Unica Open Insights User's Guide

Contents

Chapter 1. Unica Open Insights Overview

In its 12.1.1 release, Unica has introduced **Unica Open Insights**, an open data model framework that integrates with popular Business Intelligence (BI) tools, to visualize the data and generate reports as per business requirements.

In release 12.0.0, Unica introduced Unica Insights Reports (formerly known as BIRT reports). Unica Insights Reports integrated with Unica products, and the integration provided the capability of data visualization and reporting within Unica.

Unica Open Insights eliminated the dependency of specific BI tools. Because Unica Open Insights is an open data model framework, it integrates with popular BI tools, and leverages the capability of data visualization and report generation of the respective BI tool.

In release 12.1.1, **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 2).

Using **Unica Open Insights** with Google Looker is optional. You can leverage the open data mode framework of **Unica 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.
- For other BI tools, to understand the data models, see *Database View Details (on page 28)*.

Benefits of Unica Open Insights

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

- 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.
- 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 31)*.
- **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.

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.

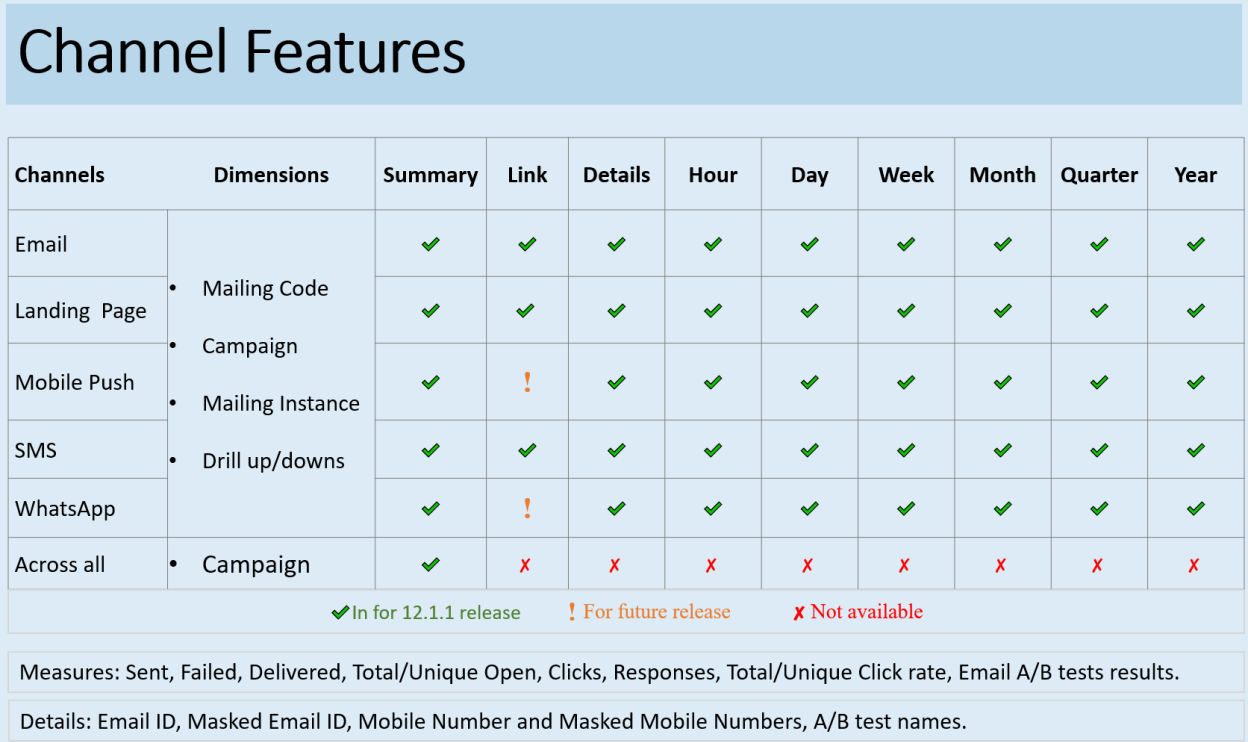
You can use Google Looker to:

- 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. Installing Unica Open Insights

Unica Open Insights installs as a part of the Unica installer. The Unica installer copies the Deliver model files and folders within the `\Campaign Home\Reports` folder. For example, `\Reports\Open Insights\Looker\Deliver\unica_deliver_project`.

