Unica Collaborate V12.1.0
Installation Guide

Contents

Chapter 1. Installation overview

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

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

Installation roadmap

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

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

Table 1. Collaborate installation roadmap

This two-columned table describes the topics that are included in the Unica Collaborate Installation Guide in one column, and the explanation of the tasks in the second column.

Topic	Description
[Installation overview](#) *(on page 1)*	This topic provides the following information: • [How the installers work](#) *(on page 4)* • [Modes of installation](#) *(on page 4)* • [Collaborate documentation and help](#) *(on page 5)*
[Planning the Collaborate installation](#) *(on page 8)*	This topic provides the following information: • [Prerequisites](#) *(on page 8)*

Topic	Description
	• Unica Collaborate installation database information worksheet *(on page 11)* • Installation order for HCL Unica products *(on page 13)*
Preparing data sources for Unica Collaborate *(on page 15)*	This topic provides the following information: • Creating the Collaborate system table database or schema *(on page 15)* • Configuring the web application server for your JDBC driver *(on page 19)* • Creating the JDBC connections in the web application server *(on page 23)*
Installing Collaborate *(on page 31)*	• Installing Collaborate components *(on page 33)* • Installing Collaborate by using the X Window System mode *(on page 33)* • Installing Unica Collaborate using the console mode *(on page 42)* • Installing Unica Collaborate silently *(on page 43)*
Configuring Unica Collaborate before deployment *(on page 49)*	This topic provides the following information: • Registering Collaborate manually *(on page 49)* • Creating and populating the Collaborate system tables *(on page 50)* • Creating list tables *(on page 51)* • Creating Campaign system tables for Collaborate *(on page 52)*

Topic	Description
Deploying the Collaborate web application *(on page 54)*	This topic provides the following information: • Deploying Collaborate on WAS from a WAR file *(on page 54)* • Deploying Collaborate on WAS from an EAR file *(on page 56)* • Deploying Collaborate on WebLogic *(on page 60)*
Configuring Collaborate after deployment *(on page 65)*	This topic provides the following information: • Creating a system user *(on page 65)* • List display configuration *(on page 70)* • Mapping Collaborate tables in Campaign *(on page 84)* • Mapping Campaign system tables for Collaborate *(on page 84)* • Changing CollaborateIntegrationServicesURL parameter *(on page)* • Verifying Collaborate installation *(on page 85)*
Setting up a web-app clustered environment for Collaborate *(on page 88)*	This topic provides the following information: • Setting up your web-app cluster for Collaborate *(on page 88)*
Uninstalling Collaborate *(on page 93)*	This topic provides the information about how to uninstall Collaborate.
configTool *(on page 96)*	Read more about the Config tool utilities in Collaborate.

How the installers work

You must use the suite installer and the product installer when you install or upgrade any HCL Unica product. For example, for installing Collaborate, you must use the HCL Unica suite installer and the Unica Collaborate installer.

Make sure that you use the following guidelines before you use the HCL Unica suite installer and the product installer:

- The suite installer and the product installer must be in the same directory on the computer where you want to install the product.
- If you are planning to install a patch immediately after you install an HCL Unica product, make sure that the patch installer is in the same directory as that of the suite and product installers.
- The default top-level directory for HCL Unica installations is `/HCL/UNICA` for UNIX or `C:\HCL\UNICA` for Windows. However, you can change the directory during installation.

Modes of installation

The HCL Unica suite installer can run in one of the following modes: GUI mode, X Window System mode, console mode, or silent mode (also called the unattended mode). Select a mode that suits your requirements when you install Collaborate.

For upgrades, you use the installer to perform many of the same tasks that you perform during the initial installation.

GUI Window System mode

Use the GUI mode for Windows to install Collaborate by using the graphical user interface.

UNIX X Window System mode

Use the X Window System mode for UNIX to install Collaborate by using the graphical user interface.

Console mode

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

📝 **Note:** Silent mode is not supported for upgrade installations in clustered web application or clustered listener environments.

Collaborate documentation and help

Collaborate provides documentation and help for users, administrators, and developers.

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

Table 2. Get up and running

This two-columned table describes the Collaborate installation or upgrade tasks in one column, and the corresponding documents in the second column.

Task	Documentation
Find out about new features, known issues, and limitations	Collaborate Release Notes

Task	Documentation
Learn about the structure of the Collaborate system tables	Collaborate System Tables and Data Dictionary
Install or upgrade Collaborate	One of the following guides: • Collaborate Installation Guide • Collaborate Upgrade Guide
Implement the IBM® Cognos® reports provided by Unica Collaborate Implement Unica Insights reports provided by Unica Collaborate	Cognos Reports Installation and Configuration Guide Unica Insights Installation and Configuration Guide

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

Table 3. Configure and use Collaborate

This two-columned table describes the Collaborate administrative and user tasks in one column and the corresponding documents in the second column.

Task	Documentation
• Set up and configure the system for users • Adjust security settings • Map tables, define offer templates and custom attributes • Run utilities and perform maintenance	*Unica Collaborate Administrator's Guide*
• Create and deploy marketing campaigns • Analyze campaign results	Unica Collaborate Corporate Marketer's Guide Unica Collaborate Field Marketer's Guide

Task	Documentation
Use REST APIs	Unica Collaborate REST APIs

The following tables contain information about online help and obtaining PDFs for Collaborate. The **Instructions** column describes how to open online help and access documentation for Collaborate.

Table 4. Getting help

This two-columned table contains information about how to start online help and access PDF documentation for the Collaborate. Second column contains instructions for the tasks.

Task	Instructions
Open online help	1. Choose **Help > Help for this page** to open a context-sensitive help topic. 2. Click the **Show navigation** icon in the help window to display the full help. You must have web access to view context-sensitive online help. Contact HCL Support for more information about accessing and installing Unica Knowledge Center locally for offline documentation.
Obtain PDFs	Use either of the following methods: • Choose **Help > Product documentation** to access Collaborate PDFs. • Choose **Help > All HCL Unica suite documentation** to access all available documentation.
Unica Knowledge Center	To access the Unica Knowledge Center, choose **Help > Support for this product**.

Chapter 2. Planning the Collaborate installation

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

Prerequisites

Before you install or upgrade any HCL Unica product, you must ensure that your computer complies with all of 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 HCL Unica 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

HCL Unica applications within a suite must be deployed on a dedicated Java™ virtual machine (JVM). HCL Unica 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 domain or IBM Websphere profile that is dedicated to the HCL Unica products.

Knowledge requirements

To install HCL Unica 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

  📝 **Note:** Administrator must have `CREATE`, `SELECT`, `INSERT`, `UPDATE`, `DELETE`, and `DROP` rights for both tables and views.
- 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 HCL Unica 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, and execute permissions to run the installer
- Root access for the Linux™ operating system.

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

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

The following additional permissions are necessary for UNIX:

- The user account that installs Collaborate and Platform must be a member of the same group as the Campaign users. This user account must have a valid home directory, and have write permissions for that directory.
- All installer files for Unica 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 HCL Unica product, verify that the variable points to a supported version of JRE. For information about system requirements, see the HCL Unica Recommended Software Environments and Minimum System Requirements guide.

If the JAVA_HOME environment variable points to an incorrect JRE, you must clear the JAVA_HOME variable before you run the HCL Unica 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**.

You can clear the JAVA_HOME environment variable by running the following command in the terminal:

export JAVA_HOME= (leave empty)

The HCL Unica installer installs a JRE in the top-level directory for the HCL Unica installation. Individual HCL Unica application installers do not install a JRE. Instead, they point to the location of the JRE that is installed by the HCL Unica installer. You can reset the environment variable after all installations are complete.

For more information about the supported JRE, see the Recommended Software Environments and Minimum System Requirements guide.

Platform requirement

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

Campaign requirement

You must install or upgrade and configure Campaign before you install or upgrade Collaborate.

Note: To install Collaborate with MariaDB as a system database, Collaborate base installation (12.1.0) is not required. You will have to install Collaborate 12.1.0.4 directly, where support for MariaDB as a system database has been introduced. For more details, see the Minimum Software Requirements and Environment Guide.

Unica Collaborate installation database information worksheet

Use the Collaborate installation database worksheet to gather information about the Collaborate database and about other HCL Unica products that are required for the installation of Collaborate.

Use the Unica Collaborate installation database information worksheet to gather information about the database that contains your Collaborate system tables.

Table 5. Collaborate database information worksheet

Following table contains Field and Notes columns.

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

Checklist for Platform

The installation wizards for each HCL Unica product must be able to communicate with the 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 Platform system table database:

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

Information about web component

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

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

Installation order for HCL Unica products

When you install or upgrade multiple HCL Unica products, you must install them in a specific order.

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

Table 6. Installation or upgrade order for HCL Unica products

Installation or upgrade order for HCL Unica products

For this product or combination:	Install or upgrade in this order:
Campaign (with or without Deliver)	1. Platform 2. Campaign 📝 **Note:** Deliver is installed automatically when you install Campaign. However, Deliver is not configured or enabled during the Campaign installation process.
Interact	1. Platform 2. Campaign 3. Interact Design Time environment 4. Interact Run Time environment 5. Interact Extreme Scale Server If you want to install or upgrade the Interact design time environment only, then install or upgrade the Interact design time environment in the following order: 1. Platform 2. Campaign 3. Interact Design Time environment

For this product or combination:	Install or upgrade in this order:
	If you want to install or upgrade the Interact runtime environment only, then install or upgrade the Interact runtime environment in the following order: 1. Platform 2. Interact Run Time environment If you want to install the Interact Extreme Scale Server only, then install the Interact Extreme Scale Server in the following order: 1. Platform 2. Interact Run Time environment 3. Interact Extreme Scale Server
Plan	1. Platform 2. Plan 📝 **Note:** If you are integrating Plan with Campaign, you must also install Campaign. The order of installation for those two products does not matter.
Collaborate	1. Platform 2. Campaign 3. Collaborate
Interact Advanced Patterns	1. Platform 2. Campaign 3. Interact 4. Interact Advanced Patterns

Chapter 3. Preparing data sources for Unica Collaborate

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

Creating the Collaborate system table database or schema

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

Complete the following tasks to create the Collaborate system tables or schema:

1. Work with a database administrator to create the required database or schema for Collaborate.

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

   Table 7. Guidelines for creating databases or schemas

This two-columned table provides information about the database vendor in one column, and the guidelines that must be followed while you create the database or schema in the second column.

