**Runbook for Troubleshooting Missing Warehouses or Data Sync Issues in Slingshot**

**Introduction**

This runbook outlines the process for troubleshooting missing warehouses or data issues in Slingshot. It covers key steps for querying databases, investigating sync tasks, verifying customer configurations, and resolving data flow problems between customer accounts, Snowflake, and DynamoDB.

**Step 1: Query tenant\_account\_info Table**

1. **Check the onboarding and sync status** of the customer account by querying the tenant\_account\_info table.

SELECT \* FROM tenant\_account\_info WHERE account\_locator = '<account\_locator>';

1. **Key Fields to Check:**
   * status: This shows the current state (Discovered, Pending, or Config Complete).
   * is\_primary\_account: Confirms if the account is the primary for the region. The primary account will sync all data for that region.
2. If the account is stuck in Pending or Discovered status, further investigation is required to identify the data flow problem.

**Step 2: Verify Warehouse Data in Snowflake**

1. Query the account\_warehouse\_info table to check for the warehouse entry:

SELECT \* FROM account\_warehouse\_info WHERE warehouse\_name = '<warehouse\_name>';

1. Compare the results with the data reported missing by the customer. If the warehouse exists but does not appear in Slingshot, proceed to investigate sync tasks.

**Step 3: Query DynamoDB for Missing Warehouses**

1. **Compare Snowflake and DynamoDB data** by checking warehouse entries in both systems.
   * **In Snowflake:** Use the account\_warehouse\_info table.
   * **In DynamoDB:** Query the managed\_object\_logical\_table.
2. **Identify Discrepancies:**
   * Use a diff to compare Snowflake and DynamoDB records.
   * Missing warehouses in DynamoDB could indicate sync failure.

**Step 4: Check the Warehouse Event History**

1. Query the warehouse\_event\_history table to ensure that events exist for the warehouse:

SELECT \* FROM warehouse\_event\_history WHERE warehouse\_name = '<warehouse\_name>';

1. **Key Checks:**
   * Ensure there is a non-null value in the credit\_used\_compute column.
   * Events should have timestamps within the past year.

**Step 5: Validate Metadata Collection Events**

1. Query the slingshot\_metadata\_collection\_events table to check if metadata collection events are being sent.

SELECT \* FROM slingshot\_metadata\_collection\_events WHERE account\_locator = '<account\_locator>';

1. **Verify that:**
   * Outbound events are being generated and sent to the customer.
   * The customer has accepted the outbound share.
   * There are no errors in the event status or publication timestamp.

**Step 6: Check Slingshot Logs for Errors**

1. Query the slingshot\_logs table to find any errors related to the customer account.

SELECT \* FROM slingshot\_logs WHERE account\_locator = '<account\_locator>' ORDER BY log\_timestamp DESC;

1. **Look for errors such as:**
   * Missing permissions.
   * Procedure execution failures.
   * Task synchronization errors.

**Step 7: Investigate Task and Stream Issues**

1. **Check Sync Tasks:**  
   Ensure tasks responsible for syncing data are functioning correctly.

SHOW TASKS IN DATABASE slingshot\_config;

1. **Query Streams:**  
   Verify if streams have received warehouse-related events.

SELECT \* FROM streams WHERE stream\_name LIKE '%warehouse%';

1. **Check Task Execution:**  
   Confirm that the tasks have recent execution timestamps.

**Step 8: Investigate Sync Failures**

1. **Check DynamoDB Sync Logs:**  
   Search the sync logs to identify any sync failures.

SELECT \* FROM slingshot\_sync\_logs WHERE account\_locator = '<account\_locator>';

1. **Check Recent Sync Events:**

SELECT \* FROM sync\_events WHERE warehouse\_name = '<warehouse\_name>' ORDER BY sync\_timestamp DESC;

1. **Update the slingshot\_publication\_id:**  
   If data exists in the persistent DB but not in Slingshot, update the slingshot\_publication\_id to trigger a re-sync.

UPDATE warehouse\_event\_history SET slingshot\_publication\_id = CURRENT\_TIMESTAMP WHERE warehouse\_name = '<warehouse\_name>';

Allow 5-10 minutes for the sync to complete and recheck DynamoDB.

**Step 9: Coordinate with the Customer Success Team**

1. If the issue persists after performing all checks, engage the customer success team.
2. Validate with the customer whether:
   * They have accepted the inbound and outbound shares.
   * Full access privileges have been granted to the Slingshot role.
   * The onboarding script has been modified.

**Common Scenarios and Resolutions**

| **Scenario** | **Resolution** |
| --- | --- |
| Warehouse missing in Slingshot | Check if the warehouse has usage history and is synced to DynamoDB. |
| Sync tasks are failing | Investigate task logs and ensure streams are operational. |
| Customer data not flowing | Validate that the customer accepted outbound shares and granted permissions. |
| Metadata events missing | Ensure outbound events are generated and the customer has not modified roles. |

**Data Flow Understanding**

1. **Outbound Events:**  
   Metadata collection events are sent to the customer to request data.
2. **Inbound Data:**  
   Customers share their data through Snowflake inbound shares. This data flows through views, streams, and tasks into the persistent DB.
3. **Sync to DynamoDB:**  
   Data from the persistent DB is synced to DynamoDB. Any issues in this process may result in missing warehouses or data in Slingshot.

**Additional References**

* **Tenant Account Info Table:** Understand the status and setup of customer accounts.
* **Warehouse Sync Logs:** Identify sync errors and failures.
* **Customer Logs:** Review logs to diagnose onboarding or configuration issues.