IBM Enterprise Marketing Management Products
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Recommended Software Environments and Minimum System Requirements

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IBM ENTERPRISE MARKETING MANAGEMENT PRODUCTS VERSION 9.1.1

RECOMMENDED SOFTWARE ENVIRONMENTS AND MINIMUM SYSTEM REQUIREMENTS

This document lists the software environments and minimum system requirements recommended for all of the following IBM Enterprise Marketing Management (EMM) products. These products were formerly known as "Unica" in previous releases.

- IBM Campaign (includes IBM eMessage)

- IBM Distributed Marketing

- IBM Interact

- IBM Leads

- IBM Marketing Operations

- IBM Marketing Platform

- IBM Contact Optimization (formerly known as Optimize)

- IBM Interact Advanced Patterns (formerly known as Interact Opportunity Detection is available in this release only as a real-time add-on to Interact)

- IBM Opportunity Detect

- NEW: IBM SPSS Modeler Advantage Enterprise Marketing Management Edition (v8.0)

Software Environments

The sections on software environments list the application server, operating system, and database combination recommended for IBM EMM products.

Terminal clients, SSH, or telnet clients used to connect to a UNIX command-line to run the EMM installers or utilities must be set to UTF-8 character encoding. Using any other character encoding may result in information being missing or displayed incorrectly. Please see the 9.1.1 installation guides for additional details.

Minimum System Requirements

The minimum system requirements are provided as guidance for hardware sizing for IBM EMM products. Higher processing needs require larger configurations. The minimum system requirements listed in this document for each IBM EMM product are usually for Windows-based systems; comparable hardware configurations are required for supported UNIX-based and LINUX-based systems.

Supported Locales

Locales	Enterprise Marketing Management Products (9.1.1)								
	IBM Platform[a]	IBM Campaign	IBM Contact Optimization	IBM Interact	IBM Distributed Marketing	IBM Marketing Operations	IBM Emessage	IBM Opportunity Detect	IBM Leads
English	Y	Y	Y	Y	Y	Y	Y	Y	Y
French (France)	Y	Y	Y	Y	Y	Y	Y	N	N
German (Germany)	Y	Y	Y	Y	Y	Y	Y	N	N
Japanese	Y	Y	Y	Y	Y	Y	Y	N	N
Korean	Y	Y	Y	Y	Y	Y	Y	N	N
Portugese (Brazil)	Y	Y	Y	Y	Y	Y	Y	N	N
Spanish (Spain)	Y	Y	Y	Y	Y	Y	Y	N	N
Chinese (Simplified)	Y	Y	Y	Y	Y	Y	Y	N	N
Chinese (Traditional)[b]	Y	Y	Y	Y	Y	Y	N	N	N
Italian	Y	Y	Y	Y	Y	Y	Y	N	N
Russian	Y	Y	Y	Y	Y	Y	Y	N	N

Notes:

a) IBM Marketing Platform supports only limited localization of product configuration(s)

b) Customer is required to apply 9.1.1.2 fixpack to leverage support for this locale.

Supporting Infrastructure

- IBM Websphere Application Server 8.5.5 (Base) is bundled with the following products:
    - IBM Campaign and products that require IBM Campaign as a pre-requisite
    - IBM Marketing Operations
    - IBM Leads
    - IBM Opportunity Detect
- IBM Cognos Business Intelligence 10.2.1 is bundled with the following products:
    - IBM Campaign and products that require IBM Campaign as a pre-requisite
    - IBM Marketing Operations
- IBM Opportunity Detect is bundled with the following products:
    - IBM WAS Liberty profile 8.5.0.2
    - IBM DB2 Workgroup Edition 10.5
    - IBM InfoSphere Streams 3.0.0.1 (with version 9.1.1) and 3.2.1.2 (with 9.1.1.2)
- All other third-party software and drivers are not provided with IBM EMM products, and must be purchased and installed separately

