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IBM Marketing Software Director Installation Guide

IBM

This edition applies to version 11, release 1, modification 0 of IBM Marketing Software Director and to all subsequent releases and modifications until otherwise indicated in new editions.

Contents

Chapter 1. Installation overview

IBM® Marketing Software Director helps you monitor the Campaign application health, monitor flowcharts, perform clean up operations, migration of campaigns, sessions, flowcharts from one environment to another environment and so on. IBM Marketing Software Director can be installed as a standalone application. IBM Marketing Software Director comes with two modules:

- IBM Marketing Software Director - Server and
- IBM Marketing Software Director - Agent

You must setup a single instance of IBM Marketing Software Director Server Instance. This will act as the Marketing Software Director application. IBM Marketing Software Director Agent should be installed on all the machines where Campaign applications are deployed or installed. For example - Application Server where Campaign web app is deployed, Campaign Listener machines and so on.

Supported IBM Campaign version

IBM Marketing Software Director is compatible with IBM Campaign v11.1 only. Its not compatible with older versions of IBM Campaign.

Chapter 2. Prerequisites

The following pre-requsites must be fulfilled before you begin the IBM Marketing Software Director installation:

1. Apache ActiveMQ -5.15.7 is configured in the customer environment. IBM Marketing Software Director does not bundle or provide Apache ActiveMQ. You must download, install and configure it. Before beginning the IBM Marketing Software Director installation you should have the ActiveMQ - Broker URL, port and credentials. You are required to provide this information while installing IBM Marketing Software Director.

2. You should install the IBM Marketing Software Director agent on the Campaign systems (Web application and listener machines) - You must have the required information or access to install Marketing Software Director on these machines. Example - Operating system details like - hostname, login details, installation location and so on.

3. Please identify ports that could be used for Server component and Agent components. These ports should not be in use by any other service or application on the machine.

4. Add Campaign Listener Hostname in application:

   Note: The Listener Hostname cannot be an IP address.

   1. Login to Unica.

   2. Go to Settings ->Configuration.

   3. Got to Campaign ->unicaACListener.

   4. Update the ServerHost to Hostname.

   Add the following Active MQ Setting for Campaign:

   1. Go to Settings -> Configuration.

   2. Go to FlowchartEvents . set "enableEvents" to yes.

   3. Go to FlowhcartEvents-> ActiveMQ . Fil in all ActiveMQ details.

   For example:

url	tcp://zebra39.nonprod.hclpnp.com:61616
Marketing Platform User with Data Sources for ActiveMQ Credentials	asm_Admin
Data Source For ActiveMQ message broker credentials	ACTIVEMQ_CRED_DS
queueName	flowchartInfo-campaign_rb

   4. Go to Setting -> Users -> Select respective User -> Edit data sources -> Add New.

   For example:

Data source	ACTIVEMQ_CRED_DS
Data source login	admin
Data source password	admin
Confirm password	admin

5. Assign all the data sources to the Marketing Platform user who is logged on to the IBM Director server. He can only then be able to perform a Test connection of Data sources within the IBM Marketing Software Director.

6. Install IBM Marketing Software Director Agent with the same user using which Campaign Listener or Campaign application was installed, so that it will have access to all the Campaign directories to access logs or start / stop / restart campaign listener.

7. A separate database schema/user are required to create and maintain system tables for Director. This database schema/user can be used once as the same as Campaign/Marketing Platform product but it can be a separate one.

8. Applicable only to the Windows OS - The Marketing Software Director - Agent system (on the computer where the Campaign Listener is installed):

   Please make sure that the following performance counters are available. You can check this by launching the Performance Monitor:
   - Processor Time
   - Working Set

   These counters help the IBM Marketing Software Director - Agent application to gather the statistics of the Campaign listener or server processes on memory and CPU utilization.

