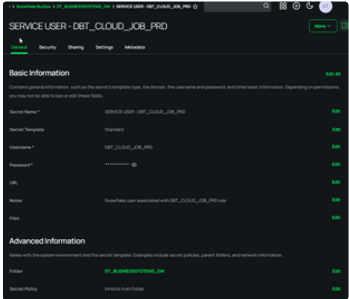

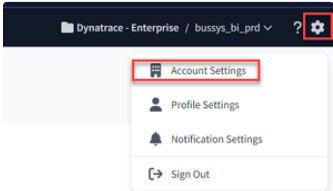
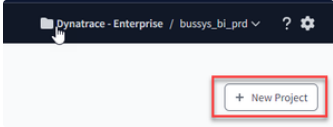
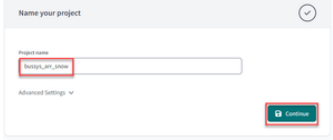


OAuth enables user to log into Snowflake from DBT Cloud using their AD Account instead of a user and password.

Target Audience

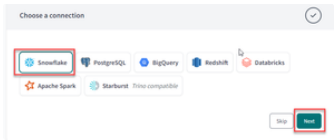
DBT Administrator, Snowflake Administrator.

Scope	Step	Comment	DBT	Others
Service User, Role, Warehouse and Permission	1	<p>In Secret Server, create a secret to store the new DBT service account user and generate the password.</p> <p>The naming convention is:</p> <ul style="list-style-type: none">DBT_CLOUD_JOB_<ENV> i.e DBT_CLOUD_JOB_PROD. <p>⚠️ Ensure that the folder and secret has the proper sharing security (i.e. inheritance)</p>		<div><div>▼ Secret Server - Create DBT Service User</div></div>
	2	<p>In Snowflake, create the role, user and warehouse(s) assigned to DBT.</p> <ul style="list-style-type: none">role: DBT_CLOUD_JOB_<ENV> i.e DBT_CLOUD_JOB_PROD.user: DBT_CLOUD_JOB_<ENV> i.e DBT_CLOUD_JOB_PROD.		<pre>1 begin; 2 use role BUSSYS_OPERATION_ROLE; 3 set dbt_role_name = 'DBT_CLOUD_JOB_PROD'; 4 set dbt_user_name = 'DBT_CLOUD_JOB_PROD'; 5 set dbt_user_password = '<Generated Password>'; 6 set dbt_email_address = 'THIRU.SANKARANARAYANAN@BUSSYS.COM'; 7 set dbt_comment_user = 'user created by BUSSYS'; 8 set dbt_warehouse_name = 'DBT_CLOUD_JOB_PROD'; 9 set dbt_database_name = '<ENV>'; 10 create role if not exists identifier(\$dbt_role_name); 11 grant role identifier(\$dbt_role_name) to user identifier(\$dbt_user_name); 12 create user if not exists identifier(\$dbt_user_name); 13 grant role identifier(\$dbt_role_name) to user identifier(\$dbt_user_name); 14 alter user identifier(\$dbt_user_name) set password=\$dbt_user_password; 15 create warehouse if not exists identifier(\$dbt_warehouse_name); 16 grant usage, operate on warehouse identifier(\$dbt_warehouse_name) to role identifier(\$dbt_role_name); 17 grant create schema, monitor usage on database identifier(\$dbt_database_name) to role identifier(\$dbt_role_name); 18 grant role RAW_<ENV>_ALL to role identifier(\$dbt_role_name);</pre>

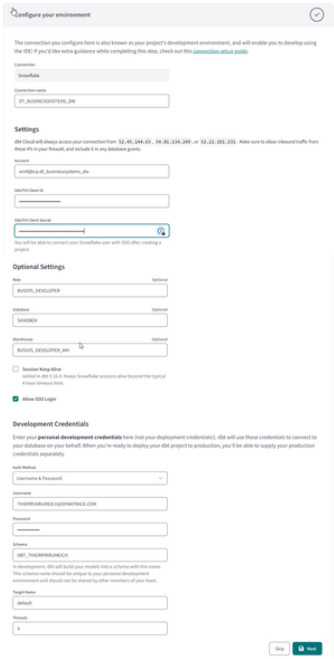
		<ul style="list-style-type: none"> warehouse: DBT_CLOUD_<ENV> _WH i.e. DBT_CLOUD_<ENV> _WH 		<pre> 19 grant role <ENV>_DB_ALL to role <ENV>_DBT; 20 commit; 21 show grants to role identifier(\$ </pre>
SCIM	1	Create the security integration in Snowflake .		<pre> 1 create or replace security integration 2 type = OAUTH 3 enabled = TRUE 4 oauth_client = CUSTOM 5 oauth_client_type = 'CONFIDENTIAL' 6 oauth_redirect_uri = 'https://c 7 oauth_issue_refresh_tokens = TRUE 8 oauth_refresh_token_validity = 3600 </pre>
	2	In Snowflake , retrieve the OAuth Client ID and OAuth Client Secret.		<pre> 1 with integration_secrets as (2 select 3 parse_json(system\$\$show_oauth_clients\$\$) as secrets 4) 5 select 6 secrets:"OAUTH_CLIENT_ID"::string as client_id, 7 secrets:"OAUTH_CLIENT_SECRET"::string as client_secret 8 from 9 integration_secrets; </pre> <div> <div> Snowflake - Retrieve OAuth Client ID and OAuth Client Secret. </div>  </div>
DBT Project Setting	1	<p>In DBT, Create a new project.</p> <p>Naming convention for project name: BUSSYS_<WORKSTREAM>_SNOW i.e. BUSSYS_ARR_SNOW</p> <p>To configure the Environment, specify a connection name (same name as the account name), enter the account name (org_name-account_name), enter the OAUTH info (see SCIM Step 2), enter the role (BUSSYS_DEVELOPER), database (SANDBOX), warehouse (BUSSYS_DEVELOPER_</p>	<div> <div> DBT - Account Setting </div>  </div> <div> <div> DBT - New Project </div>  </div> <div> <div> DBT - Project Name </div>  </div>	

