Snowflake Metadata Share Guide

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Document Version Record

Date	Version #	Author	Remarks / Reason
02-May-23	1.0	Dev Team	New Document

1. Objectives

Health check download for snowflake unravel product.

2. Architecture

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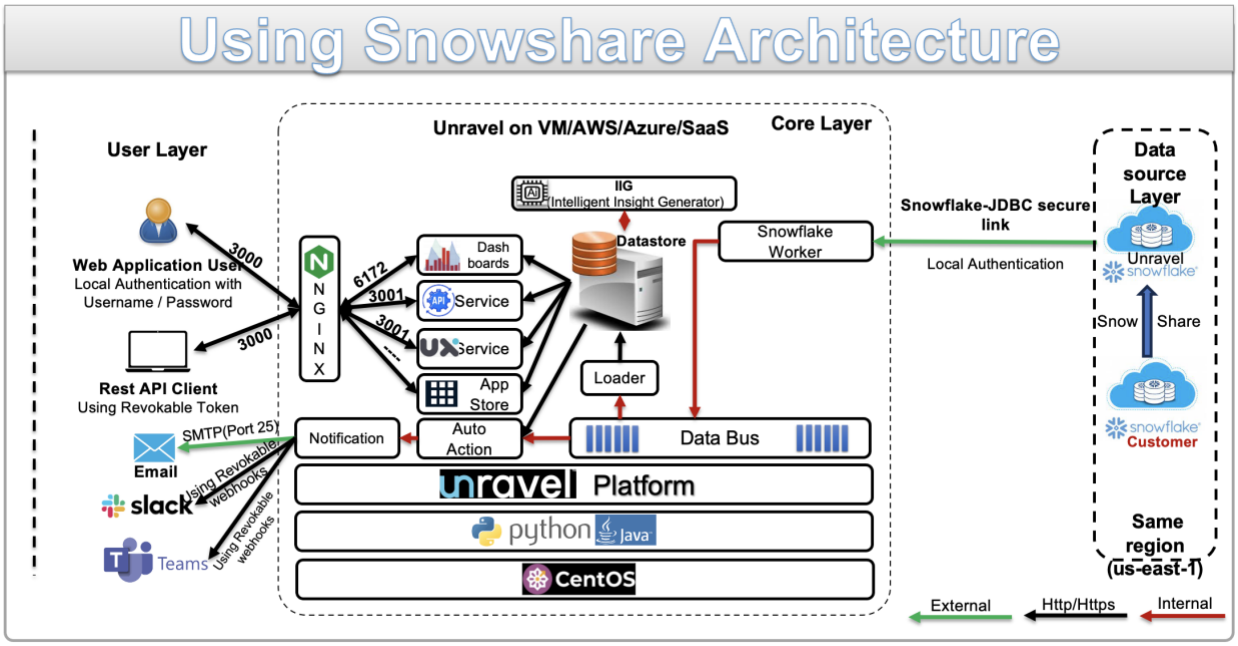

3. Pre-requisite

A. **Snowflake account Access through snowshare**

i. Create a unravel user in snowflake.
ii. Grant select for unravel user on schema SNOWFLAKE.ACCOUNT_USAGE.
iii. Create a database unraveldb and a schema unravelschema to create a stored procedure required for metadata collection from account_usage, information_schema & Profile and store in local schema.
iv. Execute procedure to create tables and serverless task to populate the metadata from the account metadata.
v. Need to have Snowshare access to share the local schema to unravel snowflake account , Execute the snowshare script to give access to ”Unravel Snowflake account”.
vi. Based on the latency required the serverless/warehouse task will cost.

