

# **Cognos Reports Installation and Configuration Guide**



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# Chapter 1. Cognos Reports Installation and Configuration Guide

This guide provides information on how to install and configure IBM Cognos reports.

## Installation overview

An installation of the Unica reports is complete when you install IBM Cognos® BI or Unica Insights reports and configure it for Unica applications. This guide provides detailed information about configuring IBM Cognos BI, and integrating IBM Cognos BI with Unica.

For details on Unica Insights reports, see the Unica Insights Reports Installation and Configuration guide.

If you are using Unica Deliver reports, you must complete additional steps to install or upgrade reports. Also, you must involve your database administrator in the process of installing or upgrading Unica Deliver reports.

Use the Installation Roadmap to understand the installation process for the Unica reports.

## Installation roadmap

Use the installation roadmap to quickly find the information that you need to install Unica reports.

The reports installation process includes the following steps:

- Install the reporting components.
- Install and test IBM Cognos BI.
- Install the Unica integration components and report models on the Cognos system.
- Customize the reports.

The following tables provide high level overviews of the Unica reports installation process, with brief descriptions of the steps involved and information about where to find detailed instructions.

**Table 1. Roadmap for installing the reporting components**

**This three-columned table provides the steps in the first column, the description in the second column, and information about where to find details in the third column.**

Step	Description	Where to find details
Understand prerequisites.	<p>Understand system prerequisites that are required for installing reports.</p> <p> <b>Important:</b> For Unica Deliver, you also need to understand the additional prerequisites for installing Unica Deliver reports.</p>	<p>See <i>Recommended Software Environments and Minimum System Requirements</i>.</p> <p>For Unica Deliver, also see <a href="#">Prerequisites for Unica Deliver Reports (on page 15)</a>.</p>
Install Unica products.	Install the products that provide the data that is used in reports.	See the individual product installation guides.
Set up a system user.	Configure a user with access to the <b>Settings &gt; Configuration</b> and <b>Settings &gt; Report SQL Generator</b> pages. Log in as this user when you configure the reporting properties and generate the SQL that is used to create reporting schema.	See <a href="#">Configuring a user with the ReportsSystem role (on page 18)</a> .

Step	Description	Where to find details
Install the reporting schemas on the machine where the Unica Platform is installed.	Place the master installer and the report pack installers in the same directory and launch the master installer.	See <a href="#">Installing reporting schemas on the Unica system (on page 19)</a>
Create JDBC data sources.	In the application server where Unica Platform is deployed, create JDBC data source connections to the system table databases for the products you want to use for reporting.	See <a href="#">Creating JDBC data sources (on page 20)</a> .

**Table 2. Roadmap for installing and testing Cognos BI**

This three-columned table provides the steps in the first column, the description in the second column, and information about where to find details in the third column.

Step	Description	Where to find details
Install IBM® Cognos BI	Use the Cognos documentation to guide your installation, and then test the system.	See <a href="#">Install and test IBM Cognos BI (on page 21)</a> .

**Table 3. Roadmap for installing the Unica integration components and report models on the Cognos system**

This three-columned table provides the steps in the first column, the description in the second column, and information about where to find details in the third column.

Step	Description	Where to find details
Obtain the JDBC driver used for the Unica Platform system tables.	Copy the JDBC driver used for Unica Platform to the machine where the Cognos Content Manager is installed. When authentication is implemented, Cognos uses this when it obtains user information.	See <a href="#">Obtaining the JDBC driver for the Unica Platform system tables (on page 25)</a> .

Step	Description	Where to find details
Install the reporting models and integration component on the Cognos system.	Place the Unica master installer, Unica Platform installer, and product report pack installers in the same directory on the machine where the Cognos Content Manager is installed. Then, launch the master installer.	See <a href="#">Installing the reporting models and integration component on the Cognos system (on page 25)</a> .
Create the Cognos data sources for the Unica application databases.	The Cognos applications need to connect to the Unica application data sources for the reports. Use the Administration section of Cognos Connection to create these data sources.	See <a href="#">Creating Cognos data sources for Unica application databases (on page 27)</a> .
Set up email notification.	If you want to enable an option for sending a report as an email attachment, configure notification in Cognos Configuration.	See <a href="#">Optional: Setting up email notifications (on page 28)</a> .
Configure the Cognos firewall.	In Cognos Configuration, specify the Unica system as a valid domain or host.	See <a href="#">Configuring IBM Cognos Application Firewall for Unica (on page 29)</a> .
For Unica Deliver, run scripts to create staging tables, indexes, and stored procedures.	Run the scripts that are necessary to create staging tables, indexes, and stored procedures for Unica Deliver reports.	See <a href="#">For Unica Deliver only: Creating stored procedures, staging tables, and indexes (on page 32)</a>
Load the templates for the Reports SQL Generator.	To implement reporting for Unica Campaign, Unica Deliver, and Unica Interact, you create reporting views from which the reports extract reportable data. The reports packs	See <a href="#">Loading templates for the Reports SQL</a>

Step	Description	Where to find details
	contain templates that the Reports SQL Generator uses when generating SQL scripts for creating these views. In this step, you load these templates into the Unica Platform system table database.	<a href="#">Generator</a> (on page 34).
Generate the view creation scripts.	Set some required configuration properties, and then use the Report SQL Generator to produce the SQL for creating the reporting views.	See <a href="#">Generating view creation scripts</a> (on page 34).
Create the reporting views.	Create the views in the Unica product system table databases.	<p>See one of the following topics:</p> <ul style="list-style-type: none"> <li>• <a href="#">For Unica Campaign and Unica Deliver: Creating and populating reporting tables</a> (on page 38)</li> <li>• <a href="#">For Unica Interact only: Creating and populating reporting tables</a> (on page 42)</li> <li>• <a href="#">For Unica Campaign and Unica Deliver only: Creating views</a></li> </ul>

Step	Description	Where to find details
		<p><a href="#">or materialized views (on page 39)</a></p> <ul style="list-style-type: none"> <li>• <a href="#">For Unica Interact only: Creating views or materialized views (on page 41)</a></li> </ul>
Import the reports folder for all products.	In Cognos Connection, import the compressed file for reports.	See <a href="#">Importing the reports folder in Cognos Connection (on page 44)</a> .
Configure and publish the data model.	You must complete this step if the data source login that you used when you created the Cognos data sources is not the owner of the Unica system tables.	See <a href="#">Configuring and publishing the data model (on page 45)</a> .
Enable internal links in the reports.	The Unica reports have standard links. To enable them, you must configure the redirect URL in the Cognos data model.	See <a href="#">Enabling internal links in the reports (on page 47)</a> .
Verify the data source names and publish.	This step varies depending on whether you used the default data source names in Cognos Connection.	See <a href="#">Verifying data source names and publishing (on page 48)</a> .
Configure the Cognos reporting properties in Unica.	Log in to Unica and set Cognos reporting properties.	See <a href="#">Configuring Cognos reporting properties in Unica Platform (on page 48)</a> .

Step	Description	Where to find details
Configure report folder permissions.	To give users permission to run reports from within Unica applications, assign the default ReportsUser role to the appropriate user groups or users.	See <a href="#">Setting report folder permissions (on page 50)</a> .
For Unica Deliver, run and schedule stored procedures.	<p>Unica Deliver reports use data that is contained in staging tables, which are populated by stored procedures that perform a delta refresh operation. The scheduling of the procedures depends on your database. Scheduling the procedures must be done by a database administrator who is familiar with your Unica Campaign and Unica Deliver environments and with your business requirements.</p> <p> <b>Note:</b> You cannot see data in Unica Deliver reports until you run the stored procedures.</p>	See <a href="#">For Unica Deliver only: How to schedule and run stored procedures (on page 51)</a> .
Stored procedures for the Interact Event Pattern report.	<p>The Interact Event Pattern report uses the data that is contained in staging tables, which are populated by stored procedures. The stored procedures perform a delta refresh operation.</p> <p>The Interact ETL triggers the report data aggregation automatically so you do not need to configure database jobs to perform a delta refresh.</p>	See <a href="#">Stored procedures for the Unica Interact Event Pattern report (on page 65)</a> .
Enable the stored procedures for	The Interact Event Pattern report uses the delta refresh process for data aggregation so that reports can render faster.	See <a href="#">Enabling stored procedures for the Unica Interact Event</a>

Step	Description	Where to find details
the Interact Event Pattern report		<a href="#">Pattern report (on page 69).</a>
For the Interact Event Pattern report, change the degree of parallel executions	Increase the degree of parallel execution for the Interact Event Pattern report aggregation process to increase speed and improve performance.	See <a href="#">Changing the degree of parallel execution for the Interact Event Pattern report (on page 72).</a>
Test the configuration without authentication enabled.	After the reports are installed and configured, but before you enable authentication, test the setup by running some reports.	See <a href="#">Testing your configuration before you enable authentication (on page 77).</a>
Configure Cognos to use Unica authentication.	The Unica Authentication Provider enables the Cognos applications to use Unica authentication to communicate with Unica Platform as if it were another application in the suite.	See <a href="#">How to configure IBM Cognos to use Unica authentication (on page 78).</a>
Test your configuration with authentication configured.	After you configure Cognos to use Unica authentication, test the system again.	See <a href="#">Testing your configuration with authentication configured (on page 84).</a>

**Table 4. Roadmap for customizing the reports**

This three-columned table provides the steps in the first column, the description in the second column, and information about where to find details in the third column.

Step	Description	Where to find details
Complete customization steps.	At this point, reporting works properly and the example reports are in their default state. You might need to customize the reports or reporting schemas for Unica Campaign, Unica Interact, or Unica Plan.	See <a href="#">How to customize reporting schemas (on page 99)</a> .

## How the installers work

You must use the suite installer and the product installer when you install or upgrade any Unica product. For example, for installing Unica Campaign and Unica Optimize, you must use the Unica suite installer and the Unica Campaign installer.

Make sure that you use the following guidelines before you use the Unica suite installer and the product installer:

- The Unica installer and the product installer must be in the same directory on the computer where you want to install the product. When multiple versions of a product installer are present in the directory with the Unica installer, the Unica installer always shows the latest version of the product on the Unica Products screen in the installation wizard.
- If you are planning to install a patch immediately after you install an Unica product, make sure that the patch installer is in the same directory as that of the suite and product installers.
- The default top-level directory for Unica installations is `/HCL/Unica` for UNIX™ or `C:\HCL\Unica` for Windows™. However, you can change the directory during installation.

## Modes of installation

The Unica suite installer can run in one of the following modes: GUI mode, X Window System mode, console mode, or silent mode (also called the unattended mode). Select a mode that suits your requirements when you install Unica and Unica Optimize.

For upgrades, you use the installer to perform many of the same tasks that you perform during the initial installation.

### **GUI Window System mode mode**

Use the GUI mode for Windows or the X Window System mode for UNIX to install Unica by using the graphical user interface.

### **UNIX X Window System mode**

Use the X Window System mode for UNIX to install Unica by using the graphical user interface.

### **Console mode**

Use the console mode to install Unica by using the command line window.

 **Note:** To display the Installer screens correctly in console mode, configure your terminal software to support UTF-8 character encoding. Other character encoding, such as ANSI, will not render the text correctly, and some information will not be readable.

### **Silent mode**

Use the silent or unattended mode to install Unica multiple times. The silent mode uses response files for installation, and does not require user input during the installation process.

 **Note:** Silent mode is not supported for upgrade installations in clustered web application or clustered listener environments.

## Installation files

Installation files for all Unica products are named according to the version of the product and the operating system on which they must be installed, except UNIX. For UNIX, different installation files exist for the X Window System mode and the console mode.

The following table describes how installation files are named according to the operating system:

**Table 5. Installation files**

**This two-columned table provides the name of the operating systems in one column, and the name of the installation files for the operating system in the second column.**

Operating system	Installation file
Windows: GUI and console mode	Depending on your product, the installation file can be <i>Product_N.N.N.N_win64.exe</i> or <i>Product_N.N.N.N_win.exe</i> , where <i>Product</i> is the name of your product, <i>N.N.N.N</i> is the version number of your product.
UNIX: X Window System mode	Depending on your product, the installation file can be <i>Product_N.N.N.N_solaris64.bin</i> or <i>Product_N.N.N.N_solaris.bin</i> , where <i>Product</i> is the name of your product, <i>N.N.N.N</i> is the version number of your product.
UNIX: Console mode	<i>Product_N.N.N.N.bin</i> , where <i>Product</i> is the name of your product, and <i>N.N.N.N</i> is the version number of your product. This file can be used for installation on all UNIX-based operating systems.

## Plan the Unica reports installation

When you plan your Unica reports installation, you must ensure that you correctly set up your system and configure your environment.

Review the prerequisites carefully. For Unica Deliver, also review the prerequisites that are specific to Unica Deliver.

## Prerequisites

Before you install or upgrade any Unica product, you must ensure that your computer complies with all of the prerequisite software and hardware.

### Flowcharts with eMessage Process box

If you are having any in-use flowchart with eMessage process box - you will need to remove this process box from flowchart before upgrading to v12.1.1. Campaign flowcharts with old eMessage process box will not work in v12.1.1.

### System requirements

For information about system requirements, see the Recommended Software Environments and Minimum System Requirements guide.

### Network domain requirements

The Unica products that are installed as a suite must be installed on the same network domain to comply with the browser restrictions that are designed to limit the security risks that can occur with cross-site scripting.

 **Important:** For best performance, install Campaign listener to execute Optimize session on its own system, where no other Unica products are installed. Unica Optimize requires significant computation and data processing resources. You have the greatest control and flexibility for performance-tuning if you operate Unica Optimize in a dedicated environment.

### JVM requirements

Unica applications within a suite must be deployed on a dedicated Java™ virtual machine (JVM). Unica products customize the JVM that is used by the web application server.

## Knowledge requirements

To install Unica products, you must have a thorough knowledge of the environment in which the products are installed. This knowledge includes knowledge about operating systems, databases, and web application servers.

## Internet browser settings

Make sure that your internet browser complies with the following settings:

- The browser must not cache web pages.
- The browser must not block pop-up windows.

## Access permissions

Verify that you have the following network permissions to complete the installation tasks:

- Administration access for all necessary databases

 **Note:** Administrator must have `CREATE, SELECT, INSERT, UPDATE, DELETE, and DROP` rights for both tables and views.

- Read and write access to the relevant directory and sub-directories for the operating system account that you use to run the web application server and Unica components.
- Write permission for all files that you must edit.
- Write permission for all directories where you must save a file, such as the installation directory and backup directory if you are upgrading.
- Appropriate read, write, and execute permissions to run the installer.

Verify that you have the administrative password for your web application server.

For UNIX, all installer files for products must have full permissions, for example, `rwrxr-xr-x`.

The following additional permissions are necessary for UNIX:

- The user account that installs Campaign and Unica Platform must be a member of the same group as the Unica Campaign users. This user account must have a valid home directory and have write permissions for that directory.

- All installer files for HCL Unica products must have full permissions, for example, rwxr-xr-x.

 **Note:** For versions 12.0.0 and later, to execute Optimize sessions, users are required to apply for licenses. For more details, contact the HCL Support or Sales team.

### Points to consider before you install Unica Campaign

For Unica Campaign installation you are required to consider the following points.

### JAVA\_HOME environment variable

If a JAVA\_HOME environment variable is defined on the computer where you install an Unica product, verify that the variable points to a supported version of JRE. For information about system requirements, see the Unica Recommended Software Environments and Minimum System Requirements guide.

If the JAVA\_HOME environment variable points to an incorrect JRE, you must clear the JAVA\_HOME variable before you run the Unica installers.

You can clear the JAVA\_HOME environment variable by using one of the following methods:

- Windows: In a command window, enter set JAVA\_HOME= (leave empty) and press **Enter**.
- UNIX: In the terminal, enter export JAVA\_HOME= (leave empty) and press **Enter**.

You can clear the JAVA\_HOME environment variable by running the following command in the terminal:

```
export JAVA_HOME= (leave empty)
```

The Unica installer installs a JRE in the top-level directory for the Unica installation. Individual Unica application installers do not install a JRE. Instead, they point to the location of the JRE that is installed by the Unica installer. You can reset the environment variable after all installations are complete.

For more information about the supported JRE, see the Unica Recommended Software Environments and Minimum System Requirements guide.

## Unica Platform requirements

You must install or upgrade Unica Platform before you install or upgrade any Unica products. For each group of products that work together, you must install or upgrade Unica Platform only once. Each product installer checks whether the required products are installed. If your product or version is not registered with Unica Platform, a message prompts you to install or upgrade Unica Platform before you proceed with your installation. Unica Platform must be deployed and running before you can set any properties on the **Settings > Configuration** page.

 **Note:** For installations on UNIX, you may require to set the `Djava.awt.headless` property to true in your web application server. The setting is required only when you are unable to view Unica Optimize reports. See the Unica Campaign Installation Guide for details. You do not require to prepare any additional data sources for Unica Optimize because Unica Optimize uses the Unica Campaign system tables data source.

 **Note:** For versions 12.0.0 and higher, ensure that you do not select the database type Informix as it is not functional. From version 12.1.0.3 and higher, users can use OneDB database as system tables and user tables. See the *Unica V12.1.0.3 Installation Guide for OneDB* for more details.

## Prerequisites for Unica Deliver Reports

If you use Unica Deliver reports, you must comply with specific prerequisites in addition to the system requirements for installing reports.

For better performance, you might need 40% of the data size as temporary table space. Work with your database administrator to regularly fine-tune your database. For best results, you can store Unica Deliver system tables in a separate table space that is mounted on a separate, unshared disk.

### Settings for DB2®

If you use DB2, you must use version 9.7.8 or higher.

**⚠ Important:** You must set the following value before you begin applying the Unica Deliver reports:

```
db2set DB2_COMPATIBILITY_VECTOR=ORA
```

## Sample sizes for DB2

For an DB2 Unica Campaign database of approximately 600 GB with most of the data population in the reporting tables (UCC\_\*), you might use the following settings:

- Tablespace page size: 16K
- Temp tablespace: 250 GB
- db2 update db cfg using auto\_reval DEFERRED\_FORCE;
- db2 update db cfg using decflt\_rounding ROUND\_HALF\_UP;
- db2 update db config using LOGFILSIZ 102400;
- db2 update db config using logprimary 13;
- db2 update db config using LOGSECOND 25;
- db2stop force
- db2start

**⚠ Important:** The size of your transaction log can affect reports processing. Review your database environment requirements, especially the size of the transaction log, with your database administrator.

## Settings for Oracle

If you use Oracle, you must use version 11g or higher. Review your environment requirements with your database administrator.

## Sample sizes for Oracle

For an Oracle Unica Campaign database of approximately 650 GB with most of the data population in the reporting tables (UCC\_\*), you might use the following settings:

- Temp tablespace: 250 GB
- Size for REDO logs: 2 GB
- Number of REDO logs: 4

## Settings for Microsoft™ SQL Server

If you use Microsoft SQL, you must use SQL Server 2008 or higher. Review your environment requirements with your database administrator.

### Sample sizes for Microsoft SQL Server

For Microsoft SQL Server database of approximately 520 GB with most of the data population in the reporting tables (UCC\_\*), you might use the following settings:

- Temp tablespace: 250 GB

## Settings for Internet Explorer

If you use Internet Explorer, make sure that the browser security settings allow automatic prompting for file downloads. Complete the following steps to verify that the browser allows automatic prompting for file downloads:

1. Open Internet Explorer and go to **Tools > Internet Options**.
2. In the **Security** tab, click **Custom Level**.
3. Scroll down to the **Downloads** section.
4. Make sure that the **Automatic prompting for file downloads** option is set to **Enable**.

## Install reporting components

To install Unica reporting for your products, you must install the reporting components.

Reporting components include the following items:

- Unica integration components
- Report models on the IBM Cognos system
- Reporting schemas

## Assigning a role to or removing a role from a user

Use the **Edit roles** window to assign a role to or to remove a role from a user.

Complete the following tasks to assign or remove a role from a user:

1. Click **Settings > Users**.
2. Click the name of the user account that you want to work with.
3. Click **Edit roles**.

Roles that are not assigned to the user are shown in the **Available Roles** box on the left. Roles that are currently assigned to the user are shown in the **Selected roles** box on the right.

4. Select a role in the **Available roles** box. Complete one of the following tasks:
  - To assign a role to a user, select a role in the **Available roles** box, and click **Add**.
  - To remove a role from a user, select a role in the **Selected roles** box, and click **Remove**.
5. Click **Save changes**, and then click **OK**.

### Configuring a user with the ReportsSystem role

You must configure a user with the ReportsSystem role. This role is used to configure reporting properties and to generate the SQL script that is used to create the reporting schemas.

A user with the ReportsSystem role can access the **Configuration** and **Report SQL Generator** pages. You must configure a user with access to the Unica **Settings > Configuration** and **Settings > Report SQL Generator** pages. Then, you can log in as this user to configure the reporting properties and generate the SQL script that is used to create the reporting schemas.

To configure a user with the ReportsSystem role, complete the following steps.

1. Create a user.

 **Note:** You can also use the platform\_admin user.

2. Go to **User Roles and Permissions > Report > PartitionN** and assign the ReportsSystem role to that user.
3. Verify that the user has access to the **Settings > Configuration** and **Settings > Report SQL Generator** pages.

## Installing reporting schemas on the Unica system

Use the Unica suite master installer and the reports package installers to install reporting schemas on the computer where Unica Platform is installed.

To install the reporting schemas, complete the following steps.

1. In the **Reports Pack Product Components** window, select **Reporting Schema**.
2. If more than one option appears in the **Schema Type Selection** window, it means that the application has prepackaged custom attributes. Complete one of the following steps depending on whether custom attributes exist:
  - To install reporting schemas that include custom attributes, select **Custom**. The sample reports for Unica Campaign are configured to use custom attributes. If you install the Unica Campaign report package, you must select **Custom** so the sample reports function correctly.
  - To install reporting schemas that do not include custom attributes, except Unica Deliver, select **Base**. For Unica Deliver, always select **Custom**.

The installer places the reporting schema in the file system and registers the schema with Unica Platform.

3. Complete the following steps to verify that the reporting schemas are registered in Unica Platform:
  - a. Log in to the Unica suite as the platform\_admin user.
  - b. Go to **Select > Configuration**.
  - c. Expand **Reports > Schemas > ProductName**.

If you see the schema configuration properties for your application, your installation is complete.

If the schema configuration properties for your application are not shown, the report package has not been registered and you must register the reports package manually. Continue with the next step.

4. **Optional:** Complete the following steps to register the configuration properties manually:

- a. In the `tools` directory under your reports package installation, open the `import_all` script.
- b. Set the value of the **MANAGER\_TOOLS\_BIN\_DIR** variable to the `tools/bin` directory under your Unica Platform installation.
- c. Run `import_all.bat` (for Windows) or `import_all.sh` (for Unix).

The script starts the Unica Platform `configTool` utility and registers the schemas.

- d. Verify that the schema configuration properties are present.

## Creating JDBC data sources

You must configure a JDBC data source for every Unica application for which you want to enable reporting.

The Unica Reports SQL Generator tool must be able to connect to the Unica application databases to generate SQL scripts that create reporting tables. The Reports SQL Generator can generate SQL scripts that create views or materialized views without access to the application databases. However, the SQL generator cannot validate the SQL code without a data source connection.

If you need more help with this task, see the application documentation.

To create the JDBC data source, complete the following steps.

To configure JDBC data sources, use the default JNDI name that is listed in the following table.

 **Note:** If you do not use the default JNDI names, make a note of the names that you use. You must specify the correct name of the data source when you run the SQL Generator tool.

**Table 6. Default JNDI names**

This two-columned table provides information about the HCL applications in one column, and the default JNDI name in the second column.

HCL application	Default JNDI name
Unica Campaign	campaignPartition1DS  If there are multiple partitions, create a data source for each partition.
Unica Interact	<ul style="list-style-type: none"> <li>• For the design-time database: <code>campaignPartition1DS</code></li> <li>• For the runtime database: <code>InteractRTDS</code></li> <li>• For the learning tables: <code>InteractLearningDS</code></li> </ul>

## Install and test IBM Cognos BI

Your license agreement with [IBM](#) must grant you an Cognos BI license so you can download the Cognos BI installation files. IBM Cognos BI is a collection of applications, servers, and services that is organized in a multi-tiered architecture.

### IBM Cognos BI applications

When you use IBM Cognos BI with the Unica suite, you use the following subset of Cognos BI applications:

- IBM Cognos BI Server provides storage for reports, folders, queries, metadata models, and the Content Manager.
- IBM Cognos Connection is a web application that you use to import, configure, and schedule reports. The application also provides access to the following components:

- Cognos Viewer displays the reports in your Unica applications.
- Report Studio allows you to customize and create reports.
- Cognos Administration allows you to configure data sources.
- IBM Cognos Framework Manager is the metadata modeling tool that you use to configure and customize the Cognos data model that supports the IBM Cognos BI reports for your Unica application.
- IBM Cognos Configuration is the configuration tool that you use to configure individual Cognos BI components.

## Supported databases

This table includes the supported databases for Cognos reports for the products.

Products	Databases
Unica Campaign	Oracle, SQL Server, DB2,
Unica Deliver	Oracle, SQL Server, DB2,
Unica Interact	Oracle, SQL Server, DB2,
Unica Plan	Oracle, SQL Server, DB2,
Unica Collaborate	Oracle, SQL Server, DB2,

## Cognos BI installation options

You can install Cognos BI applications either in a distributed environment or on one computer.

Before you install Cognos BI, use the IBM Cognos BI Architecture and Deployment Guide to learn about recommended components, installation options, and configuration approaches.

The Cognos documentation uses two categories to describe installations: distributed environment or single computer. For best results, do not install all components on one computer unless for a proof of concept or demonstration environment.

Installing the subset of Cognos BI applications that reporting uses requires that you use two Cognos installers. One installer provides the Cognos BI server, Content Manager,

Cognos Configuration, and web-based user interfaces. You use a separate installer to install Framework Manager, the metadata modeling tool, because it must be installed on a Windows computer.

See the Cognos documentation for complete installation details.

## Cognos BI web applications and the web server

You can host the Cognos Connection and the Cognos BI web applications by using either Microsoft Internet Information Services (IIS) or Apache HTTP web server.

does not provide the web server that hosts Cognos Connection and the other Cognos BI web applications. For Windows, the Cognos documentation assumes that you are using Microsoft IIS but you can also use Apache HTTP.

If you use the Apache HTTP server, set up the web aliases for the Cognos web applications in the `VirtualHost` configuration directive of the Apache `httpd.conf` file correctly. Be sure to list the most specific alias first, which is the script alias, and set the directory permissions for each alias.

### Example `httpd.conf` code snippet

The following example is from an Apache installation on a Windows system. The Apache server is running on the default port 80.

```
<VirtualHost *:80>
  ScriptAlias /ibmcognos/cgi-bin "C:/cognos/cgi-bin"
    <Directory "C:/cognos/cgi-bin">
      Order allow,deny
      Allow from all
    </Directory>
  Alias /ibmcognos "C:/cognos/webcontent"
    <Directory "C:/cognos/webcontent">
      Order allow,deny
      Allow from all
```

```
</Directory>  
</VirtualHost>
```

 **Note:** The `httpd.conf` file snippet is an example only. Be sure to configure your web aliases appropriately for your systems.

## Cognos BI and locale

You can install a localized version of the Unica application report package (other than English) by setting the product language to match the language of the application report package.

On the system that runs the Cognos Content Manager, open Cognos Configuration, select **Actions > Edit Global Configuration**, and configure the locale for the Cognos BI system. For more information, see the Cognos Configuration User Guide, available from the **Help** menu in Configuration Manager.

You can change the product language for the specific user by setting the product language to match the language of the application report package. To set the product language, open Cognos Connection, and under **User Preferences** set the corresponding product language. You should not change the content language. If the content language is changed, then the corresponding xpath for the reports should also be changed.

## Integration roadmap for Unica and IBM Cognos

After you install IBM Cognos, you must integrate the Unica suite with IBM Cognos.

The following list provides a high-level overview of how to integrate IBM Cognos with Unica applications:

1. Create IBM Cognos data sources.
2. Configure the Cognos application firewall.
3. Configure stored procedures.
4. Create views or materialized views.
5. Create and populate reporting tables.

6. Configure Cognos reporting properties in Unica Platform.
7. Configure and test IBM Cognos to use Unica authentication.

 **Note:** The tasks that you need to complete depend on which Unica applications you integrate.

## Obtaining the JDBC driver for the Unica Platform system tables

You must obtain the JDBC driver for the Unica Platform system tables so that Cognos can obtain the user information from the Unica Platform system tables. Cognos requires the user information for Unica authentication.

To obtain the JDBC driver, complete the following steps.

1. Obtain the JDBC drivers and any required associated files that you used to configure the JDBC data source for the Unica Platform system tables when you set up the Unica system.
2. Configure Cognos to use Unica authentication later.
3. Copy the JDBC driver to the computer where the Cognos Content Manager is installed, which is in the `webapps\p2pd\WEB-INF\lib` directory under your Cognos installation.

 **Important:** If the JDBC driver exists in the `webapps\p2pd\WEB-INF\lib` directory, then you do not need to copy it to the `webapps\p2pd\WEB-INF\AAA\lib` directory.

## Installing the reporting models and integration component on the Cognos system

You must install the reporting models and integration components on the Cognos system. If your installation of Cognos is in a distributed environment, you must install the reports package on the server where Cognos is installed.

**⚠ Important:** If you install Unica Deliver reports pack on DB2, make sure that you set the following value before you begin to apply the Unica Deliver Reports:

```
db2set DB2_COMPATIBILITY_VECTOR=ORA
```

To install the reports pack, complete the following steps.

1. On the server where Cognos Content Manager is installed, place the following Unica installers in a single directory:
  - Unica master installer
  - Unica Platform
  - The reports pack installer or installers for the products for which you want to implement reporting
2. Run the Unica master installer. Select **Unica Platform** and the reports packages to install.
3. Following the prompts, enter the connection information for the Unica Platform system table database.  
The Unica Platform installer launches and the **Platform Installation Components** window appears.
4. Select the **Reports for IBM Cognos 11 BI** option and clear the other options.  
The Unica Platform installer prompts for the path to the JDBC driver.
5. Enter the fully qualified path for the JDBC driver that you copied to the Cognos system.  
The Unica Platform installer prompts for the location of the Cognos installation.
6. Enter or browse to the top level of the Cognos installation directory.  
The default value that is provided in this field is a static value that is not based on the actual file structure of your Cognos system.  
The report pack installer or installers displays installation options.
7. Select **Product Reports Package** for the installation option and clear the option for the reporting schemas.

This option copies the reports archive to the Cognos computer. You must import this archive later.

## Creating Cognos data sources for Unica application databases

The Cognos applications need their own data sources that identify the source of the data for Unica application reports.

