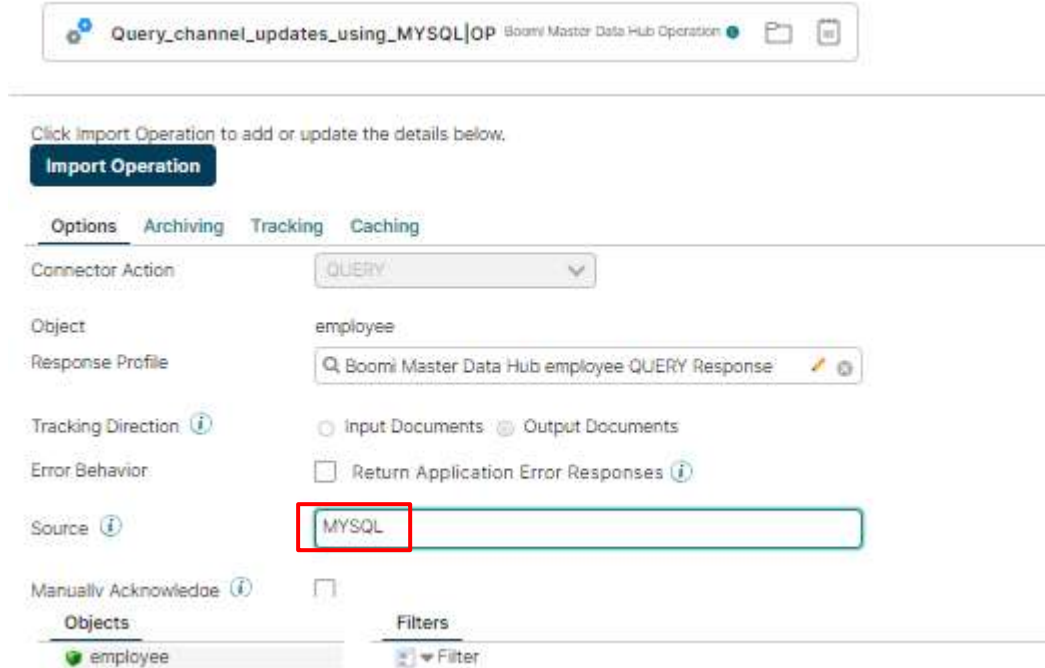

Now we will create our process which will help us to query the channel updates from the Master Data Hub.

Process to Query the Channel Updates from MDH:

Step 1: Create a process with the name **Query_updates_from_MDH_using_MYSQL_source.**

Step 2: Attach a Boomi Master Data Hub connector to the start shape shape. Choose the action as Query and configure the connection and operation components to retrieve the channel updates using the MYSQL source.

Step 3: The operation component should look as shown below.


Step 4: Now drag and drop a stop shape into the process canvas and attach it to the Boomi Master Data Hub Connector.

