HCLSoftware

Unica Open Insights User's Guide

Contents

Chapter 1. Unica Open Insights Overview

Unica Open Insights is an open data model framework that integrates with popular Business Intelligence (BI) tools to help visualize the data and generate reports as per business requirements.

Unica Open Insights gives customers the freedom to choose Unica Insights Reports or continue with their existing BI implementation by offering an open data model framework, which integrates with popular BI tools, and leverages the capability of data visualization and report generation of the respective BI tool.

Currently, **Unica Open Insights** integrates out-of-the-box, with Google Looker.

Although Unica provides out-of-the-box integration of **Unica Open Insights** with Google Looker, you will require a Google Looker License. **Unica Open Insights** only works with the on-premises version of Google Looker. For an overview of Google Looker, see Overview of the Integrated Business Intelligence tool (on page 3).

Using **Unica Open Insights** with Google Looker is optional. You can leverage the open data model framework of **Open Insights** to integrate it with a BI tool that you use.

> 📝 **Note:**
>
> - If you use Unica Open Insights with Google Looker, you can view Dashboards within Unica.
> - If you use Unica Open Insights with other BI tools, you can view the Dashboards in the respective BI tool.
> - In case of other BI tools, to understand the data models, see:
>   - Campaign Explore View in Google Looker *(on page 50)* for Unica Campaign
>   - Deliver Explore View in Google Looker *(on page 68)* for Unica Deliver

Benefits of Unica Open Insights

The benefits of **Unica Open Insights** are as follows:

- **Common Benefits**
  - It is an open data model framework and can work with BI tools like Google Looker, Tableau, Power BI, QlikView, or more.
  - Integrates out-of-the-box with Google Looker (using Google Looker integration requires a Google Looker license and is optional).
  - You can update existing models with zero impact to existing dashboards that were created using existing models.
  - Designed to contain all data needed for insights into the performance of marketing communications.
  - **Google Looker SSO embedding (optional)**: Single sign-on (SSO) embedding presents private embedded Looks, Explores, or Dashboards to your users without requiring a separate Looker login. Users will be authenticated through the application. SSO embedding works by creating a special Looker URL that you will use in an iframe.
  - **Google Looker API (optional)**: Provides public API that are consumed through Unica to access Looker's shared folders and its contents, dynamically.
- **Benefits for Unica Campaign**
  - Supports default audience reports as well as custom audience reports.
  - All audiences contact data and history data are stored in new tables.
  - Provides historical reporting even if you purge Contact History, Detailed Contact History, or Response History data.
- **Benefits for Unica Deliver**
  - Provides reports for Unica marketing channels like Email, SMS, Mobile Push, and WhatsApp.
  - Provides granularity with options like yearly, quarterly, monthly, weekly, daily, to hourly.
  - **Send time optimization**: Provides email recipient analytics. It computes the best hour of the day to contact customers based on previous email interactions. This helps in sending future mailers at an hour when the customer is most likely to view emails and also increase the probability of clicking the link in the email. For more information, see Send Time Optimization *(on page 39)*.

Overview of the Integrated Business Intelligence tool

Google Looker is an enterprise platform for BI, data applications, and embedded analytics with Dashboards that you can use to explore and share insights in real time.

You can use Google Looker to:

- Visualize data
    - Find saved reports and understand Dashboards
    - View Dashboards
    - Send and schedule Dashboards
    - Create a blank Dashboard and add Looks
    - Change Dashboard settings
- Build your own custom model to derive custom reports.
- Export reports.
- Schedule and circulate reports (via email and conditional circulation).
- Public and personalized dashboard.
- Create your own reports or ad-hoc reports by writing your own queries.

Channel Features

The following image provides a glimpse of the analytics available for the various channels (all channels are Unica Deliver-specific):

Channel Features

Channels	Dimensions	Summary	Link	Details	Hour	Day	Week	Month	Quarter	Year
Email	• Mailing Code • Campaign • Mailing Instance • Drill up/downs	✔	✔	✔	✔	✔	✔	✔	✔	✔
Landing Page		✔	✔	✔	✔	✔	✔	✔	✔	✔
Mobile Push		✔	!	✔	✔	✔	✔	✔	✔	✔
SMS		✔	✔	✔	✔	✔	✔	✔	✔	✔
WhatsApp		✔	!	✔	✔	✔	✔	✔	✔	✔
Across all	• Campaign	✔	✗	✗	✗	✗	✗	✗	✗	✗

✔ In for 12.1.1 release   ! For future release   ✗ Not available

Measures: Sent, Failed, Delivered, Total/Unique Open, Clicks, Responses, Total/Unique Click rate, Email A/B tests results.

Details: Email ID, Masked Email ID, Mobile Number and Masked Mobile Numbers, A/B test names.

Chapter 2. Install or Upgrade Unica Open Insights

If you are a new user, you must install Unica Open Insights. If you are an existing user, you must upgrade Unica Open Insights.

If you want to install Unica Open Insights, navigate to Installing Unica Open Insights (on page 5) and its sub-topics.

If you want to upgrade Unica Open Insights, navigate to Upgrading Unica Open Insights (on page 23).

Installing Unica Open Insights

Unica Open Insights installs as a part of the Unica installer. The Unica installer copies the data model files and folders within the respective folders. For more information, see Data Model files and their Location after installing Unica (on page 42).

Configure your Git repository to maintain Google Looker Unica Projects. For more information, see https://docs.looker.com/data-modeling/learning-lookml/importing-projects.

1. Confirm that your system and setup meets the required hardware and software requirements. For more information, see Recommended Hardware and Software Requirements (on page 6).

   > **Note:** Unica did not do a performance testing in release 12.1.3. For information related to sizing, see https://docs.looker.com/setup-and-management/on-prem-install.

2. Complete the following procedures to install Google Looker:
   a. Preinstallation Configurations (on page 8).
   b. Google Looker Installation (on page 9).
3. Complete the following procedures to configure Google Looker:

a. Configurations before accessing Google Looker *(on page 12)*.

b. Validate and Publish the Google Looker Model *(on page 13)*.

c. Creating Data Source for Google Looker *(on page 14)*.

4. If required, perform the following procedure:

a. Updating a Model *(on page 21)*.

Recommended Hardware and Software Requirements

The recommended hardware and software requirements for Unica Open Insights are as follows:

Hardware Requirements

For information related to memory and storage requirements, see Google Looker documentation.

Table 1. Software Requirements

Software	Value
Operating System	Unix-based operating systems Microsoft Windows 📝 **Note:** Google Looker works only on Unix-based systems. You can configure Microsoft Windows to run Ubuntu. For more information, see Preinstallation Configurations *(on page 8)*.
Databases	📝 **Note:** For compatible database versions, see Recommended Software Environments and Minimum System Requirements guide

Table 1. Software Requirements (continued)

Software	Value
	Microsoft SQL Server IBM DB2 📝 **Note:** Before applying Unica Deliver reports, set the value of `db2set DB2_COMPATIBILITY_VECTOR` to `ORA`. Oracle 📝 **Note:** For more information on Google Looker Oracle Connection, see Google Looker Oracle Connection *(on page 17)*.
Unica Software	Unica Campaign Unica Deliver

Google Looker Requirements

📝 **Note:**

- Although Unica Open Insights integrates out-of-the-box with Google Looker, you must purchase a license to use Google Looker.
- Google Looker is available as a customer-hosted (on premises) instance or a cloud-hosted instance. Currently, Unica Open Insights integrates only with the customer-hosted (on premises) instance.

Installing Google Looker

Although Unica Open Insights provides out-of-the-box integration with Google Looker, the Google Looker installation is not part of the Unica installation. You must install Google Looker separately.

Preinstallation Configurations

Complete the following steps before you install Google Looker:

1. The following steps are applicable only if you have Microsoft Windows operating system. You can skip the following steps if you have a Linux-based operating system.

   a. On your Microsoft Windows system (version 10), type `develop` in the search bar. A result for **Developer settings** appears.

   b. Select **Developer settings** or select **Open**.
      The **For developers** section in the **Settings** dialog opens.

   c. Select **Developer mode**.
      Microsoft Windows searches and installs the developer package.

   d. Restart your computer.

   e. In the search bar, type `PowerShell`.
      You will see a result for **Windows PowerShell**.

   f. Right-click **Windows PowerShell** and select **Run as administrator**.
      The **Windows PowerShell** environment appears.

   g. To enable the Windows Linux Subsystem, run the following command in the PowerShell:

   ```
   C:\>Enable-WindowsOptionalFeature -Online -FeatureName
    Microsoft-Windows-Subsystem-Linux
   ```

   h. When the system prompts you, select the option to restart the computer.

      i. After the restart, visit the Microsoft Store and download Ubuntu.

      j. After the download is complete, click the **Launch** button to start Ubuntu. You can also use the Windows search to access Ubuntu.

      k. Set appropriate credentials for the Unix account.

      Your Windows system is ready to run Linux directly from the command prompt.

2. To test Linux commands, open the command prompt and execute the following command:

```
C:\>bash
```

The Linux prompt appears. Now run the following house cleaning command (you have to provide the credentials that you set in Step 1-k:

```
$ sudo apt-get update
```

> **Note:** The Unix command is an Ubuntu-specific command. The command may vary for other Unix-based operating systems.

Google Looker Installation

You can access Google Looker documentation for installation. We have provided some steps which are based on the procedures mentioned in the Google Looker documentation.

If your Operating System is Microsoft Windows, ensure that you have completed the Preinstallation Configurations *(on page 8)*. To execute the commands mentioned in the following procedure, open the command prompt and perform *Step 2* mentioned in Preinstallation Configurations *(on page 8)* to run Unix commands.

To install Google Looker, see Google Looker documentation. You can also visit the following page: https://docs.looker.com/setup-and-management/on-prem-install.

> **Note:** The Unix commands, mentioned in the following procedure, are Ubuntu-specific commands. The commands may vary for other Unix-based operating systems.

1. Run the following commands:
   a. `sudo apt install openjdk-8-jre-headless`
   b. `sudo apt install openjdk-8-jdk-headless`
   c. `sudo apt-get install -y libssl-dev`
2. Run the command `sudo vi /etc/sysctl.conf`.

   Append the following lines in the file and save the file.

   ```
   net.ipv4.tcp_keepalive_time=200

   net.ipv4.tcp_keepalive_intvl=200

   net.ipv4.tcp_keepalive_probes=5
   ```

3. Run the command /etc/sysctl.conf and check the contents of the file.
4. Verify if the swap file exists. If it exists, move to *Step 5*. If it does not exist, run the following commands:
   a. `ulimit`
   b. `ulimit -a`
5. Run the following commands:
   a. `cd /tmp`
   b. `sudo mount -o remount,exec /tmp`
   c. `sudo apt-get install netcat`
   d. `sudo apt-get install ntp`
   e. `sudo ntpq -p`
6. Exit the command prompt.
7. You must now create a new registry. To create a new registry, type `regedit` in the search bar.

