

# Snowflake Metadata Share Guide



Product Version	4.8.0
Document Type	Snowshare Guide
Authors	Snowflake Data source Team
Reviewer	Red Team & Architects
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Total Pages	10
Document Status	Release

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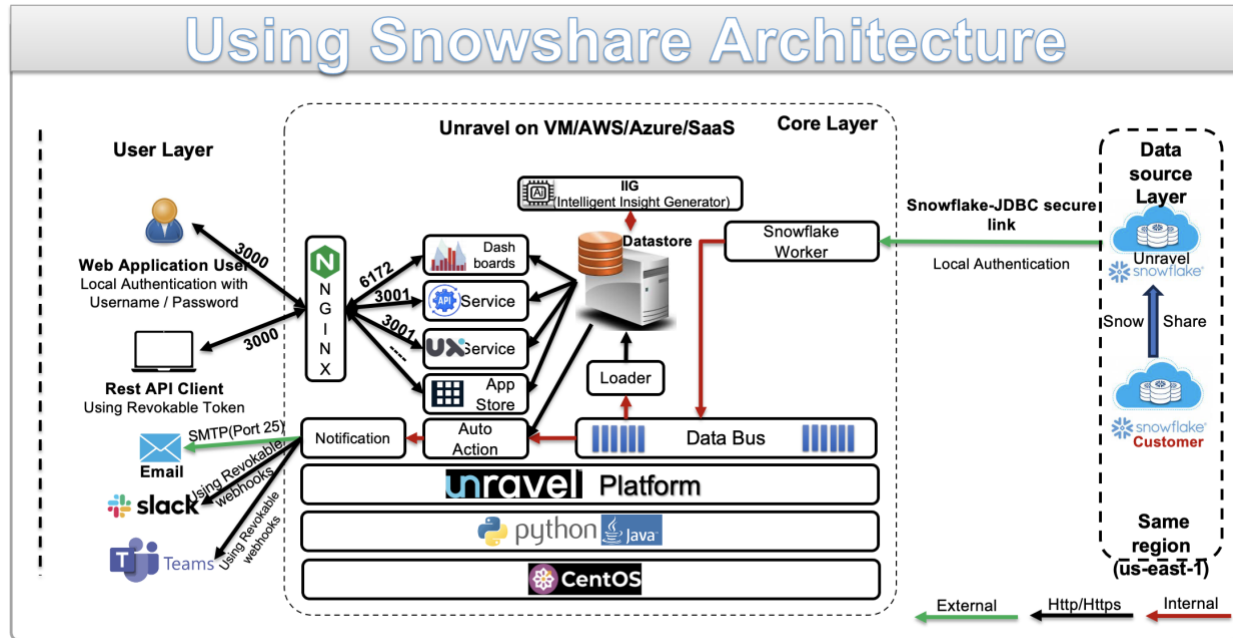
## Document Version Record

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



### 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.

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

---

#### 4.2. One time execution for POV for 2 days

```
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 => '2');
```

#### 4.3. One time execution for health check for 7 days

```
CALL CREATE_TABLES('UNRAVEL_SHARE','SCHEMA_4823_T');
CALL REPLICATE_ACCOUNT_USAGE('UNRAVEL_SHARE','SCHEMA_4823_T',7);
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 => '7');
```

#### 4.4. To continue execution on certain interval this is created as tasks for POV not required for health check.

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');

