Syncing data from BMC Helix SaaS to a destination database

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As an administrator, use BMC Helix Data Connector to transfer data from BMC Helix SaaS (on PostgreSQL) to your preferred data lake or warehouse. You can transfer incident, change, and other ITSM and service management data. Supported destination databases can be a Microsoft SQL Server or Snowflake. BMC Helix Data Connector enables reliable data synchronization, giving you greater flexibility to access and analyze your data. It allows you to configure synchronization intervals, monitor ongoing data transfers, and review past synchronization results.

Licensing

The BMC Helix Data Connector service is available with the purchase of any of the following line items from your ordering document:

License	Unit of Measurement
BMC Helix Data Connector - 1TB	each

With "each" unit of measurement, a license is required for syncing selected data forms, adding up to 1TB within the BMC Helix SaaS database. This is typically sufficient for most implementations. However, if your data forms selected for syncing grow over time, have large attachments, and/or require additional data forms for syncing, you can purchase additional quantities. The quantity purchased is consumed across your production and non-production environments. (Example: Development, QA, Production)

For more information, see Additional license terms.

Additional license terms

The following additional terms apply to the BMC Helix Data Connector service:

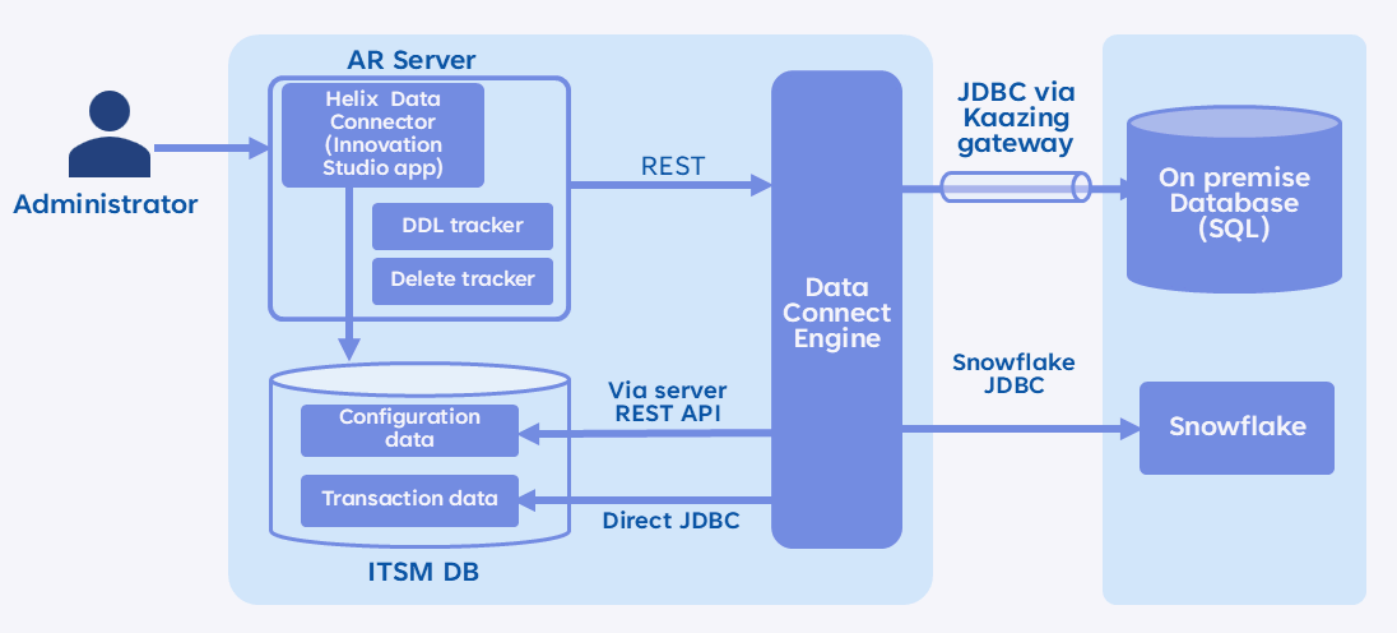
- Licensing terms and conditions are as defined in the governing master agreement and take precedence over any published description from this site.
- BMC Helix Innovation Studio is a pre-requisite to accessing the Helix Data Connector and must be licensed separately.
- BMC Helix Data Connector—The 1TB licensing purchased on your agreement is consumed across your production and non-production environments. Customers typically disable the non-production data sync after testing and keep the Helix Data Connector configured to production running for ongoing syncs.
- Entitlements are subject to change.

For more information, see BMC Helix Subscriber Information.

Architecture of BMC Helix Data Connector

BMC Helix Data Connector provides a one-way data sync from BMC Helix SaaS to a preferred destination. It syncs both definition (DDL) and transactional data while tracking schema changes and deletions by using the DDL tracker and Delete tracker.

BMC Helix Data Connector consists of two key components: the Helix Data Connector application and Data Connect Engine, as shown in the following diagram:



The Helix Data Connector application enables administrators to configure the target destination, datasets, and sync intervals. The Data Connect Engine is a pod or singleton service that handles data movement from the source to the target. It uses REST APIs to retrieve the configuration details and JDBC connections for secure data transfer.

The data transfer mechanism is as follows:

- **For on-premises database (Microsoft SQL Server)**: Data transfer occurs over a JDBC connection via a Kaazing gateway, ensuring secure communication between the source and target environments.
- **For Snowflake**: The system uses Snowflake JDBC connections for efficient data migration.

BMC Helix Data Connector syncs both definition (DDL) and transactional data while tracking schema changes and deletions by using DDL Tracker and Delete Tracker.

The DDL tracker supports the AR server to track the changes made to any of the forms in the system and generates SQLs that are compatible with the destination database. Any changes to the forms or record definitions are tracked.

The Delete tracker supports the syncing of deleted records. If a record is deleted from the source database, it is also deleted from the destination database. The Delete tracker monitors and maintains logs of each deleted record to ensure that the destination database remains accurate.

Scenarios

- Apex Global wants to consolidate its BMC Helix ITSM data for executive reporting and compliance audits. The IT admin uses BMC Helix Data Connector to sync data from BMC Helix SaaS (on PostgreSQL database) to their on-premises (on Microsoft SQL Server database) environment for reporting and compliance audits.
- Acme Corp, a Snowflake customer, wants to integrate their BMC Helix SaaS data with other enterprise datasets for advanced analytics. The IT admin uses Helix Data Connector to sync the Helix data directly into Snowflake for unified business intelligence and predictive modeling.

BMC Helix Data Connector ensures an interval-based ongoing sync of your data, making it available to your chosen data lake or warehouse for executive reporting, compliance audits, or advanced analytics.

Considerations for using BMC Helix Data Connector

Before using BMC Helix Data Connector, review the following requirements and limitations to ensure a smooth configuration and sync process:

Requirements for enabling Helix Data Connector capability

After subscribing to BMC Helix Data Connector—1TB, submit a Change Request (RFC) in BMC Helix Support Central to enable resourcing for your destination configuration and data syncing.
For more information, see the Request for Change process in the BMC Helix Subscriber Information online documentation.

- Please ensure your RFC is completed before configuring your destination. Otherwise, the destination will not be created.
- If you are syncing data to Snowflake, clearly mention in the RFC that the destination is Snowflake. This helps BMC Support allocate the necessary resources for data syncing. After the RFC is completed, you will receive your BMC Egress Network address, which is required for configuring network rules in Snowflake.

Security considerations

- **Encryption**—By default, traffic between BMC Helix Data Connector and Snowflake is encrypted via SSL.
- **Supported authentication mechanisms**—Only username-and-password-based authentication is supported for both Snowflake and Microsoft SQL Server. All other authentication types are not supported.
- **Permissions for destination as Snowflake**—The Snowflake application requests permissions to create a database or warehouse. If you have concerns regarding this level of access to BMC Helix Data Connector, revoke the permissions after the installation and destination configuration are complete.

Role requirements

- **Destination: Microsoft SQL Server**—The Microsoft SQL Server user must be the owner of the database.
- **Destination: Snowflake**—This role should have the correct privileges and must have access to create and drop tables within the schema.

Configuration requirements

- The BMC Helix Data Connector application is accessible to only administrators.
- The source database must be PostgreSQL on SaaS environments only. On-premises environments are not supported.
- You can configure only one destination per BMC Helix SaaS instance.
- The destination database must either be Microsoft SQL Server or Snowflake.
- To connect to Microsoft SQL Server as the destination, request the creation of a Kaazing gateway from BMC Helix SaaS to the SQL Server database by raising a support case with BMC Helix Support to initiate this request.

Data sync behavior and limitations

- Only regular forms and view forms on select metadata tables can be replicated.

- Data corresponding to field ID 102 and 123 and any fields marked as **Encrypted At Rest** are copied to the destination as is without any decryption.
- Only user-friendly views/tables created by AR Server are replicated. Union views or custom tables are not supported.
- Form-level data and row filtering are not supported.
- Data is replicated in its original form without any transformation.
- Any direct database changes (even when done using GLSQL API/direct SQL from workflow) won't replicate unless C6 (last modified timestamp) is updated. For example, Direct update to DB by DB team or Updates using GLSQL API or Direct SQL action in Filters/Active Links (all BMC shipped workflows must be identified and fixed if required)
- Importing old data by using the Import Tool will require a full sync to get the data synced to the destination if those records are needed on the destination.
- When replicating data, the order of tables/data movement does not follow their relationships.
- Data Connect Engine will move records from all dependent tables (B/BC/H/S/L) if the main table (T) record is modified, even if there are no changes to the dependent tables. For example, all attachments for an entry are moved (if the modified entry has attachments), even if there are no changes to the attachments.