Software Environment Combinations

Application Server (a) (with embedded Web Server)	Operating System (e)	System Table Database (c, l)	Campaign User Table Database (c, f, l)
• **WebLogic**(b) 11gR1 PS5 (10.3.6), **12c (12.1.1)** (o) , **12c (12.1.3)** (p) • **WebSphere**(d) **8.0,8.5.0.2 8.5.5**	• Windows Server (h,i) 2012R2, 2012	• DB2(h) 9.7 FP9, 10.1 FP3, 10.5 FP2 • Oracle 11gR2 (11.2.0.4), 12c Release 1 (12.1.0.2) (n) • SQL Server(e, f) 2008 R2,2012 SP1	• DB2(h) 9.7 FP9, 10.1 FP3, 10.5 FP2, DB2 (z/OS) (m) 10.1,11 • Oracle 11gR2 (11.2.0.4) (r), 12c Release 1 (12.1.0.2) (n) • SQL Server(e, f) 2008 R2,2012 SP1,2014(n) • Netezza(l) NPS 6.0, 7.0.4.1, 7.2(p) • Teradata(l) 13.10,14.0,14.10,15.0(n) • Amazon Redshift(p,q)
• **WebLogic**(b) 11gR1 PS5 (10.3.6), **12c (12.1.1)** (o) , **12c (12.1.3)** (p) • **WebSphere**(d) **8.0,8.5.0.2, 8.5.5**	• **AIX 6.1, 7.1** • **Solaris**(k) **11.1** • **RHEL AP** (j) **5.10, 6.5** • SLES(g) 11.3	• DB2(h) 9.7 FP9, 10.1 FP3, 10.5 FP2 • Oracle 11gR2 (11.2.0.4), 12c Release 1 (12.1.0.2)(n)	• DB2(h) 9.7 FP9, 10.1 FP3, 10.5 FP2, DB2 (z/OS) (m) 10.1,11 • Oracle 11gR2 (11.2.0.4) (r), 12c Release 1 (12.1.0.2) (n) • Netezza(l) NPS 6.0, 7.0.4.1,7.2(p) • Teradata(l) 13.10,14.0,14.10,15.0(n) • Amazon Redshift(p,q)

If possible, use software versions that appear in bold in the above list. The end-of-service (EOS) date for IBM EMM products is 5 years after the initial release (official EOS dates are announced approximately 1 year prior to EOS). Products in bold have EOS dates that are on or beyond the EOS date of this IBM EMM software version, and thus will be supported throughout the full service life of this release. If you use a product that does not appear in bold, be advised that its EOS date may be prior to the EOS of this release.

Notes:

a. IBM EMM ships with JRE/JDK support for 7.0 (64 bit). The best practice is to use the version provided by the application server provider.

   IBM Opportunity Detect and Interact Advanced Patterns support only the IBM WebSphere application server.

b. IBM EMM supports Sun JDK for WebLogic. Other JDKs are not supported (e.g., JRockit JDK).

   eMessage-Xtify integration requires WebLogic 12c to be applied with patch 13657792.

c. IBM recommends using JDBC drivers provided by the database vendor.
   The supported database drivers are listed in the following table.

Database	Supported Driver(s)
MS SQL Server 2008R2,2012SP1	Version 4.0 Type 4 – 4.0.2206.100 (sqljdbc4.jar)
Oracle 11gR2, Oracle 12c Release 2 (12.1.0.2) (n)	Oracle 12c Driver - 12.1.0.2(ojdbc7.jar – with JDK / JRE 1.7, ojdbc6.jar - with JDK / JRE 1.6)
IBM DB2 9.7 FP9	DB2 JDBC driver version 4.14.137 (db2jcc4.jar)

