

IBM Contact Optimization
Version 9 Release 0
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Installation Guide



Note

Before using this information and the product it supports, read the information in "Notices" on page 33.

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

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Chapter 1. Preparing to install Contact Optimization

Installing IBM® products is a multi-step process that involves working with a number of software and hardware elements that IBM does not provide. The IBM documentation provides some guidance for specific configurations and procedures required to install IBM products. However, for detailed information about working with systems that IBM does not provide consult the documentation for those products.

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

Contact Optimization basic installation checklist

Review this overview of the installation process and verify that your environment, planned order of installation, and knowledge levels fulfill the prerequisites.

The following list is a high-level overview of the steps that are required to perform a basic installation of IBM Contact Optimization. Additional details about these steps are provided in the rest of this guide.

Install Contact Optimization

1. Chapter 2, “Installing Contact Optimization,” on page 5
Download the IBM EMM and Contact Optimization installers.
2. “Information required to install all IBM EMM products” on page 12
Gather the required information for the installation. You use this information to complete the installation wizard.
3. “Step: Run the IBM EMM installer” on page 13
After you install, deploy, and verify the IBM Marketing Platform and IBM Campaign, install Contact Optimization.

Configure Contact Optimization

1. “Step: Create and populate the Contact Optimization system tables manually, if necessary” on page 15
If the Contact Optimization installer was unable to connect to the Campaign system tables, use the provided SQL scripts to create and populate the Contact Optimization system tables in the Campaign database or schema.
2. “To register Contact Optimization manually” on page 15
If the Contact Optimization installer was unable to register, use Marketing Platform utilities to register manually.
3. “Step: Set the Contact Optimization configuration properties manually, if necessary” on page 16
If the Contact Optimization installer was unable to set the configuration properties, set required properties on the **Settings > Configuration** page.
4. “Step: Start the Contact Optimization server” on page 17
Start and verify the Contact Optimization server.
5. “Step: Map tables for Contact Optimization” on page 17
In Campaign, map the Contact Optimization tables.

6. “Step: Verify your Contact Optimization installation” on page 18
Log on to Marketing Platform and confirm you can access **Campaign > Contact Optimizations**.