-- 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): replace \${CUSTOMER\_NAME} with unique value to share

```
-- Share tables
Create share ${CUSTOMER_NAME}_UNRAVEL_SHARE;
Grant Usage on database UNRAVEL_SHARE to share
${CUSTOMER_NAME}_UNRAVEL_SHARE;
Grant Usage on schema SCHEMA_4823_T to share
${CUSTOMER_NAME}_UNRAVEL_SHARE;
GRANT SELECT ON TABLE WAREHOUSE_METERING_HISTORY to share
${CUSTOMER_NAME}_UNRAVEL_SHARE;
GRANT SELECT ON TABLE WAREHOUSE_EVENTS_HISTORY to share
${CUSTOMER_NAME}_UNRAVEL_SHARE;
GRANT SELECT ON TABLE WAREHOUSE_LOAD_HISTORY to share
${CUSTOMER_NAME}_UNRAVEL_SHARE;
GRANT SELECT ON TABLE TABLES to share
${CUSTOMER_NAME}_UNRAVEL_SHARE;
GRANT SELECT ON TABLE METERING_DAILY_HISTORY to share
${CUSTOMER_NAME}_UNRAVEL_SHARE;
```

```
GRANT SELECT ON TABLE METERING_HISTORY to share
${CUSTOMER_NAME}_UNRAVEL_SHARE;
GRANT SELECT ON TABLE DATABASE_REPLICATION_USAGE_HISTORY to share
${CUSTOMER_NAME}_UNRAVEL_SHARE;
GRANT SELECT ON TABLE REPLICATION_GROUP_USAGE_HISTORY to share
${CUSTOMER_NAME}_UNRAVEL_SHARE;
GRANT SELECT ON TABLE DATABASE_STORAGE_USAGE_HISTORY to share
${CUSTOMER_NAME}_UNRAVEL_SHARE;
GRANT SELECT ON TABLE STAGE_STORAGE_USAGE_HISTORY to share
${CUSTOMER_NAME}_UNRAVEL_SHARE;
GRANT SELECT ON TABLE SEARCH_OPTIMIZATION_HISTORY to share
${CUSTOMER_NAME}_UNRAVEL_SHARE;
GRANT SELECT ON TABLE DATA_TRANSFER_HISTORY to share
${CUSTOMER_NAME}_UNRAVEL_SHARE;
GRANT SELECT ON TABLE AUTOMATIC_CLUSTERING_HISTORY to share
${CUSTOMER_NAME}_UNRAVEL_SHARE;
GRANT SELECT ON TABLE SNOWPIPE_STREAMING_FILE_MIGRATION_HISTORY to
share ${CUSTOMER_NAME}_UNRAVEL_SHARE;
GRANT SELECT ON TABLE TAG_REFERENCES to share
${CUSTOMER_NAME}_UNRAVEL_SHARE;
GRANT SELECT ON TABLE QUERY_HISTORY to share
${CUSTOMER_NAME}_UNRAVEL_SHARE;
GRANT SELECT ON TABLE ACCESS_HISTORY to share
${CUSTOMER_NAME}_UNRAVEL_SHARE;
GRANT SELECT ON TABLE IS_QUERY_HISTORY to share
${CUSTOMER_NAME}_UNRAVEL_SHARE;
GRANT SELECT ON TABLE WAREHOUSE_PARAMETERS to share
${CUSTOMER_NAME}_UNRAVEL_SHARE;
GRANT SELECT ON TABLE WAREHOUSES to share
${CUSTOMER_NAME}_UNRAVEL_SHARE;
GRANT SELECT ON TABLE QUERY_PROFILE to share
${CUSTOMER_NAME}_UNRAVEL_SHARE;
alter share ${CUSTOMER_NAME}_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%';
```

