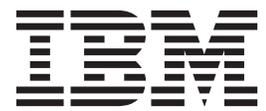


IBM Distributed Marketing
Version 9 Release 1
January 30, 2015

Installation Guide



Note

Before using this information and the product it supports, read the information in "Notices" on page 61.

This edition applies to version 9, release 1, modification 0 of IBM Distributed Marketing and to all subsequent releases and modifications until otherwise indicated in new editions.

© **Copyright IBM Corporation 2001, 2015.**

US Government Users Restricted Rights – Use, duplication or disclosure restricted by GSA ADP Schedule Contract with IBM Corp.

Contents

Chapter 1. Installation overview 1

Installation roadmap.	1
How the installers work	2
Modes of installation	3
Distributed Marketing documentation and help.	3

Chapter 2. Planning the Distributed Marketing installation 5

Prerequisites	5
IBM Distributed Marketing Installation database information worksheet	6
Installation order for IBM EMM products.	8

Chapter 3. Preparing data sources for IBM Distributed Marketing 11

Creating the Distributed Marketing system table database or schema.	11
Configuring the web application server for your JDBC driver	11
Creating the JDBC connections in the web application server	12
Information for creating JDBC connections	13

Chapter 4. Installing Distributed Marketing 15

Installing Distributed Marketing components	15
Installing Distributed Marketing by using the X Window System mode.	16
Installing Distributed Marketing by using the console mode.	20
Installing Distributed Marketing silently.	21
Sample response files	22
Creating an EAR file after running the installer	23
Database environment variables	23
Setting data source variables in the Campaign startup script (UNIX only)	24
Database and library environment variables	25

Chapter 5. Configuring IBM Distributed Marketing before deployment 27

Registering Distributed Marketing manually	27
Creating and populating the Distributed Marketing system tables	27
Creating list tables	28

Creating Campaign system tables for Distributed Marketing	29
---	----

Chapter 6. Deploying the Distributed Marketing web application 31

Deploying Distributed Marketing on WAS from a WAR file	31
Deploying Distributed Marketing on WAS from an EAR file	32
Specifying generic JVM arguments	33
Deploying Distributed Marketing on WebLogic	33
Creating webSphereDefaultIsolationLevel property	34

Chapter 7. Configuring Distributed Marketing after deployment. 35

Creating a system user	35
Basic installation parameters.	35
List display configuration.	39
Data filters for the list display	40
View List and Search List pages	40
Disable List Manager list tables.	41
List display configuration files	41
Mapping Distributed Marketing tables in Campaign	48
Mapping Campaign system tables for Distributed Marketing	48
Changing CollaborateIntegrationServicesURL parameter	48
Starting the Campaign server	49
Checking the installation log for errors	49
Verifying Distributed Marketing installation	49

Chapter 8. Uninstalling Distributed Marketing 51

Chapter 9. configTool 53

Before you contact IBM technical support 59

Notices	61
Trademarks	63
Privacy Policy and Terms of Use Considerations	63

Chapter 1. Installation overview

An installation of Distributed Marketing is complete when you install, configure, and deploy Distributed Marketing. The Distributed Marketing Installation Guide provides detailed information about installing, configuring, and deploying Distributed Marketing.

Use the Installation Roadmap section to obtain a broad understanding about using the Distributed Marketing Installation Guide.

Installation roadmap

Use the installation roadmap to quickly find the information that you need for installing Distributed Marketing.

You can use Distributed Marketing installation roadmap to scan the tasks that must be completed for installing Distributed Marketing. The **Description** column in the following table provides links to the topics that describe the tasks for installing Distributed Marketing:

Table 1. Distributed Marketing installation roadmap

Topic	Description
Chapter 1, "Installation overview"	This topic provides the following information: <ul style="list-style-type: none">• "How the installers work" on page 2• "Modes of installation" on page 3• "Distributed Marketing documentation and help" on page 3
Chapter 2, "Planning the Distributed Marketing installation," on page 5	This topic provides the following information: <ul style="list-style-type: none">• "Prerequisites" on page 5• "IBM Distributed Marketing Installation database information worksheet" on page 6• "Installation order for IBM EMM products" on page 8
Chapter 3, "Preparing data sources for IBM Distributed Marketing," on page 11	This topic provides the following information: <ul style="list-style-type: none">• "Creating the Distributed Marketing system table database or schema" on page 11• "Configuring the web application server for your JDBC driver" on page 11• "Creating the JDBC connections in the web application server" on page 12

Table 1. Distributed Marketing installation roadmap (continued)

Topic	Description
Chapter 4, "Installing Distributed Marketing," on page 15	<ul style="list-style-type: none"> • "Installing Distributed Marketing components" on page 15 • "Installing Distributed Marketing by using the X Window System mode" on page 16 • "Installing Distributed Marketing by using the console mode" on page 20 • "Installing Distributed Marketing silently" on page 21
Chapter 5, "Configuring IBM Distributed Marketing before deployment," on page 27	<p>This topic provides the following information:</p> <ul style="list-style-type: none"> • "Registering Distributed Marketing manually" on page 27 • "Creating and populating the Distributed Marketing system tables" on page 27 • "Creating list tables" on page 28 • "Creating Campaign system tables for Distributed Marketing" on page 29
Chapter 6, "Deploying the Distributed Marketing web application," on page 31	<p>This topic provides the following information:</p> <ul style="list-style-type: none"> • "Deploying Distributed Marketing on WAS from a WAR file" on page 31 • "Deploying Distributed Marketing on WAS from an EAR file" on page 32 • "Deploying Distributed Marketing on WebLogic" on page 33
Chapter 7, "Configuring Distributed Marketing after deployment," on page 35	<p>This topic provides the following information:</p> <ul style="list-style-type: none"> • "Creating a system user" on page 35 • "List display configuration" on page 39 • "Mapping Distributed Marketing tables in Campaign" on page 48 • "Mapping Campaign system tables for Distributed Marketing" on page 48 • "Changing CollaborateIntegrationServicesURL parameter" on page 48 • "Verifying Distributed Marketing installation" on page 49
Chapter 8, "Uninstalling Distributed Marketing," on page 51	<p>This topic provides the information about how to uninstall Distributed Marketing.</p>
Chapter 9, "configTool," on page 53	<p>Read more about the Config tool utilities in Distributed Marketing.</p>

How the installers work

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

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

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

Modes of installation

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

GUI mode

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

Console mode

Use the console mode to install Distributed Marketing by using the command-line window.

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

Silent mode

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

Distributed Marketing documentation and help

IBM provides Distributed Marketing documentation and help for users, administrators, and developers.

The following table describes the various tasks in the installation of Distributed Marketing. The **Documentation** column contains names of documents where you can find more information about the tasks.

Table 2. Get up and running

Task	Documentation
View a list of new features, known issues, and workaround	<i>IBM Distributed Marketing Release Notes</i>

Table 2. Get up and running (continued)

Task	Documentation
Install or upgrade Distributed Marketing and deploy the Distributed Marketing web application	One of the following guides: <ul style="list-style-type: none"> • <i>IBM Distributed Marketing Installation Guide</i> • <i>IBM Distributed Marketing Upgrade Guide</i>

The following tables describes administrative tasks in Distributed Marketing. The **Documentation** column contains names of documents where you can find more information about the tasks.

Table 3. Configure and use Distributed Marketing

Task	Documentation
<ul style="list-style-type: none"> • Set up and configure the system for users • Adjust security settings • Map tables, define offer templates and custom attributes • Run utilities and perform maintenance 	<i>IBM Distributed Marketing Administrator's Guide</i>
<ul style="list-style-type: none"> • Create and deploy marketing campaigns • Analyze campaign results 	<i>IBM Distributed Marketing User's Guide</i>

The following tables contains information about Online Help and obtaining PDFs for Distributed Marketing. The **Instructions** column describes how to open Online Help and access documentation for the Distributed Marketing.

Table 4. Getting help

Task	Instructions
Open online help	<ol style="list-style-type: none"> 1. Choose Help > Help for this page to open a context-sensitive help topic. 2. Click the Show Navigation icon in the help window to display the full help.
Obtain PDFs	Use either of the following methods: <ul style="list-style-type: none"> • Choose Help > Product Documentation to access Distributed Marketing PDFs. • Choose Help > All IBM EMM Suite Documentation to access all available documentation.
Get support	Go to http://www.ibm.com/support to access the IBM Support Portal.

Chapter 2. Planning the Distributed Marketing installation

When you plan your Distributed Marketing installation, ensure that you have set up your system correctly, and that you have configured your environment to deal with any failures.

Prerequisites

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

System requirements

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

Network domain requirements

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

JVM requirements

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

Knowledge requirements

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

Internet browser settings

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

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

Access permissions

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

- Administration access for all necessary databases.
- Read and write access to the relevant directory and subdirectories for the operating system account that you use to run the web application server and IBM EMM components
- Write permission for all files that you must edit

- Write permission for all directories where you must save a file, such as the installation directory and backup directory if you are upgrading
- Appropriate read/write/execute permissions to run the installer

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

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

JAVA_HOME environment variable

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

Make sure that the **JAVA_HOME** environment variable points to JRE 1.6. If the **JAVA_HOME** environment variable points to an incorrect JRE, you must clear the **JAVA_HOME** variable before you run the IBM EMM installers.

You can clear the **JAVA_HOME** environment variable by using one of the following methods:

- Windows: In a command window, enter `set JAVA_HOME=` (leave empty) and press Enter.
- UNIX: In the terminal, enter `export JAVA_HOME=` (leave empty) and press Enter.

`export JAVA_HOME=` (leave empty)

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

Marketing Platform requirement

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

Campaign requirement

You must install and configure Campaign before you install the Distributed Marketing.

IBM Distributed Marketing Installation database information worksheet

Use the Distributed Marketing installation worksheet to gather information about the Distributed Marketing database and about other IBM EMM products that are required for the installation of Distributed Marketing.

Use the IBM Distributed Marketing database information worksheet to gather information about the database that contains your Distributed Marketing system tables.