Installing Contact Optimization with other system components

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

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

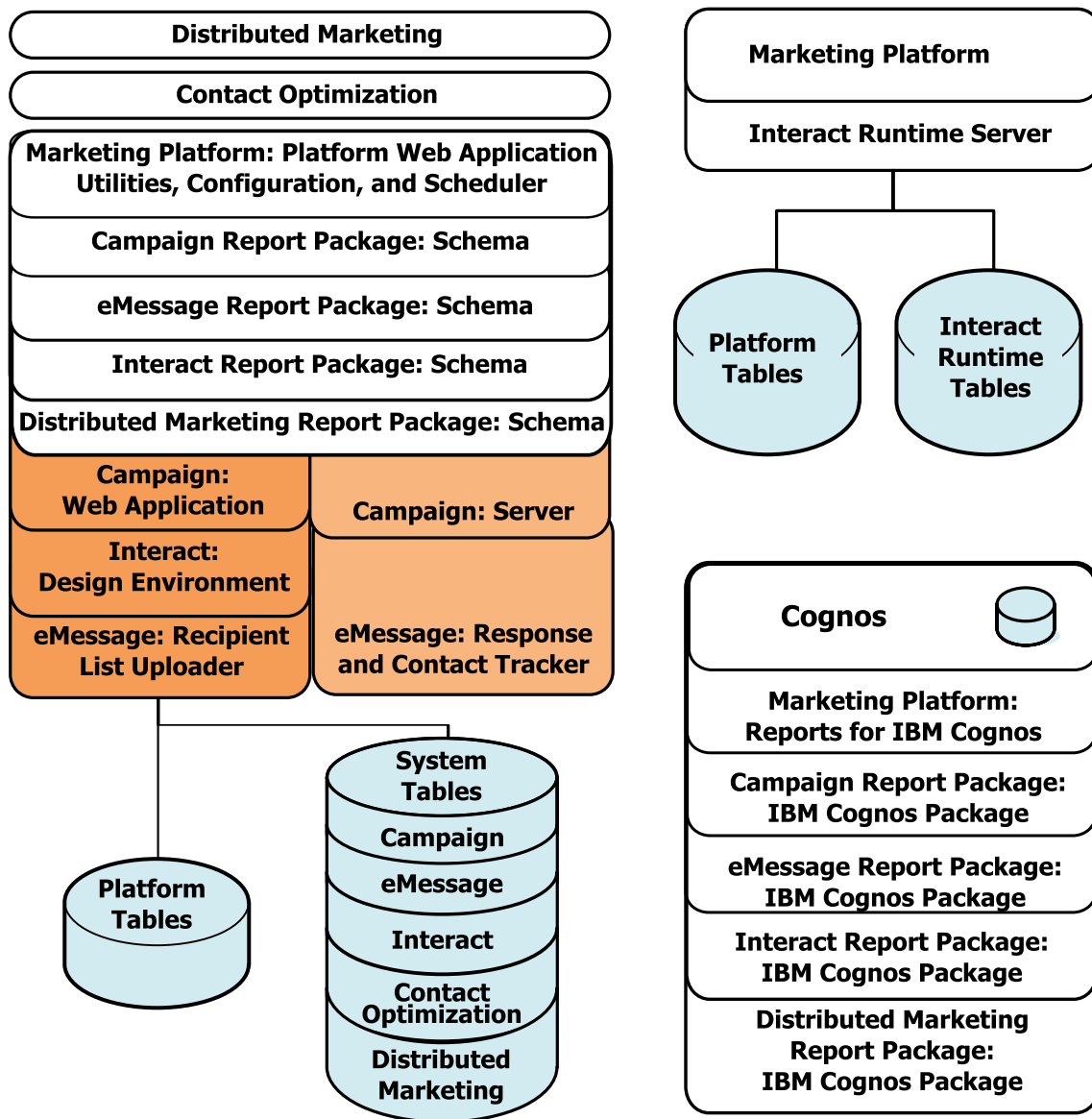


Figure 1. IBM EMM components

Prerequisites

The following are prerequisites for installing IBM EMM products.

System requirements

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

JVM requirement

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

Network domain requirement

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

Knowledge requirement

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

Order of installation for Contact Optimization

Contact Optimization operates with the Marketing Platform and Campaign. You must install and configure them before you begin to install Contact Optimization.

Marketing Platform requirement

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

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

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

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

Campaign requirement

Before you install Contact Optimization, you must install and configure Campaign.

Note: For installations on UNIX, you might need to set the `Djava.awt.headless` property for your web application server to true in your application server. This setting is required only when you are unable to view Contact Optimization reports. See the *IBM Campaign Installation Guide* for details.

You do not need to prepare any additional data sources because Contact Optimization uses the Campaign system tables data source.

Client machines

Client machines must meet the following configuration requirements.

- The browser should not cache pages. In Internet Explorer, select **Tools > Internet Options > General > Browsing History > Settings** and choose the option that causes the browser to check for a newer version of the page on each visit.
- If software to block pop-up ad windows is installed on the client machine, Campaign might not function properly. For best results, disable the software to block pop-up ad windows while running Campaign.

Access permissions

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

Appropriate permissions include:

- The administrative password for your web application server.
- Administration access for all necessary databases.
- Write permission for all files that you must edit.
- Write permission for all directories where you must save a file, such as the installation directory and backup directory if you are upgrading.
- Appropriate read/write/execute permissions to run the installer.
- The operating system account that you use to run the web application server and IBM EMM components must have read and write access to the relevant directory and subdirectories.
- On UNIX, the user account that installs Campaign and the Marketing Platform must be a member of the same group as Campaign users. This user account must have a valid home directory, and have write permissions for that directory.
- On UNIX, all of the installer files for IBM products must have full execute permissions (for example, `rxwxr-xr-x`).

If you are upgrading or configuring multiple partitions

If you are upgrading, see the sections on preparing to upgrade.

If you plan to create multiple partitions, see the section on configuring multiple partitions.

Related concepts:

“Order of upgrading Contact Optimization” on page 22

Chapter 2. Installing Contact Optimization

Download the following installation files.

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

- The IBM installer
- The Contact Optimization installer

Setting permissions on UNIX type systems

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

Choosing the right installer file

The IBM Contact Optimization installation files are named according to the version of the product and the operating system with which they are meant to be used. The exception is UNIX files intended to be run in console mode, which are not operating system-specific. For UNIX, different files are used depending on whether the installation mode is X Window System or console. For example:

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

UNIX - X Window System mode - `IBM_ContactOptimization_N.N.N.N_solaris64.bin` is version N.N.N.N and is intended for installation on the Solaris 64-bit operating system.

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

How the IBM EMM installers work

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

Single directory requirement for installer files

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

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

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

When multiple versions of a product installer are present in the directory with the master installer, the master installer always shows the latest version of the product on the IBM EMM Products screen in the installation wizard.

Installing patches

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

Choosing product installation directories

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

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

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

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

Installation types

The IBM EMM installer performs the following types of installation.

- **New installation:** When you run the installer and select a directory where an IBM EMM product has never been installed, the installer automatically performs a new installation.
- **Upgrade installation:** When you run the installer and select a directory where *an earlier* version of an IBM EMM product is installed, the installer automatically performs an upgrade installation. For products where installers automatically update the database, upgrade installation adds new tables but does not overwrite data in existing tables.

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

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

Typically, reinstallation is not recommended.

Installation modes

The IBM EMM installer can run in the following modes.