IBM DB2 10.1 FP3	DB2 JDBC driver version 4.15.100 (db2jcc4.jar)
IBM DB2 10.5 FP2	DB2 JDBC driver version 4.17.28 (db2jcc4.jar)

d. Many of the IBM Enterprise Marketing Management products ship with WAS version 8.5 Base 64-bit application, but it will also work with the Express edition of WebSphere and Network Deployment (ND) 64 bit edition of WebSphere. IBM EMM products do not use advanced features provided by WAS Base that would make it incompatible with WAS Express.
Patch 8 or greater is required for IBM WebSphere 8.0 (version 8.0.0.8 or greater).
Patch 1 or greater is required for IBM WebSphere 8.5.5 (version 8.5.5.1 or greater).

e. Only 64-bit versions of operating systems are supported.

f. This column is added for the IBM Campaign family of products. IBM Interact does not support Netezza or Teradata or Amazon Redshift for customer profile tables.   If using the IBM Interact product, the Campaign and Interact databases must be of the same type e.g. If Campaign system tables are in Oracle, all other databases must also be in Oracle.

IBM SPSS Modeler Advantage Enterprise Marketing Management Edition:

- Is not licensed for in-database processing (data is extracted from all databases and processed on the SPSS modeling server). An upgrade is required for in-database processing.

g. The SLES Operating System is not supported by the following product(s): IBM Leads.

h. IBM Campaign requires a 64-bit driver for DB2 on Windows. IBM Leads do not support DB2 10.5 for system tables. IBM DB2 10.5 is supported for system tables only with BLU feature turned off. IBM DB2 10.5 is supported only for Campaign user tables with BLU feature turned on (columnar feature enabled) and requires the parameter – "DB2NotLoggedInitially" to be set to "FALSE" in the datasource properties for the database.

i. Windows Server x86-64 for Standard and Datacenter Edition of 2012 and 2012R2.

j. RHEL 5.10 and 6.5 with WAS 8.0.0.8 requires OS level packages to be installed. See your RHEL documentation for details.
IBM Opportunity Detect and IBM Interact Advanced Patterns supports only RHEL version 6.3 and 6.5.

k. Solaris SPARC only is supported.

l. IBM Opportunity Detect and IBM Interact Advanced Patterns support only IBM DB2 and Oracle 12c database (available through 9.1.1.2 fixpack)

m. IBM DB2 on z/OS is supported only for user tables with the following caveats:

1) IBM Campaign supports DB2 10.1 z/OS and 11.0 z/OS with RSU1205 and PUT1205 in "New Function" mode

2) There will not be an out of the box approach for Loaders on z/OS. Manually, the following procedure could be followed:

a. Set up the USS Pipes on z/OS

b. Write stored procedure to invoke the DSNUTILU and a script to invoke the stored procedure

c. Configure the loader to invoke the script

3) When temp tables are created, you need to set the parameter – "DB2NotLoggedInitially" to "FALSE" in the datasource properties for the database.

n. Customer is required to apply 9.1.1.1 fixpack or higher to leverage support for this version of the infrastructure entity. Support for Oracle 12c on IBM Interact Advanced Patterns and IBM Opportunity Detect is available only through 9.1.1.2 fixpack.

o. Oracle has unexpectedly withdrawn the support for Weblogic 12c (12.1.1) on Windows Server 2012. However, based on extensive release testing, IBM deems this stack to be compatible and will continue to support it on a best effort basis. IBM highly recommends that the customer apply 9.1.1.2 fixpack to leverage support for Weblogic 12c (12.1.3).

p. Customer is required to apply 9.1.1.2 fixpack to leverage support for this version of the infrastructure entity.

q. IBM Campaign supports Amazon Redshift as a user database using PostgreSQL ODBC driver. The driver is neither bundled nor shipped with IBM Campaign and the customer has to download and configure them. The supported version of PostgreSQL ODBC driver is as follows:

- **Linux / AIX - 64-bit:**
  - PostgreSQL ODBC driver version: 9.x on unixODBC driver manager 2.3.2
  - PostgreSQL ODBC driver version: 8.4.x on unixODBC driver manager 2.2.14
- **Windows 64bit:**
  - PostgreSQL ODBC driver version: 8.0.2 on Microsoft ODBC driver manager: 6.1.7601.17514

r. IBM Opportunity Detect does not support Oracle 11g.