Table 5. Distributed Marketing database information worksheet

Field	Notes [®]
Database type	
Database name	
Database account user name	
Database account password	
JNDI name	
ODBC name	

Checklist for IBM Marketing Platform

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 that you run the installer, you must enter the following database connection information for the Marketing Platform system table database:

- Database type
- JNDI name
- JDBC driver class
- JDBC connection URL
- JDBC driver class path on your computer
- Database host name
- Database port
- Database name or schema ID
- User name and password for the database account

Information about web component

Obtain the following information for all IBM EMM products that have a web component, which you deploy on a web application server:

- The protocol that is HTTP or HTTPS, if SSL is implemented in the web application server.
- The name of the systems on which the web application servers are installed. You can have one or several web application servers, depending on the IBM EMM environment that 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

If you are installing an IBM EMM product in one of the countries listed on the Country for Install screen of your product installer, you must enter your IBM Site ID in the space provided. Your IBM Site ID can be found on one of the following documents:

- IBM Welcome letter

- Tech Support Welcome letter
- Proof of Entitlement letter
- Other communications that are sent when you purchase your software

IBM might use the data that is provided by the installed software to better understand how customers use our products and to improve customer support. The data that is gathered does not include any information that identifies individuals. Complete the following actions if you do not want to have such information to be collected:

1. After Marketing Platform is installed, log on to Marketing Platform as a user with administration privileges.
2. Go to **Settings > Configuration**, and set the **Disable Page Tagging** property under the **Platform** category to **True**.

Installation order for IBM EMM products

When you install or upgrade multiple IBM EMM products, you must install them in a specific order.

The following table provides information about the order that you must follow when you install or upgrade multiple IBM EMM products.

Table 6. Installation or upgrade order for IBM EMM products

For this product or combination:	Install or upgrade in this order:
Campaign (with or without eMessage)	<ol style="list-style-type: none"> 1. Marketing Platform 2. Campaign <p>Note: eMessage is installed automatically when you install Campaign. However, eMessage is not configured or enabled during the Campaign installation process.</p>
Interact	<ol style="list-style-type: none"> 1. Marketing Platform 2. Campaign 3. Interact Design Time environment 4. Interact Run Time environment 5. Interact Extreme Scale Server <p>If you want to install or upgrade the Interact design time environment only, then install or upgrade the Interact design time environment in the following order:</p> <ol style="list-style-type: none"> 1. Marketing Platform 2. Campaign 3. Interact Design Time environment <p>If you want to install or upgrade the Interact runtime environment only, then install or upgrade the Interact runtime environment in the following order:</p> <ol style="list-style-type: none"> 1. Marketing Platform 2. Interact Run Time environment <p>If you want to install the Interact Extreme Scale Server only, then install the Interact Extreme Scale Server in the following order:</p> <ol style="list-style-type: none"> 1. Marketing Platform 2. Interact Run Time environment 3. Interact Extreme Scale Server

Table 6. Installation or upgrade order for IBM EMM products (continued)

For this product or combination:	Install or upgrade in this order:
Marketing Operations	<ol style="list-style-type: none"> 1. Marketing Platform 2. Marketing Operations <p>Note: If you are integrating Marketing Operations with Campaign, you must also install Campaign. The order of installation for those two products does not matter.</p>
Distributed Marketing	<ol style="list-style-type: none"> 1. Marketing Platform 2. Campaign 3. Distributed Marketing
Interaction History	<ol style="list-style-type: none"> 1. Marketing Platform 2. Interaction History
Attribution Modeler	<ol style="list-style-type: none"> 1. Marketing Platform 2. Interaction History 3. Attribution Modeler
Contact Optimization	<ol style="list-style-type: none"> 1. Marketing Platform 2. Campaign 3. Contact Optimization
Opportunity Detection	<ol style="list-style-type: none"> 1. Marketing Platform 2. Opportunity Detection <p>If Opportunity Detection is integrated with Interact, install the products in the following order:</p> <ol style="list-style-type: none"> 1. Marketing Platform 2. Campaign 3. Interact 4. Opportunity Detection
IBM SPSS® Modeler Advantage Marketing Edition	<ol style="list-style-type: none"> 1. IBM SPSS Modeler Advantage Marketing Edition

Chapter 3. Preparing data sources for IBM Distributed Marketing

You can use the Distributed Marketing worksheet to enter the information that is required when you install Distributed Marketing.

Creating the Distributed Marketing system table database or schema

Create the database or schema for the Distributed Marketing with the help of your database administrator. After you create a schema, enter the correct information about it in the data source information worksheet.

Complete the following tasks to create the Distributed Marketing system tables or schema:

1. Work with a database administrator to create the required database or schema for IBM Distributed Marketing.

Note: The Distributed Marketing system database must use UTF-8 character encoding. If you do not use UTF-8, you can encounter a problem when you copy certain characters from a Microsoft Word document into Distributed Marketing. In an Oracle database, certain characters display as ? when you copy them from Word to a Distributed Marketing field. For DB2®, this issue causes a problem when you view objects. To fix the problem, you must go into the database and remove the problem characters.

2. Have the database administrator create an account for the database or schema. Specify this account as a data source for a system user later in the installation process.

This account must have at least CREATE,DELETE, SELECT, INSERT, UPDATE, and DROP rights.

If you are using DB2, make sure that the buffer pool for the table space is at least 32 K; otherwise, you are not able to create templates.

3. Obtain the information about your database or schema and the database account and then print and complete the Distributed Marketing database information worksheet.

Configuring the web application server for your JDBC driver

You must configure the web application server before you install Distributed Marketing. All major database types support IBM EMM system tables. Select the JDBC driver according to your database type.

Complete the following steps to obtain the correct JDBC driver for your Distributed Marketing installation and to configure your web application server:

1. Obtain the latest vendor-provided Type 4 JDBC driver that is supported by IBM. See the reference table or tables in this section for details.
 - If the driver does not exist on the machine where Distributed Marketing is installed, obtain it and copy it to the machine where you plan to deploy the Distributed Marketing web application. You can copy it to any location on the machine where you plan to deploy Distributed Marketing. IBM recommends that you 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 the latest supported by IBM.

The following table lists the names for database types and driver file name that are supported for IBM EMM system tables:

Table 7. Database types and driver files

Database type	File for jre 1.6
MS SQL Server 2008, 2008 R2	Version 4.0 Type 4 - 4.0.2206.100 (sqljdbc4.jar)
Oracle 11gR1, Oracle 11gR2	Oracle driver version 11.1.0.7 (ojdbc6.jar), 11.2.0.2 (ojdbc6.jar)
IBM DB2 9.7	DB2 JDBC driver version 4.14.88 (db2jcc.jar)
IBM DB2 10.1	DB2 JDBC driver version 4.14.111 (db2jcc4.jar)

2. Include the full path to the driver in the class path of the web application servers where you plan to deploy IBM EMM products, as follows.
 - For all supported versions of WebLogic, set the class path in the `setDomainEnv` script in the `WebLogic_domain_directory/bin` directory where environment variables are configured. Your driver entry must be the first entry in the class path list of values, before any existing values, to ensure that the web application server uses the correct driver. For example:


```
UNIX
CLASSPATH="/home/oracle/product/10.2.0/jdbc/lib/ojdbc14.jar:
${PRE_CLASSPATH}${CLASSPATHSEP}${WEBLOGIC_CLASSPATH}
${CLASSPATHSEP}${POST_CLASSPATH}${CLASSPATHSEP}${WLP_POST_CLASSPATH}"
export CLASSPATH

Windows
set CLASSPATH=c:\oracle\jdbc\lib\ojdbc14.jar;%PRE_CLASSPATH%;
%WEBLOGIC_CLASSPATH%;%POST_CLASSPATH%;%WLP_POST_CLASSPATH%
```
 - For all supported versions of WebSphere, set the class path in the Administration console while you are setting up the JDBC providers for the IBM EMM products.
3. Restart the web application server so your changes take effect.

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

Creating the JDBC connections in the web application server

The Distributed Marketing web application uses JDBC connections to communicate with the system table database and with the IBM Marketing Platform system table database.

You must create the following JDBC connections to the following database in the web application server where Distributed Marketing is deployed:

- The database that contains the Distributed Marketing system tables
- The database that contains the Marketing Platform system tables
- The customer database that contains your list tables

Complete the following tasks for creating the connections in WebSphere and WebLogic:

1. Use UnicaPlatformDS as the JNDI name for the JDBC connection to the database that holds the Marketing Platform system tables. This is the required name.
2. Use collaborated as the JNDI name for the JDBC connection to the database that holds the Distributed Marketing system tables. This is the default value of a configuration property that refers to this name. If you do not use the default value, you must set the value later in the configuration process.
3. Use any name for the connection to the customer database.
4. Record the JNDI name in the “IBM Distributed Marketing Installation database information worksheet” on page 6.

Information for creating JDBC connections

Use default values when you create JDBC connections if specific values are not provided. For more information, see the application server documentation.

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

WebLogic

Use the following 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 11 g

- 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 by using the format that is 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 the following 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, modify properties as follows.

- serverName=<your_SQL_server_name>
- portNumber =<SQL_Server_Port_Number>
- databaseName=<your_database_name>

Add the following custom property:

Name: webSphereDefaultIsolationLevel

Value: 1

Datatype: Integer

Oracle 11 and 11 g

- 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 by using the format that is shown. IBM EMM applications do not allow the use of Oracle's RAC (Real Application Cluster) format for JDBC connections.

DB2

- Driver: JCC 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

Chapter 4. Installing Distributed Marketing

You must run the IBM EMM installer to start the installation of Distributed Marketing. The IBM EMM installer starts the Distributed Marketing installer during the installation process. Make sure that the IBM EMM installer and the product installer are saved at the same location.

Each time that you run the IBM EMM Suite installer, you must first enter database connection information for the Marketing Platform system tables. When the Distributed Marketing installer starts, you must enter the required information for Distributed Marketing.

After installing Distributed Marketing, you can create an EAR file for your product, and you can install the reports package for your product. Creating the EAR file and installing the reports package are not mandatory actions.

Important: Before you install Distributed Marketing, make sure that the available temporary space on the computer where you install Distributed Marketing is more than three times the size of the Distributed Marketing installer.

Installation files

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

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

Table 8. Installation files

Operating system	Installation file
Windows: GUI and console mode	<i>Product_N.N.N.N_win64.exe</i> , where <i>Product</i> is the name of your product, <i>N.N.N.N</i> is the version number of your product, and Windows 64-bit is the operating system on which the file must be installed.
UNIX: X Window System mode	<i>Product_N.N.N.N_solaris64.bin</i> , where <i>Product</i> is the name of your product, and <i>N.N.N.N</i> is the version number of your product.
UNIX: Console mode	<i>Product_N.N.N.N.bin</i> , where <i>Product</i> is the name of your product, and <i>N.N.N.N</i> is the version number of your product. This file can be used for installation on all UNIX operating systems.

Installing Distributed Marketing components

For best performance install Distributed Marketing on its own machine, where no other IBM EMM products are installed.