- Console (command line) mode

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

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

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

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

- Windows GUI or UNIX X-windows mode
 - Unattended, or silent, mode, which allows no user interaction
- Unattended mode can be used to install an IBM EMM product multiple times, for example when you set up a clustered environment. For more information, see “Installing multiple times using unattended mode.”

Installing multiple times using unattended mode

If you must install IBM EMM products multiple times, for example when setting up a clustered environment, you may want to run the IBM EMM installers in unattended mode, which requires no user input.

About the response files

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

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

- You can use the sample response file as a template for directly creating your response files. The sample files are included with your product installers in a compressed archive named `ResponseFiles`. The sample response files are named as follows.
 - IBM EMM master installer - `installer.properties`
 - Product installer - `installer_` followed by initials for the product name and numbers for the version. For example, the Campaign installer has a response file named `installer_ucN.N.N.N.properties`.
 - Product reports packs installer - `installer_` including initials for the report pack and the product name, plus numbers for the version. For example, the Campaign reports pack installer has a response file named `installer_urpcN.N.N.N.properties`.

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

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

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

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

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

Where the installer looks for response files

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

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

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

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

Effect of unattended mode when you uninstall

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

Unattended mode and upgrades

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

Example installation prompts

For reference, an example of the prompts that display during installation on a UNIX server using console mode follows. Be sure to read and follow the instructions that display during your actual installation.

After you enter information, most prompts display your response and require a yes or no (Y/N) confirmation before you continue. These prompts give you the opportunity to make corrections when needed.

Use this example to help you gather required information before you begin your installation, and for reference during your installation.

Table 1. Example installation prompts and responses

Prompt	Response
-bash-4.0\$	Initial prompt. Supply the name of the master installer file and any variables for the database setup utility that you want to use for the installation.
Choose Locale	Supply a number to choose one of the listed languages. To use the default locale, 2- English, press Enter.

Table 1. Example installation prompts and responses (continued)

Prompt	Response
Introduction	<p>If a previous version of the product is installed, an upgrade is performed.</p> <p>If the same version of the product is installed, proceeding drops all tables and data.</p>
Response Files Generation	<p>Supply a number to choose whether to generate response files for use in an unattended installation. If you generate response files, you can supply a destination path.</p>
Choose Product Features	<p>A numbered list of features displays. Features with a check mark [X] are selected for installation, features with no check mark [] are not selected. To change the selections, supply numbers to switch from selected to cleared (or vice versa) using a comma-separated list, then press Enter.</p> <p>For example, you see this list of features:</p> <p>1- [X] IBM Marketing Platform 2- [X] IBM Marketing Operations</p> <p>To install Marketing Platform <i>only</i>, supply 2 and press Enter.</p>
Master (Marketing Platform) installation	
Installation Directory	
Select Application Server	
Platform Database Type	Supply information for the Marketing Platform system table database.
Platform Database Host Name	
Platform Database Port	
Platform Database Name/System ID (SID)	
Platform Database User Name	
Platform Database Password	
JDBC Connection	
JDBC Driver Classpath	
Product-specific (Marketing Operations) installation	
Introduction	For each product feature you chose to install, the specific product name displays followed by the reinstallation warning.
Installation Directory	
Marketing Operations Database Setup	<p>Supply a number to choose automatic or manual.</p> <ul style="list-style-type: none"> • Automatic setup uses the same information for this feature that you supplied for the master installation. • Manual setup prompts you for each database and JDBC characteristic separately to accommodate any feature-specific differences.
Marketing Operations Server/Host	

Table 1. Example installation prompts and responses (continued)

Prompt	Response
Marketing Operations Server Port	
Marketing Operations Domain Name	Supply the same company domain, in all lowercase, for every feature you install.
Supported Locales	Supply a number to choose a language. You can also supply a comma-separated list to select multiple locales.
Default Locale	Supply a number to choose a language.
Deployment EAR File	Supply a number to choose whether to create an enterprise archive (EAR) file.

Automatic versus manual system table creation

For some IBM products, you can choose whether to allow the installer to create the system tables in the database.

If you choose to allow the installer to create the system tables, you must provide information that enables the installer to connect to the product database you created in an earlier step. Typically, this information includes:

- The database type
- The name of the database server
- The port on which the server listens
- The database name or schema ID
- A login and password for the database

If you choose to create the system tables manually, you must use your database client to run the SQL scripts provided with your product installation.

Details for manual table creation are provided in “Step: Create and populate the Contact Optimization system tables manually, if necessary” on page 15.

Where to install Contact Optimization

For best performance, install Contact Optimization on its own system, where no other IBM EMM products are installed.

Contact Optimization can require significant computation and data processing resources. You have the greatest control and flexibility for performance-tuning if you operate Contact Optimization in a dedicated environment.

Step: Obtain required information

Obtain the following information before you start to install Contact Optimization. You use this information as you complete the installation wizard.

