

IBM EMM Reports
Version 9 Release 1.1
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Installation and Configuration Guide



Note

Before using this information and the product it supports, read the information in "Notices" on page 161.

This edition applies to version 9, release 1, modification 1 of IBM Reports and to all subsequent releases and modifications until otherwise indicated in new editions.

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Chapter 1. Installation overview

An installation of the IBM® EMM reports is complete when you install IBM Cognos® BI and configure it for IBM EMM applications. The IBM EMM Reports Installation and Configuration Guide provides detailed information about configuring IBM Cognos BI, and integrating IBM Cognos BI and IBM EMM.

If you are using eMessage 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 eMessage reports.

Use the Installation Roadmap section to obtain a broad understanding about using the IBM EMM Reports Installation and Configuration Guide.

Installation roadmap

Use the installation roadmap to quickly find the information that you need for installing IBM EMM reports.

The following table provides a high level overview of the IBM EMM reports installation process, with brief descriptions of the steps involved and information on where to find detailed instructions:

Table 1. Installation roadmap for reports.

Step	Description	Where to find details
Installing reporting components		
Understanding prerequisites.	Understand system prerequisites that are required for installing reports.	See <i>IBM Enterprise Marketing Management Products Recommended Software Environments and Minimum System Requirements</i> .
Understanding prerequisites for eMessage.	Understand additional prerequisites for installing eMessage reports.	See “Prerequisites for eMessage Reports” on page 8
Installing IBM EMM products.	Install the products that provide the data that is used in reports.	See the individual product installation guides.
Setting up a system user.	Configure a user with access to the Settings > Configuration and Settings > Report SQL Generator pages so you can log in as this user when you need to configure the reporting properties and generate the SQL used to create reporting schema.	See “Configuring a user with the ReportsSystem role” on page 11.
Installing the reporting schemas on the machine where the Marketing Platform is installed.	Place the IBM master installer and the report pack installers in the same directory and launch the master installer.	See “Installing reporting schemas on the IBM EMM system” on page 11
Creating JDBC data sources.	In the application server where the Marketing Platform is deployed, create JDBC data source connections to the system table databases for the products you want to use for reporting.	See “Creating JDBC data sources” on page 12.
Installing and testing IBM Cognos BI		

Table 1. Installation roadmap for reports (continued).

Step	Description	Where to find details
Installing IBM Cognos BI	Use the IBM Cognos documentation to guide your installation, and then test the system.	See Chapter 4, “Install and test IBM Cognos BI,” on page 15.
Installing IBM EMM integration components and report models on the Cognos system		
Obtaining the JDBC driver used for the Marketing Platform system tables.	Copy the JDBC driver used for Marketing Platform to the machine where the Cognos Content Manager is installed. When IBM authentication is implemented, Cognos uses this when it obtains user information.	See “Obtain the JDBC driver for the Marketing Platform system tables” on page 17.
Installing the reporting models and integration component on the Cognos system.	Place the IBM EMM master installer, Marketing Platform installer, and product report pack installers in the same directory on the machine where the Cognos Content Manager is installed, and launch the master installer.	See “Installing the reporting models and integration component on the IBM Cognos system” on page 18.
Creating the Cognos data sources for the IBM EMM application databases.	The Cognos applications need to connect to the IBM EMM application data sources for the reports. Use the Administration section of Cognos Connection to create these data sources.	See “Creating IBM Cognos data sources for IBM EMM application databases” on page 18.
Setting up email notification.	If you want to enable an option for sending a report as an email attachment, configure notification in Cognos Configuration.	See “Setting up email notifications” on page 20.
Configuring the Cognos firewall.	In Cognos Configuration, specify the IBM EMM system as a valid domain or host.	See “Configuring IBM Cognos Application Firewall for IBM EMM” on page 20.
For eMessage , running scripts to create staging tables, indexes, and stored procedures.	Run the scripts that are necessary to create staging tables, indexes, and stored procedures for eMessage reports.	See “For eMessage reports, creating stored procedures, staging tables, and indexes” on page 22
Loading the templates for the Reports SQL Generator.	To implement reporting for Campaign, eMessage, and Interact, you create reporting views or tables from which the reports extract reportable data. The reports packs contain templates that the Reports SQL Generator uses when generating SQL scripts for creating these views or tables. In this step, you load these templates into the Marketing Platform system table database.	See “Loading templates for Reports SQL Generator” on page 23.
Generating the view or table creation scripts.	Set some required configuration properties, and then use the Report SQL Generator to produce the SQL for creating the reporting views or tables.	See “Generating view or table creation scripts” on page 23.

Table 1. Installation roadmap for reports (continued).

Step	Description	Where to find details
Creating the reporting views or tables.	Create the views or tables in the IBM EMM product system table databases.	See one of the following topics: <ul style="list-style-type: none"> • “Creating and populating reporting tables for Campaign” on page 28 • “Creating and populating reporting tables for Interact” on page 29 • “Creating views or materialized views for Campaign or eMessage” on page 25 • “Creating views or materialized views for Interact” on page 26
Importing the reports folder.	In Cognos Connection, import the compressed file for reports.	See “Importing the reports folder in Cognos Connection” on page 29.
Configuring and publishing the data model.	If the data source login you used when you created the Cognos data sources is not the owner of the IBM EMM system tables, perform this step.	See “Configuring and publishing the data model” on page 30.
Enabling internal links in the reports.	The IBM EMM reports have standard links. To enable them, you must configure the redirect URL in the Cognos data model.	See “Enabling internal links in the reports” on page 31.
Verifying the data source names and publish.	This step varies, depending on whether you used the default data source names in Cognos Connection, as described in that step.	See “Verifying data source names and publishing” on page 31.
Configuring the Cognos reporting properties in IBM EMM.	Log in to IBM EMM and set Cognos reporting properties.	See “Configuring Cognos reporting properties in Marketing Platform” on page 32.
Configuring report folder permissions.	To give users permission to run reports from within IBM EMM applications, assign the default ReportsUser role to the appropriate user groups or users.	See “Setting report folder permissions” on page 32.
For eMessage , running and scheduling stored procedures.	eMessage 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 IBM Campaign and eMessage environments and with your business requirements. Note: You cannot see data in eMessage reports until you run the stored procedures.	See “Running and scheduling stored procedures for eMessage” on page 33.
Stored procedures for the Interact Event Pattern report.	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. The Interact ETL triggers the report data aggregation automatically so you do not need to configure database jobs to perform a delta refresh.	See “Stored procedures for the Interact Event Pattern report” on page 40.

Table 1. Installation roadmap for reports (continued).

Step	Description	Where to find details
Enabling the stored procedures for the Interact Event Pattern report	The Interact Event Pattern report uses the delta refresh process for data aggregation process so that reports can render faster.	See “Enabling the stored procedures for the Interact Event Pattern report” on page 42.
For Interact Event Pattern report, changing 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 “For Interact Event Pattern report, changing the degree of parallel execution” on page 45.
Testing your configuration without authentication enabled.	After the reports are installed and configured, but before you enable authentication, test the setup by running some reports.	See “Testing your configuration before enabling authentication” on page 48.
Configuring Cognos to use IBM EMM authentication.	The IBM EMM Authentication Provider enables the Cognos applications to use IBM EMM authentication to communicate with the Marketing Platform as if it were another application in the suite. This step has several sub-steps.	See “Configure IBM Cognos to use IBM EMM authentication” on page 49.
Testing your configuration with authentication configured.	After you configure Cognos to use IBM EMM authentication, test the system again.	See “Testing your configuration with authentication configured” on page 52.
Customizing reports		
Completing customization steps.	At this point, reporting is working properly and the example reports are in their default state. You may need to customize the reports or reporting schemas for Campaign, Interact, or Marketing Operations.	See “Customizing reporting schemas” on page 64.

How the installers work

You must use the suite installer and the product installer when you install or upgrade any IBM EMM product. For example, for installing Marketing Platform, you must use the IBM EMM suite installer and the IBM Marketing Platform installer.

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

- The suite 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 master installer, the master installer always shows the latest version of the product on the IBM EMM Products screen in the installation wizard.
- If you are planning to install a patch immediately after you install an IBM EMM 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 IBM EMM installations is /IBM/EMM for UNIX or C:\IBM\EMM for Windows. However, you can change the directory during installation.

Modes of installation

The IBM EMM suite installer can run in one of the following modes: GUI mode, console mode, or silent mode (also called the unattended mode). Select a mode that suits your requirements when you install Marketing Platform.

GUI mode

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

Console mode

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

Installation files

Installation files for all IBM EMM 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.

Example

The following table displays examples of the installation files that are named according to the product version and the operating system:

Table 2. Installation files.

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.

Table 2. Installation files (continued).

Operating system	Installation file
UNIX: Console mode	<i>Product_N.N.N.N</i> .bin, 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.

Chapter 2. Planning the IBM EMM reports installation

When you plan your IBM EMM reports installation, you must ensure that you set up your system correctly, and that you configure your environment to deal with any failures.

Prerequisites

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

System requirements

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

Network domain requirements

The IBM EMM 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.

JVM requirements

IBM EMM applications within a suite must be deployed on a dedicated JavaTM virtual machine (JVM). IBM EMM products customize the JVM that is used by the web application server. If you encounter errors that are related to the JVM, you must create an Oracle WebLogic or WebSphere[®] domain that is dedicated to the IBM EMM products.

Knowledge requirements

To install IBM EMM 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.
- Read and write access to the relevant directory and subdirectories for the operating system account that you use to run the web application server and IBM EMM 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/execute permissions to run the installer

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

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

JAVA_HOME environment variable

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

Make sure that the **JAVA_HOME** environment variable points to JRE 1.7. If the **JAVA_HOME** environment variable points to an incorrect JRE, you must clear the **JAVA_HOME** variable before you run the IBM EMM 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.

export JAVA_HOME= (leave empty)

After the environment variable is cleared, the IBM EMM installers use the JRE that is bundled with the installers. You can reset the environment variable after the installation is complete.

Prerequisites for eMessage Reports

If you are using eMessage reports, you comply with specific prerequisites in addition to the system requirements for installing reports.

See “Prerequisites” on page 7 for information about the system requirements for installing reports.

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

Settings for IBM DB2®

You must use IBM DB2 version 9.7.8 or higher.

Important: You must set the following value before you begin applying the eMessage Reports:

db2set DB2_COMPATIBILITY_VECTOR=ORA

Example of sizings for DB2

For an IBM DB2 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

You must use Oracle 11g or higher. Review your environment requirements with your database administrator.

Example of sizings for Oracle

For an Oracle 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

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

Example of sizings 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 the Internet Explorer browser, make sure that your security settings of the browser 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**.

Chapter 3. Installing reporting components

To install IBM EMM reporting for your products, you must install reporting components. Reporting components include IBM EMM integration components and report models on the IBM Cognos system, and the 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 **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 **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 to configure reporting properties and to generate the SQL script that is used to create reporting schemas.

A user with the ReportsSystem role can access the Configuration and Report SQL Generator pages for configuring reporting properties and generating the SQL script that is used to create reporting schemas. Configure a user with access to the IBM EMM **Settings > Configuration** and **Settings > Report SQL Generator** pages so you can log in as this user when you need to configure the reporting properties and generate the SQL used to create reporting schema.

Complete the following tasks to configure a user with the ReportsSystem role:

1. Create a user. You can also use the platform_admin user.
2. Go to **User Roles and Permissions > Report > PartitionN**, and assign the ReportsSystem role to the user that you created.
3. Verify that the user has access to the **Settings > Configuration** and **Settings > Report SQL Generator** pages.

Installing reporting schemas on the IBM EMM system

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

Complete the following tasks to install reporting schemas:

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 IBM application has prepackaged custom attributes. Complete one of the following tasks depending on whether custom attributes exist:
 - To install reporting schemas that include custom attributes, select **Custom**. The sample reports for Campaign are configured to use custom attributes. Therefore, if you are installing the Campaign report package and you want the sample reports to function correctly, you must select **Custom**.
 - To install reporting schemas that do not include custom attributes, except eMessage, select **Base**. For eMessage, always select **Custom**.
- The installer places the reporting schema in the file system and registers the schema with Marketing Platform.
3. Complete the following tasks to verify that the reporting schemas are registered in Marketing Platform:
 - a. Log in to the IBM EMM system 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 do not exist, the report package has not been registered, and you must register the reports package manually. Complete the following tasks to register the configuration properties manually:

- a. Open the **import_all** script from the tools directory under your reports package installation.

The script is in the tools directory under your reports package installation.
- b. Set the value of the **MANAGER_TOOLS_BIN_DIR** variable to the path of the tools/bin directory under your Marketing Platform installation.
- c. Run the **import_all.bat** or the **import_all.sh** script.

The script starts the Marketing 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 IBM EMM for which you want to enable reporting. The IBM EMM Reports SQL Generator tool must be able to connect to the IBM EMM application databases to generate SQL scripts that create reporting tables. The 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 without a data source connection.

When you configure JDBC data sources, use the default JNDI name that is listed in the following table:

Table 3. Default JNDI names

IBM application	Default JNDI name
Campaign	campaignPartition1DS If there are multiple partitions, create a data source for each partition.

Table 3. Default JNDI names (continued)

IBM application	Default JNDI name
Interact	+ campaignPartition1DS for the design-time database InteractRTDS for the runtime database InteractLearningDS for the learning tables

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.

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

Chapter 4. Install and test IBM Cognos BI

If your license agreement with IBM grants you an IBM Cognos BI license, you can download the IBM Cognos BI installation media from the IBM Customer Central website.

IBM Cognos BI applications

IBM Cognos BI is a collection of several applications, servers, and services, that is organized in a multi-tiered architecture.

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

- IBM Cognos BI Server, which provides storage for reports and folders (plus the queries and metadata models), the Content Manager.
- IBM Cognos Connection, a web application that you use to import, configure, and schedule the reports. The application also provides access to the following additional components:
 - Cognos Viewer. Used for displaying reports. Cognos Viewer is the module that displays the reports in your IBM EMM applications.
 - Report Studio. Used for customizing reports and creating new ones.
 - Cognos Administration Used for configuring data sources.
- IBM Cognos Framework Manager, the metadata modeling tool that you use to configure and customize the Cognos data model that supports the IBM Cognos BI reports for your IBM EMM application.
- IBM Cognos Configuration, the configuration tool that you use to configure individual Cognos BI components.

IBM Cognos BI installation options

You can install IBM Cognos BI applications in a distributed environment or you can install all the applications on one computer.

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

The IBM Cognos documentation uses two general categories to describe installations: installing in a distributed environment versus installing all the components on one computer. For best results, do not install all components on one computer unless it is for a proof of concept or is a demonstration environment.

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

IBM Cognos BI web applications and the web server

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

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

If you use the Apache HTTP server, take care to 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 order the most specific alias first (the script alias) and set 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.

IBM Cognos BI and locale

You can install a localized version of the IBM EMM 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 IBM Cognos Configuration, select **Actions > Edit Global Configuration**, and configure the locale for the IBM Cognos BI system. For more information, see the *IBM 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 the 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.

Chapter 5. IBM EMM and Cognos integration

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

Installation checklist: IBM Cognos integration

Integrate IBM Cognos with IBM EMM applications by creating IBM Cognos data sources and configuring the IBM Cognos application firewall. You must also create reporting, configure Cognos reporting properties in Marketing Platform, and configure and test IBM Cognos to use IBM EMM authentication.

The following list provides a high-level overview of how to install and configure the IBM components and reports on the IBM Cognos system:

1. "Obtain the JDBC driver for the Marketing Platform system tables."
2. "Installing the reporting models and integration component on the IBM Cognos system" on page 18.
3. "Creating IBM Cognos data sources for IBM EMM application databases" on page 18.
4. "Setting up email notifications" on page 20.
5. "Configuring IBM Cognos Application Firewall for IBM EMM" on page 20
6. "For eMessage reports, installing stored procedures for delta processing" on page 21.
7. "For eMessage reports, creating stored procedures, staging tables, and indexes" on page 22.
8. "Loading templates for Reports SQL Generator" on page 23.
9. "Generating view or table creation scripts" on page 23
10. "Creating views or materialized views for Campaign or eMessage" on page 25
11. "Creating views or materialized views for Interact" on page 26
12. "Creating and populating reporting tables for Campaign" on page 28
13. "Creating and populating reporting tables for Interact" on page 29
14. "Importing the reports folder in Cognos Connection" on page 29
15. "Configuring and publishing the data model" on page 30.
16. "Enabling internal links in the reports" on page 31.
17. "Verifying data source names and publishing" on page 31.
18. "Configuring Cognos reporting properties in Marketing Platform" on page 32.
19. "Setting report folder permissions" on page 32.
20. "Running and scheduling stored procedures for eMessage" on page 33
21. "Testing your configuration before enabling authentication" on page 48.
22. "Configure IBM Cognos to use IBM EMM authentication" on page 49.
23. "Testing your configuration with authentication configured" on page 52.

Obtain the JDBC driver for the Marketing Platform system tables

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

Obtain the JDBC drivers and any required associated files that you used to configure the JDBC data source for the Marketing Platform system tables when you set up the IBM EMM system. You must also configure Cognos to use IBM EMM authentication later.

Copy the JDBC driver to the computer where the Cognos Content Manager is installed, to the `webapps\p2pd\WEB-INF\AAA\lib` directory under your Cognos installation.

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

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

Important: If you are installing eMessage reports pack on IBM DB, make sure that you set the following value before you begin applying the eMessage Reports:

db2set DB2_COMPATIBILITY_VECTOR=ORA

Complete the following steps to install the reports pack:

1. On the server where Cognos Content Manager is installed, place the following IBM EMM installers in a single directory:
 - IBM EMM master installer
 - Marketing Platform
 - The reports pack installer or installers for the products for which you want to implement reporting
2. Run the IBM EMM master installer, and select Marketing Platform and the Reports packages you want to install.
3. Following the prompts, enter the connection information for the Marketing Platform system table database.
4. When the Marketing Platform installer launches and the **Platform Installation Components** window appears, select the **Reports for IBM Cognos 10 BI** option and clear the other options
5. When the Marketing Platform installer prompts for the path to the JDBC driver, enter the fully qualified path for the JDBC driver you copied to the Cognos system.
6. When the Marketing 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 actual file structure of your IBM Cognos system.
7. When the report pack installer or installers displays installation options, select **Product Reports Package**, 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 IBM Cognos data sources for IBM EMM application databases

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

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

Table 4. Cognos data sources

IBM EMM application	Cognos data source names
Campaign	CampaignDS
eMessage	eMessageTrackDS
Interact	InteractDTDS for the design time database InteractRTDS for the runtime database InteractLearningDS for the learning database InteractETLDS for the ETL database
Marketing Operations	MarketingOperationsDS
Leads	LeadsDS for the data mart tables
Distributed Marketing	CollaborateDS for the Distributed Marketing database CustomerDS for the customer database CampaignDS for the Campaign database

Use the following guidelines to create Cognos data sources for the IBM application databases:

- Use the Administration section of Cognos Connection.
- Use the default data source names that are shown in the Cognos data sources table. Do so, you avoid having to alter the data model.
- The database type that you select must match that of the IBM application database. Use the Cognos documentation and help topics to determine how to fill database-specific fields.
For Campaign and eMessage, the appropriate database is Campaign.
- Be sure that you identify the IBM EMM 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 IBM EMM 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 Interact is in three databases so you must create separate Cognos data sources for each one.
- If the Campaign system has more than one partition, create separate data sources for each partition. For example, if Campaign and eMessage are configured for multiple partitions, create a separate Campaign and eMessage data source for each partition.
- Verify that you configured each data source correctly by using the **Test Connection** feature.

