

IBM Campaign
Version 9 Release 0
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Installation Guide



Note

Before using this information and the product it supports, read the information in "Notices" on page 93.

This edition applies to version 9, release 0, modification 0 of IBM Campaign and to all subsequent releases and modifications until otherwise indicated in new editions.

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Chapter 1. Preparing to install IBM Campaign

The installation process involves working with a number of software and hardware elements, including some that IBM® does not provide. The IBM documentation provides guidance for installing, configuring, and upgrading the IBM EMM product. For information about working with systems that IBM does not provide, see the documentation for those products.

Before you begin to install the IBM EMM software, plan your installation, including both your business objectives and the hardware and software environment that is required to support them.

IBM Campaign installation checklist

The following steps provide an overview of a basic Campaign installation. Details are provided in the rest of this guide.

A. Prepare for the installation

1. If you are upgrading, see Chapter 9, “Upgrading Campaign,” on page 57.
2. Read about the “Installing Campaign with other system components” on page 3.
3. Be sure you have met the “Prerequisites” on page 3.
4. If you are configuring multiple partitions, see Chapter 7, “Configuring multiple partitions in Campaign,” on page 41.
5. If you are using or plan to use eMessage, see “Integration of eMessage with Campaign” on page 5.

B. Prepare data sources for Campaign

1. “Step: Create the database or schema for the Campaign system tables” on page 7
Work with a database administrator to create a database or schema for the Campaign system tables.
2. “Step: Create the ODBC or native connections on the Campaign machine” on page 7
Create ODBC or native connections to the Campaign system tables and customer (user) tables.
3. “Step: Configure the web application server for your JDBC driver” on page 8
Add the database drivers to the web application server classpath.
4. “Step: Create the JDBC connections in the web application server” on page 9
Create JDBC connections to the Campaign and Marketing Platform system tables, using the required and recommended JNDI names.

C. Install Campaign

1. Gather the required database and web application server information.
See “Information required to install all IBM EMM products” on page 13.
2. “Step: Obtain the IBM installers” on page 18
Obtain the Campaign and report package installers.
3. “Step: Run the IBM EMM installer” on page 19

With the Marketing Platform installed, deployed, and running, install Campaign.

D. Configure Campaign before deployment

1. "Step: Create and populate the Campaign system tables manually, if necessary" on page 23

If you did not allow the Campaign installer to create the system tables automatically, use the provided SQL scripts to create and populate the system tables.

2. "Step: Register Campaign manually, if necessary" on page 25

If the installer was unable to register Campaign, use Marketing Platform utilities to register manually.

3. "Step: Set data source variables in the Campaign startup script (UNIX only)" on page 26

If you install on UNIX and need to enable access to database types other than the one in which the system tables reside, add database environment variables and library paths to the startup script.

E. Deploy the Campaign web application

1. Follow the deployment guidelines in Chapter 5, "Deploying the IBM Campaign web application," on page 29.

2. "Step: Start the Campaign server" on page 33

You can start the server directly or (on a Windows installation) install it as a service on your operating system.

F. Configure Campaign after deployment

1. "Step: Verify the Campaign listener is running" on page 35

Confirm that the Campaign listener is running. The listener must be running before you can work with any Campaign features.

2. "Step: Set up the Campaign system user" on page 35

Set up an IBM system user in the **Settings > Users** area to hold data source credentials.

3. "Step: Add data source properties on the Configuration page" on page 36

For each database or schema that your installation of Campaign will use, import the templates appropriate for the vendor or vendors. Then use the templates to create a set of database configuration properties for each database or schema.

4. "Steps: Set required Campaign properties on the Configuration page" on page 37

Set the database properties and other required properties on the **Settings > Configuration** page.

5. "Step: Map user tables in Campaign" on page 38

Map your customer (user) tables.

6. "Step: Verify the Campaign installation" on page 38

Confirm that you can create a campaign and a flowchart.

7. "Step: Perform optional configurations for integration with IBM applications" on page 39

If you are integrating Campaign with other IBM applications, configure the integration.

Installing Campaign with other system components

The following diagram provides an overview of where to install IBM applications. The diagram shows all the products, which are not all required for Campaign.

This setup represents a basic installation. You might require a more complex, distributed installation to meet your security and performance requirements.

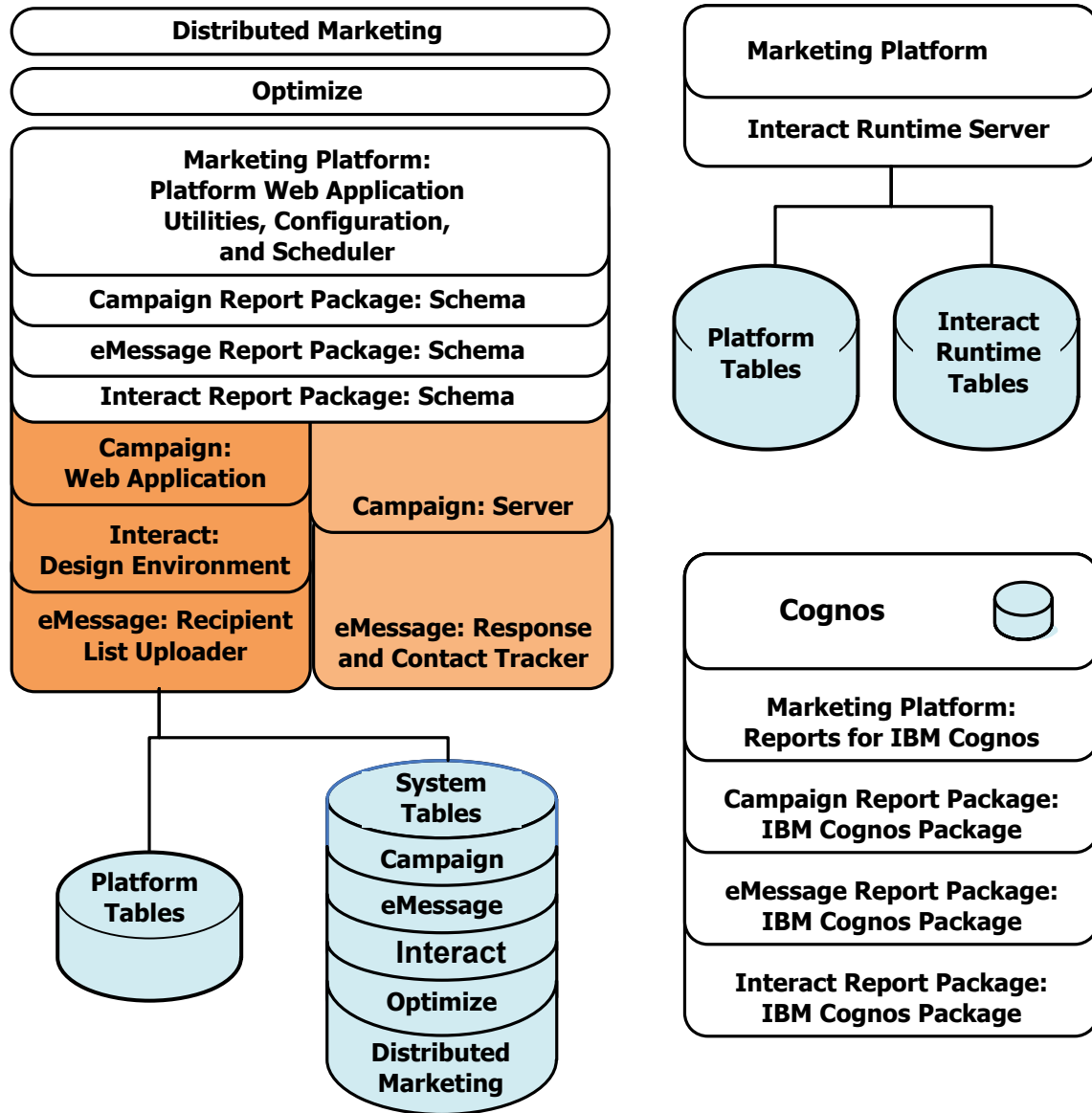


Figure 1. IBM EMM components

Prerequisites

The following are prerequisites for installing IBM EMM products.

System requirements

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

JVM requirement

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

Network domain requirement

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

Knowledge requirement

To install IBM EMM products, you must possess or work with people who possess a thorough knowledge of the environment in which the products are installed. This knowledge includes the operating systems, databases, and web application servers.

Client machines

Client machines must meet the following configuration requirements.

- If software to block pop-up ad windows is installed on the client machine, Campaign might not function properly. For best results, disable the software to block pop-up ad windows while running Campaign.

Access permissions

Verify that your network permissions allow you to perform the procedures in this guide, and that you have logins with appropriate permissions.

Appropriate permissions include:

- The administrative password for your web application server.
- Administration access for all necessary databases.
- 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.
- The operating system account that you use to run the web application server and IBM EMM components must have read and write access to the relevant directory and subdirectories.
- On UNIX, the user account that installs Campaign and the Marketing Platform must be a member of the same group as Campaign users. This user account must have a valid home directory, and have write permissions for that directory.
- On UNIX, all of the installer files for IBM products must have full execute permissions (for example, `rwxr-xr-x`).

Marketing Platform requirement

Before you install any IBM EMM products, the Marketing Platform must be installed.

For each group of products that will work together, you need to install the Marketing Platform only once.

Important: Each product installer checks to see if required products are installed. If your product or version is not registered in Marketing Platform, you will receive a notification that before you proceed with your installation, you must upgrade or install, and the installer will exit. The message will only be shown if your product was found with an older version or was not found.

The Marketing Platform must be deployed and running before you can set any properties on the **Settings > Configuration** page.

Check for a JAVA_HOME environment variable

If you have a JAVA_HOME environment variable defined on the machine where you are installing an IBM EMM product, verify that it is pointing to version 1.6 of the Sun JRE.

This environment variable is not required for installing IBM EMM products, but if it is present, it must point to the 1.6 version of the Sun JRE.

If you have a JAVA_HOME environment variable, and it points to an incorrect JRE, you must unset the JAVA_HOME variable before you run the IBM EMM installers. You can do this as follows:

- Windows: In a command window, enter
`set JAVA_HOME=leave empty and press return key`
- UNIX-type systems: In the terminal, enter
`export JAVA_HOME=leave empty and press return key`

After the environment variable is unset, the IBM EMM installers use the JRE bundled with the installers.

You can reset the environment variable after installation is complete.

Integration of eMessage with Campaign

When IBM Campaign is integrated with IBM eMessage, you can use eMessage to conduct highly personalized email marketing campaigns.

eMessage provides access to resources hosted by IBM so you can design, send, and monitor individually customized messages based on information stored in your customer datamart.

- In Campaign, use flowcharts to create lists of email recipients and select personalization data for each recipient.
- In eMessage, use email design, transmission, and deliverability resources hosted by IBM to conduct email marketing campaigns.

About eMessage configuration

IBM eMessage is installed automatically when you install Campaign. However, eMessage is not configured or enabled during the Campaign installation process.

To use eMessage after you install Campaign, you must purchase a hosted email subscription. You then configure eMessage to establish a secure connection to hosted email resources that IBM maintains as part of IBM EMM Hosted Services. You access these email resources through a hosted email account that IBM creates as part of your subscription.

To learn how to install and configure eMessage, see the following documents:

- The *IBM Campaign Installation Guide* explains how to install or upgrade eMessage. It also explains how to prepare the "On Premises" eMessage components that are installed in the local environment.
- The *IBM eMessage Startup and Administrator's Guide* explains how to connect to the "On Demand" hosted email resources. It also explains how to maintain and monitor your eMessage implementation.

Requirements for eMessage reports

IBM EMM integrates with IBM Cognos® to provide reporting features. To view standard eMessage performance reports, you must install the supported version of IBM Cognos and the associated report pack for IBM Campaign. Standard eMessage reports are installed as part of the Campaign reports pack.

For more information, see the *IBM EMM Reports Installation and Configuration Guide*.

Chapter 2. Preparing data sources for IBM Campaign

To prepare data sources for Campaign, you perform the procedures described in the following steps.

1. “Step: Create the database or schema for the Campaign system tables”
2. “Step: Create the ODBC or native connections on the Campaign machine”
3. “Step: Configure the web application server for your JDBC driver” on page 8
4. “Step: Create the JDBC connections in the web application server” on page 9

If you are configuring multiple partitions, you should read Chapter 7, “Configuring multiple partitions in Campaign,” on page 41.

Step: Create the database or schema for the Campaign system tables

1. Work with a database administrator to create a database or schema to hold the Campaign system tables.

Note: Campaign requires customer tables, which should already exist.

2. Have the database administrator create a system user account for later in the installation process.

Note: The system user account must have the following rights: CREATE, DELETE, DROP, INSERT, SELECT, and UPDATE.

3. Print the “IBM Campaign database information checklist” on page 11. Obtain the information about your database or schema and database account, and then note this information in the checklist. Continue to fill in the checklist as you perform the rest of the steps in this section, so that you can use this information later in the installation process.

Note: The IBM eMessage system tables are created in the Campaign schema during the installation. However, eMessage is not enabled. For more information, see “About installing eMessage with Campaign” on page 17.

Step: Create the ODBC or native connections on the Campaign machine

The machine on which the Campaign server is installed must have an ODBC or native connection to the following databases:

- The database or schema that contains the Campaign system tables
- The database or schema that contains the customer tables.

Use the following guidelines to create these ODBC or native connections:

- For databases on UNIX: You create native connections for DB2[®] and Oracle databases or ODBC connections for other databases, such as SQL Server, Teradata, Netezza[®], and so on. The procedure for creating a native data source differs depending on the data source type and the version of UNIX. See the data source and operating system documentation for specific ODBC driver installation and configuration instructions.
- For databases on Windows: You create a new ODBC connection in the Control Panel's **Administrative Tools > Data Sources (ODBC)** section.

Record the ODBC name in the “IBM Campaign database information checklist” on page 11.

Step: Configure the web application server for your JDBC driver

The web application server where you plan to deploy Campaign must contain the correct JAR file to support JDBC connections. You must add the location of the JAR file to the classpath of the web application server.

Perform the following procedure for each database type that Campaign will connect to, so the Campaign Java component can access the Campaign system tables.

1. Consult the *Recommended Software Environments and Minimum System Requirements* document to determine the correct JAR file for your database type. The following list of supported database drivers was correct at publication time:

- For supported versions of MS SQL Server: sqljdbc4.jar
- For IBM DB2 9.7: db2jcc.jar
- For IBM DB2 10.1: db2jcc4.jar
- For supported versions of Oracle: ojdbc6.jar

2. Obtain the latest vendor-provided Type 4 JDBC driver that is supported by IBM EMM.

- If the driver does not exist on the machine where you plan to deploy Campaign, copy the driver to any location on that machine. Unpack the driver in a path that does not include spaces.
- If you obtain the driver from a machine where the data source client is installed, verify that the version is supported.

3. Include the full path and file name of the driver in the classpath of the web application server where you plan to deploy Campaign.

- For all supported versions of WebLogic, set the classpath in the setDomainEnv script in the *WebLogic_domain_directory/bin* directory where environment variables are configured.

The driver must be the first entry in the CLASSPATH list of values before any existing values. For example:

UNIX

```
CLASSPATH="/home/oracle/product/<version>/jdbc/lib/odbc6.jar:  
${PRE_CLASSPATH}${CLASSPATHSEP}${WEBLOGIC_CLASSPATH}  
${CLASSPATHSEP}${POST_CLASSPATH}${CLASSPATHSEP}${WLP_POST_CLASSPATH}"  
export CLASSPATH
```

Windows

```
set CLASSPATH=c:\oracle\jdbc\lib\odbc6.jar;%PRE_CLASSPATH%;  
%WEBLOGIC_CLASSPATH%;%POST_CLASSPATH%;%WLP_POST_CLASSPATH%
```

- For all supported versions of WebSphere, set the classpath in the Administration console when you set up the JDBC providers for the IBM EMM products.

4. Restart the web application server so your changes take effect.

During startup, monitor the console log to confirm that the classpath contains the path to the database driver.

Step: Create the JDBC connections in the web application server

The Campaign web application must be able to communicate with the required databases using JDBC connections. You create these JDBC connections in the web application server where you plan to deploy Campaign.

1. Use the following list to determine which JDBC connections you must create for the Campaign web application. The list includes the suggested and required JNDI names.

- A connection to the database holding the Campaign system tables:
 - If there is one partition, the suggested JNDI name is `campaignPartition1DS`.
 - If there is more than one partition, a best practice is to use `campaignPartition1DS` for the first connection, `campaignPartition2DS` for the second, and so on.

Note: This practice is provided as an example only. You can specify any JNDI names for Campaign system table connections.

- A connection to the database holding the Marketing Platform system tables. Use `UnicaPlatformDS` as the JNDI name.

Important: `UnicaPlatformDS` is the required JNDI name.

If you are deploying Campaign in the same JVM as your Marketing Platform deployment, you have probably already set up this connection.

For more information about creating JDBC connections in your web application server, see the WebLogic or WebSphere documentation.

Note: If you are using WebLogic to configure a data source to an Oracle or DB2 database, you must also specify the database user name in the form `user=<DBUser>` in the Properties section on the Connection Pool tab. For more information, see your WebLogic documentation.

2. Record all JNDI names in the "IBM Campaign database information checklist" on page 11.

Information for creating JDBC connections

When you create a JDBC connection, you can use this section to help you determine some of the values you must enter.

Note: If you are not using the default port setting for your database, make sure you change it to the correct value.

This information does not reflect all of the information required by the web application servers. Where this section does not provide explicit instructions, you can accept the default values. Consult the application server documentation if you need more comprehensive help.

WebLogic

Use these values if your application server is WebLogic.

SQLServer

- Database Driver: Microsoft MS SQL Server Driver (Type 4) Versions: 2008, 2008R2
- Default port: 1433

- Driver class: `com.microsoft.sqlserver.jdbc.SQLServerDriver`
- Driver URL: `jdbc:sqlserver://<your_db_host>:<your_db_port>;databaseName=<your_db_name>`
- Properties: Add `user=<your_db_user_name>`

Oracle 11 and 11g

- Driver: Other
- Default port: 1521
- Driver class: `oracle.jdbc.OracleDriver`
- Driver URL:
`jdbc:oracle:thin:@<your_db_host>:<your_db_port>:<your_db_service_name>`
Enter the driver URL using the format shown. IBM EMM applications do not allow the use of Oracle's RAC (Real Application Cluster) format for JDBC connections.
- Properties: Add `user=<your_db_user_name>`

DB2

- Driver: Other
- Default port: 50000
- Driver class: `com.ibm.db2.jcc.DB2Driver`
- Driver URL: `jdbc:db2://<your_db_host>:<your_db_port>/<your_db_name>`
- Properties: Add `user=<your_db_user_name>`

WebSphere

Use these values if your application server is WebSphere.

SQLServer

- Driver: N/A
- Default port: 1433
- Driver class:
`com.microsoft.sqlserver.jdbc.SQLServerConnectionPoolDataSource`
- Driver URL: N/A

In the **Database Type** field, select **User-defined**.

After you create the JDBC Provider and Data Source, go to the Custom Properties for the Data Source, and add and modify properties as follows.

- `serverName=<your_SQL_server_name>`
- `portNumber =<SQL_Server_Port_Number>`
- `databaseName=<your_database_name>`
- `enable2Phase = false`

Oracle 11 and 11g

- Driver: Oracle JDBC Driver
- Default port: 1521
- Driver class: `oracle.jdbc.OracleDriver`
- Driver URL:
`jdbc:oracle:thin:@<your_db_host>:<your_db_port>:<your_db_service_name>`

Enter the driver URL using the format shown. IBM EMM applications do not allow the use of Oracle's RAC (Real Application Cluster) format for JDBC connections.