Database vendor	Guidelines
Oracle	Enable the auto commit feature for the environment open. See the Oracle documentation for instructions.
DB2	Set the database page size to at least 16K, or 32K if you need to support Unicode. See the DB2 documentation for instructions.
SQL Server	Use either the SQL Server authentication, or both the SQL Server and Windows authentication, because Platform requires SQL Server authentication. If necessary, change the database configuration so that your database authentication includes SQL Server. Also, be sure that TCP/IP is enabled in your SQL Server.
MariaDB	To support Unicode, set the appropriate database collation while creating databases or schemas.

📒 **Note:** If you plan to enable locales that use multi-byte characters, such as Chinese, Korean, and Japanese, ensure that the database is created to support them.

📒 **Note:** When you create your databases, you should use the same code page for all of your databases. You cannot change this code page once it is set. If you did not create your databases to use the same code page, you must use only the characters supported in the code page. For example, if you create a zone in global offers that does not use a character in the profile database code page, the global offer does not work.

📒 **Note:** Database names in Unica Collaborate must follow the naming convention for ordinary identifiers (also known as "non-quoted identifiers or regular identifiers) for the brand of SQL used (DB2, Oracle, SQL Server, MariaDB and so on). Refer to your database provider documentation for specific details. Typically, alphabetic letters,

numbers, and underscores are allowed by all flavors of SQL. Hyphens and other characters not permitted in ordinary identifiers will likely cause SQL exceptions.

- http://docs.oracle.com/cd/E11882_01/server.112/e41084/ sql_elements008.htm#SQLRF51129
- https://msdn.microsoft.com/en-us/library/ms175874.aspx

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

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

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

3. Obtain the information about your database or schema and the database account and then print and complete the Unica Collaborate installation database information worksheet *(on page 11)*.

Required databases or schemas for Collaborate

The Unica Interact runtimeOpportunity Detect Design Time environment requires several databases to hold user and interaction data. You can use your Unica Campaign Customer (user) tables or set up a unique data source.

The Collaborate design time environment tables are manually created by running the scripts to the database or schema that holds the Unica Campaign system tables.

According to the type of data that must be stored, determine how many databases or schemas you must create for use with the Collaborate runtime environment.

In Interact setup, Interact design time tables database or schema is shared across all the server groups defined within that setup.

The following list provides a brief summary of the databases or schemas that are required for the Collaborate runtime environment:

- Database or schema to hold the Collaborate runtime tables. There must be a separate database or schema for each server group.
- Database, schema, or view to hold the user profile tables. The user profile tables can be in the same database as your Unica Campaign Customer (user) tables. There can be a separate set of user profile tables for each interactive channel.
- Database, schema, or view to hold the test run tables. The test run tables can be in the same database as your Unica Campaign Customer (user) tables.
- If you want to use built-in learning, there must be a database or schema to hold the learning tables.
- If you want to use cross-session response tracking, there must be a database or schema to hold a copy of the Unica Campaign contact history tables. Alternatively, instead of creating a copy, you can use the Unica Campaign system tables database to run the cross-session response tracking scripts.

Creating ODBC or native connections

Create ODBC or native connections so that the Unica Campaign server can access the database that contains the Unica Collaborate test run tables of the design time environment. Create ODBC or native connections on the computer where you installed the Unica Campaign server.

If you use the Unica Campaign customer (user) tables as your test run tables, then the ODBC connection is already created when Unica Campaign was installed.

If the Unica Collaborate design time environment test run tables are not the same as your customer (user) tables, use the following guidelines to create the ODBC or native connection to the database that holds them:

- For databases on UNIX: Create a new native data source in an `ODBC.ini` file. The procedure for creating a native data source differs depending on the data source type and the version of UNIX. See the data source and operating system documentation for specific ODBC driver installation and configuration instructions.

- For databases on Windows: Browse to **Control Panel** and click **Administrative Tools > Data Sources (ODBC)** to create an ODBC data source.

Record the connection names in the Installation worksheet (on page   ).

Configuring the web application server for your JDBC driver

The web application server where you plan to deploy Collaborate must contain the correct JAR file to support JDBC connections. This enables your web application to connect to the system tables. The location of the JAR file must be included in the class path of the web application server.

WebSphere

If you are using WebSphere and if you allow the installer to create the data source when you install the product, then you can skip the step in the following procedure about setting the classpath. Otherwise, if you want to allow the installer to create the data source, then perform the following step.

To enable automatic data source creation during installation, on the **Datasource Creation** panel, select the **Create Datasource** checkbox and provide information about your application server WebSphere profile.

WebLogic

If you are using WebLogic, perform the complete steps.

1. Obtain the latest vendor-provided Type 4 JDBC driver for your system table database that is supported by HCL Unica, as described in the *Recommended Software Environments and Minimum System Requirements* guide.
   Use the following guidelines after you obtain the JDBC driver.

- If the driver does not exist on the server where you plan to deploy Unica Collaborate, obtain it and unpack it on the server. Unpack the drivers in a path that does not include spaces.
- If you obtain the driver from a server where the data source client is installed, verify that the version is the latest supported by Unica Collaborate.

2. Add the full path to the driver, including the file name, to the class path of the web application server where you plan to deploy Unica Collaborate.
   Use the following guidelines.
   - For all supported versions of WebLogic, set the class path in the setDomainEnv script in the *WebLogic_domain_directory*/bin directory where environment variables are configured. Your driver entry must be the first entry in the class path list of values, before any existing values, to ensure that the web application server uses the correct driver. For example:

     UNIX

     ```
     CLASSPATH="/opt/drivers/ojdbc8.jar":
     ${PRE_CLASSPATH}${CLASSPATHSEP}${WEBLOGIC_CLASSPATH}
     ${CLASSPATHSEP}${POST_CLASSPATH}${CLASSPATHSEP}${WLP_POST_CLASSPATH}"
     export CLASSPATH
     ```

     product="Campaign DAOP DistMkt Deliver Interact Leads Plan Optimize Platform AttribMod IntHist"> **Windows**

     ```
     set CLASSPATH=c:\oracle\jdbc\lib\ojdbc8.jar;%PRE_CLASSPATH%;
     %WEBLOGIC_CLASSPATH%;%POST_CLASSPATH%;%WLP_POST_CLASSPATH%
     ```
   - For all supported versions of WebSphere®, set the class path when you set up the JDBC providers for Unica Collaborate.

3. Make a note of the database driver class path in the Unica Collaborate installation worksheet, as you must enter the path when you run the installer.

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

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

JBoss

If you are using JBoss, you must perform this entire procedure.

1. Obtain the latest vendor-provided Type 4 JDBC driver for your system table database that is supported by HCL Unica, as described in the *Recommended Software Environments and Minimum System Requirements* guide.
   Use the following guidelines after you obtain the JDBC driver.
   - If the driver does not exist on the server where you plan to deploy Unica Collaborate, obtain it and unpack it on the server. Unpack the drivers in a path that does not include spaces.
   - If you obtain the driver from a server where the data source client is installed, verify that the version is the latest supported by Unica Collaborate.

2. Add the full path to the driver, including the file name, to the class path of the web application server where you plan to deploy Unica Collaborate.
   Use the following guidelines.
   - For all supported versions of JBoss, add the JDBC driver as module. Use the following procedure to add the JDBC driver as a module.

     For example, for SQL Server:

     ```
     module add --name=com.microsoft.sqlserver.jdbc --
     resources=<JDBC_Driver_Location>\sqljdbc4.jar --
     dependencies=javax.api,javax.transaction.api
     ```
   - Register this SQL JDBC Driver using the following guidelines: For example:
     - /subsystem=datasources/jdbc-driver=sql:add(driver-
       module-name=com.microsoft.sqlserver.jdbc,driver-
       name=sql,driver-xa-datasource-class-
       name=com.microsoft.sqlserver.jdbc.SQLServerXADataSource)

◦ `/subsystem=datasources/jdbc-driver=sql:read-resource`

◦ `/subsystem=ee/service=default-bindings:write-`
  `attribute(name=datasource, value=undefined)`

3. Make a note of the database driver class path in the Unica Collaborate installation worksheet, as you must enter the path when you run the installer.

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

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

Apache Tomcat

If you are using Apache Tomcat, you must perform this entire procedure.

1. Obtain the latest vendor-provided Type 4 JDBC driver for your system table database that is supported by HCL Unica, as described in the *Recommended Software Environments and Minimum System Requirements* guide.
   Use the following guidelines after you obtain the JDBC driver.
   • If the driver does not exist on the server where you plan to deploy Collaborate, obtain it and unpack it on the server. Unpack the drivers in a path that does not include spaces.
   • If you obtain the driver from a server where the data source client is installed, verify that the version is the latest supported by Unica Collaborate.

2. Add the full path to the driver, including the file name, to the class path of the (<Tomcat_Installed Location>/lib) web application server where you plan to deploy Collaborate.

3. Make a note of the database driver class path in the Unica Collaborate installation worksheet, as you must enter the path when you run the installer.

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

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

Creating the JDBC connections in the web application server

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

You must create the following JDBC connections to the following databases in the web application server where Collaborate is deployed:

If you are creating the data source in WebSphere, set the classpath for your database driver during this process.

1. Create a connection to the database that contains the Collaborate system tables.

   You can allow the installer to create this data source when you install Collaborate. To enable automatic data source creation during installation, on the Datasource Creation panel, select the **Create Collaborate Datasource** check box and supply information about your application server.

   - The installer creates the data source using `collaborateds` as the JNDI name.
   - Note that, if you are using WebLogic, you must add the JDBC driver to your classpath manually even if you allow the installer to create the data source. The installer does this automatically for WebSphere.

   If you create this connection manually, use `collaborateds` as the JNDI name for the JDBC connection to the database that holds the Collaborate system tables. This is the default value of a configuration property that refers to this name. If you do not use the default value, you must set the value later in the configuration process.

2. Create a connection to the database that contains the Platform system tables.

   If is Platform already installed, and if you deploy Collaborate. in the same JVM as Platform, this connection should already exist.

If you create this connection, use `UnicaPlatformDS` as the JNDI name for the JDBC connection to the database that holds the Platform system tables. This is the required name.

3. Create a connection to the customer database that contains your list tables.

   If you plan to deploy Collaborate on a clustered environment, you must create JNDIs in the WebSphere Application Server. You can use any name for the connection to the customer database.

