Before using this information and the product it supports, read the information in “Notices” on page 51.
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  - Configuring the IBM IHS web server for SSL ..................... 33
  - Enabling HTTP compression and SSL encryption .................. 33
  - Enabling HTTP compression ....................................... 34
  - Adding SSL encryption ............................................. 34
  - WebLogic guidelines ................................................ 32
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Chapter 1. Installation overview

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

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

Installation Roadmap

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

You can use Table 1 to scan the tasks that must be completed for installing Leads. The Description column in the following table provides links to the topics that describe the tasks for installing Leads:

Table 1. Leads installation roadmap

<table>
<thead>
<tr>
<th>Topic</th>
<th>Description</th>
</tr>
</thead>
</table>
| Chapter 1, “Installation overview” | This topic provides the following information:  
  - “How the installers work” on page 3  
  - “Modes of installation” on page 3  
  - “Leads documentation and help” on page 3 |
| Chapter 2, “Planning the Leads installation,” on page 5 | This topic provides the following information:  
  - “Prerequisites” on page 5  
  - “IBM Leads Installation database information worksheet” on page 6 |
| Chapter 3, “Preparing the data source for IBM Leads,” on page 9 | This topic provides the following information:  
  - “Creating the Leads system table database or schema” on page 9  
  - “Configuring the web application servers for your JDBC drivers” on page 11  
  - “Creating JDBC connections in the web application server” on page 12 |
<table>
<thead>
<tr>
<th>Topic</th>
<th>Description</th>
</tr>
</thead>
</table>
| Chapter 4, “Installing Leads,” on page 17 | This topic provides the following information:  
  • “Obtain required information about Marketing Platform and web component” on page 17  
  • “Installing Leads by using the GUI mode” on page 18  
  • “Installing Leads by using the console mode” on page 21  
  • “Installing Leads silently” on page 23  
  • “Creating an EAR file after running the installer” on page 24 |
| Chapter 5, “Configuring the IBM Leads Before Deployment,” on page 27 | This topic provides the following information:  
  • “Registering Leads manually” on page 27  
  • “Configure an email connection” on page 27  
  • “Configuring WebSphere” on page 28 |
| Chapter 6, “Deploying IBM Leads web application,” on page 31 | This topic provides the following information:  
  • “Guidelines for deploying Leads on WebSphere” on page 31  
  • “WebLogic guidelines” on page 32  
  • “Enabling HTTP compression” on page 34 |
| Chapter 7, “Configuring IBM Leads after deployment,” on page 37 | This topic provides the following information:  
  • “Creating Leads system user” on page 37  
  • “Creating Leads system tables” on page 37  
  • “Installing stored procedures” on page 38  
  • “Initializing the database” on page 39  
  • “Configuring web server information” on page 39  
  • “Enabling notifications for the Message Assistant” on page 39  
  • “Admin console context root” on page 41 |
| Chapter 8, “Localizing IBM Leads,” on page 43 | This topic provides the following information:  
  • “Conversions of Property file encodings” on page 43  
  • “Import non-ISO 8859-1 data with Leads Integrator” on page 44  
  • “Import non-ISO 8859-1 data by using Web Services mode” on page 45  
  • “Extra notes for using LI to import non-ISO 8859-1 characters” on page 46 |
| Chapter 9, “Uninstalling Leads,” on page 47 | This topic provides the information about how to uninstall Leads. |
How the installers work

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

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

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

Modes of installation

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

GUI mode

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

Console mode

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

Leads documentation and help

IBM provides Leads documentation and help for users, administrators, and developers.

Use the following table to get information about how to get started with Leads:
Table 2. Get up and running

<table>
<thead>
<tr>
<th>Task</th>
<th>Documentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>View a list of new features, known issues, and workarounds</td>
<td>IBM Leads Release Notes</td>
</tr>
<tr>
<td>Install or upgrade Leads and deploy the Leads web application</td>
<td>One of the following guides:</td>
</tr>
<tr>
<td></td>
<td>• IBM Leads Installation Guide</td>
</tr>
<tr>
<td></td>
<td>• IBM Leads Upgrade Guide</td>
</tr>
</tbody>
</table>

Use the following table to get information about how to configure and use Leads:

Table 3. Configure and use Leads

<table>
<thead>
<tr>
<th>Task</th>
<th>Documentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Set up and configure the system for users</td>
<td>IBM Leads Administrator’s Guide</td>
</tr>
<tr>
<td>• Adjust security settings</td>
<td></td>
</tr>
<tr>
<td>• Map tables, define offer templates and custom attributes</td>
<td></td>
</tr>
<tr>
<td>• Run utilities and perform maintenance</td>
<td></td>
</tr>
<tr>
<td>• Create and deploy marketing campaigns</td>
<td>IBM Leads User’s Guide</td>
</tr>
<tr>
<td>• Analyze campaign results</td>
<td></td>
</tr>
</tbody>
</table>

Use the following table to get information about how to get help if you face issues when you use Leads:

Table 4. Get help

<table>
<thead>
<tr>
<th>Task</th>
<th>Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open online help</td>
<td>1. Choose Help &gt; Help for this page to open a context-sensitive help topic.</td>
</tr>
<tr>
<td>Obtain PDFs</td>
<td>2. Click the Show Navigation icon in the help window to display the full help.</td>
</tr>
<tr>
<td>Get support</td>
<td>Use either of the following methods:</td>
</tr>
<tr>
<td>Use either of the following methods:</td>
<td>Use either of the following methods:</td>
</tr>
<tr>
<td>Choose Help &gt; Product Documentation to access Leads PDFs.</td>
<td>• Choose Help &gt; All IBM EMM Suite Documentation</td>
</tr>
<tr>
<td>Choose Help &gt; All IBM EMM Suite Documentation to access all available</td>
<td>to access all available documentation.</td>
</tr>
<tr>
<td>documentation.</td>
<td></td>
</tr>
<tr>
<td>Go to <a href="http://www.ibm.com/support">http://www.ibm.com/support</a> and click Support &amp; downloads to</td>
<td></td>
</tr>
<tr>
<td>access the IBM Support Portal.</td>
<td></td>
</tr>
</tbody>
</table>
Chapter 2. Planning the Leads installation

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

Prerequisites

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

System requirements

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

Network domain requirements

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

JVM requirements

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

Knowledge requirements

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

Internet browser settings

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

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

Access permissions

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

- Administration access for all necessary databases
- Read and write access to the relevant directory and subdirectories for the operating system account that you use to run the web application server and IBM EMM components
- Write permission for all files that you must edit
• Write permission for all directories where you must save a file, such as the installation directory and backup directory if you are upgrading
• Appropriate read/write/execute permissions to run the installer

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

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

**JAVA_HOME environment variable**

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

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

You can clear the JAVA_HOME environment variable by using one of the following methods:
• Windows: In a command window, enter `set JAVA_HOME= (leave empty)` and press Enter.
• UNIX: In the terminal, enter `export JAVA_HOME= (leave empty)` and press Enter.

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

**Marketing Platform requirement**

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

**IBM Leads Installation database information worksheet**

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

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

*Table 5. Leads database information worksheet*

<table>
<thead>
<tr>
<th>Field</th>
<th>Notes*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Database type</td>
<td></td>
</tr>
</tbody>
</table>
Table 5. Leads database information worksheet (continued)

<table>
<thead>
<tr>
<th>Field</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Database name</td>
<td></td>
</tr>
<tr>
<td>Database account user name</td>
<td></td>
</tr>
<tr>
<td>Database account password</td>
<td></td>
</tr>
<tr>
<td>JNDI name</td>
<td></td>
</tr>
<tr>
<td>ODBC name</td>
<td></td>
</tr>
</tbody>
</table>

Checklist for IBM Marketing Platform

The installation wizards for each IBM EMM product must be able to communicate with the Marketing Platform system table database to register the product. Each time that you run the installer, you must enter the following database connection information for the Marketing Platform system table database:

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

Information about web component

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

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

IBM Site ID

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

- IBM Welcome letter
- Tech Support Welcome letter
- Proof of Entitlement letter
- Other communications that are sent when you purchase your software
IBM might use the data that is provided by the installed software to better understand how customers use our products and to improve customer support. The data that is gathered does not include any information that identifies individuals. Complete the following actions if you do not want to have such information to be collected:

1. After Marketing Platform is installed, log on to Marketing Platform as a user with administration privileges.
2. Go to Settings > Configuration, and set the Disable Page Tagging property under the Platform category to True.
Chapter 3. Preparing the data source for IBM Leads

You must set up the database and JDBC connection for the Leads system tables. Enter the details about the database when you run the IBM installer later in the installation process, so you can print and complete the data source information worksheet.

