# Experiment 9: Data Sharing Overview

Snowflake enables account-to-account sharing of data through *shares*, which are created by data providers and "imported" by data consumers, either through their own Snowflake account or a provisioned Snowflake Reader account. The consumer could be an external entity/partner, or a different internal business unit which is required to have its own, unique Snowflake account.

## With Data Sharing -

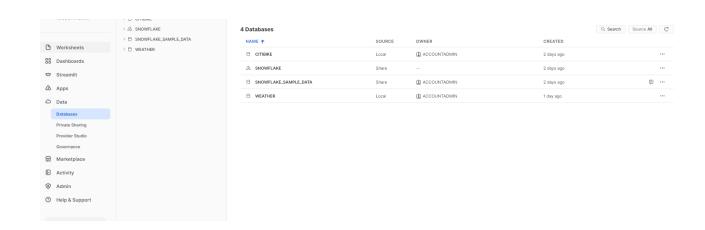
- There is only one copy of data, which lives in the data provider's account
- Shared data is always live, real-time and immediately available to consumers
- Providers can establish revocable, fine-grained access grants to shares
- Data sharing is simple and secure, especially compared to the "old" way of sharing data which
  was often manual and involved transferring large .csv across the Internet in a manner that
  might be insecure

Note - Data Sharing currently only supported between accounts in the same Snowflake Provider and Region

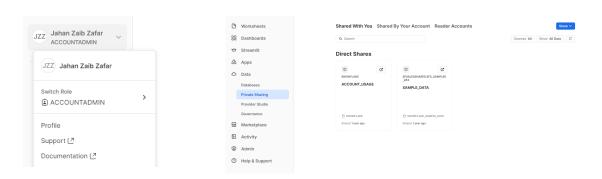
One example of data sharing is that Snowflake uses secure data sharing to share account usage data and sample data sets with all Snowflake accounts. In this capacity, Snowflake acts as the provider of the data and all other accounts act as the consumers. In your Snowflake environment you can easily see this and we walk through this in the next section.

## 9.1 See Existing Shares

9.1.1 Click on the Data at the left of the UI, in the new object browser that appears, notice the database "SNOWFLAKE\_SAMPLE\_DATA", The Source column shows that the SNOWFLAKE\_SAMPLE\_DATA is a Share.



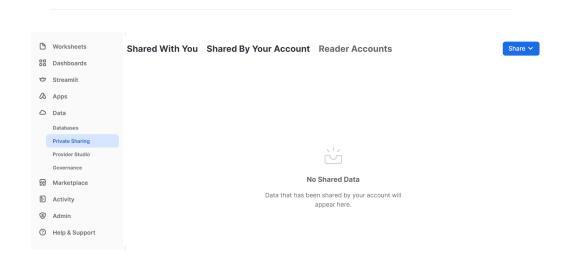
9.1.2 At the top left of the UI verify you are in the ACCOUNTADMIN role by clicking on profile. Now by clicking Data > Private Sharing another page opens showing Inbound(Share with you) Secure Shares and there are two shares shared by Snowflake with your account. One contains your account usage and the other has sample data you can use. This is data sharing in action - your Snowflake account is a consumer of data shared/provided by Snowflake!