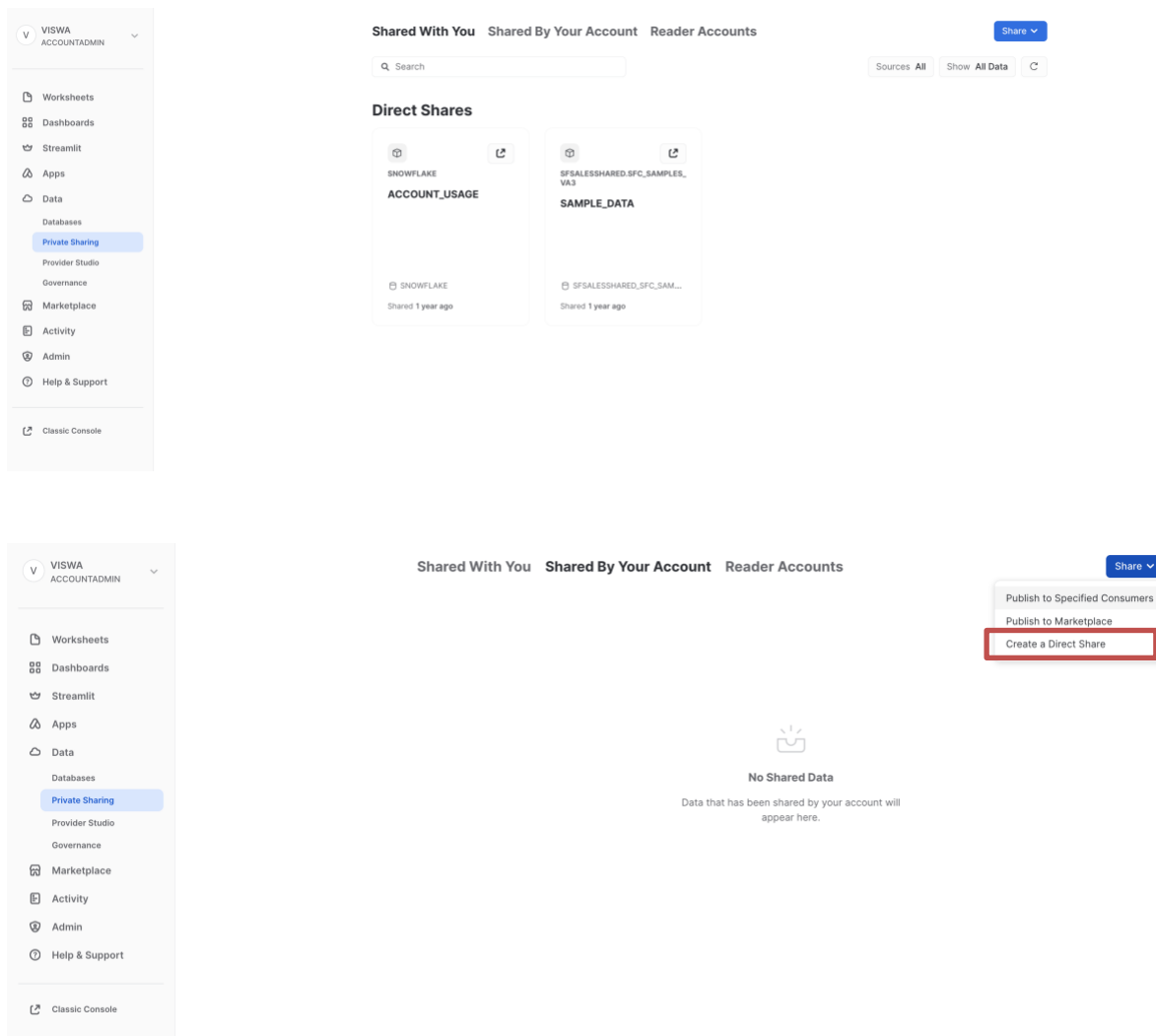
```
Use role AccountAdmin;
create database ${CUSTOMER_NAME}_SHARE from share
FWTTICE.PRIMARY_PG.${CUSTOMER_NAME}_UNRAVEL_SHARE;
```