Creating the Leads system table database or schema

Create the database or schema for Leads 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 steps to prepare the data sources for Leads:

1. Work with database administrator to create a database or a database schema for the Leads system tables. The following table provides information about vendor-specific guidelines while creating a database or a database schema for the Marketing Platform system tables:

<table>
<thead>
<tr>
<th>Database vendor</th>
<th>Guidelines</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oracle</td>
<td>Enable the auto commit feature for the open environment. See the Oracle documentation for instructions.</td>
</tr>
<tr>
<td>DB2®</td>
<td>Set the database page size to at least 16k (32k if you need to support Unicode). See the DB2 documentation for instructions.</td>
</tr>
<tr>
<td>SQL Server</td>
<td>Use either SQL Server authentication only, or both SQL Server and Windows authentication, because the Marketing 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.</td>
</tr>
</tbody>
</table>

Note: If you plan to enable locales that use multi-byte characters (for example, Chinese, Korean, and Japanese), ensure that the database is created to support them.

2. Create a system user account.

The account that you create must have at least CREATE, SELECT, INSERT, UPDATE, DELETE, and DROP rights.

3. Obtain information about your databases or schemas and database accounts and then print and add the information to the Leads installation worksheet. You can use the information later in the installation process.

Note:
- If your Leads installation must support non-ASCII languages, the database must use UTF-8 encoding.
If your Leads system tables are in SQL Server, ensure that TCP/IP is enabled. The Leads application works only on case-sensitive collation; however, as best practice, use the Latin1_General_Bin collation.

**IBM DB2 database tablespaces**

The DB2 database manages Database-managed Space (DMS) tablespaces. A tablespace is a storage location that contains the data sets where the DB2 tables are stored. Create tablespaces for the IBM DB2 database before you install Leads.

You can specify the following types of tablespaces for the application data:

- **Online transaction Processing (OLTP) data tablespace.** Use this tablespace to store the transactional data from the application.
- **OLTP index tablespace.** Use this tablespace to store the indexes that are created to access the OLTP data tables.
- **Discussion Support System (DSS) data tablespace.** Use this tablespace to store the OLTP data that is loaded into the DSS schema. The DSS schema organizes data from the OLTP to make it easier to generate reports of the application's activity.
- **DSS index tablespace.** Use this tablespace to store the indexes that are created to access the DSS data tables.

Make note of the names of the tablespaces and the name of the server where you create the database. These tablespaces must exist before you install Leads. You must allocate at least 100 MB of space each for the OLTP data and DSS data tablespaces, and at least 50 MB each for the OLTP index and DSS index tablespaces.

If you do not want to maintain all four tablespaces, you can specify the same tablespace for multiple fields in the installation program. For example, you can supply the same tablespace for both the OLTP data and OLTP index tables, or a single tablespace for all four types of tables. Allocate sufficient space for all the tables that are written to the tablespace.

In addition, you must provide a temporary (TMP) tablespace of at least 10 MB.

The database user that you specify when you install Leads must be associated with the tablespaces, or have permissions to administer the tablespaces. The Leads application must be able to create schema in these tablespaces and write initial data to them.

**Configuring IBM DB2 on your database server**

You must install and configure the IBM DB2 server on your database server for communication between the database and the Leads application. To configure the IBM DB2 server, you must complete tasks such as adding environment variables, creating a blank database for Leads, and setting temporary table space for the database.

Complete the following steps to configure IBM DB2 server on your database server:

1. Install and configure IBM DB2. Ensure that the database is configured for UTF-8 encoding.
2. Ensure that IBM DB2 is configured to use extended shared memory on the database server.
Complete the following steps to configure IBM DB2 for extended memory:

a. Add the environment variable `EXTSHM` to the DB2 environment list. At a DB2 command prompt, type the following command: `db2set DB2ENVLIST=EXTSHM`

b. Enable the environment variable `EXTSHM` so that it is set appropriately each time you log in to IBM DB2. In the file `sql1ib/db2profile`, add the following lines:
   ```
   EXTSHM=ON
   export EXTSHM
   ```

   Restart the database server to enable any changes.

3. Create a blank database for Leads to use.
   The temporary tablespace for the database must have the following properties:
   - Temporary table space must system-managed space (SMS) type.
   - System Temporary data must be included in the table space contents.
   - Page size must be at least 32768 bytes (32K).
   a. Set the SQL statement heap size (STMTHEAP) to at least 32K.

4. Assign the database user full DBA authority. At a minimum, the user you create for the Leads database must have CONNECT and IMPLICIT_SCHEMA authority for the database. The following example command grants this authority to the user: `GRANT CONNECT, IMPLICIT_SCHEMA ON DATABASE TO USER USER_NAME`

   **Note:** When a new database is created, PUBLIC is given IMPLICIT_SCHEMA database authority. This means that any user can create a schema by creating an object and specifying a schema name that does not exist. SYSIBM becomes the owner of the implicitly created schema and PUBLIC is given the privilege to create objects in this schema.

5. Create table spaces for the Leads application data. Note the following information about this database for use during the installation process:
   - Database name
   - User name and password Leads can use to access the database

---

**Configuring the web application servers for your JDBC drivers**

When you install Leads, configure the web application server to use JDBC drivers in your application. All the major database types support Leads system tables. Select the appropriate JDBC driver according to your database.

Use the following procedure to obtain the correct JDBC drivers for your Leads installation, and to configure your web application server to use it.

**Important:** Complete this procedure for every web application server where you plan to deploy your Leads products.

1. Obtain the latest vendor-provided Type 4 JDBC drivers that are supported by Leads. See the following reference table or tables for details.
   - If the drivers do not exist on the machine where the product is installed, obtain them and copy them to the machine or machines where you plan to deploy Leads web applications. You can copy them to any location on the machine where you plan to deploy the Leads product. To avoid potential path issues, unpack the drivers in a path that does not include spaces.
   - If you obtain the drivers from a machine where the data source client is installed, verify that the version is the latest supported by IBM EMM.
The following table lists the driver file name or names for database types that are supported for IBM EMM system tables.

<table>
<thead>
<tr>
<th>Database type</th>
<th>File for jre 1.6</th>
</tr>
</thead>
<tbody>
<tr>
<td>MS SQL Server 2008, 2008 R2</td>
<td>Version 4.0 Type 4 - 4.0.2206.100 (sqljdbc4.jar)</td>
</tr>
<tr>
<td>Oracle 11gR1, Oracle 11gR2</td>
<td>Oracle driver version 11.1.0.7 (ojdbc6.jar), 11.2.0.2 (ojdbc6.jar)</td>
</tr>
<tr>
<td>IBM DB2 9.7</td>
<td>DB2 JDBC driver version 4.13.88 (db2jcc.jar)</td>
</tr>
<tr>
<td>IBM DB2 10.1</td>
<td>DB2 JDBC driver version 4.13.127 (db2jcc.jar)</td>
</tr>
</tbody>
</table>

2. Include the full path to the drivers in the class path of the web application servers where you plan to deploy Leads, as follows.

   - For all supported versions of WebLogic, set the class path in the setDomainEnv script in the WebLogic_domain_directory/bin directory where environment variables are configured. Your driver entry must be the first entry in the class path list of values, before any existing values, to ensure that the web application server uses the correct driver. For example:

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

     **Windows**
     
     set CLASSPATH=c:\oracle\jdbc\lib\ojdbc14.jar;%PRE_CLASSPATH%;
     %WEBLOGIC_CLASSPATH%;%POST_CLASSPATH%;%WLP_POST_CLASSPATH%

   - For all supported versions of WebSphere, include the full path to the drivers in the class path. To include the full path of your database drivers in the class path, you must go to Application servers > server1 > Process definition > Java Virtual Machine.

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

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

### Creating JDBC connections in the web application server

The Leads web application must be able to communicate with its system table database and with the Marketing Platform system table database by using JDBC connections. You must create JDBC connections in the web application server or to the servers where you plan to deploy Leads.