Datasets and forms management

- Deleting a form on the source removes the form from the dataset it was part of.
- Recreating a form with the same name requires manually adding it to the dataset again.
- Deleting a form on the source does not drop tables on the target.
- Adding the same form to multiple datasets is not allowed. To move a form across datasets, delete it from the old dataset and add it to the new one.
- Editing or deleting the destination is not supported.

Process overview

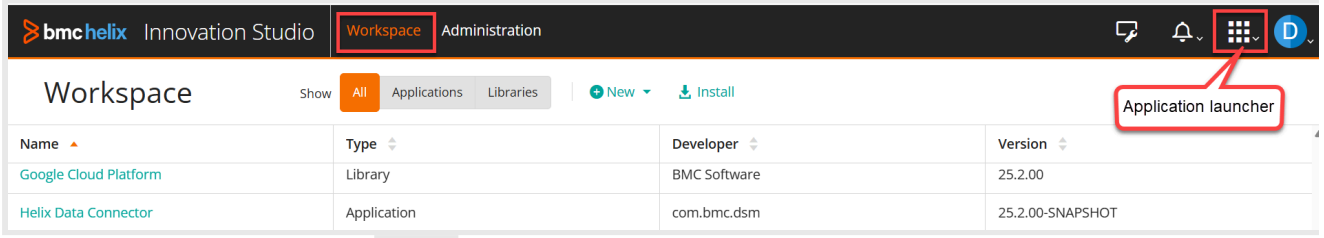
Perform the tasks in the following order to use BMC Helix Data Connector for syncing data from BMC Helix SaaS environment to your preferred data lake or warehouse :

Step	Action	Reference
1	Access BMC Helix Data Connector to configure the syncing details.	To access BMC Helix Data Connector
2	Set up the target destination where the data will be synced. • Configure the destination as Microsoft SQL Server • Configure the destination as Snowflake	• To configure the destination as Microsoft SQL Server • To configure the destination as Snowflake
3	(*Optional*) Configure advanced settings to customize the synchronization process.	To configure advanced settings
4	Configure the dataset and sync interval to manage how frequently the data is synchronized.	To configure the dataset and sync interval
5	(*Optional*) Perform an on-demand sync to immediately sync data as required.	To perform an on-demand sync

6	(Optional) Monitor and manage form jobs, check the status of active jobs, and view detailed job-level information.	• To view the status of the jobs in the Job console • To view the job-level information by using the Form job tracker

To access BMC Helix Data Connector

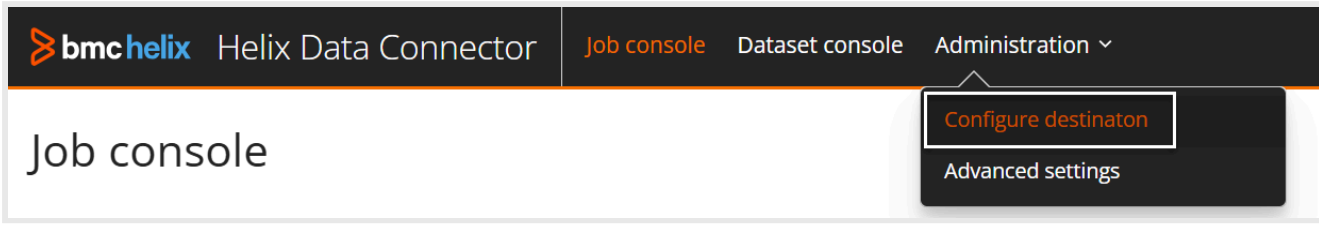
1. Select **BMC Helix Innovation Studio** > **Workspace** tab.



2. Click **Application launcher**  and select **Helix Data connector**.

To configure the destination as Microsoft SQL Server

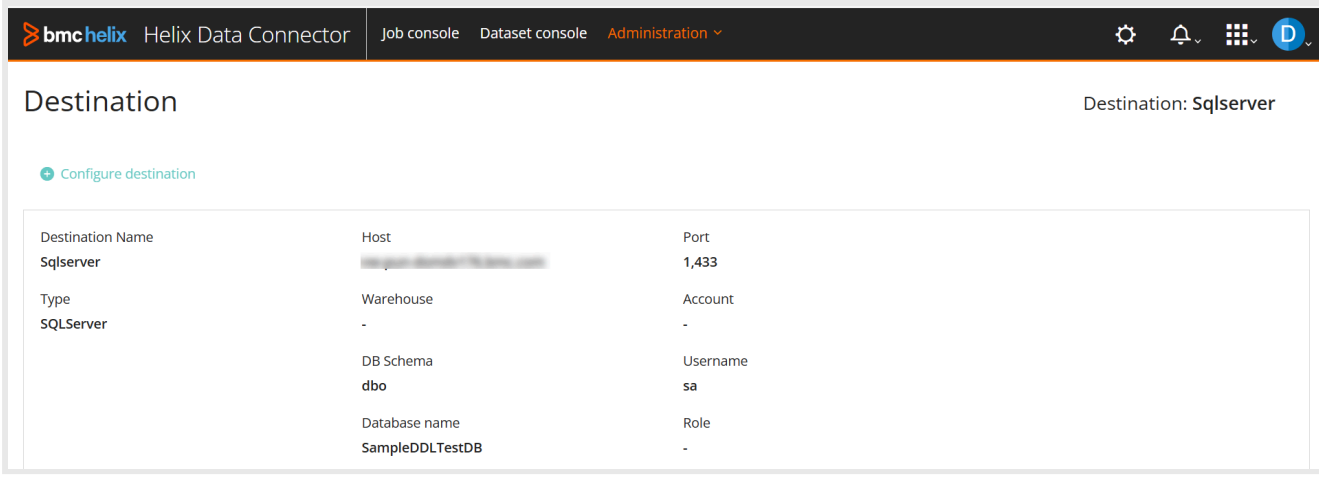
1. On the Helix Data Connector UI, navigate to the **Administration** tab and select **Configure destination**, as shown in the following image:



2. On the Destination UI screen, click **Configure destination**.
3. Enter the following details for the destination:

Field	Description
Destination type	Select Microsoft SQL Server from the list.
Destination Name	Specify a name for the destination.
Host	The target database host details, either an IP address or a hostname.
Port	The port number for database connectivity.
Database Name	The name of the target database.
Database Schema	The schema within the target database.
Username	The administrator user name for Microsoft SQL Server.
Password	The password for the administrator user.

4. Click **Save**.
   Clicking **Save** first tests the connection. If the connection fails, an error message is displayed. Verify the destination parameters and connection settings, update any incorrect values, and resolve the error. If the connection is successful, the destination is configured as shown in the following image:

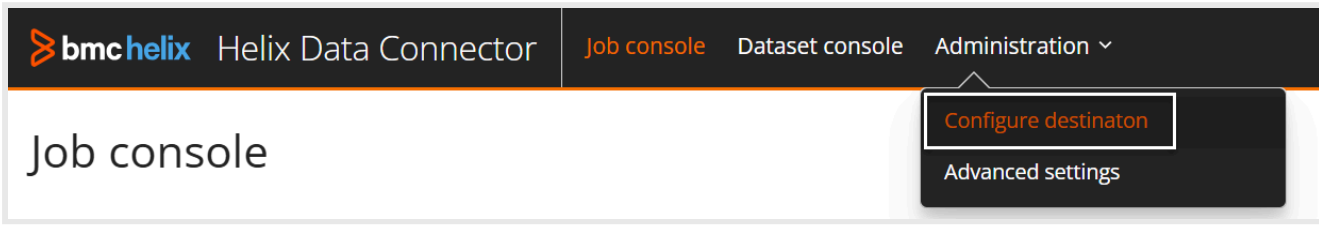


To configure the destination as Snowflake

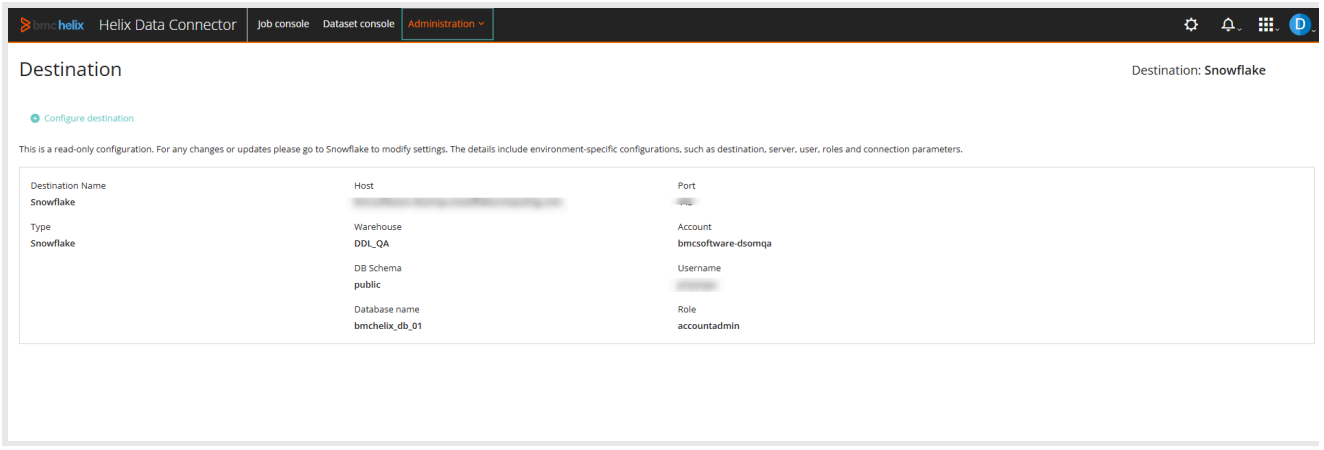
To configure Snowflake as the destination for BMC Helix Data Connector, you must perform a set of actions both in the **BMC Helix Data Connector** UI and in Snowflake Marketplace. The process includes submitting a Change Request (RFC) to obtain BMC Egress IPs, configuring network rules in Snowflake, installing the BMC Helix Data Connector app from the Marketplace, and completing the destination setup by providing the necessary configuration details.