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 4)*.

   Note: Unica did not do a performance testing in release 12.1.1. 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 6)*.
   b. Google Looker Installation *(on page 8)*.
3. Complete the following procedures to configure Google Looker:
   a. Configurations before accessing Google Looker *(on page 11)*.
   b. Validate and Publish the Google Looker Model *(on page 12)*.
   c. Creating Data Source for Google Looker *(on page 12)*.
4. If required, perform the following procedure:
   a. Updating a Model *(on page 19)*.

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 6)*.
Databases	**Note:** For compatible database versions, see Recommended Software Environments and Minimum System Requirements guide 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,

Table 1. Software Requirements (continued)

Software	Value
	see Google Looker Oracle Connection *(on page 16)*.
Unica Software	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. In release 12.1.1, 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 6)*. To execute the commands mentioned in the following procedure, open the command prompt and perform *Step 2* mentioned in Preinstallation Configurations *(on page 6)* 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** as LocalNTP and **Value data** as 1 and click **OK**.
11. Restart the system.
12. Open the Unix command prompt.
13. Create a folder named `looker` in the `/home/looker/` location.
14. Copy the following `JAR` files to the `/home/looker/looker/` location.
    - `looker-dependencies.jar`
    - `looker.jar`
15. Access the file `customer-scripts-master.jar` and unarchive it.
16. Access the unarchived folder `/customer-scripts-master/startup_scripts/`, copy the `looker` file from this folder, and paste it in the `/home/looker/looker` location.
17. Start Looker by running the following command.

```
./looker start
```

18. If you are logging in for the first time, provide the license key and credentials. For more information, see Google Looker documentation.
19. In the Google Looker home page, select **Browse > Shared folders**
    Your organization's folders page appears.
20. Click **New** and select **Folder**.
    The **Create folder** dialog opens.
21. Enter the name `Unica` and click **Create folder**.
    A folder name `Unica` appears.
22. Select the folder `Unica` to open it.
23. Perform *Step 19* through *Step 20* to create a folder named `Deliver` and within the `Deliver` folder, create a folder named `models`
24. Copy the data model `unica_deliver_project` to the `models` folder.
25. Stop and restart Looker.
26. **Note:** This step is optional and must be performed only if you have not configured Unica Insights Reports for Unica Deliver.

    Navigate to `Campaign_home\reports\Deliver-ddl\<db name>\` and run the following SQL files:
    - `acer_tables_sqlserver.sql`
    - `acer_indexes_sqlserver.sql`
    - `acer_scripts_sqlserver.sql`
27. Navigate to the location `Campaign_home\reports\Deliver-ddl\<db name>\open_insights\` and run the following SQL files in the Campaign database:
    - `Deliver_open_insights_tables_1211.sql`
    - `Deliver_open_insights_scripts_1211.sql`
28. If you want to drop Open Insights objects, run `Deliver_open_insights_tables_drop.sql`.

    Note: In case of DB2, before running the script, update `Deliver_open_insights_tables_drop.sql` for the `<schema-name>`.

Replace `<schema-name>` with the appropriate name of the schema before you run the script.

29. If you have not configured Insights Reports for Unica Deliver, you must configure a set of jobs in the database. For more information, see the "For Unica Deliver only: How to schedule and run stored procedures" topic in *Unica Insights Reports Installation and Configuration Guide*

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. Navigate to `Campaign_Home\reports\Open Insights\Looker \<Product_Name>\Install` directory where `<Product_Name>` is Deliver.
3. Navigate to the product folder and copy the project folder to the following location: `/home/looker/looker/models/`.
   For Unica Deliver, the project folder is `unica_deliver_project`.
4. Start Google Looker. Run the following commands:

```
cd ~/looker
./looker start
```

5. 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 `unica_deliver_project` 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 `unica_deliver_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 menu item **unica_deliver_project**.
4. 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 Deliver data source name, `deliverds`, which points to the Unica Campaign system database. 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 16) 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 16)*.

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>`. Create the folder `Unica` and within the `Unica` folder, create another folder named `Deliver`.
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. Examples for sub-folders can be Campaign and Deliver.