JDBC driver on the Contact Optimization system

Obtain the JDBC driver class path on the system where you are installing Contact Optimization. This path must include the name of the JAR file.

Marketing Platform information

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

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

- Database type.
- Database host name.
- Database port.
- Database name.
- User name and password for the database account.
- JDBC connection URL to the Marketing Platform database. The installer provides the connection URL based on the values you provide, however, confirm the URL is correct.

For example, for SQL Server, the JDBC connection URL takes the following format:

```
jdbc:sqlserver://your_db_host:your_db_port;databaseName=your_db_name
```

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

Campaign information

The installation wizard for Contact Optimization needs to communicate with your Campaign system table database to create the Contact Optimization tables. You must collect the following information about your Campaign installation to enable the installer to set up Contact Optimization database tables and properly configure Contact Optimization.

- Whether your Campaign database is configured for Unicode.
- Campaign database type.
If your database type is IBM DB2[®] and installed on a UNIX system, you also need to supply the DB2 instance path.
If your database type is Oracle, you also need to supply the Oracle home directory.
- Campaign database host name.
- Campaign database port.
- Campaign database name.
- User name and password for the Campaign database account.
- JDBC connection URL to the Campaign database. The installer provides the connection URL based on the values you provide, however, confirm the URL is correct.

For example, for SQL Server, the JDBC connection URL takes the following format:

```
jdbc:sqlserver://your_db_host:your_db_port;databaseName=your_db_name
```

- The name of the system on which the Campaign web application server is installed.
- The port on which the Campaign application server listens. If you plan to implement SSL, obtain the SSL port.
- The network domain for your deployment system. For example, mycompany.com.
- The path to CAMPAIGN_HOME.

If you are installing Contact Optimization and Campaign on separate systems, you must mount the Campaign directory for your Campaign installation as a network drive on the system that hosts Contact Optimization. The svrstop utility located in the bin directory must have execute permissions on the Contact Optimization host. Define CAMPAIGN_HOME using the fully qualified path to your Campaign installation directory.

Information required to install all IBM EMM products

Gather the required information as described in this section.

Marketing Platform information

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

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

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

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

Web component information

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

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

Contact Optimization Utilities Settings reference

This section describes the Contact Optimization Utilities Settings window in the Contact Optimization Installation wizard.

This information is required only if you want to use the ACOOptAdmin utility on the system on which you are running the installer.

Table 2. ACOOptAdmin utility requirements

Field	Description
JDBC Driver Classpath	Enter the fully qualified path for the JDBC driver on your system, including the *.jar file. To specify multiple JAR files, separate them with a colon.

Check for a JAVA_HOME environment variable

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

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

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

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

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

You can reset the environment variable when installation is complete.

Step: Run the IBM EMM installer

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

- You have downloaded the IBM EMM installer and the installers for products you plan to install. Both the IBM EMM and product installers must be in the same directory.
- You have available the information you gathered as described in “Information required to install all IBM EMM products” on page 12.

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

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

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

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

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

- Unattended mode

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

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

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

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

For more information about unattended mode, see “Installing multiple times using unattended mode” on page 7.

Contact Optimization and EAR or WAR files

If you are installing Contact Optimization only during this run of the IBM installer, you do not need to create an EAR or WAR file, as there is no Contact Optimization web application.

All of the Contact Optimization GUI elements are contained within the Campaign web application. During the installation, Contact Optimization should register with Marketing Platform, enabling all the Contact Optimization features in Campaign. (If you have errors with installation, see “To register Contact Optimization manually” on page 15.)

If you are installing Contact Optimization with other IBM EMM applications, follow the instructions for EAR files for the other application.

Chapter 3. Configuring Contact Optimization

Contact Optimization has no stand-alone web application for you to deploy. Complete the Contact Optimization configuration after you install, configure, deploy, and verify your installation of Campaign.

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

If the Contact Optimization installer could not connect with the Campaign system tables during the installation process, you see an error message that notifies you of this failure. The installation process proceeds, but in this case you must create and populate the Contact Optimization system tables manually.

To create and populate the Contact Optimization system tables, run the SQL scripts listed in this section against the database or schema that holds the Campaign system tables.

The SQL scripts are located in the `ddl` directory under your Contact Optimization installation.

If your Campaign system tables are configured for unicode, use the appropriate script located in the `ddl/unicode` directory under your Contact Optimization installation.

Table 3. Scripts for creating Unica® Optimize tables

Data source type	Script name
IBM DB2	<code>aco_systab_db2.sql</code>
Microsoft SQL Server	<code>aco_systab_sqlsvr.sql</code>
Oracle	<code>aco_systab_ora.sql</code>

There is only one script to populate the Contact Optimization tables, `aco_populate_tables.sql`. There is no unicode equivalent script for the `aco_populate_tables.sql` script used to populate the tables.