DB2

- Driver: DB2 Universal JDBC Driver Provider
- Default port: 50000
- Driver class: `com.ibm.db2.jcc.DB2Driver`
- Driver URL: `jdbc:db2://<your_db_host>:<your_db_port>/<your_db_name>`

Add the following custom property:

Name: `webSphereDefaultIsolationLevel`

Value: 2

Datatype: Integer

IBM Campaign database information checklist

Record the information about the database holding your Campaign system tables for later use.

Field	Notes
Database type	
Database name	
Database account user name	
Database account password	
JNDI name	
ODBC name	

If you are installing on UNIX, obtain the following additional information. You use it when you edit the `setenv.sh` file during the installation and configuration process.

Database information	Notes
If your database type is one of the following types, record the database installation directory. <ul style="list-style-type: none"> • DB2 • Oracle 	
If your database type is one of the following types, record the location of the <code>ODBC.ini</code> file. <ul style="list-style-type: none"> • Netezza • Teradata 	
For all database types when Campaign is installed on the Solaris, Linux, or AIX® operating systems, record the location of the <code>lib</code> directory in the database installation.	

Chapter 3. Installing IBM Campaign

Installing IBM Campaign involves obtaining the correct set of installer files for your operating system, placing them into the correct locations with access to the system where you want to install the product, and ensuring that all prerequisites are met before continuing.

Be aware that you must have the installation files or an installed instance of IBM Marketing Platform prior to continuing the Campaign installation. If you have not already done so, see the *IBM Marketing Platform Installation Guide* for details.

Information required to install all IBM EMM products

Gather the required information as described in this section.

Marketing Platform information

The installation wizards for each IBM EMM product must be able to communicate with the Marketing Platform system table database, to register the product.

Each time you run the installer, you must enter the following database connection information for the Marketing Platform system table database.

- Database type.
- Database host name.
- Database port.
- Database name or schema ID.
- User name and password for the database account.

You obtained this information when you created the database or schema.

Web component information

For all IBM EMM products that have a web component that you deploy on a web application server, you must obtain the following.

- The name of the systems on which the web application servers are installed. You might have one or several, depending on the IBM EMM environment you are setting up.
- The port on which the application server listens. If you plan to implement SSL, obtain the SSL port.
- The network domain for your deployment system. For example, mycompany.com.

IBM Site ID

The installer might prompt you to enter your IBM Site ID. Your IBM Site ID can be found on the IBM Welcome letter, Tech Support Welcome letter, Proof of Entitlement letter, or other communications sent when you purchased your software.

IBM might use data provided by the software to better understand how customers use our products and to improve customer support. The data gathered does not include any information that identifies individuals.

If you do not want to have such information collected, after the Marketing Platform is installed, log on to the Marketing Platform as a user with administration privileges. Navigate to the **Settings > Configuration** page, and set the **Disable Page Tagging** property under the **Platform** category to **True**.

How the IBM EMM installers work

You should read this section if you are not familiar with the basic functions of the IBM EMM installers.

Single directory requirement for installer files

When you install IBM EMM enterprise products, you use a combination of installers.

- A master installer, which has `IBM_EMM_Installer` in the file name
- Product-specific installers, which all have the product name as part of their file names

To install IBM EMM products, you must place the master installer and the product installers in the same directory. When you run the master installer, it detects the product installation files in the directory. You can then select the products you want to install.

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.

Installing patches

You might be planning to install a patch immediately after you perform a new installation of an IBM EMM product. If so, place the patch installer in the directory with the base version and master installer. When you run the installer, you can select both the base version and the patch. The installer then installs both in correct order.

Choosing product installation directories

You can install to any directory on any network-accessible system. You can specify an installation directory by entering a path or by browsing and selecting it.

You can specify a path relative to the directory from which you are running the installer by typing a period before the path.

If the directory you specify does not exist, the installer creates it, assuming that your login has the appropriate permissions.

The default top-level directory for IBM EMM installations is `/IBM/EMM` (UNIX) or `C:\IBM\EMM` (Windows). The product installers then install product files in individual subdirectories under the EMM directory.

Installation types

The IBM EMM installer performs the following types of installation.

- **New installation:** When you run the installer and select a directory where an IBM EMM product has never been installed, the installer automatically performs a new installation.

- **Upgrade installation:** When you run the installer and select a directory where *an earlier* version of an IBM EMM product is installed, the installer automatically performs an upgrade installation. For products where installers automatically update the database, upgrade installation adds new tables but does not overwrite data in existing tables.

For products where installers automatically update the database, errors can occur during an upgrade because the installer does not create tables in the database if they exist. You can safely ignore these errors. See the chapter on Upgrading for details.

- **Reinstallation:** When you run the installer and select a directory where *the same* version of an IBM EMM product is installed, the installer overwrites your existing installation. To preserve any existing data, back up your installation directories and your system table databases before reinstalling.

Typically, reinstallation is not recommended.

Installation modes

The IBM EMM installer can run in the following modes.

- Console (command line) mode

In console mode, options are presented in numbered lists. You supply a number to select the option you want. If you press Enter without entering a number, the installer uses the default option. The default option is indicated by one of the following symbols.

--> To select an option when this symbol appears, type the number of the option you want then press Enter.

[X] This symbol indicates that you can choose one, several, or all of the options in the list. If you type the number of an option that has the [X] symbol next to it then press Enter, you clear or deselect that option. If you type the number of an option that is not currently selected (it has [] next to it), that option is selected when you press Enter.

To deselect or select more than one option, enter a comma-separated list of numbers.

- Windows GUI or UNIX X-windows mode
- Unattended, or silent, mode, which allows no user interaction

Unattended mode can be used to install an IBM EMM product multiple times. For more information, see “Installing multiple times using unattended mode.”

Installing multiple times using unattended mode

If you must install IBM EMM products multiple times, you can run the IBM EMM installers in unattended mode, which requires no user input.

About the response files

Unattended mode (also known as silent mode) requires a file or set of files to provide the information that a user would enter at the installation prompts when using the console or GUI modes. These files are known as response files.

You can use either of the following options to create response files.

- You can use the sample response file as a template for directly creating your response files. The sample files are included with your product installers in a compressed archive named ResponseFiles. The sample response files are named as follows.
 - IBM EMM master installer - `installer.properties`

- Product installer - `installer_` followed by initials for the product name and numbers for the version. For example, the Campaign installer has a response file named `installer_ucN.N.N.N.properties`.
- Product reports packs installer - `installer_` including initials for the report pack and the product name, plus numbers for the version. For example, the Campaign reports pack installer has a response file named `installer_urpcN.N.N.N.properties`.

Edit the sample files as needed and place them in the same directory with your installers.

- Alternatively, before you set up an unattended run, you can run the installers in Windows GUI or UNIX X-windows mode or in Console mode and choose to create the response files.

The IBM EMM master installer creates one file, and each IBM EMM product you install also creates one or more files.

The response files created when you run the installers have `.properties` extensions, such as `installer_productversion.properties` and the file for the IBM EMM installer itself, which is named `installer.properties`. The installer creates these files in the directory you indicate.

Important: For security reasons, the installer does not record database passwords in the response files. When you create response files for unattended mode, you must edit each response file to enter database passwords. Open each response file and search for `PASSWORD` to find where you must perform these edits.

Where the installer looks for response files

When the installer runs in unattended mode, it looks for the response file as follows.

- First, the installer looks in the installation directory.
- Next, the installer looks in the home directory of the user performing the installation.

All response files must be in the same directory. You can change the path where response files are read by adding arguments to the command line. For example:

```
-DUNICA_REPLAY_READ_DIR="myDirPath" -f myDirPath/installer.properties
```

Effect of unattended mode when you uninstall

When you uninstall a product that was installed using unattended mode, the uninstall is performed in unattended mode (without presenting any dialogs for user interaction).

Unattended mode and upgrades

When you are upgrading, if a response file was previously created and you run in unattended mode, the installer uses the installation directory that was previously set. If you want to upgrade using unattended mode when no response file exists, create a response file by running the installer manually for your first installation, and be sure to select your current installation directory in the installation wizard.

Selecting IBM Campaign components

You can install the Campaign server and the web application on the same machine, or on different machines.

The following table describes the components that you can select when you install Campaign.

Component	Description
Campaign Server	The Campaign startup scripts and components that support the design and execution of Campaign flowcharts. The primary components are the listener (<code>unica_ac1snr.exe</code>), which must always be running, and the server (<code>unica_acsvr.exe</code>). The listener spawns a separate <code>unica_acsvr.exe</code> process for each login and each active flowchart. For example, if one user logs in and then opens a flowchart, the listener spawns two instances of <code>unica_acsvr.exe</code> .
J2EE Application	The web application that provides the Campaign user interface.
Developer Toolkits	The validation classes that are used to implement custom validation.
Campaign System Table DDL Files	SQL scripts used to create and populate the Campaign system tables.
Upgrade Tools	Tools for completing upgrades.

Installing the IBM Campaign Reports Package

For information about installing the Campaign reports package, see the *IBM EMM Reports Installation and Configuration Guide*.

About installing eMessage with Campaign

When you install IBM Campaign, the installer automatically includes files required to support IBM eMessage:

- eMessage is created as a sub-directory in the Campaign directory structure.
- eMessage configuration properties are listed in the IBM Marketing Platform, but they are not active.
- eMessage-specific database tables are created in the Campaign schema but they contain only initial data.
- Menus and other features specific to eMessage do not appear until you enable and configure eMessage.

For information about installed eMessage components, see “Where eMessage components are installed” on page 18.

Before you can send personalized marketing email, you must request a hosted email account from IBM.

When you request an email account, IBM begins a consultation process to familiarize you with eMessage, connect you to hosted email resources, and establish your reputation as a legitimate email marketer among leading Internet Service Providers (ISPs). Establishing a favorable reputation is critical to successfully delivering your marketing message to your customers and prospects.

For more information about how to enable and configure eMessage and prepare your hosted email account, see the *IBM eMessage Startup and Administrator's Guide*.

Where eMessage components are installed

eMessage requires specialized components called the Recipient List Uploader (RLU) and the Response and Contact Tracker (RCT).

The Recipient List Uploader (RLU) is a eMessage plugin component that operates with Campaign to upload addresses, personalization data, and metadata associated with a list of email recipients to IBM EMM Hosted Services.

The eMessage Response and Contact Tracker (RCT) retrieves link tracking and email delivery notification data from IBM EMM Hosted Services, and stores the data in the eMessage system tables that reside in the Campaign schema.

These components operate only when you enable and configure IBM eMessage. For more information about enabling eMessage and working with the RLU and RCT, see the *IBM eMessage Startup and Administrator's Guide*.

Default component installation locations

The IBM installer places the RLU on the machine where you installed the Campaign J2EE application. The RLU location is recorded in the configuration property Campaign > partitions > partition1 > eMessage > eMessagePluginJarFile.

The installer places the RCT on the machine where you installed the Campaign server.

If the J2EE and server components are on separate machines, run the installer on each machine to install the RLU with the J2EE application and the RCT with the Campaign server.

eMessage components in multiple partitions

There is only one RLU for the entire eMessage installation. The installer populates the eMessagePluginJarFile configuration property only for partition1 (the default partition). If you are using multiple partitions in your eMessage installation, you must manually configure the location of the RLU for all other partitions. The location specified in the eMessagePluginJarFile property is the same for all partitions. For more information, see "Step: Specify the location of the RLU for the partition" on page 54.

There is only one RCT for the entire eMessage installation but eMessage does not need to specify its location in a configuration property. Responses received by the RCT automatically specify the appropriate local partition for correct response attribution.

Step: Obtain the IBM installers

Obtain the DVD or download the software from IBM.

If necessary, refer to the materials provided to you at the time of purchase, or contact your IBM representative, for the download location for the installation files.

Important: Place all of the installation files in the same directory. This is an installation requirement.

- The IBM installer.
- The Campaign installer.

If you plan to use the IBM reporting feature, see the *IBM EMM Reports Installation and Configuration Guide*.

Setting permissions on UNIX-type systems

On UNIX-type operating systems, ensure that the installation files have full execute permissions (rwxr-xr-x).

Choosing the right installer file

The installation files are named according to the version of the product and operating system with which they are meant to be used, except for UNIX files intended to be run in console mode, which are not operating system-specific. For UNIX, different files are used depending on whether the installation mode is X-windows or console.

Here are some examples of the installers you would choose based on your installation environment.

Windows - GUI and console mode - *Product_N.N.N.N_win64.exe* is version N.N.N.N and is intended for installation on the Windows 64-bit operating system.

UNIX - X-windows mode - *Product_N.N.N.N_solaris64.bin* is version N.N.N.N and is intended for installation on the Solaris 64-bit operating system.

UNIX - console mode - *Product_N.N.N.N.sh* is version N.N.N.N and is intended for installation on all UNIX operating systems.

Step: Run the IBM EMM installer

Before you run the IBM EMM installer, verify that you have met the following prerequisites.

- You have downloaded the IBM EMM installer and the installers for products you plan to install. Both the IBM EMM and product installers must be in the same directory.
- You have available the information you gathered as described in “Information required to install all IBM EMM products” on page 13.

If you are rerunning the installer on a system where other IBM EMM products are installed, do not reinstall these other products.

See the other topics in this section for details about the installer, or if you need help entering information in the wizard.

Run the IBM EMM installer as described here, and follow the instructions in the wizard.

- GUI or X Window System mode
Run the `IBM_EMM_Installer` file. On UNIX, use the `.bin` file.
- Console mode
Open a command prompt and from the directory where you downloaded the IBM software, run the `IBM_EMM_Installer` executable file as follows.
On Windows, run the `IBM_EMM_Installer` executable file with `-i console`. For example, `IBM_EMM_Installer_N.N.N.N_OS -i console`
On UNIX, run the `IBM_EMM_Installer.sh` file with no switch.

Note: On Solaris, you must run the installer from a Bash shell. For example: #
bash ./IBM_EMM_Installer_9.0.0.0.sh

- Unattended mode

Open a command prompt and from the directory where you downloaded the IBM EMM software, run the IBM_EMM_Installer executable file with `-i silent`. On UNIX, use the `.bin` file. For example, to specify a response file located in the same directory as the installer:

```
IBM_EMM_Installer_N.N.N.N_OS -i silent
```

To specify a response file in a different directory, use `-f filepath/filename`. Use a fully qualified path. For example:

```
IBM_EMM_Installer_N.N.N.N_OS -i silent -f filepath/filename
```

For more information about unattended mode, see “Installing multiple times using unattended mode” on page 15.

Navigating in the installation wizards

When the installer runs in GUI mode, you navigate using the **Next**, **Previous**, **Cancel**, and **Done** buttons.

When the installer runs in console mode, you navigate by entering numbers that correspond to the buttons in GUI mode, as described in the help text on each screen of the wizard. In console mode, an additional redisplay command is available.

In console mode, a number or letter is displayed in square brackets at the end of the prompt line; this is the default command issued if you press **Enter** without typing anything. You can type **back** to go to a previous screen, or **quit** to cancel the installation.

Database environment variables

During installation, the installer may prompt you for the type of database you are using. This allows the installer to automatically set some of the environment variables specific to your database installation in the web application's `setenv` file. For supported databases, this allows the installer to configure values automatically so that you do not need to set them manually after the installation is complete.

When the Database Type screen appears, select the type of database you are using.

For UNIX installations only, enter the following information as indicated. For database types not listed on the installer screen, you can manually configure the `setenv` file as described in “Step: Set data source variables in the Campaign startup script (UNIX only)” on page 26 after the installation is complete.

Database environment variables

Database	Values to Enter
IBM DB2	<ul style="list-style-type: none">• DB2 installation directory For example, <code>/usr/lpp/db2_06_01</code> or <code>C:\Program Files\IBM\SQLLIB</code>. This is the value you might set elsewhere as the <code>DB2DIR</code> environment variable.• DB2 instance path For example, <code>/home/db2inst1</code> or <code>C:\db2inst1</code>.

Database	Values to Enter
Microsoft SQL Server	No additional settings necessary.
Oracle	<ul style="list-style-type: none"> • Oracle installation directory For example, /opt/oracle or C:\oracle. This is the value you might set elsewhere as the ORACLE_BASE environment variable. • Oracle's home directory For example, /home/oracle/product/11.1.0/db_1 or C:\oracle\ora11.1. This is the value you might set elsewhere as the ORACLE_HOME environment variable.

To create an EAR file after running the installer

Use this procedure if you want to create an EAR file after you have installed IBM EMM products. You might want to do this if you decide you want a different combination of products in the EAR file.

The WAR files must be in a single directory. You will run the installer in console mode, from the command line.

1. If this is the first time you are running the installer in console mode, make a backup copy of the installer's `.properties` file for each of your installed products.

Each IBM product installer creates one or more response files with a `.properties` extension. These files are located in the same directory where you have placed the installers. Be sure to back up all files with the `.properties` extension, including the `installer_productversion.properties` files and the file for the IBM installer itself, which is named `installer.properties`.

If you plan to run the installer in unattended mode, you should back up the original `.properties` files, because when the installer runs in unattended mode, it clears these files. To create an EAR file, you need the information that the installer writes in the `.properties` files during the initial install.

2. Open a command window and change directories to the directory that contains the installer.
3. Run the installer executable with this option:
`-DUNICA_GOTO_CREATEEARFILE=TRUE`
 On UNIX-type systems, run the `.bin` file rather than the `.sh` file.
 The installer wizard runs.
4. Follow the instructions in the wizard.
5. Before you create additional EAR files, overwrite the `.properties` file or files with the backup(s) you created before you ran in console mode for the first time.

Chapter 4. Configuring IBM Campaign before deployment

This section describes configuration tasks you perform before you deploy the web application.

Step: Create and populate the Campaign system tables manually, if necessary

By default, the Campaign installer automatically creates and populates the necessary system tables for operation. However, if your database policies do not allow the installer to automatically perform this step, or if for some other reason you chose during installation to perform this step manually, you must complete the instructions here before you can use Campaign.

Note: If you plan to enable eMessage, you must also manually create and populate the eMessage system tables if the installer did not do so automatically. For details, see “Create and populate the eMessage system tables manually, if necessary” on page 24.

If you selected the **Campaign System Table DDL Files** option on the Campaign Components page during installation, the IBM installer installs a collection of SQL scripts that you can use to create and populate the Campaign system tables. The SQL scripts are installed in the `ddl` directory under your installation of the Campaign server. If your system tables are configured for Unicode, the appropriate scripts are in the `ddl/uni code` directory under your Campaign installation.

To use the SQL scripts, run your database client to apply the scripts to the database or schema that holds the Campaign system tables. See the documentation for your database software for instructions on running SQL scripts.

The following tables list the SQL scripts that are provided for you to use to create and populate the Campaign system tables manually.

Table 1. Scripts for creating Campaign system tables

Data source type	Script name
IBM DB2	<code>ac_systab_db2.sql</code>
Microsoft SQL Server	<code>ac_systab_sqlsvr.sql</code>
Oracle	<code>ac_systab_ora.sql</code>

Table 2. Scripts for populating Campaign system tables

Data source type	Script name
IBM DB2	<code>ac_populate_tables_db2.sql</code>
Microsoft SQL Server	<code>ac_populate_tables_sqlsvr.sql</code>
Oracle	<code>ac_populate_tables_ora.sql</code>

Create and populate the eMessage system tables manually, if necessary

eMessage requires that you create additional system tables in the Campaign schema and then populate them with initial data. These tables are used only by eMessage.

