Intra-Company Data Sharing With The Snowflake Internal Marketplace

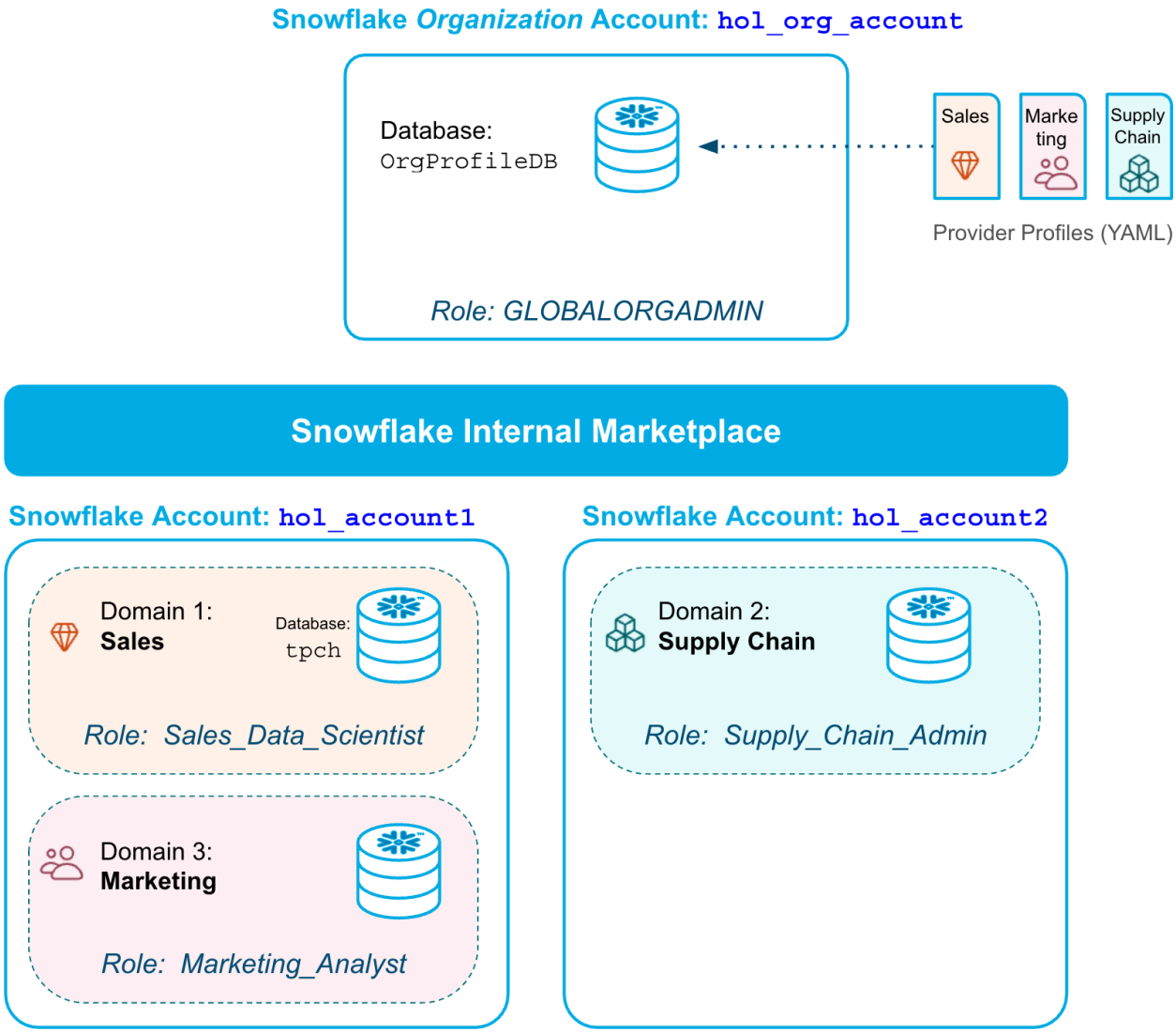
Setup Instructions - please make sure to download this PDF and open it in a PDF reader, otherwise the hyperlinks will not work.

Setup

Duration: 15

The setup instructions for this lab describe all the steps for you to create the 3 accounts, domain profiles, and roles shown in the diagram below.