4. Record the JNDI names in the .

Information for creating JDBC connections

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

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

WebLogic

Use the following values if your application server is WebLogic:

SQLServer

- Database Driver: Microsoft MS SQL Server Driver (Type 4) Versions: 2012, 2012 SP1 and SP3, 2014, 2014 SP1, 2016 SP1
- Default port: 1433
- Driver class: `com.microsoft.sqlserver.jdbc.SQLServerDriver`
- Driver URL: `jdbc:sqlserver://<your_db_host>[\`
  `\<named_instance>]:<your_db_port>;databaseName=<your_db_name>`
- Properties: Add `user=<your_db_user_name>`

Oracle

- Driver: Other
- Default port: 1521
- Driver class: `oracle.jdbc.OracleDriver`
- Driver URL:

  `jdbc:oracle:thin:@<your_db_host>:<your_db_port>:<your_db_service_name>`

  Enter the driver URL by using the format that is shown. HCL Unica applications do not allow the use of Oracle's RAC (Real Application Cluster) format for JDBC connections.
- Properties: Add `user=<your_db_user_name>`

DB2

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

MariaDB

- Database type: MYSQL
- Driver: mariadb-java-client-2.5.1.jar
- Default port: 3306
- Driver class: `org.mariadb.jdbc.Driver`
- Driver URL: `jdbc:mariadb://<your_db_host>:<PORT>/<Your_DB_user_name>`
- Properties: Add `user=<your_db_user_name>`
- Password=<your_db_user_password>

WebSphere

Use the following values if your application server is WebSphere:

SQLServer

- Driver: N/A

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

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

After you create the JDBC Provider and data source, go to the **Custom Properties** for the data source, and add, modify properties as follows.

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

Add the following custom property:

Name: `webSphereDefaultIsolationLevel`

Value: `1`

Datatype: `Integer`

Oracle

- Driver: Oracle JDBC Driver
- Default port: 1521
- Driver class: `oracle.jdbc.OracleDriver`
- Driver URL:

  `jdbc:oracle:thin:@<your_db_host>:<your_db_port>:<your_db_service_name>`

  Enter the driver URL by using the format that is shown. HCL Unica applications do not allow the use of Oracle's RAC (Real Application Cluster) format for JDBC connections.

DB2

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

Add the following custom property:

Name: `webSphereDefaultIsolationLevel`

Value: `2`

Datatype: `Integer`

MariaDB

- Database Driver: MariaDB JDBC Driver
- Default Port: 3306
- Driver Class: `org.mariadb.jdbc.MySQLDataSource`
- Driver URL: `org.mariadb://<your_db_host> [\`

  `\<named_instance>]:<your_db_port>;databaseName=<your_db_name>, valid-`

  `connection-checker class`

  `name="org.jboss.jca.adapters.jdbc.extensions.mysql.MySQLValidConnectionChecker"`

  For example: `/subsystem=datasources/data-source=UnicaPlatformDS:add(jndi-`

  `name="java:/UnicaPlatformDS",connection-url="jdbc:mariadb://`

  `localhost:3306/plat11",driver-name=MariaDBDriver,user-`

  `name=root,password=test123,valid-connection-checker-class-`

  `name="org.jboss.jca.adapters.jdbc.extensions.mysql.MySQLValidConnectionChecker")`

JBoss

Specify the native library path of the database driver JAR file on your server. For example:
db2jcc4.jar/ojdbc8.jar/sqljdbc4.jar/mariadb-java-client.jar/ifxjdbc.jar.

Use the following values if your application server is JBoss:

SQLServer

- Database Driver: Microsoft MS SQL Server Driver (Type 4) Versions: 2012, 2012 SP1
  and SP3, 2014, 2014 SP1, 2016 SP1
- Default port: 1433
- Driver class: `com.microsoft.sqlserver.jdbc.SQLServerDriver`

- Driver URL: `jdbc:sqlserver://<your_db_host>[\`

  `\<named_instance>]:<your_db_port>;databaseName=<your_db_name>,valid-`

  `connection-checker-class-name`

  `=org.jboss.jca.adapters.jdbc.extensions.mssql.MSSQLValidConnectionChecker`

For example :`/subsystem=datasources/data-source=UnicaPlatformDS:add(jndi-`

`name="java:/UnicaPlatformDS",connection-url="jdbc:sqlserver://`

`localhost:1433;databaseName=plat11",driver-name=sql,user-`

`name=sa,password=test1234,valid-connection-checker-class-`

`name="org.jboss.jca.adapters.jdbc.extensions.mssql.MSSQLValidConnectionChecker")`

Oracle

- Driver: Oracle JDBC Driver
- Default port: 1521
- Driver class: `oracle.jdbc.OracleDriver`
- Driver URL:

  `jdbc:oracle:thin:@<your_db_host>:<your_db_port>:<your_db_service_name>`

For example

DB2

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

MariaDB

- Database Driver: MariaDB JDBC Driver
- Default Port: 3306
- Driver Class: `org.mariadb.jdbc.MySQLDataSource`

- Driver URL: `Org.mariadb://<your_db_host> [\`

  `\<named_instance>]:<your_db_port>;databaseName=<your_db_name>, valid-`

  `connection-checker class`

  `name="org.jboss.jca.adapters.jdbc.extensions.mysql.MySQLValidConnectionChecker"`

  For example: /subsystem=datasources/data-source=UnicaPlatformDS:add(jndi-
  name="java:/UnicaPlatformDS",connection-url="jdbc:mariadb://
  localhost:3306/plat11",driver-name=MariaDBDriver,user-
  name=root,password=test123,valid-connection-checker-class-
  name="org.jboss.jca.adapters.jdbc.extensions.mysql.MySQLValidConnectionChecker")

Tomcat

Specify the native library path of the database driver JAR file on your server. For example:
db2jcc4.jar/ojdbc8.jar/sqljdbc4.jar. to create a datasource under Tomcat Interact Instance,
add folder hierarchy as `<Tomcat_Home>/conf/ Catalina/localhost`, create a xml
file with the name interact.xml under localhost folder. Add data source pointing to Runtime,
Test, Production and learning database in interact.xml, refer platform or Campaign xml file
which is created through installers under there respective Tomcat instance directory. You
will need to create these Data source entry in Campaign Tomcat instance too.

Note: If you want to encrypt password, then run utility encryptTomcatDBPasswords.sh
from `<PLATFORM_HOME>/tools/bin`. To know more about utility, see the Unica Platform
Administrator Guide > Unica Platform utilities and SQL scripts > Platform Utilities >
encryptTomcatDBPassword.

Use the following values if your application server is Tomcat:

SQLServer

- Database Driver: Microsoft MS SQL Server Driver (Type 4) Versions: 2012, 2012 SP1
  and SP3, 2014, 2014 SP1, 2016 SP1
- Default port: 1433
- Driver class: `com.microsoft.sqlserver.jdbc.SQLServerDriver`

- **Driver type:** `javax.sql.DataSource`
- **Driver URL:** `jdbc:sqlserver://<your_db_host>[\`

  `\<named_instance>]:<your_db_port>;databaseName=<your_db_name>`

Oracle

- Driver: Oracle JDBC Driver
- Default port: 1521
- **Driver class:** `oracle.jdbc.OracleDriver`
- Driver URL:

  `jdbc:oracle:thin:@<your_db_host>:<your_db_port>:<your_db_service_name>`

DB2

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

MariaDB

- Database Driver: MariaDB JDBC Driver
- Default Port: 3306
- **Driver Class:** `org.mariadb.jdbc.MySQLDataSource`
- **Driver URL:** `org.mariadb://<your_db_host> [\`

  `\<named_instance>]:<your_db_port>;databaseName=<your_db_name>, valid-`

  `connection-checker class`

  `name="org.jboss.jca.adapters.jdbc.extensions.mysql.MySQLValidConnectionChecker"`

  For example: `/subsystem=datasources/data-source=UnicaPlatformDS:add(jndi-`

  `name="java:/UnicaPlatformDS",connection-url="jdbc:mariadb://`

  `localhost:3306/plat11",driver-name=MariaDBDriver,user-`

  `name=root,password=test123,valid-connection-checker-class-`

  `name="org.jboss.jca.adapters.jdbc.extensions.mysql.MySQLValidConnectionChecker")`

Chapter 4. Installing Collaborate

You must run the HCL Unica installer to start the installation of Collaborate. The HCL Unica installer starts the Collaborate installer during the installation process. Make sure that the HCL Unica installer and the product installer are saved at the same location.

📝 **Note:** Collaborate 12.1.0.0 installation is supported by HCL_Unica_Installer_12.1.0.3. Previous versions of HCL Unica Installers will not detect Collaborate binaries for installation.

Each time that you run the HCL Unica suite installer, you must first enter database connection information for the Platform system tables. When the Collaborate installer starts, you must enter the required information for Collaborate.

📝 **Note:** The HCL Unica installer requires information about Platform.

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

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

Collaborate installation on MariaDB

If you want to install Collaborate on MariaDB, then you can directly install Collaborate 12.1.0.4 without installing Collaborate 12.1.0. Installation of Collaborate 12.1.0.4 on MariaDB will act as a clean installation for Collaborate, creating a clean system database. There are two options for Collaborate database during the installation.

- Automatic Database setup: This will create clean system database as part of installation.
- Manual Database setup: Installation will complete without creating any database and user has to create database using udmdbsetup utility after the installation is complete.

Installation files

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

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

Table 8. Installation files

This two-columned table provides the name of the operating systems in one column, and the name of the installation files for the operating system in the second column.

Operating system	Installation file
Windows: GUI and console mode	*Product_N.N.N.N_win64.exe*, where Product is the name of your product, N.N.N.N is the version number of your product, and Windows 64-bit is the operating system on which the file must be installed.
UNIX: X Window System mode	*Product_N.N.N.N_linux.bin*, where Product is the name of your product, and N.N.N.N is the version number of your product.

Table 9. Installation files

This two-columned table provides the name of the operating systems in one column, and the name of the installation files for the operating system in the second column.

Operating system	Installation file
UNIX: X Window System and Console mode	*Product_N.N.N.N_aix.bin*, where *Product* is the name of your product, *N.N.N.N* is the version number of your product.

Installing Collaborate components

For best performance, install Collaborate on its own machine where no other HCL Unica products are installed.