The Cognos data models that are provided in the Unica reports packages are configured to use the data source names that are given in the following table:

**Table 7. Cognos data sources**

**This two-columned table provides information about the Unica application in one column, and the Cognos data source names in the second column.**

Unica application	Cognos data source names
Unica Campaign	<code>CampaignDS</code>
Unica Deliver	<code>DeliverTrackDS</code>
Unica Interact	<ul style="list-style-type: none"> <li>• For the design time database: <code>InteractDTDS</code></li> <li>• For the runtime database: <code>InteractRTDS</code></li> <li>• For the learning database: <code>InteractLearningDS</code></li> <li>• For the ETL database: <code>InteractETLDS</code></li> </ul>
Unica Plan	<code>PlanDS</code>
Unica Collaborate	<ul style="list-style-type: none"> <li>• For the Unica Collaborate database: <code>CollaborateDS</code></li> <li>• For the customer database: <code>CustomerDS</code></li> <li>• For the Unica Campaign database: <code>CampaignDS</code></li> </ul>

Use the following guidelines to create Cognos data sources for the HCL application databases.

- Use the Administration section of Cognos Connection.

- Use the default data source names that are shown in the Cognos data sources table to avoid having to alter the data model.
- The database type that you select must match that of the HCL application database. Use the Cognos documentation to determine how to fill database-specific fields.

 **Note:** For Unica Campaign and Unica Deliver, the appropriate database is Unica Campaign.

- Be sure that you identify the Unica application database and not the Cognos content store.
- When you configure the **Signon** section, select the **Password** and **Create a Signon that the Everyone group can use** options.
- In the **Signon** section, specify the user credentials for the Unica application database user.
- Consult the Cognos data sources table and ensure that you create all the data sources that are required by the data model for the reports you are configuring. For example, the reporting data for Unica Interact is in three databases, so you must create separate Cognos data sources for each database.
- If the Unica Campaign system has more than one partition, create separate data sources for each partition. For example, if Unica Campaign and Unica Deliver are configured for multiple partitions, create a separate Unica Campaign and Unica Deliver data source for each partition.
- Verify that you configured each data source correctly by using the **Test Connection** feature.

## Optional: Setting up email notifications

You can configure IBM Cognos to send Unica reports as email attachments. This task is optional.

Before you can set up email notifications, obtain the following information:

- Host name or IP address of your SMTP server
- User name and password for the account on that server
- Email address for the default sender email

When an IBM Cognos report is displayed in the Unica interface, the Cognos Viewer toolbar in the window includes an option for sending the report as an attachment in an email.

To set up email notifications, complete the following steps.

1. In the **Cognos Configuration** window, select **Data Access > Notification**.
2. Specify the host name or IP address of the SMTP mail server and the port by using one of the following formats:
  - *hostname:port*
  - *IPAddress:port*For example, enter either `serverX:25` or `192.168.1.101:25`. The default SMTP port is usually 25.
3. To set the user name and password of the account, click in the **Value** column and click the pencil icon to open the **Value** dialog box.
4. Specify the default sender by using the `user@company.com` format.

## Configuring IBM Cognos Application Firewall for Unica

IBM Cognos Application Firewall analyzes and validates requests before the requests are processed by IBM Cognos servers.

To configure the IBM Cognos Application Firewall for Unica, you must specify the Unica system as a valid domain or host.

To configure IBM Cognos Application Firewall for Unica, complete the following steps.

1. In the **Cognos Configuration** window, select **Security > IBM Cognos Application Firewall**.
2. In the **Valid domains or hosts property** window, enter the fully qualified computer host name that includes the domain and the port for the computer where Unica Platform is running.

For example:

```
serverXYZ.mycompany.com:7001
```

 **Important:** In a distributed environment, you must complete this step for every computer on which an Unica application that provides Cognos reports is installed, such as Unica Platform, Unica Campaign, and Unica Plan.

3. Save the configuration.
4. Restart the IBM Cognos service.

## For Unica Deliver only: Stored procedures for delta processing

Unica Deliver reports require staging tables that are associated with the Unica Deliver system tables. The system tables are part of the Unica Campaign schema. You must periodically run stored procedures to process message response data for use in Unica Deliver reports.

For more information about schema changes, see [Unica Deliver System Tables and Data Dictionary](#).

The initial setup for the Unica Deliver stored procedures relies on the following database scripts:

- `acer_indexes_dbname.sql`
- `acer_tables_dbname.sql`
- `acer_scripts_dbname.sql`

 **Note:** If you observe any issues while executing the mentioned sql files, use the script terminator based on the database client. If your database client shows errors for `acer_scripts_dbname.sql`, create the procedures one after the other.

The database scripts are in the `Campaign\reports\Deliver-ddl` directory for the Oracle, IBM DB2, and Microsoft SQL Server databases.

The scripts set up indexes, tables, views, and stored procedures. The stored procedures refresh message data to populate the staging tables. The batch procedures must be run regularly to populate the staging tables. Running the stored procedures is referred to as delta processing.

The initial runs of the Unica Deliver stored procedures can take a long time to complete, depending on the amount of data that is contained in your tables. Subsequent delta processing also can take a long time to complete. You can significantly reduce the processing time by limiting the number of mailing instances (containers) that are processed by the stored procedures.

By default, data is processed for the past 90 days. However, you can change the default value before or after you run the SQL scripts for Unica Deliver.

## Example for Oracle

The following examples for an Oracle database illustrate the changes that you can make to the `acer_tables` script to limit processing to the previous 30 days:

 **Note:** The changes include modifying the `UARE_MAILING_MASTER` view.

### Definition of the current view

```
CREATE VIEW UARE_MAILING_MASTER AS
(
  (SELECT UCC_CONTAINER.CAMPAIGNID,UCC_CONTAINER.CONTAINERID,
  substr(UCC_CONTAINERATTR.STRINGVALUE,1,100) AS CAMPAIGN_NAME,
  UCC_CONTAINER.CONTAINERNAME AS MAILING_INST,
  UCC_CONTAINER.CREATED AS MAILING_CREATED,
  UCC_CONTAINER.CONTAINERTYPEID CONTAINERTYPEID,
  UCC_CONTAINER.CONTCHANNELTYPEID CONTCHANNELTYPEID
```

```

FROM
UCC_CONTAINER,UCC_CONTAINERATTR
WHERE
UCC_CONTAINERATTR.CONTAINERID=UCC_CONTAINER.CONTAINERID AND
UCC_CONTAINERATTR.ATTRIBUTE_NAME='CampaignName' AND
UCC_CONTAINER.CREATED >= sysdate - 91
)

```

### Definition of the modified view

```

CREATE VIEW UARE_MAILING_MASTER AS
(
SELECT UCC_CONTAINER.CAMPAIGNID, UCC_CONTAINER.CONTAINERID,
substr(UCC_CONTAINERATTR.STRINGVALUE,1,100) AS CAMPAIGN_NAME,
UCC_CONTAINER.CONTAINERNAME AS MAILING_INST, UCC_CONTAINER.CREATED AS
MAILING_CREATED FROM UCC_CONTAINER,UCC_CONTAINERATTR WHERE
UCC_CONTAINERATTR.CONTAINERID=UCC_CONTAINER.CONTAINERID AND
UCC_CONTAINERATTR.ATTRIBUTE_NAME='CampaignName'
AND
UCC_CONTAINER.CREATED >= sysdate - 30
)

```

To view all available report data, modify the `UARE_MAILING_MASTER` view to remove the date filter from the view. Then, refresh all Oracle or DB2 materialized views. For example, in the sample view creation that is shown above, remove the following line:

```
UCC_CONTAINER.CREATED >= sysdate - 30
```

### For Unica Deliver only: Creating stored procedures, staging tables, and indexes

After you install or upgrade reporting templates, you must run specific SQL scripts before you generate Unica Deliver reports. The SQL scripts create stored procedures and staging tables.

The `Campaign/reports/Deliver-ddl` directory is on the server. This directory contains the following database scripts for Oracle, IBM DB2, and Microsoft SQL Server:

- `acer_indexes_dbname.sql`
- `acer_tables_dbname.sql`
- `acer_scripts_dbname.sql`

Run the following scripts against the Unica Campaign database in the order listed.

1. `acer_indexes_dbname.sql`

Make sure that you allow sufficient time for the script to complete. The time depends on the volume of data that is stored in the Unica Deliver system tables.

2. `acer_tables_dbname.sql`

This script creates the delta processing staging tables in the Unica Deliver system schema.

3. `acer_scripts_dbname.sql`

**⚠ Important:** For DB2 databases, change the termination character from ; (semicolon) to ! (exclamation point).

This script creates the stored procedures that you must configure after you install reports for Unica Deliver.

4. Navigate to `Campaign\reports\tools` directory, under your Campaign installation and locate the following scripts.

- `uare_lookup_create_DB_type.sql`

Populate the following scripts as per your locale.

- `uare_lookup_populate.sql` (For English)
- `uare_lookup_populate_de.sql`
- `uare_lookup_populate_es.sql`
- `uare_lookup_populate_fr.sql`
- `uare_lookup_populate_it.sql`
- `uare_lookup_populate_ja.sql`

- `uare_lookup_populate_ko.sql`
- `uare_lookup_populate_pt.sql`
- `uare_lookup_populate_ru.sql`
- `uare_lookup_populate_zh.sql`

 **Note:** You must configure the stored procedures to run on a regular basis to populate the staging tables. You cannot see data in the reports until you run the stored procedures for Unica Deliver reports.

For more information about running and scheduling the stored procedures, see [For Unica Deliver only: How to schedule and run stored procedures \(on page 51\)](#).

## Loading templates for the Reports SQL Generator

The Unica reports packages that use reporting schemas contain SQL scripts that load template SQL select statements into the `uar_common_sql` table. The Reports SQL Generator uses the templates when it generates SQL scripts to create reporting views and tables.

To run the script that loads the templates, complete the following steps.

1. Browse to the schema directory under your report pack installation and locate the `templates_sql_load.sql` script.
2. Run the `templates_sql_load.sql` script in the Unica Platform database.

## Generating view creation scripts

When you generate reports, you extract reportable data from the reporting views or tables. You can create reporting views by using the view creation scripts. Use the Reports SQL Generator to create view creation scripts.

 **Note:** For Unica Deliver reports, make sure that you run the SQL scripts against the Unica Campaign database to create the staging tables and batch procedures. For more information, see [For Unica Deliver only: Creating stored procedures, staging tables, and indexes \(on page 32\)](#).

To create view creation scripts, complete the following steps.

1. Log in to Unica as the user who has the ReportsSystem role.

If you used the default JNDI names for JDBC data sources, continue to step 3.

2. If you did not use the default JNDI names for JDBC data sources, complete steps a and b:
  - a. Select **Settings > Configuration > Reports > Schemas > ProductName**.
  - b. Change the default values of the JNDI property to match the JNDI names that you used for the JDBC connections.

 **Important:** If the JNDI data source names are incorrect or have not been configured, the SQL Generator cannot validate the SQL scripts that create tables.

3. Select **Settings > Reports SQL Generator**.
4. In the **Product** field, select the appropriate Unica application.
5. In the **Schema** field, select one or more reporting schemas.
6. Select the **Database Type**.
7. Under the **Generate Type** list, select the appropriate option for your database type. Table and XML options are not recommended.

Database	Allowed Options
SQL Server	Views
Oracle	Views, Materialized views
IBM DB2	Views, Materialized views
MariaDB	Views

 **Note:** For Oracle and IBM DB2, it is recommended to use materialized views. The Administrator must schedule them to refresh nightly or hourly as per the requirement.

8. If you want to examine the SQL script that is generated, click **Generate**.

The SQL Generator creates the script and displays it in the browser window.

#### 9. Click **Download**.

The SQL Generator creates the script and prompts for a location in which to save the file. If you selected a single reporting schema, the script name matches the name of schema, for example `Deliver_Mailing_Performance.sql`. If you selected more than one reporting schema, the script name uses the product name, for example `Campaign.sql`.

 **Note:** When you run a script that creates materialized views on a DB2 database, you might see the following error:

```
SQL20059W The materialized query table-name may not be used to optimize
the processing of queries.
```

However, the materialized view is successfully created.

10. Specify the location where you want to save the script and click **Save**. If you change the name of the file, make sure to use a name that clearly indicates the schemas that you selected.

11. Repeat steps 5 through 12 for each script that you want to generate.

 **Note:** The Unica Interact reporting schemas reference multiple data sources. Generate a separate SQL script for each data source.

## SQL scripts by data source

Use separate SQL scripts to create views or materialized views for each data source.

The following table provides information about the scripts that you must generate for each data source, the resulting script name, and the scripts that must be run against the Unica application database for creating views or materialized views:

 **Notes:**

- The table lists the default names for the data sources and generated scripts. Your names may be different.
- The Unica Interact reporting schemas reference more than one data source. Generate a separate SQL script for each data source.

**Table 8. SQL scripts by data source**

**This three-columned table provides information about the reporting schema in one column, data source (default names) in the second column, and the script name (default names).**

Reporting schema	Data source and default name	Default script name
All Unica Campaign reporting schemas	Unica Campaign system tables campaignPartition1DS	Campaign.sql, unless you generated separate scripts for each reporting schema. If you did, each script is named after the individual schema.
Unica Deliver Mailing Performance	Unica Deliver tracking tables, which are with the Unica Campaign system tables campaignPartition1DS	Deliver_Mailing_Performance.sql
Unica Interact Deployment History, Unica Interact Performance, and Unica Interact Views	Unica Interact design time database campaignPartition1DS	Interact.sql
Unica Interact Learning	Unica Interact Learning tables InteractLearningDS	Interact_Learning.sql

Reporting schema	Data source and default name	Default script name
Unica Interact Run Time	Unica Interact run time database  InteractRTDS	Interact_Runtime.sql

## For Unica Campaign and Unica Deliver: Creating and populating reporting tables

You can use SQL scripts to create and populate reporting tables for Unica Campaign. The reports application uses reporting tables to extract reportable data.

To create and populate reporting tables for Unica Campaign, complete the following steps.

1. Create the reporting database.
2. Locate the SQL scripts that you generated and saved previously.
3. Use your database administration tools to run the appropriate script against the appropriate application database(s) for the report package that you are configuring.
4. For Unica Campaign with a DB2 database, increase the DB2 heap size to at least 10240. The default heap size is 2048. Use the following command to increase the heap size:

```
db2 update db cfg for databasename using stmtheap 10240
```

where *databasename* is the name of the Unica Campaign database.

Increasing the heap size ensures that Cognos does not display SQL error messages if a user selects all the campaigns when running a report such as the Financial Summary report.

5. In the `db/calendar` subdirectory in the Unica Platform installation directory, find the `ReportsCalendarPopulate` script that is appropriate for the database type.

The `ReportsCalendarPopulate` script creates the following tables:

- UA\_Calendar
- UA\_Time

6. Run the ReportsCalendarPopulate script on the new database that you created with the table creation script.

7. For DB2 only, complete one of the following tasks:

- Run the script from the command prompt by using the following command:

```
db2 -td@ -vf ReportsCalendarPopulate_DB2.sql
```

- If you use the DB2 client interface, change the termination character to the @ character in the **Statement termination character** field.

8. Use your database administration tools to populate the new tables with the appropriate data from the production system database.

 **Note:** You must use your own tools for this step. The SQL Generator does not generate the SQL for you.

Continue with [Setting up data synchronization \(on page 43\)](#).

For Unica Campaign and Unica Deliver only: Creating views or materialized views

You can use SQL scripts to create views or materialized views for Unica Campaign and Unica Deliver. The reports application uses views or materialized views to extract reportable data.

 **Note:** For Oracle and DB2, Unica Deliver requires materialized views. For SQL Server, Unica Deliver requires views.

To create views or materialized views for Unica Campaign or Unica Deliver, complete the following steps.

1. Locate the SQL scripts that you generated and saved previously.
2. Use the database administration tools to run the appropriate script against the appropriate application database(s) for the report package that you are configuring.

 **Note:** When you run a script that creates materialized views on a DB2 database, you might see the following error:

```
SQL20059W The materialized query table-name may not be used to optimize
the processing of queries.
```

However, the materialized view is successfully created.

Proceed to step 3 for Unica Campaign with a DB2 database.

3. For Unica Campaign with a DB2 database, increase the DB2 heap size to at least 10240. The default heap size is 2048. Use the following command to increase the heap size:

```
db2 update db cfg for databasename using stmtheap 10240
```

where *databasename* is the name of the Unica Campaign database.

Increasing the heap size ensures that Cognos does not display SQL error messages if a user selects all the campaigns when running a report such as the Financial Summary report.

Continue with [Setting up data synchronization \(on page 43\)](#).

## For Unica Interact only: Changing language setting in Oracle and DB2

Before you create views or materialized views for Unica Interact, verify that the language setting for the computer where you run the `lookup_create SQL` script is enabled for UTF-8 en.

To change the language setting, complete either step 1 or step 2 depending on your database type.

1. For Oracle databases, complete the following steps:
  - a. Close all open Oracle sessions.
  - b. Open the **Registry Editor**.

- c. Browse to **HKEY\_LOCAL\_MACHINE > SOFTWARE > ORACLE** and open the folder for your Oracle Home, for example, `KEY_OraDb10g_home1`.
  - d. Search for the **NLS\_LANG** setting.
  - e. Make sure the last part of the value specified is UTF8.  
For example: `AMERICAN_AMERICA.UTF8`.
2. For DB2 databases, complete the following steps:
- a. From the computer that is running the script and has the DB2 client installed, open a DB2 command window.
  - b. Run the following command:

```
db2set
```
  - c. In the output, look for the following variable-value pair:

```
DB2CODEPAGE=1208
```
  - d. If the `DB2CODEPAGE=1208` variable is not set, run the following command:

```
db2 db2set db2codepage=1208
```
  - e. Close the session window for the change to take effect.

### For Unica Interact only: Creating views or materialized views

You can use SQL scripts to create views or materialized views for Interact. The reports application uses views or materialized views to extract reportable data.

Before you create views or materialized views for Interact, verify that the language setting for the computer from where you run the `lookup_create` SQL script is enabled for UTF-8 encoding. See [For Unica Interact only: Changing language setting in Oracle and DB2 \(on page 40\)](#).

To create views or materialized views for Unica Interact, complete the following steps.

1. Locate the SQL scripts that you generated and saved previously.
2. Use the database administration tools to run the appropriate script against the appropriate application database(s) for the report package that you are configuring.

 **Note:** When you run a script that creates materialized views on a DB2 database, you might see the following error:

```
SQL20059W The materialized query table-name may not be used to optimize
the processing of queries.
```

However, the materialized view is successfully created.

3. In the `tools` subdirectory in the reports package installation directory, find the `lookup_create` SQL script for your database type.  
For example, the script for SQL is named `uari_lookup_create_MSSQL.sql`.
4. Run the `lookup_create` SQL script on the Unica Interact design time database. Ensure that the database tool that you use commits the changes. For example, you might need to set the auto-commit option of the database to `true`.
5. Browse to the  
`<Interact_ReportPack_Installer_Home>\cognos11\interact-ddl\<DB Type>` folder.
6. For DB2, set the `db2set DB2_COMPATIBILITY_VECTOR=ORA` parameter.
7. Run the `acir_tables_<DB Type>.sql` script on the ETL database.

Continue with [Setting up data synchronization \(on page 43\)](#).

### For Unica Interact only: Creating and populating reporting tables

You can use SQL scripts to create and populate reporting tables for Unica Interact. The reports application uses reporting tables to extract reportable data.

To create and populate reporting tables for Unica Interact, complete the following steps.

1. Create the reporting databases.
2. Use your database administration tools to run the appropriate script against the appropriate application database(s) for the report package that you are configuring.
3. Run the `lookup_create` script on the Unica Interact design time database. Ensure that the database tool that you use commits the changes.  
For example, you might need to set the auto-commit option of the database to true.
4. In the `tools` subdirectory in the reports package installation directory, find the `lookup_create` script for your database type.  
For example, the script for SQL is named `uari_lookup_create_MSSQL.sql`.
5. Use your database administration tools to populate the new tables with the appropriate data from the production system database.

 **Note:** You must use your own tools for this step. The SQL Generator does not generate the SQL for you.

Continue with [Setting up data synchronization \(on page 43\)](#).

## Setting up data synchronization

Make sure that you use the database administration tools to schedule regular data synchronization between the production databases of the Unica application and the materialized views.

To set up data synchronization, use the following guidelines depending on your application and database type.

- For Unica Campaign, use the scheduled Extraction, Transformation, and Load (ETL) method, or any custom method to schedule regular data synchronization between the production databases and the new reporting tables.

- For Unica Deliver, the materialized views for Oracle and DB2 are refreshed by stored procedures. Stored procedures also update the `uare_delta_refresh_log` table.

If the refresh process for DB2 fails, the log table displays the error.

For information about stored procedures, see [For Unica Deliver only: How to schedule and run stored procedures \(on page 51\)](#).

- For Unica Interact on Oracle or DB2 databases, use the scheduled Extraction, Transformation, and Load (ETL) method or any custom method to schedule regular data synchronization between the production databases and the new reporting tables.
- For Unica Interact on a SQL server, use the scheduled Extraction, Transformation, and Load (ETL) method, or any custom method to schedule regular data synchronization between the production databases and the new reporting tables.

## Importing the reports folder in Cognos Connection

The Unica application reports are in the compressed (.zip) file that the report package installer copied to the Cognos computer. You must import the compressed file into Cognos Connection.

To import the compressed file that contains reports to Cognos Connection, complete the following steps.

1. Browse to the `Cognosnn` directory under your report package installation on the Cognos computer, where `nn` indicates the version number.
2. Copy the compressed reports archive file (for example `Unica Reports for Campaign.zip`) to the directory where your Cognos deployment archives are saved. In a distributed IBM Cognos environment, this is a location on the system running the Content Manager.

The default location is the deployment directory under your Cognos installation. The default location is specified in the Cognos Configuration tool that is installed with the Cognos Content Manager. For example: `cognos\deployment`.

3. Locate the `Cognosnn\ProductNameModel` subdirectory under your report package installation on the Cognos computer.
4. Copy the entire subdirectory to any place on the system that runs Cognos Framework Manager and to which Framework Manager has access.
5. Open Cognos Connection.
6. From the **Welcome** page, click **Administer Cognos Content**.  
  
If your **Welcome** page is turned off, turn it back on in the Cognos Connection user preferences.
7. Click the **Configuration** tab.
8. Select **Content Administration**.
9. Click the **New Import** () icon on the toolbar.
10. Follow these guidelines as you step through the **New Import Wizard**:
  - a. Select the reports archive that you copied in the previous procedure.
  - b. In the Public folders content list, select all options including the package itself, which is indicated by the blue folder.
  - c. If you do not want users to access the package and its entries yet, select **Disable after import**. Make this selection if you want to test the reports before you make them available to the Unica application users.

## Configuring and publishing the data model

You must configure and publish the data model only if, when you set up the data source, you were logged in as a user who is not the owner of the application system tables.

 **Note:** You do not need to configure and publish the data model if the data source login that you used is the owner of the Unica application system tables.

 **Note:** This task is optional for Unica Deliver reports.

To configure and publish the data model, complete the following steps.

1. In the **Model** directory under the reports package installation, copy all files in the **Model** directory to your Cognos Framework Manager installation directory. The files constitute the application-specific data model.
2. In Framework Manager, open the project file. The project file has a **.cpf** extension, and the file name includes the Unica application name, for example *ProductNameModel.cpf*.
3. Open the data model for the application and complete the following steps:
  - a. In the Project Viewer, expand **Data Sources**.
  - b. Click the data source for the application.
  - c. Update the data source, depending on your database type:

**Table 9. Data source**

**This two-columned table provides the name of the database in one column and the fields in the second column.**

Database	Fields
SQL Server	<ul style="list-style-type: none"> <li>• Catalog: Enter the name of the Unica application database.</li> <li>• Schema: Enter the name of the Unica application database schema. For example, <code>dbo</code>.</li> </ul>
Oracle	<ul style="list-style-type: none"> <li>• Schema: Enter the name of the Unica application database schema.</li> </ul>
DB2	<ul style="list-style-type: none"> <li>• Schema: Enter the name of the Unica application database schema.</li> </ul>

4. Save and republish the package.

For more information about publishing a package in IBM Cognos, see the Cognos Framework Manager User Guide.

## Enabling internal links in the reports

The Unica application reports have standard links. To enable the links to work properly, you must configure the IBM Cognos Application Firewall. You must also configure the redirect URL in the Cognos data model for the Unica application reports.

 **Note:** This step is not necessary for Unica Deliver reports.

To configure the redirect URL in the Cognos data model for the Unica application reports, complete the following steps.

1. In Cognos Framework Manager, browse to the `<productName>Model` subdirectory that you copied into the Framework Manager directory structure. Select the .cpf file, for example `CampaignModel.cpf`.
2. Select **Parameter Maps > Environment**.
3. Right-click **Environment** and select **Edit Definition**.
4. In the **Redirect URL** section, select the **Value** field. Edit the server name and port number so they are correct for the Unica suite but leave the rest of the URL intact. By convention, the host name includes the domain name.

For example, for Unica Campaign:

```
http://serverX.ABCompany.com:7001/Campaign/redirectToSummary.do?external=true&
```

For example, for Unica Plan:

```
http://serverX.ABCompany.com:7001/plan/callback.jsp?
```

5. Save the model and publish the package by completing the following steps:
  - a. From the navigation tree, expand the **Packages** node of the model.
  - b. Right-click the package instance and select **Publish Package**.

## Verifying data source names and publishing

The name that is specified as the data source for the reports in the model must match the name of the data source that you created in Cognos Connection. Before you publish the model from Framework Manager to the Cognos content store, you must verify that the data source names match.

If you used the default data source names, the data source names match. If you did not use default data source names, you must change the data source names in the model.

To verify and change the data source names in the model, complete the following steps.

1. In Cognos Connection, determine the names of the data sources you created.
2. In Framework Manager, select **Open a Project**.
3. Browse to the `<productName>Model` subdirectory you copied into the Framework Manager directory structure. Select the .cpf file, for example `CampaignModel.cpf`.
4. Expand the **Data Sources** entry and examine the names of the data sources. Verify that they match what you named them in Cognos Connection.
5. If the names do not match, select the data source instance and edit the name in the **Properties** section. Save your changes.
6. Publish the package to the Cognos content store.

## Configuring Cognos reporting properties in Unica Platform

There are several sets of properties for configuring reporting in Unica. Some properties define parameter values for the reporting components in Unica Platform. Some properties define URLs and other parameters for the Cognos system. The properties that define parameter values are specified when the view creation scripts are generated. You must specify the properties that define URLs and other parameters for the Cognos system.

Find the **Portal URL** and **Dispatch URL** in the Cognos Configuration utility under **Local Configuration > Environment**. You will need this information in step 5 and step 6.

To configure properties that define URLs and other parameters for the IBM Cognos system, complete the following steps.

1. Log in to Unica as the `platform_admin` user or another user with the `ReportsSystem` role.
2. Select **Settings > Configuration > Reports > Integration > Cognos version**.
3. Set the value of the **Enabled** property to **True**.
4. Set the value of the **Domain** property to the name of the company domain on which the Cognos system is running.  
For example, `xyzCompany.com`.  
  
If your company uses subdomains, the value in this field must include the company domain and the subdomain.
5. Set the value of the **Portal URL** property to the URL of the Cognos Connection portal. Use a fully qualified host name, including the domain and any subdomains, which are specified in the **Domain** property.  
  
For example: `http://MyCognosServer.xyzCompany.com:9300/bi/v1/disp`
6. In the **Dispatch URL** field, specify the URL of the primary Cognos Content Manager dispatcher. Use a fully qualified host name, including the domain and any subdomains, which are specified in the **Domain** property.  
  
For example: `http://MyCognosServer.xyzCompany.com:9300/p2pd/servlet/dispatch`.
7. Leave **Authentication mode** set to **anonymous** for now.
8. Save the settings.

## Setting report folder permissions

If you configure the reports system to use the authenticated per user mode, make sure that the appropriate users can run the reports from the Unica applications. The easiest way to do this is to assign the default ReportsUser role to the appropriate user groups or users.

### Configuring report folder permissions

In addition to controlling access to the **Analytics** menu item and the **Analysis** tabs for object types (campaigns and offers, for example), you can configure permissions for groups of reports that are based on the folder structure in which they are physically stored on the IBM Cognos system.

Before you run Sync Report Folder Permissions, you must ensure that the following conditions exist:

- Reporting is enabled.
- The Cognos server where reports are configured is up and running.

Complete the following steps to configure report folder permissions:

1. Log in as a Unica Campaign administrator who has the **ReportSystem** role.
2. Select **Settings > Sync report folder Permissions**.

The system retrieves the names of the folders that are located on the IBM Cognos system, for all partitions. (This means that if you decide to configure folder permissions for any partition, you must configure it for all of them.)

3. Select **Settings > User roles and permissions > Campaign**.
4. Under the **Campaign** node, select the first partition.
5. Select **Add roles and assign permissions**.
6. Select **Save and edit permissions**.

7. On the **Permissions** form, expand **Reports**.

The Reports entry does not exist until after you run the **Sync report folder permissions** option for the first time.

8. Grant permission for **Performance reports** to the appropriate role.

9. Configure the access settings for the report folders appropriately and then save your changes.

10. Repeat steps 4 through 8 for each partition.

## For Unica Deliver only: How to schedule and run stored procedures

Unica Deliver reports use the data that is contained in staging tables, which are populated by stored procedures. The stored procedures perform a delta refresh operation. Run the stored procedures at least once per day. If you run the procedures more frequently, the delta refresh method prevents multiple concurrent runs.

The following table provides information about the stored procedures and the tasks that they complete:

**Table 10. Stored procedures for Deliver**

**This two-columned table lists the stored procedures in the first column and explains the tasks that the procedures complete in the second column.**

Stored procedure	Task
sp_runid	Creates a unique run identifier. The list of the run IDs is stored in the UARE_Runid table.
sp_update_ucc_tables_stats	Updates statistics for the ucc_* tables. You can run this script before the sp_populate_* scripts.
sp_populate_mailing_contacts	Processes the mailing contact data that is received since the previous run of stored procedures.

<b>Stored procedure</b>	<b>Task</b>
sp_populate_mailing_responses	Processes the mailing response data that is received since the previous run of stored procedures.
sp_populate_sms_contacts	If the SMS feature is enabled: Processes the SMS contact data that is received since the previous run of stored procedures.
sp_populate_sms_responses	If the SMS feature is enabled: Processes the SMS response data that is received since the previous run of stored procedures.
sp_populate_WhatsApp_contacts	If the WhatsApp feature is enabled: Processes the WhatsApp contact data that is received since the previous run of stored procedures.
sp_populate_WhatsApp_responses	If the WhatsApp feature is enabled: Processes the WhatsApp response data that is received since the previous run of stored procedures.
sp_get_delta_mailing_contacts	Called internally by sp_populate_mailing_contacts procedure. Responsible for retrieving the mailing contacts that were sent since the previous run of the stored procedures.
sp_generate_mailing_contacts	Called internally by the sp_populate_mailing_contacts procedure. Responsible for retrieving the mailing and link level counts on contacted customers for the mailings that were run since the previous run of the stored procedures.
sp_get_delta_mailing_responses	Called internally by sp_populate_mailing_responses procedure. Responsible for retrieving the responses that were received since the previous run of the stored procedures.