   You will see **Registry Editor**. Select **Open**.
8. Copy and paste the following path in the address bar and press ENTER:

```
Computer\HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\W32Time\
Parameters
```

9. Right-click on the right panel and select **New > DWORD (32-bit) Value**

10. Provide an appropriate **Value name** and **Value data** and click **OK**.

11. Restart the system.

12. Open the Unix command prompt.

13. Create a folder named `looker` in the Looker home directory.

14. Copy the following `JAR` files and the `looker` file to the `looker` folder:

    - `looker-dependencies.jar`
    - `looker.jar`

15. Start Looker by running the following command:

```
./looker start
```

16. Access Google Looker command with following URL: `https://hostname:9999`.

17. If you are logging in for the first time, provide the license key and credentials. For more information, see Google Looker documentation.

18. In the Google Looker home page, select **Browse > Shared folders**

    Your organization's folders page appears.

19. Click **New** and select **Folder**.

    The **Create folder** dialog opens.

20. Type the name `Unica` and click **Create folder**.

    A folder named `Unica` appears.

21. Select the folder `Unica` to open it.

22. Perform *Step 19* through *Step 20* to create the other required folders. For more information, see New Folders required during Google Looker installation *(on page 42)*.

23. Stop and restart Looker.

24. 　　**Note:** This step is optional and must be performed only if you have not configured Unica Insights Reports for the concerned Unica product.

In case of Deliver, navigate to the Insights Reports SQL location (`CAMPAIGN_HOME/reports/Deliver-ddl/<Database-Name>/`) and run the following SQL files:

- `acer_tables_sqlserver.sql`
- `acer_indexes_sqlserver.sql`
- `acer_scripts_sqlserver.sql`

In the path `CAMPAIGN_HOME/reports/Deliver-ddl/<Database-Name>/`, the <Database-Name> refers to `Oracle`, `DB2`, or `SQLServer` and it is dependent on the database that you are using.

25. Navigate to the concerned *<Open Insights SQLs>* location and run the concerned SQL files in the Campaign database
For more details on *<Open Insights SQLs>*, see Unica Products and Open Insights SQLs *(on page 44)*.

26. If you want to drop Open Insights objects, run the concerned SQL file.For more details , see Unica Products and Open Insights SQLs *(on page 44)*.

    📝 **Note:** In case of DB2, before running the script, update the concerned SQL file with *<schema-name>*. Replace *<schema-name>* with the appropriate name of the schema before you run the script.

27. If you have not configured Insights Reports, configure a set of jobs in the database. For more information, see Configuring Database Jobs and Custom Audience *(on page 45)*.

Configuring Google Looker

Before accessing Open Insights using Google Looker, you must make some configurations on Google Looker.

Configurations before accessing Google Looker

Complete the following steps before accessing Looker:

1. If Google Looker is running, stop it. To stop Google Looker, execute the following commands:

```
cd ~/looker

./looker stop
```

2. Start Google Looker. Run the following commands:

```
cd ~/looker

./looker start
```

3. Access the Looker URL with administrator privileges.
   An example URL is `https://localhost:9999`.

Validate and Publish the Google Looker Model

To validate the deployment of the project, complete the following steps:

1. Open Google Looker.
2. Navigate to **Develop > Manage LookML Projects**.
   The **LookML Projects** page appears.
3. Verify if the project entry exists in the **Project** column. If the entry exists, it confirms the successful deployment of the project. Also, when you access the menu **Develop**, you will see the project entries in the menu items.
4. Click the **Configure** button, succeeding the required **Project** from the list. For more information about projects, see Data Model files and their Location after installing Unica *(on page 42)*.
5. For the **Allowed Connections** field, and **Only these connections** option, select the required datasources as per the Unica product. For more information, see Unica Products and their Datasources *(on page 43)*.

6. Configure your Git repository to maintain Google Looker Unica Projects. For more information, see https://docs.looker.com/data-modeling/learning-lookml/importing-projects.

> ⚠️ **CAUTION:** You may use Google Looker's `bare_model` repository to publish models, but it may not have all functionalities of repository management.

Creating Data Source for Google Looker

Perform the following configurations upon accessing Google Looker:

1. Navigate to **Admin > Connections**.
2. In the **Connection Settings** page, provide the following values:

Name	Enter the datasource name. For details related to the datasource name, see Unica Products and their Data-sources *(on page 43)*.
	For more information on connecting to the database, see https://docs.looker.com/setup-and-management/connecting-to-db.
	In case of Oracle database, see https://docs.looker.com/setup-and-management/database-config/oracle. Also, see Google Looker Oracle Connection (on page 17) for a quick reference.
Dialect	Select: • `Microsoft SQL Server 2012+` for Microsoft SQL Server. • `Oracle` for Oracle. • `IBM DB2` for IBM DB2.

> **Note:** For more information on Google Looker
> Oracle Connection, see Google Looker Oracle
> Connection *(on page 17)*.

3. Navigate to **Browse > All Folders**.

4. Access **Shared Folders**.

5. **Note:** Perform this step only if you have not created the folders. If the folders exist, skip this step.

   Create a folder name `<Product_Name>`. For more information, see New Folders required during Google Looker installation *(on page 42)*.

6. Select the **Develop** menu and toggle **Development Mode** to **On**.

Configuring Google Looker in Unica

You must configure Google Looker in Unica Platform to enable synchronization of data from Unica to Google Looker.

Ensure that:

- Google Looker is up and running.
- Within Google Looker shared folder, Unica folder and Unica-product sub-folders should exist. For more information on folders, see New Folders required during Google Looker installation *(on page 42)*.
- Looker dashboards must be available within the product-specific folder or its sub-folder.
- Model name of dashboards must be the same as the parent folder name.

To configure Google Looker in Unica. complete the following steps;

1. Log in to Unica Platform.

2. Access **Settings > Configuration**.
   The **Configuration** page appears.

3. In the Configuration categories panel, expand **Report > Integrations > Google Looker**.

4. Set the following properties:

Enabled

To enable Google Looker integration, set it to `TRUE`.

Google Looker URL

The Google Looker URL containing the host name and port number. For example, `https://localhost:9999`

Google Looker API port

As per Google Looker documentation, set the value to `19999`.

Google Looker secret holder

User name having the required data sources created. Default is `asm_admin`.

Google Looker embed secret datasource

Data source name to hold Looker embed secret. Default name is `EMBED_SECRET_DS`. Create data source with this name for user specified in **Google Looker secret holder** property.

Google Looker client secret datasource

Data source name containing Google Looker's client ID and client secret. Default name is `CLIENT_SECRET_DS`. Create a datasource with this name for the user specified in **Google Looker secret holder** property.

Generating client ID and client Secret in Looker

Navigate to the Users page in the Admin section of Google Looker. Select a user with Admin role. Click **New API3 Key**. Google Looker will generate a new Client ID and Client Secret.

Update client ID and client Secret to datasource

After generating the client ID and client secret, update them against datasource specified in **Google Looker client secret data source**

property. Add client ID as the datasource login ID and client secret as datasource password.

Generating embed Secret in Looker

Navigate to the Embed page in the Admin section of Google Looker. Click **Reset** to generate your embed secret. Ensure that you copy the secret to a secure location because you will not be able to retrieve it from Looker again without resetting Google Looker. Resetting the key will break any embeds that uses the old key.

Update embed Secret to datasource

Add embed secret against data source specified in **Google Looker embed secret data source** property. Add `embedSecret` as datasource login ID and the generated embed secret as the corresponding datasource password.

Required roles

Open Insights menu within the Analytics menu is visible only if the logged-in user has `ReportsSystem` or `ReportsUser` role assigned.

This activates the **Open Insights** menu item within the **Analytics** menu in Unica Platform. You can access Open Insights within Unica.

Google Looker Oracle Connection

Connect to Oracle database as `System` or `sys` user as `sysdba`. For the following instructions, let us assume that the Campaign Schema name is `CAMPAIGN_1211`.

```
GRANT CREATE SESSION TO CAMPAIGN_1211;
```

To ensure `CAMPAIGN_1211` can see all tables

```
EXEC DBMS_STATS.GATHER_DATABASE_STATS;
```

Setting up main database objects

```
CREATE OR REPLACE VIEW LOOKER_SQL

AS

SELECT

sql.SQL_ID,

sql.SQL_TEXT

FROM

V$SQL sql,

v$session sess

WHERE

sess.SQL_ADDRESS = sql.ADDRESS AND

sess.username='CAMPAIGN_1211';


CREATE OR REPLACE SYNONYM CAMPAIGN_1211.LOOKER_SQL FOR LOOKER_SQL;


GRANT SELECT ON CAMPAIGN_1211.LOOKER_SQL TO CAMPAIGN_1211;


-- Pay special attention to the comments below:

-- the following view will be different for clustered Oracle deployments


CREATE OR REPLACE VIEW LOOKER_SESSION

AS

SELECT

SID,

USERNAME,

TYPE,

STATUS,

SQL_ID,

-- If using a single node Oracle deployment

"SERIAL#",

-- If using a clustered Oracle deployment, like Oracle Real Application

 Clusters
```

```
-- (SERIAL# || ',' || INST_ID) AS "SERIAL#",

AUDSID

-- If using a single node Oracle deployment

FROM V$SESSION

-- If using a clustered Oracle deployment, like Oracle Real Application
 Clusters

-- FROM GV$SESSION

WHERE

USERNAME='CAMPAIGN_1211';


CREATE OR REPLACE SYNONYM CAMPAIGN_1211.LOOKER_SESSION FOR LOOKER_SESSION;


GRANT SELECT ON CAMPAIGN_1211.LOOKER_SESSION TO CAMPAIGN_1211;
```

Setting up symmetric aggregates

```
CREATE OR REPLACE FUNCTION CAMPAIGN_1211_HASH(bytes raw, prec number)
  RETURN raw AS
  BEGIN
    return(dbms_crypto.HASH(bytes, prec));
  END;
/


CREATE OR REPLACE SYNONYM CAMPAIGN_1211.CAMPAIGN_1211_HASH FOR
 CAMPAIGN_1211_HASH;


GRANT EXECUTE ON CAMPAIGN_1211.CAMPAIGN_1211_HASH TO CAMPAIGN_1211;


GRANT EXECUTE ON SYS.CAMPAIGN_1211_HASH TO CAMPAIGN_1211;
```