4. Share Snowflake Metadata with Snowflake secure share.

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4.1. Execute below statement to create the procedure and necessary functions.

https://github.com/unraveldata-org/snowflake-data-loader/blob/ba204fad9def3de7ded263a59d462f669be5346c/script/replication/replication_query.sql

4.2. One time execution

```
CALL CREATE_TABLES('UNRAVEL_SHARE','SCHEMA_4823_T');
CALL REPLICATE_ACCOUNT_USAGE('UNRAVEL_SHARE','SCHEMA_4823_T',2);
CALL WAREHOUSE_PROC('UNRAVEL_SHARE','SCHEMA_4823_T');
CALL REPLICATE_REALTIME_QUERY('UNRAVEL_SHARE','SCHEMA_4823_T',10);
CALL CREATE_QUERY_PROFILE(dbname => 'UNRAVEL_SHARE',schemaname => 'SCHEMA_4823_T', cost
=> '1', days => '1');
```

4.3. To continue execution on certain interval this is created as tasks.

1. Based on requirement schedule time / lookbackdays /cost can be changed.

```
-- create account usage tables Task
CREATE OR REPLACE TASK replicate_metadata
  WAREHOUSE = UNRAVELDATA
  SCHEDULE = '60 MINUTE'
AS
CALL REPLICATE_ACCOUNT_USAGE('UNRAVEL_SHARE','SCHEMA_4823_T',2);

-- create warehouse replicate Task
CREATE OR REPLACE TASK createWarehouseTable
  WAREHOUSE = UNRAVELDATA
  SCHEDULE = '60 MINUTE'
AS
CALL warehouse_proc('UNRAVEL_SHARE','SCHEMA_4823_T');

-- create profile replicate task
CREATE OR REPLACE TASK createProfileTable
  WAREHOUSE = UNRAVELDATA
  SCHEDULE = '60 MINUTE'
AS
CALL create_query_profile(dbname => 'UNRAVEL_SHARE',schemaname => 'SCHEMA_4823_T', cost =>
'1', days => '1');
```

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```
-- create Task for replicating information schema query history
CREATE OR REPLACE TASK replicate_realtime_query
  WAREHOUSE = UNRAVELDATA
  SCHEDULE = '30 MINUTE'
AS
CALL REPLICATE_REALTIME_QUERY('UNRAVEL_SHARE','SCHEMA_4823_T',10);

-- START ALL THE TASKS

ALTER TASK replicate_metadata RESUME;

ALTER TASK createWarehouseTable RESUME;

ALTER TASK createProfileTable RESUME;

ALTER TASK replicate_realtime_query RESUME;
```

5. Share the Transient tables to unravel account.

From SQL (Recommended):

```
-- Share tables
Create share RICOH_UNRAVEL_SHARE;
Grant Usage on database UNRAVEL_SHARE to share RICOH_UNRAVEL_SHARE;
Grant Usage on schema SCHEMA_4823_T to share RICOH_UNRAVEL_SHARE;
GRANT SELECT ON TABLE WAREHOUSE_METERING_HISTORY  to share
RICOH_UNRAVEL_SHARE;
GRANT SELECT ON TABLE WAREHOUSE_EVENTS_HISTORY  to share
RICOH_UNRAVEL_SHARE;
GRANT SELECT ON TABLE WAREHOUSE_LOAD_HISTORY  to share
RICOH_UNRAVEL_SHARE;
GRANT SELECT ON TABLE TABLES  to share RICOH_UNRAVEL_SHARE;
GRANT SELECT ON TABLE METERING_DAILY_HISTORY  to share
RICOH_UNRAVEL_SHARE;
GRANT SELECT ON TABLE METERING_HISTORY  to share
RICOH_UNRAVEL_SHARE;
GRANT SELECT ON TABLE DATABASE_REPLICATION_USAGE_HISTORY  to share
RICOH_UNRAVEL_SHARE;
GRANT SELECT ON TABLE REPLICATION_GROUP_USAGE_HISTORY  to share
RICOH_UNRAVEL_SHARE;
GRANT SELECT ON TABLE DATABASE_STORAGE_USAGE_HISTORY  to share
RICOH_UNRAVEL_SHARE;
GRANT SELECT ON TABLE STAGE_STORAGE_USAGE_HISTORY  to share
RICOH_UNRAVEL_SHARE;
GRANT SELECT ON TABLE SEARCH_OPTIMIZATION_HISTORY  to share
RICOH_UNRAVEL_SHARE;
```

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```
GRANT SELECT ON TABLE DATA_TRANSFER_HISTORY  to share
RICOH_UNRAVEL_SHARE;
GRANT SELECT ON TABLE AUTOMATIC_CLUSTERING_HISTORY  to share
RICOH_UNRAVEL_SHARE;
GRANT SELECT ON TABLE SNOWPIPE_STREAMING_FILE_MIGRATION_HISTORY  to
share RICOH_UNRAVEL_SHARE;
GRANT SELECT ON TABLE TAG_REFERENCES  to share RICOH_UNRAVEL_SHARE;
GRANT SELECT ON TABLE QUERY_HISTORY  to share RICOH_UNRAVEL_SHARE;
GRANT SELECT ON TABLE ACCESS_HISTORY  to share RICOH_UNRAVEL_SHARE;
GRANT SELECT ON TABLE IS_QUERY_HISTORY  to share RICOH_UNRAVEL_SHARE;
GRANT SELECT ON TABLE WAREHOUSE_PARAMETERS  to share
RICOH_UNRAVEL_SHARE;
GRANT SELECT ON TABLE WAREHOUSES  to share RICOH_UNRAVEL_SHARE;
GRANT SELECT ON TABLE QUERY_PROFILE  to share RICOH_UNRAVEL_SHARE;
alter share RICOH_UNRAVEL_SHARE add accounts = HFB47355;
```