<b>Stored procedure</b>	<b>Task</b>
sp_generate_mailing_responses	Called internally by sp_populate_mailing_responses procedure. Responsible for retrieving mailing and link level responses since the previous run of the stored procedures.
sp_get_delta_sms_contacts	Called internally by sp_populate_sms_contacts procedure. Responsible for retrieving SMS since the previous run of the stored procedures.
sp_generate_sms_contacts	Called internally by sp_populate_sms_contacts procedure. Responsible for retrieving the mailing and link level counts on contacted customers since the previous run of the stored procedures.
sp_get_delta_sms_responses	Called internally by sp_populate_sms_responses procedure. Responsible for retrieving SMS responses since the previous run of the stored procedures.
sp_generate_sms_responses	Called internally by sp_populate_sms_responses procedure. Responsible for retrieving the mailing and link level SMS responses since the previous run of the stored procedures.
sp_get_delta_WhtsApp_contacts	Called internally by sp_populate_WhtsApp_contacts procedure. Responsible for retrieving WhatsApp messages since the previous run of the stored procedures.
sp_generate_WhtsApp_contacts	Called internally by sp_populate_WhtsApp_contacts procedure. Responsible for retrieving the mailing and link level counts on contacted customers since the previous run of the stored procedures.
sp_get_delta_WhtsApp_responses	Called internally by sp_populate_WhtsApp_responses procedure. Responsible for retrieving WhatsApp

Stored procedure	Task
	responses since the previous run of the stored procedures.
sp_generate_WhtsApp_responses	Called internally by sp_populate_WhtsApp_responses procedure. Responsible for retrieving the mailing and link level WhatsApp responses since the previous run of the stored procedures.
sp_populate_mobile_responses	Processes the mobile response data that was received since the previous run of stored procedures.
sp_get_delta_mobile_responses	Called internally by sp_populate_mobile_responses procedure. Responsible for retrieving the responses that were received since the previous run of the stored procedures.
sp_generate_mobile_responses	Called internally by sp_populate_mobile_responses procedure. Responsible for retrieving mobile responses since the previous run of the stored procedures.

## Guidelines for running stored procedures

Use the following guidelines when you run the stored procedures:

- You must create the stored procedures for your database by using the scripts that are provided with the installation files.
- Consider the size of the tables and indexes in your installation. Larger tables require more time to update. Allow sufficient time to process the contact and response data. The initial runs are likely to require more time to complete than subsequent runs.
- Because the stored procedures can run for an extended amount of time, consider running the procedures at times of reduced system activity, such as overnight.
- You can reduce the amount of the time that is required to refresh the reports data by limiting the scope of the reports data processed.

- You must schedule the following procedures to run at least 10 minutes after scheduling `sp_runid`:
  - `sp_populate_mailing_contacts`
  - `sp_populate_mailing_responses`
  - `sp_populate_sms_contacts`
  - `sp_populate_sms_responses`
  - `sp_populate_WhatsApp_contacts`
  - `sp_populate_WhatsApp_responses`
  - `sp_populate_mobile_responses`

When the scripts have run successfully, they display a final return code of 0.

## Sample configuration of stored procedures for Oracle

Use the following guidelines when you configure stored procedures for the Oracle database.

### Guidelines for configuring stored procedures

- recommends using Oracle Automatic Memory Management (AMM). For more information, go to [http://docs.oracle.com/cd/B28359\\_01/server.111/b28310/memory003.htm](http://docs.oracle.com/cd/B28359_01/server.111/b28310/memory003.htm).
- Create stored procedures by using a database utility, such as SQL Plus.
- Schedule the `sp_runid` procedure to run at least 10 minutes before the other scripts.

### Example for creating a run identifier

The following example illustrates how to create a job and generate a run identifier. The example also illustrates the job ID when the job completes.

The example shows how to get a job number every day at 21:00 hours without an end date. The jobs start on November 29, 2014.

```
declare
jobno number;

BEGIN
```

```

DBMS_JOB.submit (job =>:jobno,
what => 'sp_runid;',
next_date => to_date('29-Nov-2014 21:00','DD-MON-YYYY HH24:MI' ),
interval => 'sysdate+1');
commit;
END;
/

```

### Example for processing email contact data

The following example shows how to schedule a batch job to process contact data. The job runs at 21:10 hours every day.

```

declare
jobno number;

BEGIN
DBMS_JOB.submit (job =>:jobno,
what => 'sp_populate_mailing_contacts;',
next_date => to_date('29-Nov-2014 21:10','DD-MON-YYYY HH24:MI' ),
interval => 'sysdate+1');
commit;
END;
/

```

### Example for processing email response data

The following example shows how to schedule a batch job to process response data. The job runs at 21:10 hours every day.

```

declare
jobno number;

BEGIN
DBMS_JOB.submit (job =>:jobno,

```

```

what => 'sp_populate_mailing_responses;',
next_date => to_date('29-Nov-2014 21:10','DD-MON-YYYY HH24:MI' ),
interval => 'sysdate+1');
commit;
END;
/

```

## Example for processing SMS contact data

**⚠ Important:** The SMS feature is not a part of the default Reports offering, and you must buy a license for the feature separately. However, the delta placement takes place regardless of whether you bought the SMS feature.

The following example shows how to get a job number every day at 21:00 hours without an end date. The jobs start on November 29, 2014.

```

BEGIN
DBMS_JOB.submit (job =>:jobno,
what => 'sp_populate_SMS_contacts;',
next_date => to_date('29-Nov-2014 21:10','DD-MON-YYYY HH24:MI' ),
interval => 'sysdate+1');
commit;
END;
/

```

## Example for processing SMS response data

The following example shows how to get a job number every day at 21:00 hours without an end date. The jobs start on November 29, 2014.

```

BEGIN
DBMS_JOB.submit (job =>:jobno,
what => 'sp_populate_SMS_responses;',
next_date => to_date('29-Nov-2014 21:10','DD-MON-YYYY HH24:MI' ),
interval => 'sysdate+1');

```

```
commit;
END;
/
```

## Example for processing WhatsApp contact data

**⚠ Important:** The WhatsApp feature is not a part of the default Reports offering, and you must buy a license for the feature separately. However, the delta placement takes place regardless of whether you bought the WhatsApp feature.

The following example shows how to get a job number every day at 21:00 hours without an end date. The jobs start on November 29, 2014.

```
BEGIN
DBMS_JOB.submit (job =>:jobno,
what => 'sp_populate_WhtsApp_Contacts;',
next_date => to_date('29-Nov-2014 21:10','DD-MON-YYYY HH24:MI'),
interval => 'sysdate+1');
commit;
END;
/
```

## Example for processing WhatsApp response data

The following example shows how to get a job number every day at 21:00 hours without an end date. The jobs start on November 29, 2014.

```
BEGIN
DBMS_JOB.submit (job =>:jobno,
what => 'sp_populate_WhtsApp_Responses;',
next_date => to_date('29-Nov-2014 21:10','DD-MON-YYYY HH24:MI'),
interval => 'sysdate+1');
commit;
END;
```

/

## Example for processing Mobile response data

The following example shows how to get a job number every day at 21:00 hours without an end date. The jobs start on November 29, 2014.

```
BEGIN
DBMS_JOB.submit (job =>:jobno,
what => 'sp_populate_mobile_Responses;',
next_date => to_date('29-Nov-2014 21:10','DD-MON-YYYY HH24:MI'),
interval => 'sysdate+1');
commit;
END;
/
```

## Sample configuration of stored procedures for Microsoft SQL Server

Use the following guidelines when you configure stored procedures for the Microsoft SQL Server database.

### Guidelines for configuring stored procedures

- Use the SQL Server Agent to create new jobs for each stored procedure.
- Schedule the jobs to run at least daily. You must schedule sp\_runid to run at least 10 minutes before the other scripts.
- For each job in the SQL Server Agent interface, you must specify the step type as Transact-SQL script (T-SQL) and select the Unica Campaign database.

## Example for creating a run identifier

The following example shows how to create a run identifier.

```
DECLARE @return_value int
```

```
EXEC @return_value = [dbo].[SP_RUNID]
SELECT 'Return Value' = @return_value
GO
```

### Example for processing email contact data

The following example shows how to process email contact data. Schedule the job to run at least 10 minutes after the job that generates the run identifier.

```
DECLARE @return_value int
EXEC @return_value = [dbo].[SP_POPULATE_MAILING_CONTACTS]
SELECT 'Return Value' = @return_value
GO
```

### Example for processing email response data

The following example shows how to process email response data. Schedule the job to run at least 10 minutes after the job that generates the run identifier.

```
DECLARE @return_value int
EXEC @return_value = [dbo].[SP_POPULATE_MAILING_RESPONSES]
SELECT 'Return Value' = @return_value
GO
```

### Example for processing SMS contact data

The following example shows how to process SMS contact data.

```
DECLARE @return_value int
EXEC @return_value = [dbo].[SP_POPULATE_SMS_CONTACTS]
SELECT 'Return Value' = @return_value
GO
```

### Example for processing SMS response data

The following example shows how to process SMS response data.

```
DECLARE @return_value int
EXEC @return_value = [dbo].[SP_POPULATE_SMS_RESPONSES]
SELECT 'Return Value' = @return_value
GO
```

## Example for processing WhatsApp contact data

The following example shows how to process WhatsApp contact data.

```
DECLARE @return_value int
EXEC @return_value = [dbo].[SP_POPULATE_WHTSAPP_CONTACTS]
SELECT 'Return Value' = @return_value
GO
```

## Example for processing WhatsApp response data

The following example shows how to process WhatsApp response data.

```
DECLARE @return_value int
EXEC @return_value = [dbo].[SP_POPULATE_WHTSAPP_RESPONSES]
SELECT 'Return Value' = @return_value
GO
```

## Example for processing Mobile response data

The following example shows how to process Mobile response data.

```
DECLARE @return_value int
EXEC @return_value = [dbo].[SP_POPULATE_MOBILE_RESPONSES]
SELECT 'Return Value' = @return_value
GO
```

## Sample configuration of stored procedures for DB2

Use the following guidelines when you configure stored procedures for the DB2 database.

### Guidelines for configuring stored procedures

- The database must be DB2 version 9.7.8 or higher.
- Create new jobs in DB2 Administrative Task Scheduler (ATS)
- Schedule the jobs to run at least daily. You must schedule sp\_runid to run at least 10 minutes before the other scripts.

### Example for creating a run identifier

The following example shows how to get a job number every day at 20:50 hours without an end date.

```
call SYSPROC.ADMIN_TASK_ADD('RunID_Job',null,null,
null,'50 20 * * *','USER1','SP_RUNID',null,null,null)
```

### Example for processing email contact data

The following example shows how to schedule a batch job to process contact data. In this example, the job runs at 21:00 hours every day. Schedule the job to run at least 10 minutes after the job that generates the run identifier.

```
call SYSPROC.ADMIN_TASK_ADD('Email_Contact_Job',null,null,null,'00 21 * *
*',
'USER1','SP_POPULATE_MAILING_CONTACTS',null,null,null)
```

### Example for processing email response data

The following example shows how to schedule a batch job to process response data. In this example, the job runs at 21:00 hours every day. Schedule the job to run at least 10 minutes after the job that generates the run identifier.

```
call SYSPROC.ADMIN_TASK_ADD('Email_Response_Job',null,null,
null,'00 21 * * *','USER1','SP_POPULATE_MAILING_RESPONSES',null,
```

```
null,null)
```

### Example for processing SMS contact data

The following example shows how to schedule a batch job to process contact data. In this example, the job runs at 21:00 hours every day. Schedule the job to run at least 10 minutes after the job that generates the run identifier.

```
call SYSPROC.ADMIN_TASK_ADD('SMS_Contact_Job',null,null,null,'00 21 * * *',
'USER1','SP_POPULATE_SMS_CONTACTS',null,null,null)
```

### Example for processing SMS response data

The following example shows how to schedule a batch job to process response data. In this example, the job runs at 21:00 hours every day.

```
call SYSPROC.ADMIN_TASK_ADD('SMS_Response_Job',null,null,
null,'00 21 * * *','USER1','SP_POPULATE_SMS_RESPONSES',null,
null,null)
```

### Example for processing WhatsApp contact data

The following example shows how to schedule a batch job to process contact data. In this example, the job runs at 21:00 hours every day. Schedule the job to run at least 10 minutes after the job that generates the run identifier.

```
call SYSPROC.ADMIN_TASK_ADD('WHTSAPP_Contact_Job',null,null,null,'00 21 * *
*',
'USER1','SP_POPULATE_WHTSAPP_CONTACTS',null,null,null)
```

### Example for processing WhatsApp response data

The following example shows how to schedule a batch job to process response data. In this example, the job runs at 21:00 hours every day.

```
call SYSPROC.ADMIN_TASK_ADD('WhatsApp_Response_Job',null,null,
null,'00 21 * * *','USER1','SP_POPULATE_WHTSAPP_RESPONSES',null,
null,null)
```

## Example for processing Mobile response data

The following example shows how to schedule a batch job to process response data. In this example, the job runs at 21:00 hours every day.

```
call SYSPROC.ADMIN_TASK_ADD('Mobile_Response_Job',null,null,
null,'00 21 * * *','USER1','SP_POPULATE_MOBILE_RESPONSES',null,
null,null)
```

### Granting permissions for stored procedures for DB2

Before you configure stored procedures for DB2, you must grant permissions.

To grant permissions, complete the following steps.

1. Enable the registry by completing the following steps:
  - a. Set the **DB2\_ATS\_ENABLE** registry variable to one of the following values:
    - **YES**
    - **TRUE**
    - **1**
    - **ON**
  - b. Restart the DB2 database after you set the variable.
2. Create the **SYSTOOLSPACE** table space.

Users who belong to the **SYSADM** or **SYSCTRL** group can create this space. Use the following query to verify that the space exists:

```
SELECT TBSPACE FROM SYSCAT.TABLESPACES WHERE TBSPACE = 'SYSTOOLSPACE'
```

3. Grant permissions. In the following examples, substitute the values that are appropriate for your environment.
  - Deliver: Database that contains the Unica Deliver system tables
  - USER1: Owner of the Deliver database
  - DB2ADMIN: DB2 administrative user
  - Administrator: Super user
4. Connect to DB2 as an administrative user and run the following grant commands:
  - db2 GRANT DBADM ON DATABASE TO USER DB2ADMIN
  - db2 GRANT DBADM ON DATABASE TO USER USER1
  - db2 grant all on table SYSTOOLS.ADMINTASKS to USER1
  - db2 grant all on table SYSTOOLS.ADMINTASKS to DB2ADMIN
5. If the `SYSPROC.ADMIN_TASK_ADD` table exists, run the following grant commands:
  - db2 grant execute on procedure SYSPROC.ADMIN\_TASK\_ADD to USER1
  - db2 grant execute on procedure SYSPROC.ADMIN\_TASK\_ADD to DB2ADMIN

## Stored procedures for the Unica Interact Event Pattern report

The Unica Interact Event Pattern report uses the data that is contained in staging tables, which are populated by stored procedures. The stored procedures perform a delta refresh operation.

Unica Interact Event Pattern report data is processed in two steps:

1. The Unica Interact ETL process transforms the audience blob data into ETL database tables.
2. The reports aggregator aggregates the data incrementally for each pattern type in preconfigured parallel execution. This is specific Unica Interact reports pack.

Both processes are integrated with the database trigger on the `UACI_ETLPATTERNSTATERUN` table. This trigger is fired on successful ETL execution and submits database jobs to aggregate the reports data.

The following tables provide information about the stored procedures and the tasks that they complete:

**Table 11. Stored procedures for the Interact Event Pattern report**

**This two-columned table lists the stored procedures in the first column, and explains the tasks that the procedures complete in the second column.**

Stored procedure	Task
SP_GENERATE_PATTERN_MATCHALL	Called internally by the SP_POPULATE_PATTERN_MATCHALL procedure. Responsible for retrieving the data for Match All patterns that were executed since the previous run of the stored procedures.
SP_GENERATE_PATTERN_COUNTER	Called internally by the SP_POPULATE_PATTERN_COUNTER procedure. Responsible for retrieving the data for Counter patterns that were executed since the previous run of the stored procedures.
SP_GENERATE_PATTERN_WC	Called internally by the SP_POPULATE_PATTERN_WC procedure. Responsible for retrieving the data for Weighted Counter patterns that were executed since the previous run of the stored procedures.
SP_POPULATE_PATTERN_MATCHALL	Processes the Match All Pattern type data that was received since the previous run of stored procedures.
SP_POPULATE_PATTERN_COUNTER	Processes the Counter Pattern type data that was received since the previous run of stored procedures.
SP_POPULATE_PATTERN_WC	Processes the Weighted Counter Pattern type data that was received since the previous run of stored procedures.

Stored procedure	Task
SP_UPDATE_UACI_TABLES_STATS	<p>Called by the trigger to update the database statistics and the database jobs are submitted for reports data aggregation.</p> <p>Updates the statistics for the following ETL tables:</p> <ul style="list-style-type: none"> <li>• UACI_ETLPATTERNSTATE</li> <li>• UACI_ETLPATTERNSTATEITEM</li> <li>• UACI_ETLPATTERNEVENTINFO</li> </ul>
SP_POPULATE_PATTERN_LOCK (p_parallel_degree)	<p>Updates the UARI_PATTERN_LOCK table with the degree of parallel execution configured.</p> <p>p_parallel_degree is the degree at which the aggregation processes run in parallel.</p>
SP_AGGR_RUN_STATUS	<p>Called by the Unica Interact ETL process before the start of the aggregation process to check the lock status of the running stored procedures. Run against the UARI_PATTERN_LOCK table.</p>
SP_REFRESH_PATTERNINFO	<p><b>For Oracle and DB2 only</b></p> <p>Refreshes the UARI_PATTERNSTATE_INFO table to get the state and audience level information for the ICs and Categories.</p> <p>The call to this procedure is given by a trigger before the aggregation procedures start.</p> <p>Because Mviews are not supported for SQL Server, this procedure is not applicable for SQL Server.</p>
SP_UARI_REBIND_PACKAGES	<p><b>For DB2 only</b></p> <p>Rebinds the packages that are associated with the aggregation trigger and procedures. Called from the</p>

Stored procedure	Task
	trigger after the SP_UPDATE_UACI_TABLES_STATS procedure call.

**Table 12. Database sequence for Oracle and DB2**

This two-columned table lists the stored procedures in the first column, and explains the tasks that the procedures complete in the second column.

Stored procedure	Task
SQ_UARI_RUN	Creates a unique run identifier. The list of the run IDs is stored in the UARI_RUNS table.

For SQL Server, RunID is generated by using the IDENTITY property on the RunId column, which generates new IDs on each run.

**Table 13. Database trigger**

This two-columned table lists the stored procedures in the first column, and explains the tasks that the procedures complete in the second column.

Stored procedure	Task
TR_AGGREGATE_DELTA_PATTERNS	After the UACI_ETLPATTERNSTATERUN table is updated with the value 3, the trigger is invoked by submitting the jobs that call the stored procedures for data aggregation.

## The ETL process

On the first run, ETL does not insert any values against the respective `PatternID` in the `UARI_DELTA_PATTERNS` table because all patterns are new or delta. The reports aggregation process collects all `PatternID` from the ETL tables and inserts them into the `UARI_DELTA_PATTERNS` table.

The ETL process calls the `SP_AGGR_RUN_STATUS` procedure. The `SP_AGGR_RUN_STATUS` procedure checks the `UARI_PATTERN_LOCK` table for running jobs based on the `JobID`:

JobID value	Reason
<b>Y</b>	The job is running. Scenarios are running or failed.
<b>N</b>	Failed job.

The ETL process always checks the status of the reports aggregation by checking the status of the submitted jobs. If the ETL finds reports aggregation running, the ETL does not start its run. The ETL starts again according to the schedule.

The ETL process checks the `UARI_PATTERN_LOCK` table for the number of JobIDs with value **Y**. The ETL process starts only if no JobIDs have the value **Y**. If any JobIDs have the value **Y**, then the ETL process is skipped and runs at the next scheduled interval. For more information about the ETL process, see the *Unica Interact Administrator's Guide*.

From the second run onwards, the ETL process updates the `UARI_DELTA_PATTERNS` table with the update flag for the updated `PatternID`:

- For updated data, the `PatternID` is marked with **U**.
- For deleted data, the `PatternID` is marked with **D**.
- For newly added data, the `PatternID` is identified by the reports aggregation code and is marked with **P**.

The aggregation process is run for only the `PatternIDs` that are marked with the **U** or **D** flag.

### Enabling stored procedures for the Unica Interact Event Pattern report

In addition to the steps that you followed to enable reports, you must enable the Unica Interact Event Pattern report. The Unica Interact Event Pattern report uses the delta refresh process for data aggregation so that reports can render faster.

Administrative Task Scheduler (ATS) depends on table space to store historical data and configuration information.

To execute the scheduled job from Task Scheduler, the database must be active.

The `ADMIN_TASK_STATUS` is an administrative view that is created when the `ADMIN_TASK_ADD` procedure is called for the first time. These views must exist in

the database. If the views are missing, create the views with the help of your database administrator. You must have access privilege on the `ADMIN_TASK_STATUS` administrative view. .

To enable stored procedures for the Unica Interact Event Pattern report, complete the following steps.

1. Browse to the

`<Interact_ReportPack_Installer_Home>\cognos11\interact-ddl\<DB Type>` folder.

2. For DB2, set the following parameters:

- **db2set DB2\_COMPATIBILITY\_VECTOR=ORA**
- **db2set DB2\_ATS\_ENABLE=YES**

3. When the instance is restarted, you must activate DB2 by running the following commands in the order listed:

a. `db2 force application all` Stop the application on this instance.

b. `db2stop force` Stop DB2.

c. `db2start` Start the database.

d. `db2 activate db <dbname>` Explicitly activate the database.

You should see this message:

```
DB20000I The ACTIVATE DATABASE command completed successfully.
```

e. `db2 list active databases` Verify that the database is activated.

You should see output similar to the following output.

```
Active Databases
Database name      = <dbname>
Applications connected currently    = 0
Database path     = /data04/<DB instance owner>/NODE0000/SQL00001/
```

4. On the ETL database, run the following scripts in the order listed:

- a. `acir_tables_<DB Type>.sql`
- b. `acir_scripts_<DB Type>.sql`

 **Note:** You must run the `acir_tables_<DB Type>.sql` script if it was not run earlier.

 **Note:** If an exception is thrown after you run the `acir_scripts_db2.sql` script on the target database, delete the trigger and create it with the appropriate database user.

For SQL server, run the `acir_jobs_sqlserver.sql` script. The script creates database jobs for degree 2. To change the degree, see [Changing the degree of parallel execution for the Interact Event Pattern report \(on page 72\)](#).

 **Note:** Make sure that the SQL Server Agent service is running.

5. Before the ETL process starts, you must create parallel batch degree records in the `UARI_PATTERN_LOCK` table. Run one of the following commands on the ETL database to create these records:

- For Oracle: `execute SP_POPULATE_PATTERN_LOCK(2)`
- For DB2: `call SP_POPULATE_PATTERN_LOCK(2)`
- For SQL Server: `EXEC [dbo].[SP_POPULATE_PATTERN_LOCK] @p_parallel_degree = 2`

In this example, 2 is the degree at which the aggregation processes run in parallel.

The `UARI_PATTERN_LOCK` table is populated with the stored procedures with the degree value. The degree value is configurable. Increase the degree of parallel execution for the Interact Event Pattern report aggregation process to reduce the elapse time. If the degree is set to a higher value, hardware resource requirements increase proportionally. The number of procedures that are run for data aggregation depend on the degree value.

6. **Optional:** While the ETL feature is running, you can disable the trigger so that reports aggregation is not called. To disable the trigger and turn off the reports aggregation process, run one of the following commands depending on your database type:

- For DB2 refer to the documentation

- For Oracle: `alter trigger TR_AGGREGATE_DELTA_PATTERNS disable;`
- For SQL Server: `Disable Trigger TR_AGGREGATE_DELTA_PATTERNS on uaci_etlpatternstaterun`

7. **Optional:** To enable the trigger and turn on the reports aggregation process, run one of the following commands depending on your database type:

- For DB2 refer to the documentation.
- For Oracle: `alter trigger TR_AGGREGATE_DELTA_PATTERNS enable;`
- For SQL Server: `Enable Trigger TR_AGGREGATE_DELTA_PATTERNS on uaci_etlpatternstaterun`

When ETL completes successfully, the status in the `UACI_ETLPATTERNSTATERUN` table is updated as 3, and the trigger `TR_AGGREGATE_DELTA_PATTERNS` is called. The trigger calls the stored procedure for the set parallel degree.

 **Note:** When the system aggregates all data for the first time, the report aggregation process may take a longer time than subsequent aggregations.

## Changing the degree of parallel execution for the Interact Event Pattern report

The degree of parallel execution value is configurable. Increase the degree of parallel execution for the Interact Event Pattern report aggregation process to reduce the elapse time. If the degree is set to a higher value, hardware resource requirements also increase proportionally

Configure the degree at which the aggregation process runs so that the Interact Event Pattern report can render faster.

To configure database jobs for a degree value of 3, complete one of the following steps, depending on your database:

- For Oracle: Run the `execute SP_POPULATE_PATTERN_LOCK(3)` command against the Interact ETL database.

- For IBM DB2: Run the call SP\_POPULATE\_PATTERN\_LOCK(3) command against the Interact ETL database.
- For SQL Server: Run the default acir\_jobs\_sqlserver.sql script to create database jobs for degree value 1 and 2. The patterns with degree values 1 and 2 are aggregated in the UARI\_PROCESSED\_PATTERNS table.

To modify the degree to 3 for the Match All Pattern, copy the sample code for degree 1 and complete the following steps:

1. Set the value of @job\_name to JOB\_MA\_3.
2. Set the value of @p\_parallel\_degree to 3.

Run the following command against the Interact ETL database:

```

DECLARE
@jobId BINARY(16),
@status int,
@schedule_name varchar(16),
@dbname varchar(100)
set @dbname= (SELECT DB_NAME());

EXEC msdb.dbo.sp_add_job @job_name=N'JOB_MA_3',
    @job_id = @jobId OUTPUT;

EXEC msdb.dbo.sp_add_jobstep @job_id=@jobId, @step_name=N'first',
    @command=N'EXEC [dbo].[SP_POPULATE_PATTERN_MATCHALL]@p_parallel_degree
= 3',
    @database_name=@dbname;

EXEC msdb.dbo.sp_add_jobserver @job_id=@jobId, @server_name=N'(local)';
GO

```

You can create the degree for the Counter Pattern and the Weighted Counter Pattern and run the commands against the ETL database.

To modify the degree to 3 for the Counter Pattern, copy the sample code for degree 1 and complete the following steps:

1. Set the value of `@job_name` to `JOB_C_3`.
2. Set the value of `@p_parallel_degree` to 3.

To modify the degree to 3 for the Weighted Counter Pattern, copy the sample code for degree 1 and complete the following steps:

1. Set the value of `@job_name` to `JOB_WC_3`.
2. Set the value of `@p_parallel_degree` to 3.

## Log messages in the `UARI_DELTA_REFRESH_LOG` table for the Unica Interact Event Pattern report

The `UARI_DELTA_REFRESH_LOG` table contains logging information for all procedures.

### Aggregation process status

To verify the status of the aggregation process, look for the following text:

MESSAGE\_LINE:

```
<pattern> patterns delta refresh started for parallel degree <degree value>
<pattern> patterns delta refresh completed for parallel degree <degree value>
```

where:

- `<pattern>` is Match All, Counter, OR Weighted Counter.
- `<degree value>` is the value with which patterns are processed in parallel.

For example, when the degree value is 2, the following messages are logged:

```
MatchAll patterns delta refresh started for parallel degree 1
MatchAll patterns delta refresh completed for parallel degree 1
MatchAll patterns delta refresh started for parallel degree 2
```

```
MatchAll patterns delta refresh completed for parallel degree 2
```

### **UARI\_PATTERNSTATE\_INFO table**

To verify if the UARI\_PATTERNSTATE\_INFO table is refreshed, look for the following text:

MESSAGE\_LINE:

```
Pattern State information refresh procedure started
--The procedure to refresh the data in UARI_PATTERNSTATE_INFO is
running.
```

MESSAGE\_LINE:

```
Pattern State information refresh procedure completed
--The procedure to refresh the data in UARI_PATTERNSTATE_INFO is
completed.
```

### **Lock flags reset by the SP\_AGGR\_RUN\_STATUS procedure**

To verify if the lock flags are reset by the SP\_AGGR\_RUN\_STATUS procedure, look for the following text:

MESSAGE\_LINE:

```
patterns lock has been reset for parallel degree <degree value>
```

The OBJECT column of the UARI\_DELTA\_REFRESH\_LOG table contains the procedure name for which the lock is reset.

where: <degree value> is the value with which patterns are processed in parallel.

For example, when the degree value is 1, the following message is logged:

```
patterns lock has been reset for parallel degree 1
```

### **For DB2 only: rebinding of packages**

For DB2 only: to verify that rebinding of the packages completed, look for the following text:

MESSAGE\_LINE:

```
Rebind of packages started
--Rebinding of the packages started
```

**MESSAGE\_LINE:**

```
Rebinding of packages completed successfully on <datetime>
--Rebinding of the packages completed successfully on the given date.
```

**Statistics updated on ETL tables**

To verify if the statistics were updated on the ETL tables, look for the following text:

**MESSAGE\_LINE:**

```
Table statistics update started
--Update statistics on the ETL tables is in process
```

**MESSAGE\_LINE:**

```
Statistics on Tables UACI_ETLPATTERNSTATE UACI_ETLPATTERNSTATEITEM
UACI_ETLPATTERNEVENTINFO and indexes have been updated successfully
on <datetime>
--Statistics are updated on the mentioned ETL tables on the given date.
```

**Degree of parallel execution**

To verify the degree of parallel execution, look for the following text:

**MESSAGE\_LINE:**

```
Pattern aggregation processing Parallel degree is set to <degree value>
--Parallel degree with which report aggregation will run is set to <degree
value>.
```

For example, when the degree value is 2, the following message is logged:

```
Pattern aggregation processing Parallel degree is set to 2.
```

## Testing your configuration before you enable authentication

After the reports are installed and configured, you must test the configuration before you enable authentication. You can test the configuration by running a sample of reports.