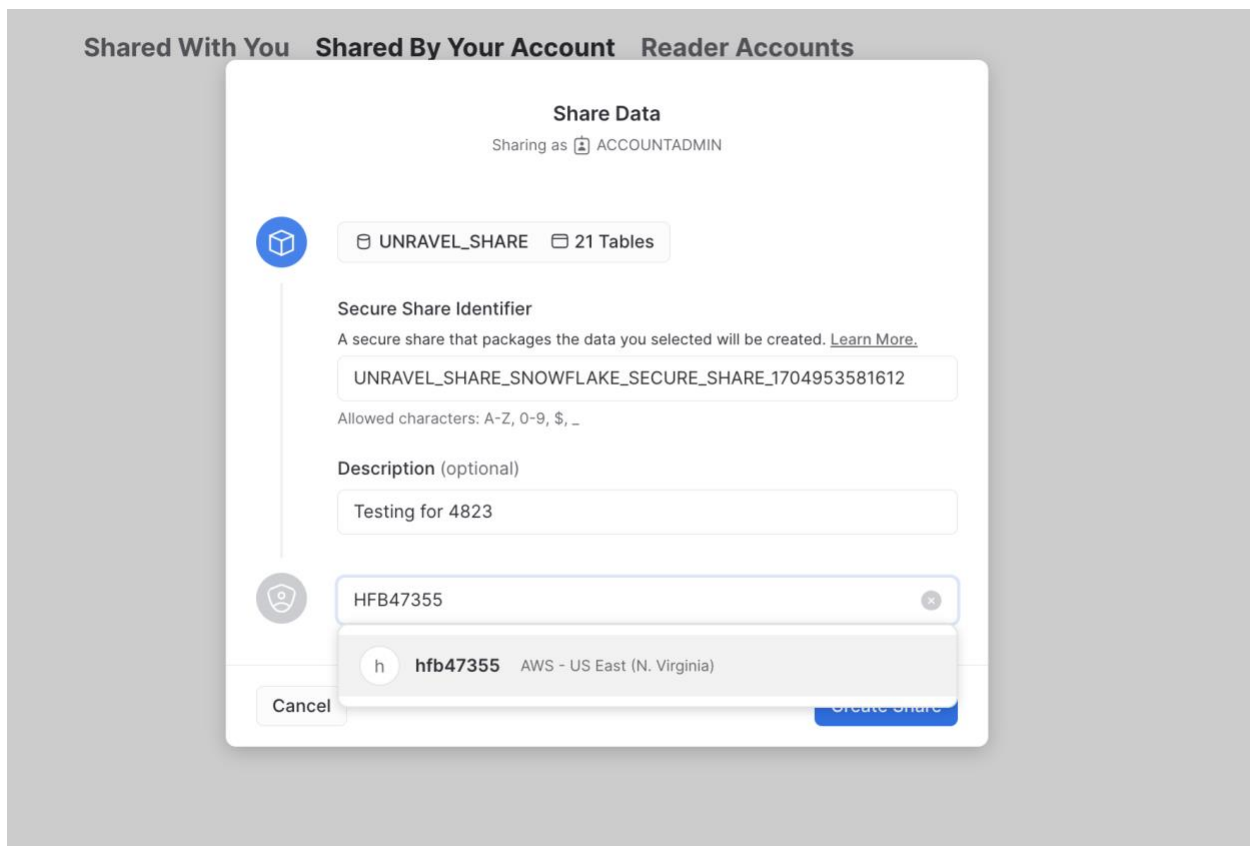
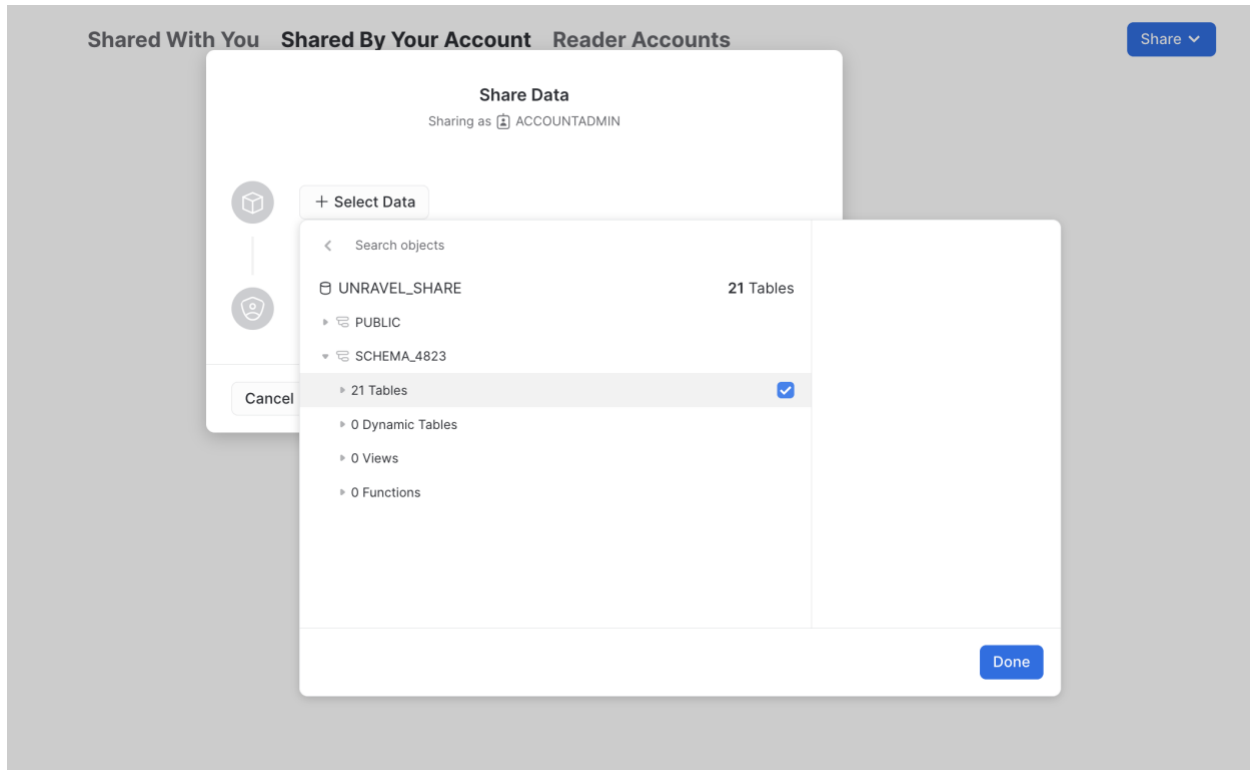
## 7. Share the Transient tables to unravel account (UI Mode).