The following table describes the components you can select when you install Distributed Marketing:

Table 9. Distributed Marketing installation components

Component	Description
Distributed Marketing Server	The Distributed Marketing Server, which runs Lists, On-demand Campaigns, and Corporate Campaigns. For best performance, IBM recommends that you install this server on a dedicated system.
Distributed Marketing Developer Toolkits	The Distributed Marketing Developer Toolkits, which provide the Distributed Marketing APIs.

Installing Distributed Marketing by using the X Window System mode

For Windows, use the GUI mode to install Distributed Marketing. For UNIX, use the X Window System mode to install Distributed Marketing.

Important: Before you use the GUI mode to install Distributed Marketing, make sure that the available temporary space on the computer where you install Distributed Marketing is more than three times the size of the Distributed Marketing installer.

Make sure that the IBM EMM installer and the Distributed Marketing installers are in the same directory on the computer where you want to install Distributed Marketing.

To install Distributed Marketing by using the GUI mode (for Windows) or the X Window System mode (for UNIX):

1. Go to the folder where you have saved the EMM installer and double-click the installer to start it.
2. Click **OK** on the first screen to see the Introduction window.
3. Follow the instructions on the installer, and click **Next**. Use the information in the following table to take the appropriate actions on each window in the EMM installer.

Table 10. EMM installer GUI

Window	Description
Introduction	This is the first window of the IBM EMM suite installer. You can open the Distributed Marketing installation and upgrade guides from this window. Click Next to go to the next window.

Table 10. EMM installer GUI (continued)

Window	Description
Response Files Destination	<p>Click the Generate Response File check box if you want to generate response files for your product. Response files store the information that is necessary for the installation of your product. You can use response files for an unattended installation of your product.</p> <p>Click Choose to browse to a location where you want to store the response files.</p> <p>Click Next to go to the next window.</p>
IBM EMM Products	<p>In the Install Set list, select Custom to select the products that you want to install.</p> <p>In the Install Set area, you can see all the products whose installation files are in the same directory on your computer.</p> <p>In the Description field, you can view the description of the product that you select in the Install Set area.</p> <p>Click Next to go to the next window.</p>
Installation Directory	<p>Click Choose to browse to the directory where you want to install IBM EMM.</p> <p>Click Next to go to the next window.</p>
Select Application Server	<p>Select one of the following application servers for the installation:</p> <ul style="list-style-type: none"> • IBM WebSphere • Oracle WebLogic <p>Click Next to go to the next window.</p>
Platform Database Type	<p>Select the appropriate Marketing Platform database type.</p> <p>Click Next to go to the next window.</p>
Platform Database Connection	<p>Enter the following information about your database:</p> <ul style="list-style-type: none"> • Database host name • Database port • Database name or System ID (SID) • Database user name • Database password <p>Click Next to go to the next window. Important: If IBM EMM products are installed in a distributed environment, you must use the machine name rather than an IP address in the navigation URL for all of the applications in the suite.</p>
Platform Database Connection (continued)	<p>Review and confirm the JDBC connection.</p> <p>Click Next to go to the next window.</p>

Table 10. EMM installer GUI (continued)

Window	Description
Preinstallation Summary	<p>Review and confirm the values that you added during the installation process.</p> <p>Click Install to start the installation process.</p> <p>The Marketing Platform installer opens. If a previous instance of Marketing Platform exists, the instance is upgraded to the current version. If a previous instance of Marketing Platform does not exist, Marketing Platform is installed.</p>

4. Follow the instructions on the Marketing Platform installer to install or upgrade Marketing Platform. See *IBM Marketing Platform Installation Guide* for more information.
5. In the Installation Complete window, click **Done**. The Marketing Platform installation is complete, and the Distributed Marketing installer opens.
6. Use the information in the following table to navigate the Distributed Marketing installer. In the Platform Database Connection window, enter all the required information and click **Next** to start the Distributed Marketing installer.

Table 11. IBM Distributed Marketing installer GUI

Window	Description
Introduction	<p>This is the first window of the Distributed Marketing installer. You can open the Distributed Marketing installation and upgrade guides from this window.</p> <p>Click Next to go to the next window.</p>
Software License Agreement	<p>Carefully read the agreement. Use Print to print the agreement. Click Next after you accept the agreement.</p>
Installation Directory	<p>Click Choose to browse to the directory where you want to install Distributed Marketing.</p> <p>Click Next to go to the next window.</p>
Distributed Marketing Components	<p>Select the components that you want to install.</p> <p>Click Next to go to the next window.</p>
Distributed Marketing Database Setup	<p>Select one of the following options for setting up the Distributed Marketing database:</p> <ul style="list-style-type: none"> • Automatic database setup • Manual database setup <p>Click Next to go to the next window.</p>
Distributed Marketing Database type	<p>Select the appropriate database type.</p> <p>Click Next to go to the next window.</p>

Table 11. IBM Distributed Marketing installer GUI (continued)

Window	Description
Distributed Marketing Database connection	<p>Enter the following details for the Distributed Marketing database:</p> <ul style="list-style-type: none"> • Database host name • Database port • Database system ID (SID) • Database user name • Password <p>Important: If IBM EMM products are installed in a distributed environment, you must use the machine name rather than an IP address in the navigation URL for all of the applications in the suite.</p> <p>Click Next to go to the next window.</p>
Distributed Marketing JDBC connection	<p>Review and confirm the JDBC connection.</p> <p>The installer prompts to enter the JDBC Driver Classpath.</p> <p>Click Next to go to the next window.</p>
Distributed Marketing Connection Settings	<p>Select one of the following connections types:</p> <ul style="list-style-type: none"> • HTTP • HTTPS <p>Enter the following connection settings:</p> <ul style="list-style-type: none"> • Network domain name • Host name • Port number <p>Select the Use secure connection check box if necessary.</p> <p>Click Next to go to the next window.</p>
Default Locale	<p>Select a default locale for your installation. English is selected by default.</p> <p>Click Next to go to the next window.</p>
Pre-Installation Summary	<p>Review and confirm the values that you added during the installation process.</p> <p>Click Install to start the installation process.</p> <p>The Distributed Marketing installer opens.</p>
Installation Complete	<p>Click Done to close the Marketing Platform installer and go back to the IBM EMM installer.</p>

7. In the Installation Complete window, click **Done** to exit the Distributed Marketing installer and go back to the EMM installer.
8. Follow the instructions on the EMM installer to finish installing Distributed Marketing. Use the information in the following table to take the appropriate actions on each window in the EMM installer.

Table 12. EMM installer GUI

Window	Description
Deployment EAR file	Specify whether you want to create an enterprise archive (EAR) file to deploy your IBM EMM products. Click Next to go to the next window.
Package EAR file	You can see this window if you select Create an EAR file for deployment in the Deployment EAR file window. Select the applications that you want to package in the EAR file.
EAR file details	Enter the following information for your EAR file: <ul style="list-style-type: none"> • Enterprise application identifier • Display name • Description • EAR file path
EAR file details (continued)	Select Yes or No to create an additional EAR file. If you select Yes , you must enter the details for the new EAR file. Click Next to complete the installation of your product.
Deployment EAR file	Specify whether you want to create another EAR file to deploy your IBM EMM products. Click Next to go to the next window.
Installation Complete	This window provides the locations of the log files that are created during installation. Click Previous if you want to change any installation details. Click Done to close the IBM EMM installer.

Installing Distributed Marketing by using the console mode

Use the console mode to install Distributed Marketing by using the command-line window. You can select various options in the command-line window to complete tasks such as selecting the products to install, or selecting the home directory for the installation.

Before you install Distributed Marketing, make sure that you have configured the following elements:

- An application server profile
- A database schema.

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

Complete the following actions to install Distributed Marketing by using the command-line window:

1. Open a command-line prompt window and navigate to the directory where you have saved the IBM EMM installer and the Distributed Marketing installer.
2. Complete one of the following actions:
 - For Windows, enter the following command:
ibm_emm_installer_full_name -i console
For example, ***IBM_EMM_Installer_9.1.0.0 -i console***
 - For Unix, invoke the *ibm_emm_installer_full_name.sh* file.
For example: ***IBM_EMM_Installer_9.1.0.0.sh***
3. Follow the directions that are displayed in the command-line prompt. Use the following guidelines when you have to select an option in the command-line prompt:
 - The default options are defined by the symbol [X].
 - To select or clear an option, type the number that is defined for the option, and then press Enter.

For example, suppose the following list displays the components that you can install:

- 1 [X] Marketing Platform
- 2 [X] Campaign
- 3 Contact Optimization
- 4 Interaction History

If you want to install Interaction History, and do not want to install Campaign, enter the following command: **2,4**

The following list would then display the options that you selected:

- 1 [X] Marketing Platform
- 2 Campaign
- 3 Contact Optimization
- 4 [X] Interaction History

Note: Do not clear the option for Marketing Platform unless you have already installed it.

4. The IBM EMM installer launches the Distributed Marketing installer during the installation process. Follow the instructions in the command-line prompt window of the Distributed Marketing installer.
5. After you enter *quit* in the Distributed Marketing installer command-line prompt window, the window shuts down. Follow the instructions in the command-line prompt window of the IBM EMM installer to complete the installation of Distributed Marketing.

Note: If any error occurs during the installation, a log file is generated. You must exit the installer to view the log file.

Installing Distributed Marketing silently

Use the unattended or silent mode to install Distributed Marketing multiple times.

Before you install Distributed Marketing, make sure that you have configured the following elements:

- An application server profile

- A database schema

When you install Distributed Marketing by using the silent mode, response files are used to obtain the information that is required during installation. You must create response files for a silent installation of your product. You can create response files by using one of the following methods:

- Using the sample response files as a template for creating your response files. The sample response files are included with your product installers in the ResponseFiles compressed archive. For more information about sample response files, see "Sample response files."
- Running the product installers in the GUI (Windows) or X Window System (UNIX) mode or the console mode before you install the product in the silent mode. One response file is created for the IBM EMM suite installer, and one or more response files are created for your product installer. The files are created in the directory that you specify.

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

When the installer runs in the silent mode, it looks for the response files in the following directories sequentially:

- In the directory where the IBM EMM installer is saved.
- In the home directory of the user who installs the product

Make sure that all response files are 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**

Use the following command for Windows:

- **IBM_EMM_installer_full_name -i silent**

For example:

IBM_EMM_Installer_9.1.0.0_win.exe -i silent

Use the following command for Unix or Linux:

- **IBM_EMM_installer_full_name_operating_system.bin -i silent**

For example:

IBM_EMM_Installer_9.1.0_unix.bin -i silent

Sample response files

You must create response files to set up a silent installation of Distributed Marketing. You can use sample response files to create your response files. The sample response files are included with the installers in the ResponseFiles compressed archive.