6. Receive the data in recipient account (Sql mode).

```
--Validate that the inbound share is available to the consumer account.
Show shares like '%UNRAVEL%';

Use role AccountAdmin;
create database RICOH_SHARE from share
FWTTICE.PRIMARY_PG.RICOH_UNRAVEL_SHARE;
```

7. Share the Transient tables to unravel account (UI Mode).

Sharing through UI :

E.g. URL : https://app.snowflake.com/fwttice/primary_pg/#/data/shared/outbound

Replace your account in above URL instead of “fwttice”

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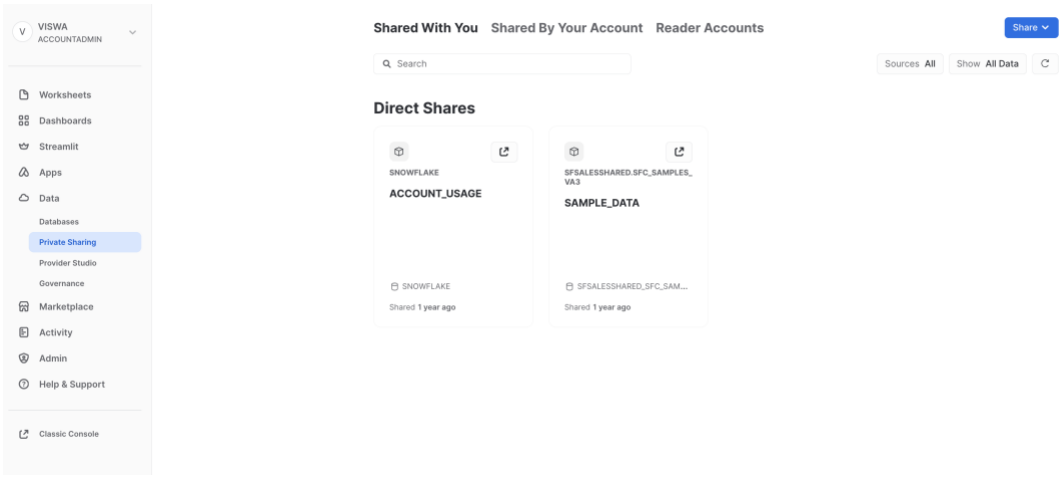