Step 5: Click on save to save the changes made to the process. The entire process should look as shown below.
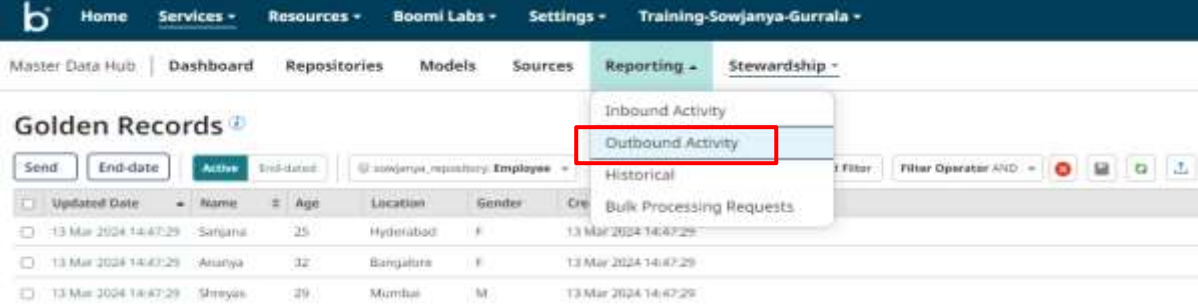
- Now navigate to the Repositories tab in the master data hub and Click on Employee model. Under the Employee model navigate to the sources tab. We can see the configurations as shown below.
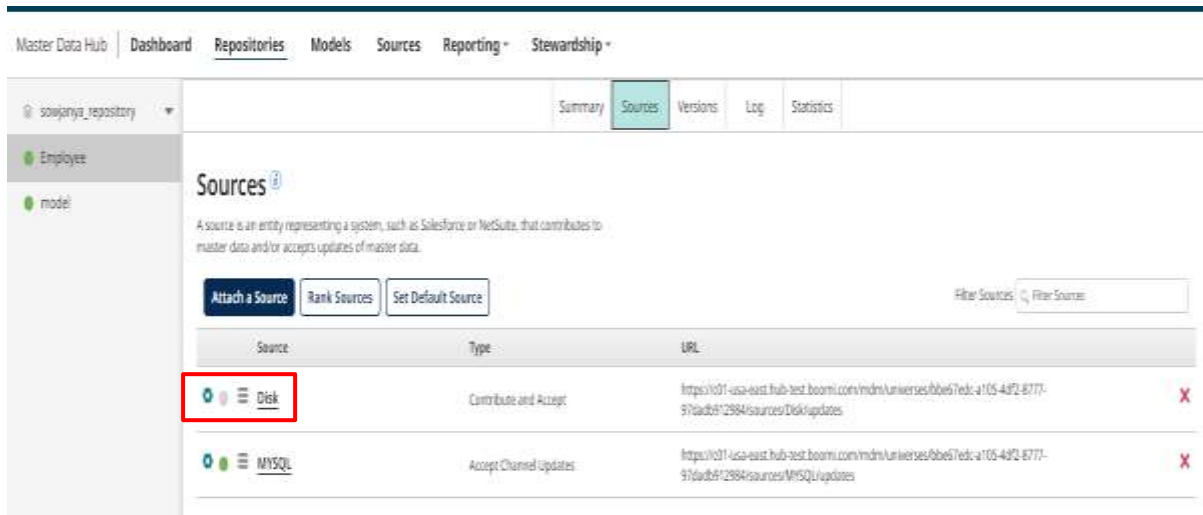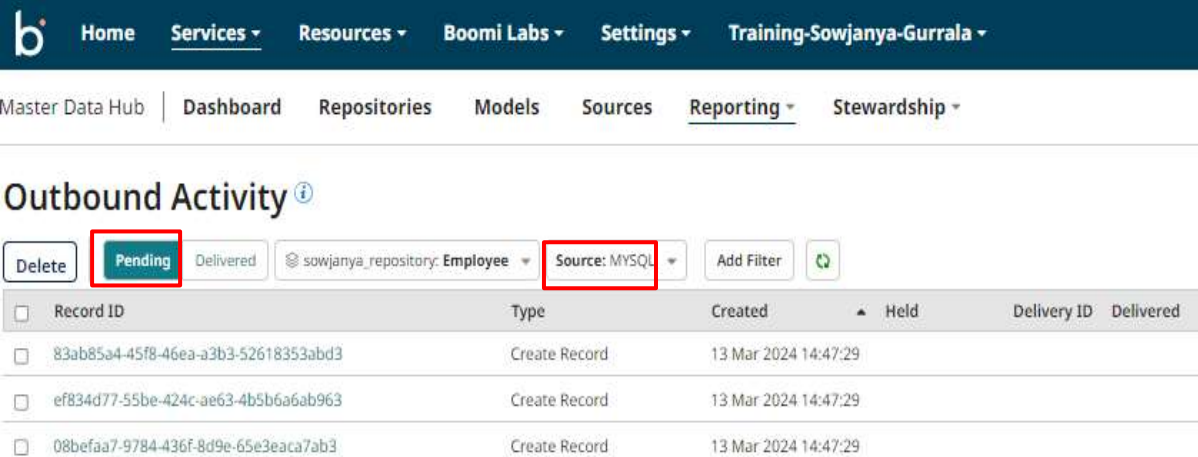