   Note: If the performance counters are not available, open the command prompt as an administrator on the target server and enter the following commands to rebuild the performance counters. Otherwise you will not be able to see the data in the System Usage Graph on the Windows Operating System.
   - For 32 bit machine:
     - `cd %windir%\system32\`
     - `lodctr /R`
   - For 64 bit machine:
     - `cd C:\Windows\SysWOW64\`
     - `lodctr /R`

Chapter 3. Installing Marketing Software Director

IBM Marketing Software Director can be installed on Operating Systems supported / compatible with the IBM Campaign application. IBM Marketing Software Director can be installed in GUI / console mode, it does not support silent mode installation.

You can run the IBM Marketing Software Director installer as below:

Windows:

run IBM_MarketingSoftware_Director_11.1.0.0_win.exe

RHEL Linux / SUSE / AIX:

Run

./IBM_MarketingSoftware_Director_11.1.0.0_<os>.bin

You will be prompted for interactive inputs to proceed with the installation.

Server and Agent Install	Choose the locale	Specify the locale you would want to use
Server and Agent Install	Specify the Installation Directory	This is the directory location where IBM Marketing Software Director selected components will be installed
Server and Agent Install	Select the Components to Install	You can select Director Server or Agent components to be installed. You can install any or both components on the same machine
Server Install	Database Setup	You can select Database setup option - Automatic Database Setup / Manual Database Setup
Server Install	Database Setup -	Type of Database - IBM Marketing Software Director Server can be installed with the following three types of databases: 1. IBM DB2 2. Oracle 3. MS SQL Server
Server Install	Database Details	Database Hostname Database Port Database Name or SID Database User Name Database Password
Server Install	JDBC Connection	JDBC Connection string will be shown to user

Server Install	Active MQ Server details	You are required to specify Active MQ Server details such as 1. Active MQ Broker URL 2. Active MQ User ID 3. Active MQ Password
Server Install	Server Port Numer	This port number will be used to access the IBM Marketing Software Director application
Agent Install	Agent Port Number	This port number will be used to communicate IBM Marketing Software Director Server to agent

After the installation is complete, you can see the installation log under the installation directory with name Director_Install_MM_DD_YYYY_HH_MM_SS.

Datasource and ActiveMQ passwords: The Datasource and ActiveMQ passwords should be in an encrypted format in the Application.properties file and they should work correctly.
Note: If the database or Active MQ passwords have expired or have changed then:

1. You must go to the $INSTALLATION_PATH/Server/tools/bin path.
2. Run the encrypt.sh utility with the password to encrypt the password.
3. You must replace this encrypted password in application.properties file.

For example: $INSTALLATION_PATH/Server/tools/bin/encrypt.bat -p <password to encrypt>

<Install_Path>/Server/Downloads Web logs and Server logs will be downloaded to this location. For example: Flowchart logs, Campaign web logs, Listener logs, and so on.

Note: Server port number and agent port number are the port numbers used by IBM Marketing Software Director server and agent respectively and are not those that are used by IBM Marketing Platform or Campaign application or by the web application server. Also please ensure that these port numbers should not have been already used by other applications running on that machine and should be accessible throughout the network.

Chapter 4. Manual Database Setup

In case of manual DB selection, the Director Server Installer will not ask for DB details and will not run DB scripts. You have to run the DB scripts (<DirectorHome>\Server\tools\DDL) manually and update the DB details in the <Install_Path_Director_Server>/Server/application.properties file.

config to update in application.properties

The following config should be updated in application.properties in case of Manual database setup:
#DB details
spring.datasource.url=<jdbc url>
spring.datasource.username=<db username>
spring.datasource.password=<db password>
spring.datasource.driverClassName=<Database Driver>
#Hibernate Config
spring.jpa.hibernate.dialect= <Dialect>

Example:

spring.datasource.url=jdbc:db2://zebra682.nonprod.hclpnp.com:50001/testdb4

spring.datasource.username=uc684

spring.datasource.password=ENC(7iWciyBkHv0lfDP6PIftwLgqxu5P8DTs)

spring.datasource.driverClassName=com.ibm.db2.jcc.DB2Driver

spring.jpa.hibernate.dialect=org.hibernate.dialect.DB2Dialect

Encrypting database and Active MQ passwords

1. Go to $INSTALLATION_PATH/Server/tools/bin.
2. Run the encrypt.sh utility with the given password to encrypt the password's value.
3. Replace that encrypted value of the password in the application.properties file manually.

