IBM Marketing Platform Version 9 Release 1.1 February 19, 2015

Upgrade Guide



Note Before using this information and the product it supports, read the information in "Notices" on page 51.				

© Copyright IBM Corporation 1999, 2014. US Government Users Restricted Rights – Use, duplication or disclosure restricted by GSA ADP Schedule Contract with IBM Corp.

Contents

Chapter 1. Upgrade overview 1	Chapter 7. IBM Marketing Platform
Upgrade roadmap	utilities and SQL scripts 27
How the installers work	Setting up Marketing Platform utilities on additional
Modes of installation	machines
Sample response files	Marketing Platform utilities
Marketing Platform documentation and help 4	alertConfigTool
	configTool
Chapter 2. Planning the Marketing	datafilteringScriptTool
	encryptPasswords
Platform upgrade	partitionTool
Prerequisites	populateDb
Marketing Platform installation worksheet 8	restoreAccess
Upgrade prerequisites for all IBM EMM products . 10	scheduler_console_client
Auto commit requirement for Oracle or DB2 11	scriedulei_console_chefit
Change in names of user-defined groups and	Chantes C. Marketing Dietform COI
roles	Chapter 8. Marketing Platform SQL
Time zone support for scheduler	scripts 43
Digital Analytics dashboard portlets	ManagerSchema_DeleteAll.sql
Backing up the corporatetheme.css file and branding	ManagerSchema_PurgeDataFiltering.sql 43
images	SQL scripts for creating system tables 44
Marketing Platform upgrade scenarios 12	ManagerSchema_DropAll.sql 45
Chapter 3. Upgrading from version	Chapter 9. Uninstalling Marketing
9.1.x.x with automatic migration 15	Platform
on and the control of	riationii
Chapter 4. Upgrading from version	Before you contact IBM technical
9.1.x.x with manual migration 17	support 49
• · · · · · · · · · · · · · · · · · · ·	Support
Chapter 5. Deploying Marketing	Notices 51
Platform 21	Trademarks
Guidelines for deploying Marketing Platform on	Privacy Policy and Terms of Use Considerations 53
WebLogic	
Guidelines for deploying Marketing Platform on	
WebSphere	
Verifying your Marketing Platform installation 23	
Chapter 6. Configuring Marketing	
Platform after deployment 25	
Default password settings	
Default password settings	

Chapter 1. Upgrade overview

An upgrade of Marketing Platform is complete when you upgrade, configure, and deploy Marketing Platform. The Marketing Platform Upgrade Guide provides detailed information about upgrading, configuring, and deploying Marketing Platform.

Use the Upgrade Roadmap section to obtain a broad understanding about using the Marketing Platform Upgrade Guide.

Upgrade roadmap

Use the upgrade roadmap to quickly find the information that you need for installing Marketing Platform.

You can use the following table to scan the tasks that must be completed for installing Marketing Platform

Table 1. Marketing Platform upgrade roadmap

Topic	Information
Chapter 1, "Upgrade overview"	This topic provides the following information:
	• "How the installers work" on page 2
	• "Modes of installation" on page 3
	"Marketing Platform documentation and help" on page 4
Chapter 2, "Planning the Marketing Platform upgrade," on page 7	This topic provides the following information:
	• "Prerequisites" on page 7
	"Marketing Platform installation worksheet" on page 8
	• "Upgrade prerequisites for all IBM EMM products" on page 10
	"Time zone support for scheduler" on page 11
	"Backing up the corporatetheme.css file and branding images" on page 11
	"Marketing Platform upgrade scenarios" on page 12
Chapter 3, "Upgrading from version 9.1.x.x with automatic migration," on page 15	Read more about how to upgrade Marketing Platform from version 9.1.0 with automatic migration.
Chapter 4, "Upgrading from version 9.1.x.x with manual migration," on page 17	Read more about how to upgrade Marketing Platform from version 9.1.0 with manual migration.

Table 1. Marketing Platform upgrade roadmap (continued)

Topic	Information
Chapter 5, "Deploying Marketing Platform," on page 21	This topic provides the following information:
	"Guidelines for deploying Marketing Platform on WebLogic" on page 21
	"Guidelines for deploying Marketing Platform on WebSphere" on page 22
	"Verifying your Marketing Platform installation" on page 23
Chapter 6, "Configuring Marketing Platform after deployment," on page 25	This topic provides the following information:
	• "Default password settings" on page 25
Chapter 7, "IBM Marketing Platform utilities and SQL scripts," on page 27	This topic provides the following information:
	"Setting up Marketing Platform utilities on additional machines" on page 28
	"alertConfigTool" on page 29
	• "configTool" on page 30
	"datafilteringScriptTool" on page 34
	• "encryptPasswords" on page 35
	• "partitionTool" on page 36
	• "populateDb" on page 38
	• "restoreAccess" on page 39
	• "scheduler_console_client" on page 40
Chapter 8, "Marketing Platform SQL scripts," on page 43	This topic provides the following information:
	• "ManagerSchema_DeleteAll.sql" on page 43
	• "ManagerSchema_PurgeDataFiltering.sql" on page 43
	"SQL scripts for creating system tables" on page 44
	• "ManagerSchema_DropAll.sql" on page 45.
Chapter 9, "Uninstalling Marketing Platform," on page 47	This topic provides information about how to uninstall Marketing Platform.

How the installers work

Use the ${\rm IBM}^{\tiny \circledR}$ EMM installer with the Marketing Platform installer when you install Marketing Platform.

The IBM EMM suite installer starts the individual product installers during the installation process.