Setting up persistent derived tables

```
GRANT UNLIMITED TABLESPACE TO CAMPAIGN_1211;

GRANT CREATE TABLE TO CAMPAIGN_1211;
```

Setting up query killing

```
CREATE OR REPLACE PROCEDURE LOOKER_KILL_QUERY(p_sid in varchar2,

                                              p_serial# in varchar2)

IS

  cursor_name pls_integer default dbms_sql.open_cursor;

  ignore pls_integer;


BEGIN

  SELECT

    COUNT(*) INTO ignore

  -- If using a single node Oracle deployment

  FROM V$SESSION

  -- If using a clustered Oracle deployment, like Oracle Real Application
 Clusters

  -- FROM GV$SESSION

  WHERE

    username = USER

    AND sid = p_sid

    -- If using a single node Oracle deployment

    AND serial# = p_serial#;

    -- If using a clustered Oracle deployment, like Oracle Real Application
 Clusters

    -- AND (SERIAL# || ',' || INST_ID) = p_serial#;


IF (ignore = 1)

  THEN

    dbms_sql.parse(cursor_name,
```

```
                'ALTER SYSTEM KILL SESSION '''

                || p_sid || ',' || p_serial# || '''',

                dbms_sql.native);

    ignore := dbms_sql.execute(cursor_name);

  ELSE

    raise_application_error(-20001,

                        'You do not own session ''' ||

                        p_sid || ',' || p_serial# ||

                        '''');

  END IF;

END;

/


CREATE OR REPLACE SYNONYM CAMPAIGN_1211.LOOKER_KILL_QUERY FOR

 SYS.LOOKER_KILL_QUERY;

GRANT EXECUTE ON SYS.LOOKER_KILL_QUERY TO CAMPAIGN_1211;
```

Updating a Model

With Unica Open Insights, you receive a data model that you can integrate with Google Looker to visualize the data. If you have received an updated model, from Unica support or as part of a Hotfix, you can update the data model in the existing release without waiting for a Unica Open Insights upgrade.

We recommend you configure your own Git repository to maintain the models. Optionally, you can choose to use Looker provided `bare_model` repository.

Note: If you use the `bare_model` repository, delete the existing model and replace the new model.

To update a model, complete the following steps:

1. Delete all the files from the following location:

   `/home/looker/looker/<model-name>/<project-name>/`

   where:

   - *<model-name>* is the name of the folder containing the model. For example,

     `<models-user-1>`

   - *<project-name>* is the name of the looker project as mentioned in Data Model files and their Location after installing Unica *(on page 42)*.

2. Copy the latest project files and folders from the install directory and paste them to the following location:

   `/home/looker/looker/<model-name>/<project-name>/`

   where:

   - *<model-name>* is the name of the folder containing the model. For example,

     `<models-user-1>`

   - *<project-name>* is the name of the looker project as mentioned in Data Model files and their Location after installing Unica *(on page 42)*.

3. Restart Google Looker.

4. Log in to Google Looker.

5. Access the **Develop** menu and toggle the **Development Mode** menu item to **On**.

6. Publish the latest model to Git.

7. Validate the deployment by checking the reports.

Importing an out-of-the-box Dashboard

To import an out-of-the-box Dashboard, complete the following steps:

1. Log in to Google Looker using `administrator` privileges.

2. Within the `Shared` folder, create a sub-folder named `Unica`.

3. Within the `Unica` folder, create a sub-folder named `Deliver` or `Campaign`.

4. Navigate to **All Folders > LookML Dashboards**.

5. Select the three dots, succeeding **Deliver Email Dashboard** or **Campaign Dashboard**, and select **Import**.

6. Import the dashboard to `Shared\Unica\Deliver` or `Shared\Unica\Campaign` folder.

Upgrading Unica Open Insights

If you are upgrading Unica Open Insights from an earlier version, complete the following steps:

You must perform the following steps for every version upgrade of Unica.

1. Upgrade to the latest version of Unica.
2. In case of Unica Deliver, replace the looker model from the installation directory. To replace the looker model from the installation directory:
    a. Copy the new model from the location mentioned in Data Model files and their Location after installing Unica *(on page 42)*.
    b. Check it into your Git repository containing the Google Looker Unica Projects. For more information, see https://docs.looker.com/data-modeling/learning-lookml/importing-projects.
    c. Publish the new model.

Chapter 3. Google Looker User Interface Layout

This chapter, and the topics in this chapter, are specific to the integrated Google Looker application. Google Looker has a simple and intuitive user interface. The Explore menu contains the various exploration views of Unica Open Insights.

Menus

Menu Name	Menu Items
Browse	You can view folders and applications tools and create boards. For more information, see The Browse Menu *(on page 25)*.
Explore	Customize reports for: • Campaign • Campaign Responders • Deliver All Channels • Deliver Email • Deliver Landing Page • Deliver Mobile • Deliver SMS • Deliver WhatsApp • Platform For more information, see The Explore Menu (on page 25).
Develop	For more information, see Google Looker documentation
Admin	For more information, see Google Looker documentation

The Browse Menu

The Browse menu, in Google Looker, contains the following menu items:

Table 2. Menu Items of the Browse Menu

Menu Item	Description
Shared folders	Folders contain Dashboards and Looks for specific groups of people. You can copy, move, or save Dashboards and Looks to a folder.
Recently viewed	Lists the Dashboards and Looks you recently viewed.
Favorites	Lists the Dashboards and Looks that you have marked as favorites.
Popular	Lists the Dashboards and Looks that users view most frequently.
Boards	View all boards created or add a new board.
Applications & Tools	Applications installed by the administrator to help you get more out of your data
User's folder	Your personal folder where you can save Dashboards and Looks.
All folders	Access your content from where it is saved within the folder system.

For more information, see https://docs.looker.com/sharing-and-publishing/presenting-content

The Explore Menu

Use the Explore menu, in Google Looker, to access the various options in of the Explore View in Unica Open Insights.

Table 3. Menu Items of Explore Menu

Explore View	Description
Campaign	
1.Campaign Summary	Provides an analysis of Campaigns and Financial performances.
2.Campaign Response Trend	Provides an analysis of response trends for all Campaigns.
3.Campaign Response Breakout	Provides an analysis of response types for all Campaigns.
Campaign Responders	
1.Campaign Responders	Provides an analysis of responders for all Campaigns.
2.Offer Responders	Provides an analysis of responders for all Offers.
3.Campaign and Offer Responders	Provides an analysis of responders for all Campaigns and Offers.
4.Daily Responders	Provides an analysis of daily responders.
Deliver All Channels	
Channels Comparison	Provides a comparison analysis of all the campaign channels for contacts and response measures.
Deliver Email	
1.Email Campaign Summary	Provides an analysis of all Email campaigns for contacts and response measures.
2.Email Campaign Summary by day	Provides a day-based analysis of all Email campaigns for response measures.

Table 3. Menu Items of Explore Menu (continued)

Explore View	Description
3.Email Campaign Response Analysis by Hour	Provides an hourly overview of the responses received for the Email campaign from the contacts.
4.Email Campaign Recipient Details	Provides an overview of contact details and response measures for all the Email campaigns.
5.Email Campaign Unsubscribe Summary	Provides an overview of contact details that unsubscribed from Email campaigns.
6.Email Campaign Link Summary	Provides an overview of the Email campaign links viewed or clicked by the contacts.
7.Email Campaign Link Summary by Day	Provides a day-based overview of the Email campaign links viewed or clicked by the contacts.
8.Email A/B test Campaign Overview	Provides an overview of the Email Campaign A/B test results for all variations.
Deliver Landing Page	
1.Landing Page Summary	Provides an analysis of all Landing Pages for response measures.
2.Landing Page Summary by Day	Provides a day-based analysis of all Landing Pages for response measures.
3.Landing Page Link Overview	Provides an overview of the Landing Page links viewed or clicked by the contacts.
4.Landing Page Link Summary by Day	Provides a day-based overview of the Landing Page links viewed or clicked by the contacts.
Deliver Mobile	
1.Mobile Push Summary by Hour	Provides an hour-based analysis of all Mobile Push campaigns for contacts and response measures.

Table 3. Menu Items of Explore Menu (continued)

Explore View	Description
2.Mobile Push Recipients Summary	Provides an overview of contact details and response measures for all the Mobile Push campaigns.
Deliver SMS	
1.SMS Campaign Summary	Provides an analysis of all SMS campaigns for contacts and response measures.
2.SMS Campaign Summary by Hour	Provides an hour-based analysis of all SMS campaigns for response measures.
3.SMS Campaign Link Summary by Hour	Provides an hour-based overview of the SMS campaign links viewed or clicked by the contacts.
4.SMS Recipients Summary	Provides an overview of contact details and response measures for all the SMS campaigns.
Deliver WhatsApp	
1.WhatsApp Campaign Summary	Provides an analysis of all WhatsApp campaigns for contacts and response measures.
2.WhatsApp Campaign Summary by Hour	Provides an hour-based analysis of all WhatsApp campaigns for response measures.
3.WhatsApp Recipients Summary	Provides an overview of contact details and response measures for all the WhatsApp campaigns.
Platform	
Platform Users	Lists all the users of Platform

Saving a Dashboard

The procedure to run a report and to save the report to a dashboard is the same for all options of the Explore View.

We will now see a procedure based example of running a report for the for the option **Email Campaign Summary by Day**.

To run a report for **Email Campaign Summary by Day** and to save it to a Dashboard, complete the following steps:

1. Open the URL `https://localhost:9999/login`.
   The Google Looker login page appears.
2. Provide your credentials to log in.
   The Google Looker default page appears.
3. Select **Explore > Email Campaign Summary by Day**.
   The **Email Campaign Summary by Day** explore page appears.
4. From the left panel, select the required **Measures** and **Dimensions**. For details about the measures and dimensions applicable for the **Email Campaign Summary by Day** view, see Deliver Dimensions and Measures in Google Looker for the Email Channel - Part 1 *(on page 81)*.
5. Click **Run**.
6. Expand the Visualizations panel and select the required graphical view from the available options.
7. To save the report to a Dashboard, select the **Settings** icon, beside the **Run** button, and select **Save to Dashboard**.
   The **Add to Dashboard** dialog appears.
8. From the left panel, select the desired folder and click **New Dashboard**.
   A pop-up appears.
9. Provide an appropriate name for the dashboard and click **OK**.
10. In the **Add to Dashboard** dialog, provide an appropriate **Title**.
11. Click **Save to Dashboard**.

This saves the **Email Campaign Summary by Day** report to the newly created dashboard. You can perform the same steps for any exploration view.

Chapter 4. Open Insights for Campaign

From version 12.1.2, Unica Open Insights supports Unica Campaign.