For example: $INSTALLATION_PATH/Server/tools/bin/encrypt.bat -p <password to encrypt>

Chapter 5. Configuring Marketing Software Director

Change in ActiveMQ configuration

After IBM Marketing Software Director server installation you might need to change the ActiveMQ configuration. You can do this by modifying the ActiveMQ configuration in the <IBM Director Install Path> /Server/application.properites

spring.activemq.broker-url=ACTIVE_MQ_BROKER_URL

spring.activemq.user=ACTIVE_MQ_USER

spring.activemq.password=ACTIVE_MQ_USER_PASSWORD

Listener resource consumption data

By default, the IBM Marketing Software Director server maintains listener CPU and Memory consumption data of the last 7 days. If you require more data than this, it can be done by updating the <IBM Director Install Path> /Server/application.properites

set parameter addon.listener.profile.data.days=<number of days>

This will retain the data for the specified number of days in the **ao_listener_rc** table but the graph will show data for the last 7 days (beginning today) only.

Note: Setting a higher value for days to retain data can cause delay in the update to the System Usage chart.

Chapter 6. Configuring IBM Marketing Software Director for Apache Tomcat

If Campaign is deployed on Tomcat Web Server, please follow below steps to start / stop or get status of Campaign deployment in Tomcat from IBM Marketing Software Director:

Prerequistites:

1. Configure <TomcatDirectory>/conf/jmxremote.access and jmxremote.password file . Please contact your Tomcat administrator for details .

jmxremote.access: It should provide the access roles for the Tomcat users. User-you should have been provided with access required to get the status like - readonly and readwrite.

Example: Contents of jmxremote.access:

monitorRole readonly

controlRole readwrite

tomcat readwrite

Note : Please ensure you give readwrite permission for controlRole and tomcat

jmxremote.password: It should provide the username and password for the Tomcat user, this file should restrict access to other users other than the user who runs the Director agent.

Example: Contents of jmxremote.password

monitorRole tomcat

controlRole tomcat

tomcat unica*03

2. Add JMXremote configuration(JMX remote access ,JMX password file and JMX port), JVM argument and JVM Heap size as per the system load and configuration for Campaign application. Please make sure JMXremote port should not conflict with any other application port. Please contact your Tomcat Administrator for details .

```
CATALINA_OPTS=-Dcom.sun.management.jmxremote -Dcom.sun.management.jmxremote.port=<JMX_PORT> -Dcom.
 -Dcom.sun.management.jmxremote.authenticate=true -
Dcom.sun.management.jmxremote.password.file=../conf/jmxremote.password
 -Dcom.sun.management.jmxremote.access.file=../conf/jmxremote.access
```

Here is Sample example which needs to be added in <TomcatDirectory>/bin/setenv.sh

set "CATALINA_OPTS=%CATALINA_OPTS% -Xms2560m -Xmx2560m
-XX:MaxPermSize=512m -Dcom.sun.management.jmxremote
-Dcom.sun.management.jmxremote.port=<JMXremote_PORT>
-Dcom.sun.management.jmxremote.ssl=false
-Dcom.sun.management.jmxremote.authenticate=true
-Dcom.sun.management.jmxremote.password.file=$TOMCAT_HOME/conf/
jmxremote.password
-Dcom.sun.management.jmxremote.access.file=$TOMCAT_HOME/conf/
jmxremote.access -Dcom.sun.management.jmxremote.rmi.port=<JMXremote_PORT>
-Djava.rmi.server.hostname=<HOST_NAME>"

set "JAVA_OPTS=%JAVA_OPTS% -DUNICA_PLATFORM_CACHE_ENABLED=true
-Dclient.encoding.override=UTF-8 -Dcom.sun.management.jmxremote

Note : If you don't want to use Autentication for Tomcat Webserver then you have
to set JMX remote authenticate option value as false.