To configure Snowflake as the destination in BMC Helix Data Connector UI

1. On the Helix Data Connector UI, navigate to the **Administration** tab and select **Configure destination**.



2. On the Destination UI screen, click **Configure destination**.
3. On the Destination configuration screen, select the destination type as **Snowflake** from the list.
4. The following message is displayed:
   ```
   Please login to Snowflake Marketplace and search for the BMC Snowflake Connector to begin your
   Your Snowflake account will be connected to your Helix Data Connector after you have completed
   ```
5. Go to the Snowflake Marketplace and specify the destination configuration details for Snowflake.
   https://www.snowflake.com/en/data-cloud/marketplace/
6. Install BMC Helix Data Connector and configure the application.
   For information, see To configure BMC Helix Data Connector.
7. After configuring Snowflake in Snowflake Marketplace, the details are registered in the BMC Helix Connector UI as shown in the following image:



To configure BMC Helix Data Connector

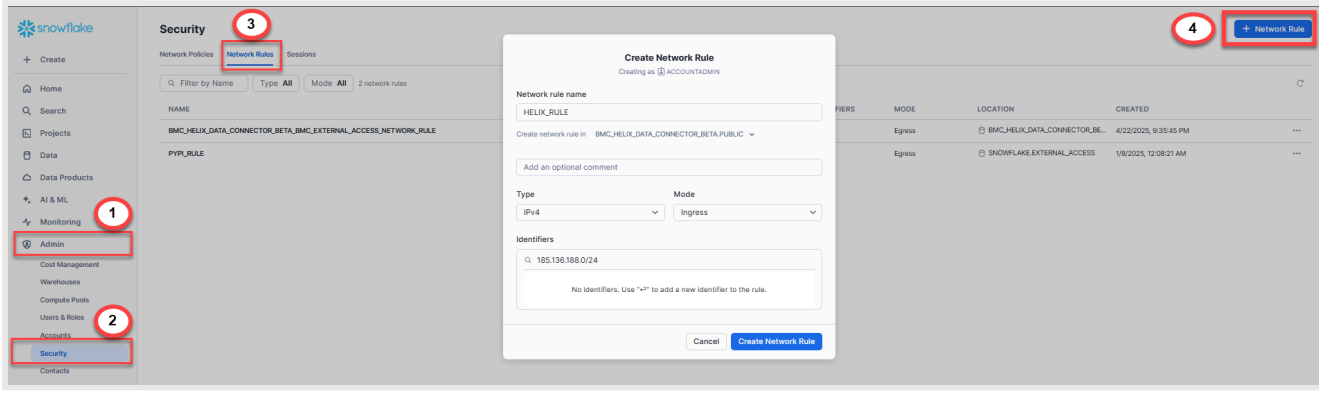
Before configuring the BMC Helix Data Connector in Snowflake, obtain the necessary RFC details from BMC Support and complete the following steps in Snowflake Marketplace.

Step 1: Obtain Egress IPs from BMC Support

- Submit a Request for Change (RFC) to BMC Support or your Service Desk.
  For more information, see the Request for Change process in the BMC Helix Subscriber Information online documentation.
- If you are syncing data to Snowflake, mention clearly in your RFC that you are configuring Snowflake as the destination.
- After the RFC is complete, you will receive the BMC Egress Network address, which is required for setting up network rules in Snowflake.
- This Egress address must be added to Snowflake's allowlist to enable successful data synchronization.

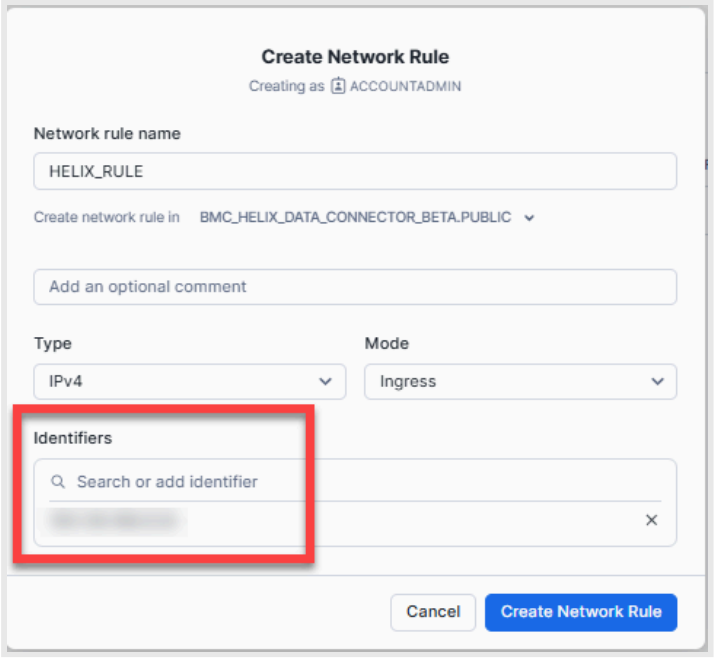
Step 2: Configure network rules in Snowflake

1. Navigate to Snowflake Marketplace.
2. Navigate to **Admin** > **Security** > **Network Rules**.
3. Click **+ Network Rule**.



4. In the Create Network Rule dialog box, provide the following information:
   1. Provide a name for the network rule.
   2. Set the type to **IPv4**.
   3. Set the mode to **Ingress**.
   4. Enter the identifier (Egress IP) provided by BMC Support and press the **Enter** key.
      The identifier is added to the network rule.

5. Click **Create Network Rule**.

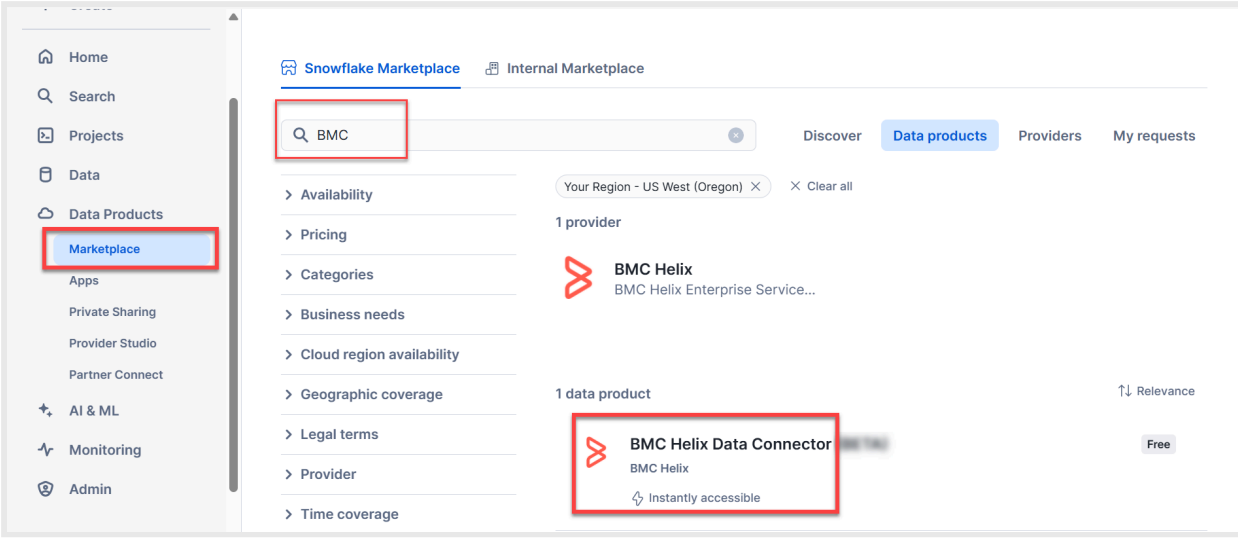


5. (Optional) If you have existing network policies, you can add this rule to the relevant policy.

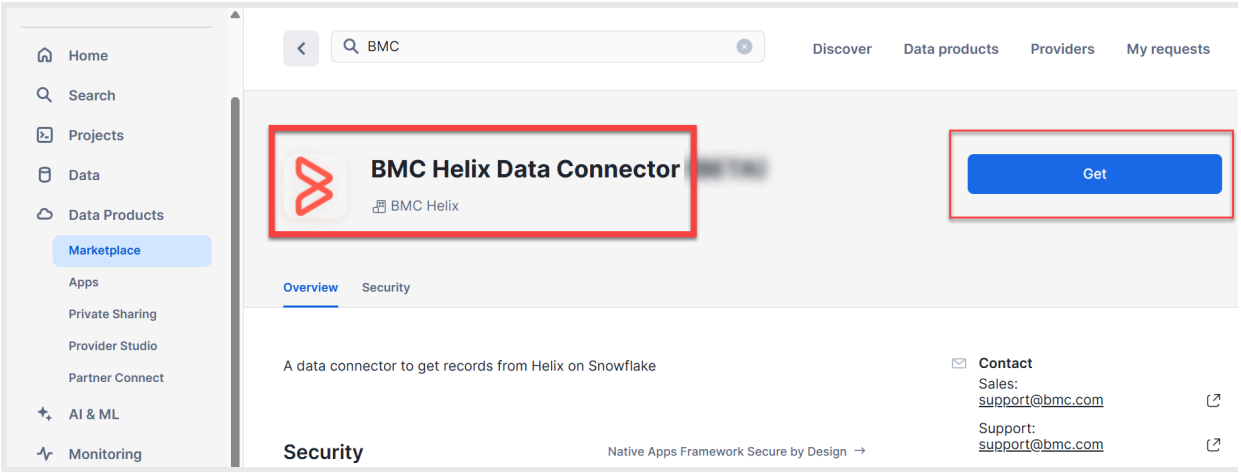
Step 3: Access the BMC Helix Data Connector in Snowflake Marketplace