- 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 CAMPAIGN_1211_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.CAMPAIGN_1211_KILL_QUERY FOR
 SYS.CAMPAIGN_1211_KILL_QUERY;
GRANT EXECUTE ON SYS.CAMPAIGN_1211_KILL_QUERY TO CAMPAIGN_1211;
```

Updating a Model

The Unica 12.1.1 release introduced Unica Open Insights. In this release, you receive a data model that you can integrate with Google Looker to visualize the data. Since this is the first release of Unica Open Insights, the updated date model will be available in the next release. But before the next release, 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 having to upgrade to a new release.

Also, if you are using the `bare_model` repository, delete the existing model and replace the new model

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 Configurations before accessing Google Looker *(on page 11)*. For example, `unica_deliver_project`.
2. Copy the latest project files and folders from the install directory 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 Configurations before accessing Google Looker *(on page 11)*. For example, `unica_deliver_project`.
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`.
4. Navigate to **All Folders > LookML Dashboards**.
5. Select the three dots, succeeding **Deliver Email Dashboard**, and select **Import**.
6. Import the dashboard to `Shared\Unica\Deliver` folder.

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 22)*.
Explore	Customize reports for: • All Channels • Email • Landing Page • Mobile Push • SMS • WhatsApp For more information, see The Explore Menu (on page 23).
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 exploration views of Unica Open Insights.

Table 3. Menu Items of Explore Menu

Data Exploration View	Description
All Channels	

Table 3. Menu Items of Explore Menu (continued)

Data Exploration View	Description
Channels Comparison	Provides a comparison analysis of all the campaign channels for contacts and response measures.
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.
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.
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.

Table 3. Menu Items of Explore Menu (continued)

Data Exploration View	Description
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.
Mobile Push	
1.Mobile Push Summary by Hour	Provides an hour-based analysis of all Mobile Push campaigns for contacts and response measures.
2.Mobile Push Recipients Summary	Provides an overview of contact details and response measures for all the Mobile Push campaigns.
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.
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.

Table 3. Menu Items of Explore Menu (continued)

Data Exploration View	Description
3.WhatsApp Recipients Summary	Provides an overview of contact details and response measures for all the WhatsApp campaigns.

Saving a Dashboard

The procedure to run a report and to save the report to a dashboard is the same for all exploration view.

We will now see a procedure based example of running a report for the exploration view **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 Measures and Dimensions in Google Looker for the Email Channel - Part 1 *(on page 46)*.
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. Database View Details

Campaign database has list of views to define the Deliver data model. Please refer the following table for the view names and their description:

Table 4. Menu Items of Explore Menu

Database View Name	Description
All Channels	
UARE_CHANNELS_PERFORMANCE	Provides a comparison analysis of all the campaign channels for contacts and response measures.
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.
UARE_UNSUBSCRIBE_EMAIL	Provides an overview of contact details that unsubscribed from Email campaigns.
UARE_ABEMAIL_OVERVIEW	Provides an overview of the Email Campaign A/B test results for all variations.
Landing Page	

Table 4. Menu Items of Explore Menu (continued)

Database View Name	Description
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.
Mobile Push	
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 response measures for all the Mobile Push campaigns.
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 response measures for all the SMS campaigns.
WhatsApp	
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.

Table 4. Menu Items of Explore Menu (continued)