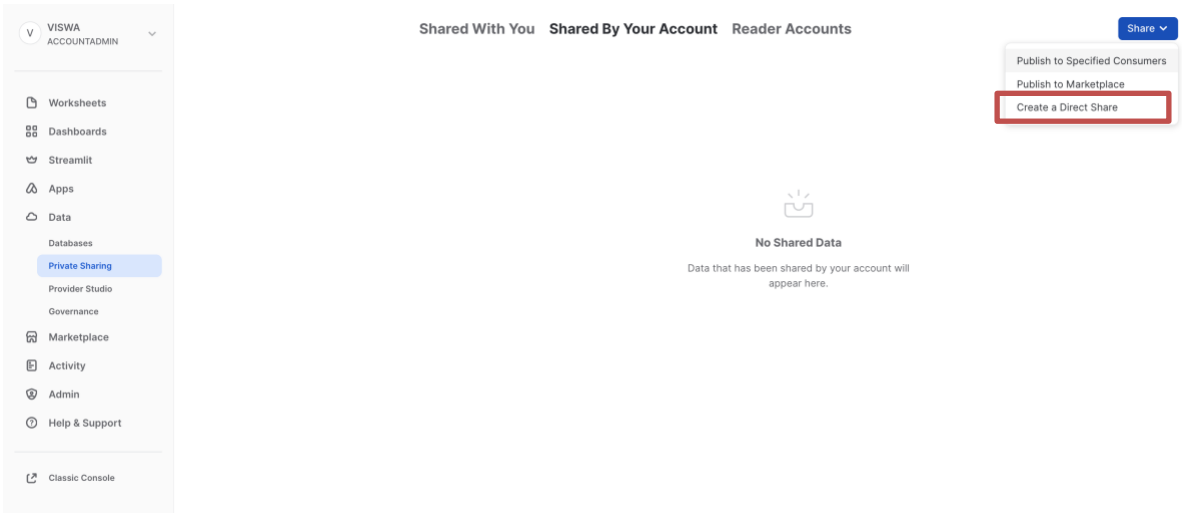

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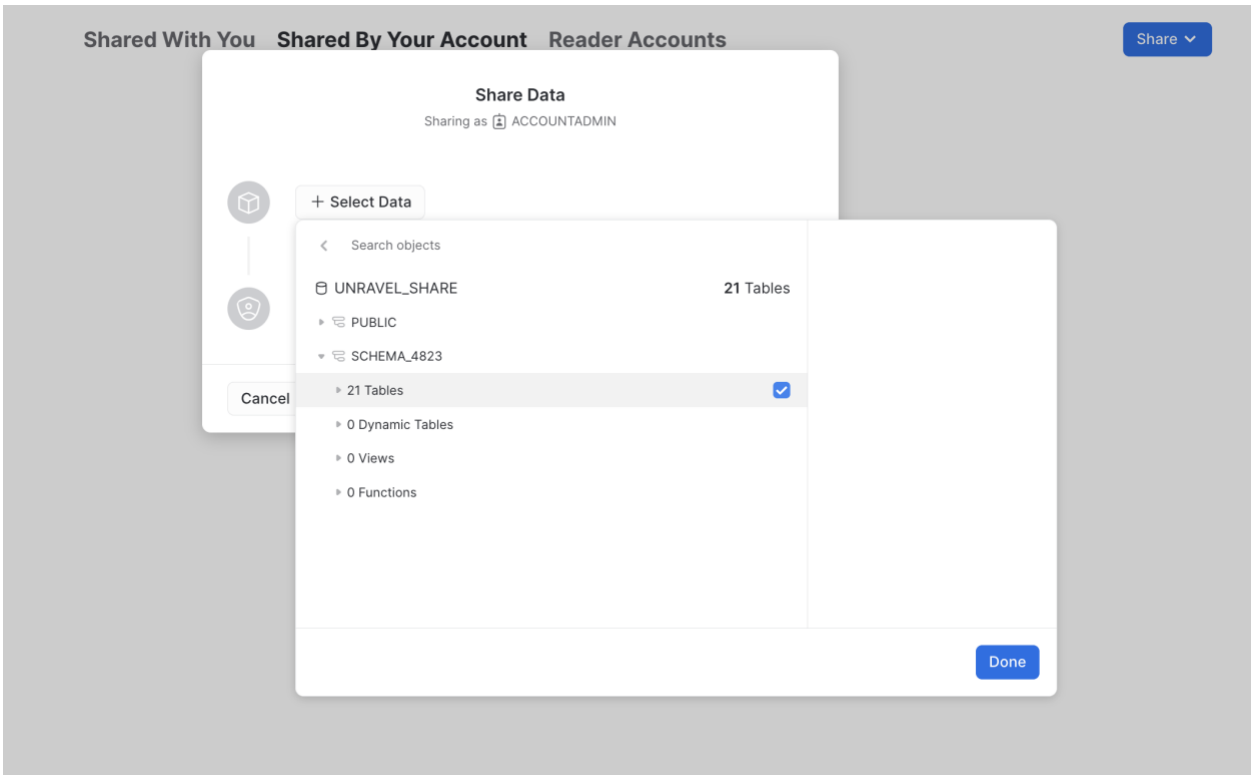