Complete the following steps in Snowflake Marketplace:

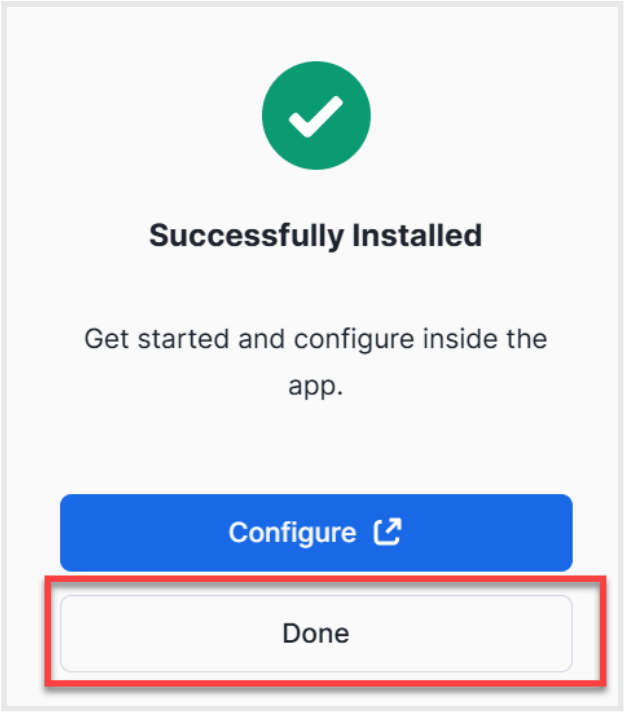
1. Navigate to Snowflake Marketplace and complete the following steps:
    1. Search for BMC Helix Data Connector and select the **BMC Helix Data Connector** product from the list.



2. Install BMC Helix Data Connector by clicking **GET**.



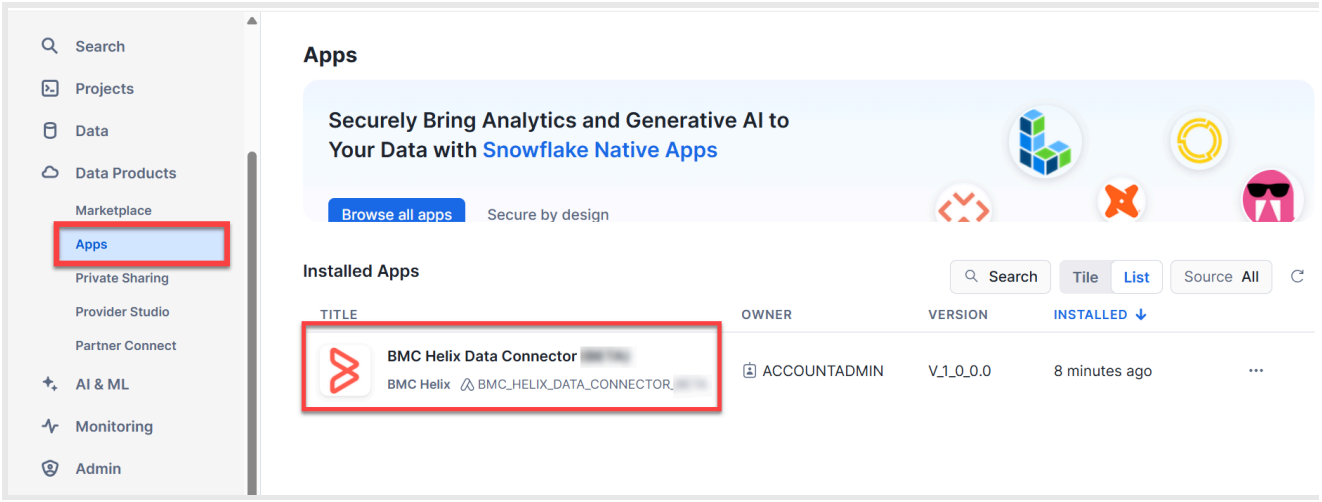
3. After BMC Helix Data Connector is installed successfully, click **Done**.



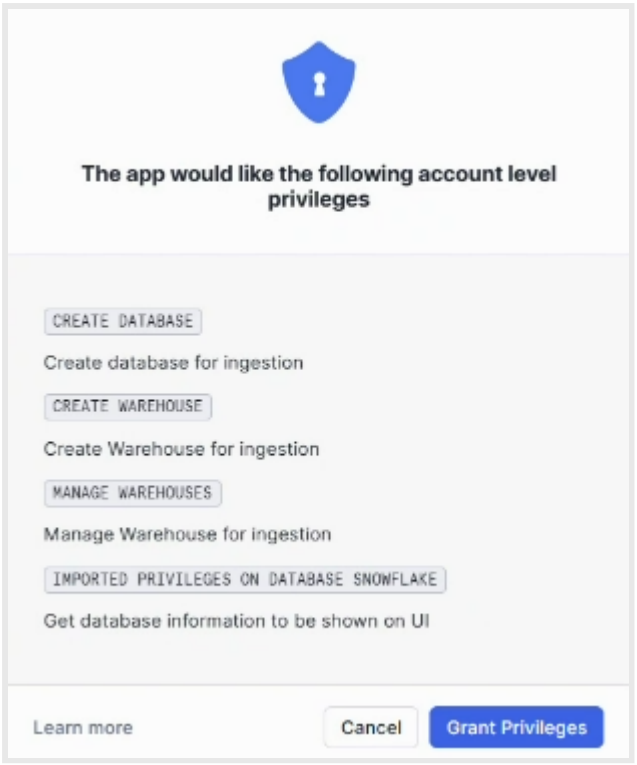
2. Create a Snowflake user and role and grant permissions by using the following SQL commands. Set the user type to LEGACY_SERVICE.

```
CREATE ROLE IF NOT EXISTS HELIX_DATA_TRANSFER_ROLE;
CREATE USER IF NOT EXISTS svc_helix_data_transfer_user WITH PASSWORD='password';
ALTER USER BMCHELIX SET TYPE = LEGACY_SERVICE;
GRANT ROLE HELIX_DATA_TRANSFER_ROLE TO USER svc_helix_data_transfer_user;
GRANT APPLICATION ROLE <application name>.HELIX_APP_ROLE TO ROLE HELIX_DATA_TRANSFER_ROLE;
```

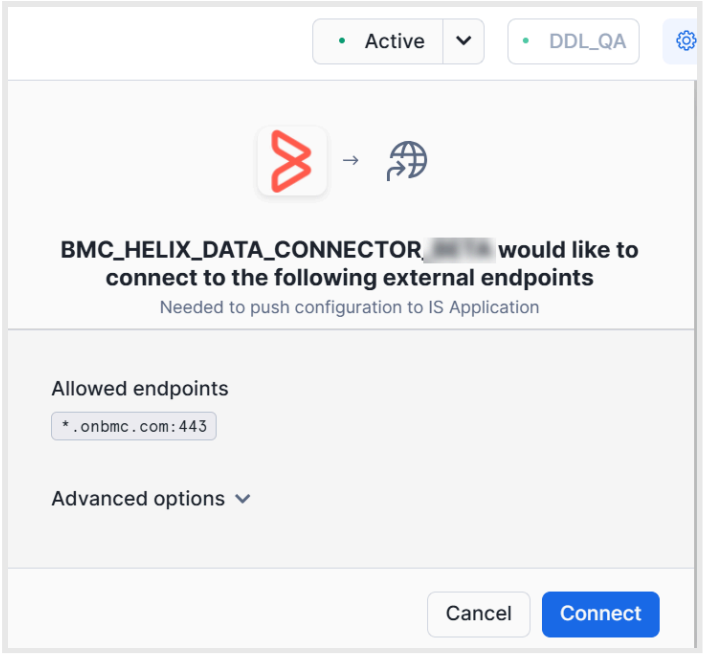
   For more information, see CREATE USER - Snowflake SQL Reference.
3. Navigate back to Snowflake Marketplace.
   Click **Apps** on the left pane and click **BMC Helix Data Connector**.



4. On the dialog box, click **Grant Privileges**.



5. Click **Connect** to connect to an external endpoint and provide the required connection details to push configuration settings to BMC Helix Innovation Suite.



6. Review the prerequisites and click **Start Configuration**.
7. Provide the following information to configure BMC Helix Connector application:

Field	Description
BMC Helix URL	The BMC Helix URL for this account.
BMC Helix username	The BMC Helix username for this account.
BMC Helix password	The password for the database user.

8. Click **Configure**.
9. Enter the following details to create the corresponding objects in your Snowflake environment.