The following table describes the components that you can select when you install Collaborate:

Table 10. Unica Collaborate installation components

Following two-columned table contains installation component name in one column and description in second column.

Component	Description
J2EE Application	The J2EE application, which runs Lists, On-demand Campaigns, and Corporate Campaigns. For best performance, HCL recommends that you install this application on a dedicated system.
Developer toolkits	The Collaborate developer toolkits, which provide the Collaborate APIs.
Insights Reports	Collaborate supports multiple Insights reports.

Installing Collaborate by using the X Window System mode

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

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

Make sure that the HCL Unica installer and the Collaborate installers are in the same directory on the computer where you want to install Collaborate. You must also ensure that you have configured the application server profile and the database schema.

Before you install Collaborate, ensure that you have configured the following.

- An application server profile
- A database schema

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

1. Go to the folder where you have saved the HCL Unica installer and double-click the installer to start it.

2. Click **OK** on the first screen to see the **Introduction** window.

3. Follow the instructions on the installer, and click **Next**.
   Use the information in the following table to take the appropriate actions on each window in the HCL Unica installer.

Table 11. HCL Unica installer GUI

This two-columned table provides information about the windows in the HCL Unica installer in the first column, and information about the windows in the second column.

Window	Description
Introduction	This is the first window of the HCL Unica suite installer. You can open the Collaborate installation and upgrade guides from this window. Click **Next** to go to the next window.
Response Files Destination	Click the **Generate Response File** check box if you want to generate response files for your product. Response files store the information that is necessary for the installation of your product. You can use response files for an unattended installation of your product.

Window	Description
	Click **Choose** to browse to a location where you want to store the response files.
	Click **Next** to go to the next window.
HCL Unica **Products**	In the **Install Set** list, select **Custom** to select the products that you want to install.
	In the **Install Set** area, you can see all the products whose installation files are in the same directory on your computer.
	In the **Description** field, you can view the description of the product that you select in the **Install Set** area.
	Click **Next** to go to the next window.
Installation Directory	Click **Choose** to browse to the directory where you want to install HCL Unica.
	Click **Next** to go to the next window.
Select Application Server	Select one of the following application servers for the installation: • IBM WebSphere • Oracle WebLogic • Tomcat • JBOSS Click **Next** to go to the next window.
Platform Database Type	Select the appropriate Platform database type.
	Click **Next** to go to the next window.
Platform Database Connection	Enter the following information about your database: • Database host name • Database port • Database name or System ID (SID)

Window	Description
	• Database user name
	• Database password
	Click **Next** to go to the next window.
	⚠ **Important:** If HCL Unica products are installed in a distributed environment, you must use the machine name rather than an IP address in the navigation URL for all of the applications in the suite. Also, if you are on a clustered environment and choose to use ports that are different from the default ports `80` or `443` for your deployment, do not use a port number in the value of this property.
Platform Database Connection (continued)	Review and confirm the JDBC connection. Click **Next** to go to the next window.
Preinstallation Summary	Review and confirm the values that you added during the installation process. Click **Install** to start the installation process. The Platform installer opens. If a previous instance of Platform exists, the instance is upgraded to the current version. If a previous instance of Platform does not exist, Platform is installed.

4. Follow the instructions on the Platform installer to install or upgrade Platform. See the *Platform Installation Guide* for more information.

5. In the **Installation Complete** window, click **Done**.
   The Platform installation is complete, and the Collaborate installer opens.

6. Use the information in the following table to navigate the Collaborate installer. In the **Platform Database Connection** window, enter all the required information and click **Next** to start the Collaborate installer.

Table 12. Unica Collaborate installer GUI

This two-columned table provides information about the windows in the Collaborate installer in the first column, and information about the windows in the second column.

Window	Description
Introduction	This is the first window of the Collaborate installer. You can open the Collaborate installation and upgrade guides from this window. Click **Next** to go to the next window.
Software License Agreement	Carefully read the agreement. Use **Print** to print the agreement. Click **Next** after you accept the agreement.
Installation Directory	Click **Choose** to browse to the directory where you want to install Collaborate. Click **Next** to go to the next window.
Unica Collaborate Components	Select the components that you want to install. Click **Next** to go to the next window.

Unica Collaborate Database Setup	Select one of the following options for setting up the Collaborate database:
	  • Automatic database setup
	  • Manual database setup
	Click **Next** to go to the next window.

Unica Collaborate Database type	Select the appropriate database type. Click **Next** to go to the next window.

Unica Collaborate Database connection	Enter the following details for the Collaborate database:
	  • Database host name
	  • Database port
	  • Database system ID (SID)
	  • Database user name

Window	Description
	• Password ⚠ **Important:** If HCL Unica products are installed in a distributed environment, you must use the machine name rather than an IP address in the navigation URL for all of the applications in the suite. Also, if you are on a clustered environment and choose to use ports that are different from the default ports `80` or `443` for your deployment, do not use a port number in the value of this property. Click **Next** to go to the next window.
Unica Collaborate JDBC connection	Review and confirm the JDBC connection. The installer prompts to enter the JDBC Driver Classpath. Click **Next** to go to the next window.

Unica Collaborate Connection Settings	Select one of the following connections types:
	    • HTTP
	    • HTTPS
	Enter the following connection settings:
	    • Network domain name
	    • Host name
	    • Port number
	
	Select the **Use secure connection** check box if necessary.
	
	Click **Next** to go to the next window.

Datasource creation	The installer can create the JDBC data source in your web application server (WebSphere or WebLogic). This data source is required to enable theCollaborate web application to connect to the Collaborate system tables. You have the option to skip this step in the installer and create the

Window	Description
	data source in the administration console of your web application server after installation is complete.
	If you select the **Create Collaborate Datasource** check box, the installer creates the data source using information you provide..
	• Your application server must be running.
	• Enter any name for the datasource.
	The installer creates the JNDI name automatically (collaborateDS).
	• Enter the directory in which the application server is installed.
	For WebSphere, this is the directory that contains the `profiles` directory. You must restart WebSphere after the installer finishes and before you use this data source.
	For WebLogic, this is the directory that contains the `common` directory.
	Click **Next** to go to the next window.
Application server information (WebSphere)	Applies only if your application server is WebSphere.
	• Enter the application server profile where you plan to deploy Collaborate.
	• Enter the name of the server in the profile.
	• If security is enabled in WebSphere, enter the administrator user ID and password.
	Click **Next** to go to the next window.
Application server information (WebLogic)	Applies only if your application server is WebLogic.

Window	Description
	Enter the domain server name and the administrator user ID and password. If SSL is enabled, enter the HTTP port for the domain.
	Note that you must add the database driver classpath to WebLogic in the WebLogic administration console.
	Click **Next** to go to the next window.
Default Locale	Select a default locale for your installation. English is selected by default.
	Click **Next** to go to the next window.
Pre-Installation Summary	Review and confirm the values that you added during the installation process.
	Click **Install** to start the installation process.
	The Collaborate installer opens.
Installation Complete	Click **Done** to close the Platform installer and go back to the HCL Unica installer.

7. In the **Installation Complete** window, click **Done** to exit the Collaborate installer and go back to the HCL Unica installer.

8. Follow the instructions on the HCL Unica installer to finish installing Collaborate. Use the information in the following table to take the appropriate actions on each window in the HCL Unica installer.

Table 13. HCL Unica installer GUI

This two-columned table provides information about the windows in the HCL Unica installer in the first column, and information about the windows in the second column.

Window	Description
Deployment EAR file	Specify whether you want to create an enterprise archive (EAR) file to deploy your HCL Unica products. Click **Next** to go to the next window.
Package EAR file	You can see this window if you select **Create an EAR file for deployment** in the **Deployment EAR file** window. Select the applications that you want to package in the EAR file.
EAR file details	Enter the following information for your EAR file: • Enterprise application identifier • Display name • Description • EAR file path
EAR file details (continued)	Select **Yes** or **No** to create an additional EAR file. If you select **Yes**, you must enter the details for the new EAR file. Click **Next** to complete the installation of your product.
Deployment EAR file	Specify whether you want to create another EAR file to deploy your HCL Unica products. Click **Next** to go to the next window.
Installation Complete	This window provides the locations of the log files that are created during installation. Click **Previous** if you want to change any installation details. Click **Done** to close the HCL Unica installer.

Installing Unica Collaborate using the console mode

The console mode allows you to install Unica Collaborate using the command-line window. You can select various options in the command-line window to complete tasks such as selecting the products to install, or selecting the home directory for the installation.

⚠ **Important:** Before you use the console mode to install Collaborate, make sure that the available temporary space on the computer where you install Collaborate is more than three times the size of the Collaborate installer. Make sure that the HCL Unica installer and the Collaborate installers are in the same directory on the computer where you want to install Collaborate.

Before you install Collaborate, ensure that you have configured the following.

- An application server profile
- A database schema

To display the installer screens correctly in console mode, configure your terminal software to support UTF-8 character encoding. Other character encodings, such as ANSI, do not render the text correctly, and some information is not readable with these encodings.

1. Open a command-line prompt window and navigate to the directory where you have saved the HCL Unica installer and Collaborate installers.

2. Complete one of the following actions to run the HCL Unica installer.
   - For Windows, enter the following command:

     hcl_unica_installer_full_name -i console

     For example, HCL_Unica_12.1.0.3_win.exe -i console
   - For UNIX, invoke the *hcl_unica_installer_full_name.sh* file.

     For example: HCL_Unica_Installer_12.1.0.3.sh

3. Run the HCL Unica installer file.

   For example: HCL_Unica_Installer_12.1.0.3.sh

4. Follow the directions that are displayed in the command-line prompt. Use the following guidelines when you have to select an option in the command-line prompt:

- The default options are defined by the symbol [X].
- To select or clear an option, type the number that is defined for the option, and then press Enter.

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

1 [X] Platform

2 [X] Campaign

4 [ ] Collaborate

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

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

1 [X] Platform

2 [ ] Campaign

4 [X] Collaborate

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

5. The HCL Unica installer launches the Collaborate installers.

6. After you enter `quit` in the Collaborate installers command-line prompt window, the window shuts down. Follow the instructions in the command-line prompt window of the HCL Unica installer to complete the installation of Collaborate.

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

Installing Unica Collaborate silently

Use the unattended or silent mode to install Collaborate multiple times.

⚠️ **Important:** Before you start silent mode to install Collaborate, make sure that the available temporary space on the computer where you install Collaborate is more than three times the size of the Collaborate installer. Make sure that the HCL Unica installer and the Collaborate installers are in the same directory on the computer where you want to install Collaborate.