Use the following guidelines to install Marketing Platform:

• Make sure that the IBM EMM installer and the Marketing Platform installer are in the same directory on the server where you want to install Marketing Platform. When multiple versions of the Marketing Platform installer are present

in the directory with the IBM EMM installer, the IBM EMM installer shows the latest version of Marketing Platform on the IBM EMM Products screen in the installation wizard.

• If you are planning to install a patch immediately after you install Marketing Platform, make sure that the patch installer is in the same directory as that of the IBM EMM and the Marketing Platform installer.

IBM EMM is installed in one of the following directories by default:

- /IBM/EMM (for UNIX)
- C:\IBM\EMM (for Windows)

IBM EMM products are installed by default in a subdirectory of the *IBMEMM_Home* directory. For example, Marketing Platform is installed in the *IBMEMM_Home*/Platform directory.

However, you can change the directories during installation.

Modes of installation

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

GUI mode

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

Console mode

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

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

Silent mode

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

Sample response files

You must create response files to set up a silent installation of Marketing Platform. 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 2. Description of sample response files

Sample response file	Description
installer.properties	The sample response file for the IBM EMM master installer.
<pre>installer_product intials and product version number.properties</pre>	The sample response file for the Marketing Platform installer.
	For example, installer_umpn.n.n.n.properties is the response file of the Marketing Platform installer, where n.n.n.n is the version number.
<pre>installer_report pack initials, product initials, and version number.properties</pre>	The sample response file for the reports pack installer.
	For example, installer_urpc.properties is the response file of the Campaign reports pack installer.

Marketing Platform documentation and help

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

Table 3. Get up and running

Task	Documentation
View a list of new features, known issues, and workarounds	IBM Marketing Platform Release Notes
Learn about the structure of the Marketing Platform database	IBM Marketing Platform System Tables
Install or upgrade Marketing Platform and deploy the Marketing Platform web application	One of the following guides: • IBM Marketing Platform Installation Guide • IBM Marketing Platform Upgrade Guide
Implement the IBM Cognos® reports provided with IBM EMM	IBM EMM Reports Installation and Configuration Guide

Table 4. Configure and use Marketing Platform

Task	Documentation
Adjust configuration and security settings for IBM products	IBM Marketing Platform Administrator's Guide
• Integrate with external systems such as LDAP and web access control	
• Implement single sign-on with diverse applications using SAML 2.0-based federated authentication	
• Run utilities to perform maintenance on IBM products	
Configure and use audit event tracking	
Schedule runs of IBM EMM objects	

Table 5. Get help

Task	Instructions
Open online help	 Choose Help > Help for this page to open a context-sensitive help topic. Click the Show Navigation icon in the help window to display the full help.
Obtain PDFs	Use either of the following methods: • Choose Help > Product Documentation to access Marketing Platform PDFs and help. • 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 Marketing Platform upgrade

You can upgrade your current version of Marketing Platform to bring it up-to-date with the latest features.

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

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

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

export JAVA_HOME= (leave empty)

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

Marketing Platform installation worksheet

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

Use the following table to gather information about the database that contains your Marketing Platform system tables:

Table 6. Information about the database

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

Checklist for IBM Marketing Platform database

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
- JDBC connection URL
- Database host name
- Database port
- Database name or schema ID
- User name and password for the database account

Checklist for IBM Marketing Platform deployment on the web application server

Obtain the following information before deploying Marketing Platform:

- Protocol: HTTP or HTTPS if SSL is implemented in the web application server.
- Host: The name of the machine on which the Marketing Platform will be deployed.
- Port: The port on which the web application server listens.
- Domain name: The company domain of each machine where IBM products are installed. For example, mycompany.com. All IBM products must be installed in the same company domain, and you must enter the domain name in all lower-case letters.

If there is a mis-match in domain name entries, you may encounter problems when you attempt to use Marketing Platform features or navigate among products. You can change the domain name after the products are deployed by logging in and changing values of the relevant configuration properties in the product navigation categories on the **Settings > Configuration** page.

Checklist for enabling Marketing Platform utilities

If you plan to use the Marketing Platform utilities, obtain the following JDBC connection information before you start to install the Marketing Platform.

- Path to the JRE. The default value is the path to the 1.7 version of the JRE that the installer places under your IBM installation directory.
 - You can accept this default or specify a different path. If you specify a different path, you must point to the 1.7 version of the Sun JRE.
- JDBC driver class. The installer automatically provides this, based on the database type you specifiy in the installer.
- JDBC connection URL. The installer provides the basic syntax, including the host name, database name, and port. You can customize the URL by adding additional parameters.
- JDBC driver classpath on your system.

Information about the 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 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.

Upgrade prerequisites for all IBM EMM products

Meet all requirements for permissions, operating system, and knowledge correctly before you upgrade Marketing Platform to ensure a seamless upgrade experience.

Removing response files generated by previous installations

If you are upgrading from a version before 8.6.0, you must delete the response files that are generated by previous Marketing Platform installations. Old response files are not compatible with the 8.6.0 and later installers.

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

The IBM response file is named installer.properties.

The response files for each product are named installer *productversion*.properties.

The installer creates response files in the directory that you specify during installation. The default location is the home directory of the user.

User account requirement for UNIX

On UNIX, the user account that installed the product must complete the upgrade, otherwise the installer fails to detect a previous installation.

32-bit to 64-bit version upgrades

If you are moving from a 32-bit to a 64-bit version of Marketing Platform, ensure that you complete the following tasks:

- Ensure that the database client libraries for your product data sources are 64-bit.
- Ensure that all relevant library paths, for example startup or environment scripts, correctly reference the 64-bit versions of your database drivers.