For more information about configuring Cognos data sources, see *IBM Cognos Administration and Security Guide* and the Cognos online help.

Setting up email notifications

You can configure IBM Cognos to send IBM EMM reports as email attachments. This step is optional. When an IBM Cognos report is displayed in the IBM EMM interface, the Cognos Viewer toolbar in the window includes an option for sending the report as an attachment in an email.

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

Complete the following tasks to set up email notifications:

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:
 - host:port
 - IPAddress:port

For example, 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 IBM EMM

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 IBM EMM, you must specify the IBM EMM system as a valid domain or host.

Complete the following tasks to configure IBM Cognos Application Firewall for IBM EMM

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, Marketing Platform is running. For example:
serverXYZ.mycompany.com:7001

Important: If you have a distributed IBM EMM environment, you must complete the preceding step for every computer on which an IBM EMM product that provides Cognos reports is installed. For example, Marketing Platform, Campaign, and Marketing Operations provide reports.

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

For eMessage reports, installing stored procedures for delta processing

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

For more information about schema changes, see *IBM eMessage System Tables and Data Dictionary*.

The initial setup for the eMessage stored procedures relies on the following new database scripts:

- **acer_indexes_dbname.sql**
- **acer_scripts_dbname.sql**
- **acer_tables_dbname.sql**

The database scripts are in the *Campaign_reportspack_home\cognos10\emessage-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 eMessage 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. You can change the default value before or after you run the SQL scripts for eMessage. For more information about running the SQL scripts, see “For eMessage reports, creating stored procedures, staging tables, and indexes” on page 22

The following example illustrates the changes that you can make to the **acer_tables** script to limit the processing to the previous 30 days, if your database is Oracle:

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.ATTRIBUTENAME='CampaignName' AND
UCC_CONTAINER.CREATED >= sysdate - 91
)

```

Definition of the modified view for the use case described above (Oracle database)

```

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.ATTRIBUTENAME='CampaignName'
AND
UCC_CONTAINER.CREATED >= sysdate - 30
)

```

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

```

UCC_CONTAINER.CREATED >= sysdate - 30

```

For eMessage reports, creating stored procedures, staging tables, and indexes

Before you render eMessage reports, run specific SQL scripts after you install or upgrade reporting templates. The SQL scripts create stored procedures and staging tables.

The *Campaign_reportspack_home\cognos10\emessage-ddl* directory is on the server that hosts the IBM Cognos Content Manager, and contains the following database scripts for Oracle, IBM DB2, and Microsoft SQL Server:

- **acer_indexes_dbname.sql**
- **acer_scripts_dbname.sql**
- **acer_tables_dbname.sql**

Complete the following steps to run the database scripts:

1. Run the following script against the Campaign database:

```
acer_indexes_dbname.sql
```

Make sure that you allow sufficient time for the script to complete. The time that the script requires to complete depends on the amount of data that is stored in the eMessage system tables. For more information, see “For eMessage reports, installing stored procedures for delta processing” on page 21

2. Run the following script against the Campaign database:

```
acer_tables_dbname.sql
```

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

3. Run the following script against the Campaign database:

```
acer_scripts_dbname.sql
```

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

When you use the script, if your database is DB2, change the termination character from ; (semicolon) to ! (exclamation point).

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 eMessage reports.

For more information about running and scheduling the stored procedures, see “Running and scheduling stored procedures for eMessage” on page 33.

Loading templates for Reports SQL Generator

The reports packages for IBM EMM applications that have reporting schemas contain an SQL script that loads template SQL select statements into the `uar_common_sql` table. The Reports SQL Generator uses the templates while generating SQL scripts for creating the reporting views or tables.

Complete the following steps to run the script that loads the templates:

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 Marketing Platform database.

Generating view or table creation scripts

You can create reporting views or tables by using the view or table creation scripts. Reports extract reportable data from reporting views or tables. Use the SQL Generator to create view or table creation scripts.

If you are using eMessage reports, make sure that you have run the SQL scripts against the Campaign database to create the staging tables and batch procedures. For more information, see “For eMessage reports, creating stored procedures, staging tables, and indexes” on page 22.

Complete the following tasks to create view or table creation scripts:

1. Log in to IBM EMM as a user that has the ReportsSystem role.
Proceed to step 2 if you did not use default JNDI names for JDBC data sources.
Proceed to step 3 if you used default JNDI names for JDBC data sources.
2. Complete the following steps if you did not use default JNDI names for JDBC data sources:
 - 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 JDBC connections.
3. Select **Settings > Reports SQL Generator**.
4. In the **Product** field, select the appropriate IBM 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, or tables).

Note:

- You cannot select materialized views when the database type is set to Microsoft SQL Server.
- **For eMessage only.** For Oracle and IBM DB2, eMessage requires materialized views. For SQL Server, eMessage requires views.

For more information about creating views or materialized views for eMessage, see “Creating views or materialized views for Campaign or eMessage” on page 25.

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.

8. Ensure that **Generate Drop Statement** is set to No.
9. 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.
10. Click **Download**.

The SQL Generator creates the script and prompts you to specify the location for the file to be saved. If you selected a single reporting schema from the **Schema** field, the script name matches the name of schema, for example **eMessage_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, your database might display 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.

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

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

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

Note: The 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 IBM EMM application database for creating views or materialized views:

Note:

- The table lists the default names for the data sources and the generated scripts, which you might have changed.
- The Interact reporting schemas reference more than one data source. Generate a separate SQL script for each data source.

Table 5. SQL scripts by data source

Reporting schema	Data source (default names)	Script name (default names)
All Campaign reporting schemas	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.
eMessage Mailing Performance	eMessage tracking tables, which are with the Campaign system tables (campaignPartition1DS)	eMessage_Mailing_Performance.sql
Interact Deployment History, Interact Performance, and Interact Views	Interact design time database (campaignPartition1DS)	Interact.sql
Interact Learning	Interact Learning tables (InteractLearningDS)	Interact_Learning.sql
Interact Run Time	Interact run time database (InteractRTDS)	Interact_Runtime.sql

Creating views or materialized views for Campaign or eMessage

You can use SQL scripts to create views or materialized views for Campaign or eMessage. Reports uses views or materialized views to extract reportable data.

Note: For Oracle and DB2, eMessage requires materialized views. For SQL Server, eMessage requires views.

Complete the following steps to create views or materialized views for Campaign or eMessage:

1. Locate the SQL scripts that you generated and saved previously.
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.

Note: When you run a script that creates materialized views on a DB2 database, your database might return 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 Campaign with a DB2 database.

Proceed to step 4 for eMessage.

3. For Campaign with a DB2 database, increase the DB2 heap size to 10240 or higher. 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 Campaign database.

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

4. Complete the following actions for eMessage:
 - a. In the ReportsPackCampaign\tools directory under your reports pack installation, locate the **uare_lookup_create_DB_type.sql** script, where *DB_type* is the database type that is appropriate for your installation of Campaign.
 - b. Edit the appropriate version of the script to remove the drop table statements and save the script.
 - c. Run the appropriate version of the script against your Campaign system tables database.

Setting up data synchronization

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

For eMessage, 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. See “Running and scheduling stored procedures for eMessage” on page 33 for information about stored procedures.

Creating views or materialized views for Interact

You can use SQL scripts to create views or materialized views for Interact. Reports 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. Refer to the following table as a guideline to change the language setting to UTF-8:

Table 6. Changing language setting in Oracle and DB2

Database type	Guidelines
Oracle	<p>Use the following steps as a guideline if your database is Oracle:</p> <ol style="list-style-type: none">1. Close all open Oracle sessions.2. Open the Registry Editor.3. Browse to HKEY_LOCAL_MACHINE > SOFTWARE > ORACLE and open the folder for your Oracle Home, for example, <code>KEY_OraDb10g_home1</code>.4. Search for the <code>NLS_LANG</code> setting.5. Make sure the last part of the value specified is UTF8. For example: <code>AMERICAN_AMERICA.UTF8</code>.

Table 6. Changing language setting in Oracle and DB2 (continued)

Database type	Guidelines
DB2	<p>Use the following steps as a guideline if your database is DB2:</p> <ol style="list-style-type: none"> 1. From the computer that is running the script and has the DB2 client installed, run a DB2 command window. Then run the following command: db2set 2. In the output, look for the following variable/value pair: DB2CODEPAGE=1208 3. If the DB2CODEPAGE=1208 variable is not set, run the following command: db2 db2set db2codepage=1208 4. Close the session window so the change can take effect.

Complete the following steps to create views or materialized views for Interact:

1. Locate the SQL scripts that you generated and saved previously.
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.

Note: When you run a script that creates materialized views on a DB2 database, your database might display 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. Locate the tools subdirectory in the reports package installation directory and find the **lookup_create** script for your database type. For example, the script for SQL is named **uari_lookup_create_MSSQL.sql**.
4. Run the **lookup_create** script on the Interact design time database. Ensure that the database tool you are using 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>\Cognos10\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.

Setting up data synchronization

Make sure that you use scheduled Extraction, Transformation, and Load (ETL) method, or any custom method to schedule regular data synchronization between the production databases of the IBM EMM application and the new reporting tables.

Creating and populating reporting tables for Campaign

You can use SQL scripts to create and populate reporting tables for Campaign. Reports uses reporting tables to extract reportable data.

Complete the following steps to create and populate reporting tables for Campaign:

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 Campaign with a DB2 database, increase the DB2 heap size to 10240 or higher. 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 Campaign database.

Increasing the heap size ensures that IBM 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. Locate the db/calendar subdirectory in the Marketing Platform installation directory and 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.

Setting up data synchronization

Make sure that you use scheduled Extraction, Transformation, and Load (ETL) method, or any custom method to schedule regular data synchronization between the production databases of the IBM EMM application and the new reporting tables.

Creating and populating reporting tables for Interact

You can use SQL scripts to create and populate reporting tables for Interact. Reports uses reporting tables to extract reportable data.

Complete the following steps to create and populate reporting tables for Interact:

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 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. Locate the `tools` subdirectory in the reports package installation directory and 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.

Setting up data synchronization

Make sure that you use scheduled Extraction, Transformation, and Load (ETL) method, or any custom method to schedule regular data synchronization between the production databases of the IBM EMM application and the new reporting tables.

Importing the reports folder in Cognos Connection

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

Complete the following task to import the compressed file that contains reports to Cognos Connection:

1. Browse to the `Cognosnn` directory under your report package installation on the IBM 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 IBM Cognos installation and it 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 running Cognos Framework Manager that Framework Manager has access to.
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  icon on the toolbar. (**New Import**) on the toolbar.

10. Follow these guidelines as you step through the **New Import Wizard**:

- Select the reports archive that you copied in the previous procedure.
- In the Public folders content list, select **all** the options, including the package itself (the blue folder).
- 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 IBM EMM application users.

Configuring and publishing the data model

When you set up the IBM EMM system tables as a Cognos data source, you might have logged in as a user who is not the owner of the IBM EMM application system tables. In this situation, you must configure and publish the data model.

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

This step is optional for eMessage reports.

Complete the following tasks to configure and publish the data model:

- Locate the `Model` directory under the reports package installation, and copy all the files in the `Model` directory to anywhere under your Cognos Framework Manager installation directory. The files constitute the application-specific data model.
- In Framework Manager, open the project file. The project file has a `.cpf` extension, and the file name includes the IBM EMM application name, for example `ProductNameModel.cpf`.
- Open the data model for the application and complete the following steps:
 - In the Project Viewer, expand **Data Sources**.
 - Click the data source for the application.
 - Update the data source as described in the following table:

Table 7. Data source.

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

- Save and republish the package.

Enabling internal links in the reports

The IBM EMM 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 IBM EMM application reports.

Note: This step is not necessary for eMessage reports.

Complete the following tasks to configure the redirect URL in the Cognos data model for the IBM EMM application reports:

1. From Cognos Framework Manager, browse to the `<productName>Model` subdirectory you copied into the Framework Manager directory structure and 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 IBM EMM system, leaving the rest of the URL intact. By convention, the host name includes the domain name.

For example, for Campaign:

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

For example, for Marketing Operations:

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

5. Save the model and publish the package:
 - 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

When you publish the model from Framework Manager to the Cognos content store, 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. 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.

Complete the following tasks to change the data source names in the model:

1. In Cognos Connection, determine the names of the data sources you created.
2. In Framework Manager, select the **Open a Project** option.
3. Browse to the `<productName>Model` subdirectory you copied into the Framework Manager directory structure and 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.
 - a. If they match, you are finished with this procedure.

- b. If they do not match, select the data source instance and edit the name in the **Properties** section. Save your changes.
5. Publish the package to the Cognos content store

Configuring Cognos reporting properties in Marketing Platform

There are several sets of properties for configuring reporting in IBM EMM. Some properties specify parameter values for the reporting components in Marketing Platform, and some properties specify URLs and other parameters for the IBM Cognos system. The properties that specify parameter values are specified when the view or table creation scripts are generated. You must specify properties that specify URLs and other parameters for the IBM Cognos system.

Complete the following tasks to configure properties that specify URLs and other parameters for the IBM Cognos system:

1. Log in to IBM EMM 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 IBM 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 (specified in the **Domain** property). For example:
http://MyCognosServer.xyzCompany.com/cognos10/cgi-bin/cognos.cgi
You can find this URL in the Cognos Configuration utility under **Local Configuration > Environment**.
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 (specified in the **Domain** property). For example:
http://MyCognosServer.xyzCompany.com:9300/p2pd/servlet/dispatch
You can find this URL in the Cognos Configuration utility under **Local Configuration > Environment**.
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 IBM users can run the reports from the IBM EMM 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 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 & 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.

Running and scheduling stored procedures for eMessage

eMessage reports uses 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 8. Stored procedures for eMessage

Stored procedure	Task
sp_runid	This stored procedure creates a unique run identifier. The list of the run IDs is stored in the UARE_Runid table.
sp_update_ucc_tables_stats	This stored procedure updates statistics for the ucc_tables. You can run this script before the sp_populate_* scripts.
sp_populate_mailing_contacts	This stored procedure processes the mailing contact data that is received since the previous run of stored procedures.
sp_populate_mailing_responses	This stored procedure processes the mailing response data that is received since the previous run of stored procedures.

Table 8. Stored procedures for eMessage (continued)

Stored procedure	Task
sp_populate_sms_contacts	If the SMS feature is enabled, this stored procedure 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, this stored procedure processes the SMS response data that is received since the previous run of stored procedures.
sp_get_delta_mailing_contacts	This stored procedure is internally called by sp_populate_mailing_contacts procedure, and is responsible to get the mailing contacts that are sent since the previous run of the stored procedures.
sp_generate_mailing_contacts	This stored procedure is internally called by the sp_populate_mailing_contacts procedure, and is responsible to get mailing and link level counts on contacted customers for the mailings that are run since the previous run of the stored procedures.
sp_get_delta_mailing_responses	This stored procedure is internally called by sp_populate_mailing_responses procedure, and is responsible to get the responses that are received since the previous run of the stored procedures.
sp_generate_mailing_responses	This stored procedure is internally called by sp_populate_mailing_responses procedure, and is responsible to get mailing and link level responses since the previous run of the stored procedures.
sp_get_delta_sms_contacts	This stored procedure is internally called by sp_populate_sms_contacts procedure, and is responsible to get SMS since the previous run of the stored procedures.
sp_generate_sms_contacts	This stored procedure is internally called by sp_populate_sms_contacts procedure, and is responsible to get mailing and link level counts on contacted customers since the previous run of the stored procedures.
sp_get_delta_sms_responses	This stored procedure is internally called by sp_populate_sms_responses procedure, and is responsible to get SMS responses since the previous run of the stored procedures.
sp_generate_sms_responses	This stored procedure is internally called by sp_populate_sms_responses procedure, and is responsible to get mailing and link level SMS responses since the previous run of the stored procedures.
sp_populate_mobile_responses	This stored procedure processes the mobile response data that is received since the previous run of stored procedures.

Table 8. Stored procedures for eMessage (continued)

Stored procedure	Task
sp_get_delta_mobile_responses	This stored procedure is internally called by sp_populate_mobile_responses procedure, and is responsible to get the responses that are received since the previous run of the stored procedures.
sp_generate_mobile_responses	This stored procedure is internally called by sp_populate_mobile_responses procedure, and is responsible to get mobile responses since the previous run of the stored procedures.

Guidelines for running stored procedures for eMessage

Use the following guidelines for running stored procedures:

- You must schedule sp_populate_mailing_contacts and sp_populate_mailing_responses to run at least 10 minutes after scheduling sp_runid.
- 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 create the stored procedures for your database by using the scripts that are provided with the installation files.

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

Sample configuration of stored procedures for Oracle

Note the following guidelines when you configure stored procedures for the Oracle database:

- IBM recommends using Oracle Automatic Memory Management (AMM). For more information, go to 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.

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.

Example for creating a run identifier

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:

```
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 have 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 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-Aug-2014 21:10','DD-MON-YYYY HH24:MI' ),
interval => 'sysdate+1');
commit;
END;
/
```

Sample configuration of stored procedures for Microsoft SQL Server

Note the following guidelines when you configure stored procedures for the Microsoft SQL Server database:

- 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.
- Complete the following steps for each job in the SQL Server Agent interface:
 1. Specify the step type as Transact-SQL script (T-SQL).
 2. Select the Campaign database

Example for creating a run identifier

Define the following command:

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

Example for processing email contact data

Define the following command:

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

Schedule the job to run at least 10 minutes after the job that generates the run identifier.

Example for processing email response data

Define the following command:

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

Schedule the job to run at least 10 minutes after the job that generates the run identifier.

Example for processing SMS contact data

Define the following command:

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

Example for processing SMS response data

Define the following command:

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

Example for processing mobile response data

Define the following command:

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

Sample configuration of stored procedures for IBM DB2

Note the following guidelines when you configure stored procedures for the IBM DB2 database:

- 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.

Complete the following steps before you configure stored procedures for IBM DB2:

1. Enable the registry.

Set the **DB2_ATS_ENABLE** registry variable to YES, TRUE, 1, or ON. Restart the DB2 database after you set the variable.

2. Create the SYSTOOLSPACE table space.

Users that 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:

EMESSAGE: Database that contains the eMessage system tables.

USER1: Owner of the EMESSAGE 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**

Example for creating a run identifier

This 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 mailing contact data

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

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

Schedule the job to run at least 10 minutes after the job that generates the run identifier.

Example for processing mailing response data

This 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('Email_Response_Job',null,null,  
null,'00 21 * * *','USER1','SP_POPULATE_MAILING_RESPONSES',null,  
null,null)
```

Schedule the job to run at least 10 minutes after the job that generates the run identifier.