Database View Name	Description
UARE_WHATSAPP_RECIPIENT_-CLICK	Provides an overview of contact details and response measures for all the WhatsApp campaigns.

Note: For information related to Database views related to Google Looker, see Appendix *(on page 34)*.

Chapter 5. 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 information, see First View Hour (on page 32).
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 6. Appendix

Google Looker Exploration Views

The following topics lists the available data exploration options for each channel. The end user sees the Data Exploration View. The Database Object Name and Model Internal Name are for administrators or developers.

Table 5. All Channels

Database Object Name	`UARE_CHANNELS_PERFORMANCE`
Model Internal Name	`all_channels_performance`
Data Exploration View	Channels Comparison

Email

Database Object Name	`UARE_EMAIL_OVERVIEW`
Model Internal Name	`uare_email_overview`
Data Exploration View	1.Email Campaign Summary

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

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

Database Object Name	`UARE_EMAIL_RECIPIENT_CLICK`

Model Internal Name	`uare_email_recipient_click`
Data Exploration View	4.Email Campaign Recipient Details

Database Object Name	`UARE_UNSUBSCRIBE_EMAIL`
Model Internal Name	`uare_unsubscribe_email`
Data Exploration View	5.Email Campaign Unsubscribe Summary

Database Object Name	`UARE_EMAIL_OVERVIEW`
Model Internal Name	`uare_email_link_overview`
Data Exploration View	6.Email Campaign Link Summary

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

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

Landing Page

Database Object Name	`UARE_LP_OVERVIEW`
Model Internal Name	`uare_lp_overview`
Data Exploration View	1.Landing Page Summary

Database Object Name	`UARE_LP_DAY`
Model Internal Name	`uare_lp_day`

Data Exploration View	2.Landing Page Summary by Day

Database Object Name	`UARE_LP_OVERVIEW`
Model Internal Name	`uare_lp_link_overview`
Data Exploration View	3.Landing Page Link Overview

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

Mobile Push

Database Object Name	`UARE_MOBILE_OVERVIEW`
Model Internal Name	`uare_mobile_overview`
Data Exploration View	1.Mobile Push Summary by Hour

Database Object Name	`UARE_MOBILE_RECIPIENT_CLICK`
Model Internal Name	`uare_mobile_recipient_click`
Data Exploration View	2.Mobile Push Recipients Summary

SMS

Database Object Name	`UARE_SMS_OVERVIEW`
Model Internal Name	`uare_sms_overview`
Data Exploration View	1.SMS Campaign Summary

Database Object Name	`UARE_SMS_DAY`
Model Internal Name	`uare_sms_day`

Data Exploration View	2.SMS Campaign Summary by Hour

Database Object Name	`UARE_SMS_DAY`
Model Internal Name	`uare_sms_link_day`
Data Exploration View	3.SMS Campaign Link Summary by Hour

Database Object Name	`UARE_SMS_RECIPIENT_CLICK`
Model Internal Name	`uare_sms_recipient_click`
Data Exploration View	4.SMS Recipients Summary

WhatsApp

Database Object Name	`UARE_WHATSAPP_OVERVIEW`
Model Internal Name	`uare_whatsapp_overview`
Data Exploration View	1.WhatsApp Campaign Summary

Database Object Name	`UARE_WHATSAPP_DAY`
Model Internal Name	`uare_whatsapp_day`
Data Exploration View	2.WhatsApp Campaign Summary by Hour

Database Object Name	`UARE_WHATSAPP_RECIPIENT_CLICK`
Model Internal Name	`uare_whatsapp_recipient_click`
Data Exploration View	3.WhatsApp Recipients Summary

Deliver Data Model Dimensions in Google Looker

The following table provides information about available dimensions, descriptions, and their data types in all exploration views:

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. 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.

Data Model 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 WhatsApp	Masked mobile number of the recipient.

Date and Time Dimensions 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).

Common Dimension	Data Type	Channel	Description
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 Mobile SMS WhatsApp	The year when contact was made by a channel (drill-up and drill-down are available).
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	The month when response was received (drill-up and drill-down are available).

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

Common Dimension	Data Type	Channel	Description
Total Sent	Number	Email	Total contacts sent by the channel.