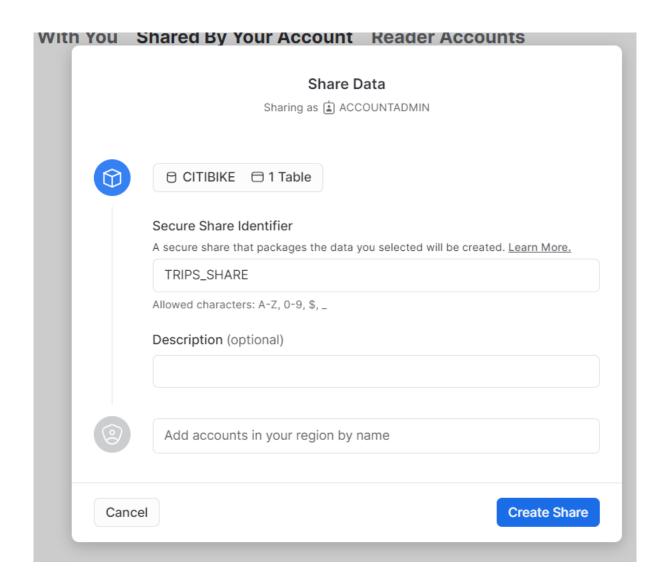
#### 9.2 Create an Outbound Share

9.2.1 Let's go back to the Citi Bike story and assume we are the Account Administrator for Snowflake at Citi Bike. We have a trusted partner who wants to do perform data science on the data in our TRIPS database on a near real-time basis to further analyze it. This partner also has their own Snowflake account in our region. So let's use Snowflake Data Sharing to share this data with them so they can analyze it.

At the top of the UI click Private Shareing > Shared By Your Account tab(Outbound).

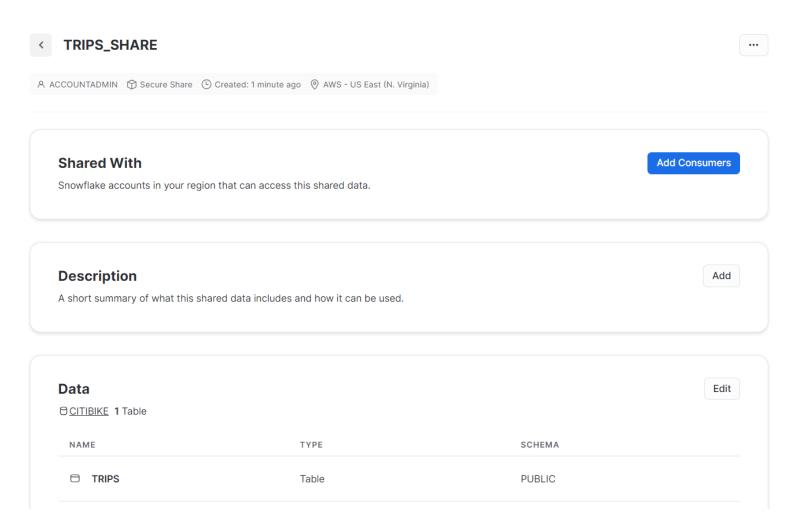


- 9.2.2 Click on the "Share" button and select Create a Direct Share and fill the fields as below.
  - Click Select Data and now for "Database" you will use the drop-down to select "CITIBIKE"
  - For "Tables & Views" you will use the database object browser to browse to CITIBIKE > PUBLIC > TABLES > TRIPS.
  - Click on the blue "Done" button
  - For "Secure Share Name" enter "TRIPS SHARE"



9.2.3 Click on the blue "Create Share" button at the bottom of the box.

Note the window indicates the Secure share was created successfully.

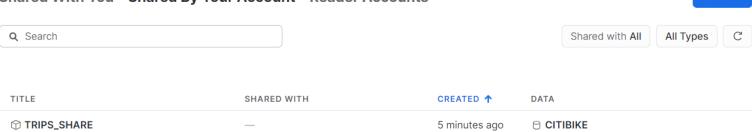


In the real-world, the Citi Bike Account Administrator would click on the "Next: Add Consumers" blue button to add information on their partner's Snowflake account name and type. But since in the experiment we are just using our own account, we will stop here.

9.2.4 Click on the "<" button at the top of the page with TRIPS\_SHARE to see all Shares.

Note this page now shows the "TRIPS\_SHARE" secure share. It only took seconds to give other accounts access to data in Snowflake in a secure manner with no copies of the data having to be made!

### Shared With You Shared By Your Account Reader Accounts



Lastly, note that Snowflake provides several ways to securely share data without compromising confidentiality. You can share not only tables and views, but also Secure Views, Secure UDFs (User Defined Functions), and Secure Joins. For more details on how to use these methods for sharing data while preventing access to sensitive information, see the Snowflake documentation.

Congratulations, you are now done with this experiment! Let's wrap things up for the Foundation set of experiments in the next section.