Verify that Unica is running and that the Cognos BI service is running.

To test your configuration before you enable authentication, complete the following steps.

1. Log in to Unica as a user with application access.
2. Create data so that the reports have something to show.
3. Open Cognos Connection.
4. Browse to the report folders you imported and click the link to a basic report.  
For example, for Unica Campaign, select **Public Folders > Campaign > Campaign > Campaign Summary**.

If the report fails, verify that you configured the Cognos data source for the Unica application database correctly. See [Creating Cognos data sources for Unica application databases \(on page 27\)](#).

5. Click a link in the report.

If the internal links from the reports do not work, the redirect URL is not configured correctly. See [Enabling internal links in the reports \(on page 47\)](#).

6. Log in to the Unica application as a user with application access and browse to the **Analysis** page.

When you specify the URL for the Unica application, be sure to use a fully qualified host name with your company domain (and subdomain, if appropriate). For example:

```
http://serverX.ABCompany.com:7001/unica
```

7. Click the link to the same report that you tested in Cognos.

If you cannot view the report, it is likely that the IBM Cognos firewall is not configured correctly. See [Configuring IBM Cognos Application Firewall for Unica \(on page 29\)](#).

 **Note:** If you cannot view an Unica Deliver report, verify that the Unica Deliver stored procedures were run.

8. Click a link in the report.

If the internal links from the reports do not work, the redirect URL is not configured correctly. See [Enabling internal links in the reports \(on page 47\)](#).

9. Open an individual item, click the **Analysis** tab, and verify that the report is correct.

## How to configure IBM Cognos to use Unica authentication

The Unica Authentication Provider enables the Cognos applications to use Unica authentication to communicate with the Unica suite as though it were another application in the suite.

Before you configure IBM Cognos to use Unica authentication, be sure that you know which authentication mode you plan to configure: "authenticated" or "authenticated per user".

### Creating the reports system user

There are two authentication modes: "authenticated" and "authenticated per user". If you use "authenticated per user" mode, you do not need to create the reports system user. If you use "authenticated" mode, you must create a reports system user. When you create the reports system user, you can create the user and data source credentials for the user with Cognos BI credentials.

When you create the reports system user, you can configure the following login credentials for that user:

- One set of login credentials for the Unica suite: The user name and password are specified for the reports system user (cognos\_admin).

- One set of login credentials for Cognos BI: The user name and password are specified as data source credentials for the reports system user.

To create the reports system user, complete the following steps.

1. Log in to Unica as the platform\_admin user.
2. Select **Settings > Users**.
3. Create an user with the following attributes:
  - a. User name: `cognos_admin`
  - b. Password: `admin`
4. Create a data source for the user with the following attributes:
  - a. Data Source: `Cognos`
  - b. Data Source Logon: `cognos_admin`

Ensure that the user name in the data source exactly matches the user name of the user who you created in step 3.
  - c. Data Source Password: `admin`
5. Add the Reports System role to the user.
6. If Unica is configured to expire user passwords, log out and then log back in as the reporting system user (`cognos_admin`). This step ensures that you interact with the security "change password" challenge and reset the password before you log in to Cognos as this user in a later task.

## Configuring IBM Cognos authentication properties in Unica

If the Unica and Cognos applications are installed in different network domains, you must configure Cognos authentication properties in Unica. This action ensures that the Unica applications can communicate with the Cognos applications.

The setting of the **Enable form authentication** property indicates that Unica security uses form-based authentication in place of cookies. You set this property to `True` when either of the following is true:

- Unica is not installed in the same network domain as the Cognos applications.
- Cognos is accessed by using an IP address (within the same network domain) instead of the Fully Qualified Hostname (which is used to access the Unica applications), even if both of the Unica applications and the Cognos installation are on the same computer.

When the value is `True`, the login process to Cognos Connection passes the login name and password in clear text and is not secure unless Cognos and the Unica are configured to use SSL communication.

However, even with SSL configured, the user name and password appear as clear text in the HTML source code when someone views the source of a displayed report. For this reason, you should install Cognos and Unica in the same network domain.

To configure Cognos authentication properties in Unica, complete the following steps.

1. Log in to Unica as the `platform_admin` user.
2. Select **Settings > Configuration**.
3. Expand **Reports > Integrations > Cognos version**.
4. Set the value of the **Authentication Mode** property by selecting either **authenticated** or **authenticatedPerUser**.

For **authenticated** mode, continue with step 5.

For **authenticatedPerUser** mode, continue with step 8.

5. For "authenticated" mode: Verify that the values in the **Authentication user name** and **Authentication datasource name** fields match those of the user and data source that you created in the previous task, [Creating the reports system user \(on page 78\)](#).
6. Set the value of the **Enable form authentication** property.

 **Note:** When the **Enable form authentication** property is set to `True`, the **Authentication mode** property automatically behaves as though it were set to **authenticated**. You must complete the step that is required for this mode, which is described in [Creating the reports system user \(on page 78\)](#).

7. Save the new settings.
8. **For "authenticatedPeruser" mode:** Assign the Report User role to the default asm\_admin user. To test reports, you need a user with access to both the Unica application and the report data. The platform\_admin user does not have access to the Unica application features.

## Configuring IBM Cognos to use Unica Authentication Provider

You must use the Cognos Configuration and Cognos Connection applications to configure the Cognos BI applications to use the Unica Authentication Provider.

**For distributed systems only:** If your Cognos system has backup Content Managers configured for failover support, complete this task on each server where Content Manager is installed.

To configure Cognos to use the Unica Authentication Provider, complete the following step.

1. On the computer where the Cognos Content Manager is running, open Cognos Configuration.
2. Select **Local Configuration > Security > Authentication**.
3. Right-click **Authentication** and select **New resource > Namespace**.
4. Complete the fields as follows, and then click **OK**:
  - a. **Name:** Unica
  - b. **Type:** Custom Java Provider
5. On the **Resource Properties** page, complete the fields as follows and then save your changes:
  - a. **NamespaceID:** Unica
  - b. **Java class name:** com.unica.report.adapter.UnicaAuthenticationProvider
6. Stop and restart the Cognos BI service.

On a Windows system, sometimes the Cognos interface indicates that the service is stopped when it is not. To ensure that the service has really stopped, use the Windows Administrative tools to stop the service.

7. Under **Local Configuration > Security > Authentication**, right-click **Unica** and select **Test**.

If Cognos Connection displays an error, examine the `cogserver.log` file in the `logs` directory of your Cognos installation to determine the problem.

8. Log in to Cognos Connection as follows to verify that the Unica Authentication provider is configured correctly:

- If you set the Cognos authentication mode in the Unica configuration properties to **authenticated**, log in as the `cognos_admin` (report system) user.
- If you set the authentication mode in the Unica configuration properties to **authenticatedPerUser**, log in as the `asm_admin` user.

If Cognos displays the following error, expand the error message.

```
The third-party provider returned an unrecoverable exception.
```

If the expanded message states `invalid credentials`, you made an error entering your user credentials. Try to log in again.

If the expanded message states `password expired`, Unica expired the password. Log in to Unica application as the reporting system user and reset the password. Then, try logging in to Cognos Connection again.

If you still cannot log in to Cognos Connection, examine the `cogserver.log` file in the `logs` directory of your Cognos installation.

9. When you successfully log in to Cognos Connection, open Cognos Configuration.
10. Select **Local Configuration > Security > Authentication > Cognos**.
11. Disable anonymous access to Cognos BI by setting **Allow anonymous access?** to `false`.

12. Save your changes.

13. Stop and restart the Cognos service.

If the Cognos service cannot communicate successfully with the authentication provider, it cannot start. If the Cognos service fails to start, verify your configuration by retracing the steps in this procedure.

Now, anyone who logs in to an application on the Cognos system is authenticated by Unica. Additionally, the authentication namespace **Unica** now appears in the Cognos user interface for logon and security administration tasks.

### Configuring additional settings for Unica Platform

When Unica Platform is integrated with an LDAP server, Windows Active Directory, or a web access control system such as Tivoli® or Site Minder, you must configure additional settings.

To configure additional settings for Unica Platform, complete the following steps.

1. In Cognos Configuration, set the flag **Selectable for authentication** to **false** for the Unica® authentication namespace.

When you set this flag to **false**, Cognos Connection and Cognos Administration cannot access the Unica namespace for authentication. However, Unica applications can still access the Unica namespace through the Cognos SDK API (for example, when users view Cognos reports from within Unica applications).

2. If you need authenticated access to the Cognos URL, complete the following steps:
  - a. In Cognos Configuration, configure a namespace by using the appropriate bundled authentication provider.
  - b. Set **Selectable for authentication** to **true**.
  - c. Use this new namespace for the Cognos URL.

## Testing your configuration with authentication configured

You must test your configuration of Cognos BI after you configure authentication.

To test your configuration of Cognos BI, complete the following steps.

1. Verify that Unica and the Cognos service are both running.
2. Open Cognos Connection.
3. Browse to the report folders you imported and click the link to a basic report.  
For example, for Unica Campaign, select **Public Folders > Campaign > Campaign > Campaign Summary**.

If the report fails, verify that you configured the Cognos data source for the application database correctly. See [Creating Cognos data sources for Unica application databases \(on page 27\)](#).

4. Click a link in the report.

If the internal links from the reports do not work, the redirect URL is not configured correctly. See [Enabling internal links in the reports \(on page 47\)](#).

5. Log in to Unica and browse to the **Analysis** page.

When you specify the URL for the application, be sure to use a fully qualified host name with your company domain (and subdomain, if appropriate).

For example: `http://serverX.ABCompany.com:7001/unica`

6. Click the link to the same report that you tested in Cognos.

If you see error messages about security, it is likely that the Authentication Provider is not configured correctly. See [How to configure IBM Cognos to use Unica authentication \(on page 78\)](#).

If you are prompted to enter credentials for authentication, it is likely that the domain name is missing from one of your URLs. Log in to Unica as a user with admin privileges.

Then, select **Settings > Configuration** and ensure that the URLs in the following properties include the domain name and any appropriate subdomain name.

- **Reports > Integration > Cognos > Portal URL and Dispatch URL**
- Any URL properties for the applications, for example: **Campaign > navigation > serverURL**

7. Click a link in the report.

If you are prompted to enter credentials for authentication, it is likely that the domain name is missing from one of the URLs.

8. Open an individual item, click the **Analysis** tab, and verify that the report is correct.

If you see error messages about security, it is likely that the Application Provider is not configured correctly.

Now, reporting works properly and the example reports are in their default state. Finish configuring the data design of your Unica applications, such as campaign codes, custom campaign attributes, response metrics. To customize the reports or reporting schemas, see the following topics:

- If you are using Unica Campaign or Unica Interact, see the topics under [How to configure reporting \(on page 85\)](#).
- If you are using Unica Plan, see the "Using Reports" topics in the *Unica Plan Administrator's Guide*.
- If you are setting up reporting for Unica Deliver, you are done configuring reporting.

## How to configure reporting

After you install or upgrade your reporting packages, you must configure your reporting installation.

For its reporting feature, Unica integrates with IBM Cognos, a third-party business intelligence application. Reporting relies on the following components:

- An installation of IBM Cognos
- A set of Unica components that integrate HCL Enterprise applications with the IBM Cognos installation
- For several Unica applications, reporting schemas that enable you to build reporting views in the HCL system tables for the application
- The example reports for the Unica application, which are built with IBM Cognos Report Studio

When you install Unica applications, each application registers itself with Unica Platform. During that registration process, the application adds an entry for itself to the **Analytics** menu item.

After the report package for the application is configured:

- The **Analytics** menu item for the application provides access to its cross-object reports.
- The single object reports appear on the **Analysis** tabs of the appropriate objects.
- The dashboard reports for the application can be enabled and used in dashboards.

Typically, the reports packages for the Unica products are installed when the Unica applications are installed. Not all of the reports packages contain reporting schemas, but they all contain the following IBM Cognos BI components:

- A customizable IBM Cognos reporting metadata model for the Unica application reports
- Customizable Unica application reports built with IBM Cognos BI Report Studio
- Reference documentation that describes the reporting data model and the reports

The IBM Cognos model references the reporting views in the Unica application database. This makes the data available to the IBM Cognos reports that are delivered in Unica Reports Packages.

Immediately after installation, the reports are in their default state and can be considered example reports. Many Unica applications have a set of objects, attributes, or metrics that can be added or customized. For example, Unica Campaign allows you to add response types, custom campaign attributes, and additional audience levels. After the data design of

your system is implemented, you can revisit reporting to customize the example reports and create new reports.

How you configure the reports after the data design phase of your implementation depends on which Unica applications are included in your Unica suite.

- For Unica Campaign and Unica Interact, you customize the reporting schemas and then update the views or reporting tables that were created during installation. At that point, you synchronize the Cognos data model with the newly updated reporting views and publish the revised model to the Cognos content store. Now, the new custom attributes are available in Report Studio and you can add them to the sample reports or create new reports that display the attributes.
- For the Unica applications that do not provide reporting schemas and for Unica Deliver (which provides schemas that cannot be customized), you configure the IBM Cognos reports only.

## Reporting and security

For security, the reporting feature is controlled by specific access control mechanisms.

The following list describes the access control mechanisms:

- Application access control settings: Whether users can run reports from the Unica interface depends on the permissions that are granted by the Unica application access settings. Additionally, for Unica Campaign, Unica Deliver, and Unica Interact, you can grant or deny access to groups of reports based on their folder structure on the IBM Cognos system.
- Unica Platform access control settings: Whether an administrator can customize the schemas or run the Report SQL Generator depends on the permissions that are configured for Unica Platform.
- Unica authentication: You can also configure the IBM Cognos BI system to use Unica authentication to control access to the application data from the IBM Cognos system.

## Report folder permissions

The IBM Cognos report packages that you install on the IBM Cognos system contain the report specifications for the applications, which are organized into folders. For example, the **Interact Reports** folder is the folder for Unica Interact, and the reports specifications are in the **Interact Reports** folder on the IBM Cognos system.

For Unica Campaign, Unica Deliver, and Unica Interact, you can configure permissions for groups of reports based on the folder structure in which they are physically stored on the IBM Cognos system.

## Synchronizing with the IBM Cognos file directory

After you install the reports application, you must make the system aware of the report folders on the IBM Cognos system. Run the **Sync Report Folder Permissions** option on the **Settings** menu in the interface. This option connects to the IBM Cognos system to determine which folders are present. It then creates an entry in the user permissions lists for the Unica Campaign partitions. The entry, named **Reports**, appears in the permissions lists between the **Logging** and **System Tables** entries. When you expand it, the report folder names are listed and now represent permissions.

The default setting for the new permissions is "not granted." Therefore, after you run the **Sync Report Folder Permissions** option, you must configure permissions for the report folders. Otherwise, no one has access to the IBM Cognos reports.

## Partitions and folder partitions

The folder synchronizing process retrieves the names of all the folders on the Cognos system, for all partitions. If you decide to configure report folder permissions for any partition, you must configure permissions for all partitions.

## The Unica Authentication Provider and the IBM Cognos BI system

By default, the Cognos system is unsecured because anyone who has access to the IBM Cognos applications can access the data from the Unica application database. You can secure the Cognos system by using the Unica Authentication Provider.

When your Unica system integrates with the IBM Cognos BI system, the IBM Cognos system provides access to the Unica application data in the following ways:

- From the Unica applications: When someone requests a report from the Unica interface, the Unica system contacts the IBM Cognos system. Cognos queries the reporting views and then sends the report back to the Unica interface.
- From the IBM Cognos applications: When you work with the Unica application data model in Framework Manager or with the reports in Report Studio, you connect to the database for the Unica application.

When IBM Cognos is configured to use Unica authentication, the Unica Authentication Provider that is installed on the IBM Cognos BI system communicates with the security layer of Unica Platform to authenticate users. For access, the user must be a valid Unica user and must have a role that grants one of the following permissions:

- `report_system` grants access to the reporting configuration options in the Unica interface. The **ReportsSystem** role grants this permission.
- `report_user` grants access to the reports but not to the reporting configuration options in the Unica interface. The **ReportsUser** role grants this permission.

There are two authentication modes:

- authenticated
- authenticated per user

## Authenticated mode

When the authentication mode is set to authenticated, the communications between the Unica system and the IBM Cognos system are secured at the machine level. To use the authenticated mode for a user, you must configure a report system user and identify the user in the reporting configuration settings.

When you assign the ReportsSystem role to a user, the user is granted access to all reporting functions. Store the login credentials for the IBM Cognos system in a user data source. The data source is normally named **cognos\_admin**.

The Unica Authentication Provider uses the following method to authenticate the report system user:

- Each time that an Unica user attempts to display a report, Unica Platform uses the credentials that are stored in the report system user record in its communication with the Cognos system. The authentication provider verifies the user credentials.
- When report authors log in to the IBM Cognos applications, they log in as the report system user, `cognos_admin`, and the authentication provider verifies the user credentials.

### **Authenticated per user mode**

When the authentication mode is set to authenticated per user, the reports system does not use a report system user but instead evaluates the credentials of each user. The Unica Authentication Provider uses the following method in the authenticated per user mode:

- Each time that an Unica user attempts to display a report, Unica Platform includes the user credentials in its communication with the Cognos system. The authentication provider verifies the user credentials.
- When report authors log in to the IBM Cognos applications, they log in as themselves and the authentication provider verifies their credentials.

With the authenticated per user mode, all users must have either the `ReportsUser` or the `ReportsSystem` role to see reports. Typically, you assign the `ReportsSystem` role to one or two administrators and assign the `ReportsUser` role to the user groups of the Unica users who need to see reports in the Unica interface.

Except for checking for a reporting permission, the authentication provider does not check for other authorization. Report authors who log in to the Cognos applications have access to all the reports on the Cognos system, no matter how their report folder permissions might be set on the Unica suite.

## Reporting permissions configuration properties

You can give access to the reporting configuration functions and to reports by configuring the settings on the **Configuration** page.

Access to the reporting configuration functions and to the reports themselves are controlled by the following settings.

User interface item	Access control
<p><b>Configuration</b> option on the <b>Settings</b> menu</p> <p>You configure reporting schemas on the <b>Configuration</b> page.</p>	<p>The Unica Platform permission <b>Access to Configuration</b>, which is under <b>Settings &gt; User Roles &amp; Permissions &gt; Platform</b></p>
<p><b>Report SQL Generator</b> and <b>Sync Report Folder Permissions</b> options on the <b>Settings</b> menu</p>	<p>The Report permission <b>report_system</b>, which is under <b>Settings &gt; User Roles &amp; Permissions &gt; Report</b></p> <p>The standard ReportsSystem role has this permission.</p>
<p>Analytics menu</p>	<p>Application access settings that vary by product:</p> <ul style="list-style-type: none"> <li>• For Unica Campaign, Unica Deliver, and Unica Interact, the <b>Administration &gt; Access Analysis Section</b> permission at the campaign partition level of <b>Settings &gt; User Roles &amp; Permissions</b></li> <li>• For Unica Plan and Unica Collaborate, the Analysis permissions in the security policies</li> </ul>
<p>Analysis tabs</p>	<p>The Analysis (or Analyze) permissions in the security policies for the individual objects</p>
<p>Data displayed by the reports</p>	<p>When the authentication mode of the Cognos system is "authenticated per user," users must have either the</p>

User interface item	Access control
	ReportsSystem or ReportsUser role so that they can see the data in reports.

## Reporting schemas

You must create reporting view to implement reporting for Unica Campaign, Unica Interact, and Unica Deliver. Reports can extract reportable data in the reporting views. The report packages for Unica Campaign, Unica Interact, and Unica Deliver include reporting schemas that the Reporting SQL Generator uses to produce SQL scripts that create reporting views.

For Unica Campaign and Unica Interact, you must customize the schema templates so that the data that you want to include in your reports is represented. You can run the Reporting SQL Generator after you customize the schema templates. You can run the SQL scripts that the SQL Generator generated and run the scripts on your application databases.

You cannot customize the Unica Deliver reporting schemas. However, you must generate the SQL script that builds the reporting views and then run the scripts on the Deliver databases.

The reporting schemas make it easier for you to use any third-party reporting tool to examine your HCL application data. However, if you want to display reports in the Unica user interface, your installation must be integrated with IBM Cognos BI.

### The Report SQL Generator

The Report SQL Generator uses the reporting schemas to determine the analytic logic that is necessary to extract data from the database for the Unica application. The Report SQL Generator then generates the SQL script that creates views or reporting tables that implement the logic and that enable business intelligence tools to extract reportable data.

During installation and configuration, the system implementers configured data source properties that identify the Unica application databases. The Report SQL Generator connects to the application databases to complete the following tasks:

- Validate scripts that create views or materialized views

- Determine the correct data types to use in scripts that create reporting tables

If the JNDI data source names are incorrect or missing, the Report SQL Generator cannot validate the scripts that create the reporting tables.

Also in the case of Unica Platform, Unica Campaign and Unica Interact deployed on different Application server instances/profiles you are required to add Unica Campaign, Unica Interact Runtime and Unica Interact Learning Data Source in the Unica Platform Application instance/profile.

## Reporting deployment options

You can choose a deployment option when you run the Report SQL Generator tool.

When you run the Report SQL Generator tool, you specify whether you want the script to create views, materialized views. Which deployment option you use depends on the amount of data that is contained in your system.

- For smaller implementations, reporting views that directly query the production data might perform sufficiently for your needs. If they do not, try materialized views.
- For medium-sized implementations, use either materialized views on the production system database or set up reporting tables in a separate database.
- For large implementations, configure a separate reporting database.

For all implementations, you can use Cognos Connection Administration to schedule reports that retrieve large amounts of data to run during off hours.

## Materialized views and Microsoft SQL Server

The reports application does not support materialized views for Microsoft SQL Server.

In SQL Server, materialized views are called "indexed views." However, the definition that creates an index in a view on SQL Server cannot use certain aggregations, functions, and options that the reporting views include. Therefore, if you are using a SQL server database, use views or reporting tables.

 **Note:** For Unica Deliver, you must use views.

## Unica Deliver and Oracle

If your installation includes Unica Deliver and your database is Oracle, you must use materialized views or reporting tables.

## Unica Deliver and DB2

If your installation includes Unica Deliver and your database is DB2, you must use materialized views or reporting tables.

## Data synchronization

When you deploy with materialized views or reporting tables, determine how frequently you want to synchronize the data with the production system data. Then, use your database administration tools to schedule data synchronization processes to refresh the reporting data regularly.

For Unica Deliver, the materialized views are automatically refreshed when you run the Unica Deliver delta refresh stored procedures. For more information, see [For Unica Deliver only: How to schedule and run stored procedures \(on page 51\)](#).

## Control groups and target groups in the reports

The example IBM Cognos BI reports in the report packages include data from both target groups and control groups.

To support these reports, the reporting schemas contain two columns for each of the default contact and response history metrics and default response types. One column represents the response from the control group, and the other column represents the response from the target group.

If you plan to extend the example reports or create your own reports, determine whether you want to include response information from both target and control groups. If the answer is yes and you add metrics or response types, create two columns for that item in the reporting schema, one for the target and one for the control. If the answer is no, create only the target group column in the reporting schema for that item.

## Audience levels and reports

You can change the audience level in your reports by editing the performance and response schemas to reference the system tables for the correct audience level.

In their default state, the reporting schemas reference the system tables for the single pre-defined audience level "Customer", which is delivered with Unica Campaign. By default, performance and response history reports reference the "Customer" audience level.

You can change the audience level in your reports by editing the performance and response schemas to reference the system tables for the correct audience level.

Additionally, for Unica Campaign and Unica Interact, you can add reporting schemas for additional audience levels. You create the reporting schemas from the templates in the **Settings > Configuration** pages. Add reporting views to the Cognos data model and modify the Cognos reports to accommodate the additional audience level or levels.

## Audience keys in reporting schemas

When you configure the audience level for performance reports and response history or when you create reporting schemas for additional audience levels, you must specify the audience key for the audience level.

If the key includes more than one database column (sometimes referred to as a multikey audience key), you use commas between the column names. For example, `ColumnX,ColumnY`.

The maximum length of the string you can enter in the `Audience Key` field of a reporting schema is 255 characters. If the audience key is longer than 255 characters, you can work around this restriction in the generated SQL. Enter the first 255 characters of the key in the `Audience Key` field and generate the SQL script as usual. Then, open the generated script in an editor and replace each of the truncated audience key references with the complete string.

## Partitions and reporting schemas

If Unica Campaign uses more than one partition, you can add reporting schemas for each partition. Create the reporting schemas from the templates in the **Schemas configuration** pages.

When Unica Campaign uses multiple partitions, the system implementer configured a reports package on the Cognos system for each partition. After the data design of your system is implemented, you must revisit the reporting views for each partition.

## Framework Manager data models

A Cognos model is reporting metadata that describes physical database objects and their relationships to query subjects and query items. When you use Cognos 10 BI Report Studio, you build reports from query subjects and items that are described in the data model.

The data model for an Unica application references the reporting views in the Unica application database. The data is made available to the Cognos 10 reports that are also delivered in the Unica Reports Package.

When you configure the reporting views to include additional attributes, metrics, and response types, you synchronize the Cognos reporting model with the reporting views and you publish the revised model to the Cognos content store. At that point, those new attributes become available in Report Studio and you can add them to the Unica reports.

The IBM Cognos 10 model from the Unica Reports Package presents the Unica application metadata in the following three folders:

- Import View represents the data from the reporting schemas in the Unica application database. You use this view to synchronize the data model with the Unica database views, materialized views, or reporting tables through the data source connection.
- Model View is the working area where you perform basic metadata transformations. You set up relationships between object entities that are represented by query subjects, which creates building blocks that can be used in the Business View.

- **Business View** organizes query subjects in terms of business objects to simplify report building. This is the information that you see when you open an Unica application report in Report Studio.

The Unica Campaign and Unica Deliver models include shortcuts from the Model View to the Business View. The Unica Interact model does not use shortcuts in the same way because some of its query subjects span two data sources.

 **Note:** When you create a project in Cognos Configuration, select **Open Project** to create a project. When you use the **Open Project** option, the query mode is set to **Compatible**. Do not use the **Create New Project** option, which uses the default template that sets the query mode to **Dynamic**.

## Report Studio reports

Each Unica reports package contains several reports for the application that are built with the Cognos Report Studio.

Run sample reports from the following locations in the Unica suite common user interface:

- From the **Analytics** menu, run a multiple object report.
- On the **Analysis** tab of items like campaigns or offers, run a single object report.
- On the Unica Campaign, Unica Plan, Unica Deliver, and Unica Interact dashboards, run a pre-configured report. See the *Unica Platform Administrator's Guide* for information about dashboards.

## Folders, subfolders, and access settings

The reports for each Unica application are organized into folders and subfolders with names that represent both the application and the purpose of the report in the Public Folders area.

During installation, the system implementers imported the Cognos Connection reports archive for each Unica application to the Public Folders area.

The folders and subfolders are also used by the security access control model for Unica Campaign, Unica Interact, and Unica Deliver, which includes security settings for the reports by folder. The security policies for those applications grant users access to all reports in a folder. The access control model for Unica Plan does not provide this level of access. In Unica Plan, you either have access to all reports or no reports.

As a best practice, do not rename the folders or subfolders in the Cognos Connection interface. If you do, you must configure your application so that it recognizes the changed folder names.

- For Unica Campaign, Unica Deliver, and Unica Interact, select **Settings > Configuration**. Under **Campaign > partitions > [partition name] > reports**, edit the values of the reporting folder properties to match the names of the folders.
- For Unica Plan, open the `plan_config.xml` file and edit the values for the `reportsAnalysisSectionHome` and `reportsAnalysisTabHome` configuration settings.

## Report styles and appearance

Use the `GlobalReportStyles.css` style sheet to establish common reporting styles for reports across all Unica applications.

For information about styles, see [Formats for the Cognos reports \(on page 183\)](#). These topics provide the following information about reports:

- The styles that are implemented by the `GlobalReportStyles.css` file
- Style formatting that you must do manually when you author a report because you cannot implement certain styles with the style sheet

The dash character ("-") has special meaning in the Unica reports: it denotes calculations that do not apply. For example, if the unique count in a row that shows that totals cannot be calculated, a "-" is displayed.

Some of the reports do not appear at their best on systems with little or no data. For example, a line graph with one data point cannot display a line, which makes the graph look empty. Additionally, graphical representations of summary data do not list the dates

or times for data points that do not have data. For example, if you specify a date range that has only one day with data, the graph shows that date only.

You can customize the reports to use the chart or graph type that works best for the data from your systems.

## Setting up schedules for generating reports

In IBM Cognos Connection, you can schedule the automatic running of your reports. For each report, you can select the run frequency, format options, delivery methods, and locations for saving.

For example, you can schedule a report to run every Monday at 9:00 AM, and distribute the report by using an auto-generated email to a specified group of recipients.

For details about scheduling and distributing reports, see the schedule chapter in the IBM Cognos Connection User Guide.

## How to customize reporting schemas

You can customize your reports to include custom data. The reporting schema that you modify depends on the reports that you plan to customize.

For information about which reporting schemas support the sample reports provided in the report packs, see [Unica Campaign reports and reporting schemas \(on page 207\)](#).

Determine which reports that you plan to customize and consult the appropriate report to reporting schema map:

- [Unica Deliver Reports and Reporting Schemas \(on page 212\)](#)
- [Unica Interact Reports and Reporting Schemas \(on page 212\)](#)

 **Note:** You cannot customize the Unica Deliver reporting schemas, but you can modify and create Unica Deliver reports.

## Adding contact or response metrics

You can add contact or response metrics to the Campaign Performance and Offer Performance reporting schemas.

Determine the following information:

- Which reporting schema supports the report that you want to add the metric to. See [Unica Campaign reports and reporting schemas \(on page 207\)](#) for information.
- Whether you need to add a column to the reporting schema for the control group in addition to the target group. See [Control groups and target groups in the reports \(on page 94\)](#).
- How the metric is calculated. For example, it could be summed, averaged, or counted.

To add contact or response metrics, complete the following steps.

1. Select **Settings > Configuration**.
2. Expand **Reports > Schemas > Campaign > *name of the appropriate reporting schema***.
3. Expand the **Columns** node and select either **Contact Metric** or **Response Metric**.
4. In the form on the right, click **New category name** and enter the name of the contact or response metric.
5. For **Column Name**, enter the name to use in the reporting schema for the attribute. Use all uppercase letters with no spaces.
6. For **Function**, specify how the metric is calculated or determined.
7. For **Input Column Name**, enter the name of the column for this attribute from the appropriate table in the application database.  
Input column names are case-sensitive.

8. For **Control Treatment Flag**, enter the number **0** to indicate that this column in the reporting schema represents the target group.
9. Click **Save Changes**.
10. **Optional:** Repeat this task to add the control group column to the reporting schema, if necessary. This time, enter the number **1** to indicate that this column represents the control group.