- Before sending the data to MDH using any source we have to Enable the initial load for contributing sources. Initial load is by default enabled for non-contributing sources.
- To enable the initial load, click on the gear icon opposite to the Disk source and Click on Enable initial load as shown in the below image.
- Now Test the process **Contribute_Data_To_MDH_Using_Disk_Source**. After the successful execution of this process, navigate to Golden Records under the stewardship tab. Choose your repository and the Employee model. We can see three records were contributed to MDH through a Disk source.
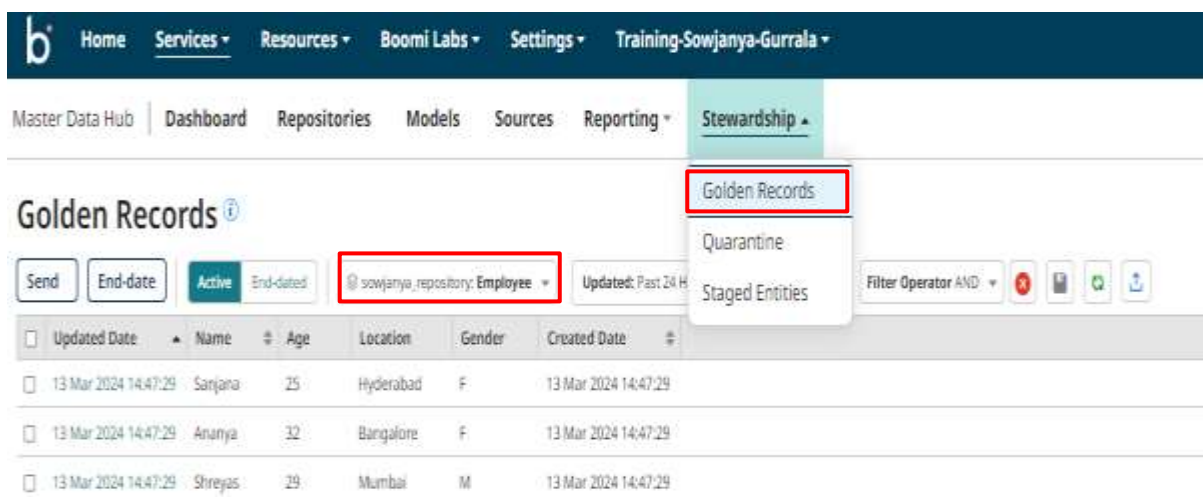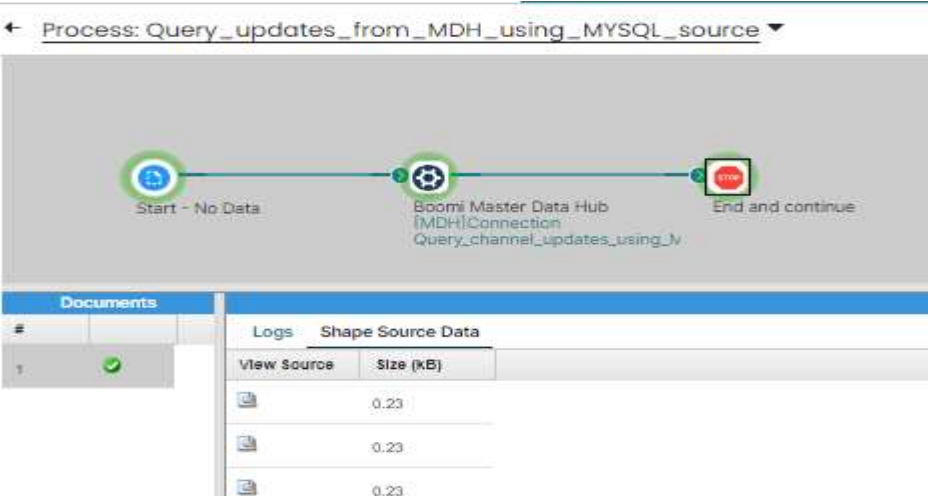
- Now navigate to the Outbound Activity under the Reporting tab.