Step: Register the product manually, if necessary

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

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

To register Contact Optimization manually

Registering Contact Optimization with Marketing Platform imports menu items and sets some configuration properties.

If the Contact Optimization installer cannot connect to the Marketing Platform database to register the product, run the configTool utility. Using the following example commands as guidelines. You run the utility as many times as there are files. For Contact Optimization, because there is one file, you must run the utility one time.

```
configTool -i -p "Affinium|suite|uiNavigation|mainMenu|Campaign"  
-f "full_path_to_Optimize_installation_directory\conf  
\optimize_navigation.xml"  
  
configTool -v -i -o -p Affinium|Campaign|about  
-f "full_path_to_Optimize_installation_directory\conf  
\optimize_subcomponent_version.xml"
```

All of the Contact Optimization configuration properties are included with Campaign, so there is no need to register any configuration properties.

Step: Set the Contact Optimization configuration properties manually, if necessary

If the Contact Optimization installer could not connect with the Marketing Platform system tables during the installation process, you see an error message that notifies you of this failure. The installation process proceeds, but in this case you must set the following Contact Optimization configuration properties on the **Settings > Configuration** page manually.

- Campaign > unicaACOListener > serverHost
- Campaign > unicaACOListener > serverPort
- Campaign > unicaACOListener > useSSL

Configure ACOOptAdmin tool

You must define JAVA_HOME in the ACOOptAdmin tool.

1. Open the ACOOptAdmin.sh (UNIX) or ACOOptAdmin.bat (Windows) file located in the bin directory under your Contact Optimization installation directory for editing.
2. Find JAVA_HOME and replace [Change Me] with the path to the Java directory used by your web application server.
3. Save and close the file.

Configure Contact Optimization for Chinese, Japanese, or Korean users

If you are going to use Contact Optimization with user names which contain Chinese, Japanese, or Korean characters, you must configure the Contact Optimization server.

1. Open the Contact Optimization server file (ACOserver) located in the bin directory under your Contact Optimization installation directory for editing.
2. Remove the comment to set the environment variable UNICA_ACSYSENCODING equal to UTF-8.

Windows: Remove @rem before the following line in ACOserver.bat:

```
@rem set UNICA_ACSYSENCODING=UTF-8
```

UNIX: Remove # before the following lines in ACOserver.sh:

```
#UNICA_ACSYSENCODING=UTF-8  
#export UNICA_ACSYSENCODING
```

3. Save and close the file.
4. Restart the Contact Optimization server in a new console window if it is running.

Step: Start the Contact Optimization server

You must start the Contact Optimization server before you can use Contact Optimization.

To start the Contact Optimization server, run the `AC0server` script located in the `bin` directory under your Contact Optimization installation.

Run the `AC0Server` script as follows.

On Windows: `AC0Server.bat start`

On UNIX: `./AC0Server.sh start`

To determine whether the `AC0server` process is running, use the Windows Task Manager or the command `ps -ef | grep unica_aolsnr` on UNIX systems.

Step: Map tables for Contact Optimization

To configure Contact Optimization to work with Campaign, you must map all of the Contact Optimization system tables in Campaign, and your contact history and segment membership tables.

For more information about mapping system tables in Campaign, see the *IBM Campaign Administrator's Guide*.

Note: Mapping the segment membership system tables in Campaign for use with strategic segments is optional. Map the segment membership system table for an audience only if you use the audience with flowcharts or Contact Optimization sessions that use strategic segments.

1. Map all system tables.
2. Map all contact history tables.

Confirm each audience level in your Campaign configuration has a contact history table. You must map each contact history table. See the *IBM Campaign Administrator's Guide* for more information about additional contact history tables.

3. (Optional) For each audience used in Contact Optimization sessions that use strategic segments, map the segment membership system table for the audience to the database table that defines segment members.

Requirements when using strategic segments.

If you plan to use strategic segments, ensure that there is a segment membership table for each audience level in your Campaign configuration. You must map each segment membership table.

Create two indexes on the audience segment membership tables. Create the first index on `SegmentID` and create the second on the audience level columns. For example, the `UA_SegMembership` table ships with an index on `CustomerID` and on `SegmentID`.

For more information about system tables and strategic segments, see the *IBM Campaign Administrator's Guide*.

Contact Optimization system table mapping reference

A listing of the names of the Contact Optimization system tables as they show in the configuration dialog and the corresponding default table name.

