# Row Level Security (RLS) Configuration Guide in Incorta

## Introduction

This document provides a comprehensive guide to configuring Row Level Security (RLS) in Incorta, ensuring data privacy and access control tailored to individual user criteria. It covers two principal approaches to RLS setup, each suited to different scenarios based on the volume of values needing filtration.

# **Configuration Approaches**

## **Option 1: Table and Session Variable Configuration**

### **Table Configuration:**

- Create a table linking user logins (typically via email) to specific filter values. Note: The first column must contain the user login identifier.

- Utilize the provided Excel template or a similar structure for setup.

Incorta Login	Values We Want The User To See
trenton.coomes@hollandparker.com	Ecuador
adam.hendrik@hollandparker.com	Puyo
jake.skrobot@hollandparker.com	Puyo
trenton.coomes@hollandparker.com	Puyo
adam.hendrik@hollandparker.com	Manta
jake.skrobot@hollandparker.com	Libertad
trenton.coomes@hollandparker.com	Libertad



#### **Internal Session Variable:**

- Establish an internal session variable to fetch pertinent values from the user-reference table during user sessions. The variable's naming should reflect your instance's naming conventions for clarity.

#### Formula Example:

```sql
query(
 RLS\_Template.rls\_template.Values\_we\_want\_the\_user\_to\_see

RLS\_Template.rls\_template.Incorta\_Login = \$user

)

| Internal Variable                                                                                                                                            |      |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| Name                                                                                                                                                         |      |
| rls_template Description                                                                                                                                     |      |
| row level security variable that returns the value we want to filter a table on Query                                                                        |      |
| <pre>query( Row_Level_Security_Template.rls_template.Values_we_want_the_user_to_see, Row_Level_Security_Template.rls_template.Incorta_Login = \$user )</pre> |      |
| Test As Current User 🗸                                                                                                                                       | Save |

## **Option 2: Group Creation and Session Variable Setup**

#### **Group Creation:**

- Formulate a group in Incorta named after the filtering value and add relevant users to this group.

- Info Users Roles Q Search users + 3 Items Name 1 Email adam.hendrik@hollandparker.co AH Adam Hendrik m Jake Skrobot jake.skrobot@hollandparker.com trenton.coomes@hollandparker. TC Trenton Coomes com
- $\times$  Edit Group Vision Operations

#### **Internal Session Variables:**

- Two session variables are needed to link to Incorta's metadata and the newly created group, aiming to return the group name for the logged-in user.

```
Formula Examples:

```sql

query(

_IncortaMetadata.GROUP_USER.GROUPID

_IncortaMetadata.USER.LOGINNAME = $user

)

query(

_IncortaMetadata.GROUP.NAME

_IncortaMetadata.GROUP.ID = $rls_group_query

)

```
```

| Internal Variable                                                                             |
|-----------------------------------------------------------------------------------------------|
| Name                                                                                          |
| rls_group_query                                                                               |
| Description                                                                                   |
| 1                                                                                             |
| Query                                                                                         |
| query(_IncortaMetadata.GROUP.NAME, _IncortaMetadata.USER.LOGINNAME = \$user)                  |
| Test As Current User  Cancel Internal Variable                                                |
| Name                                                                                          |
| rls_security_group_names                                                                      |
| Description                                                                                   |
|                                                                                               |
| Query<br>query(_IncortaMetadata.GROUP.NAME,<br>_IncortaMetadata.GROUP.ID = \$rls_group_query) |

# Implementing Table Runtime Security Filters

1. Select the table to be secured with RLS.

2. Apply a 'Runtime Security Filter' that dynamically adjusts data visibility based on user sessions.

3. Configure the filter to reference the user-specific table and employ the internal session variable to filter data.

```
Filter Formula Example:
```sql
or(
    inList(Trenton_Test.holidays_events.locale_name, $rls_template),
    inList($user, $super_admin)
)
```
```

# **Example Illustration**

An example provided demonstrates the application of runtime security filters, showing how data visibility is tailored to the specific user, based on the earlier configuration steps.

| Schema / Trenton_Test / holidays_events<br>holidays_events |                   | _           |                      |                    |                          |        |          |        | Cancel Done + New |     |
|------------------------------------------------------------|-------------------|-------------|----------------------|--------------------|--------------------------|--------|----------|--------|-------------------|-----|
| Columns<br>6                                               | Joins<br>0        | Rows<br>350 | Data Size<br>6.25 KB | Incremental<br>Off | Performance Optimized () |        |          |        |                   |     |
| Columns                                                    | Datas             | ets         |                      | Iters              |                          |        |          |        |                   |     |
| • Runtime Se                                               | ecurity Filters ( | 1)          |                      |                    |                          |        |          |        |                   | -   |
| Table                                                      |                   |             |                      | c                  | olumn                    |        | Operator |        | Value             |     |
| holidays_e                                                 | events.           |             |                      | $\sim$             | locale                   | $\sim$ | in       | $\vee$ | rls_template      | ~ ť |
| Load Filter                                                |                   |             |                      | v                  | locale                   | V      |          | ~      | Tra_template      | ~   |
|                                                            |                   |             |                      |                    |                          |        |          |        |                   |     |
|                                                            |                   |             |                      |                    |                          |        |          |        |                   |     |
|                                                            |                   |             |                      |                    |                          |        |          |        |                   |     |

## **Testing and Considerations**

- \*\*Testing:\*\* Confirm the RLS setup's effectiveness through different user logins to observe the appropriate data filtration.

- \*\*Considerations:\*\* Maintain consistency in naming conventions and periodically update the user-reference table to ensure precise filtering.