The Campaign installer automatically creates and populates the eMessage system tables in the Campaign schema if you select the option to create system tables automatically. However, if you do not select this option, you must create and populate the eMessage system tables manually.

Use your database client to run the appropriate script against the Campaign database. See the following tables to determine the scripts appropriate for your installation. The scripts that you must run depend on the type of database that hosts the Campaign schema and on whether the Campaign tables are configured for Unicode.

Note: The eMessage installation directory is a subfolder within the Campaign directory.

Scripts for creating eMessage tables

IBM provides the ace_op_systab scripts for creating the eMessage tables in your local environment.

If your Campaign system tables are configured for Unicode, find the appropriate script in the ddl/unicode directory under your eMessage installation.

If your Campaign system tables are not configured for Unicode, use the non-Unicode scripts in the ddl directory under your eMessage installation.

Data source type	Script name
IBM DB2	ace_op_systab_db2.sql The user tablespace and system temporary tablespace where the system tables reside must each have a page size of 32K or greater.
Microsoft SQL Server	ace_op_systab_sqlsvr.sql
Oracle	ace_op_systab_ora.sql

Scripts for populating eMessage tables

IBM provides the ace_op_populate_systab scripts for populating the eMessage tables in your local environment.

Script locations

Locate the populate scripts in the ddl directory of your eMessage installation. IBM provides only one version of the populate scripts because you can use them for either Unicode or non-Unicode tables.

Note: The eMessage installation directory is a subfolder within the Campaign directory.

Data source type	Script name
IBM DB2	ace_op_populate_systab_db2.sql
Microsoft SQL Server	ace_op_populate_systab_sqlsvr.sql
Oracle	ace_op_populate_systab_ora.sql

Step: Register Campaign manually, if necessary

If the Campaign installer could not connect with the Marketing Platform system tables during the installation process, you see an error message that notifies you of this failure. The installation process will proceed, but in this case you must import the Campaign information into the Marketing Platform system tables manually.

The utilities mentioned in this procedure are located in the `tools/bin` directory under your Marketing Platform installation. For detailed instructions on using the utilities, see the following.

- “The `configTool` utility” on page 73
 - “The `populateDb` utility” on page 81
1. Run the `populateDb` utility, using the following example command as a guideline. This imports security roles and permissions into the default partition.


```
populateDb.bat -n Campaign
```

2. Run the `configTool` utility, using the following example commands as guidelines. This imports configuration properties and menu items. Note that you run the utility as many times as there are files.

```
configTool -r Campaign -f "full_path_to_Campaign_installation_directory\conf\campaign_configuration.xml"
```

```
configTool -v -i -p "Affinium|suite|uiNavigation|mainMenu" -f "full_path_to_Campaign_installation_directory\conf\campaign_navigation.xml"
```

```
configTool -v -i -p "Affinium|suite|uiNavigation|settingsMenu" -f "full_path_to_Campaign_installation_directory\conf\campaign_setup_navigation.xml"
```

```
configTool -v -i -p "Affinium|suite|uiNavigation|mainMenu|Analytics" -f "full_path_to_Campaign_installation_directory\conf\campaign_analysis_navigation.xml"
```

```
configTool -v -i -p "Affinium|suite|uiNavigation|alerts" -f "full_path_to_Campaign_installation_directory\conf\campaign_alerts.xml"
```

Register eMessage manually, if necessary

By default, the Campaign installer automatically registers eMessage with the IBM Marketing Platform, but does not enable it. In some situations, the Campaign installer does not connect with the Marketing Platform system tables to automatically register eMessage.

If the installer does not register eMessage automatically, you must register eMessage manually with the `configTool` utility provided with the IBM EMM installation. The `configTool` is in the `tools\bin` directory under your Marketing Platform installation.

To register eMessage manually, run the `configTool` utility as follows.

```
configTool -r eMessage -f "full_path_to_eMessage_installation_directory\
conf\emessage_configuration.xml"
```

Note: The eMessage installation directory is a subdirectory of the Campaign installation directory.

For more information about registering and configuring eMessage, see the *IBM eMessage Startup and Administrator's Guide*.

Step: Set data source variables in the Campaign startup script (UNIX only)

During Campaign installation, the IBM Installer collects database information from you and uses that information to automatically configure the database and environment variables required to create and use the Campaign system tables. Those settings are stored in the `setenv.sh` file in the `bin` directory under your Campaign server installation.

For access to data sources (such as Campaign customer tables) that do not use the same type of database as the system tables, you must manually configure the `setenv.sh` file to add the database and library environment variables described in "Database and library environment variables (UNIX)."

Note that if you modify this file when the Campaign server is already running, you must restart the server before changes to the `setenv` file are recognized. See "Step: Start the Campaign server" on page 33 for more details.

Refer to the "IBM Campaign database information checklist" on page 11 for the required information to add to the `setenv` file.

Database and library environment variables (UNIX)

Set database and library environment variables required for your databases (customer tables and, if you chose Manual Database Setup during installation, the system tables) and operating system in the `setenv.sh` file as described in the following tables.

Database environment variables

Database	Syntax and Description
DB2	<pre>DB2DIR=full_dir_path export DB2DIR DB2 installation directory (for example, /usr/lpp/db2_06_01). . full_path_to_db2profile</pre> <p>Sources the database configuration for DB2 users (e.g./home/db2inst1/sqllib/db2profile).</p> <p>Note the ". " (period and then a space).</p>

Database	Syntax and Description
Netezza	<p>NZ_ODBC_INI_PATH=<i>full_dir_path</i></p> <p>export NZ_ODBC_INI_PATH</p> <p>Directory location of the odbci.ini file (e.g. /opt/odbc64v51)</p> <p>ODBCINI=<i>full_path_and_file_name</i></p> <p>export ODBCINI</p> <p>Full path to the odbc.ini file</p>
Oracle	<p>ORACLE_BASE=<i>full_dir_path</i></p> <p>export ORACLE_BASE</p> <p>Oracle installation directory</p> <p>ORACLE_HOME=<i>full_dir_path</i></p> <p>export ORACLE_HOME</p> <p>Oracle's home directory (e.g. /home/oracle/OraHome1).</p>
Teradata	<p>ODBCINI=<i>full_path_and_file_name</i></p> <p>export ODBCINI</p> <p>Full path to the obdc.ini file</p>

Library environment variable

Define the library environment variable as follows, depending on your UNIX operating system.

Operating System	Value
SunOS and Linux	<p>LD_LIBRARY_PATH</p> <p>For example:</p> <p>LD_LIBRARY_PATH=<Campaign_Home>/bin:<path to DB lib directory>:\$LD_LIBRARY_PATH</p> <p>export LD_LIBRARY_PATH</p> <p>Note: If LD_LIBRARY_PATH_64 (for 64-bit linking) is set, remove it. The LD_LIBRARY_PATH variable will be ignored if LD_LIBRARY_PATH_64 is set.</p>
AIX	<p>LIBPATH</p> <p>For example: LIBPATH=<Campaign_Home>/bin:<path to DB lib directory>:/usr/lib:\$ORACLE_HOME/lib32:\$ORACLE_HOME/lib</p>
HP-UX	<p>SHLIB_PATH</p> <p>For example: SHLIB_PATH=<Campaign_Home>/bin:<path to DB lib directory>:/usr/lib:\$ORACLE_HOME/lib32:\$ORACLE_HOME/lib</p>

Library directories for Oracle databases

Different versions of Oracle have different naming conventions for their `lib` directories. Older versions used `lib` for 32-bit and `lib64` for 64-bit. Newer versions use `lib32` for 32-bit and `lib` for 64-bit.

If you install 32-bit Campaign, you must include either `$ORACLE_HOME/lib32` or `$ORACLE_HOME/lib` - whichever one contains the 32-bit Oracle libraries.

If you install 64-bit Campaign, you must include either `$ORACLE_HOME/lib` or `$ORACLE_HOME/lib64` - whichever one contains the 64-bit Oracle libraries.

Note: Do not include paths to both the 32- and 64-bit libraries; include only the path to the library you are using for your version of Campaign.

Chapter 5. Deploying the IBM Campaign web application

To deploy Campaign, follow the guidelines in this section and then start the Campaign server.

When you ran the IBM installer, you may have included Campaign in an EAR file, or you may choose to deploy the Campaign WAR file. If you included the Marketing Platform or other products in an EAR file, you must follow all the deployment guidelines detailed in the individual install guides for the products included in the EAR file.

We assume that you know how to work with your web application server. Consult your web application server documentation for details such as navigation in the Administration console.

Step: Set the web application session timeout (optional)

The session timeout determines how long an inactive HTTP session can remain open before it expires.

Set the session timeout on your web application server:

- WebSphere: Use the IBM WebSphere Application Server Administrative Console to set the Session timeout in minutes. You can adjust this setting at the server and Enterprise Application levels. See your WebSphere documentation for details.
- WebLogic: Use the WebLogic console to set the Session Timeout in seconds, or adjust the **TimeoutSecs** parameter value for the **session-descriptor** element in the `weblogic.xml` file.

Deploying IBM Campaign on WebSphere Application Server

You can deploy IBM Campaign on supported versions of WebSphere Application Server from a WAR file or EAR file.

Before you begin

Follow the appropriate instructions depending on whether you are deploying IBM Campaign from a single WAR file or as a module within an EAR file. If you need additional information about WebSphere Application Server, see the following links:

- For WebSphere Application Server version 8, see [Welcome to the WebSphere Application Server information center](#).
- For WebSphere Application Server version 7, see the [WebSphere Application Server Version 7.0 Information Center](#).

To deploy IBM Campaign on WebSphere Application Server from a WAR file

Follow this procedure to deploy the IBM Campaign application from a WAR file (not an EAR file) onto WebSphere Application Server.

Before you deploy IBM Campaign:

- Confirm that your version of WebSphere meets the requirements in the *Recommended Software Environments and Minimum System Requirements* document, including any necessary fix packs or upgrades.
- Confirm that you created the data sources and database provider in WebSphere. See Chapter 2, “Preparing data sources for IBM Campaign,” on page 7.

To deploy the IBM Campaign application WAR file on WebSphere Application Server, complete the following steps.

1. If your system tables are in DB2, go to the Custom Properties for the data source. Set the value for **resultSetHoldability** to **1**.
If you do not see a field named **resultSetHoldability**, add a custom property with that name and set its value to **1**.
2. Follow the guidelines below to deploy the IBM WAR file as an enterprise application.
Unless otherwise noted, you can accept the default settings.
 - In the form where you browse to and select the WAR file, select **Show me all installation options and parameters** so the **Select Installation Options** or **Install New Application** wizard runs.
 - In step 1 of the installation wizard, select **Precompile JavaServer Pages files**.
 - In step 3 of the installation wizard, set the **JDK Source Level** to 16. If 16 is not available, select 15.
 - In step 8 of the installation wizard, set the **Context Root** to **/Campaign**.
3. In the server's **Web Container Settings > Session Management** section, enable cookies.
4. If you are using version 8 of WebSphere Application Server, choose **Servers > WebSphere application server > server 1 > Session management > Cookies** and clear the check box for **Set session cookies to HTTPOnly to help prevent cross-site scripting attacks**.
5. In the WebSphere console, open the server's **Applications > Enterprise Applications > Unica.war > Session Management > Enable Cookies > Cookie Name** section, and specify a unique session cookie name.
6. Select the **Override session management** check box in Session Management.
7. In the server's **Applications > Enterprise Applications** section, select the WAR file that you deployed, then select **Class loading and update detection** and set the following **General Properties** on the **Configuration** tab:
 - For **Class loader order**, select **Classes loaded with local class loader first (parent last)**.
 - For **WAR class loader policy**, select **Single class loader for application**.
8. Start your deployment.

To deploy IBM Campaign on WebSphere Application Server from an EAR file

Follow this procedure to deploy the IBM Campaign application on WebSphere Application Server when Campaign is a module (.war file) within an EAR file.

These instructions pertain if you included IBM Campaign in an EAR file when you ran the IBM EMM installer. If you are deploying an EAR file, you must follow all of the deployment guidelines detailed in the individual installation guides for the products included in the EAR file.

Before you deploy IBM Campaign:

- Confirm that your version of WebSphere meets the requirements in the *Recommended Software Environments and Minimum System Requirements* document, including any necessary fix packs or upgrades.
- Confirm that you created the data sources and database provider in WebSphere. See Chapter 2, “Preparing data sources for IBM Campaign,” on page 7.

To deploy IBM Campaign from an EAR file onto WebSphere Application Server, complete the following steps.

1. If your system tables are in DB2, go to the Custom Properties for the data source. Set the value for **resultSetHoldability** to **1**.
If you do not see a field named **resultSetHoldability**, add a custom property with that name and set its value to **1**.
2. Follow the guidelines below to deploy the IBM EAR file as an enterprise application.
Unless otherwise noted, you can accept the default settings.
 - In the form where you browse to and select the EAR file, select **Show me all installation options and parameters** to start the **Select Installation Options** or **Install New Application** wizard.
 - In step 1 of the installation wizard, select **Precompile JavaServer Pages files**.
 - In step 3 of the installation wizard, set the **JDK Source Level** to 16. If 16 is not available, select 15. Be sure to set the **JDK Source Level** for each web module (.war file).
 - In step 10 of the installation wizard, confirm that the **Context Root** value is set to /Campaign. The correct Context Root values are supplied for you in the wizard. For example, unica.war is set to /unica and Campaign.war is set to /Campaign.
3. In the server's **Web Container Settings > Session Management** section, enable cookies.
4. If you are using version 8 of WebSphere Application Server, choose **Servers > WebSphere application server > server 1 > Session management > Cookies** and clear the check box for **Set session cookies to HTTPOnly to help prevent cross-site scripting attacks**.
5. In the WebSphere console, open the server's **Applications > Enterprise Applications > UnicaApp > Module Management > [deployed_module] > Session Management > Enable Cookies > Cookie Name** section, and specify a unique session cookie name.
6. Select the **Override session management** check box in Session Management.
7. In the server's **Applications > Enterprise Applications** section, select the EAR file that you deployed, select **Class loading and update detection** and set the following General Properties on the **Configuration** tab:
 - **Class loader order**: Select **Classes loaded with local class loader first (parent last)**.
 - **WAR class loader policy**: Select **Single class loader for application**.
8. Specify the following settings for the Campaign.war module that is in the EAR file that you deployed:
 - a. Go to **Enterprise Applications** and select the EAR file (**UnicaApp**).
 - b. On the **Manage Modules** page, select the **Campaign.war** file.
 - c. On the **Enterprise Applications > EAR > Manage Modules > WAR** page:
 - Set **Starting weight** to **10000**.

- Set **Class loader order** to **Classes loaded with local class loader first (parent last)**.
 - d. On the **Enterprise Applications > EAR > Manage Modules > WAR > Session management** page, select **Enable cookies**.
 - e. On the **Enterprise Applications > EAR > Manage Modules > WAR > Session management > Cookies** page:
 - Set the **Cookie name** to **CMPJSESSIONID**.
 - For the **Cookie maximum age**, select **Current browser session**.
 - f. On the **Enterprise Applications > EAR > Manage Modules > WAR > Session management** page
 - Select **Allow overflow**.
 - For **Maximum in-memory sessions**, enter **1000**.
 - For **Session timeout**, select **Set timeout** and enter **30**.
 - g. Define the same settings for each of the other .war files that you want to deploy from the EAR file.
9. Start your deployment.

Deploying IBM Campaign on WebLogic

Follow these guidelines to deploy IBM EMM products on WebLogic.

All versions of WebLogic, all IBM EMM products

- IBM EMM products customize the JVM used by WebLogic. You may need to create a WebLogic instance dedicated to IBM EMM products if you encounter JVM-related errors.
- Verify that the SDK selected for the WebLogic domain you are using is the Sun SDK by looking in the startup script (startWebLogic.cmd) for the JAVA_VENDOR variable. It should be set to: JAVA_VENDOR=Sun . If it is set to JAVA_VENDOR=BEA , JRockit has been selected. JRockit is not supported. To change the selected SDK, refer to the WebLogic documentation.
- Deploy the IBM EMM products as web application modules.
- On UNIX systems, you must start WebLogic from the console to allow correct rendering of graphical charts. The console is usually the machine on which the server is running. In some cases, however, the web application server is set up differently.

If a console is not accessible or does not exist, you can emulate a console using Exceed. You must configure Exceed so that your local Xserver process connects to the UNIX machine in root window or single window mode. If you start the web application server using Exceed, you must keep Exceed running in the background to allow the web application server to continue running. Please contact IBM Technical Support for detailed instructions if you encounter problems with chart rendering.

Connecting to the UNIX machine via telnet or SSH always causes problems rendering charts.

- If you are configuring WebLogic to use the IIS plug-in, review the WebLogic documentation.
- If deploying in a production environment, set the JVM memory heap size parameters to 1024 by adding the following line to the setDomainEnv script: Set MEM_ARGS=-Xms1024m -Xmx1024m -XX:MaxPermSize=256m

Additional steps for WebLogic 11g

For WebLogic 11g, make the following changes to the campaign.war file:

1. Unwar the campaign.war file, and locate the weblogic.xml file in the WEB_INF directory.
2. Open weblogic.xml in a text editor and add the following line:
<cookie-http-only>>false</cookie-http-only> in the session-descriptor section of the file.

For example, your finished session-descriptor section should look similar to this:

```
<session-descriptor>
  <session-param>
    <param-name>CookieName</param-name>
    <param-value>CAMPAIGNSESSIONID</param-value>
  </session-param>
  <cookie-http-only>>false</cookie-http-only>
</session-descriptor>
```

3. Save the weblogic.xml file.
4. ONLY if you also use AIX 7.1 with WL11g, remove the xercesImpl.jar file from the unpackaged WEB_INF/lib directory.
5. Build war campaign.war to include the changes you made before deploying it.

Reports on UNIX systems for all versions of WebLogic

If you have installed Campaign with IBM Contact Optimization on a UNIX system, you must enable the java.awt.headless JVM property for your WebLogic web application server to be able to display the graphs in Contact Optimization reports.

To enable graph display in Optimize reports in the WebLogic JVM:

1. Shut down the WebLogic server if it is already running.
2. Locate and open the startup script for your WebLogic server (startWebLogic.sh) in any text editor.
3. Modify the JAVA_OPTIONS parameter to add the following value:
-Djava.awt.headless=true
4. Save the startup script, then restart the WebLogic server.

Step: Start the Campaign server

You can start the Campaign server directly, or install it as a service.

Note: The Marketing Platform and Campaign web application must be deployed and running when you start the Campaign server.

To start the Campaign server directly

Follow the instructions appropriate for your operating system.

Windows

Start the Campaign server by running the cmpServer.bat file located in the bin directory under your Campaign installation. When the unica_aclsnr.exe process appears on the Windows Task Manager Processes tab, the server has started successfully.

UNIX

Start the Campaign server by executing the `rc.unica_ac` program with a `start` argument. You must run this command as root. For example:

```
./rc.unica_ac start
```

To determine whether the `unica_ac1snr` process has started successfully, enter this command:

```
ps -ef | grep unica_ac1snr
```

To determine the process ID for the server you started, view the `unica_ac1snr.pid` file located in the `conf` directory under your Campaign installation.