Unica Open Insights supports custom audiences and from version 12.1.3 Open Insights it supports Campaign, Offer, or Cell custom attributes.

Creating User Attributes in Google Looker

Complete the following steps to add user attributes for Platform schema name in Google Looker administration:

1. Navigate to **Admin > Users > User Attributes**
2. Click **Create User Attribute**.
3. Provide the following values:
   - **Name**: `platform_schema`
   - **Label**: `Platform Schema`
   - **Date Type**: `string`
   - **Set Default Value**: `<Platform Schema Name>`

   📝 **Note:** Ensure that Campaign schema can access Platform tables using Platform schema name. For SQLServer, add `dbo` along with the database name.

   Verify if you can run the following query from Campaign database:

   ```
   SQLServer: Select * from PlatformUser.dbo.USM_USER;

   Oracle: Select * from PlatformUser.USM_USER;
   ```

Campaign Database Object Details

Campaign and Platform has a list of database objects that define the Campaign data model. Please refer the following table for the database object names and their description:

Table 4. Campaign Database Object Details

Database Object Name	Description
Platform Database Object	
`USM_USER`	Lists the Unica users who have created Campaigns.
Campaign Database Objects	
`UARC_CAMPAIGN`	Lists all the Campaigns and the fields related to the Campaigns.
`UARC_OFFER`	Lists all the Offers and the fields related to the Offers.
`UARC_CELL`	Lists all the Segments and the fields related to the Segments.
`UARC_CAMPAIGN_SUMMARY`	Lists the Contact and Response History of all Campaigns along with the following measurements: • Cost • Revenue • Return on Investments (ROI)
`UARC_CONTACTS_ALL`	Lists the Contact History data of all the Campaigns.
`UARC_RESPONSES`	Lists the Response History data of all the Campaigns.
`UARC_CAMPAIGN_RESPONDERS`	Lists the Responders of all Campaigns.
`UARC_OFFER_RESPONDERS`	Lists the Responders of all Offers.
`UARC_CAMPOFFER_RESPONDERS`	Lists the Responders of all Campaigns and Offers.
`UARC_DAILY_RESPONDERS`	Lists the Daily Responders across all Campaigns.

Note: For more information on Campaign database objects related to Google Looker, see Campaign Explore View in Google Looker *(on page 50)*.

Chapter 5. Support for Campaign Custom Attributes

From version 12.1.3, Unica Open Insights supports Unica Campaign custom attributes. It can be Campaign, Offer, or Cell attributes. If you are already using these attributes, you must configure the attributes for reporting.

Creating Database Procedures

To create database procedures for Campaign custom attributes, complete the following steps:

1. Navigate to the Campaign installation directory: `Campaign_Home\reports\ddl\<DB Type>\Custom Attributes\`.
2. In the Campaign system database, execute the following commands:
   - `acr_open_insights_tables_custattrib.sql`

   - `acr_open_insights_scripts_custattrib.sql`

Creating Database-specific Jobs

To create database-sepcific jobs for Campaign custom attributes, complete the following steps:

1. For Campaign custom attributes, execute the following command:

   ```
   exec sp_camp_customattrib
   ```

2. For Offer custom attributes, execute the following command:

   ```
   exec sp_offer_customattrib
   ```

3. For Cell custom attributes, execute the following command:

   ```
   exec sp_cell_customattrib
   ```

To configure database jobs, see the **For Unica Deliver only: How to schedule and run stored procedures** topic in the *Unica Insights Reports Installation and Configuration Guide.*

Including Custom Attributes in the Model

The procedure of including custom attributes in the model is dependent on the Business Intelligence tool that you are using.

If you are using Google Looker, complete the following steps to include custom attributes in the model:

1. Log in to Google Looker.
2. Turn the Development mode On.
3. Navigate to **Develop > unica_campaign_project**.
4. Open **Campaign_Views** and navigate to the corresponding file view of the following custom attributes:
     • For Campaign attributes: `uarc_camp_cust_attrib.view`
     • For Offer attributes: `uarc_offer_cust_attrib.view`
     • For Cell attributes: `uarc_cell_cust_attrib.view`
5. Capture the custom attribute information into the model view file. For example, if theCampaign custom attribute is Business Unit Name, and if the internal of the custom attribute is `BUNAME`, add following dimension to the `uarc_campextattr.view` model file:

   ```
   dimension: buname {
    type: string
    sql: ${TABLE}.BUNAME ;;
   }
   ```

6. After adding the dimension mentioned in *Step 5*, the model file code will be as follows:

   ```
   view: uarc_campextattr {
     sql_table_name: UARC_CAMPEXTATTR ;;
   ```

```
  dimension: campaignid {
    type: number
    value_format_name: id
    sql: ${TABLE}.CAMPAIGNID ;;
  }
  dimension: buname {
    type: string
    sql: ${TABLE}.BUNAME ;;
  }


  measure: count {
    type: count
    drill_fields: []
  }
}
```

Add all fields into the respective model view file.

✎ **Note:** The database refresh process considers all fields as business dimension, which is the string format.

Chapter 6. Open Insights for Deliver

In release 12.1.1, Open Insights started with support for Unica Deliver

Open Insights provided reports for marketing channels like Email, SMS, Mobile Push, and WhatsApp.

Deliver Database Object Details

Campaign database has list of database objects that define the Deliver data model. Please refer the following table for the database object names and their description:

Table 5. Deliver Database Object Details

Database Object Name	Description
Deliver All Channels	
`UARE_CHANNELS_PERFORMANCE`	Provides a comparison analysis of all the campaign channels for contacts and response measures.
Deliver Email	
`UARE_EMAIL_OVERVIEW`	Provides an analysis of all Email campaigns and Email Campaign Links for contacts and response measures.
`UARE_EMAIL_DAY`	Provides an analysis of all Email campaigns and Email Campaign Links by day, for contacts and response measures.
`UARE_EMAIL_HOUR`	Provides an hourly overview of the responses received for the Email campaign from the contacts.
`UARE_EMAIL_RECIPIENT_CLICK`	Provides an overview of contact details and response measures for all the Email campaigns.

Table 5. Deliver Database Object Details (continued)

Database Object Name	Description
UARE_UNSUBSCRIBE_EMAIL	Provides an overview of contact details that un-subscribed from Email campaigns.
UARE_ABEMAIL_OVERVIEW	Provides an overview of the Email Campaign A/B test results for all variations.
Deliver Landing Page	
UARE_LP_OVERVIEW	Provides an analysis of all Landing Pages by day for response measures.
UARE_LP_DAY	Provides an overview of the Landing Page links, by day, that were viewed or clicked by the contacts.
Deliver Mobile	
UARE_MOBILE_OVERVIEW	Provides an analysis of all Mobile Push campaigns for contacts and response measures by day that can be further broken to hourly-basis.
UARE_MOBILE_RECIPIENT_CLICK	Provides an overview of contact details and re-sponse measures for all the Mobile Push cam-paigns.
Deliver SMS	
UARE_SMS_OVERVIEW	Provides an analysis of all SMS campaigns for contacts and response measures.
UARE_SMS_DAY	Provides an analysis of SMS campaigns and SMS links for response measures by day that can be further broken to hourly-basis.
UARE_SMS_RECIPIENT_CLICK	Provides an overview of contact details and re-sponse measures for all the SMS campaigns.
Deliver WhatsApp	

Table 5. Deliver Database Object Details (continued)

Database Object Name	Description
UARE_WHATSAPP_OVERVIEW	Provides an analysis of all WhatsApp campaigns for contacts and response measures.
UARE_WHATSAPP_DAY	Provides an analysis of WhatsApp campaigns for response measures by day that can be further broken to hourly-basis.
UARE_WHATSAPP_RECIPIENT_-CLICK	Provides an overview of contact details and response measures for all the WhatsApp campaigns.

> **Note:** For more information on Deliver database objects related to Google Looker, see Deliver Explore View in Google Looker *(on page 68)*.

Send Time Optimization

Send time optimization calculates the best time to contact the target customer via various channels based on past interactions.

- For Email, the analytics is derived from the Email open response.
- For SMS, the analytics is derived from the SMS link click response.
- For Mobile Push, the analytics is derived from the push view response.
- For WhatsApp, the analytics is derived from the message view response.

The following table lists the dimensions related to send time optimization:

Dimension	Channel	Description
First View Hour	Email	The First View Hour field stores the first email viewed hour information for a day. It is used for send time optimization calculation. For more

Dimension	Channel	Description
		information, see First View Hour (on page 40).
First Click Hour	Email	The First Click Hour field stores the first email viewed hour information for a day. Additionally, marketers may use this information for send time optimization based on it. By default, sent time optimization is calculated based on first view hour, as mentioned in the description for **First View Hour**.

First View Hour

The First View Hour field, related to Send time optimization, stores the first email viewed hour information. It is calculated based on all the email communications sent on a particular day.

This field is further used to calculate the best hour to send future email communications across all days. The calculation is based on the most frequent email opened hour of past email interactions. The data is stored in the `UARE_RECIPIENT_HOUR` view of the concerned channel.

You can use `UARE_RECIPIENT_HOUR.FIRST_VIEW_HR` information to send email communications for future Campaigns.

Implementing Send Time Optimization in Unica Campaign

There are many ways to implement Campaigns and mailings. One way is as follows:

1. Create a user data source that maps to the Campaign system database.
2. Create a new audience level of type Text for Email ID.
3. Create a Flowchart to save a preferred hour for each email audience in a user table.

a. Map `UARE_RECIPIENT_HOUR` view as the base table and select Audience level as per *Step 2*.

b. Configure flowchart as **Select PB > Snapshot PB**.

c. Select `UARE_RECIPIENT_HOUR` view in **Select PB**.

d. Create a Snapshot table to save data in a user table, where the customer database resides for all Deliver Campaigns.
The table name is `EMAIL_PREFERRED_HOUR`.

4. Schedule the Flowchart to update the table. The preferred frequency is monthly.

5. Use this table as a dimension table to the main user table (the user table using this OLT will be populated).
This provides information to the Campaign Flowchart, or Mailing, about the best hour to contact each recipient.

6. In the Deliver mailing Flowchart, create a segment for each hour of the 24 hours to generate an OLT for each hour. For example, configure flowchart as '**Select PB > Segment PB > Deliver PB1 | Deliver PB2 | …. Deliver PBN > .**
Take input of the base user table, to which the `EMAIL_PREFERRED_HOUR` dimension is mapped, in select PB. Use the following sample queries in Segment PB for the different hours you need:

- For best hour between 1 to 5:

```
dbo_main_user_table.dbo_EMAIL_PREFERRED_HOUR.FIRST_VIEW_HR

 Between  1 AND  5
```

- For best hour from 6 to 11:

```
dbo_main_user_table.dbo_EMAIL_PREFERRED_HOUR.FIRST_VIEW_HR

 Between  6 AND  11
```

This creates a separate OLT to configure mailings for each day hour.