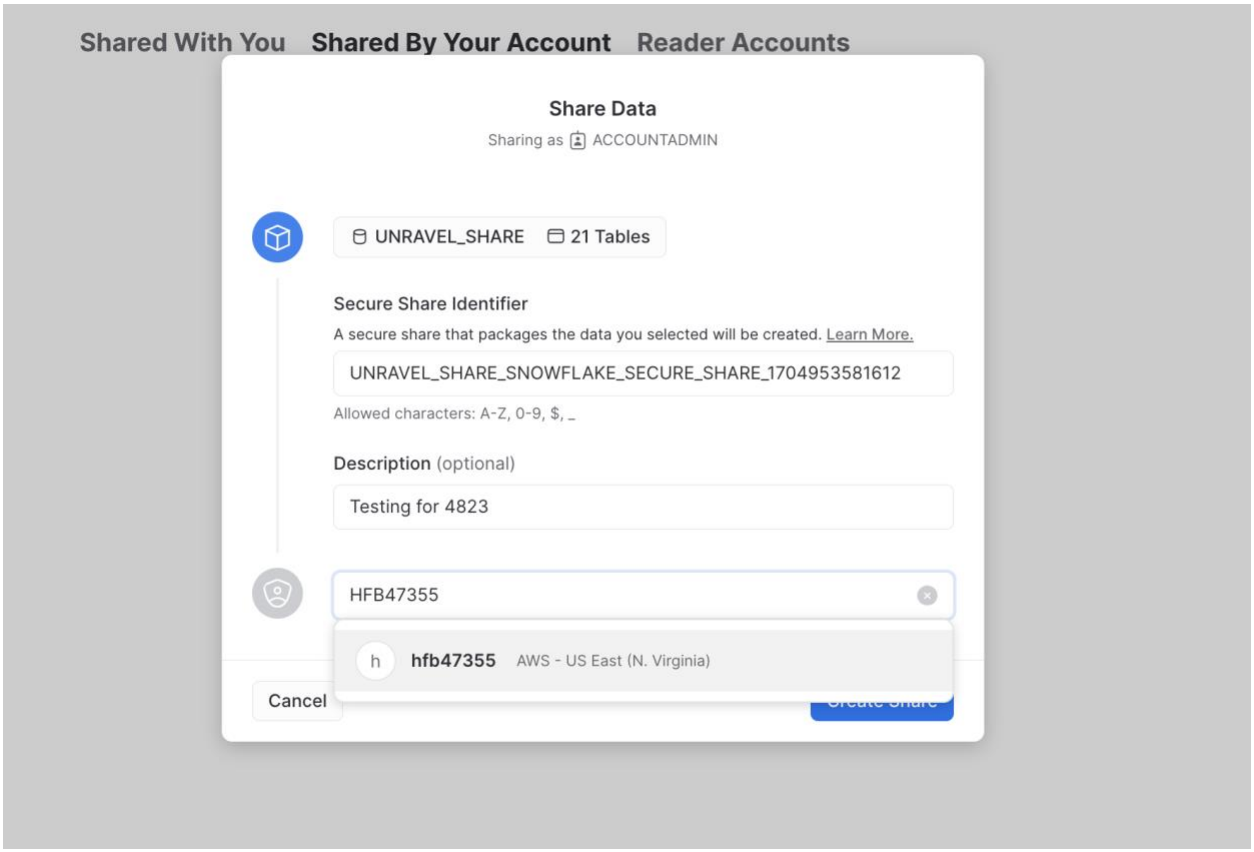

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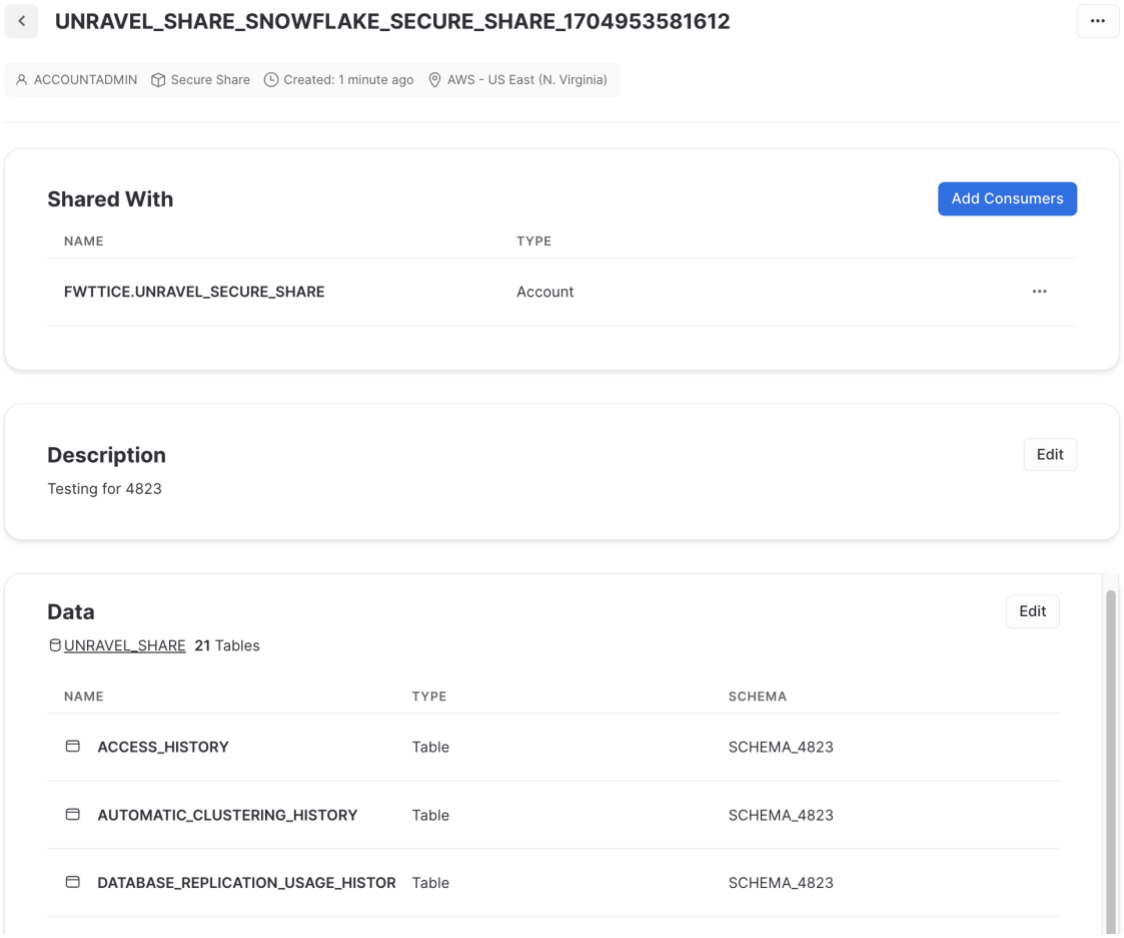

Now the tables are shared to **HFB47355 Account**

8. Receive the data in recipient account ui mode.

Login as account admin.

