



Snowflake Setup Guide

This document outlines the required initial setup steps in Snowflake for the Verify integration.

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OVERVIEW

STEP 1: CUSTOM FIELD CREATION

Custom fields are required to be created in Snowflake for the Verify integration. Please create these fields on the appropriate table(s) or object(s) (i.e., Leads, Contacts, and Accounts). Reference the API Name column in the table below for the list of how to title the fields, the needed data type, and the purpose of the field for context.

API Name	Data Type	Purpose
ExternalContactId	String	This field will be used to house the MAP Contact's internalId, and for merging and lookup purposes in Verify.
ExternalCompanyId	String	This field will be used to house the MAP Company's internalId, and for merging and lookup purposes in Verify.
SyncToVerify	Boolean	This field will be hard-coded by Verify or by a workflow in CRM. It is used to determine which records are eligible to move back to the MAP and for filtering in Verify.

STEP 2: SNOWFLAKE CREDENTIAL CREATION

It is preferred that users are created with an Administrator role to ensure that no permissions errors are encountered during the implementation.

1. Log into Snowflake as an ACCOUNTADMIN
2. **Action Item:** Please note the organization_name, account_name and account_locator that will be generated in this query in a separate document, such as text editor or notepad. You will need these when connecting with Verify in Step 3 below.
 - o Execute query:

```
use role orgadmin;  
show organization accounts;
```
3. **Action Item:** Please note the OAUTH_CLIENT_ID and OAUTH_CLIENT_SECRET that will be generated in this query in your open document. You will also need these when connecting with Verify in Step 3 below.

This will create OAUTH refresh tokens that expire after the maximum of 90 days. This means a Verify user would need to disconnect and reconnect to Snowflake once every 3 months. You can request via Snowflake Support to change the refresh token timeout for your Snowflake environment. For example, to request a timeout of 5 years, request the maximum OAUTH_REFRESH_TOKEN_VALIDITY for a SECURITY INTEGRATION to be increased to 157784630 seconds.

- Execute query:

```
CREATE SECURITY INTEGRATION OAUTH_VERIFY_INTEGRATION
  TYPE = OAUTH
  ENABLED = TRUE
  OAUTH_CLIENT = CUSTOM
  OAUTH_CLIENT_TYPE = 'CONFIDENTIAL'
  OAUTH_REDIRECT_URI = 'https://oauth-connect.verify.com/snowflake'
  OAUTH_ISSUE_REFRESH_TOKENS = TRUE;
Select system$$show_oauth_client_secrets ('OAUTH_VERIFY_INTEGRATION');
```

Caveats:

- Tables must have a primary key defined or they will not be found
- Views support has not yet been added (current as of Aug 2023)
- Primary Keys are not enforced as unique in Snowflake; therefore, it is possible that an UPDATE will update more than one row.
- Snowflake does not support retrieving the values of primary keys for inserted rows; therefore, we only support inserts and updates if the primary key fields are part of the mapping.

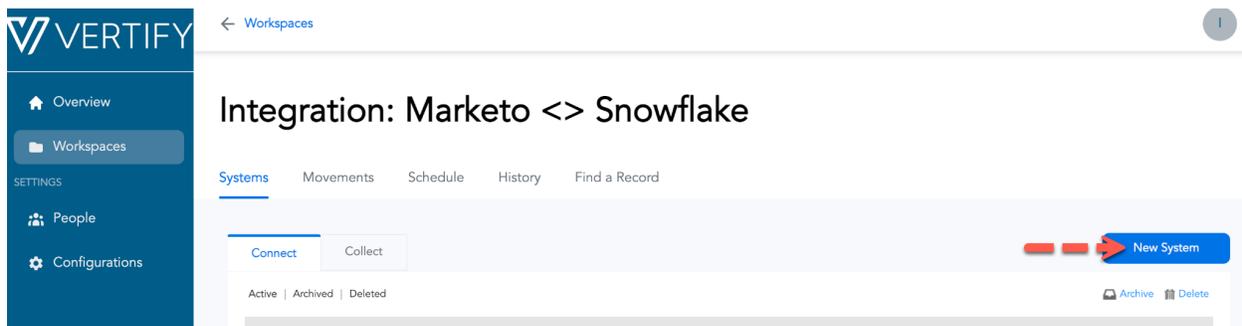
Please note, the following are unsupported Datatypes in Snowflake:

- VARIANT
- GEOMETRY
- GEOGRAPHY

STEP 3: VERIFY SYSTEM SETUP

Refer to the steps outlined below to set up the system in Verify. Alternatively, you're welcome to schedule a working session with your Verify Integration Specialist for assistance.

1. In Verify, navigate to the Connect page
2. Click the New System button -



3. Select Snowflake from the Remote System dropdown

4. Wait for other parameters to auto-populate, and then select the most recent connector version
 - Note: System Name and Prefix must be uniquely named if more than one connection to that System exists in your Workspace
5. Enter the required system credentials from the text document you had open in Step 2 above-
 - Account [Required]
 - Client Id [Required]
 - Client Secret [Required]
 - Database [Required]
 - Locator [Required]
 - Organization [Required]
 - Warehouse [Required]

The screenshot shows the 'Workspaces' configuration page in the Verify application. The interface includes a sidebar with navigation options: Overview, Workspaces, SETTINGS, People, and Configurations. The main content area is titled 'Workspaces' and contains the following fields and options:

- Remote System:** A dropdown menu set to 'Snowflake'.
- System Name:** A text input field containing 'Snowflake'.
- System Prefix:** A text input field containing 'SNW'.
- Connector:** A dropdown menu set to '1.0.1'.
- System Type:** A dropdown menu set to 'BiDirectional'.
- Max Concurrent Tasks:** A text input field containing '1'.
- Share system across workspaces
- Remote System Login Parameters:** A section with several text input fields, all of which are redacted with black bars. The fields are labeled: Account, Client Id, Client Secret, Database, Locator, Organization, and Warehouse.

At the bottom of the form, there is a 'Disconnect From Snowflake' button with a snowflake icon, and 'Cancel' and 'Save' buttons. The footer of the page includes the text '1.0.36.22153 master-860b0a93-built-2023.08.14-15.55.31.CST.UTC-0500' and 'Powered By Verify © 2023 Verify, Inc. | All Rights Reserved.'.

6. Click Connect to Snowflake
7. Press Save
8. System will then scan automatically, and the response will be returned either successful or an error message with the authentication issue. Please reach out to your specialist for additional assistance as needed.