Example for processing SMS contact data

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

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

Schedule the job to run at least 10 minutes after the job that generates the run identifier.

Example for processing SMS response data

This 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)
```

This example shows how to schedule a batch job to process contact 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_MAILING_RESPONSES',null,null,null)
```

Schedule the job to run at least 10 minutes after the job that generates the run identifier.

Example for processing mobile response data

This 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)
```

Stored procedures for the Interact Event Pattern report

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.

Interact Event Pattern report data comes in two steps. First, the Interact ETL process transforms the audiences blob data into ETL database tables. Second, the reports aggregator aggregates the data incrementally for each pattern type in pre-configured parallel execution. It is feature of Interact reports pack.

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

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

Table 9. Stored procedures for the Interact Event Pattern report

Stored procedure	Task
SP_GENERATE_PATTERN_MATCHALL	This stored procedure is internally called by the SP_POPULATE_PATTERN_MATCHALL procedure, and is responsible to get the data for Match All patterns that are executed since the previous run of the stored procedures.
SP_GENERATE_PATTERN_COUNTER	This stored procedure is internally called by the SP_POPULATE_PATTERN_COUNTER procedure, and is responsible to get the data for Counter patterns that are executed since the previous run of the stored procedures.

Table 9. Stored procedures for the Interact Event Pattern report (continued)

Stored procedure	Task
SP_GENERATE_PATTERN_WC	This stored procedure is internally called by the SP_POPULATE_PATTERN_WC procedure, and is responsible to get the data for Weighted Counter patterns that are executed since the previous run of the stored procedures.
SP_POPULATE_PATTERN_MATCHALL	This stored procedure processes the Match All Pattern type data that is received since the previous run of stored procedures.
SP_POPULATE_PATTERN_COUNTER	This stored procedure processes the Counter Pattern type data that is received since the previous run of stored procedures.
SP_POPULATE_PATTERN_WC	This stored procedure processes the Weighted Counter Pattern type data that is received since the previous run of stored procedures.
SP_UPDATE_UACI_TABLES_STATS	<p>SP_UPDATE_UACI_TABLES_STATS is called by the trigger first to update the database statistics and then the database jobs are submitted for reports data aggregation.</p> <p>This stored procedure updates the statistics for the following ETL tables:</p> <ul style="list-style-type: none"> • UACI_ETLPATTERNSTATE • UACI_ETLPATTERNSTATEITEM • UACI_ETLPATTERNEVENTINFO
SP_POPULATE_PATTERN_LOCK (p_parallel_degree)	<p>This procedure 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	This procedure is called by the Interact ETL process before the start of aggregation process to check the lock status of the running stored procedures. This procedure is run against the UARI_PATTERN_LOCK table.
SP_REFRESH_PATTERNINFO	<p>For Oracle and DB2 only.</p> <p>This stored procedure 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>As Mviews are not supported for SQL Server, this procedure is not applicable for SQL Server.</p>

Table 9. Stored procedures for the Interact Event Pattern report (continued)

Stored procedure	Task
SP_UARI_REBIND_PACKAGES	<p>For DB2 only.</p> <p>This stored procedure rebinds the packages that are associated with the aggregation trigger and procedures. This procedure is called from the trigger after the SP_UPDATE_UACI_TABLES_STATS procedure call.</p>

Table 10. Database sequence

Stored procedure	Task
SQ_UARI_RUN	<p>For Oracle and DB2: This sequence creates a unique run identifier. The list of the run IDs is stored in the UARI_RUNS table.</p>

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

Table 11. Database trigger

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

Enabling the stored procedures for the Interact Event Pattern report

The Interact Event Pattern report uses the delta refresh process for data aggregation process so that reports can render faster.

Apart from the steps followed to enable reports, you must complete the following steps to enable the Interact Event Pattern report:

1. Browse to the `<Interact_ReportPack_Installer_Home>\Cognos10\interact-ddl\<DB Type>\` folder.
2. For DB2, set the following parameters:
 - **db2set DB2_COMPATIBILITY_VECTOR=ORA**
 - **db2set DB2_ATS_ENABLE=YES**

You can verify the execution by using the following command, if the database is active: `db2 list active databases`.

You can use the following solution to activate the DB2, explicitly.

- a. Stop the application running on this instance by running command: `db2 force application all`.
- b. Stop the DB2 by running the command: `db2stop force`.
- c. Start the database by running the command: `db2start`.
- d. Issue below command to activate the database explicitly : `db2 activate db <dbname>`.

You should see this message: DB20000I The ACTIVATE DATABASE command completed successfully.

- e. Verify that the database is activated by issuing command: db2 list active databases.

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/
```

This procedure must be followed whenever the instance is restarted.

ATS depends on the table space to store historical data and configuration information. To check whether the table space is defined in the database or to create the table space, see <http://www.ibm.com/developerworks/data/library/techarticle/dm-0809see/>.

To execute the scheduled job from Task Scheduler, the database must be active. Refer to the developer works article at <http://www.ibm.com/developerworks/data/library/techarticle/dm-0809see/>.

The ADMIN_TASK_STATUS is an administrative view that is created when the ADMIN_TASK_ADD procedure is called first time. These views must exist in the database. If the views are missing, create the views with the help of database administrator.

You must have access privilege on the ADMIN_TASK_STATUS administrative view.

For more information, see http://www-01.ibm.com/support/knowledgecenter/api/content/SSEPGG_9.7.0/com.ibm.db2.luw.admin.gui.doc/doc/t0054396.html and <http://www.ibm.com/developerworks/data/library/techarticle/dm-0809see/>.

3. Run the following scripts in a sequence on the ETL database:
 - a. **acir_tables_<DB Type>.sql**
 - b. **acir_scripts_<DB Type>.sql**

Note: You must run the **acir_tables_<DB Type>.sql** scripts if it has not been run earlier.

For SQL Server, run the **acir_jobs_sqlserver.sql** script. The script creates database jobs for degree 2. To change the degree, see "For Interact Event Pattern report, changing the degree of parallel execution" on page 45.

Note: Make sure that the SQL Server Agent service must be running.

4. Before the ETL process starts, run the following command on the ETL database to create parallel batch degree records in the UARI_PATTERN_LOCK table:
 - For Oracle, run **execute SP_POPULATE_PATTERN_LOCK(2)**, where degree is 2.
 - For DB2, run **call SP_POPULATE_PATTERN_LOCK(2)**, where degree is 2.
 - For SQL Server, run **EXEC [dbo].[SP_POPULATE_PATTERN_LOCK] @p_parallel_degree = 2**, where degree is 2.

After you run the script, the UARI_PATTERN_LOCK table is populated with the stored procedures with the degree value. This 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 higher value, hardware resource requirements also increase proportionally. The number of procedures that are run for data aggregation depend on the degree value.

At the first run, ETL does not insert any values against the respective PatternID in the UARI_DELTA_PATTERNS table, as all the patterns are new or delta. The

reports aggregation process collects all the PatternIDs from the ETL tables inserts them in 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 JobIDs. The JobID contains the flag 'Y' either in case of running or failed scenarios. If there are any failed jobs, the procedure sets the flag to 'N'. For running jobs, the value remains 'Y'. The ETL process always checks the status of the reports aggregation by checking status of the submitted jobs. If the ETL finds reports aggregation running, the ETL does not start its execution. The ETL starts after again as per 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 the number of JobIDs with the value 'Y' is 0. If the number of JobIDs with value 'Y' is greater than 0, then the ETL process is skipped and it runs at the next scheduled interval. For more information about the ETL process, see the *IBM 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 Pattern ID is marked with 'U'. For deleted data, the PatternID is marked with 'D'. Newly added Patterns are identified by reports aggregation code and then inserted into UARI_DELTA_PATTERNS with the flag 'P'. The ETL always updates the flags in UARI_DELTA_PATTERNS table for the existing PatternID's and newly added patternID's are processed and inserted into UARI_DELTA_PATTERNS table by reports aggregation process.

The aggregation process is done for only the PatternIDs marked with the 'U' or 'D' flag.

When The ETL finishes running 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: It is possible that the first report aggregation takes longer time than subsequent aggregation. It is because the system is trying to aggregates all data for the first time.

Note: At any time if you want to turn off the aggregation process, while the ETL feature is, you can disable the trigger so that reports aggregation is not called.

Run following command in the respective database to disable Trigger.

For DB2 refer to <http://www.ibm.com/developerworks/data/library/techarticle/0211swart/0211swart.html>.

For Oracle: alter trigger TR_AGGREGATE_DELTA_PATTERNS disable;

For SQL Server: Disable Trigger TR_AGGREGATE_DELTA_PATTERNS on uaci_etlpatternstaterun

To turn on the reports aggregation: alter trigger TR_AGGREGATE_DELTA_PATTERNS enable;

For SQL Server: Enable Trigger TR_AGGREGATE_DELTA_PATTERNS on uaci_etlpatternstaterun

For Interact Event Pattern report, changing the degree of parallel execution

This 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 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.

Complete the following steps to change the degree value with which the aggregation process can run in parallel:

Depending on your database, complete the following steps to configure database jobs for degree 3:

Table 12. Commands to run to change the degree of parallel execution

Database type	Command to run against the ETL database
Oracle	To configure the degree value as 3, run the execute SP_POPULATE_PATTERN_LOCK(3) command against the Interact ETL database.
IBM DB2	To configure the degree value as 3, run the call SP_POPULATE_PATTERN_LOCK(3) command against the Interact ETL database.

Table 12. Commands to run to change the degree of parallel execution (continued)

Database type	Command to run against the ETL database
SQLServer	<p>After you run the default acir_jobs_sqlserver.sql script, database jobs for degree value 1 and 2 are created. The patterns with degree values 1 and 2 are aggregated in the UARI_PROCESSED_PATTERNS table.</p> <p>To modify the degree to 3 for the Match All Pattern, copy the sample code for degree 1 and complete the following steps:</p> <ol style="list-style-type: none"> 1. Create the @job_name to JOB_MA_3. 2. Create the @p_parallel_degree to value 3. <p>Run the following command against the Interact ETL database:</p> <p>Command for Match All Pattern with degree 3</p> <pre> 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 </pre> <p>You can create the degree for the Counter Pattern and the Weighted Counter Pattern, and run the commands against the ETL database.</p> <p>To modify the degree to 3 for the Counter Pattern, copy the sample code for degree 1 and complete the following steps:</p> <ol style="list-style-type: none"> 1. Create the @job_name with the name as JOB_C_3. 2. Create the @p_parallel_degree to value 3. <p>To modify the degree to 3 for the Weighted Counter Pattern, copy the sample code for degree 1 and complete the following steps:</p> <ol style="list-style-type: none"> 1. Create the @job_name with the name as JOB_WC_3. 2. Create the @p_parallel_degree to value 3.

How to read the UARI_DELTA_REFRESH_LOG table for the Interact Event Pattern report

UARI_DELTA_REFRESH_LOG table contains the logging information for all the procedures.

When the aggregation is run with degree value 2, you see the following log messages in the table.

How to verify the status of the aggregation process

MESSAGE_LINE:

<pattern> patterns delta refresh completed for parallel degree <degree value>
Aggregation of the patterns with degree value is started.

MESSAGE_LINE:

<pattern> patterns delta refresh completed for parallel degree <degree value>
Aggregation of the patterns with degree value is completed.

Where pattern is the Type of Pattern, Match All, Counter, or Weighted Counter, the degree value is the value with which patterns are processed in parallel.

Example:

```
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
```

How to verify whether the UARI_PATTERNSTATE_INFO table is refreshed

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.
```

How to verify whether the lock flags are reset by the procedure SP_AGGR_RUN_STATUS

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, the degree value is the value with which patterns are processed in parallel.

Example:

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

How to verify rebinding of the packages completed (for DB2 only)

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.
```

How to verify whether the statistics are updated on the ETL tables

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.

How to verify the degree of parallel execution

MESSAGE_LINE:

Pattern aggregation processing Parallel degree is set to <degree value>

--Parallel degree with which report aggregation will run is set to 2.

Example:

Pattern aggregation processing Parallel degree is set to 2.

Testing your configuration before enabling authentication

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

Complete the following tasks to test your configuration before you enable authentication:

1. Verify that IBM EMM is running and that the IBM Cognos BI service is running.
2. Log in to IBM EMM as a user with application access and create some data. (Otherwise the reports have nothing 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 Campaign, select **Public Folders > Campaign > Campaign > Campaign Summary**.

If the report fails, verify that you configured the Cognos data source for the IBM EMM application database correctly. See “Creating IBM Cognos data sources for IBM EMM application databases” on page 18.

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 31.

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

When you specify the URL for the IBM EMM 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 isn't configured correctly. See "Configuring IBM Cognos Application Firewall for IBM EMM" on page 20.

If you cannot view an eMessage report, verify if the eMessage stored procedures have been run recently.

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 31.

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

Configure IBM Cognos to use IBM EMM authentication

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

Before you begin configure IBM Cognos to use IBM EMM authentication, be sure that you know which authentication mode you plan to configure ("authenticated" or "authenticated per user").

Creating the reports system user

You must create a reports system user if you use the authenticated mode for authentication. When you create the reports system user, you can create the user and data source credentials to the user that holds the login information for IBM Cognos BI. You do not need to create the reports system user if you use the authenticated per user mode for authentication.

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

- One set of login credentials for the IBM system: the user name and password are specified for the reports system user (cognos_admin)
- One set of login credentials for IBM Cognos BI: the user name and password are specified as data source credentials for the reports system user

Complete the following tasks to create the reports system user:

1. Log in to IBM EMM as the platform_admin user.
2. Select **Settings > Users**.
3. Create an IBM 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 IBM user you created in step 3.
 - c. Data Source Password: admin
5. Add the Reports System role to the user.
6. If IBM EMM 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 IBM security "change password" challenge and reset the password before you log in to IBM Cognos as this user in a later task.

Configuring Cognos authentication properties in IBM EMM

You must configure Cognos authentication properties in IBM EMM so the IBM EMM applications can communicate with the Cognos applications if the IBM EMM and Cognos applications are installed in different network domains.

Complete the following tasks to configure Cognos authentication properties in IBM EMM:

1. Log in to IBM EMM 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**, as appropriate for your system.
5. **For "authenticated" only.** Verify that the values in the **Authentication user name** and **Authentication datasource name** fields match those of the user and data source you created in the previous task, "Creating the reports system user" on page 49.
6. Set the value of the **Enable form authentication** property.

This setting indicates that IBM EMM security uses form-based authentication in place of cookies. You set this property to True when either of the following is true.

- When the IBM EMM is not installed in the same network domain as the Cognos applications.
- When 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 IBM EMM applications), even if both the IBM EMM applications and the Cognos installation are on the same computer.

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 Cognos and the IBM EMM 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 should install Cognos and IBM EMM in the same network domain.

Note: When the **Enable form authentication** property is set to True, the **Authentication mode** property automatically behaves as though it were set to **authenticated**, and you must complete the step that is required for this mode, described in "Creating the reports system user" on page 49.

7. Save the new settings.
8. **For "authenticatedPeruser" only.** Assign the ReportUser role to the default asm_admin user. You complete this step so that you can test reports: you need a user with access to both the IBM EMM application and report data. The platform_admin user does not have access to the IBM EMM application features.

Configuring IBM Cognos to use IBM EMM Authentication Provider

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

Complete the following tasks to configure IBM Cognos to use the IBM EMM Authentication Provider:

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 IBM 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 IBM EMM Authentication provider is configured correctly:
 - If you set the Cognos authentication mode in the IBM EMM configuration properties to **authenticated**, log in as the `cognos_admin` (report system) user.
 - If you set the authentication mode in the IBM EMM configuration properties to **authenticatedPerUser**, log in as the `asm_admin` user.

If IBM Cognos displays the error "The third-party provider returned an unrecoverable exception," expand the error message. If it states "invalid credentials," you made an error entering your user credentials. Try again. However, if it states "password expired," IBM EMM expired the password. Log in to IBM EMM 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, to determine the problem.

9. When you can successfully log in to Cognos Connection, open Cognos Configuration again.
10. Select **Local Configuration > Security > Authentication > Cognos**.
11. Disable anonymous access to IBM Cognos BI by setting **Allow anonymous access?** to false.
12. Save your changes.

13. Stop and restart the IBM Cognos service.
If the IBM Cognos service cannot communicate successfully with the authentication provider, it cannot start. If the IBM Cognos service fails to start, verify your configuration by retracing the steps in this procedure.
14. **Distributed systems only.** If your IBM Cognos system has backup Content Managers configured for failover support, repeat this procedure on all the servers with Content Manager installed.

At this point, anyone who logs in to an application on the Cognos system must be authenticated by IBM EMM. Additionally, the authentication namespace **Unica** now appears in the IBM Cognos user interface for logon and security administration tasks.

Configuring additional settings for Marketing Platform

Additional configuration is required when IBM Marketing Platform is integrated with an LDAP server, Windows Active Directory (Windows Integrated Login), or with a web access control system such as Tivoli® or SiteMinder.

Complete the following tasks to configure additional settings for Marketing Platform:

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, IBM EMM applications can still access the Unica namespace through the Cognos SDK API (for example, when users view Cognos reports from within IBM EMM applications).
2. If you need authenticated access to the Cognos URL, complete the following tasks:
 - 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 IBM Cognos BI after you configure IBM authentication.

Complete the following tasks to test your configuration of IBM Cognos BI:

1. Verify that IBM EMM is running and that the IBM Cognos service is running.
2. Open Cognos Connection.
3. Browse to the report folders you imported and click the link to a basic report. For example, for Campaign, select **Public Folders > Campaign > Campaign > Campaign Summary**.
If the report fails, verify that you configured the IBM Cognos data source for the IBM application database correctly. See “Creating IBM Cognos data sources for IBM EMM application databases” on page 18.
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 31.
5. Log in to IBM EMM and browse to the **Analysis** page.

When you specify the URL for the IBM 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 IBM Cognos.

If you see error messages about security, it is likely that the IBM Authentication Provider is not configured correctly. See “Configure IBM Cognos to use IBM EMM authentication” on page 49.

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 IBM EMM 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 IBM 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 IBM Application Provider is not configured correctly.

Now reporting works properly and the example reports are in their default state. When you finish configuring the actual data design of your IBM EMM applications - things like campaign codes, custom campaign attributes, response metrics - you have to return to reporting because you may need to customize the reports or reporting schemas.

If you are using Campaign or Interact, see the “Configuring reporting” chapter.

If you are using Marketing Operations, see the “Using Reports” chapter in the *IBM Marketing Operations Administrator’s Guide*.

If you are setting up reporting for eMessage, you are done configuring reporting.

Chapter 6. Configuring reporting

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

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

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

When you install IBM EMM applications, each application registers itself with the Marketing Platform. During that registration process, it 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 then 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 IBM EMM products are installed when the IBM EMM 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 IBM EMM application reports
- Customizable IBM EMM 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 (or tables) in the IBM EMM application database, making that data available to the IBM Cognos reports that are also delivered in IBM EMM Reports Packages.

Immediately after installation, the reports are in their default state and are to be considered example reports. Why? Because many IBM EMM applications have a set of objects, attributes, or metrics that can be added or customized. For example, Campaign allows you to add response types, custom campaign attributes, 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 IBM EMM applications are included in your IBM EMM system.