Sharing through UI :

E.g. URL : [https://app.snowflake.com/fwtice/primary\\_pg/#/data/shared/outbound](https://app.snowflake.com/fwtice/primary_pg/#/data/shared/outbound)

Replace your account in above URL instead of “fwtice”







<
UNRAVEL\_SHARE\_SNOWFLAKE\_SECURE\_SHARE\_1704953581612
...

ACCOUNTADMIN
Secure Share
Created: 1 minute ago
AWS - US East (N. Virginia)

### Shared With

Add Consumers

NAME	TYPE	
FWTTICE.UNRAVEL_SECURE_SHARE	Account	...

### Description

Edit

Testing for 4823

### Data

Edit

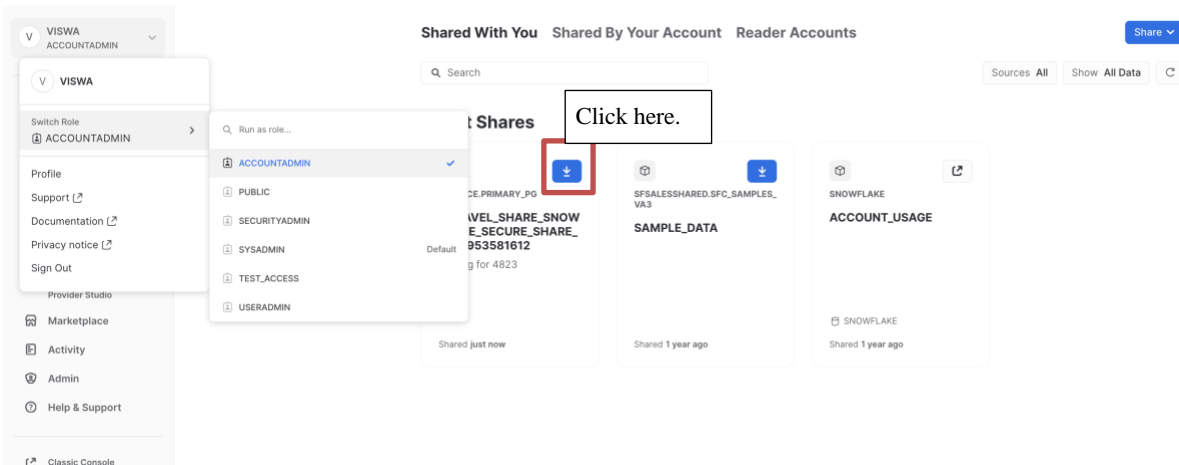
UNRAVEL\_SHARE
21 Tables

NAME	TYPE	SCHEMA
ACCESS_HISTORY	Table	SCHEMA_4823
AUTOMATIC_CLUSTERING_HISTORY	Table	SCHEMA_4823
DATABASE_REPLICATION_USAGE_HISTOR	Table	SCHEMA_4823

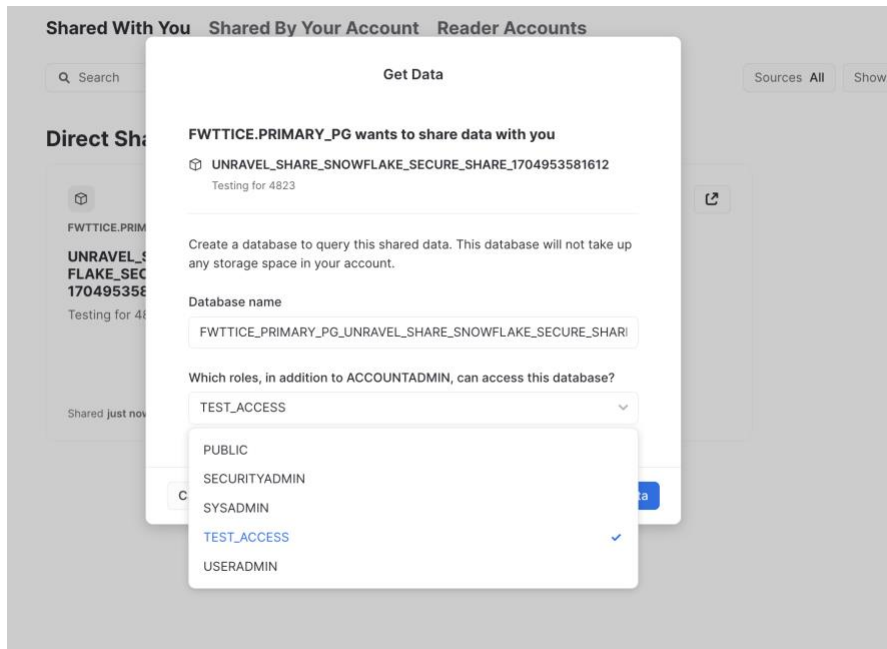
Now the tables are shared to **HFB47355 Account**

8. Receive the data in recipient account ui mode.

Login as account admin.



Select the role.



Shared With You   Shared By Your Account   Reader Accounts

Share ▼

🔍 Search

Sources All

[Show All Data](#)

## Direct Shares

The screenshot displays the Snowflake account page with three databases listed. The first database is SFSALESSHARED.SFC\_SAMPLES\_VA3, which has a sample data table. The second database is FWTTICE.PRIMARY\_PG, which is highlighted with a red box and shows a test query result for 4823. The third database is SNOWFLAKE, which has an account usage table. The FWTTICE.PRIMARY\_PG database is highlighted with a red box, showing its name, schema, and a test query result.

Now data is available in recipient account.