Auto commit requirement for Oracle or DB2

If your Marketing Platform system tables are in Oracle or DB2[®], you must enable the auto-commit mode for the environment open.

See the Oracle or DB2 documentation for instructions.

Change in names of user-defined groups and roles

You must upgrade Marketing Platform before you upgrade Campaign. To avoid problems when you upgrade the Marketing Platform, the names of the groups and roles that are created by the user must be different from the names of the groups or roles that are defined by Marketing Platform.

If the names are same, you must change the group or role names that you created before the upgrade. For example, if you have created a group or role called Admin, you must change the name, because Admin is a name that is used in Campaign.

Time zone support for scheduler

In Marketing Platform you can use the Scheduler to configure a process to run at intervals that you define. With the Scheduler, you can schedule Campaign flowchart runs, Contact Optimization optimization sessions and post-optimization flowchart runs, eMessage mailings, and PredictiveInsight model and score runs.

To take advantage of the time zone support in the Scheduler, edit your scheduled tasks and select the new time zone as required. See the *IBM Marketing Platform Administrator's Guide* for information about using the Scheduler.

Digital Analytics dashboard portlets

If you have any dashboards that contain custom Digital Analytics portlets, you must recreate those portlets after your upgrade is complete.

Backing up the corporatetheme.css file and branding images About this task

If you rebranded the IBM frameset as described in the *IBM Marketing Platform Administrator's Guide*, you must back up the files that you modified before you upgrade Marketing Platform. You must restore the files after you complete the upgrade operation, but before you deploy the new version of Marketing Platform.

Typically, the corporatetheme.css file and branding images have to be modified. The corporatetheme.css file and the branding images are located under the css\theme directory in the unica.war file.

Procedure

Complete the following steps to back up the corporatetheme.css file and the branding images:

- 1. Make a backup copy of the unica.war file before you start the upgrade procedure for Marketing Platform.
- 2. Extract the unica.war file and set aside copies of the corporatetheme.css file and the branding images.
- 3. Proceed with the upgrade for Marketing Platform, but do not deploy Marketing Platform.
- 4. Extract the new unica.war file, and overwrite the existing images and the corporate theme.css file with your backed-up versions.
- 5. Rewar the new unica.war file, and deploy Marketing Platform.

What to do next

See the IBM Marketing Platform Administrator's Guide for more details on rebranding.

Marketing Platform upgrade scenarios

Upgrade your installation of Marketing Platform after you understand the guidelines that apply to your current version of Marketing Platform.

Follow the guidelines in the following table for upgrading Marketing Platform.

Table 7. Marketing Platform upgrade scenarios

Marketing Platform source version	Upgrade path
7.x	A direct upgrade is not supported. Complete the following steps to upgrade to Marketing Platform version 9.1.1.
	1. Upgrade from version 7.x to version 8.6.0.
	To complete the upgrade to version 8.6.0, obtain the software and follow the instructions in the upgrade guide that version.
	2. Upgrade from version 8.6.0 to version 9.1.0.
	To complete the upgrade to version 9.1.0, obtain the software and follow the instructions in the upgrade guide for that version.
	3. Complete the upgrade operation as described in one of the following topics.
	Chapter 3, "Upgrading from version 9.1.x.x with automatic migration," on page 15
	Chapter 4, "Upgrading from version 9.1.x.x with manual migration," on page 17

Table 7. Marketing Platform upgrade scenarios (continued)

Marketing Platform source version	Upgrade path
8.x and 9.0.0	A direct upgrade is not supported. Complete the following steps to upgrade to Marketing Platform version 9.1.1.
	1. Upgrade to version 9.1.x.x
	To complete the upgrade to version 9.1.0, obtain the software and follow the instructions in the upgrade guide for that version.
	2. Complete the upgrade operation as described in one of the following topics:
	Chapter 3, "Upgrading from version 9.1.x.x with automatic migration," on page 15
	Chapter 4, "Upgrading from version 9.1.x.x with manual migration," on page 17
9.1.x.x	Upgrade your installation of Marketing Platform as described in one of the following topics:
	Chapter 3, "Upgrading from version 9.1.x.x with automatic migration," on page 15
	Chapter 4, "Upgrading from version 9.1.x.x with manual migration," on page 17

The Marketing Platform upgrade installer can automatically complete the data migration that is required for an upgrade. However, if your organization's policy does not allow automatic data migration, you must complete the procedure to upgrade manually.

Chapter 3. Upgrading from version 9.1.x.x with automatic migration

Automatic migration allows the installer to run the SQL script and insert the configuration properties that are required to upgrade your Marketing Platform system tables. If your company policy does not allow automated updates to your system table database, you must use manual migration, described elsewhere in this guide.

Before you begin

Ensure that you have the following installers in the same directory.

- · The IBM EMM master installer
- The Marketing Platform installer

Use the following guidelines as a best practice.

- Place the installers in the same directory where you originally placed the installers for the earlier versions of your products.
- Remove any earlier versions of the IBM EMM product installers from the directory to avoid having the master installer attempt to install the earlier versions.

About this task

Upgrading from version 9.1.x.x is an in-place upgrade. In an in-place upgrade, you install the upgraded version of Marketing Platform to the directory where your current Marketing Platform is installed.

See "Marketing Platform upgrade scenarios" on page 12 for information about upgrading from other versions.

Procedure

1. Create a back-up copy of your Marketing Platform system table database.

Important: Do not skip this step. If the upgrade operation fails, you cannot roll back your database and your data is corrupted.