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

  • An application server profile
  • A database schema

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

  • Using the sample response files as a template for creating your response files. The sample response files are included with your product installers in the `ResponseFiles` compressed archive. For more information about sample response files, see [Sample response files *(on page 45)*](#).
  • Running the product installers in the GUI (Windows) or X Window System (UNIX) mode or the console mode before you install the product in the silent mode. One response file is created for the HCL Unica suite installer, and one or more response files are created for your product installer. The files are created in the directory that you specify.

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

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

  • In the directory where the HCL Unica installer is saved

- In the home directory of the user who installs the product

Make sure that all response files are in the same directory. You can change the path where response files are read by adding arguments to the command line. For example: -DUNICA_REPLAY_READ_DIR="myDirPath" -f myDirPath/installer.properties

Use the following command for Windows:

- *`hcl_unica_installer_full_name`* -i silent

  For example:

  HCL_UNICA_12.1.0.0_win.exe -i silent

Use the following command for Linux:

- *`hcl_unica_installer_full_name _operating_system`* .bin -i silent

  For example:

  HCL_UNICA_12.1.0.0_linux.bin -i silent

Sample response files

You must create response files to set up a silent installation of Collaborate. 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 14. Description of sample response files

Sample response file	Description
`installer.properties`	The sample response file for the HCL Unica master installer.
`installer_product initials and`	The sample response file for the Collaborate installer.

Sample response file	Description
product version number`.properties`	For example, `installer_ucn.n.n.n.properties` is the response file of the Campaign installer, where n.n.n.n is the version number. For example, `installer_umpn.n.n.n.properties` is the response file of the Unica Platform installer, where n.n.n.n is the version number. For example, `installer_uln.n.n.n.properties` is the response file of the Leads installer, where n.n.n.n is the version number.
`installer_`*report pack initials, product initials, and version number*`.properties`	The sample response file for the reports pack installer. For example, `installer_urpcn.n.n.n.properties` is the response file of the Campaign reports pack installer, where n.n.n.n is the version number For example, `installer_urpl.properties` is the response file of the Leads reports pack installer.

Table 15. Description of sample response files

Sample response file	Description
`installer.properties`	The sample response file for the HCL Unica master installer.
`installer_`*product intials and product version number*`.properties`	The sample response file for the Collaborate installer. For example, `installer_ucn.n.n.n.properties` is the response file of the Campaign installer, where n.n.n.n is the version number. For example, `installer_umpn.n.n.n.properties` is the response file of the Unica Platform installer, where n.n.n.n is the version number.

Sample response file	Description
	For example, `installer_uln.n.n.n.properties` is the response file of the Leads installer, where n.n.n.n is the version number.

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

Creating an EAR file after running the installer

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

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

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

1. If this is the first time you are running the installer in console mode, make a backup copy of the installer's `.properties` file for each of your installed products.
   - Each Unica product installer creates one or more response files with a `.properties` extension. These files are in the same directory where you placed the installers. Be sure to back up all files with the `.properties` extension, including the `installer_<product initials><product version number>.properties` files and the file for the Unica installer itself, which is named `installer.properties`.

     For example, the properties files for Platform `installer_ump12.1.0.0.properties` and the properties file for Optimize `installer_uo12.2.0.0.properties`.

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

2. Open a command window and change directories to the directory that contains the installer.

3. Run the installer executable with this option:

   `-DUNICA_GOTO_CREATEEARFILE=TRUE`

   On UNIX type systems, run the `.bin` file rather than the `.sh` file.

   The installer wizard runs.

4. Follow the instructions in the wizard.

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

Chapter 5. Configuring Unica Collaborate before deployment

Complete the configuration tasks before you deploy the web application.

Registering Collaborate manually

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

Complete the following tasks to register Collaborate manually:

The `configTool` utility is located in the `tools/bin` directory under your Platform installation. For detailed instructions on using the `configTool` utility, see [configTool (on page 96)](#).

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

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

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

configTool -r Collaborate -f "<full_path_to_Collaborate_installation_directory>\conf \Collaborate_configuration.xml"

configTool -v -i -p "Affinium|suite|uiNavigation|mainMenu" -f "<full_path_to_Collaborate_installation_directory>\conf\Collaborate_navigation.xml"

configTool -v -i -p "Affinium|suite|uiNavigation|settingsMenu" -f "<full_path_to_Collaborate_installation_directory>\conf\Collaborate_setings.xml"

Creating and populating the Collaborate system tables

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

Update the unencrypted value for `udm_data_source.password` in the `udm_jdbc.properties` file that is located in the `<Collaborate_Home>/tools/bin` directory before you run `udmdbsetup`.

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

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

For a new installation or a reinstallation:

The name of the file is `udm_install_[12.1.x.x].sql`.

Run udmdbsetup by using the full installation parameter. Use the correct parameter values for your locale and installation type. The following example creates and populates the Collaborate system tables for a new installation on Windows in the `en_US` locale: udbmdbsetup.bat -L en_US -t full -v.

If you want to configure Collaborate for a locale other than `en_US`, run the udmdbsetup utility for different locales, such as `fr_FR`, `de_DE`, and so on.

If you are upgrading Collaborate:

The name of the file is `udm_upgrade_[10.1.x.x]_[11.0.0.0].sql`. Before you run `udmdbsetup.sh`, you must the run database parameters in `udm_jdbc.properties`, which is in the `<Collaborate_Home>/tools` directory.

Run `udmdbsetup.sh` by using the upgrade parameter. Use the correct parameter values for your locale, installation type, and the version you are upgrading from. The following example creates the SQL file for an upgrade from version 10.x on UNIX in the fr_FR locale: ./ udmdbsetup.sh -m -b 10.1.x.x -L fr_FR -tupgrade -v.

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

To automatically run the script on the database, you can run the following command: ./ udmdbsetup.sh -b 10.1.x.x -L fr_FR -tupgrade -v.

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

Creating list tables

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

Create the following tables in your customer database:

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

- `uacc_corporate_permanent` - a list of contacts to be permanently added to or deleted from Corporate Campaigns.

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

If you are using DB2 10.5 BLU, you must run the list tables in the user database (enabled with BLU) with the clause `Organize by ROW`.

Complete the following steps to create list tables:

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

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

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

   Note the following points when you create list tables:

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

Creating Campaign system tables for Collaborate

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

⚠ **Important:** Complete this step if you selected **Automatic database setup** when you ran the installer, or if the automatic database set up failed during installation.

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

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

Chapter 6. Deploying the Collaborate web application

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

Use the following guidelines to deploy Collaborate:

- When you run the Unica installer, you might include Collaborate in an EAR file, or you can choose to deploy the Collaborate WAR file. If you included the Platform or other products in an EAR file, you must follow all the deployment guidelines that are detailed in the individual installation guides for the products included in the EAR file.
- Set the JSP Compilation level in the WebSphere application server to 18.
- You must know how to work with web application server. Consult your web application server documentation for details such as navigation in the Administration console.

📝 **Note:** In case of Collaborate 12.1.0.4, remove the following JVM parameters, if they are set for application server.

- `-Dlog4j.configurationFile`
- `-Dlog4j2.configurationFile`
- `-Dlog4j2.contextSelector`

Deploying Collaborate on WAS from a WAR file

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

Complete the following tasks before you deploy Collaborate:

- Confirm that your version of WebSphere meets the requirements in the *Recommended Software Environments and Minimum System Requirements* document, including any necessary fix packs or upgrades.
- Confirm that you created the data sources and database provider in WebSphere.

1. Go to the WebSphere Integrated Solutions Console.

2. Complete the following steps if your system tables are in DB2:

   a. Click the data source that you created. Go to the Custom Properties for the data source.

   b. Select the Custom properties link.

   c. Set the value for the **resultSetHoldability** property to 1.

      If you do not see the **resultSetHoldability** property, create the **resultSetHoldability** property and set its value to `1`.

3. Go to **Applications > Application Types > WebSphere enterprise applications** and click **Install**.

4. In the **Preparing for the application installation** window, select the **Detailed - Show all options and parameters** check box and click **Next**.

5. Click **Continue** to see the **Install New Application** wizard.

6. Accept the default settings on the windows of the **Install New Application** wizard except the following windows:
   - In step 1 of the **Install New Application** wizard, select the **Precompile JavaServer Pages files** check box.
   - In step 3 of the installation wizard, set the **JDK Source Level** to 18.
   - In step 9 of the installation wizard, set the **Context Root** to /collaborate.

7. In the left navigation panel of WebSphere Integrated Solutions Console, navigate to **Applications > Application Types > WebSphere enterprise applications**.

8. In the Enterprise Applications window, click the `collaborate.war` file.

9. In the **Web Module Properties** section, click **Session Management** and select the following check boxes:
   - **Override session management**
   - **Enable Cookies**

10. Click **Enable Cookies**, and in the **Cookie name** field, enter a unique cookie name.

11. If you are using version 8 of WebSphere Application Server, select **Servers > WebSphere application server > server 1 > Session management > Enable Cookies** and clear the check box for **Set session cookies to HTTPOnly to help prevent cross-site scripting attacks**.

12. In the **Applications > Enterprise Applications** section of the server, select the WAR file that you deployed.

13. In the **Detail Properties** section, select **Class loading and update detection**.

14. In the **Class loader order** section, select the **Classes loaded with local class loader first (parent last)** option.

15. In the **Modules** section, select **Manage modules > detect**, and under **Class loader order** select the **Classes loaded with local class loader first (parent last)** option.

16. Enter the context root for the application as `/collaborate`.

17. Go to **Application Servers > your server > Process definition > Java Virtual Machine**.

18. In the **Generic JVM arguments** section, enter the following JVM arguments:

```
-Dcom.ibm.websphere.webservices.DisableIBMJAXWSEngine=true

-Dibm.cl.verbose=PersistenceProvider

-Dibm.cl.verbose=PersistenceProviderImpl

-agentlib:getClasses -verbose:dynload

-Dcom.ibm.xml.xlxp.jaxb.opti.level=3
```

Deploying Collaborate on WAS from an EAR file

You can deploy Collaborate by using an EAR file if you included Collaborate in an EAR file when you ran the HCL Unica installer.