## Adding custom attributes

You can add custom campaign, offer, and cell attributes to the Custom Campaign Attributes reporting schema.

Determine the following information:

- The value from the attribute's `AttributeID` column in the `UA_CampAttribute`, `UA_CellAttribute`, or `UA_OfferAttribute` table, as appropriate
- The data type of the attribute: string value, number value, or date/time value

To add custom attributes, complete the following steps.

1. Select **Settings > Configuration**.
2. Expand **Reports > Schemas > Campaign > Campaign Custom Attributes > Columns**.
3. Select the type of column that matches the type of attribute that you want to add.
4. In the form on the right, click **New category name** and enter the name of the custom attribute.
5. For **Column Name**, enter the name to use in the reporting schema for the attribute. Use all uppercase letters with no spaces.
6. For **Attribute ID**, enter the ID of this attribute.
7. For **Value Type**, specify the data type of the attribute.

 **Note:** If you add an attribute that holds a currency value, specify `NumberValue` in the **Value Type** field. If you add an attribute whose **Form Element Type** was set to `Select Box - String` in Unica Campaign, specify `StringValue` in the **Value Type** field.

8. Click **Save Changes**.

## Adding response types

You can add response types to the Campaign Offer Response Breakout schema.

Determine the following information:

- Whether you need to add a column to the reporting schema for the control group and the target group. See [Control groups and target groups in the reports \(on page 94\)](#).
- The response type code from the `UA_UsrResponseType` table.

To add response types, complete the following steps.

1. Select **Settings > Configuration**.
2. Expand **Reports > Schemas > Campaign > Campaign Offer Response Breakout > Columns > Response Type**.
3. In the form on the right, click **New category name** and enter the name of the response type.
4. For **Column Name**, enter the name to use in the reporting schema for the response type.
5. For **Response Type Code**, enter the three letter code for this response type.  
Response type codes are case-sensitive.
6. For **Control Treatment Flag**, enter the number zero to indicate that this column in the reporting schema represents the target group
7. Click **Save Changes**.

8. **Optional:** Repeat this procedure to add the control group column to the reporting schema, if necessary. This time, enter the number 1 to indicate that this column represents the control group.

## Adding contact status codes

You can add contact status codes to the Campaign Offer Contact Status Breakout schema. You can determine the contact status code from the `UA_ContactStatus` table.

To add the contact status codes, complete the following steps.

1. Select **Settings > Configuration**.
2. Expand **Reports > Schemas > Campaign > Campaign Offer Contact Status Breakout > Columns > Contact Status**.
3. In the form on the right, click **New category name** and enter the name of the contact status type.
4. For **Column Name**, enter the name to use in the reporting schema for the contact status type.
5. For **Contact Status Code**, enter the three letter code for this contact status. Contact status codes are case-sensitive.
6. Click **Save Changes**.

## Specifying the calendar time periods for performance reports

The standard reports for both Unica Campaign and Unica Interact include performance reports that summarize data over calendar periods.

To specify time periods that are used in these reports to be something other than the default over time variations, complete the following steps:

1. Select **Settings > Configuration**.

2. Expand **Reports > Schemas** and select either **Campaign** or **Interact**.
3. Select the performance schema of interest.
4. Click **Edit Settings**.
5. In the **Schema Settings** section, select the appropriate values for the **Over Time Variations** option list.
6. Click **Save Changes**.

## Configuring audience level for performance reports and response history

You can customize your Unica Campaign and Unica Interact reporting schemas to include custom data to display in your reports.

Determine the following information:

- The names of the contact history, detailed contact history, and response history tables for the audience level of interest.
- The audience key to the contact history and detailed contact history tables. See [Audience keys in reporting schemas \(on page 95\)](#).

Complete the following steps for each of the appropriate reporting schemas:

- For Unica Campaign: Offer Performance, Campaign Performance, Campaign Offer Response Breakout, Campaign Offer Contact Status Breakout
- For Unica Interact: Interact Performance

1. Select **Settings > Configuration**.
2. Expand **Reports > Schemas > *ProductName* > *SchemaName***.
3. In the form on the right, click **Edit Settings**.
4. In the **Input Tables** section, identify the system tables for the audience level and the audience key.

 **Note:** Use commas to separate column names for a multikey audience key. For more information, see [Audience keys in reporting schemas \(on page 95\)](#).

5. Click **Save Changes**.

## Reporting schemas for extra audience levels or partitions

You can create reporting schemas for extra audience levels and partitions.

You might want to create additional reporting schemas for the following reasons:

- You want to report on more than one audience level. You can create reports that present data for more than one audience level or add filters that prompt users to specify one of several audience levels. Therefore, you need schemas that point to an additional set of contact and response history tables.
- You configure reporting for multiple partitions and you need to implement different schema customizations for each set of partition system tables.

Before you begin, determine the following information.

- Which reporting schemas to create:
  - For Unica Campaign: Campaign Offer Response Breakout, Offer Performance, Campaign Performance, Offer Contact Status Breakout, and Campaign Custom Attributes
  - For Unica Interact: Interact Performance
- The names of the tables for this audience level:
  - For Unica Campaign: contact history, detailed contact history, and response history tables
  - For Unica Interact: detailed contact history and response history tables
- The name of the audience key column or columns for this audience level
- A short two- or three-letter code to represent the name of the audience level. You use this code when you specify the table or view names for the new reporting schema.

## Creating a Campaign Offer Response Breakout schema

If you want to configure reporting for multiple audience levels or multiple partitions, you can create reporting schemas.

To create a Campaign Offer Response Breakout schema, complete the following steps.

1. Select **Settings > Configuration**.
2. Expand **Reports > Schemas > Campaign > Campaign Offer Response Breakout Star Schema**.
3. Click **New category name** and enter a descriptive name for the reporting schema that indicates the audience level.

For example, `Campaign Offer Response Household`.

4. In the **Input Tables** section, enter the name of the response history table for this audience level and click **Save Changes**.

A new node appears in the Configuration tree for the schema. You cannot change the name of the node.

5. Under the new node, select **Columns > Response Type** and then configure the response types for this audience level.

For help with this step, see [Adding response types \(on page 102\)](#).

6. Under the new node, select **SQL Configuration > Campaign Response Breakout** and click **Edit Settings**.

7. In the form, edit the name in the **Table/View Name** field to include the code for the audience level. The name can be no longer than 18 characters and must be in all uppercase letters.

For example, if the name of the audience level is household, you might specify:

`UARC_CRBO_HH_`.

For more information about table and view naming conventions, see the [Reports | Schemas | \[product\] | \[schema name\] | SQL Configuration \(on page 158\)](#).

8. Click **Save Changes**.
9. Under the new node, select **SQL Configuration > Campaign Offer Response Breakout** and click **Edit Settings**.
10. Edit the name in the **Table/View Name** field to include the code for the audience level. The name can be no longer than 18 characters and must be in all uppercase letters. For example, `UARC_CORBO_HH_`.
11. Click **Save Changes**.

### Creating a Campaign Offer Contact Status Breakout schema

If you want to configure reporting for multiple audience levels or multiple partitions, you can create reporting schemas.

To create a Campaign Offer Contact Status Breakout schema, complete the following steps.

1. Select **Settings > Configuration**.
2. Expand **Reports > Schemas > Campaign > Campaign Offer Response Breakout Star Schema**.
3. Click **New category name** and enter a descriptive name for the reporting schema that indicates the audience level. For example, `Campaign Offer Contact Status Household`.
4. In the **Input Tables** section, enter the name of the response history table for this audience level and click **Save Changes**.  
  
A new node appears in the Configuration tree for the schema. You cannot change the name of the node.
5. Under the new node, select **Columns > Contact Status Code** and configure the contact status codes for this audience level.  
  
For help with this step, see [Adding contact status codes \(on page 103\)](#).

6. Under the new node, select **SQL Configuration > Campaign Contact Status Contact History** and click **Edit Settings**.
7. In the form, edit the name in the **Table/View Name** field to include the code for the audience level. The name can be no longer than 18 characters and must be in all uppercase letters.  
For example, if the name of the audience level is household, you might specify:  
`UARC_CCSBO_HH_`.
8. Click **Save Changes**.
9. Under the new node, select **SQL Configuration > Campaign Offer Contact Status Contact** and click **Edit Settings**.
10. Edit the name in the **Table/View Name** field to include the code for the audience level. The name can be no longer than 18 characters and must be in all uppercase letters.  
For example, `UARC_COCSBO_HH_`.
11. Click **Save Changes**.

## Creating an Offer Performance schema

Use **Offer Performance Star Schema** to create an Offer Performance schema.

To create an Offer Performance schema, complete the following steps.

1. Select **Settings > Configuration**.
2. Expand **Reports > Schemas > Campaign > Offer Performance Star Schema**.
3. In the **New category name**, enter a descriptive name for the reporting schema that indicates the audience level.  
For example, `Offer Performance Household`.
4. In the **Input Tables** section, identify the tables that support the audience level and the audience key.

5. In the **Schema Settings** section, select the **Over Time Variations** options that apply and click **Save Changes**.

A new node appears in the Configuration tree for the schema. You cannot change the name of the node.

6. Under the new node in the Configuration tree, select **Columns > Contact Metric** and configure the contact metrics for this audience level.

For help with this step, see [Adding contact or response metrics \(on page 100\)](#).

7. Under the new node, select **Columns > Response Metric** and configure the response metrics for this audience level.

For help with this step, see [Adding contact or response metrics \(on page 100\)](#).

8. Under the new node, expand **SQL Configuration**, select the first item (Offer Contact History) and click **Edit Settings**.

9. In the form, edit the value in the **Table/View name** field to include the code for the audience level. The name can be no longer than 18 characters and must be in all uppercase letters.

For example, if the name of the audience level is household, you might specify:

UARC\_OCH\_HH\_.

10. Click **Save Changes**.
11. Repeat steps 8 through 10 for each item that is listed under the **SQL Configuration** section of the new reporting schema.

## Creating a Campaign Performance schema

Use **Campaign Performance Star Schema** to create a Campaign Performance schema.

To create a Campaign Performance schema, complete the following steps.

1. Select **Settings > Configuration**.

2. Expand **Reports > Schemas > Campaign > Campaign Performance Star Schema**.

3. Click **New category name** and enter a descriptive name for the reporting schema that indicates the audience level.

For example, Campaign Performance Household.

4. In the **Input Tables** section, identify the tables that support the audience level and the audience key.

5. In the **Schema Settings** section, select all **Over Time Variations** options that apply and click **Save Changes**.

A new node appears in the Configuration tree for the schema. You cannot change the name of the node.

6. Under the new node, select **Columns > Contact Metric** and configure the contact metrics for this audience level.

For help with this step, see [Adding contact or response metrics \(on page 100\)](#).

7. Under the new node, select **Columns > Response Metric** and configure the response metrics for this audience level.

For help with this step, see [Adding contact or response metrics \(on page 100\)](#).

8. Under the new node, select **SQL Configuration** and select the first item, Campaign Contact History.

9. In the form, edit the value in the **Table/View name** field to include the code for the audience level.

The name can be no longer than 18 characters and must be in all uppercase letters.

For example, if the name of the audience level is household, you might specify:

UARC\_CCH\_HH\_.

10. Click **Save Changes**.

11. Repeat steps 9 and 10 for each item that is listed under the **SQL Configuration** section of the new reporting schema.

## Creating a Campaign Custom Attributes schema

You need just one Campaign Custom Attributes schema for each partition. The same schema is used for all audience levels.

To create a Campaign Custom Attributes schema, complete the following steps.

1. Select **Settings > Configuration**.
2. Expand **Reports > Schemas > Campaign > Campaign Custom Attributes**.
3. In the **New category name**, enter a descriptive name for the reporting schema that indicates the partition.  
For example, Campaign Custom Attributes Partition 2.
4. Under the new node in the Configuration tree, expand **Columns** and add the custom cell, offer, and campaign attributes that are required by the partition for which you are creating this reporting schema.  
For help with this step, see [Adding custom attributes \(on page 101\)](#).
5. **Optional:** You can edit the view names. Under the new node, expand **SQL Configuration** and select each item to examine the view names. If you change names, make sure that names are no longer than 18 characters, are in all uppercase letters, and include no spaces.
6. Click **Save Changes**.

## Creating an Interact Performance schema

Use **Interact Performance Star Schema** to create Interact Performance Schema.

To create an Interact Performance schema, complete the following steps.

1. Select **Settings > Configuration**.
2. Expand **Reports > Schemas > Interact > Interact Performance Star Schema**.

3. In the **New category name** field, enter a descriptive name for the reporting schema that indicates the audience level.

For example, `Interact Performance Household`.

4. In the **Input Tables** section, identify the tables that support the audience level and the audience key.

5. In the **Schema Settings** section, select all **Over Time Variations** options that apply and click **Save Changes**.

A new node appears in the Configuration tree for the schema. You cannot change the name of the node.

6. Under the new node, select **SQL Configuration** and select the first item, Interactive Channel Offer Contact History Summary.

7. In the form, edit the value in the **Table/View name** field to include the code for the audience level.

The name can be no longer than 18 characters and must be in all uppercase letters.

For example, if the name of the audience level is household, you might specify:

`UARI_ICP_OCH_HH_`.

8. Click **Save Changes**.

9. Repeat steps 7 and 8 for each item that is listed under the **SQL Configuration** section of the new reporting schema.

## How to customize the Cognos Model

When you customize an Unica reporting schema to include additional metrics, attributes, or audience levels and then modify the reporting view that are based on that schema, you must also edit the IBM Cognos BI model.

Use the Cognos Framework Manager features to query the views or tables and import the additional items into the data model.

The way you update the Cognos model depends on the changes you made in the Unica reporting views :

- If you modified existing views by adding columns for attributes, metrics, or response types, import the new columns by updating the query object that represents the associated view.
- If you modified the over time variations for performance or runtime reports or if you created new reporting schemas for additional audience levels, you have added new views. In this case, use the Framework Manager MetaData Wizard to import the views into the data model.

The following topics provide examples that you can use as guidelines for when you customize the Cognos model. For more information, see the Cognos BI Framework Manager User Guide and the Framework Manager online help.

### Adding attributes to an existing view in a data model

You can add attributes to an existing view in a data model by using the Cognos Report Studio.

Make sure you have completed the following tasks:

- Created the offer attribute in the `UA_OfferAttribute` table.
- Added the offer attribute to the Campaign Custom Attributes reporting schema.
- Used the Reports SQL Generator to generate the view creation script.
- Run the generated script in the Unica Campaign database to update the Offer Custom Attribute reporting view, `UARC_OFFEREXTATTR`.

The following example task shows how to add an item to an existing view in the Cognos model. For this example, assume that you need to add a custom offer attribute to the Unica Campaign database and include it in a report.

To add the new offer attribute to the Cognos Unica Campaign model, complete the following steps.

1. Make a backup of the Unica Campaign model. Browse to the `Cognos/models` directory and copy the `CampaignModel` subdirectory.

In a distributed Cognos environment, the `models` directory is on the system running the Content Manager.

2. In Framework Manager, open the `Campaign.cpf` file (the project) and expand the **Import View** node.

3. Under **Import View**, select the query object that represents the reporting view for custom offer attributes: **Import View > Campaign Custom Attributes > UARC\_OFFEREXTATTR**.

4. Select **Tools > Update Object**.

Cognos refreshes the columns that are listed under the node for the view so they reflect all columns currently present in the `UARC_OFFEREXTATTR` reporting view in the Unica Campaign database.

5. Expand the **Model View** and select the node that represents custom offer attributes in this view: **Model View > Campaign Custom Attributes > Offer Custom Attributes**.

6. Double-click the **Offer Custom Attributes** node to open the **Query Subject Definition** dialog box.

7. Locate the new column and add it to the **Model View**.

8. Edit the name of the query item so it can be read easily.

For example, the column that is named `LASTRUNDATE` in the **Import View** of the Unica Campaign data model appears as **Last Run Date** in the **Model View**.

 **Note:** Because the **Business View** contains a shortcut to the **Offer Custom Attributes** node in the **Model View**, the new query item now available in the **Business View**.

9. Save the model.

10. Publish the package to the Cognos content store.

You can add the attribute to the appropriate report by using Cognos Report Studio.

## Adding views to the Cognos data model

You can add views to the Cognos data model. Use Cognos Framework Manager features to query the views or tables and then import the additional items in the data model.

Make sure you completed the following tasks:

- Modified the Campaign Performance schema by adding Quarterly to the **Over Time Variations** options.
- Used the Reporting SQL Generator to generate the view creation script. This script now contains instructions to create the following additional reporting views: UARC\_CCCH\_QU, UARC\_CCH\_QU, UARC\_CCRH\_QU, UARC\_COCH\_QU, UARC\_CORH\_QU, and UARC\_CRH\_QU
- Run the generated script in the Unica Campaign database to create the additional reporting views.

The following example task shows how to add views to the Cognos data model. For this example, assume that you changed the Over Time Variations for the Campaign Performance reporting schema and need to import the change into the Cognos model.

To add the new reporting views to the Cognos Unica Campaign data model, complete the following steps.

1. Make a backup of the Unica Campaign model. Browse to the `Cognos/models` directory and copy the `CampaignModel` subdirectory.  
In a distributed Cognos environment, the `models` directory is on the system running the Content Manager.
2. In Framework Manager, open the Campaign project and expand the **Import View** node.
3. Right-click the **Campaign Performance** folder and select **Metadata Wizard**.
4. Step through the Metadata Wizard to import the new views.

5. Expand the **Model View > Campaign Performance** node and model a new entry named `Campaign Performance by Quarter`.

For help with this step, examine the other entries for reference. Be sure to maintain the same structure and relationships that are included in the other over time variation nodes. Consult the Cognos BI Framework Manager User Guide for the following tasks:

- Creating a namespace
- Creating star schema groupings
- Adding joins

6. Expand the **Business View** and create a shortcut to the `Campaign Performance by Quarter` node in the **Model View**.

7. Save the model.

8. Publish the package to the Cognos content store.

9. Open Report Studio and create a report with the objects from the `Campaign Performance by Quarter` schema that you created.

## How to customize and create Cognos reports for Unica applications

You can create your own reports and customize the example reports to include your custom data. From Cognos Connection, you can configure options for the reports, schedule them to run at regular times, and use Report Studio to customize them.

Consult the following sources when you are planning and implementing your reports:

- The user's guides for your Unica applications include short descriptions of all reports in the Unica reports package for that product.
- The Unica reports packages provide reference documentation that describes the specifications of each report in the pack and the Framework Manager metadata model that supports the reports. You can find the reference documentation in the reports

package installation directory, under `<ReportsPackInstallationDirectory>/cognos11/<Product>Docs`.

For example, the Unica Campaign reports package documentation is in the Reports Pack installation directory under `/ReportsPackCampaign/cognos11/CampaignDocs`.

Examine these documents before you customize a model or a report. Be sure that you understand how a report is constructed before you modify it.

- For detailed documentation about creating and editing Cognos BI reports, see the Cognos BI documentation, especially the *Cognos BI Report Studio Professional Authoring User Guide*.
- For information about report styles, see [Formats for the Cognos reports \(on page 183\)](#).
- For information about customizing Unica Plan reports, see the *Unica Plan Administration Guide*.

## Guidelines for creating Unica Campaign reports

The Unica reporting package for Unica Campaign includes example reports. Use Cognos Report Studio to create and modify reports.

Use the following guidelines to create reports for Unica Campaign in Cognos Report Studio:

- Examine the reference documentation that describes the metadata model and the specifications of the example reports from the Unica Campaign reports package. This documentation is in the `CampaignReportPack\cognosN\docs` subdirectory in the reports package installation directory, where *N* is the version number of your Cognos installation.
- Using Report Studio, create or copy and modify a report. For details, see the Cognos Report Studio documentation.
- If you modify a copy of a report, or the report itself, ensure that you understand how the report is constructed. Then, you can add your custom attributes and metrics and modify the objects and query items by using the toolbar and **Properties** pane in Report Studio. For information about using Report Studio, see the Cognos Report Studio

documentation. For information about the objects and query items in the example reports, consult the reference documentation from the reports package.

- For object-specific reports that appear on the **Analysis** tab, create a parameter ID that accepts the passed value from the object. For a system-wide report that appears on the **Analysis** page, create a prompt that contains all object values for campaigns or offers. For details, see the Cognos Report Studio documentation.
- Save the report into the appropriate folder under **Public Folders** to make it visible in Unica Campaign.
  - To display the report on the **Analysis** tab, save it in the **Unica Campaign - Object Specific Reports** folder.
  - To display the report on the **Analysis** page, save it in the **Unica Campaign** folder.
  - To add the report to a dashboard portlet, save it in the **Unica Dashboards \Campaign** folder.

## How to configure the Interaction Point Performance dashboard portlet

Unica Interact has one Cognos dashboard report: Interaction Point Summary. Because dashboard reports do not prompt users for query parameters, the channel ID of the interactive channel in the Interaction Point Performance report is a static value. By default, the channel ID for this report is set to 1. If the channel ID is not correct for your implementation, you can customize the report and change the channel ID in the report's filter expression.

To customize any of the Cognos reports, you need Cognos report authoring skills. For detailed documentation about creating and editing Cognos BI reports, see the Cognos BI documentation, especially Cognos BI Report Studio Professional Authoring User Guide for your version of Cognos.

For information about the queries and data items in the Interaction Point Performance report, see the reference documentation that is provided in the Unica Interact reports package.

To display a chart for more than one interactive channel in the Dashboard, make a copy of the Interaction Point Performance Dashboard and modify the channel ID. Then, create a new dashboard portlet for the new report and add it to your dashboards.

## Guidelines for creating custom dashboard reports

The Unica reporting packages for Unica Campaign, Unica Interact, Unica Deliver, and Unica Plan include pre-configured reports (portlet) that are specially formatted for use with Unica dashboards.

See the Unica Platform Administrator's Guide for details on working with dashboards and for using these pre-configured portlets.

If you want to create custom dashboard reports in Cognos Report Studio, use the following guidelines.

- Examine the reference documentation that describes the metadata model and the specifications of the example reports from the report package. This documentation is in the *ProductNameReportPack\cognosN\docs* subdirectory in the reports package installation directory, where *N* is the version number of your Cognos installation.
- Save all dashboard reports in the appropriate product subdirectory under the main *Unica Dashboards* folder.
- The report must be formatted and sized so it fits properly in a dashboard portlet. See [Dashboard report styles \(on page 193\)](#) for a description of the formatting you must use.
- Do not include a title in a dashboard report. The portlet it appears in gives the report its title.
- Do not include hyperlinks in a dashboard report.
- Do not include page numbers in a dashboard report.

To create a dashboard portlet and add the report to it, see the Unica Unica Platform Administrator's Guide.

## User authorization for Cognos folders and reports

A Custom Java Authentication Provider (CJAP) provides authorization for users who access Cognos report folders and reports. You can implement this feature after you implement the Unica Authentication Provider, which provides single sign-on authentication between Unica applications and Cognos.

### Limitations of the Unica Authentication Provider

After Cognos has been configured to use the Unica Authentication Provider, users are authenticated automatically in Cognos when they access reports in an Unica application. If a user accesses the Cognos URL in the same browser session used to access Unica products, Cognos does not prompt the user to log in again.

A user who is logged in to the Cognos user interface becomes a part of the Cognos **Everyone** group. This is the default Cognos namespace implementation. The **Everyone** group in Cognos has System Administrator privileges by default. This is a security risk, because every user becomes an admin user. A malicious user can take advantage of this permission to delete or edit reports in public folders.

The Unica Authentication Provider authenticates users in Cognos, but it does not authorize them in Cognos. To correct this limitation, the CJAP implementation makes users visible in the security section of the Cognos namespace. When this is done, you can administer user roles and permissions in Cognos.

### Overview of the CJAP implementation

The CJAP implementation brings all users in the Unica application who have report access into a Cognos namespace that you specify. The CJAP associates Unica users with Cognos groups based on their Unica product access. Users who have the **ReportsUser** role in Unica receive read-only, limited access to Cognos folders and reports. Users who have the **ReportsSystem** role in Unica receive administrator permission in Cognos. You can also customize groups and roles to secure custom reports and report folders in Cognos.

## CJAP prerequisite

Before you implement CJAP, ensure that the Unica Authentication Provider is implemented and tested.

## How to implement CJAP security

To implement CJAP security, complete the tasks in this section in the order shown.

Before you begin the implementation tasks, read this topic to understand the special considerations that might apply to your environment.

### Authenticated mode

When you configure the Unica Authentication Provider, you can set the value of the **Authentication Mode** property by selecting either **authenticated** or **authenticatedPerUser**.

If you selected **authenticated**, all users are authenticated using the same user account.

Note the following considerations when you use the **authenticated** option:

- By default, the user account that the system uses for authentication is **Cognos\_admin**.  
When you implement CJAP authentication, it is a best practice to give the **Cognos\_admin** user the **ReportUser** role in Unica.
- You do not have to perform the following tasks. These tasks apply only when you select **authenticatedPerUser** for the Unica Authentication Provider.
  - Giving all Reports users read-only permissions in public folders
  - Securing public folders
  - Verifying user permissions in Cognos

### Backing up the Cognos environment for CJAP

Before you implement CJAP, back up your Cognos environment.

To back up your Cognos environment, complete the following steps.

1. Stop the Cognos service.

2. To back up your Cognos configuration, from the **Cognos Configuration File** menu, select the export option.
3. Back up the content database.
4. Manually back up the `webapps\p2pd\WEB-INF\AAA` folder located under your Cognos installation.

## Editing and synchronizing the property file

The property file determines which groups in Unica are duplicated in Cognos. Edit the property file to specify the Unica Platform groups that you want to synchronize into Cognos.

Design the reports access in Unica Platform by creating groups, associating them with roles, and making users members of these groups.

Stop the Cognos service. Restart the service after you edit the properties file.

To edit and synchronize the property file, complete the following steps.

1. Browse to `\webapps\p2pd\WEB-INF\AAA\lib\` under your Cognos installation.
2. Open `ReportSecurityConfig.properties` in a text editor.
3. To set the properties, follow the instructions in the file.

For example, you might set the properties as follows:

- `useFolderSecurity=true`
- `createEMMProductReportGroupsToSecureCognosReportFolders=Campaign`

In Cognos, sub folders are created under the folder you specify here.

- `createCampaignReportsSyncFolderPermissionGroups=true`
- `createUserGroupInCognosSameAsPlatformGroup=Test_grp`

Groups you specify here must exist in Unica Platform.

- `createUserGroupInCognosWithPlatformUserRole=User_Defined_Role01`

Roles you specify here must exist in Unica Platform.

4. Restart the Cognos service.

5. To synchronize the property file, select **Settings > Sync Report Folder Permissions** in the Unica user interface.

## Configuring the new namespace provider in Cognos

Configure a new namespace provider in Cognos for CJAP.

To configure the namespace provider, complete the following steps.

1. In Cognos Configuration, navigate to the **Security > Authentication** folder.
2. Add a Namespace resource to the **Authentication** folder.
3. Give the namespace a name.
4. Select **Type > Custom Java Provider** and click **OK**.

This creates a namespace for the security CJAP.

5. Select the namespace and enter the name you gave the namespace as the ID for the provider.

6. Enter `com.ibm.emm.cognos.provider.EMMSuiteSecurityCJAP` for the class name.

Ensure that there are no leading or trailing spaces.

7. Set the **Selectable for authentication?** property to **True** for test purposes.

- **True** allows users to log in to Cognos by using Unica credentials.

External users can log in without a password, so this is not recommended for production.

- **False** means that the namespace is not available for authentication on the Cognos UI, but the Unica integration will work.

After you complete testing, change this setting.

8. Log in to Cognos under the new namespace with an Unica account that has the **Report\_System** role in Unica.

The URL is similar to `http://host:port/ibmCognos/cgi-bin/Cognos.cgi`

If you see the Cognos application, the authentication provider is working.

9. In Unica, navigate to **Settings > Configuration** and set the **Reports | Integrations | Cognos 10 | Authentication namespace** configuration property to the same name you set in Cognos.
10. Verify that the Cognos reports are running correctly in Unica.

## Verifying synchronization

Verify that groups, users, and roles exist as expected in the Cognos namespace.

To verify synchronization, complete the following steps.

1. In Cognos Connection, select **Launch > Cognos Administration**.
2. On the **Security** tab, click **Users, Groups, and Roles**.
3. Select the namespace you created.
4. Click the **Groups** folder and verify that groups have synchronized correctly, as follows:
  - Verify that the following three default groups are present and that they have the expected members:
    - **EMM\_Report\_System\_Admin\_User**  
Users with the **ReportsSystem** role in Unica are members of this group.
    - **EMM\_Report\_User\_Role\_Users**  
Users with the **ReportsUser** role in Unica are members of this group.
    - **EMM\_Report\_Access\_All\_Users**  
Users with the **ReportsUser** role in Unica are members of this group.
  - Verify that the groups you specified in the `ReportSecurityConfig.properties` file are present and that they have the expected members.
5. Click the **Users** folder and verify that all users with the **ReportsSystem** or **ReportsUser** role in Unica Platform are listed in this folder.

**⚠ Attention:** Users who are granted report permissions through group membership appear in Cognos after they access reports in Unica. Also, new users are listed after Cognos is restarted or after the user accesses reports in Unica.

6. Click the **Roles** folder and verify that the expected role members are present, as follows:
  - All users with the **ReportsSystem** role in Unica Platform have the **Reports\_System\_Role** in Cognos.
  - All users with the **ReportsUser** role in Unica Platform have the **Reports\_User\_Role** in Cognos.

### Assigning Cognos permissions to the new roles

Assign permissions to the Cognos **Reports\_System\_Role** and **Report\_User\_Role** roles in Cognos that are equivalent to the Unica Platform **ReportSystem** role and **ReportUser** role, respectively.

To assign Cognos permissions to the new roles, complete the following steps.

1. In Cognos Connection, select **Launch > IBM Cognos Administration**.
2. On the **Security** tab, click **Users, Groups, and Roles**.
3. Navigate to **Directory > [your namespace] > Roles**.
4. Click the **Report\_User\_Role** icon and give this role read-only permissions as follows:
  - a. On the **Permissions** tab, select **Add > Cognos Namespace**.
  - b. Select the **All authenticated Users** group, click **Add**, and click **OK**.
  - c. Grant **Read, Execute, and Traverse** permissions.
  - d. Deny **Write** and **Set Policy** permissions.
  - e. Click **OK**.
5. Click the **Reports\_System\_Role** icon and give this role all permissions as follows:
  - a. On the **Permissions** tab, select **Add > Cognos Namespace**.
  - b. Select the **All authenticated Users** group, click **Add** and click **OK**.
  - c. Grant **Read, Write, Execute, Set Policy, and Traverse** permissions.
  - d. Click **OK**.

## Removing the Everyone group from the Cognos System Administrators role

By default all authenticated users are members of the **Everyone** group in Cognos. Members of this group have the **System Administrators** role in Cognos. This grants all users administrator rights in Cognos by default.