- 2. Undeploy your Marketing Platform deployment.
- 3. Run the IBM EMM master installer. The IBM EMM master installer starts. Use the following instructions after the IBM EMM master installer starts.
 - When the IBM EMM master installer prompts you to choose an installation directory, choose the root installation directory, not the Marketing Platform installation directory, which is under this root directory.
 - When the IBM EMM master installer prompts you to enter Marketing Platform database connection information, enter the information that pertains to your current Marketing Platform system tables.

The IBM EMM master installer pauses and launches the Marketing Platform installer.

4. Complete the following steps while the Marketing Platform installer is running.

- a. When the Marketing Platform installer prompts you for an installation directory, select the directory of your current Marketing Platform installation, usually named Platform.
- b. Select Automatic database setup.
- **c.** Follow the remaining steps in the installation wizard and enter the requested information.
- 5. Deploy your installation.

Note: Pay close attention to the installation summary windows. If errors are reported, check the installer log files and contact IBM EMM technical support if necessary.

Chapter 4. Upgrading from version 9.1.x.x with manual migration

The Marketing Platform upgrade installer can perform all of the data migration that is required for an upgrade automatically. However, if the policy of your organization does not allow automatic migration, you must complete the migration procedure to upgrade Marketing Platform manually.

Before you begin

Ensure that you have the following installers in the same directory.

- The IBM master installer
- The Marketing Platform installer

To upgrade to Marketing Platform version 9.1.1 manually, you must run SQL scripts and run some command line utilities to populate the system tables. Ensure that your installation of Marketing Platform 9.1.x.x is fully functional so that you can run the utilities. Complete information about using these utilities, including example commands for common tasks, is available in the following topics.

- "populateDb" on page 38
- "configTool" on page 30
- "alertConfigTool" on page 29

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

See "Marketing Platform upgrade scenarios" on page 12 for information about upgrading from other versions.

Procedure

1. Create a back-up copy of your Marketing Platform system table database.

Important: Do not skip this step. If the upgrade operation fails, you cannot roll back your database and your data is corrupted.

- 2. Undeploy your Marketing Platform deployment.
- 3. Run the IBM EMM master installer. The IBM EMM master installer starts. Use the following instructions after the IBM EMM master installer starts.
 - When the IBM EMM master installer prompts you to choose an installation directory, choose the root installation directory, not the Marketing Platform installation directory that is under this root directory.
 - When the IBM EMM master installer prompts you to enter Marketing Platform database connection information, enter the information that pertains to your current Marketing Platform system tables.

The IBM EMM master installer pauses and starts the Marketing Platform installer.

- 4. Complete the following steps while the Marketing Platform installer is running.
 - a. When the Marketing Platform installer prompts you for an installation directory, select the directory of your current Marketing Platform installation, usually named Platform.

- b. Allow the installer to create a back-up copy of your previous installation of Marketing Platform.
- c. Select Manual database setup.
- d. Clear the Run Platform configuration check box.
- **e**. Follow the remaining steps in the installation wizard and enter the requested information.
- 5. Run the ManagerSchema_DB_Type_911upg.sql script against your system tables. The ManagerSchema_DB_Type_911upg.sql script is located in the db\upgrade91to911 directory under your Marketing Platform installation.
- 6. Use the populateDb utility to populate the system tables with default Marketing Platform configuration properties, users and groups, and security roles and permissions.
 - The populateDb utility is located in the tools/bin directory under your Marketing Platform installation.
 - Example command: populateDb -n Manager
- 7. Use the configTool utility to import configuration properties as described below.

Table 8. Scripts for upgrading from version 9.1.x.x

File details	Example command
 File: AuditEvents.xml Location: conf/upgrade91to911 directory under your Marketing Platform installation Purpose: Import the IBM Marketing Platform Audit Events configuration node 	<pre>configTool.bat -i -p "Affinium suite" -f C:\Unica\Platform\conf\upgrade91to911\ AuditEvents.xml</pre>
 File: FederatedAuthentication.xml Location: conf/upgrade91to911 directory under your Marketing Platform installation Purpose: Import the IBM Marketing Platform Security Federated Authentication configuration node 	configTool.bat -i -p "Affinium suite security" -f C:\Unica\Platform\conf\upgrade91to911\ FederatedAuthentication.xml
 File: M0_bulk_deactivation_scheduler.xml Location: conf/upgrade91to911 directory under your Marketing Platform installation Purpose: Import the configuration node for the bulk deactivation schedule feature for Marketing Operations 	configTool.bat -i -p "Affinium suite scheduler taskRegistrations" -f C:\Unica\Platform\conf\upgrade91to911\ MO_bulk_deactivation_scheduler.xml
 File: emm_audit_navigation.xml Location: conf/ directory under your Marketing Platform installation. Purpose: Import the Analytics > Marketing Platform menu item for Audit Event reports 	configTool.bat -i -p "Affinium suite uiNavigation mainMenu Analytics" -f C:\Unica\Platform\conf\ emm_audit_navigation.xml

- 8. Complete the following steps to update the Help > About page.
 - a. Use the **configTool** utility to export the **Affinium** | **Manager** | **about** category.

Note: The **Affinium | Manager | about** category is not visible on the Configuration page because it is marked hidden. Example (Windows):

configTool.bat -x -p "Affinium|Manager|about" -f "C:\Unica\Platform\
conf\about.xml"

b. Edit the exported XML file that you just created (about.xml in the example) to change the version number and display name.

Find the releaseNumber property and change the value to the current version of Marketing Platform. In the following example, change 9.1.0.0.0 to 9.1.1.0.0:

c. Use the **configTool** utility to import the revised file.