- Choose a MYSQL source. We can see there are 3 record updates with the status as pending. These updates are sent by the MDH automatically to all the sources of a model which are configured as "**Accept channel updates**".
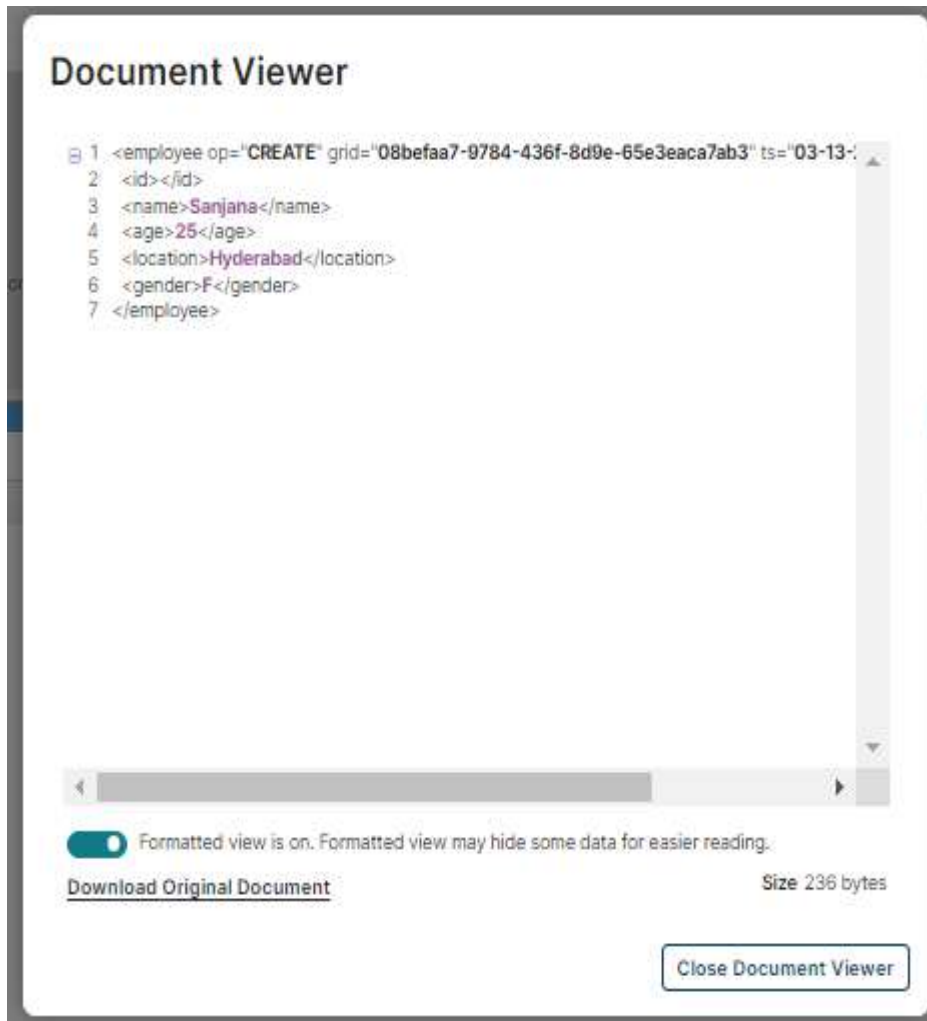