E.g : -Dcom.sun.management.jmxremote.authenticate=false

3. Please replace "localhost" with fully qualified hostname (eg.
camel09.nonprod.hclpnp.com) in server.xml in following places :

E.g:

a) <Host name="camel09.nonprod.hclpnp.com" appBase="webapps"
unpackWARs="true" autoDeploy="true">

b) <Engine name="Catalina" defaultHost="camel09.nonprod.hclpnp.com">

4. Create a directory with fully qualified host name under $TOMCAT_HOME/
conf/Catalina/ . Copy campaign.xml from $TOMCAT_HOME/conf/Catalina/
localhost/ to $TOMCAT_HOME/conf/Catalina/<fully_qualified_host_name>/
campaign.xml

E.g:

$TOMCAT_HOME/conf/Catalina/camel09.nonprod.hclpnp.com/Campaign.xml

5. Restart the Tomcat web application server so your changes take effect.

Configuring Tomcat WebServer in IBM Marketing Software Director:
1. In the Environment Page of Marketing Software Director Configure Web Server
   as Tomcat by providing full Qualitified host name , applicaiton name ,agent
   port , Campaign Home and Web Server details which inclues Server Type and
   JMX port . Below is an example:
   E.g :
   *SERVER HOST - Fully qualified name with domain E.g :
   camel09.nonprod.hclpnp.com
   *DEPLOYED APPLICATION NAME - Campaign
   *AGENT PORT - 1112
   *AGENT ON HTTPS - False
   *CAMPAIGN HOME - C:\HCL\MarketingSoftware11\Campaign
   --*WEB SERVER DETAILS
   *Server type - Tomcat

*Tomcat JMX Port - 9080

2. Go to Health Check ->Application Deployment. You can now get the Status of the Campaign Application / start or stop Campaign Application deployed on the Tomcat Server.

   Note: Starting / stopping Campaign Application status can be checked in the Job queue.

   Status will be shown in Application Deployment with a Green(Running) or Red icon (Stopped) with TimeStamp.

Chapter 7. Configuring IBM Marketing Software Director for SSL

Perform the following steps to configure SSL for IBM Marketing Software Director Server and Agent:

Prerequisites:

1. The Campaign and Marketing Platform application should SSL enabled too.

2. In IBM Marketing Platform, navigate to "Affinium|suite|security|apiSecurity|manage" from Settings >> Configuration and enable "Secure API access over HTTPS" property for User, Policy, Configuration, Datasource and Login.

Configure SSL for IBM Marketing Software Director Server by performing the following steps:

Prerequisite:

Copy certificate files (.cer / .jks) used for Marketing Platform to the machine where IBM Marketing Software Director server will be running. For example - PlatformClientIdentity.jks and PlatformClientSecurityCert.cer used to configure Marketing Platform / Campaign SSL environment.

1. Navigate to <IBM_MARKETING_DIRECTOR_SERVER_HOME>\Server and open application.properties file , change below values:

Un-comment all below :

server.ssl.key-alias=PlatformClientIdentity #this should same alias as of PlatformClientIdentity.jks

server.ssl.key-password=unica*03 #this should be same password used to create PlatformClientIdentity.jks

server.ssl.key-store=C:\\PROGRA~1\\Java\\JDK18~1.0_1

bin

PlatformClientIdentity.jks #Provide the path where you copied PlatformClientIdentity.jks

server.ssl.key-store-provider=SUN #if using Oracle JRE , provider is SUN , for IBM Jre , provider is IBMJCE

server.ssl.key-store-type=JKS

2. Import the certificate inside the JRE keystore which will be used to start IBM Marketing Software Director server:

keytool -import -file PlatformClientSecurityCert.cer -alias addonkey -keystore $JDK_HOME/jre/lib/security/cacerts