The following table provides information about sample response files:

Table 13. Description of sample response files

Sample response file	Description
installer.properties	The sample response file for the IBM EMM master installer.

Table 13. Description of sample response files (continued)

Sample response file	Description
<code>installer_product initials and product version number.properties</code>	<p>The sample response file for the Distributed Marketing installer.</p> <p>For example, <code>installer_ucn.n.n.n.properties</code> is the response file of the Campaign installer, where <code>n.n.n.n</code> is the version number.</p>

Note: After you install Distributed Marketing successfully, copy the reports zip and model file from Distributed Marketing installation directory, for example `<DistributedMarketing_Home>/reports`, to the folder where Cognos® server and framework manager are installed, for example, `<cognos_installtion_direcoty>/deployment`.

Creating an EAR file after running the installer

You can create an EAR file after you install IBM EMM products. You might do this to create an EAR file with a desired combination of products.

Note: Run the installer in console mode from the command line.

Use the following procedure if you want to create an EAR file after you install IBM EMM products:

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 in the same directory where you 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 must 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 installation.

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 more EAR files, overwrite the `.properties` file or files with the backups you created before you ran in console mode for the first time.

Database environment variables

You must specify database environment variables to establish communication between Distributed Marketing and its database. IBM supports all the major database types.

During installation, the installer might prompt you for the type of database you are using, which 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, installer configures the values automatically so that you do not have to set them manually after the installation is completed.

When the Database Type page is displayed select the type of database, you are using.

For UNIX installations, 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 "Setting data source variables in the Campaign startup script (UNIX only)" after the installation is completed.

Table 14. Database names and values

Database	Values to Enter
IBM DB2	<ul style="list-style-type: none"> DB2 installation directory For example, /usr/lpp/db2_06_01 or C:\Program Files\IBM\SQLLIB. The value that you might set elsewhere as the DB2DIR environment variable. DB2 instance path For example, /home/db2inst1 or C:\db2inst1.
Microsoft SQL Server	No additional settings necessary.
Oracle	<ul style="list-style-type: none"> Oracle installation directory For example, /opt/oracle or C:\oracle. The value that 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. The value that you might set elsewhere as the ORACLE_HOME environment variable.

Setting data source variables in the Campaign startup script (UNIX only)

Data source variables are automatically set by the installer during installation of Campaign. You can change these settings in setenv.sh file. You must restart the server every time you modify setenv.sh file.

During Campaign installation, the IBM Installer collects database information from you and uses that information to automatically configure the database and environment variables that are 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 that are described in "Database and library environment variables" on page 25.

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 "Starting the Campaign server" on page 49 for more details.

See Distributed Marketing database information worksheet for the required information to add to the setenv file.

Database and library environment variables

Set database and library environment variables that are required for your databases (customer tables and system tables, if you chose Manual Database Setup during installation) and operating system. You can set the database and library variables in the setenv.sh file.

Following table describes database names with their syntax and descriptions.

Table 15. Database environment variables

Database	Syntax and Description
DB2	<p>DB2DIR=<i>full_dir_path</i></p> <p>export DB2DIR</p> <p>DB2 installation directory (for example, /usr/lpp/db2_06_01)</p> <p><i>. full_path_to_db2profile</i></p> <p>Sources the database configuration for DB2 users (e.g./home/db2inst1/sqllib/db2profile).</p> <p>Note the ". " (period and then a space).</p>
Netezza®	<p>NZ_ODBC_INI_PATH=<i>full_dir_path</i></p> <p>export NZ_ODBC_INI_PATH</p> <p>Directory location of the odbc.ini file</p> <p>(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>

Define the library environment variable as mentioned in the following table, depending on your UNIX operating system.

Table 16. Library environment variable

Operating System	Value
SunOS and Linux	<p>LD_LIBRARY_PATH</p> <p>For example:</p> <pre>LD_LIBRARY_PATH=<Campaign_Home>/bin:<path to DB lib directory>:\$LD_LIBRARY_PATH</pre> <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. Configuring IBM Distributed Marketing before deployment

Complete the configuration tasks before you deploy the web application.

Registering Distributed Marketing manually

If the Distributed Marketing installer cannot connect with the Marketing Platform system table database during the installation, your installation fails. In this case, you must register Distributed Marketing manually.

Complete the following tasks to register Distributed Marketing manually:

The `configTool` utility is located in the `tools/bin` directory under your Marketing Platform installation. For detailed instructions on using the `configTool` utility, see Chapter 9, “`configTool`,” on page 53.

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.bat -v -i -p "Affinium|suite|uiNavigation|mainMenu|Analytics" -f
"%NAVIGATION_DIR%\DistributedMarketing_navigation_analytics.xml"
```

```
configTool.bat -v -i -p "Affinium|suite|uiNavigation|alerts" -f
"%NAVIGATION_DIR%\DistributedMarketing_alert.xml"
```

```
configTool -r Collaborate -f
"<full_path_to_DistributedMarketing_installation_directory>\conf\
DistributedMarketing_configuration.xml"
```

```
configTool -v -i -p "Affinium|suite|uiNavigation|mainMenu" -f
"<full_path_to_DistributedMarketing_installation_directory>\conf\
DistributedMarketing_navigation.xml"
```