You must use the -o option to overwrite the node. You must specify the parent node when you import. Example (Windows):

```
configTool.bat -i -p "Affinium | Manager" -f "about.xml" -o
```

9. Deploy and verify your installation as described in the Chapter 5, "Deploying Marketing Platform," on page 21.

Chapter 5. Deploying Marketing Platform

You must follow a set of guidelines when you deploy Marketing Platform in your web application server. There is a different set of guidelines for deploying Marketing Platform on WebLogic and on WebSphere.

When you ran the IBM installer, you completed one of the following actions:

- You included Marketing Platform in an EAR file.
- You created the WAR file of Marketing Platform (unica.war).

If you included other products in an EAR file, you must follow the deployment guidelines that are provided in the individual installation guides for the products that are included in the EAR file.

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

Guidelines for deploying Marketing Platform on WebLogic

You must follow a set of guidelines when you deploy Marketing Platform on the WebLogic application.

Use the following guidelines when you deploy the Marketing Platform products on any supported version of WebLogic:

- IBM EMM products customize the Java virtual machine (JVM) that is used by WebLogic. If you encounter errors related to JVM, you can create a WebLogic instance that is dedicated to IBM EMM products.
- Open the startWebLogic.cmd file and verify that the SDK that is selected for the WebLogic domain that you are using is the Sun SDK for the JAVA_VENDOR variable.

The <code>JAVA_VENDOR</code> variable must be set to <code>Sun</code> (<code>JAVA_VENDOR=Sun</code>). If the <code>JAVA_VENDOR</code> variable is set to <code>JAVA_VENDOR</code>, it means that <code>JRockit</code> is selected. You must change the selected SDK, because <code>JRockit</code> is not supported. Refer to the <code>BEA</code> WebLogic documentation to change the selected SDK.

- Deploy Marketing Platform as a web application.
- If you are configuring WebLogic to use the IIS plug-in, review the BEA WebLogic documentation.
- Complete the following tasks if your installation must support non-ASCII characters, for example for Portuguese or for locales that require multi-byte characters:
 - 1. Edit the **setDomainEnv** script in the bin directory under your WebLogic domain directory to add -Dfile.encoding=UTF-8 to **JAVA_VENDOR**.
 - 2. In the WebLogic console, click the **Domain** link on the home page.
 - 3. In the **Web Applications** tab, select the **Archived Real Path Enabled** check box.
 - 4. Restart WebLogic.
 - 5. Deploy and start the EAR file or the unica.war file.
- If deploying in a production environment, set the JVM memory heap size parameters to 1024 by adding the following line to the setDomainEnv script:

Guidelines for deploying Marketing Platform on WebSphere

You must follow a set of guidelines when you deploy Marketing Platform on Websphere.

Make sure that the version of WebSphere meets the requirements that are described in the IBM Enterprise Products Recommended Software Environments and Minimum System Requirements document, including any necessary fix packs. Use the following guidelines when you deploy Marketing Platform on WebSphere:

- Specify the following custom property in the server:
 - Name: com.ibm.ws.webcontainer.invokefilterscompatibility
 - Value: true
- See http://www-01.ibm.com/support/docview.wss?uid=swg21284395 for instructions on setting a custom property in WebSphere.
- Deploy the IBM EAR file or unica.war file as an enterprise application. When you deploy the EAR file or the unica.war file, ensure that the JDK source level of the JSP compiler is set to Java 16 or 17, and that JSP pages are precompiled according to the following information:
 - In the form where you browse to and select the WAR file, select **Show me all** installation options and parameters so the Select Installation Options
 - In step 1 of the **Select Installation Options** wizard, select **Precompile** JavaServer Pages files.
 - In step 3 of the **Select Installation Options** wizard, ensure that the **JDK Source Level** is set to 16 or 17.
 - If you deployed an EAR, set the JDK Source Level for each WAR file.
 - In step 8 of the Select Installation Options wizard, select UnicaPlatformDS as the matching Target Resource.

The context root must be it /unica, all lower case.

- In the Web Container Settings > Web Container > Session Management section of the server, enable cookies. Specify a different session cookie name for each application that is deployed. Use one of the following procedures to specify a cookie name:
 - Select the **Override session management** check box under **Session** Management.
 - If you deployed separate WAR files for your IBM EMM products, in the WebSphere console, in the Applications > Enterprise Applications > [deployed_application] > Session Management > Enable Cookies > Cookie Name section of the server, specify a unique session cookie name.
 - If you deployed EAR files for your IBM EMM products, in the WebSphere console, in the Applications > Enterprise Applications > [deployed_application] > Module Management > [deployed_module] > Session Management > Enable Cookies > Cookie Name section of the server, specify a unique session cookie name.
 - If your installation must support non-ASCII characters, for example for Portuguese or for locales that require multi-byte characters, add the following arguments to **Generic JVM Arguments** at the server level:
 - -Dfile.encoding=UTF-8
 - -Dclient.encoding.override=UTF-8

Navigation tip: Select Servers > Application Servers > Java and Process Management > Process Definition > Java Virtual Machine > Generic JVM Arguments. See the WebSphere documentation for additional details.