3. Start the IBM Marketing Software Director Server

$JDK_HOME/bin/java -jar add-on_Server-11.1.0.0

Configure SSL for IBM Marketing Software Director Agent by performing the following steps:

Pre-requisite:

Copy certificate files (.cer / .jks) used for Marketing Platform to the machine where IBM Marketing Software Director Agent will be running. For example - PlatformClientIdentity.jks and PlatformClientSecurityCert.cer used to configure Marketing Platform / Campaign SSL environment.

1. Navigate to <IBM_MARKETING_DIRECTOR_SERVER_HOME>\Agent and open application.properties file, change below values:

Un-coment all below :

server.ssl.key-alias=PlatformClientIdentity #this should same alias as of PlatformClientIdentity.jks

server.ssl.key-password=unica*03 #this should be same password used to create PlatformClientIdentity.jks

server.ssl.key-store=C:\\PROGRA~1\\Java\\JDK18~1.0_1

bin

PlatformClientIdentity.jks #Provide the path where you copied PlatformClientIdentity.jks

server.ssl.key-store-provider=SUN #if using Oracle JRE , provider is SUN , for IBM Jre , provider is IBMJCE

server.ssl.key-store-type=JKS

2. Import the certificate inside the JRE keystore which will be used to start IBM Marketing Software Director server:

keytool -import -file PlatformClientSecurityCert.cer -alias addonkey -keystore $JDK_HOME/jre/lib/security/cacerts

3. Start the IBM Marketing Software Director Agent:

$JDK_HOME/bin/java -jar add-on_Server-11.1.0.0

Chapter 8. Starting IBM Marketing Software Director

IBM Marketing Software Director server or agent can be started using below steps. It runs Java 1.8 to run the application.

Pre-requisites:

Java 1.8 path should be set on the Operating System.

Starting IBM Marketing Software Director - Server application
- java -jar add-on_Server-11.1.0.0.jar

where the jar is located in <IBM Director Install Path> /Server

Starting IBM Marketing Software Director - Agent application
- java -jar add-on_Agent-11.1.0.0.jar

where the jar is located in <IBM Director Install Path>/Agent

Note:

1. IBM Marketing Software Director Server and Agent applications should be up and running as long as IBM Campaign is running, Failure to do this will lead to incomplete or no information of Health or monitoring available with the IBM Marketing Software Director server.

2. Apache ActiveMQ should be available as long as IBM Campaign application is up and running. Failure to do this will lead to incomplete / no information being passed / shared with IBM Marketing Software Director. This can also lead to inconsistent information in the Flowchart monitoring section on the IBM Marketing Software Director application.

3. application.properties available at <IBM_Director_Home>\Server is always referred when the Director server is started. If you wish to make any change, for example: port number, you should make it in the application.properties available at this location and restart the IBM Director server.

Chapter 9. Enabling Debug logging

By default IBM Marketing Software Director - Server and Agent applications show ERROR logs in the log files or console.

IBM Marketing Software Director Server log file is available at <DIRECTOR_HOME>/Server/logs/add-on_server.log

IBM Marketing Software Director Agent log file is available at <DIRECTOR_HOME>/Agent/logs/add-on_agent.log

Its not recommended that you change the logging level as it might impact in the application performance.

You can change the logging level in the JAR file by updating the BOOT-INF/classes/log4j2-spring.xml for the following parameters:

<Root level="error">

<Logger name="com.hclpnp" level="info">

Possible values are: ERROR, INFO, WARN, DEBUG.

Chapter 10. Troubleshooting

1. Not able to shutdown Marketing Software Director server:

   Workaround: If for any reason, the Marketing Software Director server does not get shutdown with Ctrl +C, user can kill the process id to shutdown the Marketing Software Director-server

Before you contact IBM technical support

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

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

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

Information to gather

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

System information

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

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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