You must create JDBC connections in each of the web application servers where Leads is deployed. The following table describes the required JDBC connections.

<table>
<thead>
<tr>
<th>Required JDBC connection</th>
<th>Required JNDI name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leads system tables</td>
<td>WebLogic: jdbc/LeadsData</td>
</tr>
<tr>
<td></td>
<td>WebSphere: LeadsData</td>
</tr>
<tr>
<td>Marketing Platform system tables</td>
<td>UnicaPlatformDS</td>
</tr>
</tbody>
</table>

Use the following guidelines when you create JDBC connections:
• When the Leads system tables are created in a different schema from the default schema of the database login user, you must specify that non-default schema name in the JDBC connection that is used to access the system tables.
• For all deployments by using WebLogic, you must set Connection Pool properties for the Leads data source as follows.
  – Initial Capacity: 15
  – Maximum Capacity: 250
  – Capacity Increment: 5
You must tune Connection Pool properties, which are based on your requirements.
• For all deployments by using WebSphere, you must set Connection Pool properties for the Leads data source as follows.
  – Maximum Connections: 250
  – Minimum Connections: 25
  – Reap Time: 5

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

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

WebLogic
Use the following values if your application server is WebLogic:

SQLServer
• Database Driver: Microsoft MS SQL Server Driver (Type 4) Versions: 2008, 2008R2
• Default port: 1433
• Driver class: com.microsoft.sqlserver.jdbc.SQLServerDriver
• Driver URL: jdbc:sqlserver://<your_db_host>:<your_db_port>;databaseName=<your_db_name>
• Properties: Add user=<your_db_user_name>

Oracle 11 and 11 g
• Driver: Other
• Default port: 1521
• Driver class: oracle.jdbc.OracleDriver
• Driver URL: jdbc:oracle:thin:@<your_db_host>:<your_db_port>:<your_db_service_name>
  Enter the driver URL by using the format that is shown. IBM EMM applications do not allow the use of Oracle's RAC (Real Application Cluster) format for JDBC connections.
• Properties: Add user=<your_db_user_name>

DB2
• Driver: Other
• Default port: 50000
• Driver class: com.ibm.db2.jcc.DB2Driver
• Driver URL: jdbc:db2://<your_db_host>:<your_db_port>/<your_db_name>
• Properties: Add user=<your_db_user_name>

**WebSphere**

Use the following values if your application server is WebSphere:

**SQLServer**
• Driver: N/A
• Default port: 1433
• Driver class: com.microsoft.sqlserver.jdbc.SQLServerConnectionPoolDataSource
• Driver URL: N/A

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

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

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

Add the following custom property:

**Name:** webSphereDefaultIsolationLevel

**Value:** 1

**Datatype:** Integer

**Oracle 11 and 11 g**
• Driver: Oracle JDBC Driver
• Default port: 1521
• Driver class: oracle.jdbc.OracleDriver
• Driver URL:
  jdbc:oracle:thin:@<your_db_host>:<your_db_port>:<your_db_service_name>

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

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

Add the following custom property:

**Name:** webSphereDefaultIsolationLevel
Value: 2

Datatype: Integer
Chapter 4. Installing Leads

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

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

After installing Leads, 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 Leads, make sure that the available temporary space on the computer where you install Leads is more than three times the size of the Leads installer.

Installation files

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

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

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

Obtain required information about Marketing Platform and web component

When you install Leads, you must first enter information for connecting to the Marketing Platform system table database.
Gather the following information that you must enter when you run the Leads installer.

**Marketing Platform information**

Leads uses IBM Marketing Platform for authentication. During the installation process, the Leads installer communicate with the Marketing Platform database.

You must enter the following database connection information for the Marketing Platform system table database.
- Database type.
- Database host name.
- Database port.
- Database name or schema ID.
- User name and password for the database account.

**Web component information**

You must obtain the following information about the application server or servers where you plan to deploy Leads:
- The names of the computers on which the web application servers are installed. You might have one or several computers, depending on the environment you are setting up.
- The port on which the application server listens. If you plan to implement SSL, obtain the SSL port.
- The network domain on which your deployment machines reside. For example, `mycompany.com`.

---

**Installing Leads by using the GUI mode**

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

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

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

To install Leads by using the GUI mode (for Windows) or the X Window System mode (for UNIX):
1. Go to the folder where you have saved the EMM installer and double-click the installer to start it.
2. Click **OK** on the first screen to see the Introduction window.
3. Follow the instructions on the installer, and click **Next**. Use the information in the following table to take the appropriate actions on each window in the EMM installer.
<table>
<thead>
<tr>
<th>Window</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>This is the first window of the IBM EMM suite installer. You can open the Leads installation and upgrade guides from this window. Click <strong>Next</strong> to go to the next window.</td>
</tr>
<tr>
<td>Response Files Destination</td>
<td>Click the <strong>Generate Response File</strong> 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. Click <strong>Choose</strong> to browse to a location where you want to store the response files. Click <strong>Next</strong> to go to the next window.</td>
</tr>
<tr>
<td>IBM EMM Products</td>
<td>In the <strong>Install Set</strong> list, select <strong>Custom</strong> to select the products that you want to install.</td>
</tr>
<tr>
<td></td>
<td>In the <strong>Install Set</strong> area, you can see all the products whose installation files are in the same directory on your computer. In the <strong>Description</strong> field, you can view the description of the product that you select in the <strong>Install Set</strong> area. Click <strong>Next</strong> to go to the next window.</td>
</tr>
<tr>
<td>Installation Directory</td>
<td>Click <strong>Choose</strong> to browse to the directory where you want to install IBM EMM. Click <strong>Next</strong> to go to the next window.</td>
</tr>
<tr>
<td>Select Application Server</td>
<td>Select one of the following application servers for the installation:</td>
</tr>
<tr>
<td></td>
<td>• IBM WebSphere</td>
</tr>
<tr>
<td></td>
<td>• Oracle WebLogic</td>
</tr>
<tr>
<td></td>
<td>Click <strong>Next</strong> to go to the next window.</td>
</tr>
<tr>
<td>Platform Database Type</td>
<td>Select the appropriate Marketing Platform database type.</td>
</tr>
<tr>
<td></td>
<td>Click <strong>Next</strong> to go to the next window.</td>
</tr>
<tr>
<td>Platform Database Connection</td>
<td>Enter the following information about your database:</td>
</tr>
<tr>
<td></td>
<td>• Database host name</td>
</tr>
<tr>
<td></td>
<td>• Database port</td>
</tr>
<tr>
<td></td>
<td>• Database name or System ID (SID)</td>
</tr>
<tr>
<td></td>
<td>• Database user name</td>
</tr>
<tr>
<td></td>
<td>• Database password</td>
</tr>
<tr>
<td></td>
<td>Click <strong>Next</strong> to go to the next window.</td>
</tr>
</tbody>
</table>
Table 8. EMM installer GUI (continued)

<table>
<thead>
<tr>
<th>Window</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Platform Database Connection (continued)</td>
<td>Review and confirm the JDBC connection. Click <strong>Next</strong> to go to the next window.</td>
</tr>
<tr>
<td>Preinstallation Summary</td>
<td>Review and confirm the values that you added during the installation process.</td>
</tr>
<tr>
<td></td>
<td>Click <strong>Install</strong> to start the installation process.</td>
</tr>
<tr>
<td></td>
<td>The Marketing Platform installer opens. If a previous instance of Marketing Platform exists, the instance is upgraded to the current version. If a previous instance of Marketing Platform does not exist, Marketing Platform is installed.</td>
</tr>
</tbody>
</table>