Chapter 7. Appendix

Appendix: Important References for Unica Open Insights

The following sections contain important references related to Unica Open Insights for the supported Unica applications.

New Folders required during Google Looker installation

When installing Google Looker, you need to create the following folders, based on the number of Unica products for which you are configuring Open Insights. The following table lists the folder names:

Unica product	Location	Folder name and Description
Unica	`\Shared folders\`	**Folder name**: `Unica` Mandatory requirement.
Unica Campaign	`\Shared folders\Unica\`	**Folder name**: `Campaign` Mandatory requirement if you configure Open Insights for Campaign.
Unica Deliver	`\Shared folders\Unica\`	**Folder name**: `Deliver` Mandatory requirement if you configure Open Insights for Deliver.

Data Model files and their Location after installing Unica

The following table lists the location where the Unica installer copies the data model files and folders, for the concerned Unica product, during installation:

Unica product	Location of Data Model files	Filename
Unica Campaign	`Campaign_Home\reports\Open Insights\projects\Campaign\`	`unica_campaign_-project`
Unica Deliver	`Campaign_Home\reports\Open Insights\projects\Deliver\`	`unica_deliver_-project`

Database Script locations for Unica Products

The following table lists the supported Unica products and the important folder locations for the corresponding Unica product.

Unica product	Folder Locations

Unica Campaign	**Default location**
	
	`Campaign_Home\reports\`
	
	Product SQLs
	
	`Campaign_Home\reports\Campaign-ddl\<DB-name>\`

Unica Deliver	**Default location**
	
	`Campaign_Home\reports\`
	
	Product SQLs
	
	`Campaign_Home\reports\Deliver-ddl\<DB-name>\`

Unica Products and their Datasources

The following table lists the Unica products and the corresponding datasouce name or names that you must configure in Google Looker.

Unica product	Datasource name
Unica Campaign	`campaignds`

Unica product	Datasource name
	`platformds`
Unica Deliver	`deliverds`

Unica Products and Open Insights SQLs

The following table lists the supported Unica products, the location of the corresponding Open Insights SQL files, and the corresponding Open Insights SQL files.

Unica product	Location of Open Insights SQLs	Open Insights SQLs
Unica Campaign	`Campaign_home\re-ports\Campaign-ddl\<DB-name>\open_in-sights\`	• `Campaign_open_-insights_ta-bles.sql` • `Campaign_-open_insights_-scripts.sql` • Note: Run this SQL only if you want to drop Open Insights objects. `Campaign_open_-insights_ta-bles_drop.sql`
Unica Deliver	`Campaign_home\re-ports\Deliver-ddl\<DB-name>\open_in-sights\`	• `Deliver_open_-insights_ta-bles_1211.sql` • `Deliver_-open_insight-`

Unica product	Location of Open Insights SQLs	Open Insights SQLs
		s_scripts_- 1211.sql • **Note:** Run this SQL only if you want to drop Open Insights objects. Deliver_open_- insights_ta- bles_drop.sql

Configuring Database Jobs and Custom Audience

You must configure three database jobs for each default customer or custom audience. The database jobs referesh data of Contact History, Detailed Contact History, and Response History. The commands for the database jobs differ based on the database you use. The following table lists the commands for audience and customers for different Unica products and databases:

Unica product	Database	Commands
| Unica Campaign | Oracle | ```
exec sp_campruns;

exec sp_chrefresh
 ('<audience name>')

exec sp_dchrefresh
 ('<audience name>')
``` |

Unica product	Database	Commands
		``
exec sp_rhrefresh
  ('<audience name>')
```

where <audience name> can be Customer. |
| | IBM DB2 | ```
call sp_campruns;
```

```
call sp_chrefresh
  ('<audience name>')
```

```
call sp_dchrefresh
  ('<audience name>')
```

```
call sp_rhrefresh
  ('<audience name>')
```

where <audience name> can be Customer. |
| | Microsoft SQL Server | ```
exec sp_campruns;
```

```
exec sp_chrefresh
  '<audience name>'
```

```
exec sp_dchrefresh
  '<audience name>'
```

```
exec sp_rhrefresh
  '<audience name>'
```

where <audience name> can be Customer. |

Unica product	Database	Commands
| Unica Deliver | Oracle | ```
exec SP_RUNID;
``` |
| | | ```
exec
 SP_Populate_Mailing
_Contacts;
``` |
| | | ```
exec
 SP_Populate_Mailing
_Responses;
``` |
| | | ```
exec
 SP_Populate_SMS_Con
tacts;
``` |
| | | ```
exec
 SP_Populate_SMS_Res
ponses;
``` |
| | | ```
exec
 SP_Populate_WHTSAPP
_Contacts;
``` |
| | | ```
exec
 SP_Populate_WHTSAPP
_Responses;
``` |
| | | ```
exec
 SP_Populate_MOBILE_
Responses;
``` |
| | IBM DB2 | ```
call SP_RUNID;
``` |

Unica product	Database	Commands
		```call SP_Populate_Mailing _Contacts;```
		```call SP_Populate_Mailing _Responses;```
		```call SP_Populate_SMS_Con tacts;```
		```call SP_Populate_SMS_Res ponses;```
		```call SP_Populate_WHTSAPP _Contacts;```
		```call SP_Populate_WHTSAPP _Responses;```
		```call SP_Populate_MOBILE_ Responses;```
	Microsoft SQL Server	```exec SP_RUNID;```