To install the Campaign server as a Windows service

To install the Campaign server as a Windows service that starts automatically whenever the Windows system starts:

1. Add the `bin` directory under the Campaign installation directory to the user `PATH` environment variable. If the `PATH` environment variable does not exist for the user, create it.

Make sure that you add this path to the user `PATH` variable, not the system `PATH` variable.

If the Campaign `bin` directory exists in the system `PATH` environment variable, remove it. You do not need it in the system `PATH` environment variable to install the Campaign server as a service.

2. If you are upgrading from a previous version of Campaign that had the server installed as a service, stop the service.
3. Open a command window and change directories to the `bin` directory under your Campaign installation.
4. Run the following command to create the Campaign server service:
`unica_ac1snr -i`

The service is created.

Note: Make sure `CAMPAIGN_HOME` has been created as a system environment variable before starting the Campaign server service.

Chapter 6. Configuring Campaign after deployment

You must perform the tasks described in this section after you deploy the web application.

In addition, if you are using the IBM EMM reporting feature, you must perform the tasks described in the *IBM EMM Reports Installation and Configuration Guide*.

Note: If you plan to enable IBM eMessage for hosted email, you must use the IBM EMM reporting feature to view standard eMessage performance reports.

Step: Verify the Campaign listener is running

The Campaign listener must be running before users can work with any Campaign features. The listener automatically creates a separate `unica_acsvr` process for each login and each active flowchart. For example, if one user logs in and then opens a flowchart, the listener creates two instances of `unica_acsvr.exe`.

Use the following procedure to verify that the Campaign listener is running.

1. Use the appropriate procedure for your operating system:

In Windows, look for `unica_aclsnr.exe` on the **Processes** tab of the Windows Task Manager.

In UNIX, use the `ps` command to look for the Campaign server, as in the following example: `ps -ef | grep unica_aclsnr`.

2. If the listener is not running, restart it:

In Windows, run the `cmpServer.bat` script that is in the `bin` directory under your Campaign installation.

In UNIX, enter the following command at the system prompt: **`rc.unica_ac start`**

For important details about running the listener, including how to start it automatically, see the *IBM Campaign Administrator's Guide*.

Step: Set up the Campaign system user

A system user is a IBM EMM user account that is configured for use by IBM applications.

To avoid presenting users with repeated prompts for login credentials you can associate a system user with one or more data sources. Each data source specifies a user name and password. This allows you to provide a user name and password to access a database or other protected resource by referencing the data source. By adding multiple data sources to the configuration of the system user account, you can allow the system user to access multiple databases.

In Campaign, the system user holds login credentials for accessing system tables and other data sources.

Use an existing or new IBM EMM user account to save credentials for the data sources described here.

You set up IBM EMM users and assign user data sources in the **Settings > Users** area of IBM EMM. See the online help in that section for instructions on how to do this.

Set up a user account to hold credentials for the following data sources.

- Campaign system tables (UA_SYSTEM_TABLES)
- All customer (user) tables

On UNIX, for the **Alternate Login** attribute of the system user, enter the UNIX account of a user in a group that shares privileges with the UNIX users of Campaign.

Note: If you have multiple partitions, each partition must have its own system user. The system user cannot be the same across partitions.

Step: Add data source properties on the Configuration page

You must add data source configuration properties to the Configuration page for each Campaign data source, using the appropriate data source template. The Campaign installer imports the template for the database type that you specified for the Marketing Platform database when you ran the IBM installer.

If you need other data source templates for additional database types, you must import them manually using the Marketing Platform configTool utility. You can import as many templates as you need, to correspond to each different type of database you have.

For example, suppose your installation of Marketing Platform and Campaign used the following databases:

- Oracle - system tables
- DB2 - customer (user) tables
- DB2 - additional customer (user) tables

In this case, you would import the DB2Template.xml template for the two sets of customer (user) tables.

If your Marketing Platform and Campaign system tables databases are of the same database type, the installer automatically imports the template used for the system tables; in this example, it imports the Oracle template.

For instructions, see “To import data source templates” on page 37.

You create a new category from the template, which creates a new set of data source configuration properties. Create as many new categories as needed, one for each data source of that type. In the example above, you would use the Oracle template to create one new category and the DB2 template to create two new categories. See “To duplicate a data source template” on page 37.

After you add the data source properties, set the data source configuration properties in the categories you created from the templates.

For instructions, see “Step: Set data source properties” on page 37.

To import data source templates

The Campaign data source templates are located in the conf directory under your Campaign installation.

Note: Database types supported for user tables include several types not supported for Campaign system tables. The Campaign system tables data source (UA_SYSTEM_TABLES) is supported only on Oracle, DB2 and SQLServer.

To import and export templates, you use the Marketing Platform configTool utility, located in the tools/bin directory under your Marketing Platform installation. If you are not familiar with configTool, see “The configTool utility” on page 73 for details on performing this task.

Here is an example of the command you would use to import the Oracle template into the default partition (Windows environment).

```
configTool -i -p "Campaign|partitions|partition1|dataSources" -f
full_path_to_directory_containing_your_Oracle_template\OracleTemplate.xml
```

To duplicate a data source template

1. On the Configuration page, navigate to the data source template you want to duplicate.

Unlike other categories, template category labels are in italics and enclosed in parentheses.

2. Click the data source template.

The Create category from Template page displays.

3. Enter a name in the **New category name** field (required).

Note: The data source category name for Campaign's system tables **MUST** be UA_SYSTEM_TABLES.

4. If desired, edit properties within the new category. You can also do this later.
5. Click **Save and Finish** to save the new configuration.

The new category appears in the navigation tree.

In the next step, you will set the properties as described in “Step: Set data source properties”

Steps: Set required Campaign properties on the Configuration page

This section describes the minimum configuration properties you must set on the Configuration page for a basic installation of Campaign. Set these required properties as described in this section.

Campaign also has properties on the Configuration page that perform important functions that you can optionally adjust.

Step: Set data source properties

You must set the properties listed in this section for each Campaign data source. These data sources are the Campaign system table database and any customer (user) databases you plan to use with Campaign.

Note: The data source category name for Campaign's system tables **must** be UA_SYSTEM_TABLES.

For details on setting the values, see the context help for these properties or the *IBM Marketing Platform Administrator's Guide*.

- `ASMUserForDBCredentials`. This property must be the same user you already created as the Campaign system user in “Step: Set up the Campaign system user” on page 35.
- `DSN`. For SQL server, set this property to the DSN (data source name) you created. For Oracle and DB2, set this property to the database name or the SID (service) name.
- `JndiName`. Set this property to the JNDI you created in your application server to connect to this specific data source.
- `SystemTableSchema`. Not required for SQL server. For other data sources, set this property to the user of the database to which you are trying to connect.
- `OwnerForTableDisplay`. Not required for SQL server. For other data sources, set this property to the user of the database to which you are trying to connect.

Step: Set additional properties

In addition to creating and setting data source properties, you must set the following properties on the Configuration page for a basic installation of Campaign.

- Campaign > unicaACLlistener > serverHost
- Campaign > unicaACLlistener > serverPort
- For the default partition, set values as desired in the categories under Campaign > partitions > partition1.

Note that any time you change either of these two properties, you must restart the Campaign listener before the changes will take effect.

Step: Map user tables in Campaign

Mapping user tables is the process of making external data sources accessible in Campaign. A typical user table contains information about your company's customers, prospects, or products. The data source can be a database table or ASCII flat file. You must map any data sources that you configured to make that data accessible to processes in flowcharts.

For instructions on how to map user tables, see the *Campaign Administrator's Guide*.

Note: User tables are different from system tables. Most Campaign system tables are mapped automatically during initial installation and configuration if you use the system table data source name UA_SYSTEM_TABLES. If a connection issue forces you to map system tables manually, you must log out of Campaign and log in again after you map the tables.

Step: Verify the Campaign installation

If you performed all of the steps to install and configure Campaign, deploy the Campaign web application, and configure Campaign after deployment, you are ready to verify your installation.

If you have not already done so, log in to IBM EMM as a user that exists in the Campaign Administrators role (such as asm_admin). In **Settings > Users**, assign at least one security role (for example, Global Policy/Admin) to the new user. After the new user is assigned the role, you can log in to Campaign as that new user.

Use the following procedure to verify the installation.

1. Log in to IBM EMM.
2. Verify that all system tables exist in the **Settings > Campaign Settings > Manage Table Mappings** window.
3. Create a campaign and create a flowchart in that campaign.

Step: Perform optional configurations for integration with IBM applications

IBM Campaign integrates with various IBM applications. This section describes the configurations and processes required to establish the integration.

Step: Set properties for integration with IBM Marketing Operations

If you are integrating Campaign with Marketing Operations, set the Campaign > partitions > partition[n] > server > internal > MO_UC_integration property to **Yes**.

Also adjust the following properties: MO_UC_BottomUpTargetCells, IBM Marketing Operations - Offer integration, and UC_CM_integration. For more information, see the *IBM Marketing Operations and Campaign Integration Guide*.

To enable access to campaigns created in Affinium Campaign 7.x and linked to Affinium Plan 7.x projects (i.e., legacy campaigns), set the Campaign > partitions > partition1 > server > internal > Legacy_campaigns property to **Yes**.

If your Campaign installation has multiple partitions, set these properties in each partition where you want to enable integration.

Step: Begin the startup process to integrate with eMessage

IBM eMessage integrates with Campaign so that you can use the information in your marketing database to create, transmit, and track individually personalized marketing email messages to your customers and prospects. IBM hosts the required email transmission and tracking resources. You manage your customer records locally with Campaign.

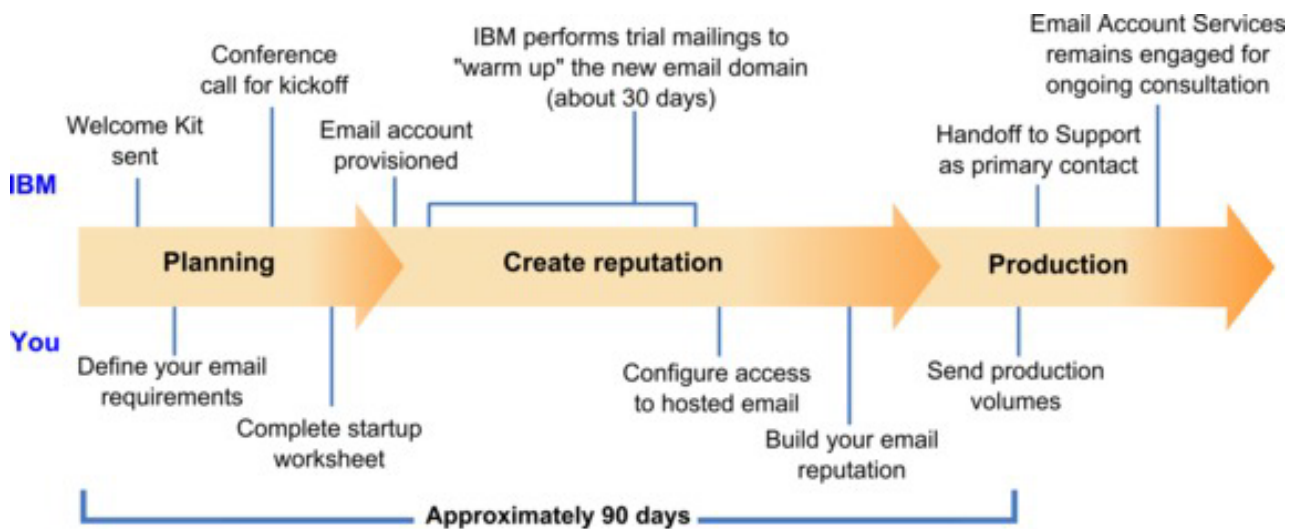
If you are integrating your Campaign installation with eMessage, you must contact IBM to establish a hosted email account and configure a connection to IBM EMM Hosted Services. IBM works with you during the startup process that provisions the hosted email account and establishes your email marketing reputation among leading Internet Service Providers. During the startup process, you must make configuration changes in IBM Marketing Platform and Campaign. For more information about the hosted email startup process and the configurations that you must perform, see "Integration of eMessage with Campaign" on page 5 and the *IBM eMessage Startup and Administrator's Guide*.

Overall view of the eMessage startup process

You can activate email features in IBM Campaign to conduct highly targeted and trackable email marketing campaigns. Campaign uses email functions that are provided by IBM eMessage through resources that are hosted in data centers in the US and United Kingdom. An account to access these resources is included with your eMessage subscription.

IBM begins the startup process after it creates your hosted email account. IBM helps you to become familiar with eMessage, connect to hosted email resources, and establish your reputation as a legitimate email marketer among leading Internet Service Providers (ISPs).

The process proceeds in three phases. The IBM Professional Services and Email Account Services teams guide you along the way.



The Professional Services consultant is your primary point of contact with IBM during the startup process. When the account startup process completes, the Professional Services consultant transfers primary support responsibility to the IBM Product Support team.

A dedicated Email Account Services (EAS) consultant provides special assistance for email-related issues. Creating a favorable email reputation among major Internet Service Providers (ISPs) is critical to ensuring that your email marketing campaigns consistently reach their target recipients. When you start to run mailings, the EAS consultant reviews the mailing deliverability performance and suggests the best ways to gradually build your email reputation.

Chapter 7. Configuring multiple partitions in Campaign

In the Campaign family of products, partitions provide a way to secure the data associated with different groups of users.

When you configure Campaign or a related IBM EMM application to operate with multiple partitions, each partition appears to application users as a separate instance of the application. There is no indication that other partitions exist on the same system.

For IBM EMM applications that operate with Campaign, you can configure the application only within partitions where you have already configured an instance of Campaign. Application users within each partition can access only the Campaign functions, data, and customer tables configured for Campaign in the same partition.

Partition benefits

Multiple partitions are useful for setting up strong security between groups of users, as each partition has its own set of Campaign system tables. Multiple partitions are not recommended when groups of users must share data.

Each partition has its own set of configuration settings, so Campaign can be customized for each group of users. However, all partitions share the same installation binaries. This minimizes installation and upgrading efforts, compared with performing multiple separate installations.

Partition user assignment

Access to partitions is managed through membership in Marketing Platform groups. To make a user a member of a partition, you make that user a member of a group that is assigned to that partition.

With the exception of the partition superuser, each IBM user can belong to only one partition. A user who requires access to multiple partitions must have a separate IBM user account for each partition.

If there is only one Campaign partition, users do not have to be explicitly assigned to that partition to have access to Campaign.

Partition superuser

To administer security across all users of Marketing Platform, a user account must exist that has access to all security settings and user accounts in the system.

By default, this user account is `platform_admin`. This user account does not belong to any one partition; instead, it has access to all user accounts in all partitions.

The IBM administrator can create additional users with the same level of access. To be a partition superuser, an account must have Admin access to the Marketing Platform and have full access to the Users, User Groups, and User Permissions pages. The partition superuser does not require access to product-specific security pages, such as Campaign security pages.

Partition data access

In a multi-partition configuration, partitions have the following security characteristics.

- A user cannot access any partition without being a member of a group that is assigned to a partition.
- A user of one partition cannot view or change data in any other partition.
- From browse dialog boxes in Campaign, users cannot navigate the file system above the root directory of their partition. For example, if two partitions, named `partition1` and `partition2`, exist, and you belong to the group associated with `partition1`, you cannot navigate the directory structure for `partition2` from a dialog box.

Setting up multiple partitions

This section describes the tasks you must perform to configure additional partitions in Campaign.

Prerequisites for configuring multiple partitions

Before you configure additional partitions in Campaign, complete the following tasks for each partition that you are configuring:

- “Step: Create the database or schema for the Campaign system tables” on page 7
- “Step: Create the ODBC or native connections on the Campaign machine” on page 7
- “Step: Create the JDBC connections in the web application server” on page 9

Prepare data sources for partitions

Create the system tables database and any other data sources required for your partitions. Then configure the JDBC and ODBC or native connections required to access your data sources. For information on preparing the data sources, see Chapter 2, “Preparing data sources for IBM Campaign,” on page 7.

Create and populate the system tables for partitions

For each partition, create a different schema in your database to hold the system tables.

Use the database-specific scripts packaged with Campaign to create and populate the system tables.

Create a directory structure for each additional partition

This procedure provides instructions for creating partition directories in your file system.

Note: You should save a clean copy of the original `partition1` directory to serve as a backup.

1. In the `partitions` directory under your Campaign installation, create a duplicate of the default `partition1` directory for each partition that you are adding, ensuring that you include all subdirectories.
2. Name each partition directory with a unique name. Use these exact same names for the partitions when you later create their configuration trees on the Configurations page.

For example, if you want to create a second partition and created the directory named Campaign/partitions/partition2, when you create the configuration tree on the Configurations page, you must use the name "partition2" to identify this partition.

3. Delete any files that exist in the duplicate partition subdirectories.

To clone the default partition

The following procedure describes how to use the partitionTool utility with the -s option. If you decide not to use this option, you must stop the web application server where Marketing Platform is deployed before performing this procedure.

1. Set the JAVA_HOME environment variable, either in the setenv script located in the tools/bin directory of your Marketing Platform installation, or in the command line window in which you run the partitionTool utility.
2. Open a command line window and run the utility from the tools/bin directory under your Marketing Platform installation. Use the appropriate command and options (as described in the *Marketing Platform Administrator's Guide*) to achieve your desired results.

For example:

```
partitionTool -c -s partition1 -n partition2
```

3. Repeat this procedure for each new partition you need to create.
4. When you are finished, stop and restart the application server where Marketing Platform is deployed to see the groups that were created.

For complete information on using this utility, see "The partitionTool utility" on page 79.

Create new partition structures

For each new partition, create the partition structure on the Configuration page using the New partitionTemplate.

1. On the Configuration page, navigate to Campaign > partitions and click (*partitionTemplate*).

Note that if you do not see the (*partitionTemplate*) property in the list, use the configTool utility to import the partition template, using a command similar to the following:

```
configTool -i -p "Affinium|Campaign|partitions"  
-f <CAMPAIGN_HOME>/conf/partitionTemplate.xml
```

Replace <CAMPAIGN_HOME> with the actual path to your Campaign installation.

The configTool utility is found in the tools directory under your IBM Marketing Platform installation. See the *IBM Marketing Platform Administrator's Guide* for information on using this utility.

In the right pane, you see the partitionTemplate pane with an empty **New category name** field.

2. Enter the name for the new partition, using the same name that you used when creating the partition's directory structure in the file system in "Create a directory structure for each additional partition" on page 42.
3. Click **Save Changes**.

You see the new partition structure, with the same categories and properties as in the partition template.

Configure data source properties for partitions

For each partition you create, you must configure its data source properties on the Configuration page.

Step: Add data source properties on the Configuration page

You must add data source configuration properties to the Configuration page for each Campaign data source, using the appropriate data source template. The Campaign installer imports the template for the database type that you specified for the Marketing Platform database when you ran the IBM installer.

If you need other data source templates for additional database types, you must import them manually using the Marketing Platform `configTool` utility. You can import as many templates as you need, to correspond to each different type of database you have.

For example, suppose your installation of Marketing Platform and Campaign used the following databases:

- Oracle - system tables
- DB2 - customer (user) tables
- DB2 - additional customer (user) tables

In this case, you would import the `DB2Template.xml` template for the two sets of customer (user) tables.

If your Marketing Platform and Campaign system tables databases are of the same database type, the installer automatically imports the template used for the system tables; in this example, it imports the Oracle template.

For instructions, see “To import data source templates” on page 37.

You create a new category from the template, which creates a new set of data source configuration properties. Create as many new categories as needed, one for each data source of that type. In the example above, you would use the Oracle template to create one new category and the DB2 template to create two new categories. See “To duplicate a data source template” on page 37.