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

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

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

Table 9. IBM Leads installer GUI

<table>
<thead>
<tr>
<th>Window</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>This is the first window of the Leads installer. You can open the Leads installation and upgrade guides from this window. Click <strong>Next</strong> to go to the next window.</td>
</tr>
<tr>
<td>Software License Agreement</td>
<td>Carefully read the agreement. Use <strong>Print</strong> to print the agreement. Click <strong>Next</strong> after you accept the agreement.</td>
</tr>
<tr>
<td>Installation Directory</td>
<td>Click <strong>Choose</strong> to browse to the directory where you want to install Leads. Click <strong>Next</strong> to go to the next window.</td>
</tr>
<tr>
<td>Leads Components</td>
<td>Select the components that you want to install. Click <strong>Next</strong> to go to the next window.</td>
</tr>
<tr>
<td>Default Locale</td>
<td>Select a default locale for your installation. English is selected by default. Click <strong>Next</strong> to go to the next window.</td>
</tr>
<tr>
<td>Pre-Installation Summary</td>
<td>Review and confirm the values that you added during the installation process.</td>
</tr>
<tr>
<td></td>
<td>Click <strong>Install</strong> to start the installation process. The Leads installer opens.</td>
</tr>
</tbody>
</table>
Table 9. IBM Leads installer GUI (continued)

<table>
<thead>
<tr>
<th>Window</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Installation Complete</td>
<td>Click <strong>Done</strong> to close the Marketing Platform installer and go back to the IBM EMM installer.</td>
</tr>
</tbody>
</table>

7. In the Installation Complete window, click **Done** to exit the Leads installer and go back to the EMM installer.

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

Table 10. EMM installer GUI

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

**Installing Leads by using the console mode**

Use the console mode to install Leads by using the command-line window. You can select various options in the command-line window to complete tasks such as selecting the products to install, or selecting the home directory for the installation.
Before you install Leads, make sure that you have configured the following elements:

- An application server profile
- A database schema.

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

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

1. Open a command-line prompt window and navigate to the directory where you have saved the IBM EMM installer and the Leads installer.
2. Complete one of the following actions:
   - For Windows, enter the following command:
     
     `ibm_emm_installer_full_name -i console`

     For example, `IBM_EMM_Installer_9.1.0.0 -i console`
   - For Unix, invoke the `ibm_emm_installer_full_name.sh` file.
     
     For example: `IBM_EMM_Installer_9.1.0.0.sh`
3. Follow the directions that are displayed in the command-line prompt. Use the following guidelines when you have to select an option in the command-line prompt:
   - The default options are defined by the symbol [X].
   - To select or clear an option, type the number that is defined for the option, and then press Enter.

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

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

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

   The following list would then display the options that you selected:
   - 1 [X] Marketing Platform
   - 2 Campaign
   - 3 Contact Optimization
   - 4 [X] Interaction History

   **Note:** Do not clear the option for Marketing Platform unless you have already installed it.
4. The IBM EMM installer launches the Leads installer during the installation process. Follow the instructions in the command-line prompt window of the Leads installer.
5. After you enter `quit` in the Leads installer command-line prompt window, the window shuts down. Follow the instructions in the command-line prompt window of the IBM EMM installer to complete the installation of Leads.
Note: If any error occurs during the installation, a log file is generated. You must exit the installer to view the log file.

Installing Leads silently

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

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

- An application server profile
- A database schema

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

- Using the sample response files as a template for creating your response files. The sample response files are included with your product installers in the ResponseFiles compressed archive. For more information about sample response files, see “Sample response files” on page 24.
- Running the product installers in the GUI (Windows) or X Window System (UNIX) mode or the console mode before you install the product in the silent mode. One response file is created for the IBM EMM suite installer, and one or more response files are created for your product installer. The files are created in the directory that you specify.

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

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

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

Make sure that all response files are in the same directory. You can change the path where response files are read by adding arguments to the command line. For example: 

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

Use the following command for Windows:

- IBM_EMM_installer_full_name -i silent
  For example:
  IBM_EMM_Installer_9.1.0.0_win.exe -i silent

Use the following command for Unix or Linux:

- IBM_EMM_installer_full_name_operating_system.bin -i silent
  For example:
  IBM_EMM_Installer_9.1.0_unix.bin -i silent
Sample response files

You must create response files to set up a silent installation of Leads. 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>
<thead>
<tr>
<th>Sample response file</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>installer.properties</td>
<td>The sample response file for the IBM EMM master installer.</td>
</tr>
<tr>
<td>installer_product initials and product version number.properties</td>
<td>The sample response file for the Leads installer.</td>
</tr>
<tr>
<td>For example, installer_unn.nn.nn.properties is the response file of the Leads installer, where nn.nn.nn is the version number.</td>
<td></td>
</tr>
<tr>
<td>installer_report pack initials, product initials, and version number.properties</td>
<td>The sample response file for the reports pack installer.</td>
</tr>
<tr>
<td>For example, installer_url.properties is the response file of the Leads reports pack installer.</td>
<td></td>
</tr>
</tbody>
</table>

Creating an EAR file after running the installer

You create EAR files after you install IBM EMM products. You might do this to have a different combination of products in EAR file.

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

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

1. If this is the first time you are running the installer in console mode, make a backup copy of the installer's .properties file for each of your installed products.
   
   Each IBM product installer creates one or more response files with a .properties extension. These files are in the same directory where you placed the installers. Be sure to back up all files with the .properties extension, including the installer_productversion.properties files and the file for the IBM installer itself, which is named installer.properties.
   
   If you plan to run the installer in unattended mode, you must back up the original .properties files, because when the installer runs in unattended mode, it clears these files. To create an EAR file, you need the information that the installer writes in the .properties files during the initial installation.
   
2. Open a command window and change directories to the directory that contains the installer.

3. Run the installer executable with this option:
   
   -DUNICA_GOTO_CREATEEARFILE=TRUE
   
   On UNIX type systems, run the .bin file rather than the .sh file.
   
   The installer wizard runs.

4. Follow the instructions in the wizard.
5. Before you create more EAR files, overwrite the .properties file or files with the backups you created before you ran in console mode for the first time.
Chapter 5. Configuring the IBM Leads Before Deployment

You must configure the IBM Leads before you deploy the web application.

Registering Leads manually

You must register Leads if the Leads installer cannot connect to the Marketing Platform database during the installation process.

The configTool utility imports menu items and sets configuration properties. You must run the configTool utility as many times as there are files.

Run the configTool utility, by using the following example commands as guidelines:

```bash
configTool.bat -v -i -p "Affinium" -f "full_path_to_Leads_installation_directory\conf\leads_configuration.xml"
configTool.bat -v -i -p "Affinium" -f "full_path_to_Leads_installation_directory\conf\leads_registration.xml"
configTool.bat -v -i -p "Affinium|suite|uiNavigation|mainMenu" -f "full_path_to_Leads_installation_directory\conf\leads_navigation_menu.xml"
configTool.bat -v -i -p "Affinium|suite|uiNavigation|mainMenu|Analytics" -f "full_path_to_Leads_installation_directory\conf\leads_navigation_analytics.xml"
configTool.bat -v -i -p "Affinium|suite|uiNavigation|settingsMenu" -f "full_path_to_Leads_installation_directory\conf\admin_navigation_settings.xml"
```

Configure an email connection

Leads connects to an email server that is provided by the application server to provide email authentication. If you plan to use the Leads Message Assistant, configure a connection as described in the procedure.

Creating a mail resource in WebSphere

If you plan to deploy Leads on WebSphere, and if you plan to use the Leads Message Assistant feature, configure the mail session.

Complete the following steps to create an email resource in WebSphere:
1. Access the WebSphere Administration Console.
2. Expand Resources > Mail, and click Mail sessions.
3. Click New.
4. Enter a name for the mail session.
5. Enter mail/LeadsEmail for the JNDI name.
6. For WebSphere 8.x, enter the mail server name in the Server field in Outgoing Mail Properties and Incoming Mail Properties.
Note: Both mail properties in WebSphere 7.0 are the same in WebSphere 8.0.

7. Click **Apply**, and then click **Save directly to the master configuration**.

**Creating a mail resource in WebLogic**

Create a mail resource and configure the mail session if you plan to deploy Leads on WebLogic and use the Message Assistant feature.

Complete the following steps to create a mail resource in WebLogic:

1. In the WebLogic Administration Console, select **Services > Mail Sessions > New**.
2. Enter a name for the mail session and click **OK**.
3. Click the mail session name on the Summary of Mail Sessions page and complete the fields with the following information:
   - **JNDI name**: mail/LeadsEmail
   - **JavaMail Properties**: Enter a connection path for the mail server. For example: `mail.host=emailserver.corporation.com`
   - **Optional**: Enter more JavaMail properties for your configuration and then click **Save**.
   - **On the Targets tab**, select the server where you plan to deploy Leads.