- Confirm that your version of WebSphere meets the requirements in the *Recommended Software Environments and Minimum System Requirements* document, including any necessary fix packs or upgrades.
- Confirm that you created the data sources and database provider in WebSphere.

1. Go to the WebSphere Integrated Solutions Console.

2. Complete the following steps, if your system tables are in DB2:

   a. Click the data source that you created. Go to the **Custom Properties** for the data source.

   b. Select the Custom properties link.

   c. Set the value for the **resultSetHoldability** property to `1`.

      If you do not see the **resultSetHoldability** property, create the **resultSetHoldability** property and set its value to `1`.

3. Go to **Applications > Application Types > WebSphere enterprise applications** and click **Install**.

4. In the **Preparing for the application installation** window, select the **Detailed - Show all options and parameters** check box and click **Next**.

5. Click **Continue** to see the **Install New Application** wizard.

6. Accept the default settings on the windows of the Install New Application wizard except the following windows:
   - In step 1 of the **Install New Application** wizard, select the **Precompile JavaServer Pages files** check box.
   - In step 3 of the installation wizard, set the **JDK Source Level** to 18.
   - In step 8 of the installation wizard, set the **Context Root** to /collaborate.

7. In the left navigation panel of WebSphere Integrated Solutions Console, navigate to **Applications > Application Types > WebSphere enterprise applications**.

8. In the **Enterprise Applications** window, select the EAR file that you want to deploy.

9. In the **Web Module Properties** section, click **Session Management** and select the following check boxes:
    - **Override session management**
    - **Enable Cookies**

10. Click **Enable Cookies**, and in the **Cookie name** field, enter a unique cookie name.

11. If you are using version 8 of WebSphere Application Server, select **Servers > WebSphere application server > server 1 > Session management > Enable Cookies** and clear the check box for **Set session cookies to HTTPOnly to help prevent cross-site scripting attacks**.

12. In the **Detail Properties** section, select **Class loading and update detection**.

13. In the **Class loader order** section, select the **Classes loaded with local class loader first (parent last)** option.

14. In `Collaborate.ear`, open the **Manage Modules** section and select the **Classes loaded with local class loader first (parent last)** option.

15. For **WAR class loader policy**, select the **Class loader for each WAR file in application** option.

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

17. Go to **Application Servers > your server > Process definition > Java Virtual Machine**.

18. In the **Generic JVM arguments** section, enter the following JVM arguments:

```
-Dcom.ibm.websphere.webservices.DisableIBMJAXWSEngine=true

-Dibm.cl.verbose=PersistenceProvider

-Dibm.cl.verbose=PersistenceProviderImpl

-agentlib:getClasses -verbose:dynload
```

```
-Dcom.ibm.xml.xlxp.jaxb.opti.level=3
```

For more information about WebSphere Application Server version 8.5, see [Welcome to the WebSphere Application Server information center](#).

Specifying generic JVM arguments

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

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

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

Creating `webSphereDefaultIsolationLevel` property

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

Complete the following steps to create the `webSphereDefaultIsolationLevel` property:

1. Log on to the WebSphere administrative console.

2. Click **Resources > JDBC > Data sources**.

3. Click the Collaborate data source name.
   The JNDI name for Collaborate data source is collaborateds.

4. In the **Configuration** tab, click **Additional Properties** and then click **Custom properties**.

5. Click **New** and enter the name of property as `webSphereDefaultIsolationLevel`.

6. In the **Value** field, enter `2`.

7. In the **Type** field, enter `java.lang.Integer`.

8. Click **Apply**.

9. Restart the server.

Deploying Collaborate on WebLogic

You can deploy HCL Unica products on WebLogic.

Use the following guidelines when you deploy Collaborate on WebLogic:

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

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

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

- If you are configuring WebLogic to use the IIS plug-in, review the WebLogic documentation.

- Add the following parameters in the `JAVA_OPTIONS` section of `startWeblogic.cmd` or `startWeblogic.sh`:

```
-Dcollaborate.home=Collaborate installation directory
-Dfile.encoding=UTF-8
```

- If you are deploying in a production environment, set the JVM memory heap size parameters to at least 1024 by adding the following line to the `setDomainEnv` script:

  Set `MEM_ARGS=-Xms1024m -Xmx1024m -XX:MaxPermSize=256m`

- Under certain circumstances, deploying older legacy interactive channels or interactive channels with large deployment histories can stress the system and require 2048mb or greater of Campaign designtime and/or Interact runtime Java heap space.

  System administrators can adjust the amount of memory available to the deployment systems via the following JVM parameters:

  -Xms####m -Xmx####m -XX:MaxPermSize=256m

  Where the characters #### should be 2048 or higher (depending on their system load.) Note that a 64-bit application server and JVM are usually necessary for values greater than 2048.

These are the suggested minimum values. Analyze your sizing requirements to determine correct values for your needs.

Deploying Unica Campaign on JBoss Application Server

You can deploy Unica products on Jboss application server.

Use the following guidelines when you deploy Unica Campaign on Jboss:

- Verify that your version of JBoss meets the requirements that are described in the *Recommended Software Environments and Minimum System Requirements* document, including any necessary fix packs or upgrades.
- HCL Unica products customizes the JVM used by Jboss. You might need to create a Jboss instance that is dedicated to HCL Unica products if you encounter JVM-related errors
- If you are deploying in a production environment, set the JVM memory heap size parameters to at least 1024 by adding the following line to the `standalone.conf` in the `JBOSS_EAP_HOME/bin`

  e.g : `JAVA_OPTS="-Xms1024m -Xmx1024m -XX:MetaspaceSize=96M -XX:MaxMetaspaceSize=256m"`

  These are the suggested minimum values. Analyze your sizing requirements to determine correct values for your needs. Depending upon system load **-Xmx** and **MaxMetaspaceSize** value should be adjusted. Note that a 64-bit application server and JVM are usually required for values greater than 2048.
- Modify the JAVA_OPTIONS parameter to add the following value in `setenv.bat/sh`.

  set `"JAVA_OPTS=%JAVA_OPTS%`

  `-DUNICA_PLATFORM_CACHE_ENABLED=true`

  `-Dclient.encoding.override=UTF-8`

  `-Djboss.as.management.blocking.timeout=3600"`
- Go to the JBoss Enterprise Application management Console e.g *http://<Jboss_Host_IP>:<Port>/management*
- Deploy Campaign.war/EAR on JBOSS.
- Alternately you can also deploy Campaign.war using jboss-cli.bat/sh.

  e.g Execute the command: jboss-cli.bat/sh and connect to Jboss instance using the command - connect <Jboss_Host_IP>:<JBOSS management Port>

  deploy <Campaign_Install_Path/Campaign/Campaign.war>
- After all these changes restart the Jboss application server.

Deploying Unica Collaborate on Tomcat Application Server

You can deploy HCL Unica products on Tomcat application server.

Use the following guidelines when you deploy Unica Collaborate on Tomcat:

- HCL Unica products customize the JVM used by Tomcat. You may require to create a Tomcat instance that is dedicated to HCL Unica products if you encounter JVM-related errors

- If you are deploying in a production environment, set the JVM memory heap size parameters to at least 1024 by adding the following line to the setenv.bat/sh e.g : set `CATALINA_OPTS=%CATALINA_OPTS% -Xms1024m -Xmx1024m -XX:MaxPermSize=512m`.

  These are the suggested minimum values. Analyze your sizing requirements to determine correct values for your needs. Depending upon system load **-Xmx** value should be adjusted. Note that a 64-bit application server and JVM are usually necessary for values greater than 2048.

- Modify the `JAVA_OPTIONS` parameter to add the following value in `setenv.bat/sh`.

  set `JAVA_OPTS=%JAVA_OPTS% -DUNICA_PLATFORM_CACHE_ENABLED=true -Dclient.encoding.override=UTF-8`.

- When Unica Insights war is deployed on Tomcat, complete the following configuration in server.xml, where Collaborate.war is deployed.
  Add `relaxedQueryChars` under Collaborate server.xml as mentioned below.

  ```
  <Connector port="8080" protocol="HTTP/1.1"

  connectionTimeout="20000"

  redirectPort="8443"

  relaxedQueryChars="|,[,],\,`,{,},^" />
  ```

- You must add Unica Platform and Unica Collaborate data source in Collaborate.xml along with the path of Collaborate.war to the Unica Collaborate Tomcat instance. For example:

```
<Context docBase="<Campaign_Install_Path>/Campaign/Campaign.war">

<Resource name="UnicaPlatformDS>"

 factory="com.unica.manager.tomcat.utils.TomcatDSFactory"

 auth="Application" type="javax.sql.DataSource"

maxActive="30" maxIdle="10" maxWait="10000"

username="<db user for Platform schema>" password="<db password>"

 driverClassName=

"<db specific class name>" url="<db specific jdbc url>"/>


<Resource name="campaignPartition1DS>"

 factory="com.unica.manager.tomcat.utils.TomcatDSFactory"

 auth="Application" type="javax.sql.DataSource"

maxActive="30" maxIdle="10" maxWait="10000"

username="<db user for Campaign schema>" password="<db password>"

 driverClassName=

"<db specific class name>" url="<db specific jdbc url> </Context>"/>
```

📝 **Note:** {{You can encrypt DB password using }} encryptTomcatDBPasswords utility located in <Platform_Home>/tools/bin

• Restart the Tomcat application server.

Chapter 7. Configuring Collaborate after deployment

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

To use Collaborate to fulfill your business requirements, complete the extra configuration steps described in the Unica Collaborate Administrator's Guide.

Creating a system user

After the installation of Collaborate, create a system user with an administrative role in either Collaborate or Campaign. Users with an administrative role have different privileges than a normal user and can perform administrative tasks.

Log in to HCL Unica as a user with an administrative role in the Platform and create a user with at least the following permissions:

- The Collaborate Admin role in Collaborate
- The Admin role in Campaign

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

Basic installation parameters

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

To update the following parameters and more configuration properties, go to **Platform > Settings > Collaborate > UDM Configuration Settings > Configuration** in the HCL Unica user interface.

See the Collaborate Administrator's Guide for complete details.

Table 16. Collaborate installation window parameter names and description

This two-columned table describes the Collaborate installation parameters that are included in one column, and description in second column.