After you add the data source properties, set the data source configuration properties in the categories you created from the templates.

For instructions, see “Step: Set data source properties” on page 37.

Step: Set data source properties

You must set the properties listed in this section for each Campaign data source. These data sources are the Campaign system table database and any customer (user) databases you plan to use with Campaign.

Note: The data source category name for Campaign's system tables **must** be `UA_SYSTEM_TABLES`.

For details on setting the values, see the context help for these properties or the *IBM Marketing Platform Administrator's Guide*.

- `ASMUserForDBCredentials`. This property must be the same user you already created as the Campaign system user in “Step: Set up the Campaign system user” on page 35.

- **DSN.** For SQL server, set this property to the DSN (data source name) you created. For Oracle and DB2, set this property to the database name or the SID (service) name.
- **JndiName.** Set this property to the JNDI you created in your application server to connect to this specific data source.
- **SystemTableSchema.** Not required for SQL server. For other data sources, set this property to the user of the database to which you are trying to connect.
- **OwnerForTableDisplay.** Not required for SQL server. For other data sources, set this property to the user of the database to which you are trying to connect.

Set up system users

A system user is a IBM EMM user account that is configured for use by IBM EMM applications. IBM EMM applications may require a system user account configured with the following attributes.

- Login credentials for accessing system tables or other data sources.
- Specific permissions to create, modify, and delete objects within the system.

To avoid presenting users with repeated prompts for login credentials you can associate a system user with one or more Marketing Platform data sources. Each data source specifies a user name and password. This allows you to provide a user name and password to access a database or other protected resource by referencing the data source. By adding multiple data sources to the configuration of the system user account, you can allow the system user to access multiple databases.

Use the information in this section to set up system users for your IBM EMM application.

For general instructions on setting up a new user and assigning a data source to a user, see the *IBM Marketing Platform Administrator's Guide*.

Campaign system user

Use an existing or new user account to save credentials for the following data sources.

- Campaign system tables
- All customer (user) tables

On UNIX, for the **Alternate Login** attribute of the system user, enter the UNIX name for a user in a group that shares privileges with the UNIX users of Campaign.

Note: If you have multiple partitions, each partition must have its own system user. The system user cannot be the same across partitions.

Configure the IBM Cognos Reports for multiple partitions

If you are using Campaign, eMessage, or Interact with more than one partition, you must configure IBM Cognos reports packages for each partition. For instructions, see the *IBM EMM Reports Installation and Configuration Guide*.

Next steps for multiple partitions

Before you can use the partitions that you have configured for Campaign, you must complete the following administrative tasks:

- **Assign roles to each partition Admin user** - The partitionTool utility creates a default Admin user for each partition you create. On the **User Roles & Permissions** page, assign at least one security role (for example, Global Policy/Admin) to your new user. Once the new user has been assigned the role, you can log into the Campaign partition as that new user.
- **Assign a group to each partition** - Determine which groups you want to assign to each partition. For details, see the *Marketing Platform Administrator's Guide*.

If you plan to enable IBM eMessage in multiple Campaign partitions, you must configure a corresponding eMessage partition for each Campaign partition. For more information about creating additional partitions for eMessage, see Chapter 8, "Configuring multiple partitions in eMessage," on page 47.

Chapter 8. Configuring multiple partitions in eMessage

Installing eMessage creates a default partition for eMessage in the Marketing Platform. You can configure more partitions for eMessage. Each partition that you create for eMessage operates in conjunction with a partition created for Campaign.

Note: To configure multiple partitions in eMessage you must configure corresponding partitions in Campaign. Adding new partitions for eMessage requires making changes in the Marketing Platform configurations for eMessage and Campaign.

Important: After you change the eMessage and Campaign configurations, you must restart the web application server that hosts Campaign and restart the Response and Contact Tracker (RCT). You might also need to restart the Campaign listener.

Be sure to back up your existing configurations before you make changes.

Steps to create partitions for eMessage

Before you create a new partition for eMessage, confirm that you have satisfied all “Requirements for multiple partitions in eMessage” on page 48 for the partition in Campaign and eMessage. In the Marketing Platform configurations, a partition must exist for Campaign that uses the exact same name as the partition that you are adding for eMessage.

Complete the following steps to create a new partition for eMessage.

1. “Step: Create a new partition for eMessage” on page 49
2. “Step: Prepare eMessage system tables for the partition” on page 50
3. “Step: Configure partition access to IBM EMM Hosted Services” on page 52
4. “Step: Enable eMessage in Campaign for the new partition” on page 53
5. “Step: Specify the location of the RLU for the partition” on page 54
6. “Step: Restart system components” on page 54
7. “Step: Test partition configuration and connections” on page 54

About partitions for IBM eMessage

Creating partitions for eMessage allows you to isolate and secure data for different groups of users. Each partition appears to users as a separate instance of eMessage, with no indication that other partitions exist on the same system. Because each partition has its own set of configuration properties, you can customize eMessage for each group of users.

Users within each partition can access only those functions, data, and customer tables configured for the partition. For example, if you create partitions named partition1 and partition2, eMessage users working in partition1 can select email recipients from customer tables configured in partition1, but not in partition2. IBM does not recommend creating multiple partitions if users need to share data.

When you work with multiple partitions, you should understand characteristics that are unique to partitions for eMessage and how partitions for eMessage relate to partitions for Campaign. You should also be familiar with the workflow for creating and configuring multiple partitions for eMessage.

Important characteristics of partitions for eMessage

Note the following when you create and configure new partitions for eMessage.

- You create partitions for eMessage differently than you do for Campaign.
You create new partitions for eMessage using a partition template available in the eMessage configuration properties in Marketing Platform.

- The name of each eMessage partition must exactly match the name of its corresponding Campaign partition.

- Each partition that you create for eMessage must be able to connect to IBM EMM Hosted Services.

You must request a separate IBM EMM Hosted Services account for each partition. IBM will provide a user name and password connected to the account. You must configure a Marketing Platform data source that can provide these access credentials automatically when eMessage connects to IBM EMM Hosted Services.

For more information about how to request an account, see the *IBM eMessage Startup and Administrator's Guide*.

Relationship to partitions in Campaign

Each partition in eMessage operates in conjunction with a specific partition created in the Marketing Platform for Campaign. The Campaign partition provides the following.

- Campaign schema that contains the eMessage system tables
- File structure for Campaign in the partition, including directories used by eMessage to create and process recipient lists
- Configuration properties associated with creating recipient lists and enabling eMessage within the partition

Because eMessage operates with Campaign within a specific partition, the eMessage and Campaign partition structures must specify the same name. The partition names must match exactly.

Requirements for multiple partitions in eMessage

Before you create and configure partitions for eMessage, you must meet the following requirements for eMessage and Campaign.

eMessage requirements

Before you create multiple partitions in eMessage, complete the following tasks for eMessage.

- Contact IBM Support to request an account and credentials for each partition.
Each partition requires a separate IBM EMM Hosted Services account and access credentials. For more information, see the *IBM eMessage Startup and Administrator's Guide*.
- Create a system user that can access the eMessage system tables that you will create in the Campaign schema for the partition.

You can update the system user that you created for the Campaign partition so that it can also access the eMessage system tables.

Campaign requirements

Before you create multiple partitions in eMessage, complete the following tasks in Campaign.

- Create a partition in Campaign to operate with the partition that you are creating for eMessage.
Note the name of the partition.
- Create Campaign system tables in the Campaign partition.
- Configure a system user to access the system tables in the partition.
If you have multiple partitions, each partition must have its own system user. The system user cannot be the same across partitions.

Step: Create a new partition for eMessage

The IBM installer registers the eMessage configuration properties and a default partition during initial installation. The default partition includes a template that you can copy to create additional partitions.

To create a new partition for eMessage, do the following.

1. Navigate to eMessage > partitions > (*partition*) and duplicate the partition template.
2. Name the new partition.

Note: eMessage does not support deleting a partition after you have created it.

Identifying the partition template

The Configuration page displays the eMessage partition template in the navigation tree for the default partition. You can identify the partition template in the tree because its label is in italics and enclosed in parentheses.

Naming the new partition

The following restrictions apply when you name a new partition.

- The name must be unique among categories that are siblings in the tree (that is, among categories that share the same parent category).
- The partition name may not start with a period. Also, the following characters are not allowed in partition names.

!	^
"	<
·	>
#	=
\$?
%	@
&	[
(]
)	{
*	}
+	\
:	/
;	
,	'
	~

Note: Because eMessage operates with Campaign within a specific partition, the partitions for eMessage and Campaign must specify the same partition name.

Step: Prepare eMessage system tables for the partition

For each partition that you create for eMessage, you must create, populate and configure the eMessage system tables that are used by the partition in the Campaign schema.

To prepare the eMessage system tables for a partition, complete the following tasks.

1. "Create and populate eMessage tables in the partition schema"
2. "Configure automatic access to the partition's system tables" on page 52
3. "Specify the partition's system table characteristics" on page 52.

Create and populate eMessage tables in the partition schema

To create and populate the eMessage system tables for a partition, run SQL scripts against the database that contains the Campaign partition.

For more information about the SQL scripts, see the reference table for script names and locations at "Create and populate the eMessage system tables manually, if necessary" on page 24.

1. Create the eMessage system tables.
 - In your database client, run the SQL scripts for *creating* system tables against the Campaign database.
2. Populate the tables that you created.

Use the database client to run the scripts for *populating* tables against the Campaign database.

Create and populate the eMessage system tables manually, if necessary

eMessage requires that you create additional system tables in the Campaign schema and then populate them with initial data. These tables are used only by eMessage.

The Campaign installer automatically creates and populates the eMessage system tables in the Campaign schema if you select the option to create system tables automatically. However, if you do not select this option, you must create and populate the eMessage system tables manually.

Use your database client to run the appropriate script against the Campaign database. See the following tables to determine the scripts appropriate for your installation. The scripts that you must run depend on the type of database that hosts the Campaign schema and on whether the Campaign tables are configured for Unicode.

Note: The eMessage installation directory is a subfolder within the Campaign directory.

Scripts for creating eMessage tables

IBM provides the `ace_op_systab` scripts for creating the eMessage tables in your local environment.

If your Campaign system tables are configured for Unicode, find the appropriate script in the `ddl/unicode` directory under your eMessage installation.

If your Campaign system tables are not configured for Unicode, use the non-Unicode scripts in the `ddl` directory under your eMessage installation.

Data source type	Script name
IBM DB2	<code>ace_op_systab_db2.sql</code> The user tablespace and system temporary tablespace where the system tables reside must each have a page size of 32K or greater.
Microsoft SQL Server	<code>ace_op_systab_sqlsrvr.sql</code>
Oracle	<code>ace_op_systab_ora.sql</code>

Scripts for populating eMessage tables

IBM provides the `ace_op_populate_systab` scripts for populating the eMessage tables in your local environment.

Script locations

Locate the populate scripts in the `ddl` directory of your eMessage installation. IBM provides only one version of the populate scripts because you can use them for either Unicode or non-Unicode tables.

Note: The eMessage installation directory is a subfolder within the Campaign directory.

Data source type	Script name
IBM DB2	ace_op_populate_systab_db2.sql
Microsoft SQL Server	ace_op_populate_systab_sqlsvr.sql
Oracle	ace_op_populate_systab_ora.sql

Configure automatic access to the partition's system tables

eMessage accesses the partition's system tables through a system user configured in Marketing Platform. A Marketing Platform data source added to the system user provides the required access credentials. Because the eMessage system tables exist in the Campaign schema for the partition, you can use the system user that you created to access the Campaign schema to access the partition's eMessage system tables.

Set the following configuration properties in the eMessage configuration for the partition, specifying the user name and platform data source that you configured for the partition's Campaign system user.

- eMessage > partitions > partition [n] < dataSources > systemTables > asmUserForDBCredentials
- eMessage > partitions > partition [n] < dataSources > systemTables > amDataSourceForDBCredentials

Specify the partition's system table characteristics

eMessage requires information that describes the system tables for the partition. You provide this information by updating the following properties in the partition's configuration properties.

- eMessage > partitions > partition [n] < dataSources > systemTables > type
- eMessage > partitions > partition [n] < dataSources > systemTables > schemaName
- eMessage > partitions > partition [n] < dataSources > systemTables > jdbcBatchSize
- eMessage > partitions > partition [n] < dataSources > systemTables > jdbcClassName
- eMessage > partitions > partition [n] < dataSources > systemTables > jdbcURI

See the Marketing Platform online help for each property to learn more about setting the configuration properties.

For additional information about these configuration properties and configuring eMessage, see the *IBM eMessage Startup and Administrator's Guide*.

Step: Configure partition access to IBM EMM Hosted Services

IBM eMessage components in the partition must be allowed to automatically provide valid login credentials when attempting to communicate with IBM EMM Hosted Services. To do this, you must add the IBM EMM Hosted Services login credentials to a Marketing Platform user. This user becomes the eMessage system user.

You can add the platform data source containing the IBM EMM Hosted Services credentials to the eMessage system user. This user can be the same system user that accesses the Campaign system tables in the partition.

The steps for configuring system users for a partition are the same as those followed during the initial eMessage installation, which created the first partition. For details about how to add IBM EMM Hosted Services login credentials to a system user, see the *IBM eMessage Startup and Administrator's Guide*.

The credentials required to access IBM EMM Hosted Services are the user name and password that IBM provided during the initial startup process.

Important: For each additional partition, you must request a separate user name and password from IBM.

System user to access IBM EMM Hosted Services

IBM eMessage components must be able to communicate with IBM EMM Hosted Services without requiring manual entry of login credentials. To establish automatic login, define a system user in IBM Marketing Platform that can provide the required access credentials.

To simplify user administration and troubleshooting, you can modify an existing system user to access hosted services and local system tables. You can configure a single system user to provide credentials for multiple systems. For example, modifying the configuration of the Campaign system user creates a single user that can automatically access IBM EMM Hosted Services and the eMessage system tables in the Campaign schema.

The credentials that are required to access IBM EMM Hosted Services are the user name and password that IBM provided during the startup process. The credentials that you use depend on whether you are connecting to IBM's US data center or the data center that IBM maintains in the United Kingdom. Consult with IBM to determine which data center you use.

For specific information about how to configure a system user to communicate with IBM EMM Hosted Services, see the *IBM eMessage Startup and Administrator's Guide*.

For general information about how to create system users and data sources, see the *IBM Marketing Platform Administrator's Guide*.

Step: Enable eMessage in Campaign for the new partition

To allow users of the new partition to access eMessage features in Campaign you must enable eMessage in the Campaign partition that corresponds to the new partition. For example, the eMessage mailing tab does not appear in the Campaign interface until you enable eMessage in the Campaign configuration.

You enable eMessage in the partition by updating the `eMessageInstalled` configuration property for the corresponding Campaign partition.

In the Marketing Platform configurations, navigate to **Campaign | partitions | partition[n] | server | internal** and set the `eMessageInstalled` property to **yes**.

Step: Specify the location of the RLU for the partition

For each partition where you enable eMessage, you must specify the location of the Recipient List Uploader (RLU).

During initial installation, the IBM installer automatically adds the location of the RLU to the configuration for default partition (partition1). However, when you add new partitions to your environment, you must manually configure all new partitions to reference the correct location. Because there is only one RLU for each eMessage installation, all partitions access the same plugin file in the local file system of the machine that hosts the Campaign web application.

1. In the configuration for **partition1** in your Campaign installation, navigate to Campaign > partitions > partition1 > eMessage > eMessagePluginJarFile.

The value for this property is the full path to the plugin file (emessageplugin.jar) that operates as the RLU.

For example: C:\IBM\Unica\eMessage\plugin\emessageplugin.jar

2. Copy the value for the eMessagePluginJarFile property.
3. Navigate to the eMessagePluginJarFile for the new partition and enter the path you copied from **partition1**.

All partitions must use the same location for the RLU.

Step: Restart system components

After you change the eMessage and Campaign configurations, you must restart the Campaign web application server, the Response and Contact Tracker (RCT), and the Campaign listener.

1. Restart the web application server for Campaign.

For instructions, see the documentation for your web application server.

To verify that the server has started, log in to your IBM EMM installation, access Campaign, and confirm that you can open an existing mailing.

2. Restart the Response and Contact Tracker (RCT).

To restart the RCT manually, run the rct script in the bin directory under your eMessage installation, as follows: rct start

If RCT is configured to run as a service, restart the RCT service. The first time that you restart the RCT as a service, you must manually restart the RCT afterward.

For more information, see “The RCT script” on page 85.

3. Restart the Campaign listener:

- On Windows, run the cmpServer.bat file in the bin directory under your Campaign installation.
- On UNIX, run the following command as root: ./rc.unica_ac start

Step: Test partition configuration and connections

Important: Before you begin, if you have changed the Campaign or eMessage configurations, confirm that you have restarted the web application server that hosts Campaign and that you have restarted the Response and Contact Tracker.

eMessage provides scripts that you can use to verify the partition's configuration and its connection to IBM EMM Hosted Services. IBM also recommends that you confirm access to the mailing interface from the partition.

For more information on how to test the partition, see the *IBM eMessage Startup and Administrator's Guide*.

Configure the IBM Cognos Reports for multiple partitions

If you are using Campaign, eMessage, or Interact with more than one partition, you must configure IBM Cognos reports packages for each partition. For instructions, see the *IBM EMM Reports Installation and Configuration Guide*.

Chapter 9. Upgrading Campaign

Upgrade instructions for Campaign vary depending on which version is installed and whether you are using eMessage. Be sure to follow the appropriate set of instructions, starting with the following topics.

Note: You can upgrade to Campaign 9.0 (including eMessage) from version 8.5.x.x or 8.6.x.x only.

Note: You must upgrade Marketing Platform before you upgrade Campaign.

For this information...	See this topic...
Everything that you need to know before you upgrade any IBM EMM product.	"Upgrade prerequisites for all IBM EMM products"
Everything that you need to know before you upgrade eMessage.	"Specific preparations for upgrading eMessage" on page 60
A quick reference that explains how to upgrade from any previous version of Campaign and eMessage.	"IBM Campaign upgrade scenarios" on page 58
A quick reference that lists all of the steps for upgrading Campaign (including eMessage).	"Steps for upgrading from Campaign 8.5 or 8.6" on page 62
Information about running an upgrade in silent mode.	"Installing multiple times using unattended mode" on page 15

An upgrade consists of two basic steps: You run the installer in upgrade mode to lay down the necessary system files. Then, you run the upgrade tool (acUpgradeTool) to upgrade your existing user data to work with the new version of Campaign.

Upgrade prerequisites for all IBM EMM products

To upgrade any IBM EMM product, you must meet all of the prerequisites listed under "Prerequisites" on page 3 in the "Preparing to Install" chapter.

In addition, you must meet the prerequisites listed in this section.

Remove response files generated by previous installations

Before you run the installer to upgrade from pre-8.6.0 versions, you must delete any response files generated by previous installations.

Old response files are not compatible with 8.6.0 and later installers because changes were made to installer behavior and response file format.

Failure to remove old response files can result in having incorrect data pre-filled in installer fields when the installer is run, or in the installer failing to install some files or skipping configuration steps.

The response files are named `installer_<product><version>.properties`, except for the file for the IBM installer itself, which is named `installer.properties`. The

installer creates these files in the directory specified by the user during installation. The default location is the user's home directory.

User account requirement (UNIX only)

On UNIX, the same user account that installed the product must perform the upgrade.