**Configuring WebSphere**

Complete the following tasks to configure WebSphere before you deploy IBM Leads.

**IHS server: Adding port numbers to the Host Aliases list in WebSphere**

For the IBM HTTP Server (IHS) web server, complete the following steps to add port numbers to the **Host Aliases** list in the default server for the web server:

1. In the WebSphere Administrative Console, expand the **Environment** category and go to **Virtual Hosts > default host > Host Aliases > New**.
2. On the New page, complete the following steps:
   a. In the **Host Name** field, add an asterisk (*).
   b. In the **Port** field, add the port number for your web server. IHS is configured to listen to this port. Supply the port in the URL that you enter in a web browser to start Leads.
   c. Click **Apply**.
3. If you are enabling SSL for encryption, repeat the steps 1 and 2 to create a Host Alias and add the SSL port to the virtual host list. Typically, port number 443 is assigned to the SSL connection.
4. Save your changes and complete the following steps to update the web server plug-in:
   a. On the left side of the administrative console, expand the **Servers** category, and click **Web Servers**.
   b. Select the check box next to the server.
   c. Click **Generate Plug-in**.
   d. Click **Propagate Plug-in** if the web server is on another physical server.
   e. In the **Messages** section at the top of the page, click **Save**.
   f. In the **Save to Master Configuration**, click **Save**.
g. Click OK on the confirmation message, and exit from the WebSphere console.

5. Open the file `WebSphereroot/AppServer/config/cells/plugin-cfg.xml` in a text editor.

6. Edit the `UriGroup` and `URI Name` list section in `plugin-cfg.xml` to match the following code:

   ```xml
   <UriGroup Name="default_host_AffiniumLeads_<servername>_Cluster_URIs">
   <Uri AffinityCookie="JSESSIONID" AffinityURLIdentifier="jsessionid" Name="/admin/*"/>
   <Uri AffinityCookie="JSESSIONID" AffinityURLIdentifier="jsessionid" Name="/leads/*"/>
   </UriGroup>
   <Uri Name="/leads/"/>
   <Uri Name="/leads/*.do"/>
   <Uri Name="/leads/*.jsp"/>
   <Uri Name="/leads/*.js"/>
   <Uri Name="/admin/"/>
   <Uri Name="/admin/*.do"/>
   <Uri Name="/admin/*.jsp"/>
   <Uri Name="/admin/*.js"/>
   ```

7. Save and close the `plugin-cfg.xml` file.

**Application server swap space (AIX, Solaris, and Linux only)**

For better performance, increase the swap space on WebSphere where you plan to deploy Leads.

If your operating system is AIX®, Solaris, or Linux, and you plan to deploy Leads on WebSphere, allocate at least 1 GB of swap space to the server that runs WebSphere. You can further increase the swap space if you have multiple processes that are running on the server. If the swap space is too small, you might have performance problems or other unexpected behaviors. You might also encounter "Out of Memory" errors.
Chapter 6. Deploying IBM Leads web application

When you run the IBM installer, you create WAR files for Leads and the Admin Console. You must now deploy the Leads web application on your web application server.

We assume that you know how to work with your web application server. Consult your web application server documentation for details.

Guidelines for deploying Leads on WebSphere

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

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

• When you deploy the WAR/EAR file, ensure that the JDK source level of the JSP compiler is set to Java™ 16 or 17.

• Deploy the leads.war and admin.war file or leads.ear file as an enterprise application. When you deploy the EAR file or the WAR file, ensure that the JDK source level of the JSP compiler is set to Java™ 16 or 17, and that JSP pages are precompiled according to the following information:
  – In the form where you browse to and select the WAR file, select Show me all installation options and parameters so the Select Installation Options wizard runs.
  – In step 1 of the Select Installation Options wizard, select Precompile JavaServer Pages files.
  – In step 3 of the Select Installation Options wizard, ensure that the JDK Source Level is set to 16 or 17.

    If you deployed an EAR, set the JDK Source Level for each WAR file.
  – In step 8 of the Select Installation Options wizard, select LeadsData as the matching Target Resource.

The context root is created by default.

• In the Web Container Settings > Web Container > Session Management section of the server, enable cookies. Specify a different session cookie name for each application that is deployed. Use one of the following procedures to specify a cookie name:
  – Select the Override session management check box under Session Management.

    If you deployed separate WAR files for your IBM EMM products, in the WebSphere console, in the Applications > Enterprise Applications > [deployed_application] > Session Management > Enable Cookies > Cookie Name section of the server, specify a unique session cookie name.

    If you deployed EAR files for your IBM EMM products, in the WebSphere console, in the Applications > Enterprise Applications > [deployed_application] > Module Management > [deployed_module] > Session Management > Enable Cookies > Cookie Name section of the server, specify a unique session cookie name.
- If your installation must support non-ASCII characters, for example for Portuguese or for locales that require multi-byte characters, add the following arguments to Generic JVM Arguments at the server level:

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


- In the Applications > Enterprise Applications section of the server, select the EAR file or WAR file that you deployed, then select Class loading and update detection and specify the following properties.
  - If you are deploying a WAR file:
    - For Class loader order, select Classes loaded with local class loader first (parent last).
    - For WAR class loader policy, select Single class loader for application.
  - If you are deploying an EAR file:
    - For Class loader order, select Classes loaded with local class loader first (parent last).
    - For WAR class loader policy, select Class loader for each WAR file in application.

- The following additional setting is required for WAS 8.5:
  In WebSphere Enterprise Applications, select Your Application > Manage Modules > Your Application > Class Loader Order > Classes loaded with local class loader first (parent last).

- The recommended minimum heap size for the basic functioning of the application is 512, and the recommended maximum heap size is 1024.

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

See the WebSphere documentation for more information about sizing.

WebLogic guidelines

Deploy Leads on Weblogic by using the Leads WAR files.

Use the following guidelines when you deploy Leads on WebLogic:

- On WebLogic, you must extract the two Leads WAR files (leads.war and admin.war) and then deploy the extracted WAR files. If you mistakenly create an EAR file containing these two WAR files, you must extract the EAR file to obtain the two WAR files, and then extract the WAR files.

You can use a zip utility or the Java jar command to extract the files. If you use the Java command, you can use the JDK packaged with your web server. See http://download.oracle.com/javase/1.4.2/docs/tooldocs/windows/jar.html for information on using this command.

- Deploy the extracted leads.war and admin.war as web applications.

- Add the following JAVA_OPTIONS in the setDomainEnv script, located in the bin directory under your WebLogic domain directory.
Configuring the IBM IHS web server for SSL

Configure the IBM HTTP Server (IHS) web server so that it can communicate with the web application server. After you configure IBM IHS web server, you can configure Secure Sockets Layer (SSL).

Before configuring the IBM IHS web server for SSL, ensure that the following conditions are fulfilled:

- Working installations of your web server and the web application server exist.
- Leads installation is complete.

Enabling HTTP compression and SSL encryption

Configure the IHS with a WebSphere application server if you want to use compression and SSL encryption of the HTML transmission or both between the web server and the browser client.

Leads supports standard HTML compression, as defined in the W3C HTTP specification (RFC 2616), for the Leads application pages (HTML/JSP, JavaScript, and style sheets) between the web server and the browser client. Leads supports compression by using the IHS mod_deflate module and encryption through the SSL capabilities that are built into the IBM HTTP Server (IHS).

Note: To start the Leads application when SSL is enabled, you must connect to the web server by entering https://host/ in a browser window, where host is the name of the computer where Leads is installed, for example: https://LeadsServer1.

1. If necessary, shut down the IHS web server: Complete the following steps to shut down the IHS server:
   a. Change directories to the IHS bin directory. By default this directory is /opt/IBMIHS/bin. For example, at the command prompt type:
      cd /opt/IBMIHS/bin
   b. Stop IHS by typing: ./apachectl stop

2. Change directories to the IHS configuration directory. By default this directory is: /opt/IBMIHS/conf. For example, type at the command prompt:
   cd /opt/IBMIHS/conf

3. Edit the configuration file httpd.conf. Complete the following steps to edit httpd.conf file:
   a. In a text editor, open httpd.conf configuration file.
   b. Copy the following lines at the bottom of the httpd.conf file:
      
      ```
      LoadModule was_ap20_module /opt/[WebSphere-root]/AppServer/bin
      /mod_was_ap20_http.so
      WebSpherePluginConfig /opt/[WebSphere-root]/AppServer/config/cells
      /plugin-cfg.xml
      #AddModule mod_was_ap20_http.c
      LoadModule was_ap20_module /opt/IBMIHS/modules/mod_was_ap20_http.so
      WebSpherePluginConfig /opt/IBMIHS/modules/conf/plugin-cfg.xml
      #AddModule mod_was_ap20_http.c
      ```
   c. Continue to the next section.
Enabling HTTP compression

Enable an HTTP compression between the web server and the browser client by using the mod_deflate module that is built into IBM HTTP server (IHS).