Field	Description
Warehouse	A new warehouse of size Large (8 credits/hour) is created to run the connector. You can modify these settings later if needed.
Destination database	The selected database that stores the ingested data.
Destination schema	A new schema is created to store the ingested data.
Host	The host address of the server you are connecting to, in the form of an IP address or domain name.
Port	The port number that specifies the communication channel to use when connecting to the host.
Role	The role required to authenticate and access the system or

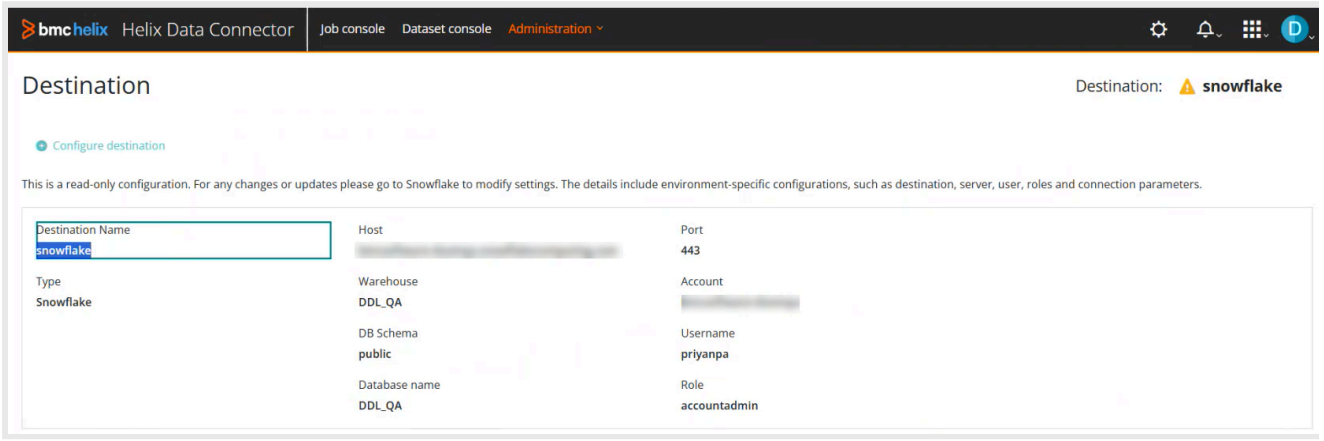
	service.
Account	The username or credentials required to authenticate and access the system or service.
Snowflake username	The Snowflake username to configure the BMC Helix Data Connector. Refer to Step 1 in the Before you begin section.
Snowflake password	The Snowflake password to configure the BMC Helix Data Connector.

10. Click **Configure**.
    The configuration details are saved in BMC Helix Innovation Suite.
11. After completing the Snowflake configuration details in Snowflake Marketplace, access BMC Helix Innovation Suite to see if the Snowflake destination has been created successfully.

To check the Snowflake destination details

Perform the following steps to confirm your destination is successfully created:

1. Log into BMC Helix Innovation Studio.
2. Navigate to the **Administration** tab and select **Configure destination.**
3. Check if the Snowflake details have been populated in read-only mode.



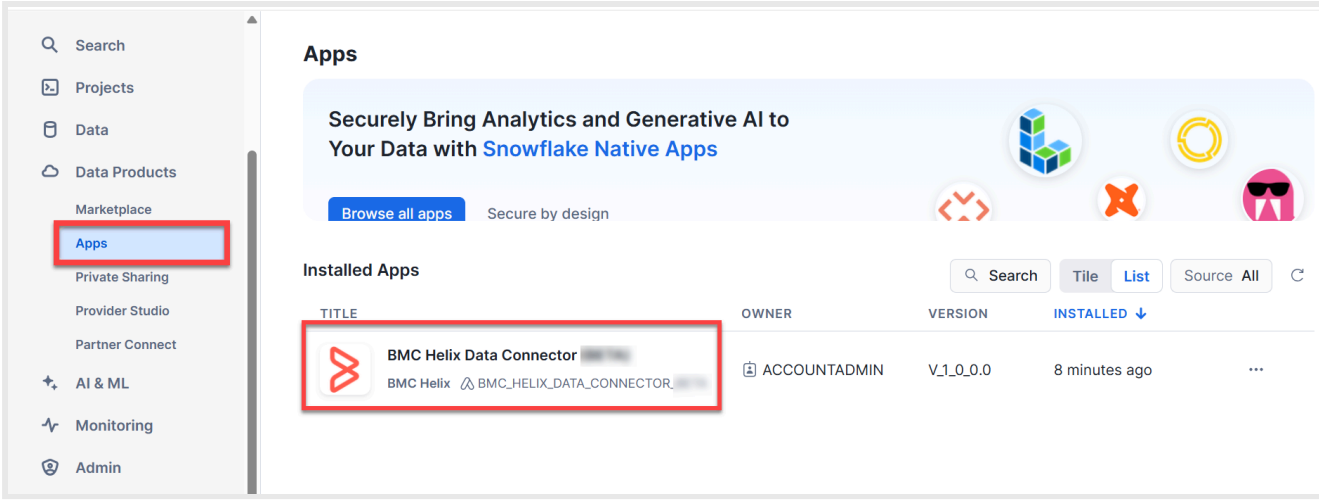
To revoke the permissions on BMC Helix Data Connector application

The Snowflake application requests permission to create a database, warehouse, and so on. If you have concerns regarding this level of access to BMC Helix Data Connector, revoke the permissions after the installation and destination configuration are complete. To revoke access, log back into your Snowflake account and remove the permission.

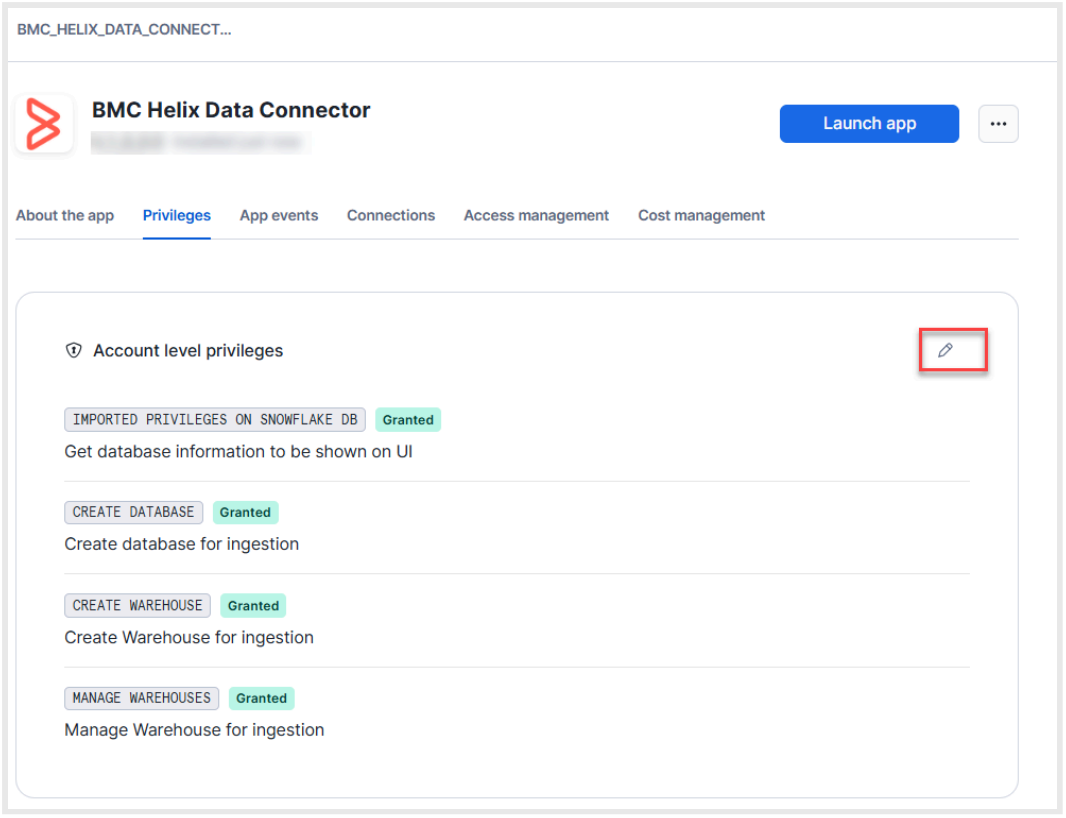
Perform the following steps to revoke the permission:

1. Log into your Snowflake Marketplace account.

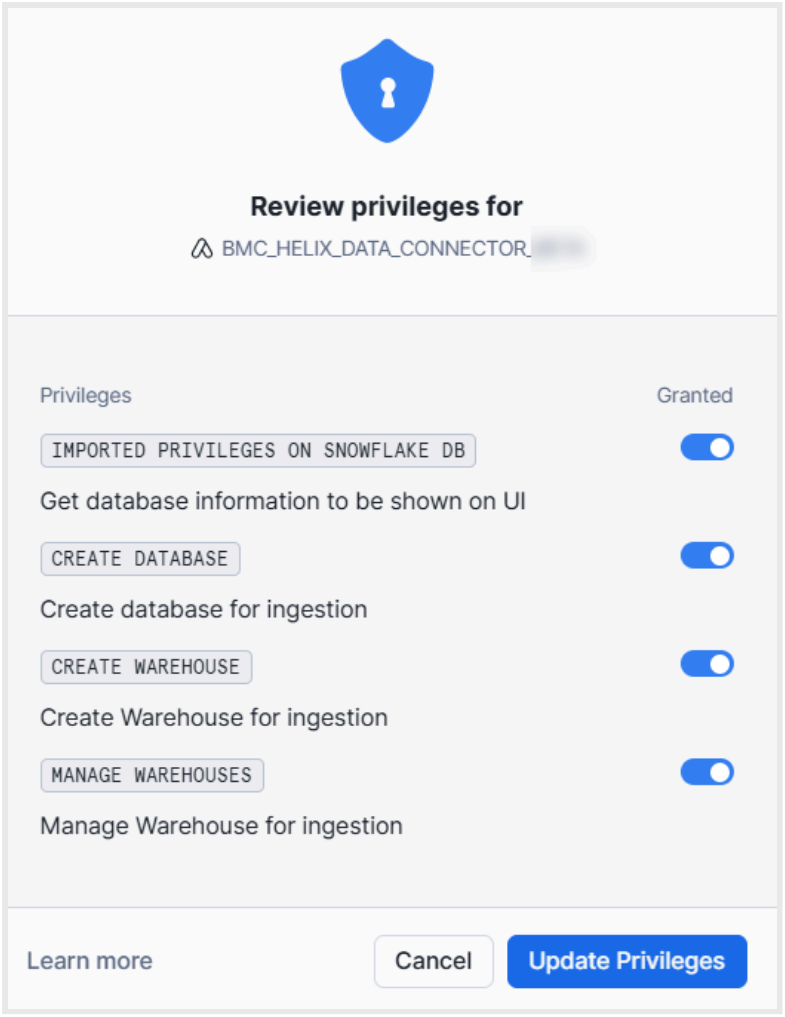
2. Click **Apps** on the left pane.