32-bit to 64-bit version upgrades

If you are moving from a 32-bit to a 64-bit version of an IBM EMM product, ensure that the following conditions are met.

- The database client libraries for your product data sources are also 64-bit
- All relevant library paths (for example, startup or environment scripts) correctly reference the 64-bit versions of your database drivers

Knowledge requirements

These instructions assume that the person performing the upgrade has an understanding of the following areas:

- The basic function of the IBM installer, as described in “How the IBM EMM installers work” on page 14
- General IBM EMM product functionality and components, including the structure of the file system
- The installation and configuration process for the source product version and for the new version
- Maintaining configuration properties in the source and target systems
- The installation and configuration process for reports, if you are using these reports

Order of upgrading

The same considerations described in “Marketing Platform requirement” on page 4 apply when you upgrade with one exception.

An Interact 8.x runtime can run an Interact 7.x deployment; therefore, you should upgrade your runtime environments before your design environment.

Also be aware that you must successfully upgrade Marketing Platform prior to or at the same time as the upgrade of any other IBM EMM product. You cannot upgrade any IBM EMM products without also upgrading Marketing Platform to the compatible release.

Important: If you are trying to install a product over an existing version from which the upgrade is not supported, you will receive a message allowing you to cancel the installation or continue with the new install.

IBM Campaign upgrade scenarios

You can upgrade to Campaign 9.0 from version 8.5.x.x. or 8.6.x.x only. If you have a prior version of Campaign, you must follow the upgrade paths that are shown in the following table below:

Important: eMessage is installed or upgraded as part of Campaign. If you currently use or plan to use eMessage, be sure to see “Upgrading existing eMessage installations” on page 60.

Remember: You must upgrade Marketing Platform before you upgrade Campaign.

Currently installed	Upgrade path	Important notes for eMessage users
Any 5.1+ or 6.x version	<ol style="list-style-type: none"> 1. Perform a new installation of Campaign v8.6 in a new location. For details, see the <i>IBM Campaign Installation Guide v8.6</i>. 2. Run the data migration scripts that are supplied with v8.6. For details, see the <i>IBM Campaign Data Migration Guide v8.6</i>. 3. Follow the instructions in this table for "Any 8.5.x through 8.6.x version." 	
Any 7.0.x through 7.3.x version	<ol style="list-style-type: none"> 1. Perform an in-place installation of Campaign v8.6 over your source version (unless you are also using eMessage 7.x). Select the same location as your current installation, so the installer automatically runs in upgrade mode. For details, see the <i>IBM Campaign Installation Guide v8.6</i>. 2. Run the 8.6 upgrade tool (/tools/migration/5.1+To8.6/acUpgradeTool). For details, see the <i>IBM Campaign Installation Guide v8.6</i>. 3. Reporting in these versions of Campaign was provided by Affinium Reports (versions 7.0.x through 7.2.x). There is no upgrade path from Affinium Reports 7.2.1 to reporting in v8.6. Therefore, after upgrading from these versions, you must configure your new reports as explained in the <i>IBM Marketing Platform Installation Guide v8.6</i>. 4. Follow the instructions in this table for "Any 8.5.x through 8.6.x version." 	<p>If you are using eMessage 7.x with Campaign 7.x, do <i>not</i> perform an in-place upgrade. You must keep eMessage 7.x and perform a new installation of Campaign v8.6 in a different location.</p> <p>Carefully follow the instructions for eMessage upgrades in the <i>IBM Campaign Installation Guide v8.6</i>.</p> <p>Important: We strongly recommend that you work with IBM to devise a strategy to migrate your eMessage 7.x installation to a fresh eMessage installation.</p>
Any 7.5.x through 8.2.x version	<ol style="list-style-type: none"> 1. Perform an in-place installation of Campaign v8.6 over your source version (unless you are also using eMessage 7.x). Select the same location as your current installation, so the installer automatically runs in upgrade mode. For details, see the <i>IBM Campaign Installation Guide v8.6</i>. 2. Run the 8.6 upgrade tool (/tools/migration/5.1+To8.6/acUpgradeTool). For details, see the <i>IBM Campaign Installation Guide v8.6</i>. 3. Upgrade your reports as explained in the <i>IBM Marketing Platform Installation Guide v8.6</i>. 4. Follow the instructions in this table for "Any 8.5.x through 8.6.x version." 	<p>If you are using eMessage 7.x with Campaign 7.x, do <i>not</i> perform an in-place upgrade. You must keep eMessage 7.x and perform a new installation of Campaign v8.6 in a different location.</p> <p>Carefully follow the instructions for eMessage upgrades in the <i>IBM Campaign Installation Guide v8.6</i>.</p> <p>Important: We strongly recommend that you work with IBM to devise a strategy to migrate your eMessage 7.x installation to a fresh eMessage installation.</p>

Currently installed	Upgrade path	Important notes for eMessage users
Any 8.5.x through 8.6.x version	<ol style="list-style-type: none"> 1. Perform an in-place installation of Campaign v9.0 over your 8.5 or 8.6 version. Select the same location as your current installation, so the installer automatically runs in upgrade mode. Follow the instructions in the <i>IBM Campaign Installation Guide v9.0</i>. 2. Run the 9.0 upgrade tool (/tools/upgrade/8.5+To9.0/acUpgradeTool). Follow the instructions in the <i>IBM Campaign Installation Guide v9.0</i>. 3. Upgrade your reports as explained in the <i>IBM EMM Reports Installation and Configuration Guide v9.0</i>. 	When upgrading eMessage, there is no need to select Automatic DB Setup . This option is intended only for new installations, when the eMessage system tables do not exist.

Note: You must clear the browser cache after you complete the upgrade. You must also clear the browser cache after you apply any Campaign fix pack or Campaign interim fix that updates the Campaign application.

Specific preparations for upgrading eMessage

When you plan an eMessage upgrade, consider issues that are specific to working with eMessage and the hosted email environment that IBM provides.

Before you upgrade, confirm that your operating system, hardware and software, and network and database resources meet current requirements for all installed IBM EMM applications, including the current version of eMessage. For specific current requirements, see the *Recommended Software Environments and Minimum System Requirements* document. The eMessage requirements appear in a separate section and might differ from the requirements for the current version of Campaign.

Include the following considerations in your upgrade planning.

- “Upgrading existing eMessage installations”
- “Scheduling an eMessage upgrade” on page 61
- “Complete all recipient list uploads” on page 61
- “About outbound email during upgrades” on page 61
- “About email responses during an upgrade” on page 62

Upgrading existing eMessage installations

To upgrade to the latest version of eMessage, you must upgrade Campaign to the same version level.

You can upgrade to Campaign 9.0 (including eMessage) from version 8.5 or 8.6 only.

If you currently use eMessage, there are important considerations when you upgrade:

- The version of eMessage that you are using determines the upgrade path you must follow. For example, if you are using eMessage 7.x, you must not perform an in-place upgrade. Carefully follow the instructions in “IBM Campaign upgrade scenarios” on page 58.

- Upgrading to the latest version of Campaign and eMessage does not affect your hosted email account settings. You can resume mailing after you complete the upgrade.
- When changes to the eMessage system tables are part of an upgrade, IBM provides the necessary schema upgrade scripts and procedures.

If you never used eMessage before, the upgrade installs the necessary eMessage files but does not enable eMessage for use. After you run the upgrade installer, you must complete the pre-deployment configuration steps that are related to eMessage that are described in Chapter 4, “Configuring IBM Campaign before deployment,” on page 23.

To use eMessage to send email, you must contact IBM to purchase a hosted email subscription. For information about how to configure eMessage after you purchase an email subscription, see the *IBM eMessage Startup and Administrator’s Guide*.

Scheduling an eMessage upgrade

Upgrading eMessage requires stopping system components and taking interfaces offline. An upgrade also interferes with uploading and downloading data from IBM EMM Hosted Services. To avoid issues, schedule the upgrade for a time when there is minimal demand on the system. For example:

- Avoid upgrading when marketing users need to update recipient lists and recipient data.
- Avoid upgrading when marketing users need to run standard mailings or mailings that require close monitoring.
- Do not upgrade your eMessage installation when scheduled mailings are configured to run.
- Schedule the upgrade to occur immediately after you upgrade IBM Marketing Platform.
- Allow enough time to provide advance notice to all users about when you plan to begin the upgrade.

Complete all recipient list uploads

Running a Campaign flowchart that contains an eMessage process causes Campaign to automatically upload recipient list data (as an Output List Table, or OLT) to IBM EMM Hosted Services. However, upgrade activities can interfere with OLT uploads.

To avoid OLT upload issues, IBM recommends that you schedule the upgrade for a time when there are no requirements to upload recipient list data. Before you begin the eMessage upgrade, confirm that that all Campaign flowcharts that contain an eMessage process have finished running.

To preserve in-progress recipient list configuration work, save your work and back up all local files and databases before starting the upgrade. (Mailing configurations are saved in IBM EMM Hosted Services and are unaffected by the upgrade.) For more information on performing the required local backups, see “Back up Campaign” on page 63.

About outbound email during upgrades

During an upgrade, the eMessage mailing interface is not available. You cannot configure or start new mailings. Mailings that you have already started will run, but you cannot monitor, pause, or stop them.

About email responses during an upgrade

Upgrading eMessage requires temporarily stopping the Response and Contact Tracker (RCT).

During the upgrade, you may experience some delay in the availability of mailing response data. This information is not lost. IBM EMM Hosted Services queues response and contact data during the time that the RCT is stopped. When you restart the RCT, it downloads all of the accumulated information.

During the upgrade, individuals that received email during previous mailings will encounter no changes in the availability of links contained in the email, the speed of response to link clicks, or web site requests as a result of the upgrade activity. IBM supports these functions with resources maintained in IBM EMM Hosted Services.

Steps for upgrading from Campaign 8.5 or 8.6

Upgrading from Campaign 8.5.x or 8.6.x is considered an in-place upgrade. Be sure to install the new version into the same directory as your current installation. When you do so, Campaign detects that you are upgrading to a newer version.

Upgrading Campaign involves two main steps: You run the installer in upgrade mode, then you run the acUpgradeTool. The following table provides complete instructions.

Remember: You must upgrade Marketing Platform before you can upgrade Campaign.

Step	Description	See
1	Prerequisite: Understand the supported upgrade paths and prerequisites for all versions of Campaign and eMessage.	Chapter 9, "Upgrading Campaign," on page 57
2	Export configuration settings.	"Export configuration settings (optional)" on page 63
3	Back up Campaign.	"Back up Campaign" on page 63
4	For eMessage only.	"Stop the Response and Contact Tracker" on page 63
5	Stop the Campaign listener and utilities, and undeploy Campaign.	"Undeploy Campaign" on page 64
6	For AIX only.	"Unload unused files from memory (AIX only)" on page 64
7	Run the installer in upgrade mode.	"Run the Campaign installer in upgrade mode" on page 64
8	Redeploy Campaign in the web application server, then restart the Campaign listener.	"Redeploy Campaign in the web application server" on page 65
9	For eMessage only: Restart the Response and Contact Tracker	"Restart the Response and Contact Tracker" on page 65
10	Review and possibly modify the SQL upgrade script (for acUpgradeTool).	"Review SQL upgrade script and modify, if necessary" on page 65
11	Set environment variables for the upgrade tool (acUpgradeTool).	"Set environment variables for Campaign 9.x" on page 67

Step	Description	See
12	Gather information required to run the upgrade tool (acUpgradeTool).	“Gather information required to run the upgrade tool” on page 68
13	Run the Campaign 9.x upgrade tool (acUpgradeTool).	“Run the Campaign 9.x upgrade tool” on page 69

Export configuration settings (optional)

If your new Campaign installation will require any of the configuration settings from your previous Campaign installation, use the IBM configTool utility to export your Campaign configuration parameters prior to upgrading. Specify and make a note of a unique file name and location for the exported.xml file that the configTool utility creates so that you can locate it following the upgrade process.

For syntax, commands, and options for the configTool utility, see “The configTool utility” on page 73.

Back up Campaign

Be sure to back up the following information prior to beginning the Campaign upgrade installation:

1. Back up your Campaign installation directory and, if it is installed, your eMessage installation directory as well.

The Campaign upgrade process installs all files required to run both Campaign and eMessage, and, if you have an existing eMessage installation, will upgrade that installation along with Campaign.

Note that the IBM installer will also offer to make a backup of your installed files automatically during the upgrade process. You can complete the backup step here manually, during the installation automatically, or both.

2. Back up the system table databases used by your existing installation of Campaign and, if it is installed, eMessage.

See your database documentation for instructions on making backups of your data.

When you have completed these backup steps, you have a way to restore to a known working state in case of issues during the upgrade process.

Stop the Response and Contact Tracker

Required only if you are currently using eMessage.

If you are using IBM eMessage, you must stop the Response and Contact Tracker (RCT) before you start the upgrade. If you registered the RCT as a service, you must stop the service.

Note: You must restart the RCT after you complete the upgrade. The RCT or RCT service does not restart automatically after the upgrade.

Stopping the RCT manually

You stop the RCT by running the **rct** script, which is in the bin directory of your eMessage installation. Run the script as follows.

```
rct stop
```

For more information about this script, see “The RCT script” on page 85.

Stopping the RCT registered as a service

Removing the RCT as a service prevents the RCT from restarting automatically during the upgrade when you restart the operating system.

Stop the RCT service with the commands that are provided by your operating system for managing services.

Undeploy Campaign

Before you upgrade, follow these steps to stop Campaign processes and release any existing lock on the Campaign.war file on the system that you are upgrading. You must release the lock so that the upgrade can register the new version of Campaign in Marketing Platform.

To undeploy Campaign:

1. Stop the Campaign listener by using one of the following methods:

- On UNIX, run the following command as root:

```
./rc.unica_ac stop
```
- On Windows, go to the Campaign bin directory and run the following command:

```
svrstop -p 4664
```

If you are prompted for the CAMPAIGN_HOME environment variable, set it as shown here, then run the svrstop command again:

```
set CAMPAIGN_HOME=C:\<installation_path>\Campaign
```

Also, stop any Campaign utilities (unica_*) that might be running. For instructions, see the *Campaign Administrator's Guide*.

If you skip this step, the installer will detect if any processes are running and request that you stop them.

2. Follow the instructions in your web application server to undeploy the Campaign.war file, and save or activate all changes.
3. Shut down and restart the web application server to release the lock on the Campaign.war file.

Unload unused files from memory (AIX only)

For installations on AIX, run the sllibclean command included with your AIX installation to unload unused libraries from memory before you run the installer in upgrade mode. Note that you must be root to run the sllibclean command for this purpose.

Run the Campaign installer in upgrade mode

Part of the upgrade process involves running the Campaign installer in upgrade mode.

Note: Upgrading Campaign involves two main steps: You run the installer in upgrade mode, then you run the acUpgradeTool. For complete information, see “Steps for upgrading from Campaign 8.5 or 8.6” on page 62.

Follow these guidelines to run the installer in upgrade mode:

- To ensure that the IBM_EMM_Installer installer runs in upgrade mode, select the same directory as your current installation when you run the installer. The installer detects your existing version of Campaign and prompts you to confirm the upgrade.

For instructions on how to run the installer in GUI, console, or unattended mode, see “Step: Run the IBM EMM installer” on page 19.

- When upgrading to v9.0, there is no need to select the installer option for **Automatic DB Setup**. This option is intended for new installations, not upgrades.
- If you are rerunning the installer on a system where other IBM products are installed, do not reinstall the other products.
- If a response file was previously created and you run in unattended mode, the installer uses the installation directory that was previously set. If you want to upgrade using unattended mode when no response file exists, create a response file by running the installer manually for your first installation, and be sure to select your current installation directory in the installation wizard.
- If you want to create an EAR file after the upgrade, see “To create an EAR file after running the installer” on page 21

Redeploy Campaign in the web application server

Redeploy the newly installed version of Campaign in your web application server. Be sure to restart the Campaign listener, also known as the server, when you are done. For instructions, see Chapter 5, “Deploying the IBM Campaign web application,” on page 29.

Restart the Response and Contact Tracker

If you are using eMessage, you must restart the Response and Contact tracker (RCT) after the upgrade.

Restarting the RCT manually

To restart the RCT manually, use the `rct start` command. The RCT script is in the `bin` directory under your eMessage installation. For more information, see “The RCT script” on page 85.

Restarting the RCT as a service

To restart the RCT every time you restart the operating system of the machine where the RCT is installed, add the RCT as a service. For instructions, see “The `MKService_rct` script” on page 86.

Note: When you restart the RCT as a service, you must manually restart the RCT the first time.

Review SQL upgrade script and modify, if necessary

Before you run the Campaign upgrade tool (`acUpgradeTool`), determine whether you must modify the SQL upgrade script that is provided for your database.

You must modify the SQL script if you made customizations to the Campaign system tables that resulted in modifications to the default Data Definition Language (DDL) scripts that are included with Campaign. Examples are if you defined custom audience levels or changed field names.

In this case, you must modify the provided SQL upgrade script for your database to match your customizations.

The SQL upgrade scripts are installed in the /tools/upgrade/8.5+To9.0 directory. Use the appropriate script for your database type:

- ac_upgrade_db2.sql: DB2 upgrade script (non-Unicode)
- ac_upgrade_db2_unicode.sql: DB2 upgrade script (Unicode)
- ac_upgrade_oracle.sql: Oracle upgrade script (non-Unicode)
- ac_upgrade_oracle_unicode.sql: Oracle upgrade script (Unicode)
- ac_upgrade_sqlsvr.sql: MS SQL Server upgrade script (non-Unicode)
- ac_upgrade_sqlsvr_unicode.sql: MS SQL Server upgrade script (Unicode)

Example modifications to the SQL upgrade script

The following examples show required modifications to the SQL upgrade script for two scenarios:

Example 1: Change to a field name associated with an audience level

In your existing Campaign environment, the CustomerID field in the UA_ContactHistory table has been changed to ID.

To accommodate this field name change, you would need to change all the occurrences of CustomerID to ID in the upgrade script.

Example 2: Additional audience level

Your existing Campaign environment contains an additional audience level called Household. To support this audience level, your database contains tables named HH_ContactHistory, HH_ResponseHistory, and HH_DtlContactHist. The primary key is HouseholdID.

To support the Household audience level in your new Campaign installation, locate the code in the SQL upgrade script that updates response history and treatment sizes for the Customer audience level and replicate it for your Household audience level. Change the table names in these statements to the appropriate names for your Household audience level, and change any references to CustomerID to HouseholdID.

The following example SQL statements show the required additions to the ac_upgrade_sqlsvr.sql script for a SQL Server database containing the Household audience level. Text that has been changed to support the Household audience level is in bold:

```
-- ResponseHistory update "template"
ALTER TABLE HH_ResponseHistory ADD DirectResponse int NULL
go

-- Update the treatment sizes

update ua_treatment
set treatmentsize=(select count(DISTINCT HouseholdID)
from HH_ContactHistory
where HH_ContactHistory.CellID = ua_treatment.CellID
AND HH_ContactHistory.PackageID = ua_treatment.PackageID
and ua_treatment.CntrlTreatmtFlag = 1 and ua_treatment.HasDetailHistory = 0)

where exists
```

```

(select * from hh_contacthistory
 where hh_contacthistory.CellID = ua_treatment.CellID
 AND hh_contacthistory.PackageID = ua_treatment.PackageID
 and ua_treatment.CntrlTreatmtFlag = 1 and ua_treatment.HasDetailHistory = 0)
go

update ua_treatment
 set treatmentsize=(select count(DISTINCT HouseholdID)
 from HH_DtlContactHist
 where HH_DtlContactHist.TreatmentInstID = ua_treatment.TreatmentInstID
 and ua_treatment.CntrlTreatmtFlag = 1 and ua_treatment.HasDetailHistory = 1)

where exists

(select * from hh_dtlcontacthist
 where hh_dtlcontacthist.TreatmentInstID = ua_treatment.TreatmentInstID
 and ua_treatment.CntrlTreatmtFlag = 1 and ua_treatment.HasDetailHistory = 1)
go

```

For more information on managing database tables and audience levels, see the *Campaign Administrator's Guide*.