Unica product	Database	Commands
| | | ```
exec
 SP_Populate_Mailing
_Contacts;
``` |
| | | ```
exec
 SP_Populate_Mailing
_Responses;
``` |
| | | ```
exec
 SP_Populate_SMS_Con
tacts;
``` |
| | | ```
exec
 SP_Populate_SMS_Res
ponses;
``` |
| | | ```
exec
 SP_Populate_WHTSAPP
_Contacts;
``` |
| | | ```
exec
 SP_Populate_WHTSAPP
_Responses;
``` |
| | | ```
exec
 SP_Populate_MOBILE_
Responses;
``` |

Additionally, for Unica Campaign, you must insert delta refresh records for all your custom audiences. For example, if the custom audience name is `Account`, the commands for insert are as follows:

Unica product	Commands

Unica Campaign	`INSERT INTO`
	`  UARC_CAMPAIGN_BATCH_LOCK VALUES`
	`  (0,'Account','CH','N',NULL,NULL)`
	`;`
	
	`INSERT INTO`
	`  UARC_CAMPAIGN_BATCH_LOCK VALUES`
	`  (0,'Account','DCH','N',NULL,NULL`
	`);`
	
	`INSERT INTO`
	`  UARC_CAMPAIGN_BATCH_LOCK VALUES`
	`  (0,'Account','RH','N',NULL,NULL)`
	`;`

Appendix: Unica Campaign

Campaign Explore View in Google Looker

The following topics lists the available options in the Explore View for each channel of Campaign. The end user sees the Explore View. The Database Object Name and Model Internal Name are for administrators or developers.

Campaign

Explore View	1.Campaign Summary
Database Object Name	• `USM_USER` • `UARC_CAMPAIGN` • `UARC_CELL` • `UARC_CAMPAIGN_SUMMARY` • `UARC_OFFER`

Model Internal Name	• Campaigns • Cells • Contact and Response History • Offers

Explore View	**2.Campaign Response Trend**
Database Object Name	• `UARC_CAMPAIGN` • `UARC_OFFER` • `UARC_RESPONSES`
Model Internal Name	• Campaigns • Offers • Response Trend

Explore View	**3.Campaign Response Breakout**
Database Object Name	• `UARC_CAMPAIGN` • `UARC_OFFER` • `UARC_RESPONSE_BREAKOUT`
Model Internal Name	• Campaigns • Offers • Response Breakout

Campaign Responders

Explore View	**1.Campaign Responders**
Database Object Name	• `UARC_CONTACTS_ALL` • `UARC_CAMPAIGN_RESPONDERS`
Model Internal Name	• Campaign Responders

Explore View	**2.Offer Responders**

Database Object Name	• UARC_CONTACTS_ALL • UARC_OFFER_RESPONDERS
Model Internal Name	• Offer Responders

Explore View	3.Campaign and Offer Responders
Database Object Name	• UARC_CONTACTS_ALL • UARC_CAMPOFFER_RESPONDERS
Model Internal Name	• Campaign Responders

Explore View	4.Daily Responders
Database Object Name	• UARC_DAILY_RESPONDERS
Model Internal Name	• Campaign Responders

Platform

Explore View	1.Platform Users
Database Object Name	• USM_USER
Model Internal Name	• usm_user

Campaign Database Model Views

The following table lists the database tables and fields that will be used by Open Insights to store the required data for generating reports.

Table Name	Fields	Description
UARC_CONTACTS	• CAMPAIGNID • CELLID • OFFERID • OFFERHISTORYID • PACKAGEID	This table stores the basic Contact Summary data of all the audiences.

Table Name	Fields	Description
	• TREATMENTINSTID • TREATMENTCODE • CONTACTDATE • OFFERS • OFFERS_CG • CTRLTREATFLAG • CTRLTREATMENTINSTID • FCRUNID • FCRUNDATE • FLOWCHARID • EFFECTIVEDATE • EXPDATE • INSERTDATE	
UARC_DTL_CONTACTS	• CAMPAIGNID • CELLID • OFFERID • OFFERHISTORYID • PACKAGEID • TREATMENTINSTID • TREATMENTCODE • CONTACTDATE • OFFERS • OFFERS_CG • CTRLTREATFLAG • CTRLTREATMENTINSTID • FCRUNID • FCRUNDATE • FLOWCHARID • EFFECTIVEDATE	This table stores the detailed Contact Summary data of all the audiences.

Table Name	Fields	Description
	• EXPDATE • INSERTDATE	
UARC_RESPONSES	• CAMPAIGNID • CELLID • OFFERID • OFFERHISTORYID • TREATMENTINSTID • RESPONSEPACKID • RESPONSEDATEDATE, • RESPONSES • RESPONSES_CG • NOT_CONTACTED_RESPONDERS • RESPONSE_AFTER_EXPIRATION • RESPONSE_AFTER_EX- PIRATION_CG • REVENUE_PER_RESPONSE • REVENUE_PER_RESPONSE_CG • GROSS_REVENUE • GROSS_REVENUE_CG • INSERTDATE	This table stores the Responses Summary data of all the audiences.
UARC_RESPONSE_BREAK- OUT	• CAMPAIGNID • OFFERID • OFFERHISTORYID • ALL_COUNTS_AS_RESP • ALL_RESPONSES • EXPLORE_COUNT • EXPLORE_COUNT_CG • CONSIDER_COUNT • CONSIDER_COUNT_CG • COMMIT_COUNT	This table stores the Response Types summary data.

Table Name	Fields	Description
	• COMMIT_COUNT_CG • FULFILL_COUNT • FULFILL_COUNT_CG • USAGE_COUNT • USAGE_COUNT_CG • LINKCLICK_COUNT • LINKCLICK_COUNT_CG • LANDINGPAGE_COUNT • LANDINGPAGE_COUNT_CG • SMSREPLYMESSAGE_COUNT • SMSREPLYMESSAGE_COUNT_CG • INSERTDATE	
UARC_CAMPAIGN_RESPON-DERS	• CAMPAIGNID • UNIQUE_RESPONDERS • UNIQUE_RESPONDERS_CG • INSERTDATE	This table stores the summary data of all the Campaign responders.
UARC_CAMPOFFER_-RESPONDERS	• CAMPAIGNID • OFFERID • UNIQUE_RESPONDERS • UNIQUE_RESPONDERS_CG • INSERTDATE	This table stores the summary data of all the Campaign responders and Offer responders.
UARC_OFFER_RESPONDERS	• RESPONSEDATE • UNIQUE_RESPONDERS • UNIQUE_RESPONDERS_CG • INSERTDATE	This table stores the summary data of all the Offer responders.
UARC_CAMPAIGN_SUMMARY	• CAMPAIGNID • CELLID • OFFERID • OFFERHISTORYID	Stores the following data for all the Campaigns:

Table Name	Fields	Description
	• TREATMENTINSTID • CONTACTDATE • PACKAGEID • TREATMENTCODE • CTRLTREATFLAG • CTRLTREATMENTINSTID • FCRUNID • FCRUNDATE • FLOWCHARID • EFFECTIVEDATE • EXPDATE • OFFERS • OFFERS_CG • RESPONSES • RESPONSES_CG • NOT_CONTACTED_RESPONDERS • RESPONSE_AFTER_EXPIRATION • RESPONSE_AFTER_EX- PIRATION_CG • AVG_COST_PER_CONTACT • OFFER_FIXED_COST • CONTACT_COST • REVENUE_PER_RESPONSE • REVENUE_PER_RESPONSE_CG • GROSS_REVENUE • GROSS_REVENUE_CG	• Offer and Cells contact • Responses summary • Financial data

Campaign Measures and Dimensions - Part 1

The measures and dimensions for Campaign, Offer, Cell, Contact and Response History, and Response Trend are as follows:

Measures and Dimensions	Campaign	Offer	Cell	Contact and Response History	Response Trend
All Counts as Responses					
All Responses					
Avg Cost Per Contact				✅	
Avg Revenue Per Response				✅	✅
Avg Revenue Per Response Control				✅	✅
Campaign Code	✅				
Campaign ID	✅		✅		
Campaign Name	✅				
Cell Code			✅		
Cell ID			✅		
Cell Name			✅		
Cell Name			✅		

Measures and Dimensions	Campaign	Offer	Cell	Contact and Response History	Response Trend
Cell Type			✅		
Commit Count					
Commit Count Control Group					
Consider Count					
Consider Count Control Group					
Contact Cost				✅	
Contacts				✅	
Contacts Control Group				✅	
Control Cell ID			✅		
Create By	✅	✅			
Create Date	✅	✅			
Description	✅	✅			
End Date	✅				

Measures and Dimensions	Campaign	Offer	Cell	Contact and Response History	Response Trend
Explore Count					
Explore Count Control Group					
Fulfill Count					
Fulfill Count Control Group					
Gross Revenue					✅
Gross Revenue Control Group					✅
Initiative	✅				
Last Run Date	✅				
Net Profit				✅	
Not Contacted Responses				✅	✅
Objectives	✅				
Offer Code		✅			

Measures and Dimensions	Campaign	Offer	Cell	Contact and Response History	Response Trend
Offer Code 1		✅			
Offer Code 2		✅			
Offer Code 3		✅			
Offer Code 4		✅			
Offer Code 5		✅			
Offer Code 6		✅			
Offer Fixed Cost				✅	
Offer History ID		✅			
Offer Name		✅			
Offer nID					
Percent Unique Responders					
Percent Unique Responders Control Group					
Recipients					

Measures and Dimensions	Campaign	Offer	Cell	Contact and Response History	Response Trend
Recipients Control Group					
Responses After Expiration				✅	✅
Responses After Expiration Control Group				✅	✅
Response Date					✅
Response Rate				✅	✅
Response Rate Control Group				✅	✅
Responses				✅	✅
Responses Control Group				✅	✅
Retired		✅			
Return on Investment				✅	

Measures and Dimensions	Campaign	Offer	Cell	Contact and Response History	Response Trend
Run By	✅				
Start Date	✅				
Total Revenue				✅	
Unique Responders					
Unique Responders Control Group					
Update By	✅	✅			
Update Date	✅	✅			

Campaign Measures and Dimensions - Part 2

The measures and dimensions for Response Breakout, Campaign Responders, Offer Responders, Campaign and Offer Responders, and Daily Responders are as follows:

Measures and Dimensions	Response Breakout	Campaign Responders	Offer Responders	Campaign and Offer Responders	Daily Responders
All Counts as Responses	✅				

Measures and Dimensions	Response Breakout	Campaign Responders	Offer Responders	Campaign and Offer Responders	Daily Responders
All Responses	✅				
Avg Cost Per Contact					
Avg Revenue Per Response					
Avg Revenue Per Response Control					
Campaign Code		✅		✅	
Campaign ID		✅		✅	
Campaign Name		✅		✅	
Cell Code					
Cell ID					
Cell Name					
Cell Name					
Cell Type					

Measures and Dimensions	Response Breakout	Campaign Responders	Offer Responders	Campaign and Offer Responders	Daily Responders
Commit Count	✅				
Commit Count Control Group	✅				
Consider Count	✅				
Consider Count Control Group	✅				
Contact Cost					
Contacts					
Contacts Control Group					
Control Cell ID					
Create By					
Create Date					
Description					
End Date					

Measures and Dimensions	Response Breakout	Campaign Responders	Offer Responders	Campaign and Offer Responders	Daily Responders
Explore Count	✅				
Explore Count Control Group	✅				
Fulfill Count	✅				
Fulfill Count Control Group	✅				
Gross Revenue					
Gross Revenue Control Group					
Initiative					
Last Run Date		✅			
Net Profit					
Not Contacted Responses					
Objectives					
Offer Code			✅	✅	

Measures and Dimensions	Response Breakout	Campaign Responders	Offer Responders	Campaign and Offer Responders	Daily Responders
Offer Code 1					
Offer Code 2					
Offer Code 3					
Offer Code 4					
Offer Code 5					
Offer Code 6					
Offer Fixed Cost					
Offer History ID					
Offer Name			✅	✅	
Offer nID			✅	✅	
Percent Unique Responders		✅	✅	✅	✅
Percent Unique Responders Control Group		✅	✅	✅	✅
Recipients		✅	✅	✅	✅

Measures and Dimensions	Response Breakout	Campaign Responders	Offer Responders	Campaign and Offer Responders	Daily Responders
Recipients Control Group		✅	✅	✅	✅
Responses After Expiration					
Responses After Expiration Control Group					
Response Date					✅
Response Rate					
Response Rate Control Group					
Responses					
Responses Control Group					
Retired					
Return on Investment					

Measures and Dimensions	Response Breakout	Campaign Responders	Offer Responders	Campaign and Offer Responders	Daily Responders
Run By					
Start Date					
Total Revenue					
Unique Responders		✅	✅	✅	✅
Unique Responders Control Group		✅	✅	✅	✅
Update By					
Update Date					

Appendix: Unica Deliver

Deliver Explore View in Google Looker

The following topics lists the available options in the Explore View for each channel of Deliver. The end user sees the Explore View. The Database Object Name and Model Internal Name are for administrators or developers.

Deliver All Channels

Explore View	Channels Comparison