Use this task to assign the **EMM\_Report\_System\_Admin\_User** group or **Reports\_System\_Role** role as administrators in Cognos and remove the **Everyone** group from the Cognos System Administrators role.

1. In Cognos Connection, select **Launch > IBM Cognos Administration**.
2. On the **Security** tab, click **Users, Groups, and Roles**.
3. Click the **Cognos** namespace.
4. Find the **System Administrators** role, click the **Set properties** icon, and modify the **Everyone** group as follows:
  - a. Click the **Members** tab.  
The **Everyone** group is listed.
  - b. Click **Add** and click your namespace.
  - c. Add the **EMM\_Report\_System\_Admin\_User** group or the **Reports\_System\_Role** role.
  - d. Click **OK**.
  - e. Select the **Everyone** group and click **Remove**.

## Giving reports users read-only permissions in public folders

Make users with the Unica Platform **ReportSystem** and **ReportUser** roles members of the **EMM\_Report\_Access\_All\_Users** group. Give members of this group read-only access for the public folders in Cognos.

 **Note:** The **EMM\_Report\_System\_Admin\_User** group has system administrator permissions in Cognos. To grant an Unica user this level of permissions in Cognos, make that user a member of the **EMM\_Report\_System\_Admin\_User** group.

To give reports users read-only permissions in public folders, complete the following steps.

1. In Cognos Connection, click the **Set properties for Public Folders** icon.
2. On the **Permissions** tab, click **Add**, click your namespace, and click **Groups**.
3. Add the **EMM\_Report\_Access\_All\_Users** group from your namespace.
4. Remove all other roles and groups from the permissions.
5. Grant **Read**, **Execute**, and **Traverse** permissions.
6. Deny **Write** and **Set Policy** permissions.
7. Click **OK**.

## Securing public folders

To ensure that you control access to public folders in Cognos, complete this task on all public folders, including the folders created for each Unica product reports pack.

 **Note:** In the example below, *fff* represents any public folder that must be assigned to a user group in your namespace.

To secure public folders, complete the following steps.

1. Select **Set properties of *fff* folder** and click the **Permissions** tab.
 

By default, permissions are the **EMM\_Report\_Access\_All\_Users** group permissions that you provided for all folders.
2. Click the **Override the access permissions acquired from the parent entry** check box and specify a different group as follows:
  - a. Click **Add**, click your namespace, click **Groups**, and click **Select, and add your desired group**.
  - b. Add your desired group and click **OK**.
  - c. Remove all other groups and grant the desired permissions to the new group.

d. Click **OK**.

3. Verify that users in the selected group have the expected access to the folder. Verify that users who are not members of the group do not have access to the folder.

## Verifying user permissions in Cognos

Verify that your implementation of CJAP is working as expected.

Cognos authentication is based on cookies. To execute these tests, delete the Cognos cookies and open a new browser window when you switch between users.

To verify user permissions, complete the following steps.

1. Log in to Cognos by using an account with the **Report\_User\_Role** role.
2. Verify that this user has the following access:
  - No access to IBM Cognos Administration.
  - No access to the public folder that you secured.
  - The **Cut**, **Paste**, and **Delete** buttons are disabled.
  - Can copy but can paste only in the user's folder under **My Folders**.
  - Can add a folder under **My Folders** but not under Public Folders.
3. Verify that the members of Unica Platform groups that you specified in the properties file are in the expected groups and have the expected permissions.
4. Use the following information to help resolve problems:
  - If reports are not accessible to a user, verify that the user has either the **Report\_User\_Role** or the **Reports\_System\_User** role in Cognos.
  - Enable logs in the property file by providing the path to the log file.
5. In Cognos Configuration, navigate to **Security > Authentication** and, in the namespace you used for CJAP, set the **Selectable for authentication?** property to **False**.

## Removing the CJAP implementation from your environment

Complete this task only if you implemented CJAP security and decided to roll back your environment to use the Unica Authentication Provider.

To remove CJAP implementation, complete the following steps.

1. Reverse the following steps that you performed to implement CJAP:
  - a. Restore the `reportSecurityConfig.properties` file from your backup.
  - b. To synchronize the property file, select **Settings > Sync Report Folder Permissions** in the Unica user interface.
  - c. Add the **Cognos Administrators** role to the **Everyone** group in the Cognos namespace.

When you configured CJAP, you removed this role from the **Everyone** group in the Cognos namespace. You must add it back or Cognos will have no users with administrator permissions. If that occurs, you must set up a new content data store database, or restore the content store from the backup database.

2. Stop and restart the Cognos service.

## How to configure the Cognos Reports for multiple partitions

If you use Unica Campaign, Unica Deliver, or Unica Interact with more than one partition, you must configure the Cognos reports packages for each partition. You can set up reporting on multiple partitions after you configure the partitions in Unica Campaign and Unica Deliver.

 **Note:** For instructions on configuring partitions in Unica Campaign and Unica Deliver, see the Unica Campaign Administrator's Guide.

Use the `partition_tool.sh` utility to configure reports for multiple partitions. The `partition_tool.sh` utility performs the following tasks:

- Copies the xml files from the original reports .zip archive.
- Replaces the package references in the xml files to reference a new package under a new folder that you specify.
- Compresses the new files into a new .zip archive, adding the new partition name to the end of the file name.

After you run the `partition_tool.sh` utility, you create a folder in Cognos Connection by using the name that you specified, and import the new archive into that folder. Then, you copy the original project file (which contains the model) so you can change the datasource to point to the new partition and publish the model to the new folder.

## Prerequisites for multiple partitions

The reporting partition utility, `partition_tool.sh`, is a UNIX shell script. You can configure Cognos reports packages for multiple partitions by using the `partition_tool.sh` utility.

Before you run the utility, complete the following steps:

### Determine values for input parameters

The reporting partition tool has two input parameters: the name of the partition folder you want to create in Cognos and the location of the reports archive to copy.

- Decide the name of the top-level partition folder that you plan to create in Cognos. This name is used in Cognos for the package references. For example, "Partition2."
- Note the path to the original reports archive. For example: `HCL\Unica\ReportsPacksCampaign\cognos<version>\Unica Reports for Campaign.zip`

### Windows only: obtain a shell script simulator

If Cognos is running on Windows, you must run the script from a shell script simulator (for example, Cygwin).

If you do not have a shell script simulator installed on the computer that is running the Cognos Content Manager, you must download and install one before continuing.

## Ensure that a file compression utility is installed

The reporting partition tool creates a .zip archive for the new partition reports. To enable this function, a file compression utility must be installed on the Cognos system.

If you do not have a file compression utility installed on the computer that is running the Cognos Content Manager, you must download and install one before continuing.

## Running the reporting partition tool to create a copy of the reports archive .zip file

You must create a copy of the reports archive .zip file by running the partition\_tool.sh utility for each partition.

Complete the following steps for each partition in your system.

1. From the shell or shell simulator, browse to the `HCL\Unica\Platform\tools\cognos<version>\bin` directory.
2. Run the partition\_tool.sh utility, providing values for the partition name and archive path parameters.

### Examples

#### For a Unica Campaign reports archive

```
partition_tool.sh Partition2 "HCL\Unica\ReportsPacksCampaign
\cognos<version>\Unica Reports for Campaign.zip"
```

#### For an Unica Deliver reports archive

```
partition_tool.sh Partition2 "HCL\Unica\ReportsPacksDeliver\cognos11\Unica
Reports for Deliver.zip"
```

 **Note:** You must use quote characters around the parameter values if they contain spaces, as shown above for the archive paths.

3. Copy each new .zip file to the Cognos deployment directory.

If you used the partition name that is provided in the example above, the new .zip file would be named as follows:

- For Unica Campaign: Unica Reports for Campaign\_Partition2.zip
- For Unica Deliver: Unica Reports for Deliver\_Partition2.zip

4. Open Cognos Connection.

5. Under Public Folders, create a folder for the reports partition.

For example, `Campaign Partition 2`.

6. Import each new .zip archive, selecting the folder that you created in step 5 as the target location in the import wizard.

If you followed the example, you would target the `Campaign Partition 2` folder.

## Creating a copy of the Cognos model for Unica Campaign

If you plan to use Unica Campaign reports in multiple partitions, you must create a copy of the Cognos data model for the new Unica Campaign reports. You also must ensure that the model references the correct data source name.

To create a copy of the Cognos model for Unica Campaign, complete the following steps.

1. Verify that you created an Cognos data source for this partition. If you have not yet created the data source for this partition, see [Creating JDBC data sources \(on page 20\)](#).
2. Use Framework Manager to open the Unica Campaign project file, `CampaignModel.cpf`.
3. Use **Save As** to copy the `CampaignModel` project and give it a new name that indicates the partition where it is used.  
For example, `CampaignModelPartition2`.
4. In the **Project Viewer**, expand the **Data Sources** node and select **CampaignDS**.

If the **Properties** pane does not appear by default, select **View > Properties**.

5. Click in the **Name** field. Change the default value (CampaignDS) to the correct data source name for this Unica Campaign partition.

For example, CampaignDS\_partition2.

6. Click in the **Content Manager Datasource** field. Change the default value (CampaignDS) to the value that you specified in step 5.

For example, CampaignDS\_partition2.

7. Save your changes.

8. Publish the package to the content store. When the publish wizard displays the **Select Location Type** window, browse to and select the folder where you imported the reports archive in Cognos Connection in the previous task.

In the example, the folder is Campaign Partition 2.

## Creating a copy of the Cognos model for Unica Deliver

If you plan to use Unica Deliver reports in multiple partitions, you must create a copy of the Cognos model for new Unica Deliver reports. You also must ensure that the model references the correct data source name.

To create a copy of the Cognos model for Unica Deliver, complete the following steps.

1. Verify that you created an Cognos data source for this partition. If you have not yet created the data source for this partition, see [Creating JDBC data sources \(on page 20\)](#).
2. Use Framework Manager to open the Unica Deliver project file, DeliverModel.cpf.
3. Use **Save As** to copy the DeliverModel project and give it a new name that indicates the partition where it is used.

For example, DeliverModelPartition2.

4. In the **Project Viewer**, expand the **Data Sources** node and select **DeliverTrackDS**.

If the **Properties** pane does not appear by default, select **View > Properties**.

5. Click in the **Name** field. Change the default (`DeliverTrackDS`) to the new data source name for this Unica Deliver partition.

For example, `DeliverTrackDS_partition2`.

6. Click in the **Content Manager Datasource** field. Change the default value (`DeliverTrackDS`) to the value that you specified in step 5.

For example, `DeliverTrackDS_partition2`.

7. Save your changes.

8. Publish the package to the content store. When the publish wizard displays the **Select Location Type** window, browse to and select the folder where you imported the reports archive in Cognos Connection in the previous task.

In the example, the folder is `Campaign Partition 2`.

## Updating the report properties for each partition on the Unica Configuration page

Each partition has a set of report properties that specifies the location of the report folders. You must edit the values of the report properties for each partition to reflect the actual path of the folders by inserting the string that identifies the new top-level partition folder.

To update the report properties, complete the following steps for each partition.

1. Log in to Unica as the `platform_admin` user.
2. Select **Settings > Configuration**.
3. Expand **Campaign > partitions > *partitionName* > reports**.
4. Edit the value of each of the properties so that they reflect the actual path to the reporting folders.

### Unica Campaign example

If the new partition folder in Cognos Connection is named **Campaign Partition 2**, edit the report property settings as follows:

```
folder[@name='Campaign Partition 2']/
```

To update the `offerAnalysisTabCachedFolder` property, change the value from:

```
/content/folder[@name='Affinium Campaign - Object Specific Reports']/  
folder[@name='offer']/folder[@name='cached']
```

to:

```
/content/folder[@name='Campaign Partition 2']/folder[@name='Affinium  
Campaign - Object Specific Reports']/folder[@name='offer']/  
folder[@name='cached']
```

### Unica Deliver example

If the new partition folder in Cognos Connection is named **Campaign Partition 2**, edit the report property settings as follows:

```
folder[@name='Campaign Partition 2']/
```

To update the `campaignAnalysisTabDeliverOnDemandFolder` property, change the value from:

```
/content/folder[@name='Affinium Campaign']/folder[@name='DeliverReports']
```

to:

```
/content/folder[@name='Campaign Partition 2']/folder[@name='Affinium  
Campaign']/folder[@name='Deliver Reports']
```

5. Save your changes.
6. Repeat step 3 through step 5 for each partition.

# How to upgrade reports

You can upgrade your current version of Unica reports to bring it up-to-date with the latest features.

In Unica, reporting is one of the components that is provided by Unica Platform.

When you upgrade, the installer and database scripts also upgrade the reporting feature, retaining the configuration settings for the Unica Campaign and Unica Interact reporting schemas.

## Upgrade scenarios

To upgrade an Unica application from version 8.x or 9.x, complete the steps that are described in the following topics:

- [Upgrade prerequisites \(on page 136\)](#)
- [Upgrading the 8.x or 9.x model and installing new reports \(on page 145\)](#)

For Unica Deliver, the following upgrade paths are supported:

- From version 8.6.0.4 or later fix packs to version 9.1
- From version 9.0 or later fix packs to version 9.1

 **Note:** If you customized your Unica Deliver reports, you have less report customization work if you upgrade to 9.0 rather than 8.6.0.4 or later fix packs.

If you use Unica Deliver with Oracle or DB2, you must use materialized views.

## Upgrade prerequisites

Before you upgrade your version of Unica reports, you must complete specific tasks.

## User with ReportsSystem role

When you are upgrade from version 8.x, a user with the ReportsSystem role may exist already. If you need to configure this reporting user, see [Configuring a user with the ReportsSystem role \(on page 18\)](#).

## Upgrade requirements for IBM Cognos BI

You must upgrade your version of IBM Cognos BI to the version that is supported for the report packs that you are installing. See the Unica Recommended Software Environments and Minimum System Requirements document for more information about the supported IBM Cognos BI version.

For help with this task, see the IBM Cognos BI documentation.

After you upgrade Cognos, complete the Cognos configuration tasks that are described in the installation chapter of this guide.

## Back up requirements for Cognos model and report archive

On the IBM Cognos BI system, make sure the following tasks are complete:

- Back up the model subdirectory: Locate the application model that is installed by the Unica reports package installers, and copy the entire model subdirectory to create a backup.
- Use the export deployment specification feature in Cognos Connection to create a backup of the application reports archive. Export the entire content store.
- Delete the old models and folders from the Cognos user interface. Do not delete them from the file directory structure or from Cognos Framework Manager.

## Additional requirements for Unica Deliver reports

See [Prerequisites for Unica Deliver Reports \(on page 15\)](#) for additional requirements for Unica Deliver reports.

## Generating SQL to drop views, materialized views and run SQL in product databases

You can use the Reports SQL Generator to generate drop table SQL commands and run them against the appropriate product system table database. Complete this task before you upgrade the reporting schemas.

 **Note:** This procedure applies to Unica Campaign, Unica Deliver, and Unica Interact.

The following table shows which object types are supported in Unica Campaign, Unica Deliver, and Unica Interact for Oracle, DB2, and SQL server.

**Table 14. Supported object types**

### Supported object types

	Unica Campaign	Unica Deliver	Unica Interact
Oracle	Views Materialized Views	Materialized Views	Views Materialized Views
DB2	Views Materialized Views	Materialized Views	Views Materialized Views
SQL Server	Views	Views	Views

Complete the following tasks to generate and run the SQL commands:

1. Log in to Unica as the platform\_admin user (or another user with access to the Report SQL Generator menu item).
2. **Optional: Only if you did not use the default JNDI names for the JDBC data sources you created in an earlier step, do the following.**
  - a. Select **Settings | Configuration | Reports | Schemas | *ProductName***.
  - b. Change the default values of the JNDI property to match the JNDI names you gave the JDBC connections in an earlier step.

3. Select **Settings | Reports SQL Generator**.
4. In the **Product** field, select the appropriate HCL application.
5. In the **Schema field**, select one or more reporting schemas.
6. Select the **Database Type**.
7. In the **Generate Type** field, select the appropriate option (views, materialized views).

 **Notes:**

- Materialized views are not an option when **Database Type** is set to Microsoft SQL Server.
- If the JNDI data source names are incorrect or not configured, the SQL Generator cannot validate the SQL scripts that create tables.

8. Ensure that **Generate Drop Statement** is set to **Yes**.
9. **Optional:** To examine the SQL that is generated, click **Generate**. The SQL Generator creates the script and displays it in the browser window.
10. Click **Download**.

The SQL Generator creates the script and prompts you to specify where you want to save the file. If you selected a single reporting schema from the **Schema** field, the script name matches the name of schema (`Deliver_Mailing_Performance.sql`, for example). If you selected more than one reporting schema, the script name uses the product name only (`Campaign.sql`, for example). For a complete list of names, see [SQL scripts by data source \(on page 36\)](#).

11. Specify the location where you want to save the script. If you change the name of the file, be sure to use something that clearly indicates which schemas you selected. Then, click **Save**.
12. Repeat steps 5 through 11 for each drop table script you need to generate.

 **Note:** The Unica Interact reporting schemas reference more than one data source. Generate a separate SQL script for each data source.

There might be times when you want to disable script validation. For example, perhaps Unica Platform cannot connect to the HCL application database but you want to generate the scripts anyway. To disable validation, clear the data source names from the data source fields (see step 3, above). When you generate the scripts, the SQL Generator displays a warning that it cannot connect to the data source, but it still generates the SQL script.

13. Run the drop table SQL in your product system table database. Repeat for each product for which you are upgrading reports.

## Upgrading reporting schemas on Unica Platform

You must run the Unica master installer with the reports packs installers to upgrade the reporting schemas and reports integration configuration properties.

Run the Unica master installer with the appropriate report package installer on the computer where Unica Platform is installed, and select the **Unica Product Reporting Schemas** installation option.

After you upgrade reporting schemas, you can verify the upgrade by completing the following steps:

1. Log in to the Unica system as the **platform\_admin** user.
2. Select **Settings > Configuration**.
3. Expand **Reports > Schemas > ProductName**.

If the schema configuration categories for your application were not upgraded, you have not yet upgraded reports on Unica Platform.

 **Note:** If you are upgrading Unica Plan, skip this step (Unica Plan does not have reporting schemas).

4. Expand **Reports > Integrations**.

If the schema configuration categories were upgraded, and if your current reports installation is pre 8.6.0, you see a new category for Cognos 10 configuration. Your **Cognos 8** category is disabled, but it is retained for reference purposes, to assist you in setting the configuration properties for Cognos 10. After you have fully configured and tested your reporting upgrade, you must use the **Delete Category** link to remove the Cognos 8 configuration category.

## Upgrading reporting templates on Unica Platform

You must upgrade reporting templates in Unica Platform before you upgrade reports. If you are upgrading reports for Unica Plan, do not upgrade reporting templates because Unica Plan does not have reporting schemas.

After you run the report pack installer, complete the following steps:

1. Browse to the `Unica\productReportsPack\schema` directory, locate the `templates_sql_load.sql` script and run the script in the Unica Platform system tables database.
2. Ensure that Unica Platform is running.
3. Log in to Unica as a user with administrator privileges.
4. Under **Settings > Users**, give yourself the **ReportsSystem** role. Then, log out and log back in.

## Upgrading Unica integration components

To upgrade the Unica integration components, you must run the installers on the computer where Cognos Content Manager is installed.

To upgrade Unica integration components, complete the following steps.

1. On the IBM Cognos BI system that runs the Cognos Content Manager, download or copy the following Unica installers to a single directory:
  - Unica master installer

- Unica Platform installer
- Unica application reports package installers

2. Run the Unica master installer.

It launches the sub-installers for Unica Platform and the report packages in order.

3. In the first **Products** window, ensure that both Unica Platform and the reports package options are selected.

4. In the **Platform Database Connection** window, provide the necessary information for connecting to the Unica Platform system tables.

5. In the **Platform Installation Components** window, select the **Reports for IBM Cognos** option and clear the other options.

6. When the Unica Platform installer prompts for the path to the JDBC driver, enter the fully qualified path for the JDBC driver that you copied to the Cognos system during the initial install of reporting.

For more information, see [Obtaining the JDBC driver for the Unica Platform system tables \(on page 25\)](#).

7. When the Unica Platform installer prompts for the location of the IBM Cognos installation, enter or browse to the top level of the IBM Cognos installation directory.

The default value that is provided in this field is a static value that is not based on the file structure of your IBM Cognos system.

8. When the report package installer displays its installation options, select the **IBM Cognos package for Unica [product]** option and clear the option for the reporting schemas.

This installation option copies the reports archive to the Cognos computer. You import this archive manually later.

9. When the installers are finished, copy the JDBC driver for the Unica Platform database to the IBM Cognos `webapps\p2pd\WEB-INF\AAA\lib` directory.

Make sure that you copy the driver. Do not cut and paste the driver.

## Updating lookup tables for Unica Deliver and Unica Interact

If you use reports for Unica Deliver and Unica Interact, you must update the lookup tables. Use your database client to run specific upgrade scripts against the system table database.

Depending on your product, complete one of the following steps:

- **To upgrade Unica Deliver from version 8.6.0.4 or 9.0:** In the `ReportsPackCampaign\tools` directory under your reports pack installation, run the `uare_lookup_create_DB_type.sql` script.

Where *DB\_type* is the database type appropriate for your installation of Unica Campaign.

- **For Unica Interact, do the following steps:**

1. In the `ReportsPackInteract\tools` directory under your reports pack installation, locate the `uari_lookup_create_DB_type.sql` script.

Where *DB\_type* is the database type appropriate for your installation of Unica Campaign.

2. Run the appropriate version of the script against your Unica Interact design time database.

## Upgrading views in the product databases

To upgrade your version of reports, you must generate an updated SQL and upgrade the views in your product databases.

 **Note:** For Unica Deliver, skip this task.

To upgrade the views in your product databases, complete the following steps.

1. Generate updated SQL, as described in [Generating view creation scripts \(on page 34\)](#).

2. Run the SQL scripts that you generated earlier against the product system table databases.
3. For Unica Campaign and Unica Interact, create reporting views by using the new SQL and the SQL scripts that are provided with your reports packs.

## Upgrade Cognos Reports from version 12.1.0.0 to version 12.1.0.1

To perform the upgrade of Cognos Reports from version 12.1.0.0 to version 12.1.0.1, complete the following steps.

Deliver reports must work on version 12.1.0 base environment. You must take a backup of all Cognos reports and DeliverModel folder from `Cognos_Home\deployment`. You must take Campaign and Platform database backup as well.

1. Copy and replace model folder from `Unica_home\ReportsPackCampaign\cognos11\DeliverModel` to `Cognos_Home\deployment\` folder.
2. Copy and replace "Unica Reports for Deliver.zip" from `Unica_home\ReportsPackCampaign\cognos11\DeliverModel` to `Cognos_Home\deployment\` folder.
3. Run `Unica_home\ReportsPackCampaign\cognos11\Deliver-ddl\<DBType>\acer_scripts_<DBType>.sql` and `<DBType>\upgrade\upgrade121to12101.sql` in Campaign system database
4. Run `Unica_home\ReportsPackCampaign\schema\templates_sql_load.sql` in Platform database
5. Log in to the application and navigate to **Configuration > Report SQL Generator > Select Deliver Reports**.
6. Select the database type and download Deliver.sql.

7. Run the Deliver.sql in Campaign database.
8. Configure database job for the following SMS procedures. For how to configure jobs, see the [For Unica Deliver only: How to schedule and run stored procedures \(on page 51\)](#) section.
  - SP\_POPULATE\_SMS\_CONTACTS
  - SP\_POPULATE\_SMS\_RESPONSES

## Upgrade Cognos Reports from version 12.1.0.0 to version 12.1.0.3

To upgrade Cognos Reports from version 12.1.0.0 to version 12.1.0.3, complete the following steps.

1. Take a backup of all Cognos reports using the Export option from Cognos Administration.
2. Copy “Unica Reports for Campaign” to Cognos – deployment directory.
3. Open Cognos viewer.
4. Navigate **Team content > Affinum Campaign**.
5. Delete the following reports
  - Campaign summary
  - Offer campaign listing
6. Open Cognos Administration and import “Unica Reports for Campaign.zip”.

## Upgrading the 8.x or 9.x model and installing new reports

Upgrading the 8.x or 9.x model and installing the new reports are the first steps that you must complete to upgrade your reports.

 **Note:** In the following steps, **CognosN** refers to the Cognos version number.

To upgrade the 8.x or 9.x model and install new reports, complete the following steps.

1. Browse to the `Unica\ProductNameReportsPack\CognosN` directory.
2. Copy the reports archive .zip file, such as `Unica Reports for Campaign.zip`, to the directory where your Cognos deployment archives are saved.

The default location is the deployment directory under your Cognos installation. The directory is specified in the Cognos Configuration tool that is installed with the Cognos Content Manager, for example: `cognos\deployment`.

In a distributed Cognos environment, the directory is located on the system that runs the Content Manager.

3. Copy the pre-upgrade version of the Unica Campaign model to a directory on the server where Framework Manager is installed.
  - a. If the Reports Pack installation directory and Framework Manager are on different servers, locate the upgraded `cognos11\model` directory under the Reports Pack installation directory.
  - b. Copy the appropriate `upgrade.xml` files to the directory on the server where Framework Manager is installed.
  - c. Copy the translation folder of the updated model (from the old model) to the directory on the server where Framework Manager is installed.
  - d. If prompted for replacement, click **Yes**.
4. **Optional:** If you did not install your Unica product to the default `C:\Unica` directory on Windows, you must update the upgrade scripts.

Modify the file path in each script for every language that your users need, for example:

```
install_directory\ReportsPackCampaign\cognosN\CampaignModel\translations  
\L\translations.txt
```

L is the two-letter language indicator:

- fr
- de
- es

- it
- ja
- ko
- pt
- ru
- zh
- zh-tw

Edit the upgrade scripts for your product:

### **Unica Campaign**

- upgrade85to86.xml
- upgrade86to90.xml
- upgrade90to91.xml
- upgrade91to911.xml
- upgrade911to9112.xml
- upgrade912to100.xml

### **Unica Deliver**

- upgrade86to90.xml
- upgrade8604to91.xml
- upgrade90to91.xml
- upgrade91to911.xml
- To upgrade from version 9.1.0.x.0.0 (x >= 2)
  - If you have not applied 9.1.0.2 Reports Feature Pack 1:  
upgrade9102to911.xml
  - If you applied 9.1.0.2 Reports Feature Pack 1: upgrade910201to911.xml

### **Unica Interact**

- upgrade85to86.xml
- upgrade86to90.xml
- upgrade90to91.xml
- upgrade91to911.xml
- upgrade911to9112.xml

## Unica Campaign with Unica Plan

- upgrade86to90.xml
- upgrade90to91.xml
- upgrade91to911.xml
- upgrade911to9112.xml

## Unica Plan

- upgrade85to86.xml
- To upgrade from version 8.6 to version 9.0, depending on your database type:
  - For DB2: upgrade86to90\_DB2.xml
  - For Oracle: upgrade86to90\_Oracle.xml
  - For SQL server: upgrade86to90\_Sqlserver.xml
- upgrade90to91.xml
- upgrade91to911.xml
- upgrade911to9112.xml
- 

## Unica Collaborate

- upgrade86to90.xml
- upgrade911to9112.xml

5. Open Cognos Connection.
6. Select **Administer Cognos Content > Configuration > Content Administration**.
7. Click the **New Import** button on the toolbar  and import the reports folder.
8. Open Cognos Framework Manager and open the project for the version from which you are upgrading.
9. Select **Project > Run Script**.
10. Run the scripts from the new version of your product. All scripts are in the *ProductNameReportsPack\cognosN\ProductNameModel* directory under your Unica product installation.

 **Note:** You must consider the following points for the 8.x or 9.x version from which you are upgrading:

- You must run the `preUpgrade_86_fromanyversion.xml` script for upgrades from all versions except 8.6.
- You cannot upgrade reports from any source version to a destination version. For example, to upgrade reports from version 9.0.0 to version 9.1.1, you must first upgrade from version 9.0.0 to version 9.1, and then upgrade from version 9.1 to version 9.1.1.
- Only for Unica Deliver reports, you must upgrade from version 8.6.0.4 or later to 9.1 directly.

### Unica Campaign

- `preUpgrade_86_fromanyversion.xml`
- `upgrade85to86.xml`
- `upgrade86to90.xml`
- `upgrade90to91.xml`
- `upgrade91to911.xml`
- `upgrade911to9112.xml`
- `upgrade912to100.xml`
- `upgradeto12103.xml`

### Unica Deliver

- `upgrade86to90.xml`
- `upgrade8604to91.xml`
- `upgrade90to91.xml`
- `upgrade91to911.xml`
- To upgrade from version 9.1.0.x.0.0 ( $x \geq 2$ )
  - If you have not applied 9.1.0.2 Reports Feature Pack 1:
    - `upgrade9102to911.xml`
  - If you applied 9.1.0.2 Reports Feature Pack 1: `upgrade910201to911.xml`

### Unica Interact

- `preUpgrade_86_fromanyversion.xml`

- upgrade85to86.xml
- upgrade86to90.xml
- upgrade90to91.xml
- upgrade91to911.xml
- upgrade911to9112.xml
- upgrade912to9121.xml

### Unica Campaign with Unica Plan

- upgrade86to90.xml
- upgrade90to91.xml
- upgrade91to911.xml
- upgrade911to9112.xml

### Unica Plan

- upgrade85to86.xml
- To upgrade from version 8.6 to version 9.0, depending on your database type:
  - For DB2: upgrade86to90\_DB2.xml
  - For Oracle: upgrade86to90\_Oracle.xml
  - For SQL server: upgrade86to90\_Sqlserver.xml
- upgrade90to91.xml
- upgrade91to911.xml
- upgrade911to9112.xml
- upgradeto12103.xml

### Unica Collaborate

- upgrade86to90.xml
- upgrade911to9112.xml

11. For Unica Deliver only: To upgrade Unica Deliver reports, complete the following steps:

 **Note:** If your database is DB2, change the statement termination character from ; (semicolon) to ! (exclamation point).

- Browse to *Campaign\_ReportPack\_Installer\_Home\cognos11\ deliver-ddl\DB Type\Upgrade*.

b. Run the following scripts in the sequence shown:

- To upgrade from 8.6.0.4 or later to 9.1:

`acer_tables_upgrade_dbname.sql`. Search for the base version name and run the following script:

--8.6.0.4 Updates--

- To upgrade from 9.0 or later to 9.1:

`acer_tables_upgrade_dbname.sql`. Search for the base version name and run the following script:

--9.0.x Updates--

`acer_indexes_upgrade_dbname.sql`. Search for the base version name and run the following script:

--9.0.x Updates--

- To upgrade from 9.1.0.x.0.0 ( $x \geq 0$ ) to 9.1.1:

`acer_tables_upgrade_dbname.sql`. Search for the base version name and run the following script:

--9.1.0.x updates (Not applicable for 9.1.0 Feature Pack 1 upgrade)--

 **Note:** If you applied the 9.1.0 Feature Pack 1, you do not need to run the table or index upgrade scripts.

c. Browse to *Campaign\_ReportPack\_Installer\_Home\cognos11\deliver-ddl\DB Type* and run the following script:

`acer_tables_upgrade_dbname.sql`

 **Note:** You must run the `acer_tables_upgrade_dbname.sql` script for a both a fresh installation and an upgrade of reports.