- For Campaign and 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 IBM EMM applications that do not provide reporting schemas and for eMessage (which provides schemas that cannot be customized), you configure the Cognos IBM reports only.

This section describes the security model, the schemas, the data models, and the reports.

Reporting and security

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

The following access control mechanisms exist:

- Application access control settings. Whether users can run reports from the IBM EMM interface depends on the permissions that are granted by the IBM EMM application access settings. Additionally, for Campaign, eMessage, and Interact, you can grant or deny access to groups of reports based on their folder structure on the IBM Cognos system.
- Marketing 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 Marketing Platform.
- IBM EMM authentication. You can also configure the IBM Cognos BI system to use IBM EMM authentication, thus controlling access to the IBM 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 IBM applications, which are organized into folders. For example, the Interact Reports folder is the folder for Interact, and the reports specifications are in the Interact Reports folder on the IBM Cognos system.

For Campaign, eMessage, and 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 reporting is installed, to make the IBM system aware of the report folders on the IBM Cognos system, you run the **Sync Report Folder Permissions** option on the **Settings** menu in the IBM 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 Campaign partitions. The entry, named **Reports**, appears in the permissions lists between the **Logging** and the **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 anymore.

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.

Using IBM EMM Authentication Provider to secure 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 IBM EMM application database. You can secure the Cognos system by using the IBM EMM Authentication Provider.

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

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

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

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

The following authentication options exist:

- authenticated
- authenticated per user

Authenticated mode

When the authentication mode is set to authenticated, the communications between the IBM EMM 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.

Complete the following tasks to configure a report system user:

1. Create the user and assign to it the **ReportsSystem** role, which grants it access to all reporting functions.
2. Store login credentials for the IBM Cognos system in a user data source.

3. Name it, by convention (which is not required), **cognos_admin**.

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

- Each time that an IBM EMM user attempts to display a report, Marketing 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 and evaluates the credentials of each individual user. The IBM EMM Authentication Provider uses the following method in the authenticated per user mode:

- Each time that an IBM EMM user attempts to display a report, the Marketing 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 IBM EMM users who need to see reports in the IBM EMM 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 IBM EMM system.

Reporting permissions reference

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
Configuration option on the Settings menu (you configure reporting schemas on the Configuration page)	The Platform permission Access to Configuration located under Settings > User Roles & Permissions > Platform
Report SQL Generator and Sync Report Folder Permissions options on the Settings menu	The Report permission report_system , located under Settings > User Roles & Permissions > Report The standard ReportsSystem role has this permission.

User interface item	Access control
Analytics menu	<p>Application access settings that vary by product, as follows:</p> <ul style="list-style-type: none"> For Campaign, eMessage, and Interact, the Administration > Access Analysis Section permission at the campaign partition level of Settings > User Roles & Permissions. For Marketing Operations and Distributed Marketing, the Analysis permissions in the security policies.
Analysis tabs	The Analysis (or Analyze) permissions in the security policies for the individual objects.
Data displayed by the reports	When the authentication mode of the Cognos system is "authenticated per user," users must have either the ReportsSystem or ReportsUser role so that they can see the data in a report.

Reporting schemas

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

For Campaign and Interact, you must customize the schema templates, so 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 eMessage reporting schemas. However, you must generate the SQL script that builds the reporting views or tables and then run the scripts on the eMessage databases.

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

Reporting SQL Generator

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

During installation and configuration, the system implementers configured data source properties that identify the IBM EMM application databases. The Reporting 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 Reporting SQL Generator cannot validate scripts that create reporting tables.

Reporting deployment options

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

When you run the Report SQL Generator tool, you specify whether you want the script to create views, materialized views, or tables. 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 reporting feature 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 eMessage, you must use views.

eMessage and Oracle

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

eMessage and IBM DB2

If your installation includes eMessage and your database is IBM 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 eMessage, the materialized views are automatically refreshed when you run the eMessage delta refresh stored procedures. For more information, see "Running and scheduling stored procedures for eMessage" on page 33.

Control groups and target groups in the reports

The example IBM Cognos BI reports from 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 new reports, determine whether you want to include response information from both the 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, you create only the target group column in the reporting schema for that item.

Audience levels and the 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, that is delivered with Campaign. This means that performance and response history reports reference the Customer audience level by default.

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

Audience keys in reporting schemas

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

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 use find and replace to replace each of the truncated audience key references with the complete string.

Partitions and reporting schemas

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

If Campaign has more than one partition, the system implementer configures a reports package on the Cognos system for each partition. However, after the data design of your system is implemented, you must revisit the reporting views or tables 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 build reports in IBM Cognos 10 BI Report Studio, you build them from query subjects and items that are described in the data model.

The data model for an IBM EMM application references the reporting views in the IBM EMM application database, making that data available to the Cognos 10 reports that are also delivered in the IBM EMM Reports Package.

When you configure the reporting views to include additional attributes, metrics, response types, you synchronize the Cognos reporting model with the reporting views and 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 IBM EMM reports.

The IBM Cognos 10 model from a IBM EMM Reports Package presents the IBM EMM application metadata in the following three categories (folders).

- **Import View.** This level represents the data from the reporting schemas in the IBM EMM application database. You use this view to synchronize the data model with the IBM EMM database views, materialized views, or reporting tables through the data source connection.
- **Model View.** This is the working area where you perform basic metadata transformations. You set up relationships between object entities that are represented by query subjects, creating building blocks that can be used in the Business View.
- **Business View.** This level organizes query subjects in terms of business objects to simplify report building. This is the information that you see when you open an IBM EMM application report in Report Studio.

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

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

Report Studio reports

Each IBM EMM reports package contains several reports for the application that is built with the IBM Cognos Report Studio. When the application is installed, you can select and run an example report in the IBM EMM suite common user interface.

Run an example report from the following locations in the IBM EMM suite common user interface:

- The multiple object reports are accessible from the **Analytics** menu.
- The single object reports appear on the Analysis tab of items like campaigns or offers.
- Additionally, for Campaign, Marketing Operations, eMessage, and Interact, the reports packages include pre-configured portlets (reports) for use with IBM EMM dashboards. See the *IBM Marketing Platform Administrator's Guide* for information on how to work with dashboards.

Folders, subfolders, and access settings

Each IBM EMM application's reports 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 IBM EMM application's reports archive in Cognos Connection to the Public Folders area.

The folders and subfolders are also used by the security access control model for Campaign, Interact, and eMessage, which includes security settings for the reports by folder. That is, the security policies for those applications grant users access to all the reports in a folder. The access control model for Marketing Operations does not provide this level of access. In Marketing Operations, you either have access to all the reports or none of the reports.

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

- For Campaign, eMessage, and Interact, select **Settings > Configuration** and then edit the values of the reporting folder properties under **Campaign > partitions > [partition name] > reports** so they match the actual names of the folders.
- For Marketing Operations, 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 across the reports for all the IBM EMM applications.

This style sheet establishes common reporting styles across the reports for all the IBM EMM applications. For information about styles, see the appendix Appendix B, "Formatting the Cognos reports," on page 133. This appendix provides the following information for the various kinds of 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 by the style sheet.

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

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*.

Customizing reporting schemas

You can customize your reports to include custom data to display in your reports.

Complete the steps in the procedures in the following section as appropriate for the reporting goals of your system:

- “Reporting schema”
- “Adding contact or response metrics”
- “Adding custom attributes” on page 65
- “Adding response types” on page 66
- “Adding contact status codes” on page 66
- “Specifying the calendar time periods for performance reports” on page 66
- “Configuring audience level for performance reports and response history” on page 67

Reporting schema

The reporting schema that you must modify depends on the reports you plan to customize. The appendix named “Reports and Reporting Schemas by Product” provides tables that show which reporting schemas support the sample reports provided in the report packs.

Determine which reports you plan to customize and then consult the appropriate report to reporting schema map.

- Appendix D, “Reports and reporting schemas by product,” on page 153
- “Interact Reports and Reporting Schemas” on page 156
- “eMessage Reports and Reporting Schemas” on page 155

Note: You cannot customize the eMessage reporting schemas, but you can modify and create new eMessage reports.

Adding contact or response metrics

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

Before you begin, determine the following information:

- Which reporting schema supports the report you want to add the metric to. See the appendix Appendix D, “Reports and reporting schemas by product,” on page 153 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 61.
- How the metric is calculated. For example, it could be summed, averaged, or counted.

Complete the following steps to add contact or response metrics:

1. Select **Settings > Configuration** and expand **Reports > Schemas > Campaign > *name of the appropriate reporting schema***.
2. Expand the **Columns** node and select either **Contact Metric** or **Response Metric**.
3. In the form on the right, click **New category name** and enter the name of the contact or response metric.
4. For **Column Name**, enter the name to use in the reporting schema for the attribute. Use all uppercase letters with no spaces.
5. For **Function**, specify how the metric is calculated or determined.
6. For **Input Column Name**, enter the name of the column for this attribute from the appropriate table in the IBM application database. Input column names are case-sensitive.
7. For **Control Treatment Flag**, enter the number 0 (zero) to indicate that this column in the reporting schema represents the target group.
8. Click **Save Changes**.
9. Repeat this procedure to add the control group column to the reporting schema, if necessary. This time, enter the number 1 (one) 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.

Before you begin, 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

Complete the following steps to add custom attributes:

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

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

7. Click **Save Changes**.

Adding response types

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

Before you begin, determine the following 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 61.
- The response type code from the UA_UsrResponseType table.

Complete the following steps to add response types:

1. Select **Settings > Configuration** and expand **Reports > Schemas > Campaign > Campaign Offer Response Breakout > Columns > Response Type**.
2. In the form on the right, click **New category name** and enter the name of the response type.
3. For **Column Name**, enter the name to use in the reporting schema for the response type.
4. For **Response Type Code**, enter the three letter code for this response type. Response type codes are case-sensitive.
5. For **Control Treatment Flag**, enter the number 0 (zero) to indicate that this column in the reporting schema represents the target group.
6. Click **Save Changes**.
7. Repeat this procedure to add the control group column to the reporting schema, if necessary. This time, enter the number 1 (one) 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.

Complete the following steps to add the contact status codes:

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

Specifying the calendar time periods for performance reports

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

Configuring audience level for performance reports and response history

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

Before you begin, 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 61.

Then, complete the following procedures for each of the appropriate reporting schemas:

- For Campaign: Offer Performance, Campaign Performance, Campaign Offer Response Breakout, Campaign Offer Contact Status Breakout
 - For Interact: Interact Performance
1. Select **Settings > Configuration** and expand **Reports > Schemas > *ProductName* > *SchemaName***.
 2. In the form on the right, click **Edit Settings**.
 3. In the **Input Tables** section, identify the system tables for the audience level and the audience key.
- Note:** Remember to use commas to separate column names for a multikey audience key. For more information, see “Audience keys in reporting schemas” on page 61.
4. Click **Save Changes**.

Reporting schemas for extra audience levels or partitions

You can create reporting schemas for extra audience levels or partitions by using following information.

You are likely to create additional reporting schemas for the following reasons:

- You want to report on more than one audience level. Perhaps you plan to 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 table.
- You are configuring 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 Campaign: Campaign Offer Response Breakout, Offer Performance, Campaign Performance, Offer Contact Status Breakout, and Campaign Custom Attributes
 - For Interact: Interact Performance
- The names of the following tables for this audience level.
 - For Campaign: contact history, detailed contact history, and response history tables
 - For Interact: detailed contact history and response history tables
- The name of the audience key column (or columns) for this audience level
- Pick a short 2 or 3 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.

Complete the steps in the following procedures as appropriate for your reporting goals.

Creating a Campaign Offer Response Breakout schema

You can create reporting schemas for extra audience levels or partitions if you want to configure reporting for multiple audience levels or multiple partitions.

1. Select **Settings > Configuration** and expand **Reports > Schemas > Campaign > Campaign Offer Response Breakout Star Schema**.
2. Click **New category name** and enter a descriptive name for the reporting schema that indicates the audience level. For example, Campaign Offer Response Household.
3. In the **Input Tables** section, enter the name of the response history table for this audience level, and then click **Save Changes**.
A new node appears in the Configuration tree for the schema. You cannot change the name of the node.
4. Under the new node, select **Columns > Response Type** and then configure the response types for this audience level.
For help with this step, see the procedure “Adding response types” on page 66.
5. Under the new node, select **SQL Configuration > Campaign Response Breakout** and click **Edit Settings**.
6. In the form that appears, 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 116.
7. Click **Save Changes**.
8. Under the new node, select **SQL Configuration > Campaign Offer Response Breakout** and click **Edit Settings**.
9. 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_.
10. Click **Save Changes**.

Creating a Campaign Offer Contact Status Breakout schema

You can create reporting schemas for extra audience levels or partitions if you want to configure reporting for multiple audience levels or multiple partitions.

1. Select **Settings > Configuration** and expand **Reports > Schemas > Campaign > Campaign Offer Response Breakout Star Schema**.
2. 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.
3. In the **Input Tables** section, enter the name of the response history table for this audience level, and then click **Save Changes**.
A new node appears in the Configuration tree for the schema. You cannot change the name of the node.
4. Under the new node, select **Columns > Contact Status Code** and then configure the contact status codes for this audience level.
For help with this step, see the procedure “Adding contact status codes” on page 66.
5. Under the new node, select **SQL Configuration > Campaign Contact Status Contact History** and click **Edit Settings**.
6. In the form that appears, 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_.
7. Click **Save Changes**.
8. Under the new node, select **SQL Configuration > Campaign Offer Contact Status Contact** and click **Edit Settings**.
9. 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_.
10. Click **Save Changes**.

Creating an Offer Performance schema

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

Complete the following steps to create an Offer Performance schema:

1. Select **Settings > Configuration** and expand **Reports > Schemas > Campaign > Offer Performance Star Schema**.
2. In the **New category name**, enter a descriptive name for the reporting schema that indicates the audience level. For example, Offer Performance Household.
3. In the **Input Tables** section, identify the tables that support the audience level and the audience key.
4. In the **Schema Settings** section, select the **Over Time Variations** options that apply and then 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 in the Configuration tree, select **Columns > Contact Metric** and then configure the contact metrics for this audience level.
For help with this step, see the procedure “Adding contact or response metrics” on page 64.
6. Under the new node, select **Columns > Response Metric** and then configure the response metrics for this audience level.

For help with this step, see the procedure “Adding contact or response metrics” on page 64.

7. Under the new node, expand **SQL Configuration**, select the first item (Offer Contact History) and click **Edit Settings**.
8. In the form that appears, 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_.
9. Click **Save Changes**.
10. Repeat steps 7 through 9 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.

Complete the following steps to create a Campaign Performance schema:

1. Select **Settings > Configuration** and expand **Reports > Schemas > Campaign > Campaign Performance Star Schema**.
2. Click **New category name** and enter a descriptive name for the reporting schema that indicates the audience level. For example, Campaign Performance Household.

3. In the **Input Tables** section, identify the tables that support the audience level and the audience key.
4. In the **Schema Settings** section, select all the **Over Time Variations** options that apply and then 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 Metric** and then configure the contact metrics for this audience level.

For help with this step, see the procedure “Adding contact or response metrics” on page 64.

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

For help with this step, see the procedure “Adding contact or response metrics” on page 64.

7. Under the new node, select **SQL Configuration** and select the first item, Campaign Contact History.
8. In the form that appears, 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_.
9. Click **Save Changes**.
10. Repeat steps 8 and 9 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.

Complete the following steps to create a Campaign Custom Attributes schema.

1. Select **Settings > Configuration** and expand **Reports > Schemas > Campaign > Campaign Custom Attributes**.
2. In the **New category name**, enter a descriptive name for the reporting schema that indicates the partition. For example, Campaign Custom Attributes Partition 2.
3. Under the new node in the Configuration tree, expand **Columns** and then 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 the procedure “Adding custom attributes” on page 65.
4. Optional: You can edit the view or table names. Under the new node, expand **SQL Configuration** and select each item and examine the view or table names. If you decide to change the names, make sure that names can be no longer than 18 characters, must be in all uppercase letters, and can include no spaces.
5. Click **Save Changes**.

Creating an Interact Performance schema

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

Complete the following steps to create an Interact Performance schema

1. Select **Settings > Configuration** and expand **Reports > Schemas > Interact > Interact Performance Star Schema**.
2. In the **New category name** field, enter a descriptive name for the reporting schema that indicates the audience level. For example, Interact Performance Household.
3. In the **Input Tables** section, identify the tables that support the audience level and the audience key.
4. In the **Schema Settings** section, select all the **Over Time Variations** options that apply and then 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 **SQL Configuration** and select the first item, Interactive Channel Offer Contact History Summary.
6. In the form that appears, 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_.
7. Click **Save Changes**.
8. Repeat steps 6 and 7 for each item that is listed under the **SQL Configuration** section of the new reporting schema.

Customizing the IBM Cognos Model

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

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

The way you update the Cognos model depends on the changes you made in the IBM EMM reporting views or tables.

- 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 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.

This section provides examples that you can use as guidelines for adding your customizations to the Cognos model. For more information, see the *IBM Cognos BI Framework Manager User Guide* and the Framework Manager online help.

Adding attributes to an existing view or table in a data model

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

The following example procedure shows how to add an item to an existing view in the IBM Cognos model. For this example, assume that you need to add a custom offer attribute to the Campaign database and then include it in a report. You have already 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.
- Ran the generated script in the Campaign database to update the Offer Custom Attribute reporting view, UARC_OFFEREXTATTR.

Now, to add the new offer attribute to the Cognos Campaign model, you would complete the following steps.

1. Make a backup of the Campaign model. That is, browse to the Cognos/models directory and copy the CampaignModel subdirectory. In a distributed Cognos environment, the models directory is in a location 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 the columns currently present in the UARC_OFFEREXTATTR reporting view in the 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**. Then, 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 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** without your having to add it manually.

8. Save the model.
9. Publish the package to the Cognos content store.

Now you can add the attribute to the appropriate report by using IBM Cognos Report Studio.

Adding new views to IBM Cognos data model

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

The following example procedure shows how to add new views or tables to the IBM Cognos data model. For this example, assume that you changed the Over Time Variations for the Campaign Performance reporting schema and now need to import the change in the Cognos model. You have already 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
- Ran the generated script in the Campaign database to create the additional reporting views.

Now, to add the new reporting views to the Cognos Campaign data model, you would complete the following steps.

1. Make a backup of the Campaign model.
That is, browse to the Cognos/models directory and copy the CampaignModel subdirectory. In a distributed Cognos environment, the models directory is in a location on the system running the Content Manager.
2. In Framework Manager, open the Campaign project and expand the **Import View** node
3. Select the **Campaign Performance** folder and run the **Metadata Wizard** (accessed through the right-mouse menu).
4. Use 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. Additionally, consult the *Cognos BI Framework Manager User Guide* for the following information:
 - 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 new report with the objects from the Campaign Performance by Quarter schema that you created.