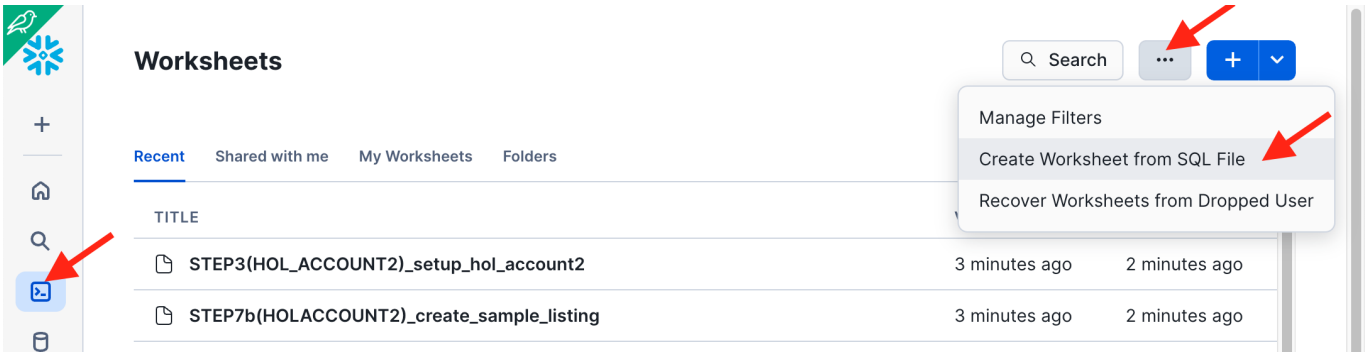
The internal marketplace exists by default. It does not need to be created. But, you will configure it with provider profiles for the different business units via the organization account. The organization account is a recent Snowflake capability to optionally monitor and manage a set of a regular accounts.



The setup has 6 steps:

- Step 1: Create a Snowflake trial account in a region of your choice
- Step 2: Configure the first account and create two more accounts *in the same org*
- Step 3: Configure the second account
- Step 4: Configure the organization account, and rename the first account
- Step 5: Create profiles for the Sales, Marketing, and Supply Chain domains
- Step 6: Setup of a TPC-H sample database
- Step 7: Pre-populate the Internal Marketplace with Sample Listings

For Steps 2 through 7 you can download scripts here and execute them in different accounts as per the instructions below. In the Snowflake UI you can easily import these scripts like this:



Step 1: Create a Snowflake trial account

Sign up for a trial account here

- Choose any cloud provider and region
- Choose **Enterprise Edition** or higher. (Standard Edition does not support the Internal Marketplace)
- Activate the account with an admin user name such as `admin`
    - Note! Step 2 creates a `sales_admin` that will be used throughout this lab.

Step 2: Configure the first account and create two more accounts *in the same org*

- Login as `admin` to your Primary Account from Step 1 and execute the following commands in a worksheet.
- In the first four commands, enter your own email, first name, last name and password - this variable will be reused in the code for creating users and accounts.
- You can also download this SQL file and import it into Snowsight - `STEP2_setup_primary_account.sql`

```
-- Run this code in your PRIMARY Account
-- Make sure you update the four variables below (email_var,
firstname_var, lastname_var, and pwd_var)

USE ROLE accountadmin;

-- Use the same name and email for all accounts
set email_var = 'FILL_IN_YOUR_EMAIL';
set firstname_var  = 'FILL_IN_YOUR_FIRST_NAME';
```

```
set lastname_var  = 'FILL_IN_YOUR_LAST_NAME';

-- Use the same password for users in all accounts
set pwd_var = 'FILL_IN_YOUR_PASSWORD';

CREATE OR REPLACE WAREHOUSE compute_wh WAREHOUSE_SIZE=xsmall
INITIALLY_SUSPENDED=TRUE;
GRANT ALL ON WAREHOUSE compute_wh TO ROLE public;

--  Create a user and role for the sales domain:
USE ROLE accountadmin;
CREATE OR REPLACE ROLE sales_data_scientist_role;

SET my_user_var = CURRENT_USER();
ALTER USER identifier($my_user_var) SET DEFAULT_ROLE =
sales_data_scientist_role;

CREATE OR REPLACE USER sales_admin
  PASSWORD = $pwd_var
  LOGIN_NAME = sales_admin
  DISPLAY_NAME = sales_admin
  FIRST_NAME = $firstname_var
  LAST_NAME = $lastname_var
  EMAIL = $email_var
  MUST_CHANGE_PASSWORD = FALSE
  DEFAULT_WAREHOUSE = compute_wh
  DEFAULT_ROLE = sales_data_scientist_role
  COMMENT = 'Sales domain admin';

GRANT ROLE sales_data_scientist_role TO USER sales_admin;
GRANT ROLE accountadmin              TO USER sales_admin;  -- for
simplicity in this lab
GRANT CREATE SHARE ON ACCOUNT                    TO ROLE
sales_data_scientist_role;
GRANT CREATE ORGANIZATION LISTING ON ACCOUNT     TO ROLE
sales_data_scientist_role;


-- Next, create a user and role for the marketing domain:
USE ROLE accountadmin;
CREATE OR REPLACE ROLE marketing_analyst_role;

CREATE OR REPLACE USER marketing_admin
  PASSWORD = $pwd_var
  LOGIN_NAME = marketing_admin
  DISPLAY_NAME = marketing_admin
  FIRST_NAME = $firstname_var
  LAST_NAME = $lastname_var
  EMAIL = $email_var
  MUST_CHANGE_PASSWORD = FALSE
  DEFAULT_WAREHOUSE = compute_wh
  DEFAULT_ROLE = marketing_analyst_role
  COMMENT = 'Marketing domain admin';
```

```
GRANT ROLE marketing_analyst_role TO USER marketing_admin;
GRANT CREATE SHARE ON ACCOUNT                    TO ROLE
marketing_analyst_role;
GRANT CREATE ORGANIZATION LISTING ON ACCOUNT     TO ROLE
marketing_analyst_role;

USE ROLE orgadmin;
GRANT MANAGE LISTING AUTO FULFILLMENT ON ACCOUNT TO ROLE
sales_data_scientist_role;
GRANT MANAGE LISTING AUTO FULFILLMENT ON ACCOUNT TO ROLE
marketing_analyst_role;
```