3. Select **BMC Helix Data Connector** from the list.
4. Click **Settings**  on the top of the screen.
5. On the BMC Helix Data Connector UI, click the **Privileges** tab and then click the **Edit** icon.



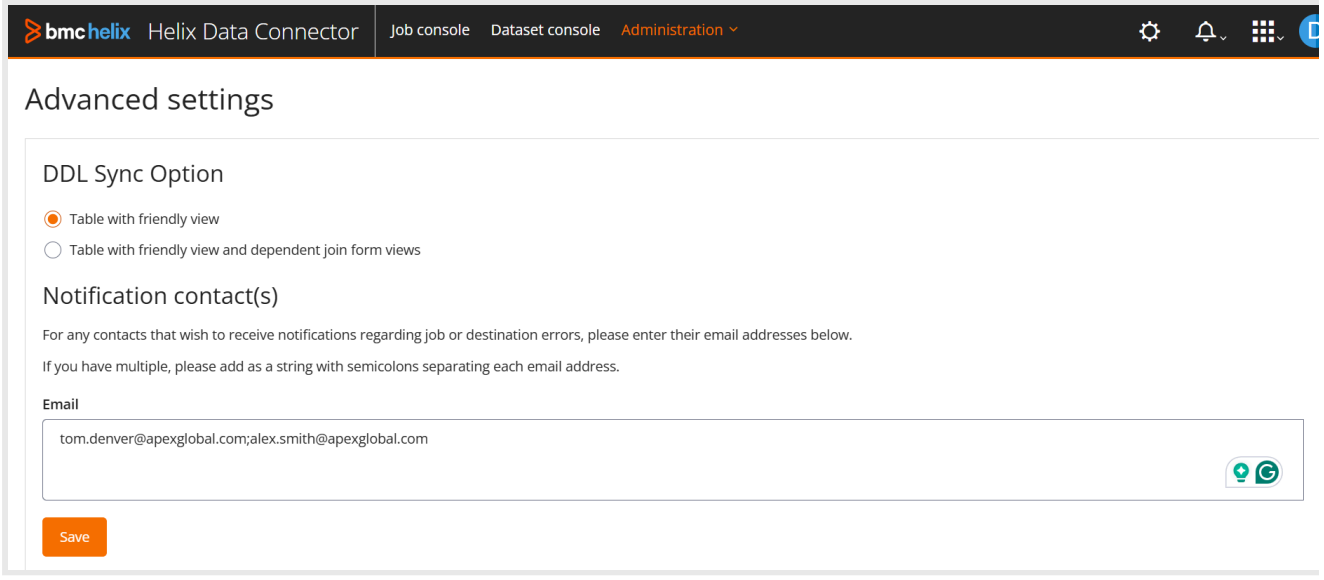
6. Review the privileges for BMC Helix Data Connector application and update/revoke them as required.



7. To save the changes, click **Update Privileges** .

(*Optional*)To configure advanced settings

1. On the Helix Data Connector UI, navigate to the **Administration** tab and select **Advanced settings**.
2. On the Advanced settings UI, specify the notification contacts to receive alerts in case of a failure.

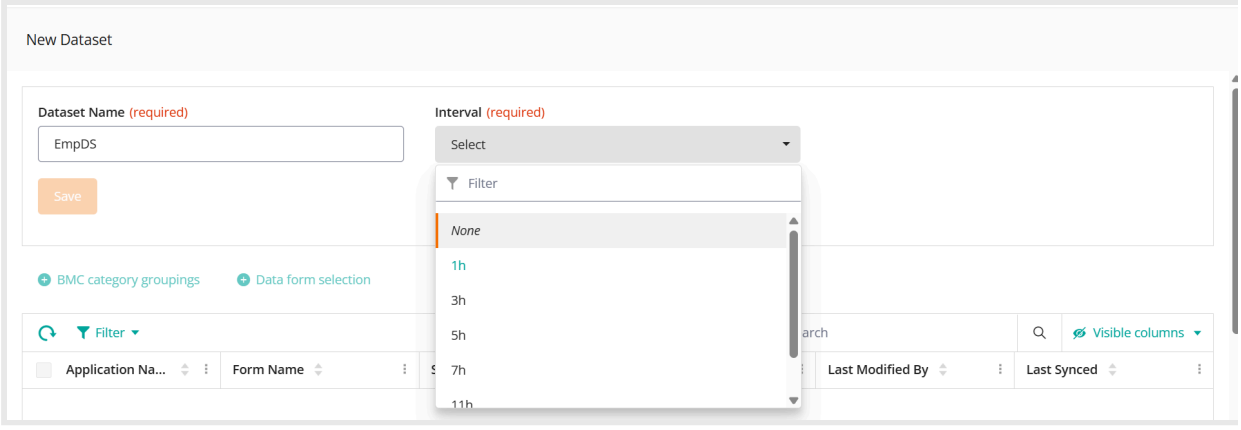


3. Select a value for the DDL Sync Option.
   By default, only tables with user-friendly views created by the AR server are replicated; all other views are excluded.
   You can switch between these options at any time.
   - **Table with friendly view**—Syncs all the tables associated with the selected forms in a dataset, including their user-friendly views.
   - **Table with friendly view and dependent join form views**—Syncs the selected forms along with any dependent join views associated with them.
     For example, if you select the **ComputerSystem** form (containing computer CIs) and the **Product** form (containing installed software for each computer), and there is a join view, **HostedSystemComponents** that combines data from these forms:
     - Enabling this option ensures that the **HostedSystemComponents** view is also synced.
     - This view includes additional details, such as the software installation date for each computer.
4. Click **Save**.

To configure the dataset and sync interval

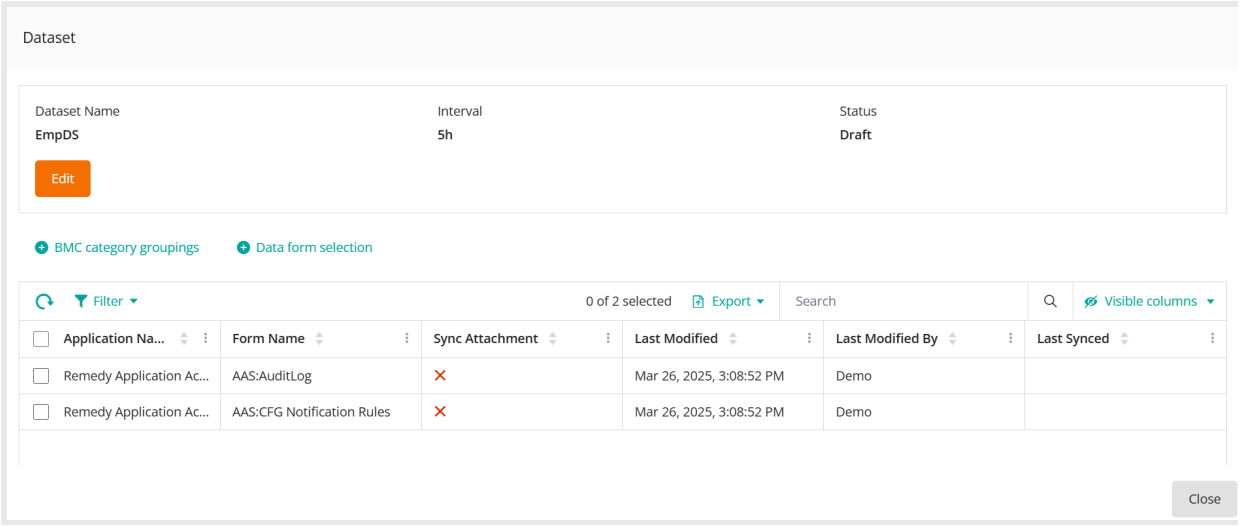
> Only regular forms and record definitions are available for sync. Custom tables created directly on the database are not considered for replication.

1. On the Helix Data Connector UI, select **Dataset console**.
2. Add a dataset.
   1. Click **Add Dataset**.
   2. Enter a name for the dataset.
   3. Select the sync interval from the values provided in the **Interval** list. Example- 5 h

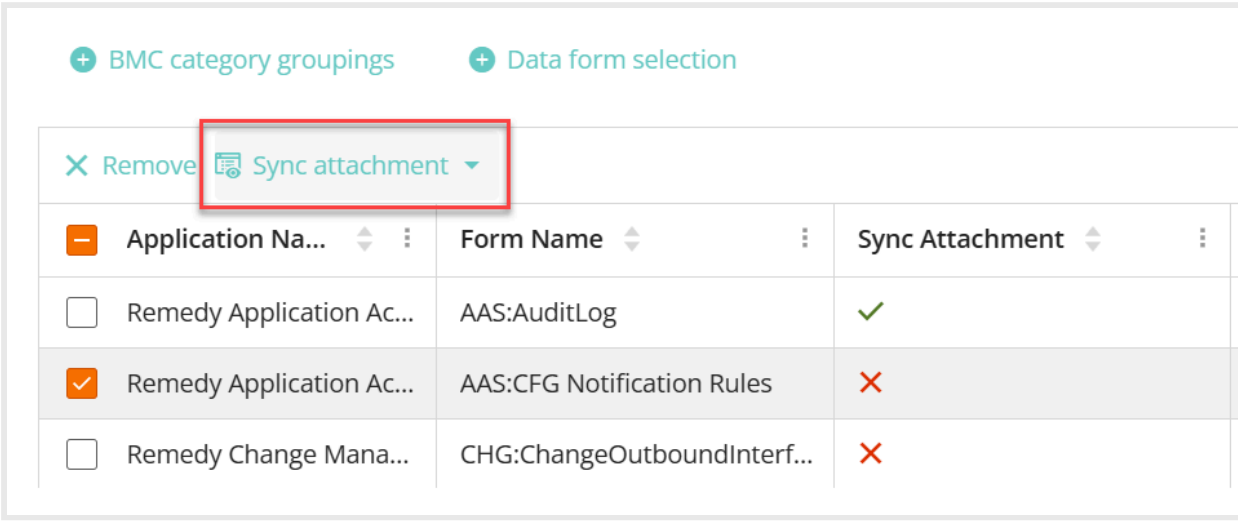


   4. Click **Save**.
      The dataset is saved in the draft state.
      To make this dataset active, you must associate at least one form with this dataset.
      You can select from a list of all the forms available in BMC Helix Innovation Suite by clicking **Data form selection** or **BMC category groupings**.
      You cannot assign the same form to multiple datasets. Attempting to do so will display a warning.
      It is not mandatory to perform both Steps 3 and 4. You can perform either Step 3 or Step 4 as