- In the Applications > Enterprise Applications section of the server, select the EAR file or WAR file that you deployed, then select Class loading and update detection and specify the following properties.
 - If you are deploying a WAR file:
 - For Class loader order, select Classes loaded with local class loader first (parent last).
 - For WAR class loader policy, select Single class loader for application.
 - If you are deploying an EAR file:
 - For Class loader order, select Classes loaded with local class loader first (parent last).
 - For WAR class loader policy, select Class loader for each WAR file in application.
- Start your deployment. If your instance of WebSphere is configured to use a JVM version 1.6 or newer, complete the following steps to work around an issue with the time zone database.
 - 1. Stop WebSphere.
 - 2. Download the IBM Time Zone Update Utility for Java (JTZU) from the IBM web site:
 - http://www.ibm.com/developerworks/java/jdk/dst/index.html
 - 3. Follow the steps provided by the IBM (JTZU) to update the time zone data in your JVM.
 - 4. Restart WebSphere.
- The following additional setting is required for WAS 8.5:

In Websphere Enterprise Applications, select *Your Application* > Manage Modules > *Your Application* > Class Loader Order > Classes loaded with local class loader first (parent last).

- The recommended minimum heap size for the basic functioning of the application is 512, and the recommended maximum heap size is 1024.
 - Complete the following tasks to specify the heap size:
 - 1. In WebSphere Enterprise Applications, select Servers > WebSphere application servers > server1 > Server Infrastructure > Java and Process Management > Process definition > Java Virtual Machine.
 - 2. Set the initial heap size to 512.
 - 3. Set the maximum heap size to 1024

See the WebSphere documentation for more information about sizing.

Verifying your Marketing Platform installation

After you install and deploy Marketing Platform, you must verify that there are no errors in your Marketing Platform installation and deployment. You can configure your Marketing Platform installation after the verification.

Procedure

Complete the following tasks to verify your Marketing Platform installation:

1. Access the IBM EMM URL in a supported web browser.

If you entered a domain when you installed Marketing Platform, the URL is the following, where host is the machine where Marketing Platform is installed, domain.com is the domain in which the host machine resides, and port is the port number on which the web application server listens.

http://host.domain.com:port/unica

- 2. Log in using the default administrator login, which is asm_admin with password as the password.
 - You will be asked to change the password. You can enter the existing password, but for good security you should choose a new one.
 - The default home page is the dashboard, which you will configure later.
- 3. Under the Settings menu, check the Users, User Groups, and User Permissions pages to verify that the pre-configured users, groups, roles, and permissions are present, as described in the Marketing Platform Administrator's Guide.
- 4. Add a new user and group and verify that data is entered into the Marketing Platform system table database.
- 5. Under the **Settings** menu, check the Configuration page to verify that the Marketing Platform configuration properties exist.

What to do next

There are additional configuration tasks, such as configuring the dashboard, setting up user access to IBM applications, and integrating with an LDAP or web access control system (optional). See the IBM Marketing Platform Administrator's Guide for instructions.

Chapter 6. Configuring Marketing Platform after deployment

For a basic installation of Marketing Platform, you must configure Marketing Platform after deployment if you use the IBM EMM reporting feature, or if you want to use a password policy.

If you use the IBM EMM reporting feature, see the *IBM EMM Reports Installation* and *Configuration Guide*. If you want to use a password policy in mind, see "Default password settings" to determine whether you must change the default password settings.

The Marketing Platform has additional properties on the Configuration page that perform important functions that you can optionally adjust. See the context help for the properties, or the *IBM Marketing Platform Administrator's Guide* to learn more about what they do and how to set them.

Default password settings

IBM EMM provides default settings for using passwords. However, you can use the **IBM EMM > General > Password settings** category on the IBM EMM Configuration page to change the default settings, and create your password policies.

The default password settings apply to passwords for users that are created within IBM EMM. The settings do not apply to the users that are imported through synchronization with an external system, such as Windows Active Directory, a supported LDAP directory server, or web access control server. The exception is the Maximum failed login attempts allowed setting, which affects both internal and external users. Also note that this property does not override any similar restriction set in an external system.

The following settings are the default password settings that IBM EMM:

- Maximum failed login attempts allowed 3
- Password history count 0
- Validity (in days) 30
- Blank passwords allowed True
- Allow identical user name and password True
- Minimum number of numeric characters 0
- Minimum number of letter characters 0
- Minimum character length 4

See the online help for descriptions of the default settings.

Chapter 7. IBM Marketing Platform utilities and SQL scripts

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

Location of utilities

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

List and descriptions of utilities

The Marketing Platform provides the following utilities.

- "alertConfigTool" on page 29 registers alerts and configurations for IBM EMM products
- "configTool" on page 30 imports, exports, and deletes configuration settings, including product registrations
- "datafilteringScriptTool" on page 34 creates data filters
- "encryptPasswords" on page 35 encrypts and stores passwords
- "partitionTool" on page 36 creates database entries for partitions
- "populateDb" on page 38 populates the Marketing Platform database
- "restoreAccess" on page 39 restores a user with the platformAdminRole role
- "scheduler_console_client" on page 40 lists or starts IBM EMM Scheduler jobs that are configured to listen for a trigger.

Prerequisites for running Marketing Platform utilities

The following are prerequisites for running all Marketing Platform utilities.

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

Troubleshooting connection issues

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

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

• Data source password (encrypted)

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

Special characters

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

Standard options in Marketing Platform utilities

The following options are available in all Marketing Platform utilities.

-1 logLevel

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

-L

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

-h

Display a brief usage message in the console.

-m

Display the manual page for this utility in the console.

- v

Display more execution details in the console.

Setting up Marketing Platform utilities on additional machines

On the machine where the Marketing Platform is installed, you can run the Marketing Platform utilities without any additional configuration. However, you might want to run the utilities from another machine on the network. This procedure describes the steps required to do this.

Before you begin

Ensure that the machine on which you perform this procedure meets the following prerequisites.

• The correct JDBC driver must exist on the machine or be accessible from it.

- The machine must have network access to the Marketing Platform system tables.
- The Java runtime environment must be installed on the machine or be accessible from it.