Customizing or creating Cognos reports for IBM EMM applications

You can customize the example reports so they include your custom data and you can create new reports. 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 IBM EMM applications include short descriptions of all the reports in the IBM EMM reports package for that product.
- The IBM EMM reports packages provide reference documentation that describes the specifications of each of the reports 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, in a location similar to `<ReportsPackInstallationDirectory>/cognos10/<Product>Docs`.

For example, the IBM EMM Campaign reports package documentation might be found in the Reports Pack installation directory under `/IBM/EMM/ReportsPackCampaign/cognos10/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 IBM Cognos BI reports, see the IBM Cognos BI documentation, especially the *IBM Cognos BI Report Studio Professional Authoring User Guide*.
- For information about the report styles to use, see the appendix Appendix B, "Formatting the Cognos reports," on page 133.
- For information about customizing Marketing Operations reports, see the *Marketing Operations Administration Guide*.

Guidelines for creating new Campaign reports

The IBM EMM reporting package for Campaign includes example reports. Use the Report Studio to create a new report, or modify an existing report.

Use the following guidelines to create new reports for Campaign in IBM Cognos Report Studio:

- Examine the reference documentation that describes the metadata model and the specifications of the example reports from the Campaign report package. It is in the `CampaignReportPack\cognosN\docs` subdirectory in the report package installation directory, where *N* is the version number of your Cognos installation.
- Using Report Studio, create a new report, or copy and modify an existing report. For details, see the Cognos Report Studio documentation.
- If you are modifying a copy of an existing 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 in an appropriate way, 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 an example report, consult the reference documentation from the report 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 new report into the appropriate folder under **Public Folders** to make it visible in Campaign.
 - If it must appear on the **Analysis** tab, save it in the **Campaign - Object Specific Reports** folder.
 - If it must appear on the Analysis page, save it in the **Campaign** folder.
 - If you plan to add it to a dashboard portlet, save it in the **Unica Dashboards\Campaign** folder.

Configuring the Interaction Point Performance dashboard portlet

Interact has one IBM 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 IBM Cognos reports, you need IBM Cognos report authoring skills. For detailed documentation about creating and editing IBM Cognos BI reports, see the IBM Cognos BI documentation, especially *IBM Cognos BI Report Studio Professional Authoring User Guide* for the version of Cognos you are using.

For information about the queries and data items in the Interaction Point Performance report, see the reference documentation that is provided in the Interact report package.

If you need 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 new, custom dashboard reports

The IBM EMM reporting packages for Campaign, Interact, eMessage, and Marketing Operations include pre-configured reports (portlet) that are specially formatted for use with IBM EMM dashboards.

See the *IBM Marketing Platform Administrator's Guide* for details on working with dashboards and by using these pre-configured portlets.

If you want to create new, 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. It is in the *ProductNameReportPack\cognosN\docs* subdirectory in the report 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 141 in the "Style Guide for the IBM Cognos BI reports" appendix 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 new dashboard portlet and add the report to it, see the *IBM EMM Marketing Platform Administrator's Guide*.

Chapter 7. User authorization for Cognos folders and reports

A Custom Java Authentication Provider (CJAP) provides authorization for users accessing Cognos report folders and reports. You can implement this feature after you implement the IBM EMM Authentication Provider, which provides single sign-on authentication between IBM EMM applications and Cognos.

Limitations of the IBM EMM Authentication Provider

After Cognos has been configured to use the IBM EMM Authentication Provider, users are authenticated automatically in Cognos when they access reports in an IBM EMM application. If a user accesses the Cognos URL in the same browser session used to access IBM EMM products, Cognos does not prompt the user to log in again.

A user 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 IBM EMM 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 IBM EMM application who have report access into a Cognos namespace that you specify. The CJAP associates IBM EMM users with Cognos groups based on their IBM EMM product access. Users who have the **ReportsUser** role in IBM EMM receive read-only limited access to Cognos folders and reports. Users who have the **ReportsSystem** role in IBM EMM 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 IBM EMM Authentication Provider is implemented and tested.

How to implement CJAP security

Follow the procedures in this section in the order shown to implement CJAP security.

Before you begin to perform the implementation procedures, read this section to understand some special considerations that might apply to your environment.

Authenticated mode

When you configure the IBM EMM 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 IBM EMM.
- You do not have to perform the following procedures described in this chapter. These procedures apply only when you select **authenticatedPerUser** for the IBM EMM Authentication Provider.
 - Giving all Reports users read-only permissions in public folders
 - Securing public folders
 - Verifying user permissions in Cognos

Performing backups for CJAP

Before you implement CJAP, back up your Cognos environment.

1. Stop the Cognos service.
2. Use the export option in the Cognos Configuration File menu to back up your Cognos configuration.
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 IBM EMM are duplicated in Cognos. You edit the property file to specify the Marketing Platform groups you want to synchronize into Cognos.

First, design the required reports access in Marketing Platform by creating groups, associating them with appropriate roles, and making users members of these groups.

Perform the following procedure with the Cognos service stopped, and restart the service after you edit the properties file. You must restart the Cognos service after you make any changes to the properties file.

1. Locate the ReportSecurityConfig.properties file in the \webapps\p2pd\WEB-INF\AAA\lib\ folder under your Cognos installation and open it in a text editor.
2. Follow the instructions in the file for how to set the properties.

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 Marketing Platform.
 - `createUserGroupInCognosWithPlatformUserRole=User_Defined_Role01`
 - Roles you specify here must exist in Marketing Platform.
3. Restart the Cognos service.
 4. Click **Settings > Sync Report Folder Permissions** in the IBM EMM user interface to synchronize the property file.

Configuring the new namespace provider in Cognos

Configure a new namespace provider in Cognos for CJAP.

1. In Cognos Configuration, navigate to the **Security > Authentication** folder.
2. Add a new Namespace resource to the **Authentication** folder.
3. Give the namespace a name.
4. Select **Custom Java Provider** from the **Type** menu and click **OK**.
This creates a new namespace for the security CJAP.
5. Select the new 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 the users to log in to Cognos using IBM EMM credentials.
External users can log in without password, so this is not recommended for production.
 - **False** - This namespace is not available for authentication on the Cognos UI, but the IBM EMM integration will work.
Change to this setting is after testing is completed.
8. Log in to Cognos under the new namespace, with an IBM EMM account that has the **Report_System** role in IBM EMM.
The URL is similar to: `http://host:port/ibmCognos/cgi-bin/Cognos.cgi`
If you can see the Cognos application it means that the new authentication provider is working.
9. In IBM EMM, navigate to the **Settings > Configuration** page 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 IBM EMM.

Verifying synchronization

Verify that groups, users, and roles exist as expected in the Cognos namespace.

1. In Cognos Connection, click **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 IBM EMM are members of this group.

- **EMM_Report_User_Role_Users**
Users with the **ReportsUser** role in IBM EMM are members of this group.
 - **EMM_Report_Access_All_Users**
Users with the **ReportsUser** role in IBM EMM 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 Marketing Platform are listed in this folder.
Attention: Users who are granted report permissions through group membership appear in Cognos after they access reports in IBM EMM. Also, new users are listed after Cognos is restarted or after the user accesses reports in IBM EMM.
 6. Click the **Roles** folder and verify that the expected role members are present, as follows.
 - All users with the **ReportsSystem** role in Marketing Platform have the **Reports_System_Role** in Cognos.
 - All users with the **ReportsUser** role in Marketing Platform have the **Reports_User_Role** in Cognos.

Assigning Cognos permissions to the new roles

Use this procedure to assign permissions to the Cognos **Reports_System_Role** and **Report_User_Role** roles in Cognos that are equivalent to the Marketing Platform **ReportSystem** role and **ReportUser** roles respectively.

1. In Cognos Connection click **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, click **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 icon for the **Reports_System_Role** and give this role all permissions as follows.
 - a. On the Permissions tab, click **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, and members of this group have the **System Administrators** role in Cognos. This grants all users administrator rights in Cognos by default. This procedure assigns the **EMM_Report_System_Admin_User** group or **Reports_System_Role** role as administrators in Cognos, and removes the **Everyone** group from the Cognos System Administrators role.

1. In Cognos Connection click **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 all Reports users read-only permissions in public folders

Make users with the Marketing 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 IBM EMM user this level of permissions in Cognos, make that user a member of the **EMM_Report_System_Admin_User** group.

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, perform this procedure on all public folders, including the folders created for each IBM EMM product report pack.

In the example below, **fff** represents any public folder that must be assigned to a user group in your namespace.

1. Select **Set properties of fff folder** and click the Permissions tab.
By default, permissions are the **EMM_Report_Access_All_Users** group permissions you provided in a previous step 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**, 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 newly added group.
 - d. Click **OK**.

3. Verify that users in the selected group have the expected access to the folder, and 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 use a new browser window when you switch between users.

1. Log in to Cognos using an account with the **Report_User_Role** role in Cognos.
2. Verify that this user has the following access.
 - No access to IBM Cognos Administration.
 - No access to the public folder that you secured.
 - **Cut**, **Paste**, and **Delete** buttons are disabled.
 - The user can copy, but can paste only in the user's folder under **My Folders**.
 - The user can add a folder under **My Folders** but not under Public Folders.
3. Verify that the members of Marketing Platform groups you have 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. When all of your tests are finished, in Cognos Configuration, navigate to the **Security > Authentication** folder and in the namespace you used for CJAP, set the **Selectable for authentication?** property to **False**.

Removing the CJAP implementation from your environment

Follow this procedure if you implement CJAP security and later decide to roll back your environment to use only the IBM EMM Authentication Provider.

1. Reverse the following steps that you performed to implement CJAP.
 - a. Restore the `reportSecurityConfig.properties` file from your backup and click **Settings > Sync Report Folder Permissions** in the IBM EMM user interface to synchronize the property file.
 - b. 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.

Chapter 8. Configuring reporting for multiple partitions

You can set up reporting after you configure multiple partitions in Campaign and eMessage.

For instructions on configuring partitions in Campaign and eMessage, see the *IBM Campaign Administrator's Guide*.

Configuring the IBM Cognos Reports for multiple partitions

If you are using Campaign, eMessage, and/or Interact with more than one partition, you must configure IBM Cognos reports packages for each partition. The **partition_tool.sh** utility is used to configure reports for multiple partitions.

When you run the **partition_tool.sh** utility, it does the following:

- 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.
- Zips up the new files into a new 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. Finally, you copy the original project file (which contains the model) so you can change the datasource to point to the new partition, and then 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 IBM 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 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: IBM\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, download and install one now.

Ensure that a zip utility is installed

The reporting partition tool creates a zip archive for the new partition reports. To enable this function, a zip utility must be installed on the Cognos system.

If you do not have a zip utility installed on the computer that is running the Cognos Content Manager, download and install one now.

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.

Perform this procedure for each partition in your system.

1. From the shell or the shell simulator, browse to the IBM\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 Campaign reports archive

```
partition_tool.sh Partition2 "IBM\Unica\ReportsPacksCampaign\  
cognos<version>\Unica Reports for Campaign.zip"
```

For an eMessage reports archive

```
partition_tool.sh Partition2 "IBM\Unica\ReportsPackseMessage\cognos10\  
Unica Reports for eMessage.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:
 - Campaign - Unica Reports for Campaign_Partition2.zip
 - eMessage - Unica Reports for eMessage_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 Campaign

Create a copy of the IBM Cognos data model for the new Campaign reports. You must ensure that the model references the correct data source name.

Complete the following steps if you plan to use Campaign reports in multiple partitions:

1. Verify that you created an IBM 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 12.
2. Use Framework Manager to open the Campaign project (cpf file), the CampaignModel.cpf file.
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 and change the value from the default data source (CampaignDS) to the correct data source name for this Campaign partition. For example, CampaignDS_partition2.
6. Click in the **Content Manager Datasource** field and change the value of the default data source (CampaignDS) to the same value that you specified in the previous step.
In this example, the value is CampaignDS_partition2.
7. Save your changes.
8. Publish the package to the content store and when the publish wizard displays the **Select Location Type** window, browse to and specify 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 eMessage

You must create a copy of the Cognos model for eMessage if you want to use eMessage reports in multiple partitions. Create a copy of the IBM Cognos data model for the new eMessage reports and ensure that the model references the correct data source name.

1. Verify that you created an IBM 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 12.
2. Use Framework Manager to open the eMessage project file, eMessageModel.cpf.
3. Use **Save As** to copy the eMessageModel project and give it a new name that indicates the partition where it is used. For example, eMessageModelPartition2.
4. In the **Project Viewer**, expand the **Data Sources** node and select **eMessageTrackDS**.
If the **Properties** pane does not appear by default, select **View > Properties**.
5. Click in the **Name** field and change the value of the default data source (eMessageTrackDS) to the new data source name for this eMessage partition.
6. Click in the **Content Manager Datasource** field and change the value of the default data source (eMessageTrackDS) to the same value that you specified in the previous step.
In this example, the value is eMessageTrackDS_partition2.
7. Save your changes.
8. Publish the package to the content store and when the publish wizard displays the **Select Location Type** window, browse to and specify 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 partition's report properties on the IBM EMM Configuration page

Each partition has a set of reports properties that specifies the location of the report folders. You must edit the values of each of the reports properties to reflect the actual path of the folders by inserting the string that identifies the new top-level partition folder.

Campaign example

If the new partition folder in Cognos Connection is named "Campaign Partition 2", you would edit the report property settings as shown in the following example.

```
folder[@name='Campaign Partition 2']/
```

For example, to update the `offerAnalysisTabCachedFolder` property, you would 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']
```

eMessage example

If the new partition folder in Cognos Connection is named "Campaign Partition 2", you would edit the report property settings as shown in the following example.

```
folder[@name='Campaign Partition 2']/
```

For example, to update the `campaignAnalysisTabEmessageOnDemandFolder` property, you would change the value from

```
/content/folder[@name='Affinium Campaign']/folder[@name='eMessageReports']
```

to

```
/content/folder[@name='Campaign Partition 2']/folder[@name='Affinium Campaign']/folder[@name='eMessage Reports']
```

Updating the partition's report properties

You must edit the values of each of the reports properties of the partition to reflect the actual path of the folders by inserting the string that identifies the top-level partition folder.

1. Log in to IBM EMM 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.
5. Save your changes.

6. Repeat steps 3 through 5 for each partition.

Chapter 9. Upgrading reports

You can upgrade your current version of IBM EMM reports to bring it up-to-date with the latest features.

In IBM EMM, reporting is one of the components that is provided by the Marketing Platform.

When you upgrade, the installer and database scripts also upgrade the reporting feature, retaining the configuration settings for the Campaign and Interact reporting schemas.

Upgrade scenarios

Source version	Upgrade path
Pre-7.5.1	If you are upgrading an IBM EMM application from a pre-7.5.1 version, there is no upgrade path for reporting. Instead, see “Installation roadmap” on page 1.
7.5.1	<p>If you are upgrading an IBM EMM application from the 7.5.1 version, complete the steps that are described in the following topics:</p> <ul style="list-style-type: none">• “Upgrade prerequisites”• Chapter 10, “Upgrading reports from version 7.5.1,” on page 95 <p>Note: Because there is no upgrade path for eMessage from version 7.5.x to versions 8.x and later, there is also no upgrade path for the eMessage reports.</p>
8.x and 9.x	<p>If you are upgrading an IBM EMM application from an 8.x or a 9.x version, complete the steps that are described in the following topics:</p> <ul style="list-style-type: none">• “Upgrade prerequisites”• Chapter 11, “Upgrading the 8.x or 9.x model and installing new reports,” on page 107 <p>For eMessage, the following upgrade paths are supported:</p> <ul style="list-style-type: none">• 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 <p>Note: If you have already customized your eMessage reports, you have less report customization work if you upgrade to 9.0 rather than 8.6.0.4 or later fix packs.</p> <p>If you are using eMessage with Oracle or IBM DB2, you must use materialized views.</p>

Upgrade prerequisites

Before you upgrade your version of IBM EMM reports, you must complete specific tasks.

User with ReportsSystem role

If you are upgrading from version 7.x you must configure an IBM EMM user with appropriate permissions to work with reporting. If you are upgrading from 8.x, this user probably exists already.

If you do need to configure this reporting user, see “Configuring a user with the ReportsSystem role” on page 11 for instructions.

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 you are installing. See the *Environment Support Matrix* 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, complete the following tasks:

- Back up the model subdirectory. That is, locate the application model that is installed by the IBM EMM 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's 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

You must also complete the following tasks before you upgrade your version of IBM EMM reports:

1. Generate the SQL to drop tables and run the SQL in product databases
2. Upgrade reporting schemas on Marketing Platform.
3. Upgrade reporting templates in Marketing Platform.
4. For eMessage and Interact, update lookup tables.
5. For eMessage, create database objects by using the acer_*.sql scripts.
6. For eMessage, create and run stored procedures.
7. Upgrade the views or tables in the product databases.
8. Upgrade the IBM EMM integration components.

The tasks are explained in detail in their own sections.

Additional requirements for eMessage reports

See “Prerequisites for eMessage Reports” on page 8 understand additional requirements for eMessage reports.

Generating SQL to drop views, materialized views, or tables and run SQL in product databases

You can use the Report SQL Generator to generate drop table SQL commands and run them against the appropriate product system table database. Complete the task before you upgrade the reporting schemas.

This procedure only applies to Campaign, eMessage, and Interact.

The following table shows if the object types are supported in Campaign, eMessage, and Interact for Oracle, DB2, and SQL server.

Table 13. Supported object types

	Campaign	eMessage	Interact
Oracle	Views	Materialized Views	Views
	Materialized Views		Materialized Views
	Table		Table
DB2	Views	Materialized Views	Views
	Materialized Views		Materialized Views
	Table		Table
SQL Server	Views	Views	Views
	Table		Table

Complete the following tasks to generate and run the SQL:

1. Log in to IBM EMM as the platform_admin user (or another user with access to the Report SQL Generator menu item).
2. **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 IBM 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, or tables).

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 (eMessage_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 24.

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 12 for each drop table script you need to generate.

Note: The Interact reporting schemas reference more than one data source. Generate a separate SQL script for each data source.

There may be times when you want to disable script validation. For example, perhaps the Marketing Platform cannot connect to the IBM 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 Marketing Platform

You must run the IBM EMM master installer with the reports packs installers to upgrade the reporting schemas and reports integration configuration properties.

Run the IBM EMM master installer with the appropriate report package installer on the computer where Marketing Platform is installed, and select the **IBM EMM Product Reporting Schemas** installation option.

After you upgrade reporting schemas, you can verify the upgrade by completing the following tasks:

1. Log in to the IBM EMM 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 the Marketing Platform.

Note: If you are upgrading Marketing Operations, skip this step (Marketing Operations 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 in the Marketing Platform

You must upgrade reporting templates in Marketing Platform before you upgrade reports. If you are upgrading reports for Marketing Operations, do not upgrade reporting templates because Marketing Operations does not have reporting schemas.