 **Note:** If you use Microsoft SQL Server, you must drop the 8.6.0.4 version procedures before you complete this step.

- d. Use the Reports SQL Generator to generate report view scripts. For Microsoft SQL Server, generate views. For Oracle and DB2, create materialized views.
- e. Run and schedule the stored procedures.

 **Note:** To ensure proper report performance, you must schedule the stored procedures to run regularly. For more information about Unica Deliver stored procedures, see [For Unica Deliver only: How to schedule and run stored procedures \(on page 51\)](#).

12. Publish the package to the Cognos content store.
13. For all Unica products, complete the following steps:
  - a. Browse to **File > Report Package**.
  - b. Select the appropriate reports package according to your product and click **OK**.
  - c. Complete prompts on the report as necessary.
  - d. After the report is validated, click **Close** in the **Validation Response** window.
14. Run a report to test your upgrade.

 **Note:** You must publish the package after running model upgrade scripts.

## Report configuration properties

The report configuration properties for Unica are available at **Settings > Configuration > Reports**.

To generate reports, the Unica suite integrates with Cognos, a business intelligence application. You use the **Integrations > Cognos** properties to identify your Cognos system. Then, for Unica Campaign, Unica Deliver, and Unica Interact, you must configure additional properties to set up and customize the reporting schemas. For more details on the configuration properties, see the Cognos Reports Installation and Configuration Guide.

## Reports | Integrations | Cognos [version]

The Unica suite integrates with Cognos to generate reports.

This page displays properties that specify URLs and other parameters that are used by the system.

### Integration Name

#### Description

Read-only. Specifies that IBM Cognos is the third-party reporting or analytical tool that is used by the Unica to display the reports.

#### Default value

Cognos

### Vendor

#### Description

Read-only. Specifies that IBM Cognos is the name of the company that provides the application that is specified by the Integration Name property.

#### Default value

Cognos

### Version

#### Description

Read-only. Specifies the product version of the application that is specified by the Integration Name property.

#### Default value

*<version>*

## Enabled

### Description

Specifies whether IBM Cognos is enabled for the suite.

### Default value

False

### Valid Values

True | False

## Integration Class Name

### Description

Read-only. Specifies the fully qualified name of the Java class that creates the integration interface that is used to connect to the application specified by the `Integration Name` property.

### Default value

`com.unica.report.integration.cognos.CognosIntegration`

## Domain

### Description

Specifies the fully qualified company domain name in which your Cognos server is running. For example, `myCompanyDomain.com`.

If your company uses subdomains, the value in this field must include the appropriate subdomain as well.

### Default value

[CHANGE ME]

### Valid Values

A string no longer than 1024 characters.

## Portal URL

### Description

Specifies the URL of the IBM Cognos Connection portal. Use a fully qualified host name, including the domain name (and subdomain, if appropriate) that is specified in the **Domain** property. For example: `http://MyReportServer.MyCompanyDomain.com/cognos<version>/cgi-bin/cognos.cgi`

You can find the URL in IBM Cognos Configuration at: **Local Configuration > Environment**.

### Default value

`http://[CHANGE ME]/cognos<version>/cgi-bin/cognos.cgi`

### Valid Values

A well-formed URL.

## Dispatch URL

### Description

Specifies the URL of the IBM Cognos Content Manager. Use a fully qualified host name, including the domain name (and subdomain, if appropriate) specified in the **Domain** property. For example: `http://MyReportServer.MyCompanyDomain.com:9300/p2pd/servlet/dispatch`

You can find the URL in Cognos Configuration at: **Local Configuration > Environment**.

### Default value

`http://[CHANGE ME]:9300/p2pd/servlet/dispatch`

9300 is the default port number for the Cognos Content Manager. Be sure that the port number specified matches that used in the Cognos installation.

### Valid Values

A well-formed URL.

## Authentication mode

### Description

Specifies whether the IBM Cognos application is using the Authentication Provider, which means it relies on the Unica Platform for authentication.

### Default value

`anonymous`

### Valid Values

- `anonymous`: means that authentication is disabled.
- `authenticated`: means that the communications between the system and the Cognos system are secured at the machine level. You configure a single system user and configure it with the appropriate access rights. By convention, this user is named "cognos\_admin."
- `authenticatedPerUser`: means that the system evaluates individual user credentials.

## Authentication namespace

### Description

Read only. The namespace of the Authentication Provider.

### Default value

`UNICA`

## Authentication user name

### Description

Specifies the login name for the reporting system user. The applications log in to Cognos as this user when Cognos is configured to use the Unica Authentication provider. This user also has access to Unica.

This setting applies only when the **Authentication mode** property is set to **authenticated**.

**Default value**

`cognos_admin`

**Authentication datasource name****Description**

Specifies the name of the data source for the reporting system user that holds the Cognos login credentials.

**Default value**

`Cognos`

**Enable form authentication****Description**

Specifies whether form-based authentication is enabled. You set this property to `True` when either of the following condition is true:

- When the Unica is not installed in the same domain as the IBM Cognos applications.
- When IBM Cognos is accessed by using an IP address (within the same network domain) instead of the Fully Qualified Hostname (which is being used to access the Unica applications), even if both the Unica applications and the IBM Cognos installation are on the same machine.

However, when the value is `True`, the login process to Cognos Connection passes the login name and password in clear text and therefore is not secure unless IBM Cognos and the Unica are configured to use SSL communication.

Even with SSL configured, the user name and password appear as clear text in the HTML source code when you "view source" in a displayed report. For this reason, you must install IBM Cognos and Unica in the same domain.

**Default value**

False

**Valid Values**

True | False

## Reports | Schemas | [product] | [schema name] | SQL Configuration

The SQL script creates views for the reporting schemas. The **Reports | Schemas | [product] | [schema name] | SQL Configuration** property provides information about the name of the views.

### Table/View Name

**Description**

Specifies the name of the view that the SQL script you generate for this reporting schema creates. As a best practice, you should not change the name for any of the standard or default Table/View names. If you do, you must also change the name of the view in the Cognos model in IBM Cognos Framework Manager.

When you create a new reporting schema for a new audience level, you must specify the names of all the new reporting tables/views.

**Default value**

Varies by schema

**Valid Values**

A string with the following restrictions.

- It can be no longer than 18 characters
- It must use all uppercase letters

You must use the following naming convention:

- Start the name with the letter "UAR"
- Add a one-letter code to represent the Unica application. See the list of codes, below.
- Add an underscore character
- Add the table name, including a one or two letter code to indicate the audience level
- Finish with an underscore character.

The SQL generator appends a time dimension code, if appropriate. See the following list of codes:

For example: `UARC_COPERF_DY` is the name of the reporting view for Campaign Offer Performance by Day.

Following is the list of Unica application codes.

- Unica Campaign: C
- Unica Deliver: E
- Unica Interact: I
- Unica Collaborate: X
- Unica Plan: P
- Leads: L

Following is the list of the Time Dimension Codes added by the generator.

- Hour: HR
- Day: DY
- Week: WK
- Month: MO
- Quarter: QU

- Year: YR

## Reports | Schemas | Campaign

The **Reports | Schemas | Campaign** property provides information about the data source that identifies the Unica Campaign database.

### Input Datasource (JNDI)

#### Description

Specifies the name of the JNDI data source that identifies the Unica Campaign database, specifically, the system tables. This data source must exist if you want to use the SQL generation tool to generate scripts that create reporting tables. The SQL generation tool can generate scripts that create reporting views without this data source, but it cannot validate them.

The database type of this data source must match the database type that you select when you generate the SQL scripts for the Unica Campaign views or reporting tables.

#### Default value

`campaignPartition1DS`

## Reports | Schemas | Campaign | Offer Performance

The Offer Performance Schema yields contact and response history metrics for all offers and for offers by campaign. By default, the schema is configured to generate a "summary" view across all time.

### Audience Key

#### Description

Specifies the name of the column that is the Audience Key for the audience level that is supported by this reporting schema.

**Default value**

CustomerID

**Valid Values**

A string value no longer than 255 characters

If the key includes more than one column, use commas between the column names. For example, ColumnX, ColumnY.

**Contact History Table****Description**

Specifies the name of the Contact History table for the audience level that is supported by this reporting schema.

**Default value**

UA\_ContactHistory

**Detailed Contact History Table****Description**

Specifies the name of the Detailed Contact History table for the audience level that is supported by this reporting schema.

**Default value**

UA\_DtlContactHist

**Response History Table****Description**

Specifies the name of the Response History table for the audience level that is supported by this reporting schema.

**Default value**

UA\_ResponseHistory

## Over Time Variations

### Description

Specifies the calendar time periods that are used by the "over time" reports supported by this schema.

### Default value

Day, Month

### Valid Values

Day, Week, Month, Quarter, Year

## Reports | Schemas | Campaign | [schema name] | Columns | [Contact Metric]

Use the **Reports | Schemas | Campaign | [schema name] | Columns | [Contact Metric]** property to add contact metrics to the Campaign Performance or Offer Performance reporting schemas.

## Column Name

### Description

Specifies the name to use in the reporting view for the column that is specified in the **Input Column Name** field.

### Default value

[CHANGE ME]

### Valid Values

The name can be no longer than 18 characters, it must be in all uppercase letters, and it cannot have spaces.

## Function

### Description

Specifies how the contact metric is determined or calculated.

### Default value

count

### Valid Values

count, count distinct, sum, min, max, average

## Input Column Name

### Description

The name of the column that provides the contact metric you are adding to this reporting schema.

### Default value

[CHANGE ME]

### Valid Values

The name of the column in the Contact History and Detailed Contact History tables.

## Control Treatment Flag

### Description

If you use the sample IBM Cognos reports or create your own custom reports that include control groups, then each contact metric must have two columns in the reporting schema. One column represents the metric for the control group and the other column represents the metric for the target group. The value in **Control Treatment Flag** specifies whether the column in the view represents the control group or the target group.

If your reports do not include control groups, you do not need the second column for the control group.

**Default value**

0

**Valid Values**

- 0: the column represents the target group
- 1: the column represents the control group

## Reports | Schemas | Campaign | [schema name] | Columns | [Response Metric]

Use the **Reports | Schemas | Campaign | [schema name] | Columns | [Response Metric]** property to add the response metrics that you want to include in your reports to the Campaign Performance or Offer Performance reporting schemas.

### Column Name

**Description**

Specifies the name to use in the reporting view for the column that is specified in the **Input Column Name** field.

**Default value**

[CHANGE ME]

**Valid Values**

The name can be no longer than 18 characters, it must be in all uppercase letters, and it cannot have spaces.

### Function

**Description**

Specifies how the response metric is determined or calculated.

**Default value**

count

**Valid Values**

count, count distinct, sum, min, max, average

**Input Column Name****Description**

The name of the column that provides the response metric you are adding to this reporting schema.

**Default value**

[CHANGE ME]

**Valid Values**

The name of the column in the Response History table.

**Control Treatment Flag****Description**

If you use the standard IBM Cognos reports or create your own custom reports that include control groups, then each response metric must have two columns in the reporting schema. One column represents the response from the control group and the other column represents the response from the target group. The value in **Control Treatment Flag** specifies whether the column in the view represents the control group or the target group.

If your reports do not include control groups, you do not need the second column for the control group.

**Default value**

0

**Valid Values**

- 0: the column represents the target group
- 1: the column represents the control group

## Reports | Schemas | Campaign | Campaign Performance

The Campaign Performance schema yields contact and response history metrics at the campaign, campaign-offer, and campaign-cell level.

### Audience Key

#### Description

Specifies the name of the column that is the Audience Key for the audience level that is supported by this reporting schema.

#### Default value

`CustomerID`

#### Valid Values

A string value no longer than 255 characters.

If the key includes more than one column, use commas between the column names. For example, `ColumnX,ColumnY`.

### Contact History Table

#### Description

Specifies the name of the Contact History table for the audience level that is supported by this reporting schema.

#### Default value

`UA_ContactHistory`

### Detailed Contact History Table

#### Description

Specifies the name of the Detailed Contact History table for the audience level that is supported by this reporting schema.

**Default value**

UA\_DtlContactHist

## Response History Table

**Description**

Specifies the name of the Response History table for the audience level that is supported by this reporting schema.

**Default value**

UA\_ResponseHistory

## Over Time Variations

**Description**

Specifies the calendar time periods that are used by the "over time" reports supported by this schema.

**Default value**

Day, Month

**Valid Values**

Day, Week, Month, Quarter, Year

## Reports | Schemas | Campaign | Campaign Offer Response Breakout

The Campaign Offer Response Breakout schema supports reporting on campaign-detailed responses, which are broken out by response type and by offer data. This schema template gives different response counts for each custom Response Type for campaigns and offers grouped by campaign.

This schema

## Response History Table

### Description

Specifies the name of the Response History table for the audience level that is supported by this reporting schema.

### Default value

UA\_ResponseHistory

## Reports | Schemas | Campaign | Campaign Offer Response Breakout | Columns | [Response Type]

Use the **Reports | Schemas | Campaign | Campaign Offer Response Breakout | Columns | [Response Type]** property to add any custom response types that you want to include in your reports to the reporting schema.

## Column Name

### Description

Specifies the name to use in the reporting view for the column that is specified in the **Response Type Code** field.

### Default value

[CHANGE ME]

### Valid Values

The name can be no longer than 18 characters, it must be in all uppercase letters, and it cannot have spaces.

## Response Type Code

### Description

The response type code for the specified response type. This value is held in the `ResponseTypeCode` column in the `UA_UsrResponseType` table.

### Default value

[CHANGE ME]

### Valid Values

The example response type codes are as follows:

- `EXP` (explore)
- `CON` (consider)
- `CMT` (commit)
- `FFL` (fulfill)
- `USE` (use)
- `USB` (unsubscribe)
- `UKN` (unknown)

Your Unica Campaign installation may have additional custom response type codes.

## Control Treatment Flag

### Description

If you use the standard IBM Cognos reports provided in the Unica Reports Pack or custom reports that include control groups, then each response type must have two columns in the reporting schema. One column represents the response type from the control group and the other column represents the response type from the target group. The value in **Control Treatment Flag** specifies whether the column in the view represents the control group or the target group.

If your reports do not include control groups, you do not need the second column for the control group.

### Default value

0

### Valid Values

- 0: the column represents the target group
- 1: the column represents the control group

## Reports | Schemas | Campaign | Campaign Offer Contact Status Breakout

The Campaign Offer Contact Status Breakout schema supports reporting on campaign-detailed contacts, which are broken out by contact status type and by offer data. This schema template gives different contact counts for each custom Contact Status Type for campaigns and offers grouped by campaign.

By default, none of the example Unica Campaign reports use this schema.

### Audience Key

#### Description

Specifies the name of the column that is the Audience Key for the audience level that is supported by this reporting schema.

#### Default value

`CustomerID`

#### Valid Values

A string value no longer than 255 characters.

If the key includes more than one column, use commas between the column names. For example, `ColumnX,ColumnY`.

### Contact History Table

#### Description

Specifies the name of the Contact History table for the audience level that is supported by this reporting schema.

**Default value**

UA\_ContactHistory

**Detailed Contact History Table****Description**

Specifies the name of the Detailed Contact History table for the audience level that is supported by this reporting schema.

**Default value**

UA\_DtlContactHist

**Reports | Schemas | Campaign | Campaign Offer Contact Status Breakout | Columns | [Contact Status]**

Use the **Reports | Schemas | Campaign | Campaign Offer Contact Status Breakout | Columns | [Contact Status]** to add the contact status that you want to include in your reports to the reporting schemas.

**Column Name****Description**

Specifies the name to use in the reporting view for the column that is specified in the **Contact Status** field.

**Default value**

[CHANGE ME]

**Valid Values**

The name can be no longer than 18 characters, it must be in all uppercase letters, and it cannot have spaces.

## Contact Status Code

### Description

The name of the contact status code. This value is held in the `ContactStatusCode` column in the `UA_ContactStatus` table.

### Default value

[CHANGE ME]

### Valid Values

The example contact status types are as follows.

- CSD (campaign send)
- DLV (delivered)
- UNDLV (undelivered)
- CTR (control)

Your Unica Campaign installation may have additional custom contact status types.

## Reports | Schemas | Campaign | Campaign Custom Attributes | Columns | [Campaign Custom Column]

Use the **Reports | Schemas | Campaign | Campaign Custom Attributes | Columns | [Campaign Custom Column]** property to add any custom campaign attributes that you want to include in your reports to the reporting schema.

## Column Name

### Description

Specifies the name to use in the reporting view for the attribute that is identified in the **Attribute ID** field.

### Default value

[CHANGE ME]

## Valid Values

The name can be no longer than 18 characters, it must be in all uppercase letters, and it cannot have spaces.

## Attribute ID

### Description

The value from the attribute's `AttributeID` column in the **UA\_CampAttribute** table.

### Default value

0

## Value Type

### Description

The data type of the campaign attribute.

### Default value

`StringValue`

### Valid Values

`StringValue`, `NumberValue`, `DatetimeValue`

If this campaign attribute holds a currency value, select `NumberValue`.

If this campaign attribute's **Form Element Type** was set to `Select Box` - `String` in Unica Campaign, select `StringValue`.

## Reports | Schemas | Campaign | Campaign Custom Attributes | Columns | [Offer Custom Column]

Use the **Reports | Schemas | Campaign | Campaign Custom Attributes | Columns | [Offer Custom Column]** property to add any custom offer attributes that you want to include in your reports to the reporting schema.

Use this form to add

### Column Name

#### Description

Specifies the name to use in the reporting view for the attribute that is identified in the **Attribute ID** field.

#### Default value

[CHANGE ME]

#### Valid Values

The name can be no longer than 18 characters, it must be in all uppercase letters, and it cannot have spaces.

### Attribute ID

#### Description

The value from the attribute's `AttributeID` column in the **UA\_OfferAttribute** table.

#### Default value

0

### Value Type

#### Description

The data type of the offer attribute.

### Default value

StringValue

### Valid Values

StringValue, NumberValue, DatetimeValue

If this offer attribute holds a currency value, select `NumberValue`.

If this offer attribute's **Form Element Type** was set to `Select Box - String` in Campaign, select `StringValue`.

## Reports | Schemas | Campaign | Campaign Custom Attributes | Columns | [Cell Custom Column]

Use the **Reports | Schemas | Campaign | Campaign Custom Attributes | Columns | [Cell Custom Column]** property to add any custom cell attributes that you want to include in your reports to the reporting schema.

### Column Name

#### Description

Specifies the name to use in the reporting view for the attribute that is identified in the **Attribute ID** field.

#### Default value

[CHANGE ME]

#### Valid Values

The name can be no longer than 18 characters, it must be in all uppercase letters, and it cannot have spaces.

### Attribute ID

#### Description

The value from the attribute's `AttributeID` column in the **UA\_CellAttribute** table.

**Default value**

0

**Value Type****Description**

The data type of the cell attribute.

**Default value**

`StringValue`

**Valid Values**

`StringValue, NumberValue, DatetimeValue`

## Reports | Schemas | Interact

The Unica Interact reporting schemas reference three separate databases: the design time, runtime, and learning databases. Use the **Reports | Schemas | Interact** property to specify the JNDI names of the data sources for those databases.

The data sources that are specified on this page must exist if you want to use the Reporting SQL generation tool to generate scripts that create reporting tables. The SQL generation tool can generate scripts that create reporting views without these data sources, but it cannot validate the scripts.

The database type of the data sources must match the database type that you select when you generate the SQL scripts for the views or reporting tables.

### Interact Design Datasource (JNDI)

**Description**

Specifies the name of the JNDI data source that identifies the Unica Interact design time database, which is also the Unica Campaign system tables.

**Default value**

`campaignPartition1DS`

**Interact Runtime Datasource (JNDI)****Description**

Specifies the name of the JNDI data source that identifies the Unica Interact runtime database.

**Default value**

`InteractRTDS`

**Interact Learning Datasource (JNDI)****Description**

Specifies the name of the JNDI data source that identifies the Unica Interact learning database.

**Default value**

`InteractLearningDS`

**Reports | Schemas | Interact | Interact Performance**

The Interact Performance schema yields contact and response history metrics at the channel, channel-offer, channel-segment, channel-interaction point, interactive cell, interactive cell-offer, interactive cell-interaction point, interactive offer, interactive offer-cell, and interactive offer-interaction point levels.

**Audience Key****Description**

Specifies the name of the column that is the Audience Key for the audience level that is supported by this reporting schema.

**Default value**

`CustomerID`

**Valid Values**

A string value no longer than 255 characters.

If the key includes more than one column, use commas between the column names. For example, `ColumnX,ColumnY`.

## Detailed Contact History Table

**Description**

Specifies the name of the Detailed Contact History table for the audience level that is supported by this reporting schema.

**Default value**

`UA_DtlContactHist`

## Response History Table

**Description**

Specifies the name of the Response History table for the audience level that is supported by this reporting schema.

**Default value**

`UA_ResponseHistory`

## Over Time Variations

**Description**

Specifies the calendar time periods that are used by the "over time" reports supported by this schema.

**Default value**

Hour, Day

**Valid Values**

Hour, Day, Week, Month, Quarter, Year

## Reports | Schemas | Deliver

The **Reports | Schemas | Deliver** property specifies the name of the data source that identifies the Unica Deliver tracking tables, which are in the Unica Campaign system tables.

### Unica Deliver Tracking Datasource (JNDI)

**Description**

Specifies the name of the JNDI data source that identifies the Unica Deliver tracking tables, which are in the Unica Campaign system tables. This data source must exist if you want to use the Reports SQL generation tool to validate scripts that create reporting tables. The SQL generation tool can generate scripts that create reporting views without this data source, but it cannot validate them.

The database type of this data source must match the database type that you select when you generate the SQL scripts for the views or reporting tables.

**Default value**

campaignPartition1DS

## Campaign | partitions | partition[n] | reports

The **Campaign | partitions | partition[n] | reports** property defines the different types of folders for reports.

## offerAnalysisTabCachedFolder

### Description

The `offerAnalysisTabCachedFolder` property specifies the location of the folder that contains the specification for bursted (expanded) offer reports listed on the Analysis tab when you reach it by clicking the Analysis link on the navigation pane. The path is specified by using the XPath notation.

### Default value

```
/content/folder[@name='Affinium Campaign - Object Specific Reports']/folder[@name='offer']/folder[@name='cached']
```

## segmentAnalysisTabOnDemandFolder

### Description

The `segmentAnalysisTabOnDemandFolder` property specifies the location of the folder that contains the segment reports listed on the Analysis tab of a segment. The path is specified by using the XPath notation.

### Default value

```
/content/folder[@name='Affinium Campaign - Object Specific Reports']/folder[@name='segment']/folder[@name='cached']
```

## offerAnalysisTabOnDemandFolder

### Description

The `offerAnalysisTabOnDemandFolder` property specifies the location of the folder that contains the offer reports listed on the Analysis tab of an offer. The path is specified by using the XPath notation.

### Default value

```
/content/folder[@name='Affinium Campaign - Object Specific Reports']/folder[@name='offer']
```

## segmentAnalysisTabCachedFolder

### Description

The `segmentAnalysisTabCachedFolder` property specifies the location of the folder that contains the specification for bursted (expanded) segment reports listed on the Analysis tab when you reach it by clicking the Analysis link on the navigation pane. The path is specified by using the XPath notation.

### Default value

```
/content/folder[@name='Affinium Campaign - Object Specific Reports']/folder[@name='segment']
```

## analysisSectionFolder

### Description

The `analysisSectionFolder` property specifies the location of the root folder where report specifications are stored. The path is specified by using the XPath notation.

### Default value

```
/content/folder[@name='Affinium Campaign']
```

## campaignAnalysisTabOnDemandFolder

### Description

The `campaignAnalysisTabOnDemandFolder` property specifies the location of the folder that contains the campaign reports listed on the Analysis tab of a campaign. The path is specified by using the XPath notation.

### Default value

```
/content/folder[@name='Affinium Campaign - Object Specific Reports']/folder[@name='campaign']
```

## campaignAnalysisTabCachedFolder

### Description

The `campaignAnalysisTabCachedFolder` property specifies the location of the folder that contains the specification for bursted (expanded) campaign reports listed on the Analysis tab when you reach it by clicking the Analysis link on the navigation pane. The path is specified by using the XPath notation.

### Default value

```
/content/folder[@name='Affinium Campaign - Object Specific  
Reports']/folder[@name='campaign']/folder[@name='cached']
```

## campaignAnalysisTabDeliverOnDemandFolder

### Description

The `campaignAnalysisTabDeliverOnDemandFolder` property specifies the location of the folder that contains the Unica Deliver reports listed on the Analysis tab of a campaign. The path is specified by using the XPath notation.

### Default value

```
/content/folder[@name='Affinium Campaign']/folder[@name='Deliver  
Reports']
```

## campaignAnalysisTabInteractOnDemandFolder

### Description

Report server folder string for Unica Interact reports.

### Default value

```
/content/folder[@name='Affinium Campaign']/folder[@name='Interact  
Reports']
```

### Availability

This property is applicable only if you install Unica Interact.

## interactiveChannelAnalysisTabOnDemandFolder

### Description

Report server folder string for Interactive Channel analysis tab reports.

### Default value

```
/content/folder[@name='Affinium Campaign - Object Specific Reports']/  
folder[@name='interactive channel']
```

### Availability

This property is applicable only if you install Unica Interact.

## Formats for the Cognos reports

The Cognos reporting integration components include a global report style sheet, [GlobalReportStyles.css](#).

Use these styles, with additional manual formatting, for your Unica application reports. In this way, you can match the styles in your new reports with the styles that are used by the reports in the Unica reports packages.

You must format styles manually when you author a report because there are cases in which the style cannot be provided by the style sheet.

The styles are defined for the different types of reports:

- List reports
- Crosstab reports
- Charts
- Dashboard reports

## Global report styles

Use the styles included with the global report style sheet, `GlobalReportStyles.css`, to format your new Cognos reports. The styles in your new reports must match the styles in the reports in the Unica reports packages.

**Table 15. Global report styles**

This three-columned table provides information about the items in one column, the CSS class name in the second column, and the style in the third column.

Item	CSS class name	Style
General font family	pg, pp	<code>font-family: Arial, ...</code>
Report title	ta	<code>font-size: 10pt;</code>
Page - Header	ph	<code>padding-bottom:10px;</code> <code>font-size:8pt;</code> <code>font-weight:bold;</code>
Page - Footer	pf	<code>padding-top:10px;</code> <code>font-size:8pt;</code> <code>font-weight:bold;</code>
Field Set Labels	fs	<code>font-size:8pt;</code>
Table	tb	<code>border-collapse:collapse</code>
Table - List Column Title Cell	lt	<code>text-align:left;</code> <code>background-color:#F2F2F2; /*light grey*/</code> <code>font-weight:bold;</code> <code>border-top:1px solid silver;</code> <code>border-left:1px solid silver;</code>

Item	CSS class name	Style
		border-bottom:1.5pt solid black; border-right:1px solid silver; padding-top: 13px;
Table - List Column Body Cell	lc, lm	border:1px solid silver;
Table - Outer header	oh	background-color:#FFFFCC; /*light yellow*/
Table - List Footer	of, os	border-top:1.5pt solid black;
Crosstab	xt	border-collapse:collapse;
Crosstab - Default Measure Cell	xm	border-top:1px solid silver; border-left:1px solid silver; border-bottom:1.5pt solid black; border-right:1.5pt solid black;
Crosstab - Member Label Cell	ml	background-color: transparent; border:1px solid silver;
Crosstab - Outer Level Total	ol	background-color:#F7F7F7; /*offwhite*/
Crosstab - Spacer	xs	background-color: transparent; font-weight: bold;
Chart	ch	border:1pt solid #E4E4E4;
Chart - Title	ct	font-size:10pt;

Item	CSS class name	Style
		<code>font-weight:bold;</code>
Chart - Axis Labels	al	<code>font-size:10pt;</code>
Chart - Axis Line	at	<code>color:#939393;</code>
Chart - Chart Palette	In XML Report Specification	<p>Before the closing chart tag (&lt;/combinationChart&gt;) in the XML Report Specification, paste the following lines:</p> <pre data-bbox="747 777 1419 1312"> &lt;chartPalette&gt; &lt;chartColor value="#00a6a0"/&gt; &lt;chartColor value="#734098"/&gt; &lt;chartColor value="#7cc7ff"/&gt; &lt;chartColor value="#a6266e"/&gt; &lt;chartColor value="#d74108"/&gt; &lt;chartColor value="#efc100"/&gt; &lt;chartColor value="#aeb8b8"/&gt; &lt;chartColor value="#4178be"/&gt; &lt;/chartPalette&gt; </pre>

## Report page styles

Use the styles included with the global report style sheet, `GlobalReportStyles.css`, to format the report page.

### Table 16. Report page styles

**This two-columned table provides information about the items in one column and the style in the second column.**

Item	Style
Text	Arial font
Report title text	Arial 10 point
Page footer text	Arial 8 point
Field Set labels	Arial 8 point

## List report styles

Use the styles included with the global report style sheet, `GlobalReportStyles.css`, to format list reports.

The following table shows formatting from the `GlobalStyleSheet.css` style sheet for list reports:

**Table 17. List report styles**

**This two-columned table provides information about the items in one column and the style in the second column.**

Item	Style
Cells	1 px silver line borders (unless otherwise noted)
Column header	Light gray background; 1.5 pt black line separates column header from rest of table
Summary header rows (list headers)	Light yellow background
Total row at bottom	Dark gray background; 1.5 pt black line separates row from rest of table

Additionally, when you create a new list report, use the following guidelines to match existing reports:

- Use List Headers (not List Footers) to display summarization at the object level.
- Manually right-justify any numbers that are displayed in List Headers. Unlike List Footers, List Headers are not separated into the outer component and summary component, which use a right-justified style by default. When you summarize information into a List Header, you must complete the extra step and right-justify the values.
- Optionally, add 1.5 pt solid black borders to group columns.