> IMPORTANT: You **may** receive an email asking for verification of your email address, if you have not done so before. Check your email inbox for a message from "Snowflake Computing" and validate the email for the `marketing_admin` user.

While waiting for the email, you can go ahead and run the following parts.

Now, run the following commands to create the next two accounts that you need.

> IMPORTANT: For the commands below, you **have to use the same worksheet** as above, as the variables created are reused (email_var, firstname_var, lastname_var, and pwd_var).

```
-- Run this code in your PRIMARY account
-- Create a secondary account in the same region (default!):
USE ROLE orgadmin;

CREATE ACCOUNT hol_account2
  admin_name = supply_chain_admin
  admin_password = $pwd_var
  first_name = $firstname_var
  last_name = $lastname_var
  email = $email_var
  must_change_password = false
  edition = enterprise;

-- Create an organization account for admin purposes:
CREATE ORGANIZATION ACCOUNT hol_org_account
  admin_name = org_admin
  admin_password = $pwd_var
  first_name = $firstname_var
  last_name = $lastname_var
  email = $email_var
  must_change_password = false
  edition = enterprise;

-- Get an overview of all the accounts in the organization.
-- This SHOW command should return 3 rows:

SHOW ACCOUNTS;
```

- Make a note of your account names, URLs, and passwords!
- Copy or bookmark the account URLs returned by `SHOW ACCOUNTS'.
- When you click on one these URLs you are automatically directed to the respective account for login.

Step 3: Configure the second account HOL_ACCOUNT2

In a separate browser tab, log in to the account you created in step 1 (HOL_ACCOUNT2) and set up this account.

- Login as supply_chain_admin user to your account HOL_ACCOUNT2 from Step 2 and execute the following commands in a worksheet (Use the code below or download it from the file STEP3(HOL_ACCOUNT2)_setup_hol_account2.sql)

```
-- Run this in hol_account2, logged in as supply_chain_admin user
-- Make sure you run this as ACCOUNTADMIN

USE ROLE accountadmin;

CREATE OR REPLACE WAREHOUSE compute_wh WAREHOUSE_SIZE=xsmall
INITIALLY_SUSPENDED=TRUE;
GRANT ALL ON WAREHOUSE compute_wh TO ROLE public;

CREATE ROLE supply_chain_admin_role;
GRANT ROLE accountadmin TO ROLE supply_chain_admin_role; -- for simplicity
in this lab
GRANT ROLE supply_chain_admin_role TO USER supply_chain_admin;

ALTER USER supply_chain_admin
  SET DEFAULT_ROLE = supply_chain_admin_role;

USE ROLE supply_chain_admin_role;
CREATE DATABASE supply_chain_db;
```

Step 4: Configure the organization account and rename your primary account

Login to the Organization Account HOL_ORG_ACCOUNT as the org_admin user and execute the following commands in a worksheet.