After you run the report pack installer, complete the following tasks:

1. Browse to the `Unica\productReportsPack\schema` directory, locate the `templates_sql_load.sql` script and run the script in the Marketing Platform system tables database.
2. Ensure that the Marketing Platform is running.
3. Log in to IBM EMM as a user with administrator privileges.
4. Under **Settings > Users**, give yourself the **ReportsSystem** role. Then, log out and log back in.
5. **Campaign only.**

The database schema for adding new campaign attributes was changed in Campaign 8.0.0. Therefore, if the reporting schema customization included additional campaign attributes, complete the following steps:

- a. Use your database management tools to determine the value from each attribute's `AttributeID` column in the `UA_CampAttribute` table.
- b. In IBM EMM, select **Settings > Configuration** and expand **Reports > Schemas > Campaign > Campaign Custom Attributes > Columns > Campaign**.
- c. Delete the existing custom campaign attributes that were added for this installation, but do not delete the standard custom campaign attributes. (The standard custom campaign attributes were upgraded by the installer.)
- d. Re-create the attributes that you deleted. Enter the ID of the attribute in the **Attribute ID** field.

Upgrading IBM EMM integration components

You must run the installers on the computer where the Cognos Content Manager is installed to upgrade IBM EMM integration components.

Complete the following steps to upgrade IBM EMM integration components:

1. On the IBM Cognos BI system that runs the Cognos Content Manager, download or copy the following IBM EMM installers to a single directory:
 - IBM EMM master installer
 - Marketing Platform installer
 - IBM EMM application report package installers
2. Run the IBM EMM master installer. (It launches the sub-installers for Marketing Platform and the report packages in order.)
3. In the first **Products** window, ensure that both Marketing Platform and the report package options are selected.
4. In the **Platform Database Connection** window, provide the necessary information for connecting to the Marketing Platform system tables.
5. When the **Platform Installation Components** window appears, select the **Reports for IBM Cognos** option and clear the other options

6. When the Marketing Platform installer prompts for the path to the JDBC driver, enter the fully qualified path for the JDBC driver you copied to the Cognos system during the initial install of reporting.
For more information, see “Obtain the JDBC driver for the Marketing Platform system tables” on page 17.
7. When the Marketing 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 actual file structure of your IBM Cognos system.
8. When the report package installer takes over and displays its installation options, select the **IBM Cognos package for IBM EMM [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 Marketing 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 eMessage and Interact

If you are using reports for eMessage and Interact, you must update the lookup tables. You must use your database client to run specific upgrade scripts against the system table database.

Complete one of the following steps:

- Complete the following steps if you are upgrading from version 8.6.0.4 or 9.0 for eMessage:
 1. In the ReportsPackCampaign\tools directory under your reports pack installation, locate the **uare_lookup_create_DB_type.sql** script, where *DB_type* is the database type appropriate for your installation of Campaign.
- Complete the following steps for Interact:
 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 Campaign.
 2. Run the appropriate version of the script against your Interact design time database.

Upgrading views or tables in the product databases

To successfully upgrade your version of Reports, you must generate an updated SQL, and upgrade views or tables in your product databases.

Note: For eMessage, skip this section.

Complete the following tasks to upgrade views or tables in the product databases:

1. Generate updated SQL, as described in “Generating view or table creation scripts” on page 23.
2. Run the SQL scripts that you generated earlier against the product system table databases.
3. For Campaign and Interact, create reporting views or tables by using the new SQL and the SQL scripts that are provided with your reports packs.

Chapter 10. Upgrading reports from version 7.5.1

Before upgrading reports from version 7.5.1, make sure that you complete all the upgrade prerequisites. IBM EMM reporting is no longer provided in a separate web application such as in Affinium Reports 7.5.x.

Important: You cannot upgrade eMessage reports version 7.5.1 to 9.1. For eMessage, you must first install reports version 8.6.0.4, and then upgrade to version 9.1.

When you install the IBM Cognos reports archive from the reports package, you run an upgrade script that preserves your customizations to the Cognos data mode. However, you must replace the 7.5.1 reports with the new reports. Most of the older reports are compatible with the upgraded Cognos models, the new reports packages include new and enhanced reports, and most of the packages also contain Dashboard reports. The only way to obtain the new or enhanced reports is to install the new reports archive, which overwrites the existing reports.

Therefore, you have the following options for upgrading your reports:

- Back up the old reports, install the new reports, and then re-create your customizations by using the old reports for reference.
- Back up the old reports and install the new reports. Compare the new reports to your old reports and examine your customizations. If you are certain that a customized report functions properly with the new data model, copy the old customized report back into the reports folder.

Note: The 7.5.1 version of the Campaign Performance by Cell reports and the Offer Performance Summary by Campaign reports do not function at all without manual intervention. Additionally, the new versions of many of the old reports include enhancements and minor bug fixes. To obtain the changes, you must use the new versions of the reports.

You must complete the following steps to upgrade reports from version 7.5.1:

1. Upgrade the 7.5.1 model and install the new reports.
2. Updating the old Campaign Performance by Cell reports.
3. Updating the old Campaign Performance by Cell reports.

Each step is explained in a separate section.

Upgrading 7.5.1 model and installing new reports

Upgrading the 7.5.1 model and installing the new reports are the first steps that you must complete to upgrade your 7.5.1 reports.

The new report packages include new and changed reports as well as dashboard reports for most of the IBM EMM applications. Although you can upgrade the model, you cannot upgrade the 7.5.1 reports. You must install the new reports and then re-create the reporting customizations that you made to 7.5.1, or copy the old reports into the folder.

Complete the following steps to upgrade the 7.5.1 model and install new reports:

1. Verify that you backed up the model and the old reports.

2. Browse to the *ProductNameReportsPack\CognosN* directory under your IBM EMM product installation.
The *N* in the path refers to the Cognos version number.
3. Copy the reports archive .zip file (for example Unica Reports for Campaign.zip) to the directory where your Cognos deployment archives are saved.
The default location is the deployment directory under your IBM EMM Cognos installation and it is specified in the Cognos Configuration tool that is installed with the Cognos Content Manager.
For example: *cognosN\deployment*.
The *N* in the path refers to the Cognos version number.
In a distributed IBM Cognos environment, this is a location on the system running the Content Manager.
4. If the Reports Pack installation directory and Framework Manager are on different computers, locate the *cognosN\model* directory under the Reports Pack installation directory, and copy it to the directory on the computer where your Framework Manager is installed.
The *N* in the path refers to the Cognos version number.
5. Only if you did not install your IBM EMM product to the default directory (C:\Unica on Windows) you must update some upgrade scripts as described in this step.
You must update the scripts that are listed here. The scripts that you must update differ, depending on the reports package, as shown below.
The scripts are all in the *ProductNameReportsPack\cognosN\ProductNameModel* directory under your IBM EMM product installation.
The *N* in the path refers to the Cognos version number.

Campaign

- *upgrade80to81.xml*
- *upgrade81to85.xml*
- *upgrade85to86.xml*
- *upgrade86to90.xml*
- *upgrade90to91.xml*
- *upgrade91to911.xml*

Interact

- *upgrade80to81.xml*
- *upgrade81to85.xml*
- *upgrade85to86.xml*
- *upgrade86to90.xml*
- *upgrade90to91.xml*
- *upgrade91to911.xml*

Leads

- *upgrade81to85.xml*
- *upgrade86to90.xml*
- *upgrade90to91.xml*
- *upgrade91to911.xml*

Campaign with Marketing Operations

- *upgrade80to81.xml*

- upgrade82to85.xml
- upgrade86to90.xml
- upgrade90to91.xml
- upgrade91to911.xml

Marketing Operations

- upgrade75to80.xml
- upgrade80to81.xml
- upgrade81to82.xml
- upgrade82to85.xml
- upgrade85to86.xml
- upgrade86to90_DB2.xml (for DB2 database only)
- upgrade86to90_Oracle.xml (for Oracle database only)
- upgrade86to90_Sqlserver.xml (for SQLServer database only)
- upgrade90to91.xml
- upgrade91to911.xml

In each script, edit file paths that point to directories where localized language versions of the models are stored to reflect your product install location. Make this change for every language your users need. For example:

install_directory \ReportsPackCampaign\cognosN\CampaignModel\translations\L\translations.txt

The *N* in the path refers to the Cognos version number.

The *L* in the path refers to one of the following language indicators.

- fr
- de
- es
- it
- ja
- ko
- pt
- ru
- zh

6. Open Cognos Connection.

7. Select **Administer Cognos Content > Configuration > Content Administration**.



8. Click the **New Import** button on the toolbar and import the reports folder.

9. Open Cognos Framework Manager and select the project that corresponds to your old reports.

10. Select **Project > Run Script**.

11. Run the following scripts from your new version against your old reports. You must run the scripts that are listed here. The scripts that you must run differ, depending on the reports package, as shown below.

The scripts are all in the *ProductNameReportsPack\cognosN\ProductNameModel* directory under your IBM EMM product installation.

The *N* in the path refers to the Cognos version number.

Campaign

- preUpgrade_86_fromanyversion.xml
- upgrade75to751.xml
- upgrade751to80.xml
- upgrade80to81.xml
- upgrade81to85.xml
- upgrade85to86.xml
- upgrade86to90.xml
- upgrade90to91.xml
- upgrade91to911.xml

Interact

- preUpgrade_86_fromanyversion.xml
- upgrade75to751.xml
- upgrade751to80.xml
- upgrade80to81.xml
- upgrade81to85.xml
- upgrade85to86.xml
- upgrade86to90.xml
- upgrade90to91.xml
- upgrade91to911.xml

Leads

- upgrade75to80.xml
- upgrade81to85.xml
- upgrade86to90.xml
- upgrade90to91.xml
- upgrade91to911.xml

Campaign with Marketing Operations

- upgrade80to81.xml
- upgrade81to82.xml
- upgrade82to85.xml
- upgrade86to90.xml
- upgrade90to91.xml
- upgrade91to911.xml

Marketing Operations

- upgrade75to80.xml
- upgrade80to81.xml
- upgrade81to82.xml
- upgrade82to85.xml
- upgrade85to86.xml
- upgrade86to90_DB2.xml (for DB2 database only)
- upgrade86to90_Oracle.xml (for Oracle database only)
- upgrade86to90_Sqlserver.xml (for SQLServer database only)
- upgrade90to91.xml
- upgrade91to911.xml

12. Publish the package to the Cognos content store.

13. Run a report to ensure that it works properly.
14. If the 7.5.1 reports were customized, re-create those customizations.
Alternately, if you can ensure that an old report works properly with the upgraded model, copy the old report back.
For information about fixing the old Campaign Performance by Cell reports and the old Offer Performance Summary by Campaign reports so they work with the new data model, continue with the remaining procedures in this section.
15. If you have reports installed for multiple partitions, configure reports packages for the additional partitions by using the instructions in the chapter that describes how to configure multiple partitions.
16. Optional: See “Configure IBM Cognos to use IBM EMM authentication” on page 49 for information about the new authentication mode, “authenticate per user.”

Updating the old Campaign Performance by Cell reports

After you upgrade the Campaign model from 7.5.1 to 8.x, the old Campaign Performance by Cell reports do not function properly. If you want to use your old Campaign Performance by Cell reports, you must manually update them.

You must manually upgrade and fix the following reports:

- Offer Performance Summary by Campaign cross-object report
- Single object Offer Performance Summary by Campaign report

Fixing the cross-object Performance by Cell reports

To manually upgrade your reports version 7.5.1, you must manually upgrade and fix the cross-object Performance by Cell reports, so the reports can function with the new data model.

You must fix the following reports:

- Campaign Performance Summary by Cell
- Campaign Performance Summary by Cell (with Revenue)
- Campaign Performance Summary by Cell by Initiative

Complete the following steps to fix the reports:

1. Open the report in IBM Cognos Report Studio.
2. Click the lock icon on the toolbar to unlock the report.
3. Browse to the **Query Explorer** and open the **Report Query** for a list of all the query items in the report.
4. For all three reports, remap the query items according to the information in the following table:

Table 14. Mapping for query items

Query item	Mapping
Number of Offers Given	[Campaign Performance Summary].[Campaign Cell CH with Controls Summary].[Number of Offers Given]
Response Transactions	[Campaign Performance Summary].[Campaign Cell RH with Controls Summary].[Response Transactions]
Unique Recipients	[Campaign Performance Summary].[Campaign Cell CH with Controls Summary].[Unique Recipients]

Table 14. Mapping for query items (continued)

Query item	Mapping
Unique Responders	[Campaign Performance Summary].[Campaign Cell RH with Controls Summary].[Unique Responders]
Unique Recipients Control Group	[Campaign Performance Summary].[Campaign Cell CH with Controls Summary].[Unique Recipients Control Group]
Unique Responders Control Group	[Campaign Performance Summary].[Campaign Cell RH with Controls Summary].[Unique Responders Control Group]

5. For the report with revenue, remap for the **Gross Revenue** item as follows:
[Campaign Performance Summary].[Campaign Cell RH with Controls Summary].[Gross Revenue]
6. Update the formula for the **Responder Rate Control Group** to be the following:
IF((([Unique Responders Control Group]/([Unique Recipients Control Group] * 1.00)) is missing)
THEN (0)
ELSE((([Unique Responders Control Group]/([Unique Recipients Control Group] * 1.00))))
7. From the **Detail Filter** list, select the first detail filter and edit it so it looks like this:
[Campaign Performance Summary] . [Campaign] . [Campaign ID] in (?CampaignIds?)
8. From the **Detail Filter** list, delete the second detail filter - the one that looks like this:
[Campaign Performance Summary].[Responder Rate Control Group at Cell Level].[Campaign ID] in (?CampaignIds?)
9. Lock the report.
10. Complete the following steps in Report Studio for each report:
 - a. Go to **File > Report Package**.
 - b. Select **Unica Campaign Package** and click **OK**.
 - c. Complete prompts on the report as necessary.
 - d. After the report is validated, click **Close** in the Validation Response window.
11. Save and run the report.

Fixing the object-specific Performance by Cell reports

To manually upgrade your reports version 7.5.1, you must manually upgrade and fix the object-specific Performance by Cell report, so that the report can function with the new data model.

You must fix the following reports:

- Campaign Performance Summary by Cell
- Campaign Performance Summary by Cell (with Revenue)

Complete the following steps to fix the report:

1. Open the report in IBM Cognos Report Studio.
2. Click the lock icon on the toolbar to unlock the report.
3. Browse to the **Query Explorer** and open the **Report Query** for a list of all the query items in the report.

4. For both reports, remap the query items according to the information in the following table:

Table 15. Mapping for query items

Query item	Mapping
Number of Offers Given	[Campaign Performance Summary].[Campaign Cell CH with Controls Summary].[Number of Offers Given]
Response Transactions	[Campaign Performance Summary].[Campaign Cell RH with Controls Summary].[Response Transactions]
Unique Recipients	[Campaign Performance Summary].[Campaign Cell CH with Controls Summary].[Unique Recipients]
Unique Responders	[Campaign Performance Summary].[Campaign Cell RH with Controls Summary].[Unique Responders]
Unique Recipients Control Group	[Campaign Performance Summary].[Campaign Cell CH with Controls Summary].[Unique Recipients Control Group]
Unique Responders Control Group	[Campaign Performance Summary].[Campaign Cell RH with Controls Summary].[Unique Responders Control Group]

5. For the report with revenue, remap the **Gross Revenue** query item as follows:
[Campaign Performance Summary].[Campaign Cell RH with Controls Summary].[Gross Revenue]
6. Update the formula for the Responder Rate Control Group to be the following:
IF((([Unique Responders Control Group]/([Unique Recipients Control Group] * 1.00)) is missing)
THEN (0)
ELSE((([Unique Responders Control Group]/([Unique Recipients Control Group] * 1.00))))
7. From the **Detail Filter** list, select the first detail filter and edit it so it looks like this:
[Campaign Performance Summary].[Campaign].[Campaign ID] in (?CampaignIds?)
8. Delete the second detail filter - the one that looks like this:
[Campaign Performance Summary].[Responder Rate Control Group at Cell Level].[Campaign ID] in (?CampaignIds?)
9. Lock the report.
10. Complete the following steps in Report Studio for each report.
 - a. Go to **File > Report Package**.
 - b. Select **Unica Campaign Package** and click **OK**.
 - c. Complete prompts on the report as necessary.
 - d. After the report is validated, click **Close** in the Validation Response window.
11. Save and run the report.

Updating the old Offer Performance Summary by Campaign reports

After you upgrade the Campaign model from 7.5.1 to 8.x, the old Offer Performance Summary by Campaign reports do not function properly. If you want to use your old Offer Performance Summary by Campaign reports, you must manually update them.

You must upgrade and fix the following reports:

- Offer Performance Summary by Campaign cross-object report
- Single object Offer Performance Summary by Campaign report

Fixing the Offer Performance Summary by Campaign cross-object report

To manually upgrade your reports version 7.5.1, you must manually upgrade and fix the Offer Performance Summary by Campaign cross-object report, so the report can function with the new data model.

Complete the following tasks to fix the report:

1. Open the report in IBM Cognos Report Studio.
2. Browse to the **Query Explorer** and open the **Report Query** for a list of all the query items in the report.
3. Configure the aggregation as follows for the following Campaign Level Counts query items.

Table 16. Aggregate functions for Campaign Level Counts query items.

Query item	Aggregate Function	Rollup Aggregate Function
Number of Offers Given	None	Automatic
Response Transactions	None	Automatic
Unique Recipients	None	Automatic
Unique Responders	None	Automatic
Not Contacted Responders	None	Automatic
Responses after Expiration	None	Automatic
Unique Recipients Control Group	None	Automatic
Unique Responders Control Group	None	Automatic

4. Configure the aggregation as follows for the following Campaign Level Counts query items.

Table 17. Aggregate functions for Campaign Level Counts query items.

Query item	Aggregate Function	Rollup Aggregate Function
Response Rate	Automatic	Automatic
Responder Rate	Automatic	Automatic
Responder Rate Control Group	Automatic	Automatic
Best Offer Lift Over This	Automatic	Automatic
Lift Over Worst Offer	Automatic	Automatic
Lift Over Control Group	Automatic	Automatic

5. Configure the aggregation as follows for the following Offer Level Counts query items.

Table 18. Aggregate functions for Offer Level Counts query items.

Query item	Aggregate Function	Rollup Aggregate Function
Number of Offers Given-Offer	None	Automatic
Unique Responders-Offer	None	Automatic

Table 18. Aggregate functions for Offer Level Counts query items (continued).

Query item	Aggregate Function	Rollup Aggregate Function
Not Contacted Responders-Offer	None	Automatic
Responses after Expiration-Offer	None	Automatic
Unique Responders Control Group-Offer	None	Automatic

6. Change the expression for the **Response Transactions-Offer** query item to be the following.

[Offer Performance Summary].[Offer Response History Summary].
[Response Transactions] / count([Campaign Name] for [Offer ID])

7. Configure the aggregation as follows for the following Offer Level Counts query items.

Table 19. Aggregate functions for Offer Level Counts query items.

Query item	Aggregate Function	Rollup Aggregate Function
Response Transactions - Offer	Total	Automatic
Unique Recipients - Offer	Total	Automatic
Unique Recipients Control Group - Offer	Total	Automatic

8. Configure the aggregation as follows for the following Offer Level Counts query items.

Table 20. Aggregate functions for Offer Level Counts query items.