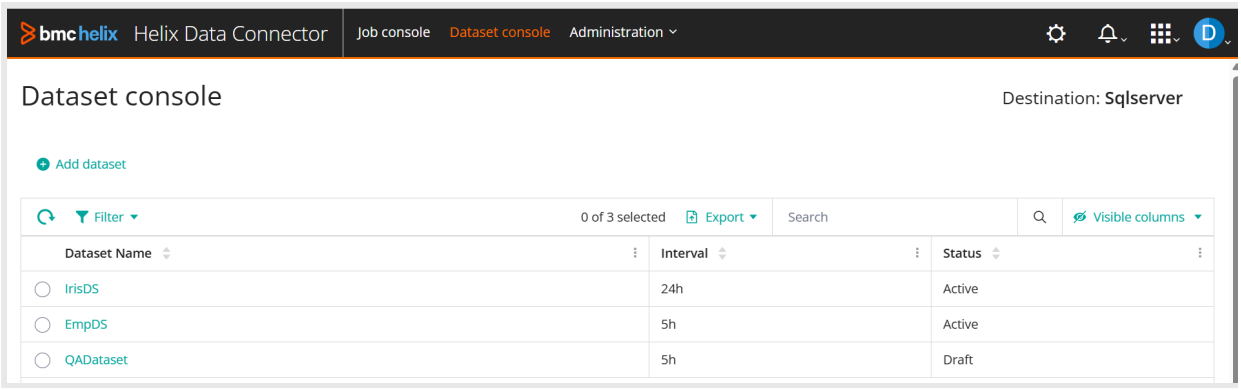
per your requirements.



3. Select forms from **Data form selection**.
    1. Click **Data form selection**.
    2. Select the forms you want to associate with the dataset and click **Select**.
       The selected forms are displayed on the Dataset UI.
4. Select forms from **BMC category groupings**.
    1. Click **BMC category groupings**.
    2. On the Select category screen, select the category of forms and click **Next**.
    3. On the **Data select forms** screen select the forms you want to associate with the dataset and click **Select**.
       The selected forms are displayed on the Dataset UI.
5. Enable syncing of attachments
    1. By default, syncing of attachments is disabled for the forms.
    2. To allow syncing attachments, select the form, click **Sync Attachment** and select **Yes** from the list as shown in the following image:



6. Make the dataset active.
    1. On the Dataset screen, click **Edit**.
    2. Select the Status as **Active** and click **Save**.
       The dataset is added to the Dataset Console as shown in the following image:



The form jobs in each dataset are run according to the scheduled interval. You can view the dataset job details in the Job Console.

Best practices for syncing attachments

Including attachments in your dataset sync can significantly increase sync completion time and, depending on your destination type (for example, Snowflake), might lead to higher storage requirements and compute costs. Include attachments only if you plan to decompress, deserialize, and use their content.

Additionally, note the following:

- **Attachment Size Limit**— Snowflake allows a maximum attachment size of 8MB. Text data in columns exceeding 16MB will be truncated for Snowflake as a destination.
  Refer to Snowflake documentation for details.
- **Compression Format**— Data in the attachment column is stored in a compressed format. Use the decompression helper classes available in the BMC Java API to retrieve the original attachment. For more information, see the Knowledge article, Java code to decompress/extract Remedy attachments without AR Server.

(*Optional*)To perform an on-demand sync

The **SyncNow** option in the Dataset console enables on-demand data synchronization. When a dataset is configured with a sync interval, it runs as a scheduled job. However, if you need to sync data immediately or perform a full table refresh, you can use **SyncNow**.

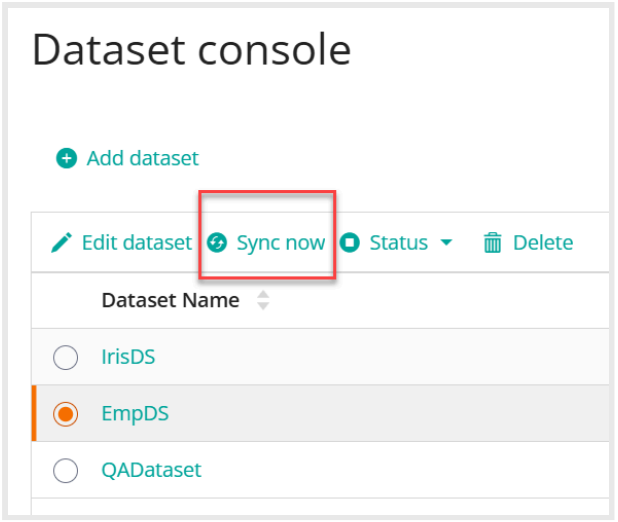
With **SyncNow**, you can select the forms to be synced and select one of the following options:

- **Full data sync** — Syncs all records from the first to the latest (Record 1 to Record N), ensuring a complete import and export. Selecting this option drops and recreates all the tables in the destination and recreates them.
- **Incremental data sync** —Syncs only the records that have changed since the last successful sync, based on the last sync timestamp.

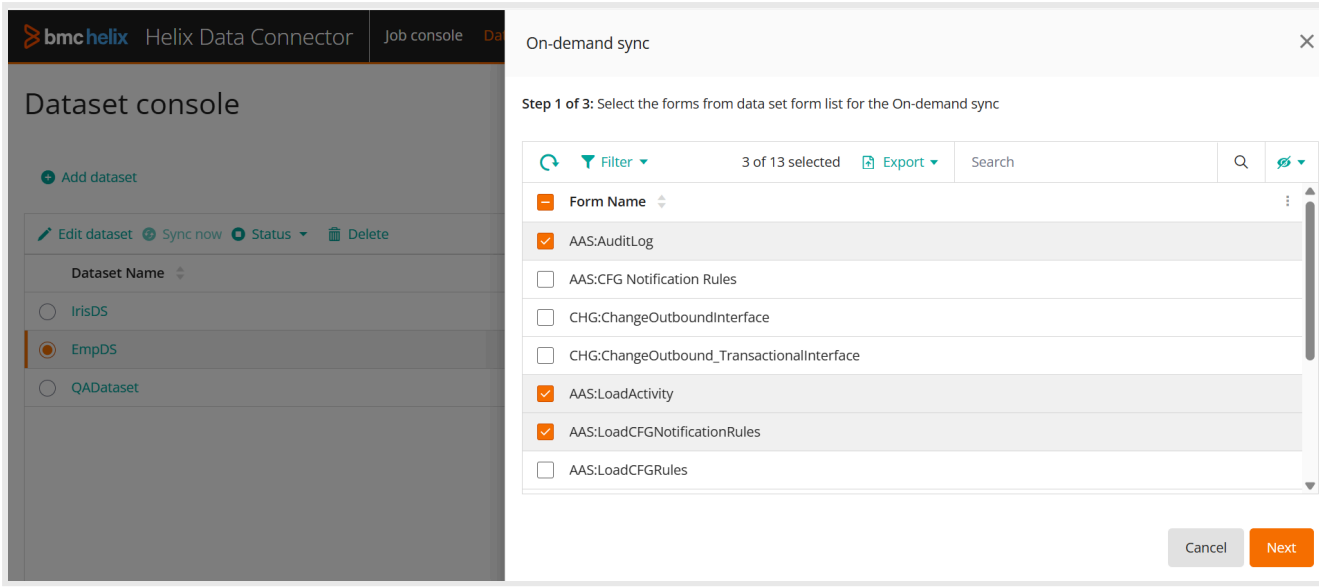
> Forms with the AR Change Field ID API run on them require a full data sync.

The on-demand sync functions like a scheduled job and runs as soon as possible.