Complete the following steps to enable HTTP compression.

Note: If you do not want to enable compression, skip to step 2.
1. Continue from step b in Enable HTTP compression and SSL encryption.
   a. Search for the following line:
      #LoadModule deflate_module modules/mod_deflate.so
      This line loads the module to support compression in the web server.
   b. Remove the comment character, #, from the line that you found in Step b.
   c. The following lines set specific configuration settings for compression. Copy the following lines to the bottom of the httpd.conf file:
      # Turn on compression for everything except images
      #
      <Location />
      # Insert filter
      SetOutputFilter DEFLATE
      # Netscape 4.x has some problems...
      BrowserMatch ^Mozilla/4 gzip-only-text/html
      # Netscape 4.06-4.08 have some more problems
      BrowserMatch ^Mozilla/4.0[678] no-gzip
      # MSIE masquerades as Netscape, but it is fine
      BrowserMatch MSIE !no-gzip !gzip-only-text/html
      # Don't compress images
      SetEnvIfNoCase Request_URI "\.(?:gif|jpe?g|png)$" no-gzip dont-vary
      # Don't compress .js & .css files as IE cannot handle that
      SetEnvIfNoCase Request_URI "\.(?:js|css)$" no-gzip dont-vary
      # Make sure proxies don't deliver the wrong content
      #Header append Vary User-Agent env=!dont-vary
      </Location>
      #
      # DeflateFilterNote ratio
      LogFormat '%t "%r" %b (%{ratio}n)' deflate
      CustomLog logs/deflate_log deflate

2. Optionally, enable SSL encryption. If you want to enable SSL encryption, enter the encryption information into the configuration file as described in "Add SSL encryption." Otherwise, skip to Step 3.
3. Save and close the httpd.conf file.
4. Restart the server.
5. Change directories to the IHS bin directory. By default this directory is /opt/IBMIHS/bin. For example, at the command prompt type: cd /opt/IBMIHS/bin
6. Type the following command to start IHS: ./apachectl start

Adding SSL encryption

When you add an SSL encryption, ensure that the properties in the ms.config files are correctly specified.

Before you enable SSL encryption, confirm that the following settings exist:
- In the ms.config file, confirm that the transmitter.nonSSLServerHostAndPort property is set to the internal Application Server HTTP port of the WebSphere. By default, the port can be 9080 or 9081. Leads cannot create and distribute user notifications over an encrypted port. During installation, the application should
set the transmitter.nonSSLServerHostAndPort property to a non-encrypted port. After installation, confirm that the transmitter.nonSSLServerHostAndPort property is set correctly to a port that is pure HTTP (no SSL).

- In the plugin-cfg.xml file, ensure that the VirtualHostGroup includes an entry for this same internal Application Server HTTP port in addition to your SSL port. For more information about the port numbers, see step 2 in "Configure WebSphere Administration." For more information about editing plugin-cfg.xml, refer to "Edit the server configuration file."

1. If not already opened, open the file httpd.conf in a text editor. By default this file is in the /opt/IBMIHS/conf.

2. Search for the following line:

   # Dynamic Shared Object (DSO) Support

3. Go to the end of the list of modules in the httpd.conf. Add the following line to the end of the list of modules:

   LoadModule ibm_ssl_module modules/mod_ibm_ssl.so

   This line loads the module to support SSL encryption in the web server.

4. To enable SSL support, add lines similar to the following lines below to the end of the httpd.conf file. The details of the lines depend on your environment. The lines below are only an example.

   LISTEN 443
   SSLEnable
   Keyfile /opt/IBMIHS/bin/key.kdb
   SSLServerCert TestCertificate
   SSLStashfile /opt/IBMIHS/bin/key.sth

   Modify the following lines to correspond to your environment:

   a. LISTEN 443 specifies the port used for SSL access. Port 443 is commonly used. The port you specify must match the port that you specified when you created the VirtualHost Name in the plugin-cfg.xml file on the application server. See "Edit the server configuration file."

   b. SSLEnable is included exactly as is.

   c. The remaining lines provide information to support the use of a certificate with your SSL deployment:

      Keyfile /opt/IBMIHS/bin/key.kdb
      SSLServerCert <certificate_name>
      SSLStashfile /opt/IBMIHS/bin/key.sth

      The /opt/IBMIHS/bin directory is the default location for the Key file and the SSLStash file. Confirm that the location of these files in your environment.

      Following the SSLServerCert property, replace <certificate_name> with the name of the certificate that you use to access your site. For more information about using certificates, see the documentation for IHS 2.0.

   Note: To disable SSL encryption, open the configuration file and comment out the line shown in Step 3 and the lines that you added to the end of the file in step 4. Save the file, then restart the server.
Chapter 7. Configuring IBM Leads after deployment

After you deploy Leads, you must configure the Leads environment.

In addition, if you are using the reporting feature, you must complete the tasks that are described in the "Installing Reports" chapter in the IBM EMM Reports Installation and Configuration Guide.

Creating Leads system user

Create a system user to access the Leads application. For every system user, assign user roles that allows user to complete administrative or general tasks in the application. Users are created in Marketing Platform when you create the user in Leads.

Create the Leads system user by using following guidelines:
- Create a Leads administrators group in the Marketing Platform. Name the group All Users, and assign it the role LeadsAdminRole.
- Create a asm_admin user and add that user to the All Users group.

Note: When you install Marketing Platform, the asm_admin user is created and added to All Users group automatically.

For creating a new user, assigning permissions, and saving data source login credentials to a user, see the The IBM Marketing Platform Administrator’s Guide.

Logging in to the Admin console

After you deploy the Leads application, use asm_admin to log in to the Admin console for first time. Afterwards, you can log in by using the Leads system user account that is created in the Marketing Platform.

Complete the following tasks to log in to the Admin console:
1. Open a browser and enter the URL for the Leads Admin console.
   - The URL is http://host:port/admin where
     - host is the name of the application server.
     - port is the port on which the application server listens.
2. Log in to the Admin console by using asm_admin credentials.
3. Create the Leads system tables.

Creating Leads system tables

You can create Leads system tables after logging in to the Admin console. In the Leads Admin console, you can create the Leads system tables automatically, or you can preview and save the SQL query in a file and give it to your database administrator to apply.

Complete the following tasks to create Leads system tables:
1. For IBM DB2 or Oracle, enter the names of the tablespaces that you created for Leads in the Leads Admin Console. If you are using only one tablespace, enter the tablespace name in all four fields.

2. Select one of the following options.
   - If your company policy requires that only a database administrator can make changes to the Leads database, click **Preview SQL** to display the SQL code for this schema on the page. Then click **Download SQL** to save the SQL in a file you can then give to your database administrator to apply. Exit the Admin console.
   - If your company policy allows automatic changes to the Leads database, click **Update Schema** to create the system tables. The Initialize Stored Procedures page appears after the system tables have been created.

3. Install Leads stored procedures

### Installing stored procedures

You can install Leads stored procedures automatically or manually by using an SQL query. You can preview your SQL query and then save it when you manually install Leads stored procedures.

Complete the following tasks to install Leads stored procedures:

1. For IBM DB2 or Oracle, enter the names of the tablespaces that you created in the Admin console. If you are using only one tablespace, enter the tablespace name in all the fields.

2. Complete the following tasks if your company policy requires that only a database administrator can change a database:
   - Click **Preview SQL** to display the SQL code for the stored procedures on the page.
   - Click **Download SQL** to save the SQL in a file that a database administrator can use to install the stored procedure. If you are using IBM DB2, the saved SQL must be split into two files.

3. If your company policy allows automatic changes to the database, click **Install Stored Procedures**. A progress bar is displayed while the stored procedures are being installed. After the installation is complete, the Initializing the database page is displayed.