Table 4. Contact Optimization system table mapping

Contact Optimization System Table	Database Table
Optimize Session Table	UACO_OptSession
Optimize Process Table	UACO_OptimizeProcess
Optimize Run History Table	UACO_SesnRunHist
Optimize Session Segment Table	UACO_SesnSegment
Optimize Offer Segment Table	UACO_OfferSeg
Optimize Session Offer Table	UACO_SesnOffer
Optimize Rule Table	UACO_Rule
Optimize Exception Rule Table	UACO_RException
Optimize Exception Rules Constraint Table	UACO_RExConstraint
Optimize Rules Constraint Table	UACO_RConstraint
Optimize Rule OfferList Table	UACO_ROfferList
Optimize Rule Offer Table	UACO_ROffer
Optimize Rule Segment Table	UACO_RSegment
Optimize Proposed Contact Base Table	UACO_PCTBase
Optimize Proposed Attribute Base Table	UACO_POABase
Optimize Optimized Contact Base Table	UACO_OCTBase

Contact Optimization contact history table mapping reference

An example listing of the names of the contact history tables as they show in the configuration dialog and the corresponding default table name. Names of additional audience level tables are unique to your configuration.

Table 5. Contact Optimization contact history table mapping

System Table	Maps to Database Table
Customer Contact History Table	UA_ContactHistory
Customer Detailed Contact History Table	UA_DtlContactHist

Step: Verify your Contact Optimization installation

To verify that Contact Optimization is installed correctly, log on to the IBM EMM and confirm that you can access **Campaign > Contact Optimizations**.

Selecting Optimizations from the menu opens the All Contact Optimization Sessions page where you can manage your Contact Optimization sessions.

After you install Contact Optimization, the Optimize process is available in Campaign for you to use when you are building Campaign batch flowcharts.

You might need to log out and log on to the IBM EMM after you map the Contact Optimization tables to show **Campaign > Contact Optimizations**.

Chapter 4. Configuring Contact Optimization in multiple partitions

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

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

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

Setting up multiple partitions for Contact Optimization

You can create multiple partitions to use with Campaign and Contact Optimization.

You can use partitions to configure Contact Optimization and Campaign so that different groups of users have access to different sets of Contact Optimization and Campaign data. For more information about configuring and using multiple partitions, see the *IBM Campaign Installation Guide*.

Installing Contact Optimization creates a default partition, `partition1`, under the `ContactOptimization/partitions` directory of the product installation. You can create additional partitions in the same directory.

If you configure Contact Optimization to use multiple partitions, you must also configure Campaign to use multiple partitions. The names of the partitions that you create for Contact Optimization must exactly match the names of the corresponding partitions created for Campaign.

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

To set up multiple partitions for Contact Optimization

Use partitions to configure Contact Optimization and Campaign so that different groups of users have access to different sets of Contact Optimization and Campaign data.

1. Create your Campaign partitions.
2. Create a directory for each partition you created in Campaign in the `partitions` directory of your Contact Optimization installation.

For example, if you created `partition2` in Campaign, you must create an `ContactOptimization/partitions/partition2` directory.

3. Copy the contents of the `ContactOptimization/partitions/partition1` directory, along with all of its (empty) subdirectories, into the directory you created for the new partition.

For example, copy the contents of the partition1 directory into the ContactOptimization/partitions/partition2 directory.

4. If any subdirectories of the newly created directory are not empty, delete all files in the subdirectories.
5. Run the SQL scripts to create and populate the Contact Optimization system tables in the database configured for the new partition.

For more information about running the SQL scripts, see “Step: Create and populate the Contact Optimization system tables manually, if necessary” on page 15.

6. Repeat Steps 2 through 5 for each partition you must create. Use the most recently created directory as your starting point.

Note: By default, partitions are installed under the ContactOptimization/partitions directory. If you modify the default directory for Contact Optimization, or if you modify the directory that specifies partitions, then adjust these instructions accordingly.

To configure ACOServer for multiple partitions

You must configure the Contact Optimization to point to the correct partitions directory.

When you install Contact Optimization, a default partitions directory is created under the directory specified by OPTIMIZE_HOME. This default directory for partitions contains one partition, partition1. Whether you create other partitions for your Contact Optimization configuration, you can modify the default location for all partitions.

To modify the home directory for partitions, you can optionally set the OPTIMIZE_PARTITION_HOME environment variable in Contact Optimization server file. This variable defines the root location for the partitions. If you set this variable, it overrides the default value.

Windows:

You can set it by adding lines such as the following two commands to ACOServer.bat:

```
set OPTIMIZE_PARTITION_HOME=C:\partitions
echo Using OPTIMIZE_PARTITION_HOME: %OPTIMIZE_PARTITION_HOME%
```

UNIX:

You can set it by adding the following lines to ACOServer.sh:

```
OPTIMIZE_PARTITION_HOME = /root_dir/work/partitions
export OPTIMIZE_PARTITION_HOME
echo "Using OPTIMIZE_PARTITION_HOME:"
$OPTIMIZE_PARTITION_HOME
```

Chapter 5. Preparing to Upgrade Contact Optimization

To upgrade any IBM EMM product, you must meet all of the prerequisites listed under “Prerequisites” on page 2 in the “Preparing to Install” chapter.