Worksheets 2024-08-10 12:24
+

Databases Worksheets
1/1

Pinned (0)
Code Versions
🔍

No pinned objects

🔍 Search objects

- FWTTICE\_PRIMARY\_PG\_UNRAVEL\_SHARE\_SNOWFLAKE\_SECURE\_SHARE\_1704953581612
- INFORMATION\_SCHEMA
- SCHEMA\_4823
  - Tables
    - ACCESS\_HISTORY
    - AUTOMATIC\_CLUSTERING\_HISTORY
    - DATABASE\_REPLICATION\_USAGE\_HISTORY
    - DATABASE\_STORAGE\_USAGE\_HISTORY
    - DATA\_TRANSFER\_HISTORY
    - METERING\_DAILY\_HISTORY
    - METERING\_HISTORY
    - QUERY\_PROFILE
    - REPLICATION\_GROUP\_USAGE\_HISTORY
    - REPLICATION\_LOG
    - SEARCH\_OPTIMIZATION\_HISTORY
    - SNOWPIPE\_STREAMING\_FILE\_MIGRATION\_HISTORY
    - STAGE\_STORAGE\_USAGE\_HISTORY
    - TABLES
    - TAG\_REFERENCES
    - WAREHOUSES
    - WAREHOUSE\_EVENTS\_HISTORY
    - WAREHOUSE\_LOAD\_HISTORY
    - WAREHOUSE\_METERING\_HISTORY
    - WAREHOUSE\_PARAMETERS

No Database selected    Settings

```

1 select * from FWTTICE_PRIMARY_PG_HC_SNOWFLAKE_SECURE_SHARE_1704488301683.ARC.WAREHOUSES;
2
3 show warehouses;
4
5 select * from snowflake.account_usage.query_history ;
6
7 FWTTICE_PRIMARY_PG_UNRAVEL_SHARE_SNOWFLAKE_SECURE_SHARE_1704797795611.SCHEMA_4823.ACCESS_HISTORY
8
9
10
11
12 select * from FWTTICE_PRIMARY_PG_UNRAVEL_SHARE_SNOWFLAKE_SECURE_SHARE_17044889525178.SCHEMA_4823.WAREHOUSES;
13
14 select * from UNRAVEL_SHARE_SNOWFLAKE_SECURE_SHARE_1704953581612.SCHEMA_4823.

```

Results    ~ Chart

	name	state	type	size	min_cluster_count	max_cluster_count
1	AFTER_CONSOLIDATION_WH	SUSPENDED	STANDARD	Small	1	3
2	COMPUTE_WH	STARTED	STANDARD	X-Small	1	1
3	CONSOLIDATED_WH	SUSPENDED	STANDARD	Small	1	1
4	CONSOLIDATE_AFTER_WH	SUSPENDED	STANDARD	Medium	1	1
5	DOWNSIZED_WH	STARTED	STANDARD	X-Small	1	1
6	FOOD_ESTABLISHMENT_WH	SUSPENDED	STANDARD	X-Small	1	2
7	GOVERNANCE	SUSPENDED	STANDARD	X-Small	1	1
8	LARGEWH	SUSPENDED	STANDARD	Large	1	1
9	RT_M	SUSPENDED	STANDARD	Medium	1	1
10	SF_TUTS_WH	SUSPENDED	STANDARD	X-Small	1	1
11	SMALLWH	SUSPENDED	STANDARD	X-Small	1	1
12	SMALL_WH1	SUSPENDED	STANDARD	Small	1	1
13	SMALL_WH2	SUSPENDED	STANDARD	Small	1	1

Query Details

Query duration 702ms

Rows 36

Query ID 01b1fe36-9404-a30d-

name 100% filled

state 100% filled

state SUSPENDED 33

STARTED 3

type 100% filled

STANDARD 36

9. Configure recipient account in unravel.

Show shares like '%UNRAVEL%':

Use role AccountAdmin;

```
create database ${CUSTOMER_NAME}_SHARE from share  
FWTTICE.PRIMARY_PG.${CUSTOMER_NAME}_UNRAVEL_SHARE;
```

Database: \${CUSTOMER\_NAME}\_SHARE

Other configurations are same.