Set environment variables for Campaign 9.x

Before you run the acUpgradeTool, edit the setenv file to set the environment variables that the upgrade tool requires.

1. Open the setenv file in a text editor.

The file, called setenv.sh in UNIX and setenv.bat in Windows, is in the path where you installed the 9.0 upgrade tools (/tools/upgrade/8.5+To9.0).

2. Follow the instructions in the setenv file to supply any values relevant to your installation.

Required variables are listed in the following table.

Variable	Description
JAVA_HOME	Required. Root directory of the JDK used by your Campaign installation. For WebLogic, you must provide the JAVA_HOME path to JDK1.6. The upgrade tool utility fails if provided with a JAVA_HOME other than JDK1.6.
JDBC_DRIVER_CLASSPATH	Required. Full path for the JDBC drivers, including the .jar file. For both WebLogic and WebSphere, the path needs to include the .jar file.
IS_WEBLOGIC_SSL BEA_HOME_PATH SSL_TRUST_KEYSTORE_FILE_PATH	Required if you are using SSL and the connection to the target system tables is via the WebLogic server. Set IS_WEBLOGIC_SSL=YES, then set BEA_HOME_PATH and SSL_TRUST_KEYSTORE_FILE_PATH. See the setenv file for details.

Variable	Description
Other variables	<p>There are many optional variables you can set. For example:</p> <ul style="list-style-type: none"> • To run Unicode script, set IS_UNICODE_SCRIPT = Y • To avoid memory errors when running the upgrade tool, specify larger Java heap memory sizes in the JAVA_OPTIONS environment variable. <p>For instructions, see the setenv file.</p>

Gather information required to run the upgrade tool

Before running acUpgradeTool, gather the following information about your Campaign installation :

- Fully qualified path of your Marketing Platform installation directory (UNICA_PLATFORM_HOME in the setenv file). If Marketing Platform is installed on a separate machine from Campaign, specify the CAMPAIGN_HOME path instead of the UNICA_PLATFORM_HOME path.
- Fully qualified path of your Campaign installation directory (CAMPAIGN_HOME in the setenv file)
- For a multi-partition upgrade, the names of the partitions to be upgraded
- Connection information for the target Campaign system (URL and port)
- Connection type (WebLogic or JDBC) and location of the JAR files
- Java class name for the JDBC driver
- JDBC URL
- Additional properties required by the JDBC driver, if any
- User name and password for the target system tables database
- Catalog (or database) for the target system tables
- Schema for the target system tables
- Version of Campaign you are upgrading from
- Full or relative path of the Campaign configuration file (campaign_configuration.xml). This file is located in the conf directory under your Campaign installation.

About the upgrade log

The upgrade tool (acUpgradeTool) writes processing details, warnings, or errors to a log. You can adjust the location and verbosity level for the log file by editing the setenv script file before you run the upgrade tool. The setenv file is in the same folder as the upgrade tool.

By default, the log is named ac_upgrade.log and is in the logs folder in the Campaign installation directory.

Check the upgrade log for warnings and errors and correct any errors before you complete the upgrade.

Note: A CHRH.log is also generated in the same location. This log file is 0 KB in size and can be ignored.

About upgrading partitions

If you have multiple partitions, run the upgrade tool once for each partition.

Run the Campaign 9.x upgrade tool

The upgrade tool (**acUpgradeTool**) updates the Campaign system tables and modifies your user data to work with the new version of Campaign.

To successfully run the upgrade tool, you must meet the following prerequisites:

- Customize the 9.0 `setenv` file with information that the upgrade tool requires. See “Set environment variables for Campaign 9.x” on page 67.
- The upgrade tools must be installed on the system where you will run them. If your setup is distributed, the tools must be installed on the system where the Campaign web application is installed. If you did not install the upgrade tools during the Campaign installation, run the installer again and select only the Upgrade Tools option.
- The appropriate database client executable file (`db2`, `osql`, or `sqlplus`) for the Campaign system tables data source must be accessible in the `PATH` of the user who runs the upgrade tool.
- Do not run the upgrade tool until you complete the following steps: Run the Campaign installer in upgrade mode, redeploy Campaign, restart RCT if you are using eMessage, modify the SQL script if required, and gather information to enter when you run the tool.

After you complete the prerequisites, you can run the upgrade tool to complete the upgrade process.

If you have multiple partitions, you must configure and run the upgrade tool once for each partition.

To run the upgrade tool and complete the upgrade process:

1. Start the web application server on the target system and the IBM EMM web application.
2. Stop the Campaign listener on the source and target systems:
 - On UNIX, run the following command as root:
`./rc.unica_ac stop`
 - On Windows, go to the Campaign `bin` directory and run the following command:

```
svrstop -p 4664
```

Also, stop any Campaign utilities (`unica_*`) that might be running. For instructions, see the *Campaign Administrator's Guide*.

3. Run the upgrade tool (`/tools/upgrade/8.5+To9.0/acUpgradeTool`) in the path where you installed Campaign.

Enter the requested information at the prompts to upgrade your system tables for the new version of Campaign.

When the tool completes successfully, the upgrade process is complete.

4. Restart the Campaign listener:
 - On Windows, run **cmpServer.bat** in the `bin` directory under your Campaign installation.
 - On UNIX, run the following command as root: **`./rc.unica_ac start`**

Appendix A. IBM utilities

This section describes the utilities you may need to use when you install Campaign.

Campaign also includes several administrative utilities. For information about these utilities, see the *Campaign Administrator's Guide*.

About Marketing Platform utilities

This section provides an overview of the Marketing Platform utilities, including some details that apply to all of the utilities and which are not included in the individual utility descriptions.

Location of utilities

Marketing Platform utilities are located in the `tools/bin` directory under your Marketing Platform installation.

List and descriptions of utilities

The Marketing Platform provides the following utilities.

- “The `configTool` utility” on page 73 - imports, exports, and deletes configuration settings, including product registrations
- “The `alertConfigTool` utility” on page 76 - registers alerts and configurations for IBM EMM products
- “The `datafilteringScriptTool` utility” on page 77 - creates data filters
- “The `encryptPasswords` utility” on page 78 - encrypts and stores passwords
- “The `partitionTool` utility” on page 79 - creates database entries for partitions
- “The `populateDb` utility” on page 81 - populates the Marketing Platform database
- “The `restoreAccess` utility” on page 82 - restores a user with the `platformAdminRole` role
- “The `scheduler_console_client` utility” on page 83 - lists or starts IBM EMM Scheduler jobs that are configured to listen for a trigger.

Prerequisites for running Marketing Platform utilities

The following are prerequisites for running all Marketing Platform utilities.

- Run all utilities from the directory where they are located (by default, the `tools/bin` directory under your Marketing Platform installation).
- On UNIX, the best practice is to run the utilities with the same user account that runs the application server on which Marketing Platform is deployed. If you run a utility with a different user account, adjust the permissions on the `platform.log` file to allow that user account to write to it. If you do not adjust permissions, the utility is not able to write to the log file and you might see some error messages, although the tool should still function correctly.

Troubleshooting connection issues

All of the Marketing Platform utilities except `encryptPasswords` interact with the Marketing Platform system tables. To connect to the system table database, these utilities use the following connection information, which is set by the installer using information provided when the Marketing Platform was installed. This information is stored in the `jdbc.properties` file, located in the `tools/bin` directory under your Marketing Platform installation.

- JDBC driver name
- JDBC connection URL (which includes the host, port, and database name)
- Data source login
- Data source password (encrypted)

In addition, these utilities rely on the `JAVA_HOME` environment variable, set either in the `setenv` script located in the `tools/bin` directory of your Marketing Platform installation, or on the command line. The Marketing Platform installer should have set this variable automatically in the `setenv` script, but it is a good practice to verify that the `JAVA_HOME` variable is set if you have a problem running a utility. The JDK must be the Sun version (not, for example, the JRockit JDK available with WebLogic).

Special characters

Characters that are designated as reserved characters in the operating system must be escaped. Consult your operating system documentation for a list of reserved characters and how to escape them.

Standard options in Marketing Platform utilities

The following options are available in all Marketing Platform utilities.

`-l logLevel`

Set the level of log information displayed in the console. Options are `high`, `medium`, and `low`. The default is `low`.

`-L`

Set the locale for console messages. The default locale is `en_US`. The available option values are determined by the languages into which the Marketing Platform has been translated. Specify the locale using the ICU locale ID according to ISO 639-1 and ISO 3166.

`-h`

Display a brief usage message in the console.

`-m`

Display the manual page for this utility in the console.

`-v`

Display more execution details in the console.

The configTool utility

The properties and values on the Configuration page are stored in the Marketing Platform system tables. The configTool utility imports and exports configuration settings to and from the Marketing Platform system tables.

When to use configTool

You might want to use configTool for the following reasons.

- To import partition and data source templates supplied with Campaign, which you can then modify and duplicate using the Configuration page.
- To register (import configuration properties for) IBM EMM products, if the product installer is unable to add the properties to the database automatically.
- To export an XML version of configuration settings for backup or to import into a different installation of IBM EMM.
- To delete categories that do not have the **Delete Category** link. You do this by using configTool to export your configuration, then manually deleting the XML that creates the category, and using configTool to import the edited XML.

Important: This utility modifies the `usm_configuration` and `usm_configuration_values` tables in the Marketing Platform system table database, which contain the configuration properties and their values. For best results, either create backup copies of these tables, or export your existing configurations using configTool and back up the resulting file so you have a way to restore your configuration if you make an error when using configTool to import.

Valid product names

The configTool utility uses product names as parameters with the commands that register and unregister products, as described later in this section. With the 8.0.0 release of IBM EMM, many product names changed. However, the names recognized by configTool did not change. The valid product names for use with configTool are listed below, along with the current names of the products.

Product name	Name used in configTool
Marketing Platform	Manager
Campaign	Campaign
Distributed Marketing	Collaborate
eMessage	emessage
Interact	interact
Contact Optimization	Optimize
Marketing Operations	Plan
CustomerInsight	Insight
Digital Analytics for On Premises	NetInsight
PredictiveInsight	Model
Leads	Leads

Syntax

```
configTool -d -p "elementPath" [-o]
```

```
configTool -i -p "parent ElementPath" -f importFile [-o]
```

```
configTool -x -p "elementPath" -f exportFile
```

```
configTool -r productName -f registrationFile [-o]
```

```
configTool -u productName
```

Commands

-d -p "*elementPath*"

Delete configuration properties and their settings, specifying a path in the configuration property hierarchy.

The element path must use the internal names of categories and properties, which you can obtain by going to the Configuration page, selecting the wanted category or property, and looking at the path displayed in parentheses in the right pane. Delimit a path in the configuration property hierarchy using the | character, and surround the path with double quotation marks.

Note the following.

- Only categories and properties within an application may be deleted using this command, not whole applications. Use the -u command to unregister a whole application.
- To delete categories that do not have the **Delete Category** link on the Configuration page, use the -o option.

-i -p "*parentElementPath*" -f *importFile*

Import configuration properties and their settings from a specified XML file.

To import, you specify a path to the parent element under which you want to import your categories. The configTool utility imports properties *under* the category you specify in the path.

You can add categories at any level below the top level, but you cannot add a category at same level as the top category.

The parent element path must use the internal names of categories and properties, which you can obtain by going to the Configuration page, selecting the desired category or property, and looking at the path displayed in parentheses in the right pane. Delimit a path in the configuration property hierarchy using the | character, and surround the path with double quotation marks.

You can specify an import file location relative to the tools/bin directory or you can specify a full directory path. If you specify a relative path or no path, configTool first looks for the file relative to the tools/bin directory.

By default, this command does not overwrite an existing category, but you can use the -o option to force an overwrite.

-x -p "*elementPath*" -f *exportFile*

Export configuration properties and their settings to an XML file with a specified name.

You can export all configuration properties or limit the export to a specific category by specifying a path in the configuration property hierarchy.

The element path must use the internal names of categories and properties, which you can obtain by going to the Configuration page, selecting the wanted category or property, and looking at the path displayed in parentheses in the right pane. Delimit a path in the configuration property hierarchy using the | character, and surround the path with double quotation marks.

You can specify an export file location relative to the current directory or you can specify a full directory path. If the file specification does not contain a separator (/ on Unix, / or \ on Windows), configTool writes the file to the tools/bin directory under your Marketing Platform installation. If you do not provide the xml extension, configTool adds it.

-r *productName* -f *registrationFile*

Register the application. The registration file location may be relative to the tools/bin directory or may be a full path. By default, this command does not overwrite an existing configuration, but you can use the -o option to force an overwrite. The *productName* parameter must be one of those listed above.

Note the following.

- When you use the -r option, the registration file must have <application> as the first tag in the XML.
Other files may be provided with your product that you can use to insert configuration properties into the Marketing Platform database. For these files, use the -i option. Only the file that has the <application> tag as the first tag can be used with the -r option.
- The registration file for the Marketing Platform is named Manager_config.xml, and the first tag is <Suite>. To register this file on a new installation, use the populateDb utility, or rerun the Marketing Platform installer as described in the *IBM Marketing Platform Installation Guide*.
- After the initial installation, to reregister products other than the Marketing Platform, use configTool with the -r option and -o to overwrite the existing properties.

-u *productName*

Unregister an application specified by *productName*. You do not have to include a path to the product category; the product name is sufficient. The *productName* parameter must be one of those listed above. This removes all properties and configuration settings for the product.

Options

-o

When used with -i or -r, overwrites an existing category or product registration (node).

When used with `-d` allows you to delete a category (node) that does not have the **Delete Category** link on the Configuration page.

Examples

- Import configuration settings from a file named `Product_config.xml` located in the `conf` directory under the Marketing Platform installation.

```
configTool -i -p "Affinium" -f Product_config.xml
```
- Import one of the supplied Campaign data source templates into the default Campaign partition, `partition1`. The example assumes that you placed the Oracle data source template, `OracleTemplate.xml`, in the `tools/bin` directory under the Marketing Platform installation.

```
configTool -i -p "Affinium|Campaign|partitions|partition1|dataSources" -f OracleTemplate.xml
```
- Export all configuration settings to a file named `myConfig.xml` located in the `D:\backups` directory.

```
configTool -x -f D:\backups\myConfig.xml
```
- Export an existing Campaign partition (complete with data source entries), save it to a file named `partitionTemplate.xml`, and store it in the default `tools/bin` directory under the Marketing Platform installation.

```
configTool -x -p "Affinium|Campaign|partitions|partition1" -f partitionTemplate.xml
```
- Manually register an application named `productName`, using a file named `app_config.xml` located in the default `tools/bin` directory under the Marketing Platform installation, and force it to overwrite an existing registration of this application.

```
configTool -r product Name -f app_config.xml -o
```
- Unregister an application named `productName`.

```
configTool -u productName
```

The alertConfigTool utility

Notification types are specific to the various IBM EMM products. Use the `alertConfigTool` utility to register the notification types when the installer has not done this automatically during installation or upgrade.

Syntax

```
alertConfigTool -i -f importFile
```

Commands

`-i -f importFile`

Import alert and notification types from a specified XML file.

Example

- Import alert and notification types from a file named `Platform_alerts_configuration.xml` located in the `tools\bin` directory under the Marketing Platform installation.

```
alertConfigTool -i -f Platform_alerts_configuration.xml
```


The datafilteringScriptTool utility

The datafilteringScriptTool utility reads an XML file to populate the data filtering tables in the Marketing Platform system table database.

Depending on how you write the XML, you can use this utility in two ways.

- Using one set of XML elements, you can auto-generate data filters based on unique combinations of field values (one data filter for each unique combination).
- Using a slightly different set of XML elements, you can specify each data filter that the utility creates.

See *IBM Marketing Platform the Administrator's Guide* for information about creating the XML.

When to use datafilteringScriptTool

You must use datafilteringScriptTool when you create new data filters.

Prerequisites

The Marketing Platform must be deployed and running.

Using datafilteringScriptTool with SSL

When the Marketing Platform is deployed using one-way SSL you must modify the datafilteringScriptTool script to add the SSL options that perform handshaking. To modify the script, you must have the following information.

- Truststore file name and path
- Truststore password

In a text editor, open the datafilteringScriptTool script (.bat or .sh) and find the lines that look like this (examples are Windows version).

```
:call exec
```

```
"%JAVA_HOME%\bin\java" -DUNICA_PLATFORM_HOME="%UNICA_PLATFORM_HOME%"
```

```
com.unica.management.client.datafiltering.tool.DataFilteringScriptTool %*
```

Edit these lines to look like this (new text is in **bold**). Substitute your truststore path and file name and truststore password for myTrustStore.jks and myPassword.

```
:call exec
```

```
SET SSL_OPTIONS=-Djavax.net.ssl.keyStoreType="JKS"
```

```
-Djavax.net.ssl.trustStore="C:\security\myTrustStore.jks"
```

```
-Djavax.net.ssl.trustStorePassword=myPassword
```

```
"%JAVA_HOME%\bin\java" -DUNICA_PLATFORM_HOME="%UNICA_PLATFORM_HOME%"  
%SSL_OPTIONS%
```

```
com.unica.management.client.datafiltering.tool.DataFilteringScriptTool %*
```

Syntax

```
datafilteringScriptTool -r pathfile
```

Commands

-r *path_file*

Import data filter specifications from a specified XML file. If the file is not located in the `tools/bin` directory under your installation, provide a path and enclose the `path_file` parameter in double quotation marks.

Example

- Use a file named `collaborateDataFilters.xml`, located in the `C:\unica\xml` directory, to populate the data filter system tables.

```
datafilteringScriptTool -r "C:\unica\xml\collaborateDataFilters.xml"
```

The encryptPasswords utility

The `encryptPasswords` utility is used to encrypt and store either of two passwords that the Marketing Platform uses, as follows.

- The password that the Marketing Platform uses to access its system tables. The utility replaces an existing encrypted password (stored in the `jdbc.properties` file, located in the `tools\bin` directory under your Marketing Platform installation) with a new one.
- The keystore password used by the Marketing Platform when it is configured to use SSL with a certificate other than the default one supplied with the Marketing Platform or the web application server. The certificate can be either a self-signed certificate or a certificate from a certificate authority.

When to use encryptPasswords

Use `encryptPasswords` as for the following reasons.

- When you change the password of the account used to access your Marketing Platform system table database.
- When you have created a self-signed certificate or have obtained one from a certificate authority.

Prerequisites

- Before running `encryptPasswords` to encrypt and store a new database password, make a backup copy of the `jdbc.properties` file, located in the `tools/bin` directory under your Marketing Platform installation.
- Before running `encryptPasswords` to encrypt and store the keystore password, you must have created or obtained a digital certificate and know the keystore password.

See “About Marketing Platform utilities” on page 71 for additional prerequisites.

Syntax

```
encryptPasswords -d databasePassword
```

```
encryptPasswords -k keystorePassword
```

Commands

-d *databasePassword*

Encrypt the database password.

-k *keystorePassword*

Encrypt the keystore password and store it in a file named *pfile*.