WH), check “Allow SSO Login”, enter your AD credentials, and specify the schema (DBT_<FIRST_NAME><LAST_NAME>).

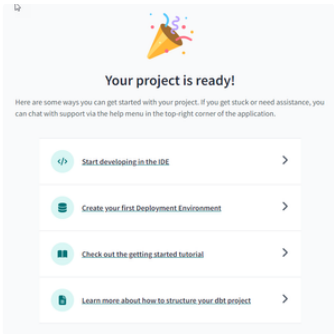
DBT - Snowflake Connection



DBT - Configure Environment

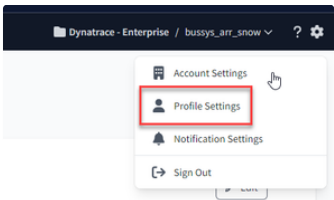


DBT - Project Ready



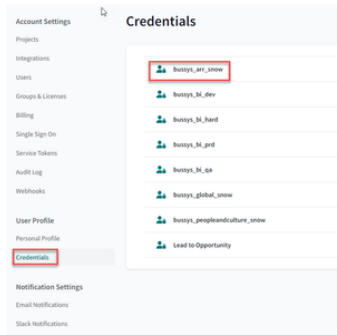
2 In DBT, go to “profile setting”, select the project, edit the connection, select “Snowflake SSO” for Auth Method, ensure the Schema is set to DBT_<FIRST_NAME>

DBT - Profile Setting

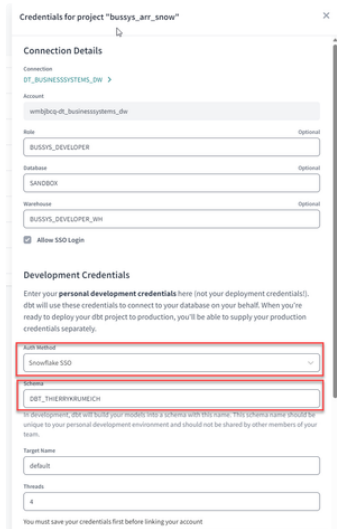


<LAST_NAME>, save the changes.

DBT - Select Project

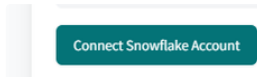


DBT - Auth Method

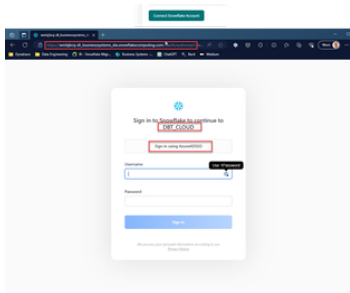


3 In DBT, click “Connect Snowflake Account”. A Snowflake Sign In window opens. Click on “Sign in using AzureADSSO”

DBT - Connect Snowflake Account



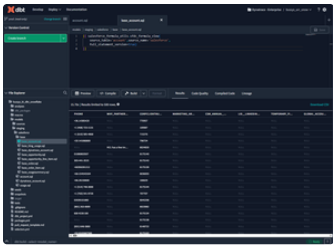
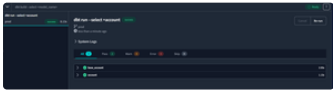
Snowflake - AzureADSSO



4 Test Snowflake Connection - Read Data.

Go to “Develop”, open a model, click preview

DBT - Read data

			
5	<p>Test Snowflake Connection - Materialize Model in Snowflake.</p> <p>Go to “Develop”, in the command line enter: dbt run --select +<model></p> <p>Verify the status is set to SUCCESS</p> <p>Go to Snowflake and verify the tables / views have been created in SANDBOX.DBT_<FIRST_NAME><LAST_NAME>.</p>	<p>▼ DBT - Materialize Model in Personal Schema</p> 	<p>▼ Snowflake - DBT_<FIRST_NAME><LAST_NAME></p> 