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

Remove response files generated by previous installations

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

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

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

The response files are named `installer_<product><version>.properties`, except for the file for the IBM installer itself, which is named `installer.properties`. The installer creates these files in the directory specified by the user during installation. The default location is the user's home directory.

User account requirement (UNIX only)

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

32-bit to 64-bit version upgrades

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

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

Knowledge requirements

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

- The basic function of the IBM installer, as described in “How the IBM EMM installers work” on page 5
- General IBM EMM product functionality and components, including the structure of the file system
- The installation and configuration process for the source product version and for the new version
- Maintaining configuration properties in the source and target systems
- The installation and configuration process for reports, if you are using these reports

Order of upgrading Contact Optimization

The same considerations as installation apply when you upgrade your current Contact Optimization installation.

Related concepts:

“If you are upgrading or configuring multiple partitions” on page 4

“Order of installation for Contact Optimization” on page 3

Installing Contact Optimization

Download the following installation files.

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

- The IBM installer
- The Contact Optimization installer

Setting permissions on UNIX type systems

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

Choosing the right installer file

The IBM Contact Optimization installation files are named according to the version of the product and the operating system with which they are meant to be used. The exception is UNIX files intended to be run in console mode, which are not operating system-specific. For UNIX, different files are used depending on whether the installation mode is X Window System or console. For example:

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

UNIX - X Window System mode - `IBM_ContactOptimization_N.N.N.N_solaris64.bin` is version N.N.N.N and is intended for installation on the Solaris 64-bit operating system.

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

Contact Optimization upgrade scenarios

Follow these guidelines for upgrading to the latest version of Contact Optimization.

Table 6. Contact Optimization upgrade scenarios

Source version	Upgrade path
Version 8.6.0 and later	<p>Perform an in-place upgrade installation over your current version of Contact Optimization.</p> <p>Follow the instructions in “Upgrading from Contact Optimization versions 8.5.0 and later” on page 25</p> <p>Important: Contact Optimization and Campaign must be at the same version level. For example, you must upgrade Campaign to version 9.0.0 before you upgrade Contact Optimization to version 9.0.0.</p>

Note: There is no upgrade path from Contact Optimization versions previous to 8.5.0. If you must upgrade from a previous version of Contact Optimization, you must first upgrade to version 8.5.0 or 8.6.0, and then upgrade to version 9.0.0.

Chapter 6. Upgrading Contact Optimization

Before you upgrade from any version of Contact Optimization, be sure that you read and understand following information.

- Review the introductory section Chapter 5, “Preparing to Upgrade Contact Optimization,” on page 21, which contains important information about upgrading all IBM EMM products.
- Read the following topics, to understand what you must do to upgrade from your current software to the new version of Contact Optimization.

Note: As part of the upgrade process, you need to stop and restart the Contact Optimization listener.

Upgrading from Contact Optimization versions 8.5.0 and later

You can run an in-place upgrade from Contact Optimization 8.5.0 and later.

Note: There is no upgrade path from Contact Optimization versions previous to 8.5.0. If you must upgrade from a previous version of Contact Optimization, you must first upgrade to version 8.5.0 or 8.6.0, and then upgrade to version 9.0.0.

You do not need to migrate Contact Optimization sessions from Contact Optimization 8.5.0 and later to the new version of Contact Optimization.

Before you upgrade Contact Optimization, collect the following information:

Marketing Platform information

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

Each time that you run the installer in a new location, you must enter the following database connection information for the Marketing Platform system table database.

- Database type.
- Database host name.
- Database port.
- Database name.
- User name and password for the database account.
- JDBC connection URL to the Marketing Platform database. The installer provides the connection URL based on the values you provide, however, confirm the URL is correct.

For example, for SQL Server, the JDBC connection URL takes the following format:

```
jdbc:sqlserver://your_db_host:your_db_port;databaseName=your_db_name
```

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

Campaign information

The installation wizard for Contact Optimization must communicate with your Campaign system table database to create the Contact Optimization tables. You must collect the following information about your installation to allow the installer to set up database tables and properly configure Contact Optimization.

- Whether your Campaign database is configured for Unicode.
- Campaign database type.
If your database type is IBM DB2 and installed on a UNIX system, you must also supply the DB2 instance path.
If your database type is Oracle, you must also supply the Oracle home directory.

- Campaign database host name.
- Campaign database port.
- Campaign database name.
- User name and password for the Campaign database account.
- JDBC connection URL to the Campaign database. The installer provides the connection URL based on the values you provide, however, confirm the URL is correct.

For example, for SQL Server, the JDBC connection URL takes the following format:

```
jdbc:sqlserver://your_db_host:your_db_port;databaseName=your_db_name
```

- The name of the system on which the Campaign web application server is installed.
- The port on which the Campaign application server listens. If you plan to implement SSL, obtain the SSL port.
- The network domain for your deployment system. For example, example.com.
- The path to CAMPAIGN_HOME.

