How to test RLS, Masking Policy and CLS

Prerequisite:

1. Add required users into Role HRDP_SECURITY_REPLICATION for doing SELECT on replication table (cmn_core_sch.dim_param_security_replication) or execute privilege on Procedure (cmn_core_sch.impersonate_sp).
   grant ROLE HRDP_SECURITY_REPLICATION to USER "FARAH.BENALI@LOREAL.COM";
   grant ROLE HRDP_SECURITY_REPLICATION to USER "SEBASTIEN.BOURGUIGNON@LOREAL.COM";
2. Snowflake Links:
   a. DV/QA: Worksheets - Snowflake
   b. NP/PD: Worksheets - Snowflake

FOR PO & PPO |Prerequisite:

1. **Find the username of the user that we want to replicate from :**

In SF : Going to its *Employee File* > *General Information* Tab > *Username*

It should generally have this format : FIRSTNAME.LASTNAME@LOREAL.COM

2. **Depending on the environment on which we want to test access, select the correct Snowflake Link :**

   a. DV/QA: Worksheets - Snowflake
   b. NP/PD: Worksheets - Snowflake

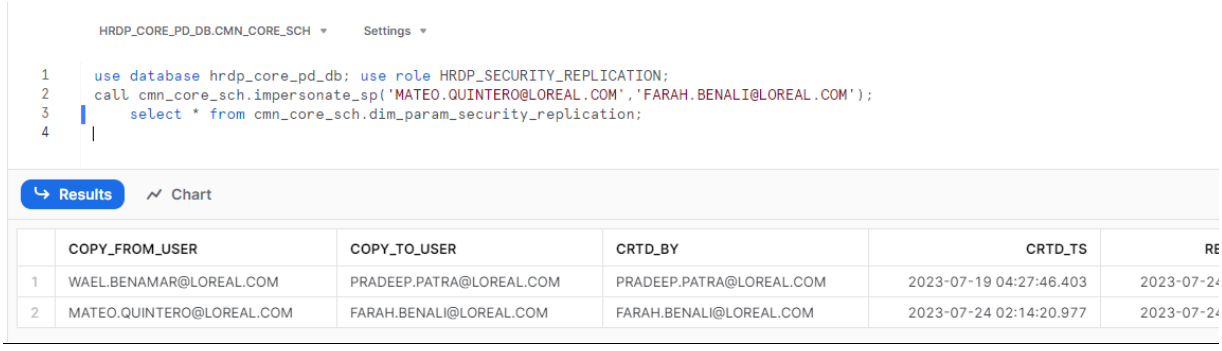
Access Replication Process:

1. **Execute below command to set the database for this:**
   a. DV: use database hrdp_core_dv_db;
   b. QA: use database hrdp_core_qa_db;
   c. NP: use database hrdp_core_np_db;
   d. PD: use database hrdp_core_pd_db;
2. **Execute Procedure to have access replication (impersonate).**
   a. Command: call cmn_core_sch.impersonate_sp(FROM_USER,TO_USER)
   b. FROM_USER: Whose access we want to replicate or impersonate from.
   c. TO_USER: To whom we are giving FROM_USER Access.
   d. Put FROM_USER and TO_USER same when you want to get back to regular access.
3. **Execute SELECT query to validate what is there in replication table.**
   select * from cmn_core_sch.dim_param_security_replication;

NB : to replicate the access in power bi view , keep the role by default in snwoflake : **PUBLIC**

Example from Snowflake

use database hrdp_core_pd_db; use role HRDP_SECURITY_REPLICATION;
call cmn_core_sch.impersonate_sp('MATEO.QUINTERO@LOREAL.COM','FARAH.BENALI@LOREAL.COM')
select * from cmn_core_sch.dim_param_security_replication;



Objects/Code Involved:

1. Table - cmn_core_sch.dim_param_security_replication:
   a. COPY_FROM_USER VARCHAR(16777216): From User UPN whose access you want to copy.
   b. COPY_TO_USER VARCHAR(16777216): To User UPN to whom you want to copy access of From User
   c. CRTD_BY VARCHAR(16777216) DEFAULT CURRENT_USER(): Who is making this entry, defaulted to CURRENT_USER()
   d. CRTD_TS TIMESTAMP_NTZ(9) DEFAULT CURRENT_TIMESTAMP(): When entry is created, defaulted to CURRENT_TIMESTAMP()
   e. REPLICATION_TS TIMESTAMP_NTZ(9): When replication process completed for this user. This will be updated after replication procedure is executed.

2. Procedure - cmn_core_sch.impersonate_sp(FROM_USER, TO_USER):
    a. Step 1: Delete from cmn_core_sch.dim_param_security_replication based on TO_USER if any.
    b. Step 2 (*Work in progress*): Verify FROM_USER is a valid snowflake user and if not show the message as "Impersonate of <FROM_USER> to <TO_USER> is Failed as <FROM_USER> is missing in Snowflake."
    c. Step 3: Insert the entry into cmn_core_sch.dim_param_security_replication table.
    d. Step 4: Call/Execute cmn_core_sch.security_replication_sp() Procedure.
3. Procedure - cmn_core_sch.security_replication_sp():
    a. Step 1: Take list of Users set for replication which is loaded by yourself into dim_param_security_replication and replication process did not run for those yet.
    b. Step 2: Delete from REL_EMPLOYEE_USER entries for To User.
    c. Step 3: Insert From User entries from REL_EMPLOYEE_USER to same table with To User. This will replicate RLS Access.
    d. Step 4: Followed same process like Step 2 (Delete) & Step 3 (Insert) for REL_EMPLOYEE_USER_TAG (For Masking), DIM_POSITION_ACCESS (for Position Management) and REL_CLS_EMPLOYEE_DASHBOARD (for CLS).
    e. Step 5: Update dim_param_security_replication table for replication_ts with Current Timestamp to know when replication process ran successfully.
4. DBT Code - core_cmn_sch/rel_employee_user_tag: We have added this procedure to execute automatically with every run as our regular process will clean up the replication access.