Procedure

- 1. Gather the following information about the Marketing Platform system tables.
 - The fully qualified path for the JDBC driver file or files on your system.
 - The fully qualified path to an installation of the Java runtime environment. The default value in the installer is the path to the supported version of the JRE that the installer places under your IBM EMM installation directory. You can accept this default or specify a different path.
 - · Database type
 - Database host
 - Database port
 - Database name/system ID
 - · Database user name
 - Database password
- 2. Run the IBM EMM installer and install the Marketing Platform.

Enter the database connection information that you gathered for the Marketing Platform system tables. If you are not familiar with the IBM EMM installer, see the Campaign or Marketing Operations installation guide.

You do not have to deploy the Marketing Platform web application if you are installing the utilities only.

Marketing Platform utilities

This section describes the Marketing Platform utilities, with functional details, syntax, and examples.

alertConfigTool

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

Syntax

alertConfigTool -i -f importFile

Commands

-i -f importFile

Import alert and notification types from a specified XML file.

Example

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

alertConfigTool -i -f Platform alerts configuration.xml

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

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 9. 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 9. Product names for configTool registration and unregistration (continued)

Product name	Name used in configTool
CustomerInsight	Insight
Digital Analytics for On Premises	NetInsight
Opportunity Detect	Detect
Leads	Leads
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

-0

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.

datafilteringScriptTool

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

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

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

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

When to use datafilteringScriptTool

You must use datafilteringScriptTool when you create new data filters.

Prerequisites

The Marketing Platform must be deployed and running.

Using datafilteringScriptTool with SSL

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

- Truststore file name and path
- Truststore password

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

```
:callexec
"%JAVA HOME%\bin\java" -DUNICA PLATFORM HOME="%UNICA PLATFORM HOME%"
com.unica.management.client.datafiltering.tool.DataFilteringScriptTool %*
```

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

```
:callexec
SET SSL_OPTIONS=-Djavax.net.ssl.keyStoreType="JKS"
-Djavax.net.ssl.trustStore="C:\security\myTrustStore.jks"
-Djavax.net.ssl.trustStorePassword=myPassword
"%JAVA HOME%\bin\java" -DUNICA PLATFORM HOME="%UNICA PLATFORM HOME%"
%SSL OPTIONS%
```

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

Syntax

datafilteringScriptTool -r pathfile

Commands

-r path_file

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

Example

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

encryptPasswords

The encryptPasswords utility is used to encrypt and store either of two passwords that Marketing Platform uses internally.

The two passwords that the utility can encrypt are as follows.

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

When to use encryptPasswords

Use encryptPasswords as for the following reasons.

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

Prerequisites

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

Syntax

encryptPasswords -d databasePassword
encryptPasswords -k keystorePassword

Commands

-d databasePassword

Encrypt the database password.

-k keystorePassword

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

Examples

- When the Marketing Platformwas installed, the login for the system table
 database account was set to myLogin. Now, some time after installation, you have
 changed the password for this account to newPassword. Run encryptPasswords as
 follows to encrypt and store the database password.
 - encryptPasswords -d newPassword
- You are configuring an IBM EMM application to use SSL and have created or obtained a digital certificate. Run encryptPasswords as follows to encrypt and store the keystore password.

encryptPasswords -k myPassword

partitionTool

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

When to use partitionTool

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

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

Special characters and spaces

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

Syntax

partitionTool -c -s sourcePartition -n newPartitionName [-u
admin user name] [-d partitionDescription] [-g groupName]

Commands

The following commands are available in the partitionTool utility.

-c

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

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

Options

-d partitionDescription

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

-g groupName

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

If not defined, the name defaults to partition nameAdminGroup.

-n partitionName

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

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

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

-s sourcePartition

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

-u adminUserName

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

If not defined, the name defaults to partitionNameAdminUser.

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

Examples

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

partitionTool -c -s partition1 -n myPartition -d "ClonedFromPartition1"

- Create a partition with the following characteristics.
 - Cloned from partition1
 - Partition name is partition2
 - Specifies user name of customerA with the automatically assigned password of partition2
 - Specifies group name of customerAGroup
 - Description is "PartitionForCustomerAGroup"

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

populateDb

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

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

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

Syntax

populateDb -n productName

Commands

-n productName

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

Examples

- Insert Marketing Platform default data manually.
 populateDb -n Manager
- Insert Campaign default data manually. populateDb -n Campaign

restoreAccess

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

When to use restoreAccess

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

PlatformAdminRole users disabled

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

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

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

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

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

Improper configuration of Active Directory integration

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

When you run restoreAccess in this way, the utility changes the value of the Platform | Security | Login method property from Windows integrated login to

Marketing Platform. This change allows you to log in with any user account that existed before you were locked out. You can optionally specify a new login name and password as well. You must restart the web application server on which Marketing Platform is deployed if you use the restoreAccess utility in this way.

Password considerations

Note the following about passwords when you use restoreAccess.

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

Syntax

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

Commands

-r

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

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

Options

-u loginNname

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

-p password

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

Examples

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

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

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

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

scheduler console client

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

What to do if SSL is enabled

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

Take the following steps to import the SSL certificate

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

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

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

Prerequisites

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

Syntax

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

Commands

-v

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

Must be used with the -t option.

-s

Send the specified trigger.

Must be used with the -t option.

Options

-t trigger_name

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

Example

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

Chapter 8. Marketing Platform SQL scripts

This section describes the SQL scripts provided with Marketing Platform to perform various tasks relating to the Marketing Platform system tables.

The Marketing Platform SQL scripts are located in the db directory under your Marketing Platform installation.

The scripts are designed to be run against the Marketing Platform system tables, using the database client.