### Running the stored procedure SQL file for DB2

Database administrator runs the stored procedure SQL file manually by using the DB2 console. If your company policy does not permit you to modify the system database, provide the stored procedure SQL file to your database administrator.

Complete the following procedure before running the SQL file:

1. Download the file from the Admin console.
2. Separate the contents of the file into the following SQL files:
   - fileA.sql containing the section, delimited by "~"
   - fileB.sql containing the second section that is delimited by ";"
4. Run fileB.sql by using `db2 -tf fileB.sql`. 
Initializing the database

Use the Initializing the Database page in the Leads console to assign the Admin Organization Name for the initial user for the Leads system. The initialization program assigns a name to the application instance and creates the instance as the default organization in the Leads console.

Complete the following steps to initialize the database:
1. Login to the Leads Admin console.
2. Enter the name of your organization Administrator's Organization field.
3. Click Next.
   A progress bar is displayed as the database is initialized. When the database is initialized, the Configure Server Information page is displayed.
4. Configure the web server information.

Configuring web server information

Configure the web server by entering the host name and port number of the web server.
1. Use the Configure Server Information page to specify the following information for the web server:
   • Server Host and Port: Enter the URL for the Leads application. Use the following format:
     http://host:port/context_root
     – The default value of the context_root must be /leads/. The context root is the root directory for the application in the application server hierarchy. The installation program uses the root directory by default.
     – If you change the value of context_root, you must change the information in WebSphere.
     Note: If you enable encryption by using SSL in the IHS web server, the URL format must use https instead of http.
   • If you plan to use Cognos® reports, enter the Cognos URL. For example, http://cognos.
2. Click Next.
   The Configure Message Assistant page is displayed.
3. Enable notifications for the message assistant.

Enabling notifications for the Message Assistant

You can enable Message Assistant to receive event notifications by email. By using this feature, you can monitor the events or actions that occur in the Leads application.

You can configure Leads to send event notifications through email. After you enable notifications, the email transmitter starts when you start Leads. If an event occurs, the Message Assistant sends a notification email.

Complete the following steps to enable notifications for the Message Assistant:
1. To enable the Message Assistant, click the Message Assistant Enabled check box on the Configure Message Assistant page, and specify the following fields:
- **SMTP Server**: Enter the name or IP address of the email server for email notifications from Leads to users. For better performance, you can use the IP address of the email server to eliminate the need for a DNS lookup.

- **From Address**: Enter the email address of the administrator of Leads applications. The address is used as the source of email messages and notifications that are generated by Leads, and it is required to receive bounced email messages.

- **Email Rendering HTTP Server Host and Port**: Enter the URL that uses the non-SSL port to connect to the application server. Use the following format: http://host:port. Leads needs the non-secure port to render HTML or text.

- **Message Store Directory**: Enter a path for the temporary directory on the application server in which email messages are stored if they cannot be sent out. If there are too many messages, or if the SMTP server is down, the system temporarily stores the messages in the message store directory.

2. Click **Next** to save the settings.
3. Use the Admin console to review the configuration settings.

---

**Reviewing Admin console settings**

The Review Settings page is displayed after you complete the configuration settings. You can use the Admin console to review the configuration.

**Note**: If you are using a new database for the Leads system tables, you might notice version errors in your admin main log during Admin Console configuration. These errors are normal at this point because the database is not configured.

**Note**: You must restart the application server before you can log in to the main application.

---

**Completing Leads configuration**

After you complete the configuration steps in the **Admin** console, complete the following steps to finish the basic Leads installation.

**Adding Leads URL to Marketing Platform**

Set the Leads URL configuration property to enable users to access Leads through the Marketing Platform.

Complete the following steps to add Leads URL to the Marketing Platform:

1. In the Marketing Platform, open **Settings > Configuration**.
2. In the configuration properties tree, navigate to **IBM EMM > Leads > Navigation**.
3. Specify the server name and port for the **serverURL** property.

**Note**: Ensure that the server and port value that you enter matches the values that are specified in the transmitter.serverHostAndPort property in the Leads **ms.config** file. The **ms.config** in the **conf** directory under your Leads installation.

---

**Backing up application directories**

After you install and configure Leads, create a backup copy of the application directories to use later if the installation fails.
Log files

During installation, the installer creates a log file to record errors that occur during the installation. Check the log file to verify that there are no errors. If there are errors, resolve the errors before you deploy or configure Leads. You must reinstall the product after errors are resolved.

The installation log file name includes the date and time with a MM_DD_YYYY_HH_MM_SS format. For example:
Leads_Install_04_24_2012_19_42_18.log. The installation files exist in the top folder of your Leads installation. (For example, if you install Leads in C:\IBM_EMM_Home\Leads, the log file is C:\IBM_EMM_Home\Leads\Leads_InstallLog.log). In a case where there are serious unrecoverable errors in the Leads_InstallLog.log, you must uninstall the Leads application and reinstall.

The leadsAdmin.log is generated in the logs folder for the admin module of Leads, and the leadsBatch.log for LI execution. For the LI batch mode, the system parameter can be used to specify the log4j configuration file than the default (leadsBatch.log) while you run multiple scripts. For example, Dlog4j.conf=C:\IBM_EMM_Home\Leads\conf\log_conf_custom.xml.

Admin console context root

You can set the context root configuration for the Admin console by using the application server. You cannot use the Admin console to set its own context root.

Configuring the context root for Leads and the Admin console

To configure the context root for Leads, first enter the context root through the Leads Admin console, and then update the application server.

Complete the following steps to configure the context root for Leads and Admin console:
1. Log in to the Admin console.
2. Click the Home navigation link
3. Click the Server Information link
4. From the Configuration Server Information page, go to the Server Information section.
5. Enter the appropriate value of the context root in the Context Root field.

Updating WebLogic with the context root

To update WebLogic, modify the application.xml file in <IBM_EMM_Home>\applications directory.

Complete the following steps to updating WebLogic with the context root:
1. Navigate to the <IBM_EMM_Home>\applications directory.
2. Open the application.xml file.
3. Modify the <context-root> setting. By default, the value of context root is /admin. For example, <context-root>/admin</context-root>
4. Save the file, and restart the application server.

Updating WebSphere with the context root

In IBM WebSphere, set the context root by using the WebSphere UI.
Admin console

You can use the Admin console, to complete activities such as editing data, configuring properties, or accessing system tools. To use the Admin console, you must have appropriate user role permissions.

To review and edit configuration data, log out, or use the Environment Migration from the Admin console, see “Logging in to the Admin console” on page 37.

**Note:** To use Environment Migration, you must configure each instance.

You can compete following tasks by using Admin console:

- To edit the configuration data, click editable configuration links on Admin console.
  - JDBC Data Source: Identifies the name of the JDBC data source. The JDBC data source cannot be changed on Admin console.
  - Command Line JDBC Connection: Configure JDBC connection information for the Leads Integrator programs that run from the command line.
    - If you select DB2 as the Database Type, you must replace `<database_Name>` with the actual name of your database.
  - Message Assistant: Configure email notification.
  - Server Information: Includes web server and reports server specification. See “Configuring web server information” on page 39 for web server configuration information.
  - Cluster Information: Includes a list of cluster hosts and ports.
  - View Patch Information: Includes a list of individual fixes that are applied with each patch to the Leads installation. The page displays associated documentation for each of the fixes in a patch.

- To access the system repair tools, click System Repair Tools.
  - Run InitDB: Reinitialize the database.
  - Check Database Schema: Update the database schema.
  - Reinstall Stored Procedures: Update the stored procedures in the database.
  - Create Leads Users In IBM Marketing Platform: Create Leads users in the Marketing Platform.
  - Load Derived Attributes: Load an XML file that is containing derived attributes to be added to the system.
  - View Table Hierarchy and Create Localization Files: Generate a table hierarchy and localization files.

**Note:** If you are editing data in the Admin console after the initial installation, you must restart the application server in order for the changes to take effect.

**Note:** When you use the Admin Console to configure Leads, the ms.config file is written. When the entries in the ms.config are configured by using the Admin console, the Admin console inserts settings at the end of the file. When there are multiple entries for the same setting, the last entry in the file changes the setting. The ms.config file does not group similar settings together.
Chapter 8. Localizing IBM Leads

The first stages of the Leads installation process completed only in English. However, after installation, you can set up different languages for users, who can then view the Leads user interface in their preferred language.