- Now we will query the channel updates by executing the process **Query_updates_from_MDH_using_MYSQL_source**. We can see we got three documents having one record each.
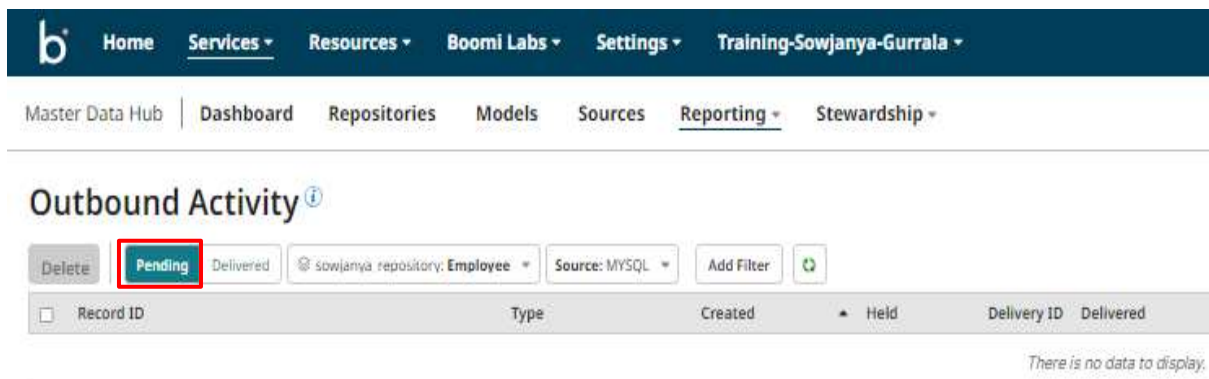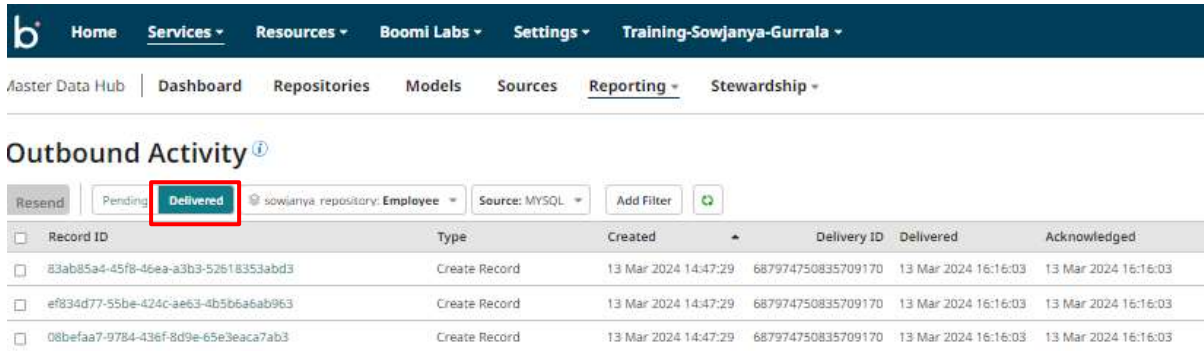
- Click on any document. This is how the document look like.

Document Viewer

```
1  <employee op="CREATE" grid="08befaa7-9784-436f-8d9e-65e3eaca7ab3" ts="03-13-
2  <id></id>
3  <name>Sanjana</name>
4  <age>25</age>
5  <location>Hyderabad</location>
6  <gender>F</gender>
7  </employee>
```

Formatted view is on. Formatted view may hide some data for easier reading.

Download Original Document   Size 236 bytes

Close Document Viewer

- Now go back to the outbound activity, refresh the page, and choose the MYSQL source. We cannot find any record pending.

| b | Home | Services ▾ | Resources ▾ | Boomi Labs ▾ | Settings ▾ | Training-Sowjanya-Gurrala ▾ |
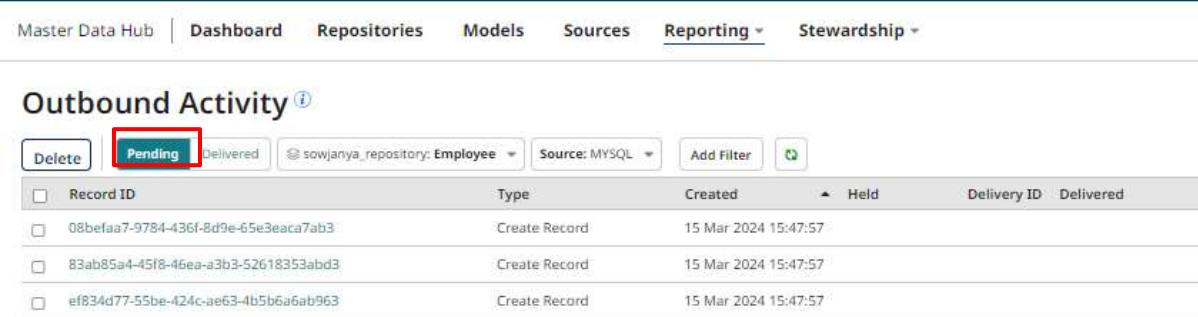
Master Data Hub | Dashboard   Repositories   Models   Sources   Reporting ▾   Stewardship ▾