Common Dimension	Data Type	Channel	Description
		Mobile SMS WhatsApp	
Total Failed	Number	Email Mobile SMS WhatsApp	Sum of all failed response types.
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.

Common Dimension	Data Type	Channel	Description
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.
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.

Common Dimension	Data Type	Channel	Description
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 reported 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.

Common Dimension	Data Type	Channel	Description
			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.
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 trans-

Common Dimension	Data Type	Channel	Description
			mitting 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 result 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.

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

The measures and dimensions for the various data exploration views of the email channel 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	Yes	Yes	Yes	Yes
Campaign ID	Yes	Yes		Yes
Campaign Name	Yes	Yes	Yes	Yes
Cell Code	Yes	Yes		
Container ID	Yes	Yes	Yes	Yes
Container Name	Yes	Yes	Yes	
Date Fields		Yes		Yes
> Contact Date		Yes		Yes
> Contact Month		Yes		Yes
> Contact Quarter		Yes		Yes
> Contact Time				
> Contact Week		Yes		Yes
> Contact Year		Yes		Yes
> Response Date		Yes		Yes
> Response Month		Yes		Yes
> Response Quarter		Yes		Yes
> Response Time				

Table 6. Dimensions (continued)

Dimensions	Email Campaign Summary	Email Campaign Summary by Day	Email Campaign Response Analysis by Hour	Email Campaign Recipient Details
> Response Week		Yes		Yes
> Response Year		Yes		Yes
Document				
Email				Yes
Email (Masked)				Yes
Email Link				Yes
First Contact Hour				Yes
First Viewed Hour				
Mailing Code	Yes	Yes	Yes	Yes
Mailing Instance	Yes	Yes	Yes	Yes
Mailing Name				Yes
Response Date			Yes	
> Date			Yes	
> Hour of Day			Yes	
> Month			Yes	
> Quarter			Yes	
> Time			Yes	
> Week			Yes	

Table 6. Dimensions (continued)

Dimensions	Email Campaign Summary	Email Campaign Summary by Day	Email Campaign Response Analysis by Hour	Email Campaign Recipient Details
> Year			Yes	
Test Name				
Winning Criteria				
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	Yes			
Count				Yes
Hard Bounce	Yes			
ISP Feedback	Yes			
Other	Yes			
Out of Office	Yes			
Send Failed	Yes			
Soft Bounce	Yes			

Table 7. Measures (continued)

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

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

The measures and dimensions for the various data exploration views of the email channel 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	Yes	Yes	Yes	Yes
Campaign ID	Yes	Yes	Yes	
Campaign Name		Yes	Yes	Yes
Cell Code		Yes	Yes	
Container ID	Yes	Yes	Yes	Yes
Container Name	Yes	Yes	Yes	Yes
Date Fields	Yes		Yes	
> Contact Date	Yes		Yes	
> Contact Month	Yes		Yes	
> Contact Quarter	Yes		Yes	
> Contact Time	Yes			
> Contact Week	Yes		Yes	

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 Year	Yes		Yes	
> Response Date	Yes		Yes	
> Response Month	Yes		Yes	
> Response Quarter	Yes		Yes	
> Response Time	Yes			
> Response Week	Yes		Yes	
> Response Year	Yes		Yes	
Document				Yes
Email	Yes			
Email (Masked)	Yes			
Email Link	Yes	Yes	Yes	
First Contact Hour				
First Viewed 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
Mailing Code	Yes	Yes	Yes	Yes
Mailing Instance	Yes	Yes	Yes	Yes
Mailing Name	Yes			
Response Date				
> Date				
> Hour of Day				
> Month				
> Quarter				
> Time				
> Week				
> Year				
Test Name				Yes
Winning Criteria				Yes
Winning Test				Yes

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	Yes			
Hard Bounce				
ISP Feedback				
Other				
Out of Office				
Send Failed				
Soft Bounce				
Technical Issue				
Total Click Rate		Yes	Yes	
Total Clicks		Yes	Yes	
Total Delivered		Yes		Yes
Total Failed		Yes		
Total Sent		Yes		Yes
Total Views		Yes	Yes	
Unique Click Rate		Yes	Yes	
Unique Clicks		Yes	Yes	Yes

Table 9. Measures (continued)

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

Measures and Dimensions in Google Looker for Landing Page Channel

The measures and dimensions for the various data exploration views of the Landing Page channel 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	Yes	Yes	Yes	Yes

Table 10. Dimensions (continued)

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