Parameter	Description
jndiname `Affinium|Collaborate|UDM Configuration Settings|Datasource`	JNDI name that you configured in the web application server for the connection to the Collaborate system table database.
asmJndiName `Affinium|Collaborate|UDM Configuration Settings|Datasource`	Data source name that needs to be set to start Collaborate. You can set it to the Platform data source JNDI name, which is UnicaPlatformDS by default.
systemUserLoginName `Affinium|Collaborate|UDM Configuration Settings`	Login name of a Platform user to be used for system tasks (for example, the system task monitor or the scheduler). HCL strongly recommends that the system user is not a normal Collaborate user.
notifyCollaborateBaseURL `Affinium|Collaborate|UDM Configuration Settings|Notifications`	The fully qualified URL for Collaborate. Edit this URL by entering the computer name and company domain where you installed Collaborate and the port number to the port on which the web application server is listening. For example: `http://collaborateserver.`

Parameter	Description
	`companyDomain:7001/` `collaborate`

flowchartServiceCampaignServicesURL
 	
`Affinium|Collaborate|UDM Configuration`
`Settings|Flowchart`
	The URL to the CampaignServices web service that must be used to run flowcharts, get flowchart data, and so on.
	
	The default is `http://Server-`
	`Name:Port/Campaign/services/`
	`CampaignServices30Service`.
	
	where Server-Name and Port are defined by the `notifyCollaborateBaseURL` parameter.

flowchartServiceCampaignServices
  AuthorizationLoginName
 	
`Affinium|Collaborate|UDM Configuration`
`Settings|Flowchart`
	A Campaign user with administrative permissions, including access to all data sources, for example, asm_admin.

flowchartServiceCampaignServices
AuthorizationLoginName
 	
`Affinium|Collaborate|UDM Configuration`
`Settings|Flowchart`
	Login name of the Campaign user to be used for authorization.
	
	📝 **Note:** Campaign user is not required to be a Collaborate user.

flowchartServiceNotificationServiceURL
 	
`Affinium|Collaborate|UDM Configuration`
`Settings|Flowchart`
	The URL to the Collaborate notification service that receives notifications from Campaign.
	
	⚠ **Important:** You must set this parameter for Collaborate to work.

Parameter	Description
	📝 **Note:** If you use a nonstandard context root, you must specify this parameter.
uploadDir Affinium|Collaborate|UDM Configuration Settings|Attachment Folders	The full path to the Collaborate upload directories. Edit this path to include the full path to the Collaborate upload directories. For example, `c:\HCL\UNICA\Collaborate\projectattachments`. If you are using UNIX, confirm that Collaborate users have permission to read, write, and run files in this directory.
taskUploadDir Affinium|Collaborate|UDM Configuration Settings|Attachment Folders	The full path to the Collaborate task upload directories. Edit this path to include the full path to the Collaborate task upload directories. For example, `c:\HCL\UNICA\Collaborate\taskattachments`. If you are using UNIX, confirm that Collaborate users have permission to read, write, and run files in this directory.
templatesDir Affinium|Collaborate|UDM Configuration Settings|Templates	The full path to the Collaborate template directories. Edit this path to include the full path to the Collaborate template directories.

Parameter	Description
	For example, `c:\HCL\UNICA \COllaborate\templates`. If you are using UNIX, confirm that Collaborate users have permission to read, write, and run files in this directory.
serverType `Affinium|Collaborate|UDM Configuration Settings`	The type of web application server you are using. The valid values are `WEBLOGIC`, `WEBSPHERE`, `JBOSS`, or `TOMCAT`.
defaultCampaignPartition `Affinium|Collaborate|UDM Configuration Settings|Campaign Integration`	The default Campaign partition. Collaborate uses this parameter if you do not define the *<campaign-partition-id>* tag in a project template file. Set value to `partition1`.
defaultCampaignFolderId `Affinium|Collaborate|UDM Configuration Settings|Campaign Integration`	The default Campaign folder ID. Collaborate uses this parameter if you do not define the *<campaign-folder-id>* tag in a project template file. Set value to `2`.
collaborateAttachmentsDIRECTORY_directory `Affinium|Collaborate|UDM Configuration Settings|Attachment`	Specifies the directory for attachments that are generated by flowcharts in Campaign. This path must match the default Campaign partition directory.

Parameter	Description
notifyEMailMonitorJavaMailHost `Affinium|Collaborate|UDM Configuration Settings|Notifications|Email`	The machine name or IP address of your organization's SMTP server.
notifyDefaultSenderEmail `Affinium|Collaborate|UDM Configuration Settings|Notifications|Email`	A valid email address for Collaborate to use to send emails when there is otherwise no valid email address available to send notification emails.
templateAdminGroup_Name `Affinium|Collaborate|UDM Configuration Settings|Templates`	The list of groups that have access to template configuration options. Groups with the same name must exist in Platform. You must separate multiple groups with commas. The default value is `Template Administrators`.
defaultListTableDSName `Affinium|Collaborate|UDM Configuration Settings|Templates`	The data source name that is used for templates while you import the template if the data source name is not defined.

List display configuration

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

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

Data filters for the list display

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

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

Components affected by data level filtering for the list display

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

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

Example workflow for configuring data filters

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

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

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

View List and Search List pages

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

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

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

Configuring the database connection

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

- Define the data source that is containing your customer tables.
- Define the tables that you want to access.
- Define the columns in the tables that you want to display on the **View List** page.

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

Configuring the View List page

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

- Define the type of data views with the List element.

- Define the data that is displayed in each view.
- Define the sort order of each view.
- Define an application to display customer details.

Configuring the List Search page

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

- Define the available search criteria.
- Define the way Collaborate displays the results.

Disable List Manager list tables

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

List display configuration files

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

Collaborate controls the display of lists through the following XML files:

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

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

Use the following guidelines while editing the configuration files:

- To add special characters to the listmanager XML files, use Unicode encoding. For example, é must be encoded as `U+00E9`.

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

The `listmanager_tables.xml` file

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

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

AudienceLevel

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

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

For example:

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

Each `AudienceLevel` element contains a child element, `Column`:

```
<AudienceLevel ...>
```

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

Column

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

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

DataSource

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

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

For example:

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

Table

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

- `Name`: The name of the table.
- `DataSource`: The data source that is used to access the table.
- `Owner`: The owner or schema of the database (used to prefix the table name).

For example:

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

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

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

Column

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

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

For example:

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

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

This element contains the following attributes:

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

For example:

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

The `listmanager_list.xml` file

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

List

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

This element contains the following attributes:

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

For example:

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

Each `List` element can contain `Select`, `Order`, and `Link` child elements:

```
<List ... >
 <Select ... />
```

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

Select

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

This element contains the following attributes:

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

For example:

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

Order

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

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

For example:

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

Link

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

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

Each Link element can contain multiple `Param` child elements.

For example:

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

Param

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

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

For example:

```
<Param Name="affiniumUserName" Type="user" Value="userlogin"/>

<ParamName="LeadsRmcTbid" Type="column"
 Value="v_customer_contact.customer_id"/>
```

The `listmanager_searchScreens.xml` file

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

The `listmanager_searchScreens.xml` file defines:

- The criteria fields
- The displayed result fields

You can define several search screens that are based on different audiences, different criteria, and searching results to be used in Collaborate When the field marketers use search, the screen appearance is based on the audience levels configured the `listmanager_searchScreens.xml` file. If the various screens are based on the same audience level, the field marketer can choose from the various predefined searches. For example, you can create a basic search that contains only name and address, then an advanced search, which contains name, address, income, and account activity.

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

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

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

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

For example:

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

Each `SearchScreen` tag has the following structure:

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

Criteria

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

Field

The `Field` element contains the following attributes:

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

For example:

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

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

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

For example:

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

Result

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

Field

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

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

For example:

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

Order

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

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

For example:

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

Mapping Collaborate tables in Campaign

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

Map the following tables:

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

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

Mapping Campaign system tables for Collaborate

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

Map the following tables:

Table 17. Mapping system tables with database tables

Following two-columned table describes system table names in one column and database tables in second column.

System table	Database table to map to
Process Table	UA_Process
FlowChart Parameters Table	UA_ProcAttribute
User Variables table	UA_UserVariable
User Variable Enumeration Table	UA_EnumUserVarVal

System table	Database table to map to
Display Order Table	UA_ccDisplayOrder
Run Result Table	UA_RunResult
Sub Attribute Table	UA_Subattribute

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

Starting the Campaign server

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

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

Checking the installation log for errors

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

After the installation is completed, check the `Collaborate_Install_DD_MM_YYY_HH_MM_SS.log` file in the installation directory of your Collaborate installation for any errors.

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

Verifying Collaborate installation

To verify that Collaborate is installed successfully, log in to the HCL Unica application and confirm that you can access the **Local Marketing** menu. The **Local Marketing** menu

provides access to Lists, On-demand Campaigns, Corporate Campaigns, your Subscriptions, and your Calendar.

📒 **Note:** If you want to restart Campaign or Collaborate, you must restart both applications.

Additional configuration for enhanced security

The procedures in this section describe some additional configurations in the web application server. They are optional, but you might want to perform them for enhanced security.

Disabling the X-Powered-By flag

If your organization is concerned that the X-Powered-By flag in the header variable is a security risk, you can disable it using this procedure.

1. If you are using WebLogic, in the administration console, under ***domainName* >
   Configuration > Web Application**, set **X-Powered-By Header** to **X-Powered-By Header
   will not be sent**.
2. If you are using WebSphere, perform the following steps.
   a. In the WebSphere administration console, navigate to**Servers > Server Types >
      WebSphere application servers >** *server_name* **> Web Container Settings > Web
      container**.
   b. Under **Additional Properties** select **Custom Properties**.
   c. On the Custom Properties page, click **New**.
   d. On the Settings page, create a custom property named
      `com.ibm.ws.webcontainer.disablexPoweredBy` and set the value to `false`.
   e. Click **Apply** or **OK**.
   f. Click **Save** on the console task bar to save your configuration changes.
   g. Restart the server.

Configuring a restrictive cookie path

In your web application server, you can restrict cookie access to a specific application for enhanced security. If not restricted, cookies are valid across all the deployed applications.

1. If you are using WebLogic, perform the following steps.

   a. Extract the `weblogic.xml` file from the WAR or EAR package where you want to add the restrictive cookie path.

   b. Add the following to the `weblogic.xml` file, where *context-path* is the context path for the deployed application. For HCL Unica applications the context path is typically /unica.

   ```
   <session-descriptor>
       <session-param>
         <param-name>CookiePath</param-name>
         <param-value>/context-path> </param-value>
       </session-param>
   </session-descriptor>
   ```

   c. Rebuild the WAR or EAR file.