Outbound Activity ⓘ

Delete   Pending   Delivered   ⚙ sowjanya repository: **Employee** ▾   Source: MYSQL ▾   Add Filter   ↻

|	Record ID	Type	Created ▲	Held	Delivery ID	Delivered
						There is no data to display.

- Now click on the Delivered option. We can see the records. This represents that Golden records which were contributed by the Disk source are synchronized with the MYSQL source through channel updates sent by the MDH to the MYSQL source.

- Now if we try to query again using MYSQL sources we will not be able get any records. This is because the MDH will consider the records which were queried using Boomi Master data hub connector, as delivered.
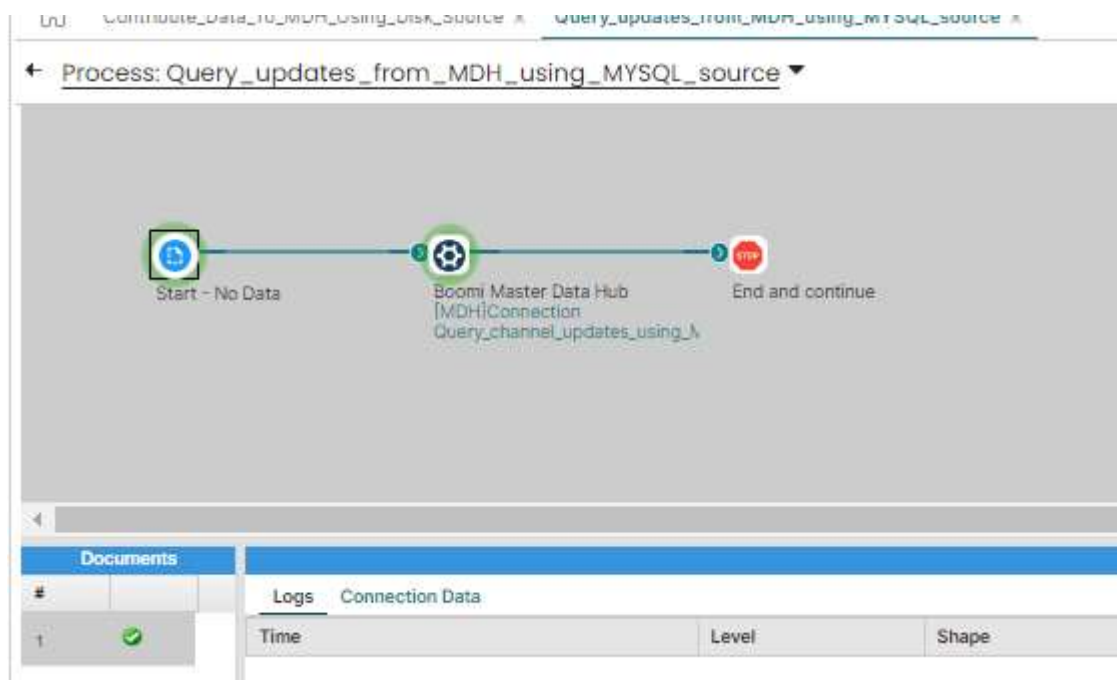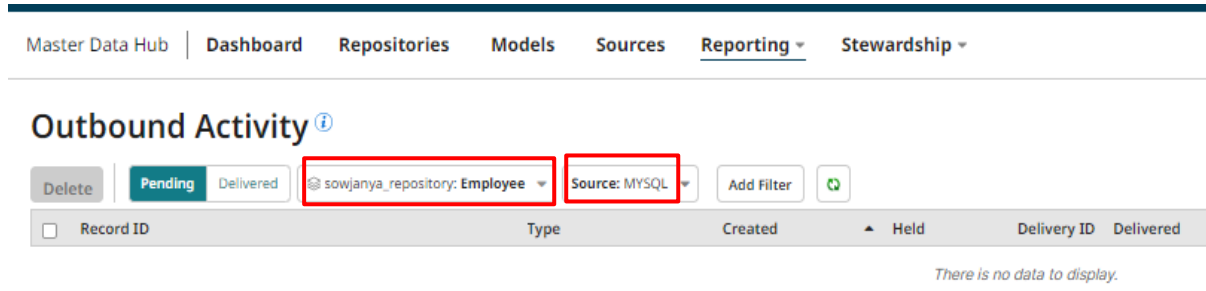