Examples

- When the Marketing Platform was installed, the login for the system table database account was set to *myLogin*. Now, some time after installation, you have changed the password for this account to *newPassword*. Run `encryptPasswords` as follows to encrypt and store the database password.

```
encryptPasswords -d newPassword
```

- You are configuring an IBM EMM application to use SSL and have created or obtained a digital certificate. Run `encryptPasswords` as follows to encrypt and store the keystore password.

```
encryptPasswords -k myPassword
```

The partitionTool utility

Partitions are associated with Campaign policies and roles. These policies and roles and their partition associations are stored in the Marketing Platform system tables. The `partitionTool` utility seeds the Marketing Platform system tables with basic policy and role information for partitions.

When to use partitionTool

For each partition you create, you must use `partitionTool` to seed the Marketing Platform system tables with basic policy and role information.

See the installation guide appropriate for your version of Campaign for detailed instructions on setting up multiple partitions in Campaign.

Special characters and spaces

Any partition description or user, group, or partition name that contains spaces must be enclosed in double quotation marks.

See “About Marketing Platform utilities” on page 71 for additional restrictions.

Syntax

```
partitionTool -c -s sourcePartition -n newPartitionName [-u  
admin_user_name] [-d partitionDescription] [-g groupName]
```

Commands

The following commands are available in the `partitionTool` utility.

-c

Replicates (clones) the policies and roles for an existing partition specified using the `-s` option, and uses the name specified using the `-n` option. Both of these options are required with `c`. This command does the following.

- Creates a new IBM EMM user with the Admin role in both the Administrative Roles policy and the global policy in Campaign. The partition name you specify is automatically set as this user's password.
- Creates a new Marketing Platform group and makes the new Admin user a member of that group.
- Creates a new partition object.
- Replicates all the policies associated with the source partition and associates them with the new partition.
- For each replicated policy, replicates all roles associated with the policy.
- For each replicated role, maps all functions in the same way that they were mapped in the source role.
- Assigns the new Marketing Platform group to the last system-defined Admin role created during role replication. If you are cloning the default partition, `partition1`, this role is the default Administrative Role (Admin).

Options

-d partitionDescription

Optional, used with `-c` only. Specifies a description that appears in the output from the `-list` command. Must be 256 characters or less. Enclose in double quotation marks if the description contains spaces.

-g groupName

Optional, used with `-c` only. Specifies the name of the Marketing Platform Admin group that the utility creates. The name must be unique within this instance of the Marketing Platform

If not defined, the name defaults to `partition_nameAdminGroup`.

-n partitionName

Optional with `-list`, required with `-c`. Must be 32 characters or less.

When used with `-list`, specifies the partition whose information is listed.

When used with `-c`, specifies the name of the new partition, and the partition name you specify is used as the password for the Admin user. The partition name must match the name you gave the partition in when you configured it (using the partition template on the Configuration page).

-s sourcePartition

Required, used with `-c` only. The name of the source partition to be replicated.

-u adminUserName

Optional, used with `-c` only. Specifies the user name of the Admin user for the replicated partition. The name must be unique within this instance of the Marketing Platform.

If not defined, the name defaults to *partitionNameAdminUser*.

The partition name is automatically set as this user's password.

Examples

- Create a partition with the following characteristics.
 - Cloned from partition1
 - Partition name is myPartition
 - Uses the default user name (myPartitionAdminUser) and password (myPartition)
 - Uses the default group name (myPartitionAdminGroup)
 - Description is "ClonedFromPartition1"

```
partitionTool -c -s partition1 -n myPartition -d "ClonedFromPartition1"
```
- Create a partition with the following characteristics.
 - Cloned from partition1
 - Partition name is partition2
 - Specifies user name of customerA with the automatically assigned password of partition2
 - Specifies group name of customerAGroup
 - Description is "PartitionForCustomerAGroup"

```
partitionTool -c -s partition1 -n partition2 -u customerA -g customerAGroup -d "PartitionForCustomerAGroup"
```

The populateDb utility

The populateDb utility inserts default (seed) data in the Marketing Platform system tables.

The IBM installer can populate the Marketing Platform system tables with default data for the Marketing Platform and for Campaign. However, if your company policy does not permit the installer to change the database, or if the installer is unable to connect with the Marketing Platform system tables, you must insert default data in the Marketing Platform system tables using this utility.

For Campaign, this data includes security roles and permissions for the default partition. For the Marketing Platform, this data includes default users and groups, and security roles and permissions for the default partition.

Syntax

```
populateDb -n productName
```

Commands

```
-n productName
```

Insert default data into the Marketing Platform system tables. Valid product names are Manager (for the Marketing Platform) and Campaign (for Campaign).

Examples

- - Insert Marketing Platform default data manually.

```
populateDb -n Manager
```

-

Insert Campaign default data manually.

```
populateDb -n Campaign
```

The restoreAccess utility

The restoreAccess utility allows you to restore access to the Marketing Platform if all users with PlatformAdminRole privileges have been inadvertently locked out or if all ability to log in to the Marketing Platform has been lost.

When to use restoreAccess

You might want to use restoreAccess under the two circumstances described in this section.

PlatformAdminRole users disabled

It is possible that all users with PlatformAdminRole privileges in the Marketing Platform might become disabled in the system. Here is an example of how the platform_admin user account might become disabled. Suppose you have only one user with PlatformAdminRole privileges (the platform_admin user). Assume the Maximum failed login attempts allowed property in the **General | Password settings** category on the Configuration page is set to 3. Then suppose someone who is attempting to log in as platform_admin enters an incorrect password three times in a row. These failed login attempts cause the platform_admin account to become disabled in the system.

In that case, you can use restoreAccess to add a user with PlatformAdminRole privileges to the Marketing Platform system tables without accessing the web interface.

When you run restoreAccess in this way, the utility creates a user with the login name and password you specify, and with PlatformAdminRole privileges.

If the user login name you specify exists in the Marketing Platform as an internal user, that user's password is changed.

Only a user with the login name of PlatformAdmin and with PlatformAdminRole privileges can universally administer all dashboards. So if the platform_admin user is disabled and you create a user with restoreAccess, you should create a user with a login of platform_admin.

Improper configuration of Active Directory integration

If you implement Windows Active Directory integration with improper configuration and can no longer log in, use restoreAccess to restore the ability to log in.

When you run restoreAccess in this way, the utility changes the value of the Platform | Security | Login method property from Windows integrated login to Marketing Platform. This change allows you to log in with any user account that existed before you were locked out. You can optionally specify a new login name and password as well. You must restart the web application server on which the Marketing Platform is deployed if you use the restoreAccess utility in this way.

Password considerations

Note the following about passwords when you use `restoreAccess`.

- The `restoreAccess` utility does not support blank passwords, and does not enforce password rules.
- If you specify a user name that is in use, the utility resets the password for that user.

Syntax

```
restoreAccess -u loginName -p password
```

```
restoreAccess -r
```

Commands

-r

When used without the `-u loginName` option, reset the value of the Platform | Security | Login method property to Marketing Platform. Requires restart of the web application server to take effect.

When used with the `-u loginName` option, create a PlatformAdminRole user.

Options

-u *loginName*

Create a user with PlatformAdminRole privileges with the specified login name. Must be used with the `-p` option.

-p *password*

Specify the password for the user being created. Required with `-u`.

Examples

- Create a user with PlatformAdminRole privileges. The login name is `tempUser` and the password is `tempPassword`.

```
restoreAccess -u tempUser -p tempPassword
```
- Change the value of the login method to IBM Marketing Platform and create a user with PlatformAdminRole privileges. The login name is `tempUser` and the password is `tempPassword`.

```
restoreAccess -r -u tempUser -p tempPassword
```

The `scheduler_console_client` utility

Jobs configured in the IBM EMM Scheduler can be listed and kicked off by this utility, if they are set up to listen for a trigger.

What to do if SSL is enabled

When the Marketing Platform web application is configured to use SSL, the JVM used by the `scheduler_console_client` utility must use the same SSL certificate that is used by the web application server on which the Marketing Platform is deployed.

Take the following steps to import the SSL certificate

- Determine the location of the JRE used by the scheduler_console_client.
 - If JAVA_HOME is set as a system environment variable, the JRE it points to is the one used by the scheduler_console_client utility.
 - If JAVA_HOME is not set as a system environment variable, the scheduler_console_client utility uses the JRE set either in the setenv script located in the tools/bin directory of your Marketing Platform installation, or on the command line.
- Import the SSL certificate used by the web application server on which the Marketing Platform is deployed to the JRE used by scheduler_console_client. The Sun JDK includes a program called keytool that you can use to import the certificate. Consult the Java documentation for complete details on using this program, or access the help by entering -help when you run the program.
- Open the tools/bin/schedulerconsoleclient file in a text editor and add the following properties. These differ depending on the web application server on which Marketing Platform is deployed.
 - For WebSphere, add these properties to the file.
 - Djavax.net.ssl.keyStoreType=JKS
 - Djavax.net.ssl.keyStore="*Path to your key store JKS file*"
 - Djavax.net.ssl.keyStorePassword="*Your key store password*"
 - Djavax.net.ssl.trustStore="*Path to your trust store JKS file*"
 - Djavax.net.ssl.trustStorePassword="*Your trust store password*"
 - DisUseIBMSSLSocketFactory=false
 - For WebLogic, add these properties to the file.
 - Djavax.net.ssl.keyStoreType="JKS"
 - Djavax.net.ssl.trustStore="*Path to your trust store JKS file*"
 - Djavax.net.ssl.trustStorePassword="*Your trust store password*"

If the certificates do not match, the Marketing Platform log file contains an error such as the following.

```
Caused by: sun.security.provider.certpath.SunCertPathBuilderException:  
unable to find valid certification path to requested target
```

Prerequisites

The Marketing Platform must be installed, deployed, and running.

Syntax

```
scheduler_console_client -v -t trigger_name user_name
```

```
scheduler_console_client -s -t trigger_name user_name
```

Commands

-v

List the scheduler jobs configured to listen for the specified trigger.

Must be used with the -t option.

-s

Send the specified trigger.

Must be used with the **-t** option.

Options

-t *trigger_name*

The name of the trigger, as configured in the scheduler.

Example

- List jobs configured to listen for a trigger named `trigger1`.
`scheduler_console_client -v -t trigger1`
- Execute jobs configured to listen for a trigger named `trigger1`.
`scheduler_console_client -s -t trigger1`

The RCT script

Use this script to run and check the status of the Response and Contact Tracker (RCT).

This script is located in the `bin` directory under your eMessage installation. The eMessage directory is a sub-directory in the Campaign directory.

In UNIX or Linux environments run the script as `rct.sh`.

In Windows, run the script from the command line as `rct.bat`.

Syntax

`rct [start | stop | check]`

Commands

start

Start the RCT

stop

Stop the RCT

Options

check

Check the status of the connection between the RCT and IBM EMM Hosted Services.

Examples

- To start the RCT on Windows.
`rct.bat start`

- To stop the RCT on Windows.
rct.bat stop
 - In a Linux environment, to determine if the RCT is connected to IBM EMM Hosted Services.
rct.sh check
- Depending on the status of your system, the output of this command might look like this:
- ```
C:\<EMM_HOME>\Campaign\eMessage\bin>rct check
Testing config and connectivity for partition partition1
Succeeded | Partition: partition1 - Hosted Services Account ID: asm_admin
```

---

## The MKService\_rct script

Use this script to add or remove the Response and Contact Tracker (RCT) as a service. Adding the RCT as a service restarts the RCT every time you restart the operating system of the machine where you have installed the RCT. Removing the RCT as a service prevents the RCT from restarting automatically.

This script is located in the bin directory under your eMessage installation.

In UNIX or Linux environments run `MKService_rct.sh`. with a user that has root permissions or permissions to create daemon processes.

In Windows, run the script from the command line as `MKService_rct.bat`.

### Syntax

```
MKService_rct -install
```

```
MKService_rct -remove
```

### Commands

#### -install

Add the RCT as a service

#### -remove

Remove the RCT service

### Examples

- To add the RCT as a Windows service.  
MKService\_rct.bat -install
- To remove the RCT service on UNIX or Linux.  
MKService\_rct.sh -remove

---

## Appendix B. Failover configuration for IBM Campaign

You can configure the Campaign web application server and back-end server components to support failover.

### Definition of terms

| Component                       | Installation option | Definition                                                                              |
|---------------------------------|---------------------|-----------------------------------------------------------------------------------------|
| Campaign web application server | J2EE Application    | The web application that provides the Campaign user interface.                          |
| Campaign back-end server        | Campaign Server     | The startup scripts and components that support the design and execution of flowcharts. |

### Campaign web application server component

The Campaign web application server components do not support a load balanced web application environment. However, environments can be configured with standby servers to address web application server failures. The process for switching to a standby web application server for Campaign is described below.

In Campaign, certain objects, such as offers, are cached in the web application server to improve response times in the user interface. In a load balanced environment, offers created on one web application server might not be immediately available to users whose sessions connect through another server. To avoid this problem, Campaign does not support a load balanced configuration.

The objects that are cached include offers, offer templates and attributes, campaigns, sessions, folders, attributes, initiatives, and segments. You can configure how often the cache is refreshed by adjusting the Campaign cache configuration settings, such as `offerTemplateDataTTLSeconds`. However, this adjustment can affect performance. Configuration settings are described in the *IBM Campaign Administrator's Guide*.

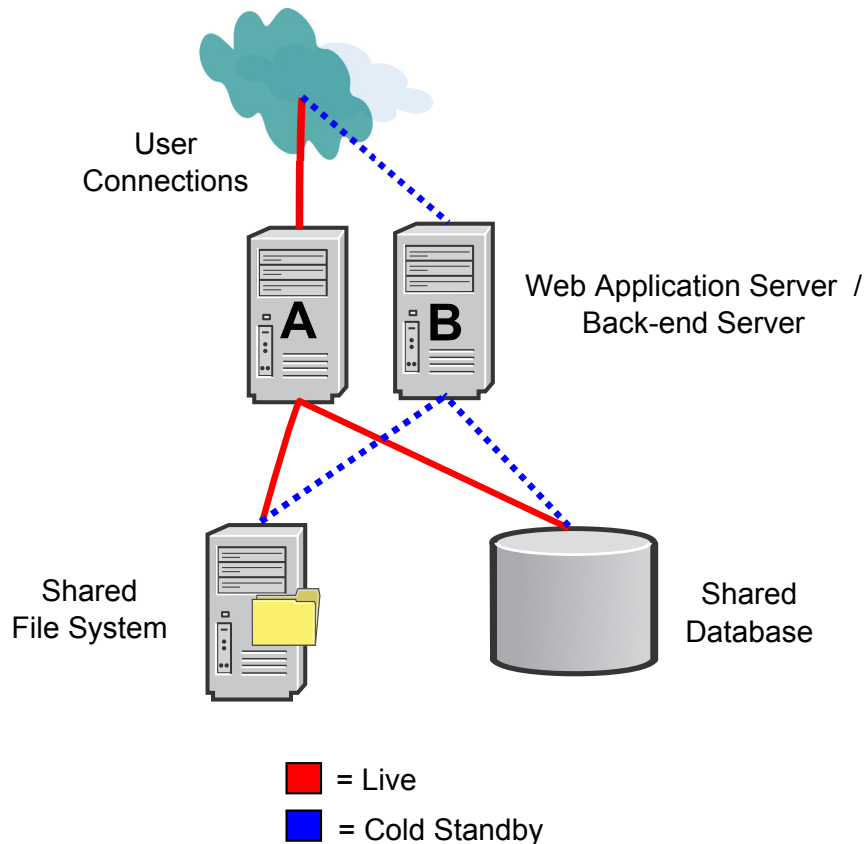
A configuration with a standby server can be used to minimize disruptions in application availability in the event of a web application server failure. Because the Campaign system tables are stored in an external database, it is not necessary to replicate data to the standby server. If the primary web application server fails, the Campaign web application must be started on the standby server. When started, the Campaign web application will retrieve all current data from the Campaign system table database.

### Campaign back-end server component

The recommended configuration consists of two separate Campaign servers, one "hot", and one "cold". Allowing multiple web application servers to access a single back-end server is not recommended because it can affect performance. If you assume that there is a one to one relationship between web application servers and back-end servers (for performance reasons), then putting the servers on separate machines introduces more points of failure. The benefit of having one dedicated

server for the web application and one for the back-end server is that both can be tuned appropriately. If the web application server is also used to serve other web applications, consider using a separate back-end server to avoid a performance impact on the web application server by the back-end server. This determination needs to be made on a case by case basis and is often part of the implementation planning.

The following diagram illustrates the recommended configuration.



There are several non-IBM Campaign dependencies inherent in this configuration:

- The file system and databases must be shared and highly available. There are several approaches to achieve this requirement, such as file system appliances, RAID, or database vendor solutions. However, the high availability of those technologies is outside the scope of the IBM Campaign application.
- The shared file system must be mounted onto servers A and B because Campaign requires the root node to be within the specific partition directory structure that it expects.
- To support cold failover, additional software (either custom or commercial) is required to do the following things:
  1. Check the "heartbeat" of the Campaign back-end server.
  2. Stop the primary back-end server in the event of a failure (if applicable).
  3. Start the secondary back-end server in the event of a failure.
  4. Redirect Web Tier requests from the primary back-end server to the secondary back-end server.

---

## Appendix C. Uninstalling IBM products

You might need to uninstall an IBM product if you are doing the following.

- Retiring a system.
- Removing an IBM product from your system.
- Freeing up space on a system.

When you install IBM EMM products, an uninstaller is included in the `Uninstall_Product` directory, where *Product* is the name of your IBM product. On Windows, an entry is also added to the **Add or Remove Programs** list in the Control Panel.

Running the IBM uninstaller ensures that all configuration files, installer registry information, and user data are removed from the system. If you manually remove the files in your installation directory instead of running the uninstaller, the result might be an incomplete installation if you later reinstall an IBM product in the same location. After uninstalling a product, its database is not removed. The uninstaller only removes default files that get created during installation. Any file created or generated after installation is not removed.

---

### To uninstall IBM products

Follow these instructions to properly remove IBM products from your system.

**Note:** On UNIX, the same user account that installed IBM EMM must run the uninstaller.

1. If your IBM product has a web application deployed, undeploy the IBM EMM product web application from WebSphere or WebLogic.
2. Shut down WebSphere or WebLogic.
3. Stop any running processes that are related to the product you are removing.  
For example, stopping the Campaign or Contact Optimization Listener services before uninstalling those products.
4. Check your product installation directory for a `ddl` directory, and if one exists, you can run scripts provided there to drop tables from the system table database.
5. Run the IBM EMM uninstaller and follow the directions in the wizard.

The uninstaller is in the `Uninstall_Product` directory, where *Product* is the name of your IBM EMM product. The `Uninstall_Product` directory is in your product installation directory.

When you uninstall a product that was installed with the unattended mode, the uninstall also runs in unattended mode (without presenting any dialogs for user interaction).



---

## Contacting IBM technical support

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. To ensure that your problem is resolved efficiently and successfully, you collect information before you log your call.

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

### Information to gather

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

- A brief description of the nature of your issue.
- Detailed error messages that you see when the issue occurs.
- 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 IBM applications.

You can access the About page by selecting **Help > About**. If the About page is not accessible, you can obtain the version number of any IBM application by viewing the `version.txt` file that is located under the installation directory for each 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](http://www.ibm.com/support/entry/portal/open_service_request)).

**Note:** To enter a support request, you must log in with an IBM account. If possible, 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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