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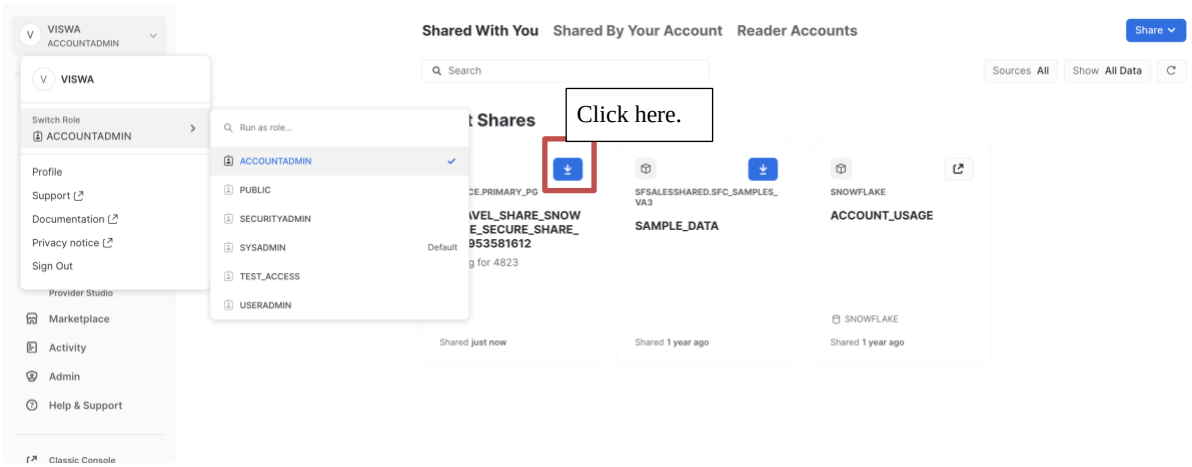
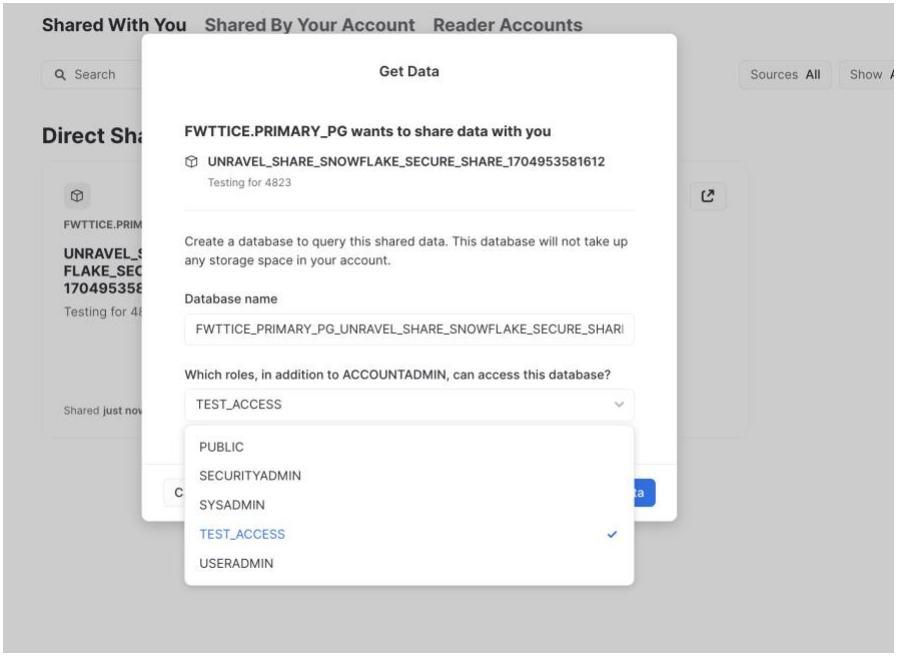


Select the role.