Client Web Browser

Browser[e]	Operating System
Internet Explorer[a] 9 (32 bit and 64 bit)	Windows 7 SP1
Internet Explorer[a, c] 10 (32 bit and 64 bit)	Windows 7 SP1, 8
Internet Explorer 11 (32 bit and 64 bit) [a,f]	Windows 7 SP1,Windows 8 SP1
Safari[b] 7	Mac OS X 10.9 "Mavericks"
Google Chrome For Work[d] 37 or above (32 bit)	Windows 7 SP1, 8

Adobe Acrobat

Annotations using Adobe Acrobat markup feature in Unica Marketing Operations is supported as follows:

Browser[e]	Operating System	Adobe Acrobat Writer
Internet Explorer[a] 9 (32 bit and 64 bit)	Windows 7 SP1	Version 10
Internet Explorer[a, c] 10 (32 bit and 64 bit)	Windows 7 SP1, 8	Version 10
Internet Explorer[a,f] 11 (32 bit and 64 bit)	Windows 7 SP1, Windows 8 SP1	Version 10
Safari[b] 7	Mac OS X 10.9 "Mavericks"	Version 10
Google Chrome For Work[d] 37 or above (32 bit)	Windows 7 SP1, 8	Version 10

Notes:

a) Use of IE with IBM SPSS Modeler Advantage Enterprise Marketing Management Edition requires the Microsoft Silverlight plug-in (not provided).

b) Safari on iOS is not supported. Safari on any operating system is not supported for IBM Interact Advanced Patterns, IBM Opportunity Detect, IBM Leads, IBM Distributed Marketing and integrated products like SPSS Modeler Advantage Marketing Edition and IBM Digital Analytics.

c) The Internet Explorer version 10 browser must be set to browser mode "IE10 Compatibility View". Compatibility View settings on the IE10 browser can be done by adding the server domain to the Compatibility View list within the Tool → Compatibility View menu.

d) IBM Marketing Platform, IBM Campaign, IBM Contact Optimization, IBM Interact, IBM Opportunity Detect and IBM Interact Advanced Patterns and IBM Marketing Operations support Chrome browser. IBM product development, test and support teams must wait for the official release of the Web browser to be able to provide full support, so there may be a gap between the time a Web browser is released and when full support is available with current releases of IBM associated products. In order to effectively provide this support, testing of the generally available and final release of the Web browser will be performed in the next available service release cycle, typically delivered in a cumulative fix, fix pack or refresh pack of current releases. In some instances, more than one fix might be required. There may be also cases where code updates are more than what can be delivered in a simple fix and will have to be integrated into a fix pack, or provided in an upcoming release. In some cases, if browsers from vendors, not part of a product version's original browser support requirements are added to the support matrix, official support will not be provided until a new product release and fixes for the new vendor will not necessarily be provided in a cumulative fix, fixpack or refresh pack.

e) For best results, set your screen resolution to 1440 x 900 or higher. Lower resolutions can result in some information not being properly displayed. If you use a lower resolution, maximize the browser window to see more content.

f) Customer is required to apply 9.1.1.1 fixpack to leverage support for this version of the browser.

Directory Servers

Directory Server	Host Operating System
Microsoft Active Directory[a] 2012, 2012R2	Windows
Oracle(Sun) ONE Directory Server Enterprise Edition 11g R2	Solaris
Tivoli Directory Server 6.3[b]	AIX

Notes:

a. Integrated corporate authentication with Active Directory is supported only when IBM EMM applications are installed on Windows systems

b. IBM Opportunity Detect and IBM Interact Advance Patterns support Tivoli Directory Server and Microsoft Active Directory Server (2012 R2). Both the authentication mechanism supported, are applicable to IBM Opportunity Defect and IBM Interact Advance Patterns Design environments. IBM Opportunity Detect Runtime environment does not support / does not require any authentication mechanism (DesignTime and Runtime communication is via internal web services)