ManagerSchema_DeleteAll.sql

The Manager_Schema_DeleteAll.sql script removes all data from the Marketing Platform system tables without removing the tables themselves. This script removes all users, groups, security credentials, data filters, and configuration settings from Marketing Platform.

When to use ManagerSchema_DeleteAll.sql

You might want to use ManagerSchema_DeleteAll.sql if corrupted data prevents you from using an instance of Marketing Platform.

Additional requirements

To make Marketing Platform operational after running ManagerSchema_DeleteAll.sql , you must perform the following steps.

- Run the populateDB utility. The populateDB utility restores the default configuration properties, users, roles, and groups, but does not restore any users, roles, and groups you have created or imported after initial installation.
- Use the configTool utility with the config_navigation.xml file to import menu items
- If you have performed any post-installation configuration, such as creating data filters or integrating with an LDAP server or web access control platform, you must perform these configurations again.
- If you want to restore previously existing data filters, run the datafilteringScriptTool utility using the XML originally created to specify the data filters.

ManagerSchema_PurgeDataFiltering.sql

The ManagerSchema_PurgeDataFiltering.sql script removes all data filtering data from the Marketing Platform system tables without removing the data filter tables themselves. This script removes all data filters, data filter configurations, audiences, and data filter assignments from Marketing Platform.

When to use ManagerSchema_PurgeDataFiltering.sql

You might want to use ManagerSchema_PurgeDataFiltering.sql if you need to remove all data filters without removing other data in the Marketing Platform system tables.

Important: The ManagerSchema_PurgeDataFiltering.sql script does not reset the values of the two data filter properties, Default table name and Default audience name. If these values are no longer valid for the data filters you want to use, you must set the values manually on the Configuration page.

SQL scripts for creating system tables

Use the scripts described in the following table to create Marketing Platform system tables manually, when your company policy does not allow you to use the installer to create them automatically.

The scripts are shown in the order in which you must run them.

Table 10. Scripts for creating system tables

Datasource Type	Script Names			
IBM DB2	 ManagerSchema_DB2.sql If you plan to support multi-byte characters (for example, Chinese, Japanese, or Korean), use the ManagerSchema_DB2_unicode.sql script. ManagerSchema_DB2_CeateFKConstraints.sql active_portlets.sql 			
Microsoft SQL Server	ManagerSchema_SqlServer.sqlManagerSchema_SqlServer_CeateFKConstraints.sqlactive_portlets.sql			
Oracle	ManagerSchema_Oracle.sqlManagerSchema_Oracle_CeateFKConstraints.sqlactive_portlets.sql			

If you plan to use the scheduler feature that enables you to configure a flowchart to run at predefined intervals, you must also create the tables that support this feature. To create the scheduler tables, run the appropriate script, as described in the following table.

Table 11. Scripts for enabling the IBM EMM Scheduler

Data Source Type	Script Name	
IBM DB2	quartz_db2.sql	
Microsoft SQL Server	quartz_sqlServer.sql	
Oracle	quartz_oracle.sql	

When to use the create system tables scripts

You must use these scripts when you install or upgrade Marketing Platform if you have not allowed the installer to create the system tables automatically, or if you have used ManagerSchema_DropAll.sql to delete all Marketing Platform system tables from your database.

ManagerSchema_DropAll.sql

The ManagerSchema_DropAll.sql script removes all Marketing Platform system tables from a database. This script removes all tables, users, groups, security credentials, and configuration settings from Marketing Platform.

Note: If you run this script against a database containing an earlier version of the Marketing Platform system tables, you might receive error messages in your database client stating that constraints do not exist. You can safely ignore these messages.

When to use ManagerSchema_DropAll.sql

You might want to use ManagerSchema_DropAll.sql if you have uninstalled an instance of Marketing Platform where the system tables are in a database that contains other tables you want to continue using.

Additional requirements

To make the Marketing Platform operational after running this script, you must perform the following steps.

- Run the appropriate SQL script to re-create the system tables.
- Run the populateDB utility. Running the populateDB utility restores the default configuration properties, users, roles, and groups, but does not restore any users, roles, and groups you have created or imported after initial installation.
- Use the configTool utility with the config_navigation.xml file to import menu items.
- If you have performed any post-installation configuration, such as creating data filters or integrating with an LDAP server or web access control platform, you must perform these configurations again.

Chapter 9. Uninstalling Marketing Platform

Run the Marketing Platform uninstaller to uninstall Marketing Platform. When you run the Marketing Platform 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.

About this task

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 Marketing Platform must run the uninstaller.

Procedure

- 1. If you have deployed the Marketing Platform web application, undeploy the web application from WebSphere or WebLogic.
- 2. Shut down WebSphere or WebLogic.
- 3. Stop the processes that are related to Marketing Platform.
- 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 Marketing Platform:
 - Double-click the Marketing Platform uninstaller that exists in the Uninstall_Product directory. The uninstaller runs in the mode in which you installed Marketing Platform.
 - In a command-line window, navigate to the directory where the uninstaller exists, and run the following command to uninstall Marketing Platform 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 Marketing Platform by using the silent mode:

Uninstall Product -i silent

When you uninstall Marketing Platform 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 Marketing Platform, the Marketing Platform uninstaller runs in the mode in which Marketing Platform is installed.

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).

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 on 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 Web sites are provided for convenience only and do not in any manner serve as an endorsement of those Web sites. The materials at those Web sites are not part of the materials for this IBM product and use of those Web sites 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 B1WA LKG1 550 King Street Littleton, MA 01460-1250 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 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.

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."

IBM

Printed in USA