Leads supports the following languages.
- English (United States)
- French (France)
- German (Germany)
- Italian (Italy)
- Japanese (Japan)
- Korean (Korea)
- Portuguese (Brazil)
- Simplified Chinese (China)
- Spanish (Spain)
- Russian (Russia)

In Leads you set the locale on the user’s detail page. If you want the user to see a localized login page, you must also set that user's locale on the user's detail page in the IBM Marketing Platform.

You must remove references to unused languages from the ms.config file, which is in the config directory under your Leads installation directory. The default locale of en_US must not be changed, however.

Conversions of Property file encodings

Leads can process only the files that are encoded with the ISO 8859-1 character encoding. Ensure that any property files that are not supported by ISO 8859-1 are converted to the ISO 8859-1 format.

Property files conversion

Leads automatically completes the ISO 8559-1 conversion for some files. Whenever you enter localizations using the Leads Attribute Editor, the conversion takes place automatically. For example, if you use the Attribute Editor to enter localizations for system and custom attributes, Leads converts the characters in the properties files to their Unicode escape forms.

While Leads automatically converts some language property files; it is not true for all property files. If you plan to localize to a non-ISO 8559-1 language, you must complete the manual conversion on the files:
- Files that you cannot modify by using the Attribute Editor.
- Any file that you choose to edit manually. If you decide to modify system and custom attribute files manually rather than through the Attribute Editor, you must manually convert the files.

In summary, whenever you edit a locale-specific property file directly, outside of the Leads UI, you must manually convert the file to use Unicode escape characters.
if you are localizing to a non-ISO 8559-1 language.

**Manually converting properties files to Unicode encoded characters**

The Native-to-ASCII converter is a utility that is packaged in the JDK that converts files that contain characters that are not supported by ISO 8559-1 to files containing Unicode encoded or Unicode escaped characters.

You can find complete documentation for the utility on the http://java.sun.com website. Following example shows how you might use the utility to accommodate a Japanese translation of Leads

To convert Japanese characters to Unicode escapes in your properties files, run the following command:
```
native2ascii -encoding UTF-8 sample_ja_JP_UTF8.properties sample_ja_JP.properties
```

To convert the Unicode escapes back to UTF-8 encoding, run the following command:
```
native2ascii -reverse -encoding UTF-8 sample_ja_JP.properties sample_ja_JP_UTF8.properties
```

---

**Import non-ISO 8859-1 data with Leads Integrator**

You can import non-ISO 8859-1 data by using Leads Integrator. Leads Integrator (LI) can process data that is encoded in non-8859-1 formats regardless of whether you have specified a Unicode file encoding for the entire Java run time.

To use LI to import non-8859-1 formats, you must determine and specify the encoding of following files:
- The data file being imported
- The LI configuration file

Each LI mode requires a different method of specifying encodings. Following section describes how to specify non-ASCII encodings by using LI modes:
- Batch Mode
- JSP Mode
- Web Services Mode

**Import non-ISO 8859-1 data in batch mode**

When you import non-ISO 8859-1 data in batch mode, you pass the encodings of the data and LI configuration file by using the Java program arguments.

The following table describes the data encodings and their description:

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>charEncoding &lt;encoding name&gt;</td>
<td>Used to specify the file encoding LI uses for all file operations other than reading configuration XML files. If not you do not specify an encoding, LI uses the default system file encoding.</td>
</tr>
</tbody>
</table>
Table 12. Import non-ISO 8859-1 data in batch mode (continued)

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>-confCharEncoding &lt;encoding name&gt;</td>
<td>Used to specify the file encoding LI uses for reading configuration XML files. If you do not specify an encoding, LI uses the default system file encoding.</td>
</tr>
</tbody>
</table>

The file encoding of the LI configuration file you create depends on whether you use fixed non-ISO 8859-11 characters as part of the import logic. If yes, then you must save the configuration file in an encoding that supports the character set you are using. Also, you must pass the name of that encoding to the LI run time for use when LI processes configuration files.

**Import non-ISO 8859-1 data by using JSP mode**

When you run the LI in JSP mode, you specify the required Unicode encodings in Java statements. The statements must be displayed before the execution of the LI process in the JSP file.

Following table illustrates how to set the parameters within the context of a JSP file:

Table 13. Importing non-ISO 8859-1 data by using JSP mode

<table>
<thead>
<tr>
<th>Java statement</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Import.DefaultEncoding = &quot;UTF-8&quot;;</td>
<td>Used to specify the file encoding LI uses for all file operations other than reading configuration XML files. If not you do not specify an encoding, LI uses the default system file encoding.</td>
</tr>
<tr>
<td>-Import.DefaultConfFileEncoding = &quot;UTF-8&quot;;</td>
<td>Used to specify the file encoding LI uses for reading configuration XML files. If you do not specify an encoding, LI uses the default system file encoding.</td>
</tr>
</tbody>
</table>

In addition to specifying combination of the parameters, you must also ensure that the content type of any HTML or JSP page used in your LI setup is set to the appropriate file encoding. If your page is running from within the same web container as the Leads application, you can use the following JSP directive (which uses the file encoding set in the Leads ms.config).

```jsp
<%@ include file="/include/localeSetup.jsi"%>
```

If the HTML or JSP page runs outside of the Leads web container, you can use the standard JSP directive:

```jsp
<%@ page language="java" contentType="UTF-8" %>
```

**Import non-ISO 8859-1 data by using Web Services mode**

To import non-ISO 8859-1 data in Web Services mode, specify the Unicode encodings for the data file and the default configuration file by specifying `msi.charEncoding` and `-msi.confCharEncoding` property whichever is required.

Following table describes properties in your -server file.
Table 14. Import non-ISO 8859-1 data by using Web Services mode

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>msi.charEncoding</td>
<td>Used to specify the file encoding LI uses for all file operations other than reading configuration XML files. If not you do not specify an encoding, LI uses the default system file encoding.</td>
</tr>
<tr>
<td>-msi.confCharEncoding</td>
<td>Used to specify the file encoding LI uses for reading configuration XML files. If you do not specify an encoding, LI uses the default system file encoding.</td>
</tr>
</tbody>
</table>

In addition, you must set the required character encoding for any JSP or HTML pages that are used by the LI system.

**Extra notes for using LI to import non-ISO 8859-1 characters**

When you use LI to import non-ISO characters, make sure that you are aware of encoding support of the Leads application.

- When you configure the Leads application to use UTF-8, the underlying database is configured to support this encoding. UTF-8 is the only non-ISO 8859-1 encoding that is supported by Leads now. While you can specify import data and configuration files in any encoding, the characters used in the files must be supported by UTF-8, or you risk losing data when it is saved to the Leads database.

- In any LI setup, if you would like to set fields with fixed values that contain international characters, you must specify the required encoding by using the default conf file encoding parameter. When writing the LI XML configuration file, you should include the `<?xml .... >` header and specify the encoding to match the encoding you are using.

- When you use an encoding that allows for a Byte Order Marker (BOM), be sure to save without BOM if you are using the encoding in an LI XML configuration file.
Chapter 9. Uninstalling Leads

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

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

If you manually remove the files in your installation directory instead of running the uninstaller, the result might be an incomplete installation if you later reinstall an IBM product in the same location. After uninstalling a product, its database is not removed. The uninstaller only removes default files that are created during installation. Any file that is created or generated after installation is not removed.

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

Complete the following tasks to uninstall Leads:

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

If you encounter a problem that you cannot resolve by consulting the documentation, your company’s designated support contact can log a call with IBM technical support. Use these guidelines to ensure that your problem is resolved efficiently and successfully.

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

Information to gather

Before you contact IBM technical support, gather the following information:

- A brief description of the nature of your issue.
- Detailed error messages that you see when the issue occurs.
- Detailed steps to reproduce the issue.
- Related log files, session files, configuration files, and data files.
- Information about your product and system environment, which you can obtain as described in "System information."

System information

When you call IBM technical support, you might be asked to provide information about your environment.

If your problem does not prevent you from logging in, much of this information is available on the About page, which provides information about your installed IBM applications.

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

Contact information for IBM technical support

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

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