- Let us assume a scenario. We have queried the golden records from MDH but because of an error, the records didn't synchronize with the target system.
- As per the functionality of MDH, once the records are queried from MDH. they will be considered as Delivered irrespective of the result whether they are synchronized with the target system or not and we cannot retrieve them again if we perform Query operation.
- But we have to make sure that golden records are synchronized across all available systems in an organization.
- This is where we have to trigger manual channel updates by resending the channel updates.

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- If we resend the channel updates, the records will again be sent to the pending and we can query them again.

Now we will see how to resend channel updates

Resend Channel Updates in MDH:

- Go to outbound activity under the Reporting tab and choose the source for which you want to resend the channel updates.
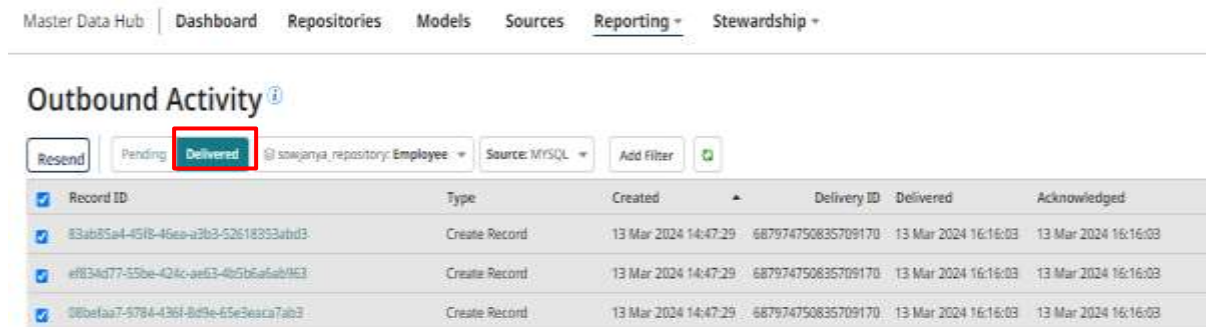

- Now click on Delivered and select the records for which you want to resend the channel updates and click on Resend button.

- We can a pop-up message as shown below. Click on OK.

- Now navigate to the Pending tab. We can see there are records.

- Now navigate to the Integration and execute the process
Query_updates_from_MDH_using_MYSQL_source. Here we can see we can
query the records again.

This is how the Channel Updates and Resend Channel Updates will work in MDH.

In this way, we can resend the channel updates manually according to the requirement and
make sure quality data is synchronized across all the systems in an organization.

References

- https://help.boomi.com/
- https://help.boomi.com/docs/atomsphere/master%20data%20hub/menu/r-mdm-outbound_activity_page_664e07e7-0126-4604-a530-9a116ec4b041/
- https://help.boomi.com/docs/atomsphere/master%20data%20hub/stewardship/c-mdm-stewardship_df83d7fb-14c5-4543-afc3-04179e6637e5/
- https://help.boomi.com/docs/atomsphere/master%20data%20hub/menu/r-mdm-models_page_c8239e18-c40e-431e-bff0-fe7695b369f3/
- https://help.boomi.com/docs/atomsphere/master%20data%20hub/modeling/hub-sources_overview_44bc8108-64e3-48a4-a5ee-375fe9a6849b/
- https://help.boomi.com/docs/atomsphere/master%20data%20hub/rest%20apis/hub-enable_initial_load_mode_5fc2de65-051a-40fb-9654-6ae22cb92a71/

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