You can also download code below from the file STEP4(HOL_ORG_ACCOUNT)_configure_org_account.sql from the repository:

```
-- Login to the Organization Account HOL_ORG_ACCOUNT and execute the
following commands in a worksheet.

USE ROLE accountadmin;

CREATE OR REPLACE WAREHOUSE compute_wh WAREHOUSE_SIZE=xsmall
INITIALLY_SUSPENDED=TRUE;
GRANT ALL ON WAREHOUSE compute_wh TO ROLE public;
```

```
-- Rename the Primary Account:
USE ROLE globalorgadmin;


-- execute the following two commands together,
-- no other commands in between:

  show accounts;
  SET my_curr_account = (SELECT "account_name" FROM
TABLE(RESULT_SCAN(LAST_QUERY_ID())) order by "created_on" ASC LIMIT 1);

-- View and rename the account:
SELECT $my_curr_account;

ALTER ACCOUNT identifier($my_curr_account)
  RENAME TO hol_account1 SAVE_OLD_URL = true;

-- Enable users with the ACCOUNTADMIN role to set up Cross-Cloud Auto-
Fulfillment
SELECT SYSTEM$ENABLE_GLOBAL_DATA_SHARING_FOR_ACCOUNT('hol_account1');
SELECT SYSTEM$ENABLE_GLOBAL_DATA_SHARING_FOR_ACCOUNT('hol_account2');

SHOW ACCOUNTS;

-- You should see 3 rows similar to the image below.
-- Make a note of your account names, URLs, and passwords!
```

Results Chart

	organization_name	account_name	snowflake_region	edition	account_url
1	VGDNITU	HOL_ACCOUNT1	AWS_US_WEST_2	ENTERPRISE	https://vgdnitu-hol_account1.snowflakecompu
2	VGDNITU	HOL_ACCOUNT2	AWS_US_WEST_2	ENTERPRISE	https://vgdnitu-hol_account2.snowflakecompu
3	VGDNITU	HOL_ORG_ACCOUNT	AWS_US_WEST_2	ENTERPRISE	https://vgdnitu-hol_org_account.snowflakecor

Step 5: Create profiles for the Sales, Marketing, and Supply Chain domains

Continue working as the `org_admin` user in your Organization Account `HOL_ORG_ACCOUNT` to create data provider profiles. You will set up profiles for 3 business domains: **Sales**, **Marketing**, and **Supply chain**.

- Download the script `STEP5(HOL_ORG_ACCOUNT)_create_org_profiles.sql`
- In that script, replace the dummy email **youremail@whatever.com** with your actual email address so that you receive access request notifications for your data product. See the image below for more details.
    - Don't worry: it's only a couple of emails and only during this lab.
- Run the downloaded script `STEP5(HOL_ORG_ACCOUNT)_create_org_profiles.sql` in a worksheet.

```
-- ! ! ! Replace "youremail@whatever.com" with your
-- ! ! ! actual email address (6 times).
-----------------------------------------------

USE ROLE globalorgadmin;
USE WAREHOUSE COMPUTE_WH;


CREATE OR REPLACE DATABASE OrgProfileDB;
CREATE OR REPLACE STAGE org_profile_stage;

-- Profile of the sales domain:
COPY INTO @org_profile_stage/profile_sales/manifest.yml
FROM (
  SELECT $$
title: "Sales"
description: "This is the profile of the global sales organization in the
the back office functions for the sales operations. Sales analysts and rel
domain.
\n
We provide various types of sales analytics data, sales forcast data and p
planning to share ML models as a product for teams to perform self-service

\n - Business Domain Owner: James Kirk
\n - Domain Data Steward:  Leonard McCoy
\n - Lead Data Engineer:   Nyota Uhura
\n
 For data product Q&A please join the Slack channel:  #sales-data-products
\n For any other question please contact us at: captain.kirk@snowflake.com
\n
"
contact: "youremail@whatever.com"
approver_contact: "youremail@whatever.com"
allowed_publishers:
  access:
    - all_internal_accounts: "true"
```

Step 6: Setup of a TPC-H sample database

- Download the script `STEP6(HOL_ACCOUNT1)_create_lab_database.sql`
- Login to your primary account `HOL_ACCOUNT1` as the `sales_admin` user and run the downloaded script `STEP6(HOL_ACCOUNT1)_create_lab_database.sql` script in a worksheet

Step 7: Pre-populate the Internal Marketplace with Sample Listings

- Download the script `STEP7a(HOL_ACCOUNT1)_create_sample_listing.sql`
  - Login into `hol_account1` as `marketing_admin` and run the script **STEP7a**.
- Download the script `STEP7b(HOL_ACCOUNT2)_create_sample_listing.sql`
  - Login into `hol_account2` as `supply_chain_admin` and run the script **STEP7b**.

Setup is now complete!

Related Resources

Depending on your current knowledge of Snowflake or interest in specific topics, we recommend reviewing some or all of the following resources in preparation for this lab:

- Lab Source Code on Github
- Organization Accounts
- Organization Profiles
- Organizational Listings
    - Create an organizational listing
    - Manage organizational listings
- Managing Listings via API
- White Paper: How to Knit Your Data Mesh on Snowflake (March 2025)
- Webinar Recording with a demo of the Snowflake Internal Marketplace: How to Build and Govern Your Data Products in Snowflake (April 2025)