The following example shows a list report that does not use the global styles:

**Example List Report**

Campaign Name	Offer Name	Number of Offers Given	Unique Recipients	Response Transactions	Unique Responders
Mortgage Multi-Channel Acquisition Campaign	Low Cost Refinance DM	3,973	3,973	1,239	1,117
	Low Cost Refinance TM	2,696	2,696	875	787
<b>Multi - Wave Campaign</b>		<b>18,611</b>	<b>18,243</b>	<b>312</b>	<b>67</b>
Multi - Wave Campaign	15 Pct Off \$75 Direct Mail	300	300		
	Buy One Get One 50 Pct Off Direct Mail	300	300		
	Money Market Savings	18,011	18,011	312	67
<b>Multi-Channel Category Cross-Sell</b>		<b>19,672</b>	<b>19,672</b>	<b>4,825</b>	<b>2,541</b>
Multi-Channel Category Cross-Sell	Bath Dmail	1,552	1,552	1,013	417
	Bath Email	2,260	2,260	1,281	528
	Clearance Dmail	145	145	26	16
	Clearance Email	200	200	33	22
	Electronics Dmail	207	207	47	30
	Electronics Email	270	270	59	39
	Home Care Dmail	71	71	20	12
	Home Care Email	92	92	22	13
	Home Decor Dmail	4,190	4,190	676	446
	Home Decor Email	6,250	6,250	931	605
	Juniors Dmail	11	11		
	Juniors Email	8	8		
	Kitchen Dmail	62	62	9	6
	Kitchen Email	86	86	15	11

The following example shows a list report that uses the global styles:

Offer Name	Campaign Name	Offers Given	Response Transactions	Response Rate	Unique Recipients	Unique Responders	Response Rate	Not Contacted Responders	Response After Opt-Out
Offer_Misc (200000000)		14	18	128.57%	14	8	57.14%	0	0
Full Campaign (200000000)		14	18	128.57%	14	8	57.14%	0	0
Offer_Full (200000000)		25	79	316.00%	21	15	71.43%	0	0
Home_Campaign_1 (200000000)		8	30	375.00%	8	5	62.50%	0	0
Test Campaign_1 (200000000)		8	30	375.00%	8	5	62.50%	0	0
Full Campaign (200000000)		8	30	375.00%	8	5	62.50%	0	0
DM Campaign Proact/Full_Campaign_Test (200000000)		8	8	100.00%	8	7	87.50%	0	0
Campaign Test 1 (200000000)		8	8	100.00%	8	7	87.50%	0	0
Offer_Full (200000000)		27	84	311.11%	21	15	71.43%	0	0
DM Campaign Proact/Full_Campaign_Test (200000000)		8	30	375.00%	8	5	62.50%	0	0
Full Campaign (200000000)		18	30	166.67%	18	10	55.56%	0	0
Test Campaign (200000000)		18	30	166.67%	18	10	55.56%	0	0
Home_Campaign_1 (200000000)		8	8	100.00%	8	7	87.50%	0	0
<b>Report Total</b>		<b>86</b>	<b>274</b>	<b>319.77%</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>0</b>	<b>0</b>

## Date formats for globalized versions

If you use a globalized version of the Unica reports package, you see a different date format in your list reports depending on which locale you use. Cognos list reports use the date style medium.

The following table shows the date formats for list reports for all available locales.

**Table 18. Cognos list reports date formats for globalized versions**

**This two-columned table provides examples of the date format that is used by Cognos list reports for globalized versions.**

Locale	Cognos list reports date format example
English	Mar 18, 2014
Brazilian Portuguese	18/03/2014
French	18 mars 14
German	18.03.2014
Italian	18/mar/2014
Japanese	2014/03/18
Korean	2014-03-18
Russian	18.03.2014
Simplified Chinese	2014-3-18
Spanish	18-Mar-14

## Crosstab report styles

Use the styles included with the global report style sheet, `GlobalReportStyles.css`, to format crosstab reports.

The following table shows formatting from the `GlobalStyleSheet.css` style sheet for crosstab reports:

**Table 19. Crosstab report styles**

This two-columned table provides information about the items in one column and the style in the second column.

Item	Style
Cells	Transparent background; 1 px silver line borders
Measure cell (upper left)	1.5 pt black line separates the cell from the rest of the crosstable
Outer level totals	Gray/offwhite background

Additionally, when you create a new list report, use the following guidelines to match the existing reports.

- Use 1.5 pt black borders to separate summarization from measures.
- Use 1.5 black borders to group logical column groupings.
- As a general guideline, avoid summarizing both columns and rows in the same report.

The following example shows a crosstab report that does not use the global styles.

**Example Crosstab Report**

	1		2		3		4		7		9	
	Number of Offers Given	Unique Recipients										
Cross Sell	1,263	1,263	6,941	6,637	8,404	7,157	8,337	8,337				
Loyalty	19,940	19,806	24,324	24,324					9,563	9,563		
Retention	3,856	3,856			4,414	4,414						
Acquisition	150	150			12,756	12,756						23,114
					13,339	13,339	5,000	5,000				

The following example shows a crosstab report that uses the global styles and has 1.5 px borders that are applied to show column groupings.

	1		2		3		4		7		11		12		Total(Merch)	
	Number of Offers Given	Unique Recipients														
Cross Sell	1,263	1,263	6,941	6,637	8,404	7,157	8,337	8,337	18,311	18,243			858	858	44,442	43,825
Loyalty	19,940	19,806	24,324	24,324					9,563	9,563					52,897	52,897
Retention	3,856	3,856			4,414	4,414					2,458	2,458			68,758	68,758
Acquisition	150	150			12,756	12,756			23,114	23,114					38,838	38,838
					13,339	13,339	5,000	5,000	384	384					88,765	88,765

## Chart styles

Use the styles included with the global report style sheet, `GlobalReportStyles.css`, to format charts.

The following table shows formatting from the `GlobalStyleSheet.css` style sheet for charts:

Charts obtain the following formatting from the `GlobalStyleSheet.css`.

**Table 20. Chart styles**

**This two-columned table provides information about the items in one column and the style in the second column.**

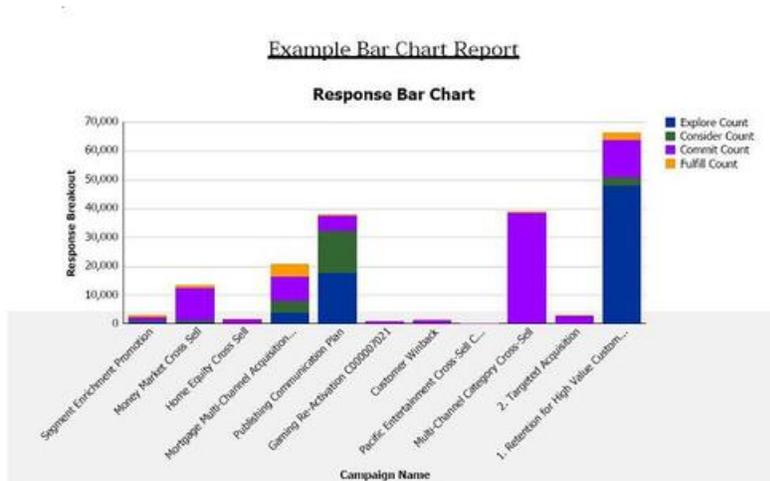
Item	Style
Charts	1 pt light gray border
Titles and labels	10 point bold font

Additionally, when you create a new chart, use the following guidelines to match the existing chart reports.

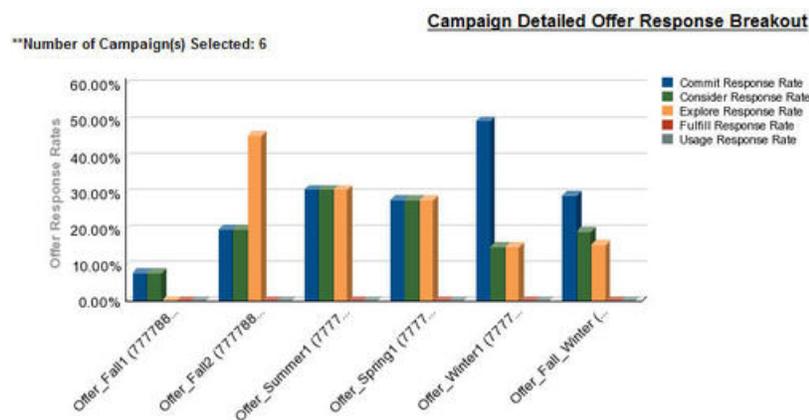
- Use the default width, unless there is more than one chart on the report. When you include multiple charts in a single report, set the chart width to 750px.
- To use gradients and color palettes, copy and paste the strings from the table in [Global report styles \(on page 184\)](#) into the XML report specification.
- As a general guideline, select the chart type based on the data that you expect to be returned.
  - Use line graphs as the chart type only when you can guarantee the report retrieves continuous data.
  - If there are multiple series, a stacked bar works better than a non-stacked bar.
  - As a best practice, use percentages only when the total percentage equals 100%. Pie charts tend to confuse people when the values do not add up to 100%.

- If there are only two series on a chart and you display both the Y1 and Y2 axes, as a best practice you must match the colors to the first two palette colors for the axis labels.

The following example shows a chart that does not use the global styles.



The following example shows a chart that uses the global styles and has additional formatting applied.



### Date formats for globalized versions

If you use a globalized version of the Unica reports package, you see a different date format in your chart reports depending on which locale you use. Cognos chart reports use the date style short.

The following table shows the date formats for chart reports for all available locales.

**Table 21. Cognos chart reports date formats for globalized versions**

This two-columned table provides examples of the date format that is used by Cognos chart reports for globalized versions.

<b>Locale</b>	<b>Cognos chart reports date format example</b>
English	3/18/14
Brazilian Portuguese	18/03/14
French	18/03/14
German	18.03.14
Italian	18/03/14
Japanese	14/03/18
Korean	14-03-18
Russian	18.03.14
Simplified Chinese	14-3-18
Spanish	18/03/14

## Dashboard report styles

Dashboard reports use the global styles with some manual formatting.

Use the following guidelines to make sure that reports that are displayed in the Dashboard fit properly in Dashboard portlets.

**Table 22. Dashboard report styles**

**This two-columned table provides information about the items in one column and the style in the second column.**

Item	Style
Background color	Keep background color set to gray (hex value F2F2F2).
Size	Specify size by using percentages whenever possible. When sizing with a percentage is not possible, set the size to 323 pixels wide by 175 pixels tall.
Subtitles	Put subtitles on the left side.
Dates	Put dates on the right side.
Legends	Center legends below the chart.
Lines in line charts	Display horizontal lines only. Do not display vertical lines.
Axis line color	Keep axis lines set to black.
Grid line color	Keep grid lines set to gray (hex value D9D9D9).
Lists (tables)	Display a maximum of 10 lines.

## Formats for the Unica Campaign, Unica Deliver, and Unica Interact Cognos reports

Additional styling is required for Unica Campaign, Unica Deliver, and Unica Interact Cognos reports. The global report styles are modified to add classes to override the styling of existing classes to improve the look and feel of Unica Campaign, Unica Deliver, and Unica Interact reports.

The page class, `peretz`, is used to style Unica Campaign, Unica Deliver, and Unica Interact reports. All reports are modified to use the `peretz` class for the page style. Child classes are added to the `peretz` parent class in the `GlobalReportStyles.css` and `GlobalReportStyles_10.css`.

Use the new page class, `peretz`, for creating new report pages when styling Unica Campaign, Unica Deliver, and Unica Interact Cognos reports

You must format styles manually when you author a report because there are cases in which the style cannot be provided by the style sheet.

The styles are defined for the different types of reports:

- List reports
- Crosstab reports
- Charts
- Dashboard reports

## Global report styles

Use the styles included with the global report style sheet, `GlobalReportStyles.css` and `GlobalReportStyles_10.css`, to format your new Unica Campaign, Unica Deliver, and Unica Interact Cognos reports.

**Table 23. Global report styles**

**This three-columned table provides information about the items in one column, the CSS class name in the second column, and the style in the third column.**

Item	CSS class name	Style
Page - Header	ph	<code>font-family: "Helvetica Neue", helvetica, arial, sans-serif;</code>
Page - Footer	pf	<code>padding-top:10px;</code>

Item	CSS class name	Style
		<pre>font-size:8pt; font-weight:bold;</pre>
Table - List column title cell	lt	<pre>text-align:left; border: 1px solid #d9dbdc; background-color: #f7f7f7; background-image: none !important; font-weight:normal; vertical-align: top; padding: 10px 20px; font-family: "Helvetica Neue", Helvetica,   Roboto, Arial, sans-serif; color: #58595b; font-size: 14px;</pre>
Table - List column body cell interior	lci	<pre>border: none; background-color: white !important; text-align: right; padding: 3px 5px; vertical-align: middle;</pre>
Table - List column body cell	lc	<pre>border-top:1px solid #ddd ; border-bottom:1px solid #ddd ; padding: 3px 5px; text-align: left; vertical-align: middle; font-family: "Helvetica Neue", Helvetica, Arial,   sans-serif;</pre>

Item	CSS class name	Style
Table - List column body measure cell	lm	<pre>vertical-align: top; border:1px solid #ddd; border-right: 0; border-left: 0; padding: 3px 5px; text-align: right;</pre>
Crosstab - Totals first row	tr	<pre>border-left: 2px solid black; background-color: #bebebe !important; font-weight: bold; padding: 3px 5px;</pre>
Complex table total -new class added	ctth	<pre>color: #5a5a5a; background-color: #bebebe; border-bottom:2px solid black; padding: 3px 5px; border-left: 2px solid #bebebe;</pre>
Table totals row	ttr	<pre>color: #5A5A5A; font-weight: bold; background-color: #E0E0E0; padding: 3px 5px;</pre>
Table totals row	ctr	<pre>color: #000000; font-weight: bold; border-left:2px solid black; background-color: white; border-bottom:1px solid #a2a2a2;</pre>

Item	CSS class name	Style
Table totals header	cth	<pre>color: #000000; border-bottom:2px solid black; border-left:1.5px solid white; border-right:1.5px solid white; font-weight: 100;</pre>
List - Inner header cell	ih	<pre>border-top:1px solid #A0A0A0 ; border-bottom:1px solid #A0A0A0; padding: 3px 5px; vertical-align: middle;</pre>
List - Outer header cell	oh	<pre>font-weight: bold; vertical-align: top; border: 1px solid #CCCCCC; border-right: 0; border-left: 0; padding: 3px 5px; word-break:keep-all; background-color: #fff;</pre>
Outer header cell with top border	ohl	<pre>font-weight: bold; vertical-align: top; background-color: #ddd; padding: 3px 5px; word-break:keep-all; border-top:2px solid black; border-left:1.5px solid #ddd; border-right: 5pt solid #ddd; border-style:solid;</pre>

Item	CSS class name	Style
		<code>border-bottom:none;</code>
Crosstab	xt	<pre>border: 1px solid #d9dbdc; color: #6d6e70; empty-cells: show; font-size: 14px;</pre>
Crosstab - Member label cell	ml	<pre>font-style: normal !important; color: black; font-weight: 300; height: 30px; border-left: none; border-right: none; border-bottom:1px solid #a2a2a2;</pre>
Crosstab - Member label cell	cht	<pre>vertical-align: top; background-color:transparent; padding: 3px 5px; text-align: left;</pre>
Crosstab - Member value cell	mv	<pre>vertical-align: top; white-space: nowrap; border: 1px solid #a2a2a2; padding: 3px 5px; text-align: right; border-left:none; border-right:none; vertical-align: top; white-space: nowrap; padding: 3px 5px;</pre>

Item	CSS class name	Style
		<code>text-align: right;</code>
Field set	fs	<pre>display: -moz-inline-block; display: inline; text-align: left; font-size: 8pt; margin-bottom: 15px; color : #5a5a5a;</pre>
Chart	ch	<code>border: 1pt solid #E4E4E4;</code>
Chart - Title	ct	<pre>font-size: 10pt; font-weight: bold;</pre>
Chart - Axis labels	al	<code>font-size: 10pt;</code>
Chart - Axis title	at	<pre>font-weight: bold; text-align: center; font-size: 10pt; color: #939393;</pre>
Chart - Chart Palette	In XML Report Specification	<p>Before the closing chart tag (<code>&lt;/combinationChart&gt;</code>) in the XML Report Specification, paste the following lines:</p> <pre>&lt;chartPalette&gt; &lt;chartColor value="#00a6a0"/&gt; &lt;chartColor value="#734098"/&gt; &lt;chartColor value="#7cc7ff"/&gt; &lt;chartColor value="#a6266e"/&gt; &lt;chartColor value="#d74108"/&gt; &lt;chartColor value="#efc100"/&gt;</pre>

Item	CSS class name	Style
		<pre>&lt;chartColor value="#aeb8b8"/&gt; &lt;chartColor value="#4178be"/&gt; &lt;/chartPalette&gt;</pre>
Hyperlink	.hy	<pre>color: #037bbf; font-size: 14px; font-family: "Helvetica Neue", helvetica, arial, sans-serif;</pre>
Totals first Column	tf	<pre>border-left: 2px solid black; background-color: #bebebe !important; font-weight: bold; padding: 3px 5px;</pre>
Complex table total	ctt	<pre>color: #000000; background-color: #bebebe !important; border-left:2px solid black; border-bottom: 1px solid #a2a2a2; padding-left: 5px 5px;</pre>
Complex table total row	cttr	<pre>color: #000000; background-color: #bebebe; font-weight: bold; border-bottom:1px solid #a2a2a2;</pre>
List	ls	<pre>border: 1px solid #d9dbdc; color: #6d6e70; empty-cells: show; margin-top: 10px; font-size: 14px;</pre>

Item	CSS class name	Style
Hover selection class	hoverSelectic	background-color: transparent !important; color: #6d6e70 !important;

## List report styles

Use the styles included with the global report style sheet, `GlobalReportStyles.css` and `GlobalReportStyles_10.css`, to format list reports.

The following table shows formatting from the `GlobalStyleSheet.css` and `GlobalReportStyles_10.css` style sheet for list reports:

### Table 24. List report styles

**This two-columned table provides information about the items in one column and the style in the second column.**

Item	Style
Cells	1 px solid very light gray border at the top and bottom
Column header	White background; 1.5 pt black line at the bottom separates column header from rest of table
Summary header rows (list headers)	Light gray background
Total row at bottom	Dark gray background

The following example a list report that uses the global styles:

Hide/Show LIFT Information		Offers Given	Response Transactions	Response Rate	Unique Recipients	Unique Responders	Responder Rate	Not Contacted Responders	Responses After Expiration
**Number of Offer(s) Selected: 4									
Offer Winter (000000046)		14	18	128.57%	14	6	42.86%	0	0
	Fall Campaign (C000000022)	14	18	128.57%	14	6	42.86%	0	0
Offer_Fall1 (000000024)		25	72	288.00%	11	15	136.36%	5	0
	Winter_Campaign_1 (C000000006)	6	30	500.00%	6	9	150.00%	3	0
	Test Campaign1 (C000000020)	5	18	360.00%	5	5	100.00%	0	0
	Fall Campaign (C000000022)	5	16	320.00%	5	6	120.00%	1	0
	IBM Campaign ProjectFall_Campaign_test1 (C000000018)	9	8	88.89%	5	7	140.00%	2	0
	Campaign Test 1 (C000000008)	0	0	0	0	0	0	0	0
Offer_Fall2 (000000026)		27	64	237.04%	21	21	100.00%	0	0
	IBM Campaign ProjectFall_Campaign_test1 (C000000018)	3	15	500.00%	2	2	100.00%	0	0
	Fall Campaign (C000000022)	10	30	300.00%	10	10	100.00%	0	0
	Test Campaign1 (C000000020)	10	15	150.00%	10	10	100.00%	0	0
	Winter_Campaign_1 (C000000006)	4	4	100.00%	4	3	75.00%	0	0
Report Total		66	154	233.33%	-	-	-	25	0

## Date formats for globalized versions

If you use a globalized version of the Unica reports package, you see a different date format in your list reports depending on which locale you use. Cognos list reports use the date style medium.

The following table shows the date formats for list reports for all available locales.

**Table 25. Cognos list reports date formats for globalized versions**

This two-columned table provides examples of the date format that is used by Cognos list reports for globalized versions.

Locale	Cognos list reports date format example
English	Mar 18, 2014
Brazilian Portuguese	18/03/2014
French	18 mars 14
German	18.03.2014
Italian	18/mar/2014
Japanese	2014/03/18
Korean	2014-03-18
Russian	18.03.2014
Simplified Chinese	2014-3-18

Locale	Cognos list reports date format example
Spanish	18-Mar-14

## Crosstab report styles

Use the styles included with the global report style sheet, [GlobalReportStyles.css](#) and [GlobalReportStyles\\_10.css](#), to format crosstab reports.

The following example shows a crosstab report that uses the global styles.

Example Crosstab Report

	1	2	3	4	5	6	7	8	9	10	11	12	Total (Months)			
	Number of Offers	Unique Recipients														
Crosstab	1,203	1,202	8,341	8,337	4,404	7,107	8,337	8,337			18,611	18,243	888	888	44,442	43,827
Loyalty	12,942	19,899	24,324	24,324					9,963	9,963					51,807	63,883
Referrals	3,899	3,899			4,414	4,414						2,458	2,458		48,739	48,739
Acquisition	192	192			12,768	12,768			25,114	25,114					38,829	36,829
					13,339	13,339	9,999	9,999			384	384			68,793	68,793

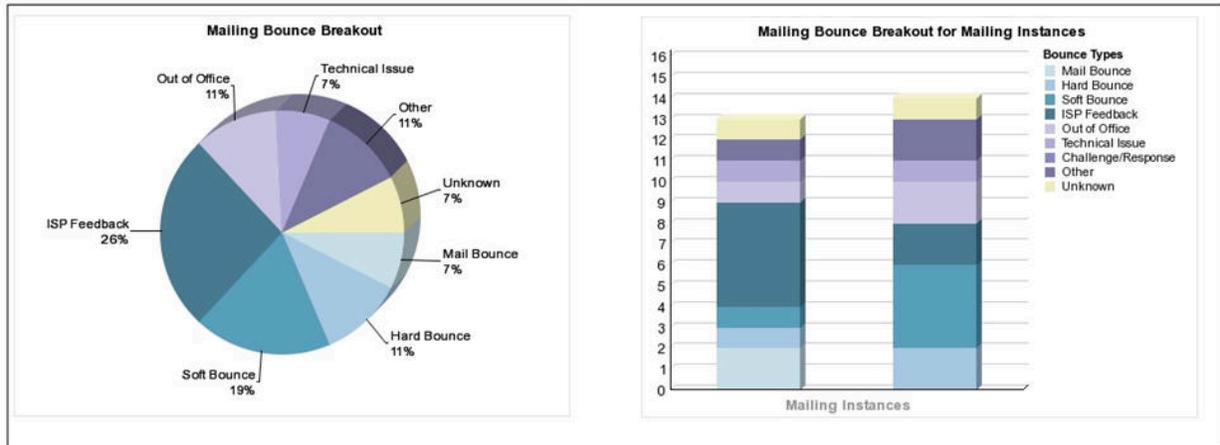
## Chart styles

Use the styles included with the global report style sheet, [GlobalReportStyles.css](#) and [GlobalReportStyles\\_10.css](#), to format charts.

When you create a new chart, use the following guidelines to match the existing chart reports.

- Use the default width, unless there is more than one chart on the report. When you include multiple charts in a single report, set the chart width to 750px.
- To use color palettes, copy and paste the strings from the table in [Global report styles \(on page 195\)](#) into the XML report specification.
- If there are only two series on a chart and you display both the Y1 and Y2 axes, as a best practice you must match the colors to the first two palette colors for the axis labels.

The following example shows a chart that uses the global styles and has additional formatting applied.



## Date formats for globalized versions

If you use a globalized version of the Unica reports package, you see a different date format in your chart reports depending on which locale you use. Cognos chart reports use the date style short.

The following table shows the date formats for chart reports for all available locales.

**Table 26. Cognos chart reports date formats for globalized versions**

**This two-columned table provides examples of the date format that is used by Cognos chart reports for globalized versions.**

Locale	Cognos chart reports date format example
English	3/18/14
Brazilian Portuguese	18/03/14
French	18/03/14
German	18.03.14
Italian	18/03/14
Japanese	14/03/18
Korean	14-03-18
Russian	18.03.14

Locale	Cognos chart reports date format example
Simplified Chinese	14-3-18
Spanish	18/03/14

## Dashboard report styles

Dashboard reports use the global styles with some manual formatting.

Use the following guidelines to make sure that reports that are displayed in the Dashboard fit properly in Dashboard portlets.

### Table 27. Dashboard report styles

This two-columned table provides information about the items in one column and the style in the second column.

Item	Style
Size	Specify size by using percentages whenever possible. When sizing with a percentage is not possible, set the size to 323 pixels wide by 175 pixels tall.
Subtitles	Put subtitles on the left side.
Dates	Put dates on the right side.
Legends	Center legends below the chart.
Lines in line charts	Display horizontal lines only. Do not display vertical lines.
Axis line color	Keep axis lines set to black.
Grid line color	Keep grid lines set to gray (hex value D9D9D9).

Item	Style
Lists (tables)	Display a maximum of 10 lines.

## Unica Campaign reports and reporting schemas

You can customize the reporting schemas in the Unica Campaign Report Package by adding contact or response metrics, attributes, or response types.

The reporting schemas in the Unica Campaign Report Package can be customized in the following ways:

- Add contact or response metrics.
- Add custom campaign, offer, or cell attributes.
- Add response types.
- Configure the audience level for performance reports.
- Create reporting schemas for additional audience levels.

The following table maps the individual Cognos BI reports provided in the Unica Campaign Reports Package to the reporting schemas that support them.

**Table 28. Mapping of Cognos BI reports to the reporting schema**

	Campaign Views schema	Campaign Custom Attributes schema	Campaign Performance schema	Offer Performance schema	Campaign Offer Response Breakout	Offer Contact Status Breakout
What If Offer Financial Summary report	X	X		X		

	<b>Campaign Views schema</b>	<b>Campaign Custom Attributes schema</b>	<b>Campaign Performance schema</b>	<b>Offer Performance schema</b>	<b>Campaign Offer Response Breakout</b>	<b>Offer Contact Status Breakout</b>
Campaign Detailed Offer Response Breakout	X		X		X	
Offer Response Breakout, Dashboard version	X		X		X	
Campaign Financial Summary by Offer (Actual)	X	X	X			
Campaign Return on Investment Comparison	X	X	X			
Campaign Offer Performance by Month	X		X			

	<b>Campaign Views schema</b>	<b>Campaign Custom Attributes schema</b>	<b>Campaign Performance schema</b>	<b>Offer Performance schema</b>	<b>Campaign Offer Response Breakout</b>	<b>Offer Contact Status Breakout</b>
Campaign Performance Comparison	X		X			
Campaign Response Rate Comparison	X		X			
Campaign Performance Comparison with Revenue	X		X			
Campaign Performance Comparison by Initiative	X		X			
Campaign Performance Summary by Cell	X		X			
Campaign Performance Summary by Cell with Revenue	X		X			

	<b>Campaign Views schema</b>	<b>Campaign Custom Attributes schema</b>	<b>Campaign Performance schema</b>	<b>Offer Performance schema</b>	<b>Campaign Offer Response Breakout</b>	<b>Offer Contact Status Breakout</b>
Campaign Performance Summary by Cell and Initiative	X		X			
Campaign Performance Summary by Offer	X		X			
Campaign Performance Summary by Offer with Revenue	X		X			
Campaign Revenue Comparison by Offer	X		X			
Campaign Summary	X					
Offer Campaign Listings	X					

	<b>Campaign Views schema</b>	<b>Campaign Custom Attributes schema</b>	<b>Campaign Performance schema</b>	<b>Offer Performance schema</b>	<b>Campaign Offer Response Breakout</b>	<b>Offer Contact Status Breakout</b>
Offer Performance Metrics	X			X		
Offer Performance by Day	X			X		
Offer Responses for Last 7 Days	X			X		
Offer Performance Comparison	X			X		
Offer Response Rate Comparison	X			X		
Offer Performance Summary by Campaign	X		X	X		

The following reports rely on the standard set of custom contact and response metric attributes that are provided in Unica Campaign:

- What If Offer Financial Summary
- Campaign Detailed Offer Response Breakout
- Campaign Financial Summary by Offer (Actual)
- Campaign Performance Comparison with Revenue
- Campaign Performance Summary by Cell with Revenue
- Campaign Performance Summary by Offer with Revenue

## Unica Deliver Reports and Reporting Schemas

Several reports, such as Message Overview report, Detailed Link report, Deliver Reports Processing Overview, and SMS Message Summary Report are available in the Unica Deliver Reports Package.

The following table maps the individual Cognos BI reports provided in the Unica Deliver Reports Package to the reporting schemas that support them.

**Table 29. Unica Deliver reports and reporting schemas**

<b>Report name</b>	<b>Mailing performance schema</b>
Message Overview report	X
Detailed Link report	X
Detailed Link by Cell report	X
Detailed Bounce report	X
A/B Testing Performance Report	X
Deliver Reports Processing Overview	X
SMS Message Summary Report	X

## Unica Interact Reports and Reporting Schemas

The Unica Interact Report Package reports are supported by reporting schemas. You can customize the schemas to specify time periods, configure audience levels, and create extra performance reporting schemas.

You can customize the reporting schemas in the Unica Interact Report Package in the following ways:

- Specify calendar time periods for performance reports
- Configure the audience level for performance reports
- Create extra performance reporting schemas for extra audience levels

The following table maps the individual Cognos BI reports provided in the Unica Interact Reports Package to the reporting schemas that support them.

	<b>Interactive View schema</b>	<b>Unica Interact Performance View schema</b>	<b>Interactive Channel / Campaign Deployment History</b>	<b>Unica Interact Runtime View schema</b>	<b>Unica Interact Learning View schema</b>
Campaign - Interactive Channel Deployment History	X		X		
Campaign - Interactive Cell Performance Over Time	X	X		X	
Campaign - Interactive Cell Performance by Offer	X	X		X	

	<b>Interactive View schema</b>	<b>Unica Interact Performance View schema</b>	<b>Interactive Channel / Campaign Deployment History</b>	<b>Unica Interact Runtime View schema</b>	<b>Unica Interact Learning View schema</b>
Campaign - Interactive Offer Performance Over Time	X	X		X	
Campaign - Interactive Offer Performance by Cell	X	X		X	
Campaign - Interactive Offer Learning Details	X				X
Interactive Cell Lift Analysis	X	X		X	X
Interactive Channel - Channel Deployment History	X		X		
Interactive Channel - Channel Event Activity Summary report	X			X	
Interactive Channel - Channel Interaction Point Performance Summary	X	X		X	

	<b>Interactive View schema</b>	<b>Unica Interact Performance View schema</b>	<b>Interactive Channel / Campaign Deployment History</b>	<b>Unica Interact Runtime View schema</b>	<b>Unica Interact Learning View schema</b>
Interactive Channel - Channel Treatment Rule Inventory	X				
Interactive Segment Lift Analysis	X	X		X	
Interaction Point Performance	X	X		X	