```
configTool -v -i -p "Affinium|suite|uiNavigation|settingsMenu" -f
"<full_path_to_DistributedMarketing_installation_directory>\conf\
DistributedMarketing_setings.xml"
```

Creating and populating the Distributed Marketing system tables

If the automatic database setup fails during the installation of Distributed Marketing, you must create and populate Distributed Marketing system tables manually.

When the Distributed Marketing installer is run in manual database setup mode, an SQL file is created in the `<DistributedMarketing_Home>/tools` directory. The SQL file is provided for manual review before you run on the Distributed Marketing database. If this file is not created because of any installation errors, you can create this SQL by using the `udmdbsetup.sh` tool. Complete the following tasks if you select manual database setup, or if the automatic database setup failed during installation:

1. Open the `<DistributedMarketing_Home>/tools` directory.
2. Set the **JAVA_HOME** and **DBDRIVER_CLASSPATH** parameters if they are not already set.
3. Run the `udmdbsetup.bat` or `udmdbsetup.sh` file, in the `<DistributedMarketing_Home>/tools` directory. Follow the instructions for the installation type: new installation, reinstallation, or upgrade.

For a new installation or a reinstallation:

The name of the file is `udm_install_[9.x.x.x].sql`.

Run **udmdbsetup** by using the full installation parameter. Use the correct parameter values for your locale and installation type. The following example creates and populates the Distributed Marketing system tables for a new installation on Windows in the `en_US` locale: **udmdbsetup.bat -Len_US -tfull -v**.

If you are upgrading Distributed Marketing:

The name of the file is `udm_upgrade_[9.x.x.x]_[9.x.x.x].sql`. Before you run `udmdbsetup.sh`, you must the run database parameters in `udm_jdbc.properties`, which is in the `<DistributedMarketing_Home>/tools` directory.

Run `udmdbsetup.sh` by using the upgrade parameter. Use the correct parameter values for your locale, installation type, and the version you are upgrading from. The following example creates the SQL file for an upgrade from version 9.x on UNIX in the `fr_FR` locale: **./udmdbsetup.sh -m -b 9.x.x.x -L fr_FR -tupgrade -v**.

Note: The **-m** option does not run the script on the database automatically.

To automatically run the script on the database, you can run the following command: **./udmdbsetup.sh -b 9.x.x.x -L fr_FR -tupgrade -v**.

If you run this command for the first time, an extra parameter must be added: **-E**. This parameter encrypts the password of the database user and successfully runs the script.

Creating list tables

You must create list tables in your customer database to enable lists in your application. The data in the system tables populates various lists in the Distributed Marketing. Make sure that you store list tables in same folder as customer tables.

Create the following tables in your customer database:

- `uacc_lists` - a list of contacts generated as a List.
- `uacc_ondemand_lists` - a list of contacts generated by On-Demand Campaigns.
- `uacc_corporate_lists` - a list of contacts generated by a flowchart in a Corporate Campaign.
- `uacc_permanent` - a list of contacts to be permanently added to or deleted from Lists.
- `uacc_ondemand_permanent` - a list of contacts to be permanently added to or deleted from On-Demand Campaigns.
- `uacc_corporate_permanent` - a list of contacts to be permanently added to or deleted from Corporate Campaigns.

Important: These tables store the selected contacts ID of the list and must be created in the same database as the customer tables.

Complete the following steps to create list tables:

1. Add any additional columns for your audience levels in the `listmanager.sql` table creation script.

The `listmanager.sql` file is in the `tools\admin\db\db_type` directory under your Distributed Marketing installation, where `db_type` is the database you are using, `sqlserver`, `oracle`, `db2`, `Netezza`, or `Teradata`.

2. Run the `listmanager.sql` script to create the required tables.

Note the following points when you create list tables:

- The script creates the tables in the customer database.
- You can also add columns to the tables based on your particular requirements for data filtering. For example, you can add a column to filter by region.

Creating Campaign system tables for Distributed Marketing

You must create Campaign system tables for Distributed Marketing if you do not select the **Automatic database setup** option while you install Distributed Marketing.

Important: Complete the step if you selected the manual database setup when you ran the installer, or if the automatic database setup failed during installation.

If you chose to set up your database manually when you ran the IBM installer, you must create extra system tables in the IBM Campaign system table database schema for Distributed Marketing.

Run the `clb_systab_<db_type>.sql` script in the `<Campaign_home>\ddl` directory to create these tables. Run the script in the schema that is hosting the Campaign system tables.

Chapter 6. Deploying the Distributed Marketing web application

You can deploy the web application by either including the Distributed Marketing in an EAR file or by deploying the Distributed Marketing WAR file.

Use the following guidelines to deploy Distributed Marketing:

- When you run the IBM installer, you might include Distributed Marketing in an EAR file, or you can choose to deploy the Distributed Marketing WAR file. If you included the Marketing Platform or other products in an EAR file, you must follow all the deployment guidelines that are detailed in the individual installation guides for the products included in the EAR file.
- You must know how to work with web application server. Consult your web application server documentation for details such as navigation in the Administration console.

Deploying Distributed Marketing on WAS from a WAR file

You can deploy the Distributed Marketing application from a WAR file on WAS.

Complete the following tasks before you deploy Distributed Marketing:

- 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.
 1. Go to the WebSphere Integrated Solutions Console.
 2. Complete the following steps if your system tables are in DB2:
 - a. Click the data source that you created. Go to the Custom Properties for the data source.
 - b. Select the Custom properties link.
 - c. Set the value for the **resultSetHoldability** property to 1.
If you do not see the **resultSetHoldability** property, create the **resultSetHoldability** property and set its value to 1.
 3. Go to **Applications > Application Types > WebSphere enterprise applications** and click **Install**.
 4. In the Preparing for the application installation window, select the **Detailed - Show all options and parameters** check box and click **Next**.
 5. Click **Continue** to see the Install New Application wizard.
 6. Accept the default settings on the windows of the Install New Application wizard except the following windows:
 - In step 1 of the Install New Application wizard, select the **Precompile JavaServer Pages files** check box.
 - In step 3 of the installation wizard, set the **JDK Source Level** to 16.
 7. In the left navigation panel of WebSphere Integrated Solutions Console, navigate to **Applications > Application Types > WebSphere enterprise applications**.
 8. In the Enterprise Applications window, click the `unica.war` file.

9. In the **Web Module Properties** section, click **Session Management** and select the following check boxes:
 - **Override session management**
 - **Enable Cookies**
10. Click **Enable Cookies**, and in the **Cookie name** field, enter a unique cookie name.
11. In the **Applications > Enterprise Applications** section of the server, select the WAR file that you deployed.
12. In the **Detail Properties** section, select **Class loading and update detection**.
13. In the **Class loader order** section, select the **Classes loaded with local class loader first (parent last)** option.
14. Start your deployment.

Deploying Distributed Marketing on WAS from an EAR file

You can deploy Distributed Marketing by using an EAR file if you included Distributed Marketing in an EAR file when you ran the IBM EMM installer.

- 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.
 1. Go to the WebSphere Integrated Solutions Console.
 2. If your system tables are in DB2, click the data source that you created. go to the Custom Properties for the data source. .
 3. Select the Custom properties link.
 4. Set the value for the **resultSetHoldability** property to 1.
If you do not see the **resultSetHoldability** property, create the **resultSetHoldability** property and set its value to 1.
 5. Go to **Applications > Application Types > WebSphere enterprise applications** and click **Install**.
 6. In the Preparing for the application installation window, select the **Detailed - Show all options and parameters** check box and click **Next**.
 7. Click **Continue** to see the Install New Application wizard.
 8. Accept the default settings on the windows of the Install New Application wizard except the following windows:
 - In step 1 of the Install New Application wizard, select the **Precompile JavaServer Pages files** check box.
 - In step 3 of the installation wizard, set the **JDK Source Level** to 16.
 9. In the left navigation panel of WebSphere Integrated Solutions Console, navigate to **Applications > Application Types > WebSphere enterprise applications**.
 10. In the Enterprise Applications window, select the EAR file that you want to deploy.
 11. In the **Web Module Properties** section, click **Session Management** and select the following check boxes:
 - **Override session management**
 - **Enable Cookies**
 12. Click **Enable Cookies**, and in the **Cookie name** field, enter a unique cookie name.
 13. In the **Detail Properties** section, select **Class loading and update detection**.

14. In the **Class loader order** section, select the **Classes loaded with local class loader first (parent last)** option.
15. Start your deployment.
For more information about WebSphere Application Server version 8, see Welcome to the WebSphere Application Server information center.

Specifying generic JVM arguments

The generic Java™ Virtual Machine (JVM) arguments are used to configure and adjust how the JVM runs in the application. Specify the generic JVM arguments while you deploy Distributed Marketing on WebSphere.

Specify following generic JVM arguments in the server's JVM properties field:

- `-Dcollaborate.home=` Distributed Marketing installation directory
- `-Dclient.encoding.override=UTF-8`
- Set the memory heap size parameters for the JVM by entering 1024 in both the **Initial Heap Size** and **Maximum Heap Size** fields.

Deploying Distributed Marketing on WebLogic

You can deploy IBM EMM products on WebLogic.

Use the following guidelines when you deploy Distributed Marketing on WebLogic:

- IBM EMM products customize the JVM used by WebLogic. You might 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.
- Add the following parameters in the `JAVA_OPTIONS` section of `startWeblogic.cmd` or `startWeblogic.sh`:
 - Dcollaborate.home=*Distributed Marketing installation directory*
 - Dfile.encoding=UTF-8

- 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

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

1. If you also use AIX 7.1 with WL11g, remove the xercesImpl.jar file from the unpackaged WEB_INF/lib directory.
2. Build the campaign.war file to include the changes that you made before deploying the war file.

Creating webSphereDefaultIsolationLevel property

You must create the webSphereDefaultIsolationLevel property in WebSphere console if it is not already created.

Complete the following steps to create the webSphereDefaultIsolationLevel property:

1. Log on to the WebSphere administrative console.
2. Click **Resources > JDBC > Data sources**.
3. Click the Distributed Marketing data source name. The JNDI name for Distributed Marketing data source is **collaborateds**.
4. In the **Configuration** tab, click **Additional Properties** and then click **Custom properties**.
5. Click **New** and enter the name of property as webSphereDefaultIsolationLevel.
6. In the **Value** field, enter 2.
7. In the **Type** field, enter java.lang.Integer.
8. Click **Apply**.
9. Restart the server.

Chapter 7. Configuring Distributed Marketing after deployment

After you deploy Distributed Marketing, configure the Distributed Marketing environment. Configuring environments completes the basic installation of Distributed Marketing.

To use Distributed Marketing to fulfill your business requirements, complete the extra configuration steps described in the *IBM Distributed Marketing Administrator's Guide*.

Creating a system user

After installation of Distributed Marketing product, create a system user with admin role in either Distributed Marketing or Campaign. User with admin role has the different privileges than normal user and can perform administrative tasks.

Log in to IBM EMM as a user with the Admin role in the Marketing Platform and create a user with at least the following permissions:

- The Distributed Marketing Admin role in Distributed Marketing
- The Admin role in Campaign

Make a note of the user name, as you must use this name as the value of the `systemUserLoginName` and `flowchartServiceCampaignServicesAuthorizationLoginName` parameters in a later step.

Basic installation parameters

Use the Configuration window to set the parameters that are required for basic installation.

To update the following parameters and more configuration properties, go to **Platform > Settings > Distributed Marketing > UDM Configuration Settings > Configuration** in the IBM EMM user interface.

See the *IBM Distributed Marketing Administrator's Guide* for complete details.

Table 17. Distributed Marketing installation window parameter names and description

Parameter	Description
<code>jndiname</code>	JNDI name that you configured in the web application server for the connection to the Distributed Marketing system table database.
<code>systemUserLoginName</code>	Login name of a Marketing Platform user to be used for system tasks (for example, the system task monitor or the scheduler). IBM strongly recommends that the system user is not a normal Distributed Marketing user.

Table 17. Distributed Marketing installation window parameter names and description (continued)

Parameter	Description
notifyCollaborateBaseURL	The fully qualified URL for Distributed Marketing. Edit this URL by entering the computer name and company domain where you installed Distributed Marketing and the port number to the port on which the web application server is listening. For example, http://collaborateserver. companyDomain:7001/collaborate .
flowchartServiceCampaignServicesURL	The URL to the CampaignServices web service that must be used to run flowcharts, get flowchart data, and so on. The default is http://Server-Name:Port/Campaign/services/CampaignServices30Service. where <i>Server-Name</i> and <i>Port</i> are defined by the notifyCollaborateBaseURL parameter.
flowchartServiceCampaignServicesAuthorizationLoginName	A Campaign user with administrative permissions, including access to all data sources, for example, asm_admin.
enableFlowchartPublishEvent	UPDATED event sent by Campaign when a flowchart in save is managed. The default value is False .
flowchartRepublishOverwritesUserVarPrompt	Always overwrite User Variable prompt during flowchart publish. The default value is False .
flowchartRepublishOverwritesProcParamPrompt	Always overwrite Process Parameter prompt during flowchart publish. The default value is False .
flowchartServiceCampaignServicesAuthorizationLoginName	Login name of the Campaign user to be used for authorization. Note: Campaign user is not required to be a Collaborate user.
flowchartServiceSchedulerServices10Timeout	The optional timeout can be set in milli-seconds to use for communications with the Affinium Scheduler. The default value is "600000" or 10 minutes.

Table 17. Distributed Marketing installation window parameter names and description (continued)

Parameter	Description
flowchartServiceSchedulerServices10MaxRetries	The maximum number of retry attempts for a job that cannot be scheduled. For example, network down, Campaign not running and so on. Use in conjunction with the retryPollPeriod to control job error handling. The default value is "3" retries.
flowchartServiceSchedulerServices10RetryPollPeriod	The time interval in seconds to wait between retry attempts. The default value is "60" seconds.
flowchartServiceSchedulerServices10ThrottleType	An optional code that defines the type of throttling that must be done for scheduled flowchart that runs on the CampaignServices instance. You can set values as following: <ul style="list-style-type: none"> • 0: No throttling. Throttle value is ignored. • 1: Throttle per flowchart instance • 2: Throttle all flowcharts. This is the default value.
flowchartServiceSchedulerServices10ThrottleValue	Set the optional integer that defines the maximum number of scheduled flowcharts or flowchart instances that can be run at one time. The default value is 10.
flowchartServiceSchedulerMonitorPollPeriod	Set the optional integer that defines the approximate time in seconds for the scheduler monitor to sleep between polls. The default value is 10 seconds.
flowchartServiceSchedulerMonitorRemoveSize	Set the optional integer that gives the number of jobs to remove from queue in one shot. The scheduler monitor continues removing events from the event queue in increments specified by this value until none are left. The default value is 10.
flowchartServiceIsAliveMonitorTimeout	The duration in seconds to wait between the start of the flowchart run and the periodic queries to Campaign of the "isAlive" monitor. the default value is 900 seconds or 15 minutes.
flowchartServiceIsAliveMonitorMaxRetries	The maximum number of queries which are sent to Campaign by the "isAlive" monitor before to put the flowchart execution on error. the default value is 10.

Table 17. Distributed Marketing installation window parameter names and description (continued)

Parameter	Description
flowchartServiceIsAliveMonitorPollPeriod	The time interval in seconds to wait between queries made by the "IsAlive" monitor to Campaign. The default value is 600 seconds or 10 minutes.
flowchartServiceNotificationServiceURL	The URL to Distributed Marketing's notification service that receives notifications from Campaign. Important: You must set this parameter for Distributed Marketing 9.1 to work. Note: If you use a nonstandard context root, you must specify this parameter.
uploadDir	The full path to the Distributed Marketing upload directories. Edit this path to include the full path to the Distributed Marketing upload directories. For example, c:\IBM\EMM\DistributedMarketing\projectattachments. If you are using UNIX, confirm that Distributed Marketing users have permission to read, write, and run files in this directory.
taskUploadDir	The full path to the Distributed Marketing task upload directories. Edit this path to include the full path to the Distributed Marketing task upload directories. For example, c:\IBM\EMM\DistributedMarketing\taskattachments. If you are using UNIX, confirm that Distributed Marketing users have permission to read, write, and run files in this directory.
templatesDir	The full path to the Distributed Marketing template directories. Edit this path to include the full path to the Distributed Marketing template directories. For example, c:\IBM\EMM\DistributedMarketing\templates. If you are using UNIX, confirm that Distributed Marketing users have permission to read, write, and run files in this directory.
serverType	The type of web application server you are using. The valid values are WEBLOGIC or WEBSHERE.

Table 17. Distributed Marketing installation window parameter names and description (continued)

Parameter	Description
defaultCampaignPartition	The default Campaign partition. Distributed Marketing uses this parameter if you do not define the <campaign-partition-id> tag in a project template file. Set value to partition1.
defaultCampaignFolderId	The default Campaign folder ID. Distributed Marketing uses this parameter if you do not define the <campaign-folder-id> tag in a project template file. Set value to 2.
collaborateAttachmentsDIRECTORY_directory	Specifies the directory for attachments that are generated by flowcharts in Campaign. This path must match the default Campaign partition directory.
notifyEmailMonitorJavaMailHost	The machine name or IP address of your organization's SMTP server.
notifyDefaultSenderEmail	A valid email address for Distributed Marketing to use to send emails when there is otherwise no valid email address available to send notification emails.
templateAdminGroup_Name	The list of groups that have access to template configuration options. Groups with the same name must exist in Marketing Platform. You must separate multiple groups with commas. The default value is Template Administrators.
defaultListTableDSName	The data source name that is used for templates while you import the template if the data source name is not defined.
templateAutoGenerateNameEnabled	Whether the template name is auto-generated (true) or not (false). Default value is true.

List display configuration

Create list tables to configure the list display in Distributed Marketing. You can link lists to your customer data by configuring Distributed Marketing database settings.

To enable corporate marketers to share lists with field marketers, you must configure these lists to link to your customer data. As you configure your Distributed Marketing database settings, you first need to create the list tables. Later, you configure the display format, search criteria, and table relationships.

Data filters for the list display

Data filters are used to filter data sets so that you can view the required data. Use data filter in Marketing Platform to limit the data that IBM EMM users can see.

For example, you can create a data filter based on region so your regional field marketers can see only the customers in their region. The data filters apply to all data viewed in Distributed Marketing, including when you create lists, when field marketers review lists and search for other contacts, and when you work with forms.

Components affected by data level filtering for the list display

Configuring data filters requires coordination between following components of the Marketing Platform:

- The data filters in the Marketing Platform as a whole
- Lists and forms in Distributed Marketing
- Table mapping and flowcharts in Campaign

Example workflow for configuring data filters

The following example shows the steps that are involved in setting up data level filtering for the list display bases on the customer regions:

1. Create a **region_id** column in the list tables in Distributed Marketing.
2. Create data filters in the Marketing Platform for each region, which is based on the **region_id** column of the list manager tables in your customer database.
3. Map the **region_id** column in the list tables to the **region_id** column in your customer database by using Campaign.
4. Create flowcharts in Campaign that populate the **region_id** column.
5. Configure the list display and the form templates in Distributed Marketing to filter on the **region_id** column.

Note: You must coordinate your configuration across the Marketing Platform, Campaign, and Distributed Marketing. You must ensure that you use the same naming conventions across these components.

View List and Search List pages

You can configure the View List and Search List pages to enable field marketers to review lists. To configure the View List and Search List pages, modify the ViewList and SearchList configuration files.

The following guidelines describe the general changes that you must make to theViewList and SearchList configuration files.

Note: If no search screen is configured for an audience level, users cannot add records when you review a list for this audience level, and the **Add Records** link is disabled.

Configuring the database connection

Edit the listmanager_tables.xml file, which is in the conf directory under your Distributed Marketing installation, as follows:

- Define the data source that is containing your customer tables.

- Define the tables that you want to access.
- Define the columns in the tables that you want to display on the View List page.

Note: There is only one copy of `listmanager_tables.xml`, and it defines the columns that are used in view list and search list screens. Configure the `listmanager_tables.xml` appropriately for both the `listmanager_list.xml` and `listmanager_searchScreens.xml` files.

Configuring the View List page

Edit the `listmanager_list.xml` file, in the `conf` directory under your Distributed Marketing installation, as follows:

- Define the type of data views with the `List` element.
- Define the data that is displayed in each view.
- Define the sort order of each view.
- Define an application to display customer details.

Configuring the List Search page

Edit the `listmanager_searchScreens.xml` file, which is in the `conf` directory under your Distributed Marketing installation, as follows:

- Define the available search criteria.
- Define the way Distributed Marketing displays the results.

Disable List Manager list tables

If you do not want to use the List Manager, edit the `DistributedMarketing_configuration.xml` file and set the `listManagerEnabled` parameter to `false`.

List display configuration files

Configuration files maintain display of lists in the application. The configuration files are xml files, and are stored in the `conf` directory under your Distributed Marketing installation.

Distributed Marketing controls the display of lists through the following XML files:

- `listmanager_tables.xml`
- `listmanager_list.xml`
- `listmanager_searchScreens.xml`

During installation, the XML files are populated with examples that work with the sample data.

Use the following guidelines while editing the configuration files:

- To add special characters to the listmanager XML files, use Unicode encoding. For example, `é` must be encoded as `U+00E9`.
- To use certain characters in the configuration files, you must use XML entities. For example, by using `<` as a value breaks the configuration file, as it is part of the XML syntax. You must use the entity for `<`, which is `<`.
- If you update the listmanager XML files (for example if you add new columns or a new list display), you must also update the corresponding properties files (`list_language.properties` or `searchscreen_language.properties`).

The listmanager_tables.xml file

You can save or declare information about audience level, data source, and tables that are used in Search and List pages in the listmanager_tables.xml file.

AudienceLevel

Each type of information stored in listmanager_tables.xml file contains attributes. While you store the information, provide correct values for these attributes.

AudienceLevel defines the audience levels of your data model. It contains the following attributes:

- **Label:** A short description of the audience level.
- **Name:** The code for identifying the audience level. This must match the AudienceLevel attribute of the list element of the listmanager_list.xml file.
- **Table:** The name of the table that contains the audience level.
- **Datasource:** The name of the data source used to access the table from the customer database.

For example:

```
<AudienceLevel Label="Indiv" Name="Individual" Table="v_indiv_contact"
  Datasource="JNDI_Name_for_customer_DB">
```

Each AudienceLevel element contains a child element, Column:

```
<AudienceLevel ...>
  <Column... />
</AudienceLevel>
```

Column

The Column parameter specifies the ID column in the audience level table. Column contains a single attribute, Name, for the name of the ID columns in the Audience table. For example:

```
<Column Name="Indiv_ID"/>
```

DataSource

The Datasource element defines the data source declared to access the tables. It contains the following attributes:

- **Name:** The JNDI name of the data source in the web application server.
- **Type:** The database type. The valid values are SQLSERVER, DB2, ORACLE, NETEZZA, or TERADATA.
- **DecimalSeparator:** The character that denotes the decimal place. The valid values are period (.) or comma (,).

For example:

```
<Datasource Name="ACC_DEMO" Type="SQLSERVER" DecimalSeparator="."/>
```

Table

Table defines the tables on which the search screens and list screens are based. This element contains the following attributes:

- **Name:** The name of the table.
- **DataSource:** The data source that is used to access the table.

- Owner: The owner or schema of the database (used to prefix the table name).

For example:

```
<Table Name="v_indiv_contact" Datasource="ACC_DEMO" Owner="dbo">
```

Each Table element contains a child element, Column, which can optionally include a LinkedTo parameter:

```
<Table ...>
  <Column...>
    <LinkedTo ... />
  </Column>
</Table>
```

Column

The Column parameter describes each column in the table that is defined by the parent Table element. It contains the following attributes:

- Name: The name of the column.
- Type: The type of data that is stored in the column. Valid values are A (alphanumeric), N (numerical), D (date that is stored as VARCHAR yyyyymmdd), F (date stored as DATE/DATETIME).
- Length: The length of the column.
- DecimalLength: The length of the decimal part for a numeric column.

For example:

```
<Column Name="Indiv_ID" Type="N" Length="10" />
```

The LinkedTo parameter specifies the relationship between a column and a table that defines references. For example, a table contains userID and householdID columns. These columns must reference another table that relates userID to the Customer audience and householdID to the Household audience.

This element contains the following attributes:

- Table: The table where the reference is defined.
- Column: The key column of the table on which the reference is defined.

For example:

```
<LinkedTo Table="v_indiv_contact" Column="Indiv_ID"/>
```

The listmanager_list.xml file

You can use the listmanager_list.xml file to configure the format of the lists that are displayed in the Distributed Marketing. The listmanager_list.xml file contains List as the main element and following child elements namely: Select, Order, and Link.

List

The List element describes the list display format. You can define several display formats if the code is unique. You can choose the format to apply when you open the list screen. For example, you can create a contact format that displays only the name, address, and phone number of the contact and create a demographic format to display the income, age, and gender of the contact.

This element contains the following attributes:

- Name: The name of the list display format.
- Code: The code of the list display format. It must be unique.
- AudienceLevel: The audience level the list display format is based on. This audience level is defined in the listmanager_tables.xml file.
- Multiple: If set to true, you can select more than one member of the list. If set to false, you can select only one member of the list.
- Datasource: The name of the data source that is used to access the table from the customer database.

For example:

```
<List Name="Contact" Code="CONTACT" AudienceLevel="Individual"
  Datasource="JNDI_Name_for_customer_DB">
```

Each Listelement can contain Select, Order, and Link child elements:

```
<List ... >
  <Select ... />
  <Order ... />
  <Link . . . />
</List>
```

Select

The Select element describes the table and columns to display in the list content. Distributed Marketing displays the columns in the same order as they are displayed in this file.

This element contains the following attributes:

- Table: The name of the table to display. It must also be defined in the listmanager_tables.xml file.
- Column: The name of the column to display from the related table. It must also be defined in the listmanager_tables.xml file.
- Label: The label of the column header. It is a tag that is replaced by globalized descriptor that is contained in each list_language.properties resource bundle file.

For example:

```
<Select Table="v_indiv_contact" Column="indiv_id" Label="indiv_id"/>
```

Order

The Order element describes the default sorting columns. It contains the following attributes:

- Table: The name of the table that contains the sorting columns. It must also be defined in the listmanager_tables.xml file.
- Column: The column on which the sorting is based. It must also be defined in the listmanager_tables.xml file.
- Label: The order type. The valid values are ASC for ascendant sorting or DESC for descendant sorting.

For example:

```
<Order Table="v_indiv_contact" Column="last_name" Type="ASC"/>
```

Link

The Link element describes the URL for the external application that contains customer details. The Link element is optional. It contains the following attributes:

- URL: The base URL of the application, without any parameters.
- Label: The link label or icon tooltip.
- Logo: The name of a file as use as the icon (optional).
- LogoHeight: The height of the icon. (Use only with the Logo attribute.)
- LogoWidth: The width of the icon. (Use only with the Logoattribute.)
- NavName: The browser name.

Each Link element can contain multiple Param child elements.

For example:

```
<Link Url="http://localhost:7073/LeadsContact/callLeads.jsp"
Label="last_name" Logo="contact.gif">
  <Param Name="affiniumUserName" Type="user" Value="userlogin"/>
  <ParamName="LeadsRmcTbid" Type="column"
  Value="v_customer_contact.customer_id"/>
</Link>
```

Param

The Param element describes a parameter to add to the base URL. It contains the following attributes:

- Name: The http parameter name.
- Type: The type of information to send. The valid values are user to send the current logged user information and column to send the value of a specified column.
- Value: The specific information to send. If the Type attribute value is user, the valid values of the Value attribute are userlogin and userid. If the Type attribute value is column, the valid value of the Value attribute is the column whose value must be appended to the base URL, specified as Table.column.
- DateFormat: The format for sent dates. Used only for a date column (type D or F).

For example:

```
<Param Name="affiniumUserName" Type="user" Value="userlogin"/>
<ParamName="LeadsRmcTbid" Type="column" Value="v_customer_contact.customer_id"/>
```

The listmanager_searchScreens.xml file

You can use the listmanager_searchScreens.xml file to customize list search pages. The listmanager_searchScreens.xml file contains criteria and result fields. Criteria is a search criteria while result field contains searching result sets.

The listmanager_searchScreens.xml file defines:

- The criteria fields
- The displayed result fields

You can define several search screens that are based on different audiences, different criteria, and searching results to be used in Distributed Marketing. When the field marketers use search, the screen appearance is based on the audience levels configured in the listmanager_searchScreens.xml file. If the various screens are based on the same audience level, the field marketer can choose from the

various predefined searches. For example, you can create a basic search that contains only name and address, then an advanced search, which contains name, address, income, and account activity.

You can choose not to define a search screen for the described audience level to prevent adding people to the List Manager for a campaign or List. The field marketers would not be able to add a contact that is based on that audience level because no search screen is defined.

Following are descriptions of each element and subelement and their related attributes.

`listmanager_searchScreens.xml` contains several `SearchScreen` elements. Each of these sets up a multi criteria searches screen criteria and result set. This element contains the following attributes:

- **Name:** The name of the screen.
- **AudienceLevel:** The audience level the search screens are based on. The `AudienceLevel` is defined in the `listmanager_searchScreens.xml` file.
- **Label:** The label of the column header.
- **MultiSelect:** If set to `true`, you can select more than one element in the final list. If set to `false`, you can select only one element in the final list.
- **Datasource:** The name of the data source that is used to access the table from the customer database.

For example:

```
<SearchScreen Name="default_indiv_search" AudienceLevel="Individual"
  Label="default_indiv_search" MultiSelect="true"
  Datasource="JNDI_Name_for_customer_DB">
```

Each `SearchScreen` tag has the following structure:

```
<SearchScreen ... >
  <Criteria ... >
    <Field ... >
      <Lookup ... />
    </Field ... />
  </Criteria>
  <Result ... >
    <Field ... />
    <Order ... />
  </Result>
</SearchScreen>
```

Criteria

The `Criteria` element specifies the search criteria. It contains the `Field` element, which describes the search criteria fields.

Field

The `Field` element contains the following attributes:

- **Table:** The table on which the search is based.
- **Column:** The column on which the search is based.
- **Label:** The descriptor that is displayed on the screen for the criteria. It is a tag that is replaced by globalized descriptor that is contained in each `searchScreen_language.properties` resource bundle file.

- **Operator:** The type of operation. The valid values are =, like, <, >, <=, >=, <>.
- **Default:** The optional default value. It can be set to @userlogin and replaced by the user login at execution.
- **Order:** The display order of the criteria on the screen.
- **Long:** (Optional) The length of the criteria value. If not specified, the criteria takes the value that is defined in the attribute length of the table's column in the listmanager_tables.xml file.
- **Minimallength:** (Optional) The minimal number of characters of the criteria value.
- **Case:** (Optional) The case of the criteria value. The valid values are Lower or Upper.
- **Displayed:** (Optional) whether the criteria is displayed or hidden. The valid values are true or false.

For example:

```
<Field Table="v_indiv_contact" Column="username" Label="username"
  Operator="" Displayed="false" Default="@userlogin" Order="5"/>
```

A Field element can contain a Lookup element. The Lookup element specifies how to populate a list box criteria. The Lookup element contains the following attributes:

- **Table:** The table that is containing the data of the list.
- **Id:** The ID column that is containing the data of the list.
- **Desc:** A description of the list.
- **Where:** (Optional) you can filter the values according to a Where clause.
- **Display:** (Optional) Specifies what is displayed in the list box: the code and the description. The values can be: id, desc, id : desc, or desc : id.

For example:

```
<Lookup Table="lkp_region" Id="Region_id" Desc="Region"
  Where="" Display="desc"/>
```

Result

The Result element specifies the searching result sets. It contains Field and Order elements.

Field

The Field element specifies the displayed result fields. Field contains the following attributes:

- **Table:** The table that is containing the searching results.
- **Column:** The column that is containing the searching results.
- **Label:** The descriptor that is displayed on the header of the result list.
- **Format:** The format (such as code and description) to display in the list box criteria in the case of a column that has a relationship with a lookup table. The value can be code, label, code : label,, or label : code.

For example:

```
<Field Table="v_indiv_contact" Column="Indiv_ID" Label="indiv_id"/>
```

Order

The Order element specifies the displayed sorting column for the result records. Order contains the following attributes:

- Table: The table of the column on which the records are sorted.
- Column: The columns on which the records are sorted.
- Type: The sorting order. The valid values are ASC or DESC.

For example:

```
<Order Table="v_indiv_contact" Column="Last_Name" Type="ASC"/>
```

Mapping Distributed Marketing tables in Campaign

You can exchange data from a data source and an application by mapping tables between two applications. Map the list tables in Distributed Marketing with Campaign tables.

Map the following tables:

- uacc_lists
- uacc_ondemand_lists
- uacc_corporate_lists
- uacc_permanent
- uacc_ondemand_permanent
- uacc_corporate_permanent

For information about mapping tables, see the *Campaign Administrator's Guide*.

Mapping Campaign system tables for Distributed Marketing

After you run the `clb_systab_<db_type>.sql` script in the schema that is hosting the Campaign system tables, map the new tables in Campaign.

Map the following tables:

Table 18. Mapping system tables with database tables

System table	Database table to map to
Process Table	UA_Process
FlowChart Parameters Table	UA_ProcAttribute
User Variables table	UA_UserVariable
User Variable Enumeration Table	UA_EnumUserVarVal
Display Order Table	UA_ccDisplayOrder
Run Result Table	UA_RunResult
Sub Attribute Table	UA_Subattribute

For instructions on mapping system tables in Campaign, see the *IBM Campaign Administrator's Guide*.

Changing CollaborateIntegrationServicesURL parameter

Use Collaborate interface to change the CollaborateIntegrationServicesURL parameter after you successfully install Distributed Marketing product.

Complete the following steps to change the `CollaborateIntegrationServicesURL` parameter:

1. Open **Settings > Configuration > Campaign > Collaborate**.
2. For `CollaborateIntegrationServicesURL`, click **Edit Settings**.
3. Change `http://server:port/collaborate/services/CollaborateIntegrationServices/1.0` to `http://server:port/collaborate/services/CollaborateIntegrationServices1.0`.

Starting the Campaign server

Make sure that Marketing Platform and Campaign web application are deployed and running when you start the Campaign server.

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

Checking the installation log for errors

You must check the installation log file after you finish the installation of Distributed Marketing. Make sure that the product installation is error free.

After the installation is completed, check the `udm-tools.log` file in the `/tools/logs/` directory of your Distributed Marketing installation for any errors.

Note: For new installation, the error related to drop table commands is normal and expected.

Verifying Distributed Marketing installation

To verify that Distributed Marketing is installed successfully, log into IBM EMM application and confirm that you can access the **Local Marketing** menu. The **Local Marketing** menu provides access to Lists, On-demand Campaigns, Corporate Campaigns, your Subscriptions, and your Calendar.

Note: If you want to restart Campaign or Distributed Marketing, you must restart both applications.

Chapter 8. Uninstalling Distributed Marketing

Run the Distributed Marketing uninstaller to uninstall Distributed Marketing. When you run the Distributed Marketing uninstaller, the files that were created during the installation process are removed. For example, files such as configuration files, installer registry information, and user data are removed from the computer.

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.

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 are created during installation. Any file that is created or generated after installation is not removed.

Note: On UNIX, the same user account that installed Distributed Marketing must run the uninstaller.

1. If you have deployed the Distributed Marketing web application, undeploy the web application from WebSphere or WebLogic.
2. Shut down WebSphere or WebLogic.
3. Stop the processes that are related to Distributed Marketing.
4. If the `ddl` directory exists in the product installation directory, run the scripts that are provided in the `ddl` directory to drop tables from the system table database.
5. Complete one of the following steps to uninstall Distributed Marketing:
 - Double-click the Distributed Marketing uninstaller that exists in the `Uninstall_Product` directory. The uninstaller runs in the mode in which you installed Distributed Marketing.
 - In a command-line window, navigate to the directory where the uninstaller exists, and run the following command to uninstall Distributed Marketing by using the console mode:

```
Uninstall_Product -i console
```

- In a command-line window, navigate to the directory where the uninstaller exists, and run the following command to uninstall Distributed Marketing by using the silent mode:

```
Uninstall_Product -i silent
```

When you uninstall Distributed Marketing by using the silent mode, the uninstallation process does not present any dialogs for user interaction.

Note: If you do not specify an option for uninstalling Distributed Marketing, the Distributed Marketing uninstaller runs in the mode in which Distributed Marketing is installed.

Chapter 9. configTool

The properties and values on the Configuration page are stored in the system tables. You can use the configTool utility to import and export configuration settings to and from the system tables.

When to use configTool

You might want to use configTool for the following reasons.

- To import partition and data source templates that are supplied with Campaign, which you can then modify and duplicate by 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 by 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 contains the configuration properties and their values. For best results, either create backup copies of these tables, or export your existing configurations by using configTool and back up the resulting file so you have a way to restore your configuration if you make an error when you use configTool to import.

Syntax

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

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

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

```
configTool -vp -p "elementPath" -f importFile [-d]
```

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

Commands

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

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. You can obtain them by going to the Configuration page, selecting the wanted category or property, and looking at the path that is displayed in parentheses in the right pane. Delimit a path in the configuration property hierarchy by using the | character, and surround the path with double quotation marks.

Note the following.

- Only categories and properties within an application can be deleted by 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.

When you use `-d` with the `-vp` command, the `configTool` deletes any child nodes in the path you specify if those nodes are not included in the XML file you specify.

`-i -p "parentElementPath" -f importFile [o]`

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. You can obtain them by going to the Configuration page, selecting the required category or property, and looking at the path that is displayed in parentheses in the right pane. Delimit a path in the configuration property hierarchy by 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 that is displayed in parentheses in the right pane. Delimit a path in the configuration property hierarchy by 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.

`-vp -p "elementPath" -f importFile [-d]`

This command is used mainly in manual upgrades, to import configuration properties. If you applied a fix pack that contains a new configuration property, and you then upgrade, importing a configuration file as part of a manual upgrade process can override values that were set when the fix pack was applied. The `-vp` command ensures that the import does not override previously set configuration values.

Important: After you use the `configTool` utility with the `-vp` option, you must restart the web application server on which Marketing Platform is deployed so the changes are applied.

When you use `-d` with the `-vp` command, the `configTool` deletes any child nodes in the path you specify if those nodes are not included in the XML file you specify.

`-r productName -f registrationFile`

Register the application. The registration file location can be relative to the `tools/bin` directory or can 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 names that are listed above.

Note the following.

- When you use the `-r` command, the registration file must have `<application>` as the first tag in the XML.
Other files can be provided with your product that you can use to insert configuration properties into the Marketing Platform database. For these files, use the `-i` command. Only the file that has the `<application>` tag as the first tag can be used with the `-r` command.
- 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 re-register products other than the Marketing Platform, use `configTool` with the `-r` command and `-o` to overwrite the existing properties.

The `configTool` utility uses product names as parameters with the commands that register and unregister products. With the 8.5.0 release of IBM EMM, many product names changed. However, the names that are 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.

Table 19. Product names for configTool registration and unregistration

Product name	Name used in configTool
Marketing Platform	Manager
Campaign	Campaign
Distributed Marketing	Collaborate
eMessage	emessage
Interact	interact
Contact Optimization	Optimize
Marketing Operations	Plan

Table 19. Product names for configTool registration and unregistration (continued)

Product name	Name used in configTool
CustomerInsight	Insight
Digital Analytics for On Premises	NetInsight
Opportunity Detection	Detect
Leads	Leads
Interaction History	InteractionHistory
Attribution Modeler	AttributionModeler
IBM SPSS Modeler Advantage Enterprise Marketing Management Edition	SPSS
Digital Analytics	Coremetrics

-u *productName*

Unregister an application that is specified by *productName*. You do not have to include a path to the product category; the product name is sufficient, and it is required. The process removes all properties and configuration settings for the product.

Options

-o

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

When used with *-d*, you can 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` 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` 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`, by using a file named `app_config.xml` 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
```



---

## Before you contact 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. Use these guidelines to ensure that your problem is resolved efficiently and successfully.

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

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

### 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 installed IBM applications.

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

### Contact information for IBM technical support

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

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



---

## Notices

This information was developed for products and services offered in the U.S.A.

IBM may not offer the products, services, or features discussed in this document in other countries. Consult your local IBM representative for information about the products and services currently available in your area. Any reference to an IBM product, program, or service is not intended to state or imply that only that IBM product, program, or service may be used. Any functionally equivalent product, program, or service that does not infringe any IBM intellectual property right may be used instead. However, it is the user's responsibility to evaluate and verify the operation of any non-IBM product, program, or service.

IBM may have patents or pending patent applications covering subject matter described in this document. The furnishing of this document does not grant you any license to these patents. You can send license inquiries, in writing, to:

IBM Director of Licensing  
IBM Corporation  
North Castle Drive  
Armonk, NY 10504-1785  
U.S.A.

For license inquiries regarding double-byte (DBCS) information, contact the IBM Intellectual Property Department in your country or send inquiries, in writing, to:

Intellectual Property Licensing  
Legal and Intellectual Property Law  
IBM Japan, Ltd.  
19-21, Nihonbashi-Hakozakicho, Chuo-ku  
Tokyo 103-8510, Japan

The following paragraph does not apply to the United Kingdom or any other country where such provisions are inconsistent with local law: INTERNATIONAL BUSINESS MACHINES CORPORATION PROVIDES THIS PUBLICATION "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Some states do not allow disclaimer of express or implied warranties in certain transactions, therefore, this statement may not apply to you.

This information could include technical inaccuracies or typographical errors. Changes are periodically made to the information herein; these changes will be incorporated in new editions of the publication. IBM may make improvements and/or changes in the product(s) and/or the program(s) described in this publication at any time without notice.

Any references in this information to non-IBM websites are provided for convenience only and do not in any manner serve as an endorsement of those websites. The materials at those websites are not part of the materials for this IBM product and use of those websites is at your own risk.

IBM may use or distribute any of the information you supply in any way it believes appropriate without incurring any obligation to you.

Licensees of this program who wish to have information about it for the purpose of enabling: (i) the exchange of information between independently created programs and other programs (including this one) and (ii) the mutual use of the information which has been exchanged, should contact:

IBM Corporation  
170 Tracer Lane  
Waltham, MA 02451  
U.S.A.

Such information may be available, subject to appropriate terms and conditions, including in some cases, payment of a fee.

The licensed program described in this document and all licensed material available for it are provided by IBM under terms of the IBM Customer Agreement, IBM International Program License Agreement or any equivalent agreement between us.

Any performance data contained herein was determined in a controlled environment. Therefore, the results obtained in other operating environments may vary significantly. Some measurements may have been made on development-level systems and there is no guarantee that these measurements will be the same on generally available systems. Furthermore, some measurements may have been estimated through extrapolation. Actual results may vary. Users of this document should verify the applicable data for their specific environment.

Information concerning non-IBM products was obtained from the suppliers of those products, their published announcements or other publicly available sources. IBM has not tested those products and cannot confirm the accuracy of performance, compatibility or any other claims related to non-IBM products. Questions on the capabilities of non-IBM products should be addressed to the suppliers of those products.

All statements regarding IBM's future direction or intent are subject to change or withdrawal without notice, and represent goals and objectives only.

All IBM prices shown are IBM's suggested retail prices, are current and are subject to change without notice. Dealer prices may vary.

This information contains examples of data and reports used in daily business operations. To illustrate them as completely as possible, the examples include the names of individuals, companies, brands, and products. All of these names are fictitious and any similarity to the names and addresses used by an actual business enterprise is entirely coincidental.

#### COPYRIGHT LICENSE:

This information contains sample application programs in source language, which illustrate programming techniques on various operating platforms. You may copy, modify, and distribute these sample programs in any form without payment to IBM, for the purposes of developing, using, marketing or distributing application programs conforming to the application programming interface for the operating platform for which the sample programs are written. These examples have not

been thoroughly tested under all conditions. IBM, therefore, cannot guarantee or imply reliability, serviceability, or function of these programs. The sample programs are provided "AS IS", without warranty of any kind. IBM shall not be liable for any damages arising out of your use of the sample programs.

If you are viewing this information softcopy, the photographs and color illustrations may not appear.

---

## Trademarks

IBM, the IBM logo, and [ibm.com](http://www.ibm.com)<sup>®</sup> are trademarks or registered trademarks of International Business Machines Corp., registered in many jurisdictions worldwide. Other product and service names might be trademarks of IBM or other companies. A current list of IBM trademarks is available on the Web at "Copyright and trademark information" at [www.ibm.com/legal/copytrade.shtml](http://www.ibm.com/legal/copytrade.shtml).

---

## Privacy Policy and Terms of Use Considerations

IBM Software products, including software as a service solutions, ("Software Offerings") may use cookies or other technologies to collect product usage information, to help improve the end user experience, to tailor interactions with the end user or for other purposes. A cookie is a piece of data that a web site can send to your browser, which may then be stored on your computer as a tag that identifies your computer. In many cases, no personal information is collected by these cookies. If a Software Offering you are using enables you to collect personal information through cookies and similar technologies, we inform you about the specifics below.

Depending upon the configurations deployed, this Software Offering may use session and persistent cookies that collect each user's user name, and other personal information for purposes of session management, enhanced user usability, or other usage tracking or functional purposes. These cookies can be disabled, but disabling them will also eliminate the functionality they enable.

Various jurisdictions regulate the collection of personal information through cookies and similar technologies. If the configurations deployed for this Software Offering provide you as customer the ability to collect personal information from end users via cookies and other technologies, you should seek your own legal advice about any laws applicable to such data collection, including any requirements for providing notice and consent where appropriate.

IBM requires that Clients (1) provide a clear and conspicuous link to Customer's website terms of use (e.g. privacy policy) which includes a link to IBM's and Client's data collection and use practices, (2) notify that cookies and clear gifs/web beacons are being placed on the visitor's computer by IBM on the Client's behalf along with an explanation of the purpose of such technology, and (3) to the extent required by law, obtain consent from website visitors prior to the placement of cookies and clear gifs/web beacons placed by Client or IBM on Client's behalf on website visitor's devices

For more information about the use of various technologies, including cookies, for these purposes, See IBM's Online Privacy Statement at: <http://www.ibm.com/privacy/details/us/en> section entitled "Cookies, Web Beacons and Other Technologies."







Printed in USA