Database Object Name	UARE_CHANNELS_PERFORMANCE

Model Internal Name	`all_channels_performance`

Deliver Email

Explore View	**1.Email Campaign Summary**
Database Object Name	`UARE_EMAIL_OVERVIEW`
Model Internal Name	`uare_email_overview`

Explore View	**2.Email Campaign Summary by day**
Database Object Name	`UARE_EMAIL_DAY`
Model Internal Name	`uare_email_day`

Explore View	**3.Email Campaign Response Analysis by Hour**
Database Object Name	`UARE_EMAIL_HOUR`
Model Internal Name	`uare_email_hour`

Explore View	**4.Email Campaign Recipient Details**
Database Object Name	`UARE_EMAIL_RECIPIENT_CLICK`
Model Internal Name	`uare_email_recipient_click`

Explore View	**5.Email Campaign Unsubscribe Summary**
Database Object Name	`UARE_UNSUBSCRIBE_EMAIL`
Model Internal Name	`uare_unsubscribe_email`

Explore View	**6.Email Campaign Link Summary**
Database Object Name	`UARE_EMAIL_OVERVIEW`
Model Internal Name	`uare_email_link_overview`

Explore View	7.Email Campaign Link Summary by Day
Database Object Name	UARE_EMAIL_DAY
Model Internal Name	uare_email_link_day

Explore View	8.Email A/B test Campaign Overview
Database Object Name	UARE_ABEMAIL_OVERVIEW
Model Internal Name	uare_abemail_overview

Deliver Landing Page

Explore View	1.Landing Page Summary
Database Object Name	UARE_LP_OVERVIEW
Model Internal Name	uare_lp_overview

Explore View	2.Landing Page Summary by Day
Database Object Name	UARE_LP_DAY
Model Internal Name	uare_lp_day

Explore View	3.Landing Page Link Overview
Database Object Name	UARE_LP_OVERVIEW
Model Internal Name	uare_lp_link_overview

Explore View	4.Landing Page Link Summary by Day
Database Object Name	UARE_LP_DAY
Model Internal Name	uare_lp_day

Deliver Mobile

Explore View	**1.Mobile Push Summary by Hour**
Database Object Name	UARE_MOBILE_OVERVIEW
Model Internal Name	uare_mobile_overview

Explore View	**2.Mobile Push Recipients Summary**
Database Object Name	UARE_MOBILE_RECIPIENT_CLICK
Model Internal Name	uare_mobile_recipient_click

Deliver SMS

Explore View	**1.SMS Campaign Summary**
Database Object Name	UARE_SMS_OVERVIEW
Model Internal Name	uare_sms_overview

Explore View	**2.SMS Campaign Summary by Hour**
Database Object Name	UARE_SMS_DAY
Model Internal Name	uare_sms_day

Explore View	**3.SMS Campaign Link Summary by Hour**
Database Object Name	UARE_SMS_DAY
Model Internal Name	uare_sms_link_day

Explore View	**4.SMS Recipients Summary**
Database Object Name	UARE_SMS_RECIPIENT_CLICK
Model Internal Name	uare_sms_recipient_click

Deliver WhatsApp

Explore View	1.WhatsApp Campaign Summary
Database Object Name	UARE_WHATSAPP_OVERVIEW
Model Internal Name	uare_whatsapp_overview

Explore View	2.WhatsApp Campaign Summary by Hour
Database Object Name	UARE_WHATSAPP_DAY
Model Internal Name	uare_whatsapp_day

Explore View	3.WhatsApp Recipients Summary
Database Object Name	UARE_WHATSAPP_RECIPIENT_CLICK
Model Internal Name	uare_whatsapp_recipient_click

Deliver Data Model Dimensions in Google Looker

The following table provides information about available dimensions, descriptions, and their data types in the Explore View:

Common Dimension	Data Type	Description
Campaign ID	Number	The ID of the campaign in which the mailer was created.
Campaign Name	String	The Name of the campaign in which the mailer was created.
Campaign Code	String	The code of the campaign in which the mailing was created.
Cell Code	String	The cell code for the recipient's cellphone.

Common Dimension	Data Type	Description
		This cell code is configured in the Campaign flowchart.
Container ID	Number	Identifies a particular execution of the mailer (a mailing instance).
Container Name	String	The name of the mailer.
Mailing Instance	String	A concatenated string of container name and the date of mailer creation.
Mailing Code	String	The code for the mailer.
Email Link	String	The link in the email.
SMS Link	String	The link in the SMS.

Deliver Data Model Dimensions for Detailed Recipients Analysis in Google Looker

The following table lists dimensions for Email Campaign Recipient Details, SMS Campaign Recipient Details, Mobile Campaign Recipient Details and WhatsApp Campaign Recipient Details:

Common Dimension	Channel	Description
Email	Email	Email ID of the recipient.
Masked Email	Email	Masked email ID of the recipient.
Mobile Number	Mobile SMS WhatsApp	Mobile number of the recipient.
Masked Mobile Number	Mobile SMS	Masked mobile number of the recipient.

Common Dimension	Channel	Description
	WhatsApp	

Deliver Data Model Dimensions for Date and Time in Google Looker

The following table lists the Date and Time dimensions for trend analysis:

Common Dimension	Data Type	Channel	Description
Contact Date	Date	Email Landing Page Mobile SMS WhatsApp	The date when contact was made by a channel (drill-up is available).
Contact Month	Date	Email Landing Page Mobile SMS WhatsApp	The month when contact was made by a channel (drill-up and drill-down are available).
Contact Quarter	Date	Email Landing Page Mobile SMS WhatsApp	The quarter when contact was made by a channel (drill-up and drill-down are available).
Contact Year	Date	Email Landing Page	The year when contact was made by a channel (drill-up and drill-down are available).

Common Dimension	Data Type	Channel	Description
		Mobile SMS WhatsApp	
Contact Time	Time	Mobile SMS WhatsApp	Actual contact time (drill-up is available).

Common Dimension	Data Type	Channel	Description
Response Date	Date	Email Landing Page Mobile SMS WhatsApp	The date when response was received (drill-up is available).
Response Month	Date	Email Landing Page Mobile SMS WhatsApp	The month when response was received (drill-up and drill-down are available).
Response Quarter	Date	Email Landing Page Mobile SMS	The quarter when response was received (drill-up and drill-down are available).

Common Dimension	Data Type	Channel	Description
		WhatsApp	
Response Year	Date	Email Landing Page Mobile SMS WhatsApp	The year when response was received (drill-up and drill-down are available).
Response Hour of the Day	Number		The hour when the actual response was received.
Contact Time	Time	Mobile SMS WhatsApp	Actual response time (drill-up is available).

Common Measures for Deliver in Google Looker

Common Dimension	Data Type	Channel	Description
Total Sent	Number	Email Mobile SMS WhatsApp	Total contacts sent by the channel.
Total Failed	Number	Email Mobile SMS WhatsApp	Sum of all failed response types.

Common Dimension	Data Type	Channel	Description
Total Delivered	Number	Email Mobile SMS WhatsApp	Total contacts delivered (Total sent - Total failed).
Unique Views	Number	Email Landing Page Mobile WhatsApp	Unique recipients who have viewed the message.
Total Views	Number	Email Mobile WhatsApp	Total recipients who have viewed the message.
Unique Clicks	Number	Email Landing Page SMS	Unique recipients who have clicked the message link.
Unique Click Rate	Percent	Email Landing Page SMS	Percentage of unique recipients who have clicked the message link. For email landing pages, it is calculated over unique views.
Total Clicks	Number	Email Landing Page SMS	Percentage of all recipients who have clicked the message link. For email landing pages, it is calculated over unique views.

Common Dimension	Data Type	Channel	Description
Total Click Rate	Percent	Email Landing Page SMS	Percentage of all recipients who have clicked the message link. For email landing pages, it is calculated over unique views.
Challenge Response	Number	Email	Unica cannot deliver the email message because the ISP that received the email processed the message through a challenge/response SPAM filter. Challenge/response filters require human interaction to allow email delivery. Typically, this happens when the message recipients have not added the sending domain to their safe sender lists.
Hard Bounce	Number	Email	Unica cannot deliver the email due to a permanent problem with the receiving mailbox. For example, the destination mailbox does not exist.
ISP Feedback	Number	Email	Unica successfully delivered the email message, but the recipient's Internet Service Provider (ISP) sent a notification that the recipient has re-

Common Dimension	Data Type	Channel	Description
			ported the email message as an unwanted email (spam). This response is represented in the Detailed Bounce report as an abuse complaint.
Other	Number	Email	The reason for message delivery failure is unknown. The ISP may have issued a permanent (5XX) failure that does not correspond to any of the other hard bounce categories.
Out of Office	Number	Email	Unica cannot deliver the email because the recipient has set an Out-of-Office reply for the destination mailbox. Resend the email after the recipient changes the mailbox status. If you send multiple marketing emails in a week, omit this address from mailing lists for a week to avoid overloading the inbox. Multiple messages in the recipient's Inbox might trigger a negative reaction from the recipient and it can adversely affect your deliverability scores.

Common Dimension	Data Type	Channel	Description
Send Failed	Number	Email	Unica did not send the email because the email address had an incorrect syntax, or the email address exists in the global email suppression list.
Soft Bounce	Number	Email	Unica cannot deliver the email due to a temporary problem with the receiving mailbox. An example for a temporary problem is when the recipient's mailbox is full. The message may reach the intended recipient if you resend it after some time.
Technical Issue	Number	Email	Unica cannot deliver the email due to a problem with the email infrastructure used for transmitting and delivering the message to the recipient's mailbox. Such responses are not generated due to the problems with the receiving mailbox. Unica may receive this response during a network interruption, or when the receiving email servers are not operating. These responses are not a re-

Common Dimension	Data Type	Channel	Description
			sult of the recipient's mailbox being full.
Unknown	Number	Email	Unica cannot interpret the response, or the response does not match any of the expected response types.

Deliver Dimensions and Measures in Google Looker for the Email Channel - Part 1

The measures and dimensions for the various options of the Email channel, in the Explore View, are as follows:

Table 6. Dimensions

Dimensions	Email Campaign Summary	Email Campaign Summary by Day	Email Campaign Response Analysis by Hour	Email Campaign Recipient Details
Campaign Code	✅	✅	✅	✅
Campaign ID	✅	✅		✅
Campaign Name	✅	✅	✅	✅
Cell Code	✅	✅		
Container ID	✅	✅	✅	✅
Container Name	✅	✅	✅	
Date Fields		✅		✅

Table 6. Dimensions (continued)

Dimensions	Email Campaign Summary	Email Campaign Summary by Day	Email Campaign Response Analysis by Hour	Email Campaign Recipient Details