Table 10. Dimensions (continued)

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

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	Yes	Yes	Yes	Yes
Total Clicks	Yes	Yes	Yes	Yes
Total Views	Yes	Yes	Yes	Yes
Unique Click Rate	Yes	Yes	Yes	Yes

Table 11. Measures (continued)

Measures	Email Campaign Summary	Email Campaign Summary by Day	Email Campaign Response Analysis by Hour	Email Campaign Recipient Details
Unique Clicks	Yes	Yes	Yes	Yes
Unique Views	Yes	Yes	Yes	Yes

Measures and Dimensions in Google Looker for Mobile Push Channel

The measures and dimensions for the various data exploration views of the Mobile Push channel are as follows:

Table 12. Dimensions

Dimensions	Mobile Push Summary by Hour	Mobile Push Recipients Summary
Campaign Code	Yes	Yes
Campaign ID		Yes
Campaign Name	Yes	Yes
Cell Code	Yes	
Container ID	Yes	Yes
Container Name	Yes	Yes
Date Fields	Yes	Yes
> Contact Date		Yes
> Contact Hour of Day		Yes

Table 12. Dimensions (continued)

Dimensions	Mobile Push Summary by Hour	Mobile Push Recipients Summary
> Contact Month		Yes
> Contact Quarter		Yes
> Contact Time		Yes
> Contact Week		Yes
> Contact Year		Yes
> Response Date	Yes	Yes
> Response Hour of Day	Yes	Yes
> Response Month	Yes	Yes
> Response Quarter	Yes	Yes
> Response Time	Yes	Yes
> Response Week	Yes	Yes
> Response Year	Yes	Yes
Mailing Code	Yes	Yes
Mailing Instance	Yes	Yes
Masked Mobile No		Yes
Mobile No		Yes

Table 13. Measures

Measures	Mobile Push Summary by Hour	Mobile Push Recipients Summary
Count		Yes

Table 13. Measures (continued)

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

Measures and Dimensions in Google Looker for SMS Channel

The measures and dimensions for the various data exploration views of the SMS channel 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	Yes	Yes	Yes	Yes
Campaign ID	Yes			Yes
Campaign Name	Yes	Yes	Yes	Yes
Cell Code	Yes	Yes	Yes	
Container ID	Yes	Yes	Yes	Yes
Container Name	Yes	Yes	Yes	Yes
Date Fields		Yes	Yes	Yes

Table 14. Dimensions (continued)

Dimensions	SMS Campaign Summary	SMS Campaign Summary by Hour	SMS Campaign Link Summary by Hour	SMS Recipients Summary
> Contact Date		Yes	Yes	Yes
> Contact Hour of Day		Yes	Yes	Yes
> Contact Month		Yes	Yes	Yes
> Contact Quarter		Yes	Yes	Yes
> Contact Time		Yes	Yes	Yes
> Contact Week		Yes	Yes	Yes
> Contact Year		Yes	Yes	Yes
> Response Date		Yes	Yes	Yes
> Response Hour of Day		Yes	Yes	Yes
> Response Month		Yes	Yes	Yes
> Response Quarter		Yes	Yes	Yes
> Response Time		Yes	Yes	Yes
> Response Week		Yes	Yes	Yes
> Response Year		Yes	Yes	Yes
Mailing Code	Yes	Yes	Yes	Yes
Mailing Instance	Yes	Yes	Yes	Yes
Masked Mobile No				Yes

Table 14. Dimensions (continued)

Dimensions	SMS Campaign Summary	SMS Campaign Summary by Hour	SMS Campaign Link Summary by Hour	SMS Recipients Summary
Mobile No				Yes
SMS Link			Yes	

Table 15. Measures

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

Table 15. Measures (continued)

Dimensions	SMS Campaign Summary	SMS Campaign Summary by Hour	SMS Campaign Link Summary by Hour	SMS Recipients Summary
Unique Clicks	Yes			

Measures and Dimensions in Google Looker for WhatsApp Channel

The measures and dimensions for the various data exploration views of the WhatsApp channel are as follows:

Table 16. Dimensions

Dimensions	WhatsApp Campaign Summary	WhatsApp Campaign Summary by Hour	WhatsApp Recipients Summary
Campaign Code	Yes	Yes	Yes
Campaign ID	Yes		Yes
Campaign Name	Yes	Yes	Yes
Cell Code	Yes	Yes	
Container ID	Yes	Yes	Yes
Container Name	Yes	Yes	Yes
Date Fields		Yes	Yes
> Contact Date		Yes	Yes
> Contact Hour of Day		Yes	Yes
> Contact Month		Yes	Yes

Table 16. Dimensions (continued)

Dimensions	WhatsApp Campaign Summary	WhatsApp Campaign Summary by Hour	WhatsApp Recipients Summary
> Contact Quarter		Yes	Yes
> Contact Time		Yes	Yes
> Contact Week		Yes	Yes
> Contact Year		Yes	Yes
> Response Date		Yes	Yes
> Response Hour of Day		Yes	Yes
> Response Month		Yes	Yes
> Response Quarter		Yes	Yes
> Response Time		Yes	Yes
> Response Week		Yes	Yes
> Response Year		Yes	Yes
Mailing Code	Yes	Yes	Yes
Mailing Instance	Yes	Yes	Yes
Masked Mobile No			Yes
Mobile No			Yes

Table 17. Measures

Dimensions	WhatsApp Campaign Summary	WhatsApp Campaign Summary by Hour	WhatsApp Recipients Summary
Count			Yes

Table 17. Measures (continued)

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

Chapter 7. 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