Query item	Aggregate Function	Rollup Aggregate Function
Response Rate - Offer	Automatic	Automatic
Responder Rate - Offer	Automatic	Automatic
Responder Rate Control Group - Offer	Automatic	Automatic
Lift Over Control Group - Offer	Automatic	Automatic

9. For the Report Total level counts, change the expression for **Total Response Transactions** to be the following.
total ([Response Transactions-Offer])
10. Also, for **Total Response Transactions**, confirm that **Aggregate Function** is set to Automatic and that **Rollup Aggregate Function** is set to Automatic.
11. Lock the report.
12. Complete the following steps in Report Studio for each report:
 - a. Go to **File > Report Package**.
 - b. Select **Unica Campaign Package** and click **OK**.
 - c. Complete prompts on the report as necessary.
 - d. After the report is validated, click **Close** in the Validation Response window.
13. Save and run the report.

Fixing the single object Offer Performance Summary by Campaign report

To manually upgrade your reports version 7.5.1, you must manually upgrade and fix the single object Offer Performance Summary by Campaign report, so the report can function with the new data model.

Complete the following steps to fix the report:

1. Open the report in IBM Cognos Report Studio.
2. Browse to the **Query Explorer** and open the **Report Query** for a list of all the query items in the report.
3. Configure the aggregation as given in the following table for the Campaign Level Counts query items:

Table 21. Aggregate functions for Campaign Level Counts query items.

Query item	Aggregate Function	Rollup Aggregate Function
Number of Offers Given	None	Automatic
Response Transactions	None	Automatic
Unique Recipients	None	Automatic
Unique Responders	None	Automatic
Not Contacted Responders	None	Automatic
Responses after Expiration	None	Automatic
Unique Recipients Control Group	None	Automatic
Unique Responders Control Group	None	Automatic

4. Configure the aggregation as given in the following table for Campaign Level Counts query items.

Table 22. Aggregate functions for Campaign Level Counts query items.

Query item	Aggregate Function	Rollup Aggregate Function
Response Rate	Automatic	Automatic
Responder Rate	Automatic	Automatic
Responder Rate Control Group	Automatic	Automatic
Best Offer Lift Over This	Automatic	Automatic
Lift Over Worst Offer	Automatic	Automatic
Lift Over Control Group	Automatic	Automatic

5. Configure the aggregation as given in the following table for Offer Level Counts query items.

Table 23. Aggregate functions for Offer Level Counts query items.

Query item	Aggregate Function	Rollup Aggregate Function
Number of Offers Given-Offer	None	Automatic
Unique Responders-Offer	None	Automatic
Not Contacted Responders-Offer	None	Automatic
Responses after Expiration-Offer	None	Automatic

Table 23. Aggregate functions for Offer Level Counts query items (continued).

Query item	Aggregate Function	Rollup Aggregate Function
Unique Responders Control Group-Offer	None	Automatic

6. Change the expression for the **Response Transactions-Offer** query item to be the following.

[Offer Performance Summary].[Offer Response History Summary].
[Response Transactions] / count([Campaign Name] for [Offer ID])

7. Configure the aggregation as given in the following table for Offer Level Counts query items.

Table 24. Aggregate functions for Offer Level Counts query items.

Query item	Aggregate Function	Rollup Aggregate Function
Response Transactions - Offer	Total	Automatic
Unique Recipients - Offer	Total	Automatic
Unique Recipients Control Group - Offer	Total	Automatic

8. Configure the aggregation as given in the following table for Offer Level Counts query items.

Table 25. Aggregate functions for Offer Level Counts query items.

Query item	Aggregate Function	Rollup Aggregate Function
Response Rate - Offer	Automatic	Automatic
Responder Rate - Offer	Automatic	Automatic
Responder Rate Control Group - Offer	Automatic	Automatic
Lift Over Control Group - Offer	Automatic	Automatic

9. Lock the report.
10. Complete the following tasks in Report Studio for each report.
 - a. Go to **File > Report Package**.
 - b. Select **Unica Campaign Package** and click **OK**.
 - c. Complete prompts on the report as necessary.
 - d. After the report is validated, click **Close** in the Validation Response window.
11. Save and run the report.

Chapter 11. 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.

Complete the following steps to upgrade the 8.x or 9.x model and install new reports:

1. Browse to the `Unica\ProductNameReportsPack\CognosN` directory, where N is the version of your Cognos installation.
2. Copy the reports archive .zip file, for example `Unica Reports for Campaign.zip`, to the directory where your Cognos deployment archives are saved.

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

In a distributed IBM Cognos environment, the directory is a location on the system that runs the Content Manager.

3. Copy the pre-upgrade version of the Campaign model to a directory on the server where your Framework Manager is installed. If the Reports Pack installation directory and Framework Manager are on different servers, locate the upgraded `cognos10\model` directory under the Reports Pack installation directory and copy the appropriate `upgrade.xml` files to the directory on the server where Framework Manager is installed. Also copy the translation folder of upgraded model in the old model that is copied to the directory on the server where Framework Manager is installed. If prompted for replacement, click **Yes**.
4. If the Reports Pack installation directory and Framework Manager are on different servers, locate the `cognos10\model` directory under the Reports Pack installation directory, and copy the appropriate `upgrade.xml` files to the server where your Framework Manager is installed.
5. Copy the translation folder of the upgraded Campaign model in the old model that you copied to a directory on a server where your Framework Manager is installed. If you see a prompt for replacement, click **Yes**.
6. If you did not install your IBM EMM product to the default `C:\Unica` directory on Windows you must update the upgrade scripts.

In each script, edit the file paths that point to directories where the localized language versions of the models are stored to reflect your product installation location. 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
```

The *N* in the path refers to the Cognos version number.

The *L* in the path refers to one of the following language indicators:

- fr
- de
- es

- it
- ja
- ko
- pt
- ru
- zh

Edit the following upgrade scripts:

Campaign

- upgrade80to81.xml
- upgrade81to85.xml
- upgrade85to86.xml
- upgrade86to90.xml
- upgrade90to91.xml
- upgrade91to911.xml

eMessage

- upgrade86to90.xml
- upgrade8604to91.xml
- upgrade90to91.xml
- upgrade91to911.xml
- upgrade9102to911.xml (To upgrade from version 9.1.0.x.0.0 (x >= 2) and if you have not applied 9.1.0.2 Reports Feature Pack 1)
- upgrade910201to911.xml (To upgrade from version 9.1.0.x.0.1 (x >= 2) and if you have applied 9.1.0.2 Reports Feature Pack 1)

Interact

- upgrade80to81.xml
- upgrade81to85.xml
- upgrade85to86.xml
- upgrade86to90.xml
- upgrade90to91.xml
- upgrade91to911.xml

Leads

- upgrade81to85.xml
- upgrade86to90.xml
- upgrade90to91.xml
- upgrade91to911.xml

Campaign with Marketing Operations

- upgrade80to81.xml
- upgrade82to85.xml
- upgrade86to90.xml
- upgrade90to91.xml
- upgrade91to911.xml

Marketing Operations

- upgrade75to80.xml
- upgrade80to81.xml
- upgrade81to82.xml

- upgrade82to85.xml
- upgrade85to86.xml
- upgrade86to90_DB2.xml (for DB2 database only)
- upgrade86to90_Oracle.xml (for Oracle database only)
- upgrade86to90_Sqlserver.xml (for SQL Server database only)
- upgrade90to91.xml
- upgrade91to911.xml

7. Open Cognos Connection.

8. Select **Administer Cognos Content > Configuration > Content Administration**.



9. Click the **New Import** button on the toolbar and import the reports folder.

10. Open Cognos Framework Manager and open the project for the version from which you are upgrading.

11. Select **Project > Run Script**.

12. Run the following scripts from the new version of your product:

Note: You must consider the following points for the 8.x or 9.x version from which you are upgrading:

- You do not have to run the scripts that refer to earlier versions. For example, if you are upgrading Campaign reports from version 8.5.0, you would not have to run the upgrade80to81.xml and upgrade81to85.xml scripts.
- 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 eMessage reports, you must upgrade from version 8.6.0.4 or later to 9.1 directly.

Campaign

- preUpgrade_86_fromanyversion.xml
- upgrade80to81.xml
- upgrade81to85.xml
- upgrade85to86.xml
- upgrade86to90.xml
- upgrade90to91.xml
- upgrade91to911.xml

eMessage

- upgrade86to90.xml
- upgrade8604to91.xml
- upgrade90to91.xml
- upgrade91to911.xml
- upgrade9102to911.xml (To upgrade from version 9.1.0.x.0.0 (x >= 2) and if you have not applied Reports 9.1.0 Feature Pack 1)

- upgrade910201to911.xml (To upgrade from version 9.1.0.x.0.1 (x >= 2) and if you have applied Reports 9.1.0 Feature Pack 1)

Interact

- preUpgrade_86_fromanyversion.xml
- upgrade80to81.xml
- upgrade81to85.xml
- upgrade85to86.xml
- upgrade86to90.xml
- upgrade90to91.xml
- upgrade91to911.xml

Leads

- upgrade81to85.xml
- upgrade86to90.xml
- upgrade90to91.xml
- upgrade91to911.xml

Campaign with Marketing Operations

- upgrade80to81.xml
- upgrade81to82.xml
- upgrade82to85.xml
- upgrade86to90.xml
- upgrade90to91.xml
- upgrade91to911.xml

Marketing Operations

- upgrade75to80.xml
- upgrade80to81.xml
- upgrade81to82.xml
- upgrade82to85.xml
- upgrade85to86.xml
- upgrade86to90_DB2.xml (for DB2 database only)
- upgrade86to90_Oracle.xml (for Oracle database only)
- upgrade86to90_Sqlserver.xml (for SQL Server database only)
- upgrade90to91.xml
- upgrade91to911.xml

All the scripts are in the *ProductNameReportsPack\cognosN\ProductNameModel* directory under your IBM EMM product installation, where *N* is the Cognos version number.

13. If you are upgrading eMessage reports, complete the following steps:

Note: If your database is DB2, change the statement termination character from ; (semicolon) to ! (exclamation point).

- a. Go to *Campaign_ReportPack_Installer_Home\Cognos10\emessage-dd1\DB Type\Upgrade*.
- b. Run the following scripts in the sequence shown:
 - If you are upgrading from eMessage 8.6.0.4 or later to eMessage 9.1: **acer_tables_upgrade_dbname.sql**. Search for the base version name and run the following script:

--8.6.0.4 Updates--

- If you are upgrading from eMessage 9.0 or later to eMessage 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--

- If you are upgrading from eMessage 9.1.0.x.0.0 (x >= 0) to eMessage 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 have applied 9.1.0 Feature Pack 1, you do not need to run table or index upgrade scripts.

- c. Go to *Campaign_ReportPack_Installer_Home\Cognos10\emessage-dd1\DB Type* and run the following script:

acer_scripts_dbname.sql

Note: You must run the **acer_scripts_dbname.sql** script for a fresh installation of reports as well as an upgrade.

Note: If you are using Microsoft SQL Server, you must drop the 8.6.0.4 version's procedures before you complete this step.

- d. Use Run SQL Generator to generate report view scripts. For Microsoft SQL Server, generate views. For Oracle and IBM 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 eMessage stored procedures, see "Running and scheduling stored procedures for eMessage" on page 33.

14. Publish the package to the Cognos content store.

15. For all IBM EMM products, complete the following steps:

- a. Go 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.

16. Run a report to test your upgrade.

Appendix A. Report configuration properties

The report configuration properties for IBM EMM are at **Settings > Configuration > Reports**.

To generate reports, the IBM EMM suite integrates with IBM Cognos, a third-party business intelligence application. You use the **Integrations > Cognos** properties to identify your IBM Cognos system. Then, for Campaign, eMessage, and Interact, there are additional configuration properties to set up and customize the reporting schemas.

Reports | Integrations | Cognos [version]

The IBM EMM suite integrates with IBM Cognos to generate reports.

This page displays properties that specify URLs and other parameters that are used by the IBM system.

Integration Name

Description

Read-only. Specifies that IBM Cognos is the third-party reporting or analytical tool that is used by the IBM EMM 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 IBM Authentication Provider, which means it relies on the Marketing Platform for authentication.

Default value

anonymous

Valid Values

- anonymous: means that authentication is disabled.
- authenticated: means that the communications between the IBM 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 IBM Authentication Provider.

Default value

Unica

Authentication user name**Description**

Specifies the login name for the reporting system user. The IBM applications log in to Cognos as this user when Cognos is configured to use the Unica Authentication provider. This user also has access to IBM EMM.

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 IBM EMM 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 IBM EMM applications), even if both the IBM EMM 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 IBM EMM 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 IBM EMM in the same domain.

Default value

False

Valid Values

True | False

Reports | Schemas | [product] | [schema name] | SQL Configuration

The SQL script creates views or tables for the reporting schemas. The **Reports | Schemas | [product] | [schema name] | SQL Configuration** property provides information about the name of the views or tables.

Table/View Name**Description**

Specifies the name of the view or table 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 IBM EMM 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 or table for Campaign Offer Performance by Day.

Following is the list of IBM EMM application codes.

- Campaign: C
- eMessage: E
- Interact: I
- Distributed Marketing: X
- Marketing Operations: 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 Campaign database.

Input Datasource (JNDI)

Description

Specifies the name of the JNDI data source that identifies the 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 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 (or table) 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 or table 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 or table 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_Dt1ContactHist

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 or table 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 Campaign installation may have additional custom response type codes.

Control Treatment Flag

Description

If you use the standard IBM Cognos reports provided in the IBM EMM 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 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 or table 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 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 or table 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 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 or table 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 or table 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 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 Interact design time database, which is also the Campaign system tables.

Default value

campaignPartition1DS

Interact Runtime Datasource (JNDI)

Description

Specifies the name of the JNDI data source that identifies the Interact runtime database.

Default value

InteractRTDS

Interact Learning Datasource (JNDI)

Description

Specifies the name of the JNDI data source that identifies the 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_Dt1ContactHist

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 | eMessage

The **Reports | Schemas | eMessage** property specifies the name of the data source that identifies the eMessage tracking tables, which are in the Campaign system tables.

eMessage Tracking Datasource (JNDI)

Description

Specifies the name of the JNDI data source that identifies the eMessage tracking tables, which are in the 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']
```

campaignAnalysisTabEmessageOnDemandFolder

Description

The `campaignAnalysisTabEmessageOnDemandFolder` property specifies the location of the folder that contains the eMessage 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='eMessage Reports']
```

campaignAnalysisTabInteractOnDemandFolder

Description

Report server folder string for Interact reports.

Default value