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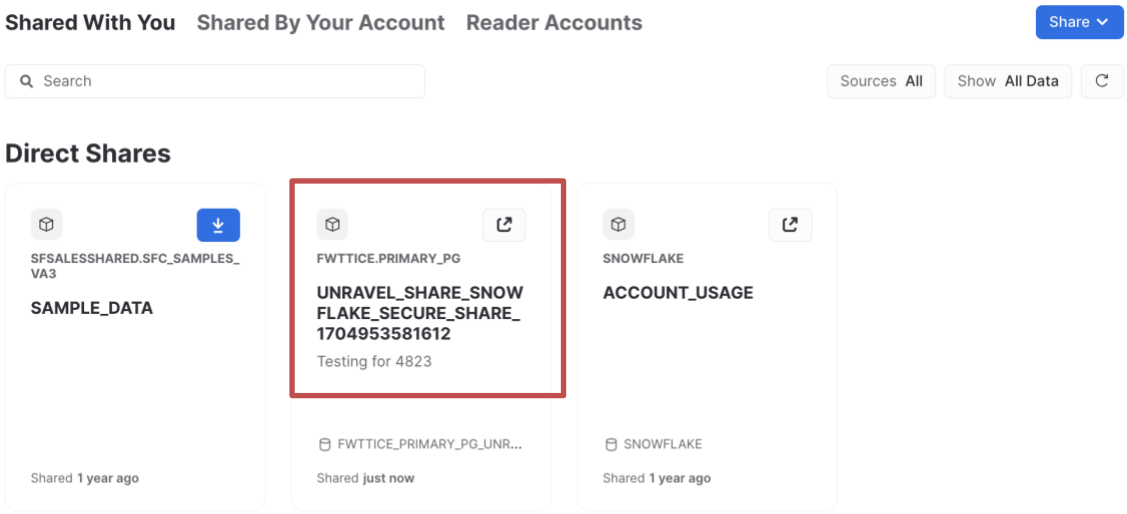
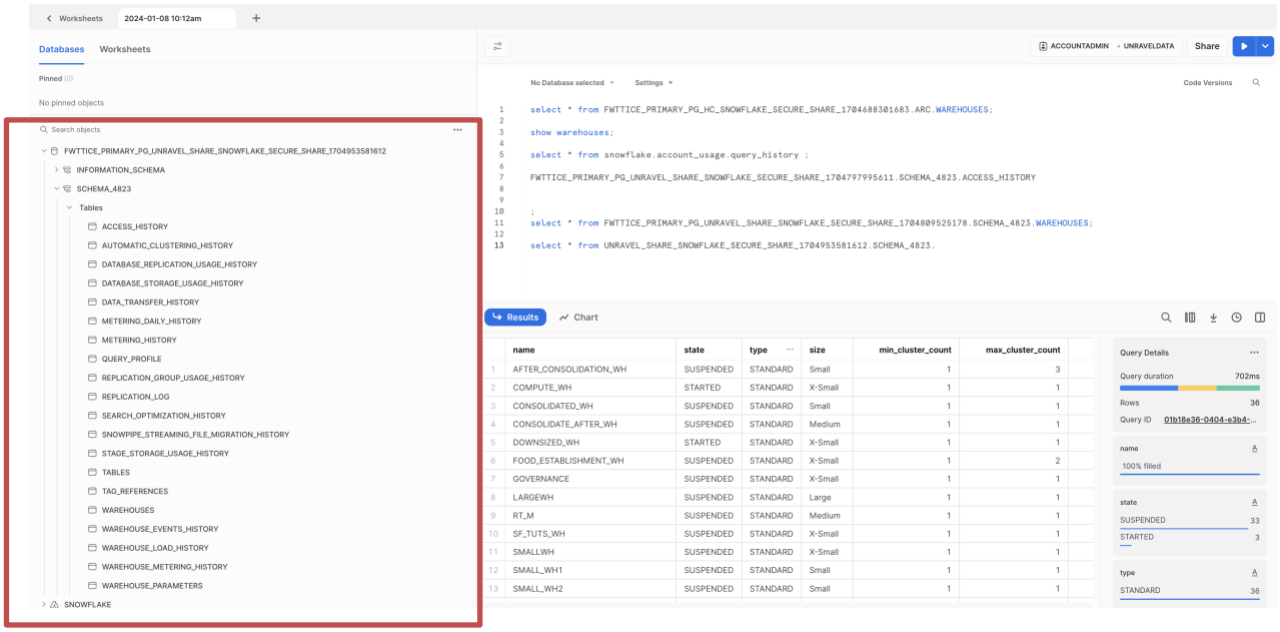


Now data is available in recipient account.



9. Configure recipient account in unravel.

Show shares like '%UNRAVEL%';

Use role AccountAdmin;

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create database RICOH_SHARE from share
FWTTICE.PRIMARY_PG.RICOH_UNRAVEL_SHARE;

Database: RICOH_SHARE

Other configurations are same.

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