2. If you are using WebSphere, perform the following steps.

   a. In the WebSphere administration console, navigate to the **Session Manager > Cookie** tab.

   b. Set the **Cookie Path** to the context path of your application.

      For HCL Unica applications the context path is typically /unica.

Chapter 8. Setting up a web-app clustered environment for Collaborate

You can create a clustered environment in the IBM WebSphere Application Server to use within Unica Collaborate.

Because Unica Collaborate is an application that is accessed by many users, such as brokers, branch managers, local sales, and partners, a clustered environment within WebSphere helps deliver high availability and scalability.

Currently, Unica Collaborate supports only a WebSphere clustered deployment.

You must perform the following steps to add Unica Collaborate to your clustered environment.

1. Set up IBM WebSphere Application Server clusters on two or more WebSphere servers.
    a. Configure the IBM WebSphere Application Server Deployment Manager.
    b. Configure the IBM WebSphere Application Server Cluster Nodes.
    c. Configure the web server with the IBM WebSphere Application Server (IBM HTTP Server).
2. Mount the Unica Collaborate application file system across the cluster servers.
3. Deploy Unica Collaborate on the IBM WebSphere Application Server cluster.

Setting up your web-app cluster for Collaborate

You must set up a cluster in the WebSphere Application Server so that you can create server nodes.

To set up the IBM WebSphere Application Server cluster, refer to the IBM WebSphere Application Server documentation. Make sure that the IBM HTTP Server and the IBM HTTP Server plug-ins are installed on the server machine on which the IBM WebSphere Application Server Deployment Manager Profile is created. Contact your system administrator to install the IBM HTTP Server and plug-ins on the application server.

Starting the web-app cluster nodes

Before you start the IBM WebSphere Application Server cluster from the WebSphere console, you must start the WebSphere Application Server cluster nodes on each machine and then start the web server (IBM HTTP Server). If the cluster did not start successfully, make sure that your WebSphere Application Server cluster nodes are running on each application server. Then, make sure that each server started. You can go to the cluster members and start each application server manually. Finally, create the application server JNDIs.

Deploying the EAR and WAR files on your cluster

The WAR deployment steps are slightly different in an IBM WebSphere Application Server cluster for Collaborate. Before you proceed with the WAR deployment, you must deploy Platform and Campaign applications.

1. Deploy Collaborate on the WebSphere Application Server cluster. When you select the node for application deployment, select the WebSphere Application Server cluster node name to browse for the application.
2. Select the cluster application server and WebServer on the **Map Modules to servers** screen of deployment. Check the check box for **collaborate.war**, and click **Apply**.

For the other deployment steps, you can follow the normal WAR file deployment process in IBM WebSphere Application Server.

Deploying Collaborate on each node

Collaborate must be deployed on each node present in the WebSphere Application Server cluster. There are additional steps that you must follow in addition to the WebSphere guidelines that are apart from the normal deployment steps.

You must provide the absolute path for the following configuration parameters when you deploy Collaborate on a web-app clustered environment. This is required because the different WebSphere cluster nodes running Collaborate are not able to access the relative path if these configurations are not defined.

In Collaborate, data for templates, forms, and attachments is stored in the file system. The object store location is specified in the Collaborate configuration. For example:

1. Settings for Attachment (`Affinium|Collaborate|UDM Configuration Settings|Attachment`).

   It contains the file system location for Campaign Attachments: `collaborateAttachmentsDIRECTORY_directory = "/IMS/Campaign/ partitions/partition1`.

2. Settings for Attachment Folders (`Affinium|Collaborate|UDM Configuration Settings|Attachment Folders`).
   It contains the file system location for Lists, On-demand Campaigns, and Corporate Campaigns workflow tasks attachments:
   - `uploadDir = /opt/DMCluster/Collaborate/projectattachments`
   - `taskUploadDir = /opt/DMCluster/Collaborate/taskattachments`

3. Settings for Templates (`Affinium|Collaborate|UDM Configuration Settings|Templates`).

   It contains the file system location for storing templates: `templatesDir = /opt/ DMCluster/Collaborate/template`.

Disabling notification threads

If you are running a notification on a single node in a cluster, you must provide the following JVM parameter to disable notification threads on a particular cluster node.

```
-Ddm.suppressNotifications=true
```

- If the WebSphere Application Server cluster has four nodes, you need to add the JVM parameter in three JVM cluster nodes except the one you want to run the notifications.

- If the WebSphere Application Server cluster has four nodes and you added this JVM parameter in two nodes and notification threads are enabled on more than one cluster node, there is a chance multiple notifications are sent.

Defining Ehcache configurations for your clustered environment

Ehcache is used to support high availability and scalability replication of application cached data across different nodes in the cluster.

You can define the Ehcache configurations present in the configuration file on following location: `<Collaborate Home>/conf/collaborate_ehcache.xml`.

📝 **Note:** Configuration changes are not required if Unica Collaborate is not deployed on a web-app server cluster.

Unica Collaborate Ehcache configuration support two different types of peer discoveries: automatic peer discovery and manual peer discovery.

1. For automatic peer discovery, you can change the multicastGroupAddress and multicastGroupPort for your local network settings:

```
<cacheManagerManagerPeerProviderFactory

class="net.sf.ehcache.distribution.RMICacheManagerPeerProviderFactory"

properties="peerDiscovery=automatic, multicastGroupAddress=230.0.0.1,

multicastGroupPort=3232, timeToLive=32"/>


<cacheManagerPeerListenerFactory

class="net.sf.ehcache.distribution.RMICacheManagerPeerListenerFactory"/
>
```

2. For manual peer discovery, you can define cluster nodes and RMI ports to replicate cached data across cluster nodes. You can change the machine name and port as per your IBM Websphere cluster environment configuration.

```
<cacheManagerPeerProviderFactory

class="net.sf.ehcache.distribution.RMICacheManagerPeerProviderFactory"

properties="peerDiscovery=manual,

miUrls=//<machineA>:40000/DMEventCache//<machineB>:40000/DMEventCache

//<machineA>:40000/DMSessionObjectLockCache//<machineB>:40000/

DMSessionObjectLockCache

//<machineA>:40000/DMListLockCache//<machineB>:40000/DMListLockCache"/>


<cacheManagerPeerListenerFactory

class="net.sf.ehcache.distribution.RMICacheManagerPeerListenerFactory"

properties="port=40000, socketTimeoutMillis=20000"/>
```

3. You can add more RMI URLs in the following format in case of you have more than two
   nodes participating in the IBM Websphere application server cluster.

```
miUrls=
//<machineA>:40000/DMEventCache
//<machineA>:40000/DMSessionObjectLockCache
//<machineA>:40000/DMListLockCache
```

4. You will also need to enable cache replication for individual cache by uncommenting
   the configurations in `collaborate_ehcache.xml` for DMEventCache,
   DMSessionObjectLockCache, and DMListLockCache.

Chapter 9. Uninstalling Collaborate

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

When you install HCL Unica products, an uninstaller is included in the `Uninstall_Product` directory, where Product is the name of your Unica 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 Unica 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.

In addition to the general instructions for uninstalling HCL Unica products, follow the guidelines when you uninstall Collaborate:

- If you have multiple Collaborate runtime installations using the same Platform installation, you must remove network connectivity for the Collaborate runtime workstation before you run the uninstaller. Failure to do so uninstalls the configuration data for all the other Collaborate runtime installations from Platform.
- You can safely ignore any warnings about failure to unregister with Platform.
- You can export a copy of your configuration as a precaution before uninstalling Collaborate.
- If you uninstall the Collaborate design time environment, after you run the uninstaller, you may need to manually unregister Collaborate. Use the configtool utility to unregister `full_path_to_Collaborate_installation_directory\Collaborate\conf\collaborate_navigation.xml`.

📝 **Note:** On UNIX, the same user account that installed Collaborate must run the uninstaller.

1. If you have deployed the Collaborate web application, undeploy the web application from WebSphere or WebLogic.

2. Shut down WebSphere or WebLogic.

3. Stop the processes that are related to Collaborate.

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. Make sure that the IBM SPSS® Modeler Collaboration and Deployment Service (C&DS) is uninstalled.

   Open the Installation Manager and verify that C&DS is uninstalled. If C&DS is not uninstalled, use the IBM Installation Manager to uninstall C&DS.

6. Complete one of the following steps to uninstall Collaborate:
   - Click the Collaborate uninstaller that exists in the `Uninstall_Product` directory. The uninstaller runs in the mode in which you installed Collaborate.
   - In a command-line window, navigate to the directory where the uninstaller exists, and run the following command to uninstall Collaborate by using the console mode:

     Uninstall_*Product* -i console
   - If you are uninstalling on a UNIX environment, navigate to the directory where the uninstaller exists, and run the following command to uninstall Collaborate:

     ./Uninstall\ Interaction\ History.

     📝 **Note:** UNIX requires spaces after \.
   - In a command-line window, navigate to the directory where the uninstaller exists, and run the following command to uninstall Collaborate by using the silent mode:

     Uninstall_*Product* -i silent

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

Chapter 10. configTool

The properties and values on the **Configuration** page are stored in the Platform 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) HCL Unica 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 HCL Unica.
- 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 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 Platform installation. If you do not provide the `xml` extension, `configTool` adds it.

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

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

⚠ **Important:** After you use the `configTool` utility with the -vp option, you must restart the web application server on which 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 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 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 Platform installer as described in the *Platform Installation Guide*.
- After the initial installation, to re-register products other than the 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 HCL Unica, 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 18. Product names for configTool registration and unregistration

Product name	Name used in configTool
Platform	`Manager`
Campaign	`Campaign`

Product name	Name used in configTool
Collaborate	`Collaborate`
Deliver	`emessage`
Interact	`interact`
Optimize	`Optimize`
Plan	`Plan`
Opportunity Detect	`Detect`
IBM SPSS Modeler Advantage Enterprise Marketing Management Edition	`SPSS`
Digital Analytics	`Coremetrics`

`-u productName`

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

Options

`-o`

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

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

Examples

- Import configuration settings from a file named `Product_config.xml` in the `conf` directory under the 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 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 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 Platform installation, and force it to overwrite an existing registration of this application.

```
configTool -r product Name -f app_config.xml -o
```

- Unregister an application named productName.

```
configTool -u productName
```

Index