1. On the Dataset console, select the dataset for which you want to perform an on-demand sync and click **Sync now**.



2. Select the form names and click **Next**.

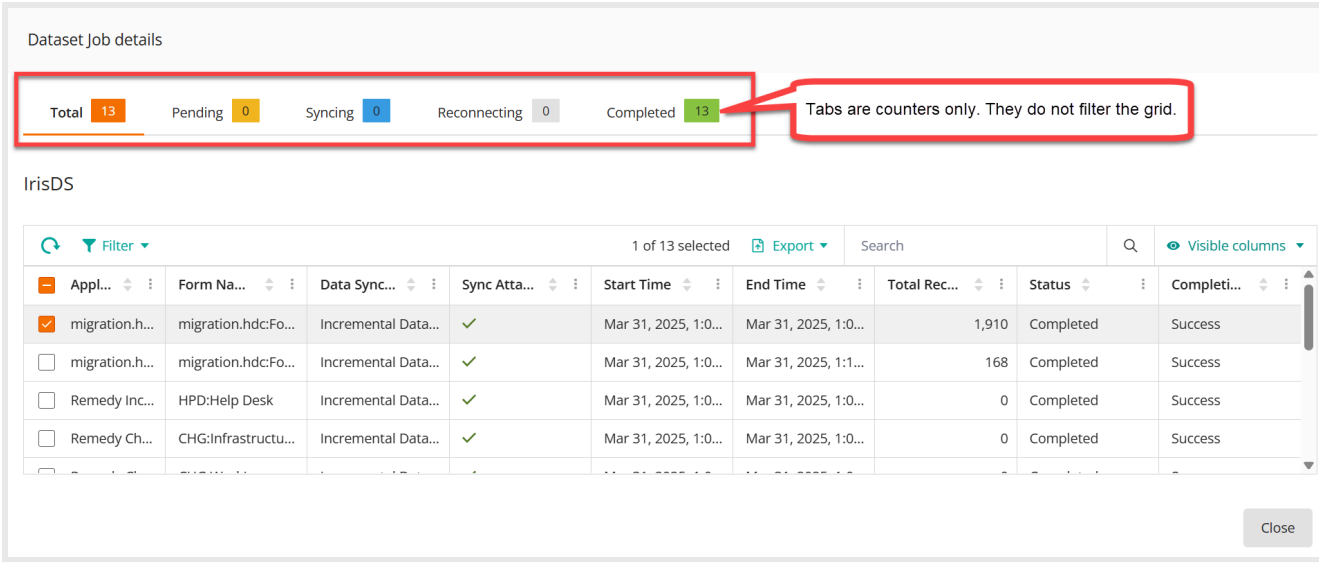


3. Select a form on the On-demand sync UI and then click **Data Sync Type**.
4. Select the value as Incremental Data Sync or Full Data Sync.
5. Click **Next**.
6. Review the details and click **Sync Now**.

(*Optional*)To view the status of the jobs in the Job console

You can view the status of the jobs in the Job console.

1. On the Helix Data Connector UI, select **Job console**.
2. Select the job for which you want to view the details and click **Job details**.
   The Dataset Job details screen shows the status of the forms in that dataset as shown in the following image:



Important
The tabs displayed at the top of the page are intended only as counters to show the number of jobs in each category. Clicking a tab does not filter the data displayed in the grid.

Best practices for optimizing sync performance

Consider the following best practices to ensure efficient data synchronization:

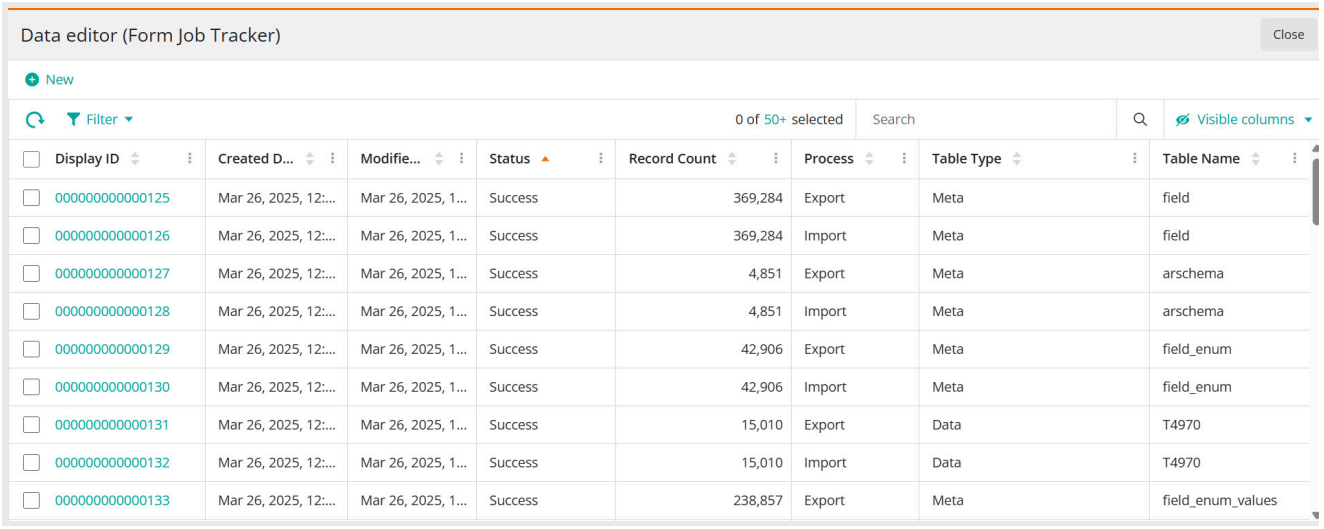
- **Impact of adding more forms and attachments**
  The sync time depends on the number and size of forms, the type of data, the size of data, the resources given to the target database, the warehouse configuration(Snowflake), and network latency. Including attachments significantly increases sync size and completion time. Syncing large datasets at very short intervals can cause delays. If a sync takes longer than the scheduled interval, BMC Helix Data Connector skips the next scheduled sync.
  For example, If sync timings are scheduled for 12 A.M., 1 A.M., and 2 A.M., but the 12 A.M. sync exceeds an hour, the system skips the 1 A.M. sync and starts the next sync at 2 A.M.
- **Setting sync intervals based on the use case**
  - Improve sync performance by categorizing data forms based on the use case.
    For example, for Incident data, such as SLA, escalations, status syncing to the destination might be required more frequently. Hence add these forms to a dataset with a shorter sync interval configured.
    Change data might be queried or analyzed on a daily basis. Hence, a longer interval should be considered to alleviate the load for datasets in the shorter intervals.
    Lastly, CMDB and assignments might be only required for weekly or monthly reporting. In this case, consider a reasonable daily sync to alleviate the load for data sets set to a shorter interval.
  - Instead of placing all data in a single dataset, create multiple datasets based on your use case and reporting requirements. Consider offloading some forms to alleviate loading times for data required in shorter syncs and to optimize the sync job completion time.
- **Dataset limitations for data forms**
  A data form belongs to only one dataset at a time. To add a form to another dataset, first remove it from the existing dataset.
  - The **Dataset column** shows if a form is already assigned to a dataset.

- Adding a form to a new dataset triggers a full sync, not an incremental sync.

(*Optional*)To view the job-level information by using the Form job tracker

You can view and track the processes (Export, Import, Delete, Stage), table type, record counts, and attachment sizes associated with a form job in the Form job tracker.

1. Select **BMC Helix Innovation Studio** > **Workspace** tab > **Helix Data Connector**
2. Select Form Job Tracker and click **Edit data**.
   The form job details are displayed in the UI as shown in the following image:



Display ID	Created D...	Modifie...	Status	Record Count	Process	Table Type	Table Name
000000000000125	Mar 26, 2025, 12:...	Mar 26, 2025, 1...	Success	369,284	Export	Meta	field
000000000000126	Mar 26, 2025, 12:...	Mar 26, 2025, 1...	Success	369,284	Import	Meta	field
000000000000127	Mar 26, 2025, 12:...	Mar 26, 2025, 1...	Success	4,851	Export	Meta	arschema
000000000000128	Mar 26, 2025, 12:...	Mar 26, 2025, 1...	Success	4,851	Import	Meta	arschema
000000000000129	Mar 26, 2025, 12:...	Mar 26, 2025, 1...	Success	42,906	Export	Meta	field_enum
000000000000130	Mar 26, 2025, 12:...	Mar 26, 2025, 1...	Success	42,906	Import	Meta	field_enum
000000000000131	Mar 26, 2025, 12:...	Mar 26, 2025, 1...	Success	15,010	Export	Data	T4970
000000000000132	Mar 26, 2025, 12:...	Mar 26, 2025, 1...	Success	15,010	Import	Data	T4970
000000000000133	Mar 26, 2025, 12:...	Mar 26, 2025, 1...	Success	238,857	Export	Meta	field_enum_values

Troubleshooting

Review the troubleshooting information in this section to identify and resolve issues related to BMC Helix Data Connector and BMC Snowflake connector.

BMC Helix Data Connector logs

You can access the following logs for BMC Helix Data Connector and use these logs to get more information about errors:

Log file name	Purpose
ardataconnector.log (located in the Platform pod)	View DDL tracking-related information.
com.bmc.dsm.helix-data-connector.log (located in the Platform pod)	Check for job issues and API errors related to the connection between BMC Helix Data Connector and Data Connector Engine.
hdc.log (located in Data Connector Engine pod)	Investigate job failures, test connection failures, and monitor detailed job progress.

Snowflake connector troubleshooting

Review the troubleshooting information in this section for Snowflake connector:

Issues or errors	Resolution

Networking and connectivity	Check the following items for successful connectivity: • **Valid account identifier**: Confirm that the account identifier is correct. • **Endpoint accessibility**: The Snowflake endpoint must be reachable from BMC Helix Data Connector. Check for the following issues: ◦ Gateway or firewall issues ◦ Incorrect port ◦ Whitelisting of IP addresses, if required • **Valid SSL certificates**: Expired or invalid certificates can block the connection. • **Proxy support**: Database connections through proxies are not supported.
Authentication issues	Make sure authentication details are valid and supported: • **User credentials**: ◦ Verify that the user name and password are correct. ◦ Check if the user account was deleted or permissions were modified. • **Unsupported authentication mechanisms**: ◦ Multi-Factor Authentication (MFA) ◦ Key-pair authentication ◦ OAuth
Snowflake objects	• **Database**: Check if the database exists. • **Role**: Check if the role exists and is granted to the user. • **Schema**: Check if the schema exists with the correct privileges. • **Warehouse**: ◦ Must be in a running state, or if in a suspended state, auto-resume must be enabled. ◦ Must not exceed resource monitor limits (which could cancel queries). ◦ Monitor warehouse load for bottlenecks. • **Table/View privileges**: Ensure privileges for any tables or views created by BMC Helix Data Connector are not revoked.
Common JDBC Errors	For common JDBC error messages and their causes, see Snowflake Connectivity Troubleshooting Guide.