Authentication Provider

Authentication Provider	Host Operating System
CA SiteMinder 12.5	Solaris
Tivoli Access Manager[a] for e-business 6.1.1	AIX

 Notes:

a. IBM Opportunity Detect and IBM Interact Advance Patterns support only Tivoli Access Manager

Message Queues

IBM Opportunity Detect 9.1.1 supports the following message queues with the 9.1.1.2 fixpack:

- WebSphere MQ: V 8
- ActiveMQ: V 5.11.1

Minimum System Requirements for IBM Enterprise Marketing Management Applications

1. The following table pertains to all of the IBM Enterprise Marketing Management applications except for IBM Leads.

Hardware	Browser Client	Web Application Server	Campaign Analytical Server	System Table Database Server	SPSS MA ME Modeling Server	Interact Advanced Patterns Server
Processor	2 GHz	2 GHz, 2 CPUs	2 GHz, 2 CPUs	2 GHz, 2 CPUs	3.5 GHz, 2 CPUs	3.0 GHz, 8 cores (4 CPUs dual core of 2 CPUs quad core
RAM	512 MB	2 GB per CPU	2 GB per CPU	2 GB per CPU	8 GB	16 GB
Available Disk Space	N/A	1 GB	100 GB	100 GB	100 GB	128+ GB

Notes for minimum requirements for IBM Distributed Marketing:

- Disk space on the client desktop computers may require more than 1GB depending on the amount of files downloaded.

- Two CPUs are recommended for a baseline of 50-100 concurrent users. Two additional CPUs should be added for every additional 50-100 concurrent users.

- This includes the IBM Distributed Marketing server, templates, On-Demand and Corporate Campaign attachments.

- Although installing the IBM Distributed Marketing server and database on the same computer is an option, IBM highly recommends installing the IBM Distributed Marketing server and database on separate computers.

2. The following minimum system requirements are for IBM Leads with approximately 1,000 users.

Hardware	Web Application Server	Integration Server	Database Server	Reporting Server
Processor	2 CPUs, 3GHz	2 CPUs, 3GHz	4 CPUs, 3GHz	2 CPUs, 3GHz
RAM	2GB	2GB	2GB	2GB
Available Disk Space	50 GB	50 GB	100 GB	100 GB

Reporting Requirements

The reporting capabilities for IBM EMM products are powered by Cognos BI 10.2.1, which is provided as an option with several IBM EMM products. Both the 32-bit and 64-bit versions of Cognos 10.2.1 are supported with the following caveats:

- IBM Cognos 10.2.1 (32 or 64 bit) server requires 32 bit Oracle client libraries to connect to Oracle database server (32 or 64 bit)
- IBM Cognos 10.2.1 (32 or 64 bit) server requires 32 bit DB2 client libraries to connect to DB2 database server (32 or 64 bit)
- IBM Cognos 10.2.1 (32 or 64 bit) server requires **3**2 bit SQL Server client libraries to connect to SQL Server database server (32 or 64 bit)
- IBM Cognos 10.2.1 64-bit is unsupported for drill-down reports in eMessage localized for asian languages - Chinese, Japanese and Korean
- Customers applying 9.1.1.1 fixpack or higher to leverage Oracle 12c support are also required to apply Fix4 or higher to IBM Cognos 10.2.1

If Cognos 10.2.1 is installed as part of the IBM Marketing Platform, a separate reporting server is required and the minimum system requirements can be found in the *Cognos 10.2.1 Installation and Configuration Guide.* IBM EMM reporting with Cognos also requires a web server.
For full compatibility information for Cognos 10.2.1, see
http://www-01.ibm.com/support/docview.wss?uid=swg27037784

Newly Supported

IBM Enterprise Marketing Management version 9.1.1 has added support for the following new versions of third-party software:

Supporting Software Entity	Supporting Software Version(s)
Application Server	• IBM WebSphere 8.5.5
Operating System	• Windows Server 2012 R2 • RHEL AP 5.10 • RHEL AP 6.5 • SLES 11 Update 3
Cognos Reporting Engine	• Cognos BI 10.2.1
System Table Database	• IBM DB2 10.1 FP3,10.5 FP2 • Oracle 12.1.0.2
User Table Database	• IBM DB2 10.1 FP3,10.5 FP2 • IBM DB2 (z/OS) 10.1, 11.0 • SQL Server 2012 SP1,2014 • Netezza NPS 7.0.4.1 • Teradata 14.10 ,15.0 • Oracle 12.1.0.2

Client Browser	• Chrome 37 (32 bit)
	• Safari 7.0
	• IE 11

No Longer Supported

IBM Enterprise Marketing Management version 9.1.1 has discontinued support for the following versions of third-party software:

Supporting Software Entity	Supporting Software Version(s)
Operating System	• Windows Server 2008 R2
	• SLES 10 Update 4
	• Solaris 10 Update 10
Cognos Reporting Engine	• Cognos BI 10.2.0
Installer Run-time JRE	• JRE 6.0
System Table Database	• IBM DB2 9.8
	• Oracle 11gR1(11.1.0.7)
User Table Database	• IBM DB2 9.8
	• Oracle 11gR1(11.1.0.7)
	• SQL Server 2008
	• Netezza NPS 5.0
Client Browser	• IE 9 (32 and 64 bit) on Windows 7
	• IE 10 (32 and 64 bit) on Windows 7
	• Safari 6.0.1

IBM Support Policy:
Customer Use of Virtualization Software

IBM EMM products currently support running on a specific set of operating systems as listed above for each product. IBM EMM also recognizes the growing presence of hardware virtual machine software and OS-level virtualization software (for example, VMWare, Microsoft Virtual Server, Solaris Containers) in customer environments.

Support of Virtualization Environments

IBM supports customers who run its products on any of the listed operating systems, irrespective of whether they are running a virtual machine in their environment. IBM supports any product-specific issues that occur while running within a virtual machine; however, IBM does not rigorously test our products inside of any virtual machine. As a result, virtual machines are supported as a compatible environment.

Virtualization software vendors support a set of certified operating systems and hardware. The customer and the virtual machine vendors are responsible for any interactions and/or issues that arise at the hardware or operating system layer as a result of their use of the virtualization software.

Performance

The use of a virtual machine adds software overhead that may affect performance and/or scalability. Any statements on expected product performance on a hardware platform cannot be interpreted to apply to a virtual machine running on the same hardware platform.

Troubleshooting Issues

IBM Technical Support is unable to accept virtual images from customers as trouble shooting tools due to licensing concerns with respect to third-party software products which might be included in those images.

Should IBM customers who use its products inside a virtual machine experience issues, IBM customers will not be required to recreate and troubleshoot every issue in a non-virtualization environment. However, IBM does reserve the right to request our customers to diagnose certain issues in a supported operating system environment without the virtual image. IBM will make this request only when there is reason to believe that the virtual environment is a contributing factor to the issue.

Product Dependencies

Several products in the IBM Enterprise Marketing Management suite require the installation of others. For additional information, please see the product-specific installation guide.

Installed Product	Required Companion Installation	
If you want to install this product…	…you must also install the products marked with the X in the same row.	
	IBM Marketing Platform	IBM Campaign
IBM Campaign	X	
IBM Distributed Marketing	X	X
IBM eMessage	X	X
IBM Interact	X	X
IBM Leads	X	
IBM Marketing Operations	X	
IBM Marketing Platform		
IBM Contact Optimization	X	X
IBM SPSS Modeler Advantage Enterprise Marketing Management Edition v8.0	X (v9.1.1)	X (v9.1.1)
IBM Interact Advanced Patterns (Note: Also requires Interact in this release)	X	
IBM Opportunity Detect	X	