```
/content/folder[@name='Affinium Campaign']/folder[@name='Interact Reports']
```

Availability

This property is applicable only if you install 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 Interact.

Appendix B. Formatting the Cognos reports

Use the styles from the `GlobalReportStyles.css` file with some additional manual formatting for the new IBM Cognos reports for your IBM EMM applications.

The IBM Cognos reporting integration components include a global report style sheet, `GlobalReportStyles.css`. That way the styles in the new reports match the styles that are used by the reports provided in the IBM EMM reports packages.

This appendix provides the following information for the various kinds of reports (lists, charts, and so on).

- The styles that are implemented with the `GlobalReportStyles.css` file.
- Style formatting is something that you must do manually when you author a report, because there are certain cases in which the style cannot be provided by the style sheet.

Use the new page class, `newpg`, for creating new report pages when styling Cognos reports

Global report styles

Use the styles included with the global report style sheet, `GlobalReportStyles.css` for your new IBM Cognos report. The styles in the new reports must match the styles that are used by the reports that are already provided in the IBM EMM reports packages.

Table 26. Global report styles.

Item	CSS class name	Style
General font family	pg, pp	font-family: Arial, ...
Report title	ta	font-size: 10pt;
Page - Header	ph	padding-bottom:10px; font-size:8pt; font-weight:bold;
Page - Footer	pf	padding-top:10px; font-size:8pt; font-weight:bold;
Field Set	fs	font-size:8pt;
Table	tb	border-collapse:collapse

Table 26. Global report styles (continued).

Item	CSS class name	Style
Table - List Column Title Cell	lt	text-align:left; background-color:#FFF; /*white*/ font-weight:bold; border-top:1px solid silver; border-left:0px solid silver; border-bottom:1.5pt solid black; border-right:1px solid silver; vertical-align; top; padding-top: 3px 5px;
Table - List Column Body Cell	lc	border:1px solid silver;
Table - List Column Body Cell Interior	lci	
Table - List Column Body Measure Cell	lm	
Table - Outer header	oh	background-color:#FFFFCC; /*light yellow*/
Table - List Footer	of, os	border-top:1.5pt solid black;
Table - Totals Row	ttr, ctr	
Table - Totals Header	cth	
List - Inner Header Cell	ih	
List - Outer Header Cell	oh	
Outer Header Cell with Top Border	ohl	
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, cht	background-color: transparent; border:1px solid silver;
Crosstab - Member value cell	mv	
Crosstab - Outer Level Total	ol	background-color:#F7F7F7; /*offwhite*/
Crosstab - Spacer	xs	background-color: transparent; font-weight: bold;

Table 26. Global report styles (continued).

Item	CSS class name	Style
Crosstab - Totals First Row	tr	
Chart	ch	border:1pt solid #E4E4E4;
Chart - Title	ct	font-size:10pt; font-weight:bold;
Chart - Axis Labels	al	font-size:10pt;
Chart - Axis Line	at	color:#939393;
Chart - Gradient	In XML Report Specification	Before the closing chart tag (</combinationChart>) in the XML Report Specification, paste the following: <fillEffects> <chartGradient direction="up" fromColor="#F2F2F2" toColor="#FFFFFF"/> </fillEffects>
Chart - Chart Palette	In XML Report Specification	Before the closing chart tag (</combinationChart>) in the XML Report Specification, paste the following: <chartPalette> <chartColor value="#00508A"/> <chartColor value="#376C37"/> <chartColor value="#FB9A4D"/> <chartColor value="#B8351F"/> <chartColor value="#69817B"/> <chartColor value="#473E9A"/> <chartColor value="#5384AE"/> <chartColor value="#61C2A3"/> <chartColor value="#FF5656"/> <chartColor value="#A583BB"/> <chartColor value="#506079"/> <chartColor value="#A0A080"/> <chartColor value="#F1EDC1"/> <chartColor value="#A6A6A6"/> <chartColor value="#818181"/> </chartPalette>
Complex Table Total - New Class Added	ctth	

Report page styles

Use the styles included with the global report style sheet, `GlobalReportStyles.css` for the report page.

Table 27. Report page styles.

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` for the list report.

The following table shows formatting from the `GlobalStyleSheet.css` style sheet:

Table 28. List report styles

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, do the following to make it match the existing reports:

- Use List Headers (and not List Footers) to display summarizations 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. So 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

Following is 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
Multi - Wave Campaign		18,611	18,243	312	67
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
Multi-Channel Category Cross-Sell		19,672	19,672	4,825	2,541
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

Following is a list report that uses the global styles.

Offer Call Information									
<div> <div> Offer </div> <div> Number of Offers Selected: 4 </div> </div>									
Offer Name	Campaign Name	Offers Count	Response Transactions	Response Rate	Unique Responses	Unique Responders	Response Rate	Not Contacted Responses	Responses After Expiration
Offer: Media (0000000000)		14	18	128.57%	14	0	11.66%	0	0
	Full Campaign (0000000000)	14	18	128.57%	14	0	11.66%	0	0
Offer: Full (0000000000)		20	19	95.00%	11	10	126.76%	1	0
	Inner Campaign_1 (0000000000)	0	10	100.00%	0	0	100.00%	1	0
	Test Campaign_1 (0000000000)	0	10	100.00%	0	0	100.00%	0	0
	Full Campaign (0000000000)	0	10	100.00%	0	0	100.00%	0	0
	BM Campaign - InnerFull_Campaign_001 (0000000000)	0	0	0.00%	0	7	140.00%	2	0
	Comparing Test 1 (0000000000)	0	0	0	0	0	0	0	0
Offer: Full (0000000000)		27	64	237.04%	21	10	180.00%	0	0
	BM Campaign - InnerFull_Campaign_001 (0000000000)	7	10	142.86%	0	0	100.00%	0	0
	Full Campaign (0000000000)	10	30	300.00%	10	10	100.00%	0	0
	Test Campaign_1 (0000000000)	10	10	100.00%	0	10	100.00%	0	0
	Inner Campaign_1 (0000000000)	0	0	0.00%	0	0	0.00%	0	0
Report Total		40	118	295.00%	-	-	-	01	0

Date formats for globalized versions

If you use a globalized version of the IBM EMM 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 29. Cognos list reports date formats 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

Table 29. Cognos list reports date formats for globalized versions (continued)

Locale	Cognos list reports date format example
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 for the crosstab reports.

Crosstab reports obtain the following formatting from the GlobalStyleSheet.css.

Table 30. Crosstab report styles.

Item	Style
Cells	White background; 1 px light gray border at top and bottom
Measure cell (upper left)	1px light gray border at bottom
Complex Table Row (ctr)	2px solid black left border, bold font
Complex Table Total (ctt)	Gray background, 2px solid black left border
Complex Table Total (ctth)	Gray background; 2px solid black bottom border and
Table Total Rows (ttr)	Gray background

Additionally, when you create a new list report, do the following to make it match the existing reports.

- Use 1.5 pt black borders to separate summarizations from measures.
- Use 1.5 black borders to group logical column groupings.
- General guideline: avoid summarizing both columns and rows in the same report.

The following is 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	Number of Offers Given	Unique Recipients	Number of Offers Given	Unique Recipients	Number of Offers Given	Unique Recipients	Number of Offers Given	Unique Recipients	Number of Offers Given
	1,263	1,263	6,941	6,637	8,404	7,157	8,337	8,337			
Cross Sell	19,940	19,806	24,324	24,324					9,563	9,563	
Loyalty	3,856	3,856			4,414	4,414					
Retention	150	150			12,756	12,756					23,114
Acquisition					13,339	13,339	5,000	5,000			

The following is a crosstab report that uses the global styles.

Month Range: 1/14 to 8/14
**Number of Campaign(s) Selected: 2

	Jan 2014			Aug 2014			Total		
	Offers Given	Response Transactions	Response Rate	Offers Given	Response Transactions	Response Rate	Offers Given	Response Transactions	Response Rate
Fal Campaign (C000000022)	5	10	200.00%	0	0	0.00%	5	10	200.00%
	10	20	200.00%	0	0	0.00%	10	20	200.00%
SBH Campaign ProjectFal_Campaign_Test1 (C000000018)	9	7	77.78%	0	1	0.00%	9	8	88.89%
	3	15	500.00%	0	0	0.00%	3	15	500.00%

Chart styles

Use the styles included with the global report style sheet, GlobalReportStyles.css for the charts.

Charts obtain the following formatting from the GlobalStyleSheet.css.

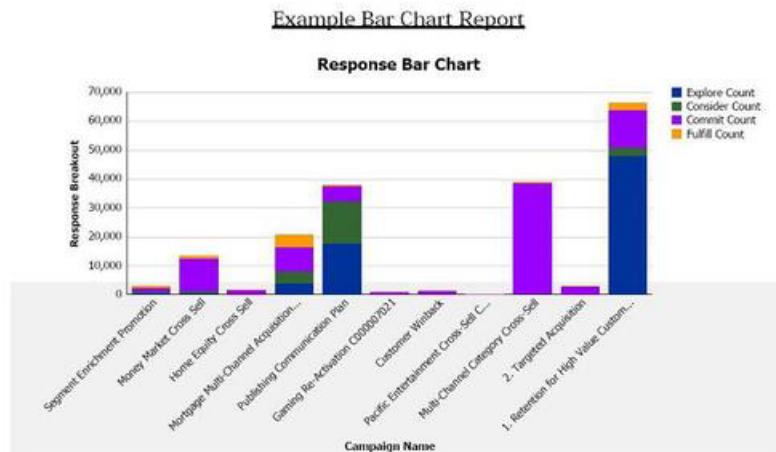
Table 31. Chart styles.

Item	Style
Charts	1 pt light gray border
Titles and labels	10 point bold font

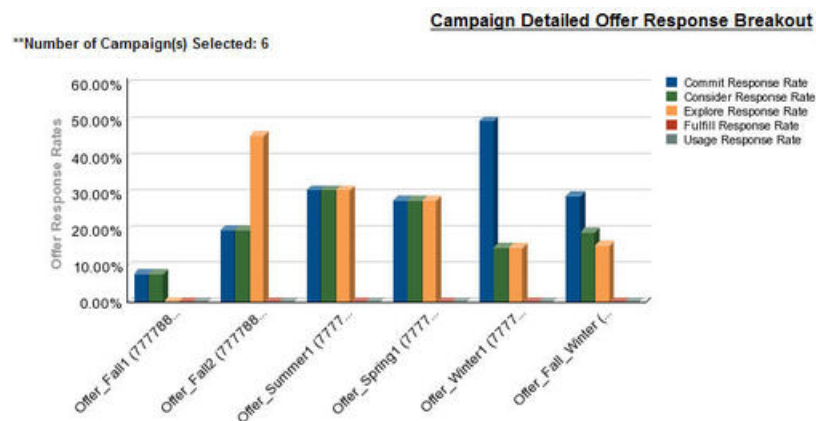
Additionally, when you create a new chart, do the following to make it match the existing chart reports.

- 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 133 into the XML report specification.
- General guideline: select the chart type based on the data 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.

Following is a chart that does not use the global styles.



Following is 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 IBM EMM 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 32. Cognos chart reports date formats 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

Table 32. Cognos chart reports date formats for globalized versions (continued)

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.

Be sure to format reports that are displayed in the Dashboard according to the following guidelines so they fit properly in Dashboard portlets.

Table 33. Dashboard report styles.

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.

Appendix C. Formatting the Campaign and eMessage Cognos reports

Additional styling is done for Campaign and eMessage Cognos reports. The global report styles are modified to add extra classes to override the styling of existing classes to improve the look and feel of Campaign and eMessage reports.

The page class, `newpg`, is created to style Campaign and eMessage reports. All reports are modified to use the `newpg` class for the page style. Child classes are added to the `newpg` parent class in the `GlobalReportStyles.css`.

Use the new page class, `newpg`, for creating new report pages when styling Campaign and eMessage Cognos reports

This appendix provides the following information for the various kinds of reports (lists, charts, and so on).

- The styles that are implemented with the `GlobalReportStyles.css` file.
- Style formatting is something that you must do manually when you author a report, because there are certain cases in which the style cannot be provided by the style sheet.

Global report styles

Use the styles included with the global report style sheet, `GlobalReportStyles.css` for your IBM Campaign and eMessage Cognos report.

Table 34. Global report styles.

Item	CSS class name	Style
Page - Header	ph	padding-bottom:10px; font-size:8pt; font-weight:bold;
Page - Footer	pf	padding-top:10px; font-size:8pt; font-weight:bold;
Table - List column title cell	lt	text-align:left; background-color:#FFF; font-weight:bold; border-left:0px solid silver; border-bottom:1.5pt solid black; border-right:1px solid silver; vertical-align: top; padding-top: 3px 5px;

Table 34. Global report styles (continued).

Item	CSS class name	Style
Table - List column body cell interior	lci	border-top:1px solid #A0A0A0; border-bottom:1px solid #A0A0A0; background-color: white !important; text-align: right; padding: 3px 5px; vertical-align: middle;
Table - List column body cell	lc	border-top:1px solid #ddd; border-bottom:1px solid #ddd; padding: 3px 5px; text-align: left; vertical-align: middle;
Table - List column body measure cell	lm	vertical-align: top; border:1px solid #ddd; border-right: 0; border-left: 0; padding: 3px 5px; text-align: right;
Crosstab - Totals first row	tr	border-left: 2px solid black; background-color: #bebebe !important; font-weight: bold; padding: 3px 5px;
Complex table total -new class added	ctth	color: #000000; background-color: #bebebe; border-bottom:2px solid black; padding: 3px 5px; border-left: 2px solid #bebebe;
Table totals row	ttr	color: #000000; background-color: #bebebe; padding: 3px 5px; border-left: 2px solid #bebebe;

Table 34. Global report styles (continued).

Item	CSS class name	Style
Table totals row	ctr	color: #000000; font-weight: bold; border-left:2px solid black; background-color: white; border-bottom:1px solid #a2a2a2;
Table totals header	cth	color: #000000; border-bottom:2px solid black; border-left:1.5px solid white; border-right:1.5px solid white; font-weight: 100;
List - Inner header cell	ih	border-top:1px solid #A0A0A0; border-bottom:1px solid #A0A0A0; padding: 3px 5px; vertical-align: middle;
List - Outer header cell	oh	font-weight: bold; vertical-align: top; background-color: #ddd; border: 1px solid #CCCCCC; border-right: 0; border-left: 0; padding: 3px 5px; word-break:keep-all;
Outer header cell with top border	ohl	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; border-bottom:none;
Crosstab	xt	border-bottom: 2px solid black;

Table 34. Global report styles (continued).

Item	CSS class name	Style
Crosstab - Member label cell	ml	font-style: normal !important; color: black; font-weight: 300; height: 30px; border-left: none; border-right: none; border-bottom: 1px solid #a2a2a2;
Crosstab - Member label cell	cht	vertical-align: top; background-color: transparent; padding: 3px 5px; text-align: left;
Crosstab - Member value cell	mv	vertical-align: top; white-space: nowrap; border: 1px solid #a2a2a2; padding: 3px 5px; text-align: right; border-left: none; border-right: none;
Field set	fs	display: -moz-inline-block; display: inline; text-align: left; font-size: 8pt; margin-right: 1446px;
Chart	ch	border: 1pt solid #E4E4E4;
Chart - Title	ct	font-size: 10pt; font-weight: bold;
Chart - Axis labels	al	font-size: 10pt;
Chart - Axis title	at	font-weight: bold; text-align: center; font-size: 10pt; color: #939393;

Table 34. Global report styles (continued).

Item	CSS class name	Style
Chart - Chart Palette	In XML Report Specification	<p>Before the closing chart tag (</combinationChart>) in the XML Report Specification, paste the following:</p> <pre> <chartPalette> <chartColor value="#C7E0E9"/> <chartColor value="#A8C9E5"/> <chartColor value="#59A0BD"/> <chartColor value="#497C91"/> <chartColor value="#C9C6E4"/> <chartColor value="#B1ADD8"/> <chartColor value="#8D88C7"/> <chartColor value="#7B78A4"/> <chartColor value="#F0EEBB"/> <chartColor value="#EEEE99"/> <chartColor value="#E8E667"/> <chartColor value="#B7B35C"/> <chartColor value="#C0D0A0"/> <chartColor value="#A8C179"/> <chartColor value="#677E13"/> <chartColor value="#768B4E"/> </chartPalette> </pre>

List report styles

Use the styles included with the global report style sheet, GlobalReportStyles.css for the list report.

The following table shows formatting from the GlobalStyleSheet.css style sheet:

Table 35. List report styles.

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 is a list report that uses the global styles.

Hide/Show List Information									
Hide									
**Number of Offer(s) Selected: 4									
Offer Name	Campaign Name	Offers Given	Response Transactions	Response Rate	Unique Recipients	Unique Responders	Responder Rate	Not Contacted Responders	Responses After Expiration
Offer Winter (000000004)		14	18	128.57%	14	6	42.86%	0	0
	Fall Campaign (000000022)	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 (000000006)	6	30	500.00%	6	9	150.00%	3	0
	Test Campaign1 (000000020)	5	18	360.00%	5	5	100.00%	0	0
	Fall Campaign (000000022)	5	16	320.00%	5	6	120.00%	1	0
	IBM Campaign ProjectFall_Campaign_Test1 (000000018)	9	8	88.89%	5	7	140.00%	2	0
	Campaign Test 1 (000000008)	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 (000000018)	3	15	500.00%	2	2	100.00%	0	0
	Fall Campaign (000000022)	10	30	300.00%	10	10	100.00%	0	0
	Test Campaign1 (000000020)	10	15	150.00%	10	10	100.00%	0	0
	Winter_Campaign_1 (000000006)	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 IBM EMM 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 36. Cognos list reports date formats 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 for the crosstab reports.

Crosstab reports obtain the following formatting from the GlobalStyleSheet.css.

Table 37. Crosstab report styles.

Item	Style
Cells	White background; 1 px medium light gray border at top and bottom
Measure cell (upper left)	1px light gray border at bottom
Complex Table Row (ctr)	2px solid black left border, bold font
Complex Table Total (ctt)	Gray background, 2px solid black left border

Table 37. Crosstab report styles (continued).

Item	Style
Complex Table Total (ctth)	Gray background; 2px solid black bottom border and
Table Total Rows (ttr)	Gray background

The following is a crosstab report that uses the global styles.

		Jan 2014			Aug 2014			Total		
		Offers Given	Response Transactions	Response Rate	Offers Given	Response Transactions	Response Rate	Offers Given	Response Transactions	Response Rate
Fall Campaign (C000000022)	Offer_fall1 (000000024)	5	10	200.00%	0	6	0.00%	5	16	320.00%
	Offer_fall2 (000000026)	10	20	200.00%	0	10	0.00%	10	30	300.00%
IBM Campaign Project Fall Campaign_test1 (C000000018)	Offer_fall1 (000000024)	9	7	77.78%	0	1	0.00%	9	8	88.89%
	Offer_fall2 (000000026)	3	15	500.00%	0	0	0.00%	3	15	500.00%

Chart styles

Use the styles included with the global report style sheet, GlobalReportStyles.css for the charts.

Charts obtain the following formatting from the GlobalStyleSheet.css.

Table 38. Chart styles.

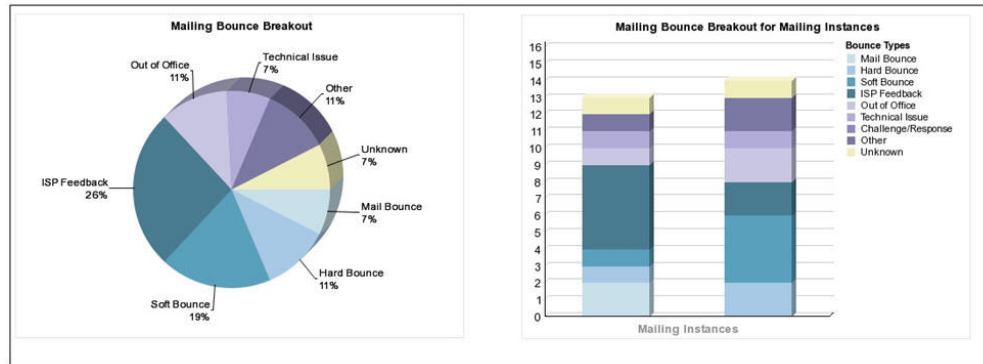
Item	Style
Charts	1 pt light gray border
Titles and labels	10 point bold font

Additionally, when you create a new chart, do the following to make it 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 143 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.

Following is 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 IBM EMM 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 39. Cognos chart reports date formats 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
Simplified Chinese	14-3-18
Spanish	18/03/14

Dashboard report styles

Dashboard reports use the global styles with some manual formatting.

Be sure to format reports that are displayed in the Dashboard according to the following guidelines so they fit properly in Dashboard portlets.

Table 40. Dashboard report styles.

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.

Table 40. Dashboard report styles (continued).

Item	Style
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.

Appendix D. Reports and reporting schemas by product

You can customize the reporting schemas in the Campaign Report Package by adding contact or response metrics, attributes, or response types.

The reporting schemas in the 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 IBM Cognos BI reports provided in the Campaign Reports Package to the reporting schemas that support them.

Table 41. Mapping of IBM 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		
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			
Campaign Performance Comparison	X		X			
Campaign Response Rate Comparison	X		X			

Table 41. Mapping of IBM Cognos BI reports to the reporting schema (continued)

	Campaign Views schema	Campaign Custom Attributes schema	Campaign Performance schema	Offer Performance schema	Campaign Offer Response Breakout	Offer Contact Status Breakout
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			
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					
Offer Performance Metrics	X			X		
Offer Performance by Day	X			X		
Offer Responses for Last 7 Days	X			X		

Table 41. Mapping of IBM Cognos BI reports to the reporting schema (continued)

	Campaign Views schema	Campaign Custom Attributes schema	Campaign Performance schema	Offer Performance schema	Campaign Offer Response Breakout	Offer Contact Status Breakout
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 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

eMessage Reports and Reporting Schemas

Different reports, such as Message Overview report, Detailed Link report, eMessage Reports Processing Overview, and SMS Message Summary Report are available in the eMessage Reports Package.

The following table maps the individual IBM Cognos BI reports provided in the eMessage Reports Package to the IBM reporting schemas that support them.

Table 42. eMessage reports and reporting schemas

	Mailing Performance Schema
Message Overview report	X
Detailed Link report	X
Detailed Link by Cell report	X
Detailed Bounce report	X
A/B Testing Performance Report	X
eMessage Reports Processing Overview	X
SMS Message Summary Report	X

Interact Reports and Reporting Schemas

The Interact Report Package reports are supported by IBM 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 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 IBM Cognos BI reports provided in the Interact Reports Package to the IBM reporting schemas that support them.

	Interactive View schema	Interact Performance View schema	Interactive Channel / Campaign Deployment History	Interact Runtime View schema	Interact Learning View schema
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	
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 View schema	Interact Performance View schema	Interactive Channel / Campaign Deployment History	Interact Runtime View schema	Interact Learning View schema
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	
Interactive Channel - Channel Treatment Rule Inventory	X				
Interactive Segment Lift Analysis	X	X		X	
Interaction Point Performance	X	X		X	

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

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

Note: Technical Support does not write or create API scripts. For assistance in implementing our API offerings, contact IBM Professional Services.

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

System information

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

If your problem does not prevent you from logging in, much of this information is available on the About page, which provides information about your installed IBM applications.

You can access the About page by selecting **Help > About**. If the About page is not accessible, check for a `version.txt` file that is located under the installation directory for your application.

Contact information for IBM technical support

For ways to contact IBM technical support, see the IBM Product Technical Support website: (http://www.ibm.com/support/entry/portal/open_service_request).

Note: To enter a support request, you must log in with an IBM account. This account must be linked to your IBM customer number. To learn more about associating your account with your IBM customer number, see **Support Resources > Entitled Software Support** on the Support Portal.

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