> Contact Date		✅		✅
> Contact Month		✅		✅
> Contact Quarter		✅		✅
> Contact Time				
> Contact Week		✅		✅
> Contact Year		✅		✅
> Response Date		✅		✅
> Response Month		✅		✅
> Response Quarter		✅		✅
> Response Time				
> Response Week		✅		✅
> Response Year		✅		✅
Document				
Email				✅
Email (Masked)				✅

Table 6. Dimensions (continued)

Dimensions	Email Campaign Summary	Email Campaign Summary by Day	Email Campaign Response Analysis by Hour	Email Campaign Recipient Details
Email Link				✅
First Contact Hour				✅
First Viewed Hour				
Mailing Code	✅	✅	✅	✅
Mailing Instance	✅	✅	✅	✅
Mailing Name				✅
Response Date			✅	
> Date			✅	
> Hour of Day			✅	
> Month			✅	
> Quarter			✅	
> Time			✅	
> Week			✅	
> Year			✅	
Test Name				
Winning Criteria				

Table 6. Dimensions (continued)

Dimensions	Email Campaign Summary	Email Campaign Summary by Day	Email Campaign Response Analysis by Hour	Email Campaign Recipient Details
Winning Test				

Table 7. Measures

Measures	Email Campaign Summary	Email Campaign Summary by Day	Email Campaign Response Analysis by Hour	Email Campaign Recipient Details
Challenge Response	✅			
Count				✅
Hard Bounce	✅			
ISP Feedback	✅			
Other	✅			
Out of Office	✅			
Send Failed	✅			
Soft Bounce	✅			
Technical Issue	✅			
Total Click Rate	✅	✅		

Table 7. Measures (continued)

Measures	Email Campaign Summary	Email Campaign Summary by Day	Email Campaign Response Analysis by Hour	Email Campaign Recipient Details
Total Clicks	✅	✅		✅
Total Delivered	✅			
Total Failed	✅	✅		
Total Sent	✅			
Total Views	✅	✅		
Unique Click Rate	✅	✅		
Unique Clicks	✅	✅	✅	✅
Unique Complaints				
Unique Views	✅	✅	✅	✅
Unknown	✅			
Winner Unique Clicks				
Winner Unique Complaints				
Winner Unique Views				

Deliver Dimensions and Measures in Google Looker for the Email Channel - Part 2

The measures and dimensions for the various options of the Email channel, in the Explore View, are as follows:

Table 8. Dimensions

Dimensions	Email Campaign Unsubscribe Summary	Email Campaign Link Summary	Email Campaign Link Summary by Day	Email A/B Test Campaign Overview
Campaign Code	✅	✅	✅	✅
Campaign ID	✅	✅	✅	
Campaign Name		✅	✅	✅
Cell Code		✅	✅	
Container ID	✅	✅	✅	✅
Container Name	✅	✅	✅	✅
Date Fields	✅		✅	
> Contact Date	✅		✅	
> Contact Month	✅		✅	
> Contact Quarter	✅		✅	
> Contact Time	✅			

Table 8. Dimensions (continued)

Dimensions	Email Campaign Unsubscribe Summary	Email Campaign Link Summary	Email Campaign Link Summary by Day	Email A/B Test Campaign Overview
> Contact Week	✅		✅	
> Contact Year	✅		✅	
> Response Date	✅		✅	
> Response Month	✅		✅	
> Response Quarter	✅		✅	
> Response Time	✅			
> Response Week	✅		✅	
> Response Year	✅		✅	
Document				✅
Email	✅			
Email (Masked)	✅			
Email Link	✅	✅	✅	
First Contact Hour				

Table 8. Dimensions (continued)

Dimensions	Email Campaign Unsubscribe Summary	Email Campaign Link Summary	Email Campaign Link Summary by Day	Email A/B Test Campaign Overview
First Viewed Hour				
Mailing Code	✅	✅	✅	✅
Mailing Instance	✅	✅	✅	✅
Mailing Name	✅			
Response Date				
> Date				
> Hour of Day				
> Month				
> Quarter				
> Time				
> Week				
> Year				
Test Name				✅
Winning Criteria				✅
Winning Test				✅

Table 9. Measures

Measures	Email Campaign Summary	Email Campaign Summary by Day	Email Campaign Response Analysis by Hour	Email Campaign Recipient Details
Challenge Response				
Count	✅			
Hard Bounce				
ISP Feedback				
Other				
Out of Office				
Send Failed				
Soft Bounce				
Technical Issue				
Total Click Rate		✅	✅	
Total Clicks		✅	✅	
Total Delivered		✅		✅
Total Failed		✅		
Total Sent		✅		✅
Total Views		✅	✅	
Unique Click Rate		✅	✅	

Table 9. Measures (continued)

Measures	Email Campaign Summary	Email Campaign Summary by Day	Email Campaign Response Analysis by Hour	Email Campaign Recipient Details
Unique Clicks		✅	✅	✅
Unique Complaints				✅
Unique Views		✅	✅	✅
Unknown				
Winner Unique Clicks				✅
Winner Unique Complaints				✅
Winner Unique Views				✅

Deliver Dimensions and Measures in Google Looker for Landing Page Channel

The measures and dimensions for the various options of the Landing Page channel, in the Explore View, are as follows:

Table 10. Dimensions

Dimensions	Landing Page Summary	Landing Page Summary by Day	Landing Page Link Overview	Landing Page Link Summary by Day
Campaign Code	✅	✅	✅	✅
Campaign ID	✅	✅	✅	✅
Campaign Name	✅	✅	✅	✅
Cell Code	✅	✅	✅	✅
Container ID		✅		✅
Container Name	✅	✅		✅
Date Fields		✅		✅
> Contact Date		✅		✅
> Contact Month		✅		✅
> Contact Quarter		✅		✅
> Contact Week		✅		✅
> Contact Year		✅		✅
> Response Date		✅		✅
> Response Month		✅		✅

Table 10. Dimensions (continued)

Dimensions	Landing Page Summary	Landing Page Summary by Day	Landing Page Link Overview	Landing Page Link Summary by Day
> Response Quarter		✅		✅
> Response Week		✅		✅
> Response Year		✅		✅
Landing Page	✅	✅	✅	✅
Landing Page Link			✅	✅
Mailing Code	✅	✅	✅	✅
Mailing Instance	✅	✅	✅	✅

Table 11. Measures

Measures	Email Campaign Summary	Email Campaign Summary by Day	Email Campaign Response Analysis by Hour	Email Campaign Recipient Details
Total Click Rate	✅	✅	✅	✅
Total Clicks	✅	✅	✅	✅

Table 11. Measures (continued)

Measures	Email Campaign Summary	Email Campaign Summary by Day	Email Campaign Response Analysis by Hour	Email Campaign Recipient Details
Total Views	✅	✅	✅	✅
Unique Click Rate	✅	✅	✅	✅
Unique Clicks	✅	✅	✅	✅
Unique Views	✅	✅	✅	✅

Deliver Dimensions and Measures in Google Looker for Mobile Push Channel

The measures and dimensions for the various options of the Mobile Push channel, in the Explore View, are as follows:

Table 12. Dimensions

Dimensions	Mobile Push Summary by Hour	Mobile Push Recipients Summary
Campaign Code	✅	✅
Campaign ID		✅
Campaign Name	✅	✅
Cell Code	✅	
Container ID	✅	✅

Table 12. Dimensions (continued)

Dimensions	Mobile Push Summary by Hour	Mobile Push Recipients Summary
Container Name	✅	✅
Date Fields	✅	✅
> Contact Date		✅
> Contact Hour of Day		✅
> Contact Month		✅
> Contact Quarter		✅
> Contact Time		✅
> Contact Week		✅
> Contact Year		✅
> Response Date	✅	✅
> Response Hour of Day	✅	✅
> Response Month	✅	✅
> Response Quarter	✅	✅
> Response Time	✅	✅
> Response Week	✅	✅
> Response Year	✅	✅
Mailing Code	✅	✅
Mailing Instance	✅	✅

Table 12. Dimensions (continued)

Dimensions	Mobile Push Summary by Hour	Mobile Push Recipients Summary
Masked Mobile No		✅
Mobile No		✅

Table 13. Measures

Measures	Mobile Push Summary by Hour	Mobile Push Recipients Summary
Count		✅
Total Delivered	✅	✅
Total Dismissed	✅	
Total Failed	✅	✅
Total Sent	✅	
Total Views	✅	✅

Deliver Dimensions and Measures in Google Looker for SMS Channel

The measures and dimensions for the various options of the SMS channel, in the Explore View, are as follows:

Table 14. Dimensions

Dimensions	SMS Campaign Summary	SMS Campaign Summary by Hour	SMS Campaign Link Summary by Hour	SMS Recipients Summary
Campaign Code	✅	✅	✅	✅
Campaign ID	✅			✅
Campaign Name	✅	✅	✅	✅
Cell Code	✅	✅	✅	
Container ID	✅	✅	✅	✅
Container Name	✅	✅	✅	✅
Date Fields		✅	✅	✅
> Contact Date		✅	✅	✅
> Contact Hour of Day		✅	✅	✅
> Contact Month		✅	✅	✅
> Contact Quarter		✅	✅	✅
> Contact Time		✅	✅	✅
> Contact Week		✅	✅	✅
> Contact Year		✅	✅	✅
> Response Date		✅	✅	✅
> Response Hour of Day		✅	✅	✅

Table 14. Dimensions (continued)

Dimensions	SMS Campaign Summary	SMS Campaign Summary by Hour	SMS Campaign Link Summary by Hour	SMS Recipients Summary
> Response Month		✅	✅	✅
> Response Quarter		✅	✅	✅
> Response Time		✅	✅	✅
> Response Week		✅	✅	✅
> Response Year		✅	✅	✅
Mailing Code	✅	✅	✅	✅
Mailing Instance	✅	✅	✅	✅
Masked Mobile No				✅
Mobile No				✅
SMS Link			✅	

Table 15. Measures

Dimensions	SMS Campaign Summary	SMS Campaign Summary by Hour	SMS Campaign Link Summary by Hour	SMS Recipients Summary
Count				✅
Delivered			✅	

Table 15. Measures (continued)

Dimensions	SMS Campaign Summary	SMS Campaign Summary by Hour	SMS Campaign Link Summary by Hour	SMS Recipients Summary
Failed			✅	
Rejected			✅	
Total Click Rate	✅	✅	✅	
Total Clicks	✅	✅	✅	✅
Total Delivered	✅	✅		✅
Total Failed	✅	✅		✅
Total Pending	✅			
Total Rejected	✅	✅		✅
Total Sent	✅			
Unique Click Rate	✅			
Unique Clicks	✅			

Deliver Dimensions and Measures in Google Looker for WhatsApp Channel

The measures and dimensions for the various options of the WhatsApp channel, in the Explore View, are as follows:

Table 16. Dimensions

Dimensions	WhatsApp Campaign Summary	WhatsApp Campaign Summary by Hour	WhatsApp Recipients Summary
Campaign Code	✅	✅	✅
Campaign ID	✅		✅
Campaign Name	✅	✅	✅
Cell Code	✅	✅	
Container ID	✅	✅	✅
Container Name	✅	✅	✅
Date Fields		✅	✅
> Contact Date		✅	✅
> Contact Hour of Day		✅	✅
> Contact Month		✅	✅
> Contact Quarter		✅	✅
> Contact Time		✅	✅
> Contact Week		✅	✅
> Contact Year		✅	✅
> Response Date		✅	✅
> Response Hour of Day		✅	✅
> Response Month		✅	✅

Table 16. Dimensions (continued)

Dimensions	WhatsApp Campaign Summary	WhatsApp Campaign Summary by Hour	WhatsApp Recipients Summary
> Response Quarter		✅	✅
> Response Time		✅	✅
> Response Week		✅	✅
> Response Year		✅	✅
Mailing Code	✅	✅	✅
Mailing Instance	✅	✅	✅
Masked Mobile No			✅
Mobile No			✅

Table 17. Measures

Dimensions	WhatsApp Campaign Summary	WhatsApp Campaign Summary by Hour	WhatsApp Recipients Summary
Count			✅
Total Delivered	✅	✅	✅
Total Failed	✅	✅	✅
Total Pending	✅		
Total Sent	✅		
Total Views	✅	✅	✅

Chapter 8. Before you contact HCL technical support

If you encounter a problem that you cannot resolve by referring the documentation, your company's designated support contact can log a call with HCL technical support. Use these guidelines to ensure that your problem is resolved efficiently and successfully.

If you are not a designated support contact at your company, contact your HCL administrator for information.

Google Looker Issues

If there are issues with the integrated Google Looker BI tool, please contact the Google Looker support team.

Information to gather

Before you contact HCL technical support, gather the following information:

- A brief description of the nature of your issue.
- Detailed error messages that you see when the issue occurs.
- Screenshot of error and Google bigquery SQL.
- Detailed steps to reproduce the issue.
- Related log files, session files, configuration files, and data files.
- Information about your product and system environment, which you can obtain as described in "System information."

System information

When you call HCL technical support, you might be asked to provide information about your environment.

Contact information for HCL technical support

For ways to contact HCL technical support, see the HCL technical support website:

https://www.hcltech.com/products-and-platforms/contact-support