If you are installing Contact Optimization and Campaign on separate systems, you must mount the Campaign directory for your Campaign installation as a network drive on the system that hosts Contact Optimization. The svrstop utility in the bin directory must have execute permissions on the Contact Optimization host. Define CAMPAIGN_HOME with the fully qualified path to your Campaign installation directory.

The new version of Contact Optimization has new configuration properties for tuning the optimization algorithm in the AlgorithmTuning category. The configuration properties are added when you upgrade Campaign. You do not need to modify these properties unless you want to tune your Contact Optimization installation for best performance. For details about tuning your installation, see the *IBM Contact Optimization User's Guide* and the *IBM Contact Optimization Troubleshooting Guide*.

1. Stop the Contact Optimization listener.
2. Run the new IBM EMM installer, selecting Contact Optimization.

Important: Select your previous Contact Optimization installation directory, for example C:\IBM\Optimize.

When prompted, select the **Automatic database setup**.

3. Start the Contact Optimization listener.

In the latest version of Contact Optimization, the AC0Server script provides options to start and stop the Contact Optimization listener. This script is in the bin directory of your Contact Optimization installation.

On Windows: AC0server.bat start

On UNIX: `AC0server.sh start`

4. Perform the following steps for all Contact Optimization sessions that are using session level advanced settings:
 - a. Edit the session level advanced settings of Contact Optimization session.
 - b. Save the session level settings.

Saving the settings ensures that the session level advanced settings of the current optimization session are retained during the upgrade. If you do not save the advanced settings, `ContinueOnGenerationLoopError` might behave as if it is set to `False`, even if `ContinueOnGenerationLoopError` is set to `True`.

Configure Contact Optimization for Chinese, Japanese, or Korean users

If you are going to use Contact Optimization with user names which contain Chinese, Japanese, or Korean characters, you must configure the Contact Optimization server.

1. Open the Contact Optimization server file (`AC0server`) located in the `bin` directory under your Contact Optimization installation directory for editing.
2. Remove the comment to set the environment variable `UNICA_ACSYSENCODING` equal to `UTF-8`.

Windows: Remove `@rem` before the following line in `AC0server.bat`:

```
@rem set UNICA_ACSYSENCODING=UTF-8
```

UNIX: Remove `#` before the following lines in `AC0server.sh`:

```
#UNICA_ACSYSENCODING=UTF-8  
#export UNICA_ACSYSENCODING
```

3. Save and close the file.
4. Restart the Contact Optimization server in a new console window if it is running.

Appendix. Uninstalling IBM products

You might need to uninstall an IBM product if you are doing the following.

- Retiring a system.
- Removing an IBM product from your system.
- Freeing up space on a system.

When you install IBM EMM products, an uninstaller is included in the `Uninstall_Product` directory, where *Product* is the name of your IBM product. On Windows, an entry is also added to the **Add or Remove Programs** list in the Control Panel.

Running the IBM uninstaller ensures that all configuration files, installer registry information, and user data are removed from the system. If you manually remove the files in your installation directory instead of running the uninstaller, the result might be an incomplete installation if you later reinstall an IBM product in the same location. After uninstalling a product, its database is not removed. The uninstaller only removes default files that get created during installation. Any file created or generated after installation is not removed.

Remove Contact Optimization tables

Before you uninstall Contact Optimization, you might want to remove the Contact Optimization tables from your Campaign database.

To remove the Contact Optimization tables, run the `aco_systab_drop.sql` script in the `ddl` directory under your Contact Optimization installation.

To uninstall IBM products

Follow these instructions to properly remove IBM products from your system.

Note: On UNIX, the same user account that installed IBM EMM must run the uninstaller.

1. If your IBM product has a web application deployed, undeploy the IBM EMM product web application from WebSphere or WebLogic.
2. Shut down WebSphere or WebLogic.
3. Stop any running processes that are related to the product you are removing.
For example, stopping the Campaign or Contact Optimization Listener services before uninstalling those products.
4. Check your product installation directory for a `ddl` directory, and if one exists, you can run scripts provided there to drop tables from the system table database.
5. Run the IBM EMM uninstaller and follow the directions in the wizard.

The uninstaller is in the `Uninstall_Product` directory, where *Product* is the name of your IBM EMM product. The `Uninstall_Product` directory is in your product installation directory.

When you uninstall a product that was installed with the unattended mode, the uninstall also runs in unattended mode (without presenting any dialogs for user interaction).

Contacting IBM technical support

If you encounter a problem that you cannot resolve by consulting the documentation, your company's designated support contact can log a call with IBM technical support. Use the information in this section 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.

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, you can obtain the version number of any IBM application by viewing the `version.txt` file that is located under the installation directory for each application.

Contact information for IBM technical support

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

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

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