

System Requirements

SAS® Digital Marketing 6.1

Updated January 2014

This document provides requirements for installing and running SAS Digital Marketing software. You must update your system to meet these requirements before running SAS Digital Marketing software. SAS 9.3 M2 is required for SAS Digital Marketing 6.1.

This document provides information on the following major requirements:

- software requirements
- hardware requirements
- database support
- specific product requirements

This document may be updated periodically. For additional information and to view the latest system requirements for your system, access the Install Center site at

<http://support.sas.com/documentation/installcenter/93/index.html>

Software Requirements

Administrator Privilege

An installer must have administrator privilege to install various updates. This requirement ensures that SAS Digital Marketing 6.1 can be completely and safely installed. SAS Digital Marketing 6.1 is an application that can reside on multiple platforms.

System Requirements by Tier

SAS Digital Marketing 6.1 is a multi-tier application consisting of client tier, middle tier and server tier deployments.

Client Tier

The SAS Digital Marketing client tier includes:

- SAS Digital Marketing Studio 6.1
- SAS Management Console 9.3
- SAS Enterprise Guide 5.1

The primary end user interface is an integrated component of SAS Customer Intelligence Studio (included), which is accessed via a supported web browser (see below). Adobe Flash Player 11.1 is required to use SAS Customer Intelligence Studio.

Client Tier Operating System Support

Note: Contact SAS Technical Support for the latest patch levels.

The supported operating systems for the client tier are as follows:

Microsoft Windows Vista, Microsoft Windows XP, and Microsoft Windows 7 32-bit products:

- Microsoft Windows 7 - Professional, Enterprise, and Ultimate Editions
- Microsoft Windows Vista - Enterprise, Business, and Ultimate Editions
- Microsoft Windows XP SP 2 or higher

Microsoft Windows Vista, Microsoft Windows XP, and Microsoft Windows 7 x64 products:

- Microsoft Windows 7 for x64 systems - Professional, Enterprise, and Ultimate Editions
- Microsoft Windows Vista for x64 systems - Enterprise, Business, and Ultimate Editions
- Microsoft Windows XP Professional Edition SP 2 or higher

Note: Support for presentation virtualization environments (for example, Citrix) for clients included with SAS Digital Marketing is consistent with SAS's corporate support policy, found at <http://support.sas.com/techsup/pcn/virtualization.html>. Specific environment combinations should be reviewed by knowledgeable SAS professional services personnel prior to deployment.

Note: The relevant Java Software Developer Kits (JDKs) and the latest information and special instructions can be found in the Third-Party Support web site: <http://support.sas.com/resources/thirdpartysupport/v93/jdks.html>

Web Browser Support

To use SAS Customer Intelligence Studio, it will be necessary to have a web browser installed on the client. Internet Explorer Version 8 and Version 9 are supported. Firefox Version 4 and higher are supported.

Middle Tier

Middle Tier Operating System Support

SAS Digital Marketing Mid-Tier (inside the firewall)

The following products are included on the SAS Digital Marketing Mid-Tier machine:

- SAS Customer Intelligence Studio 6.1 which includes SAS Digital Marketing Extensions for SAS Customer Intelligence Studio
- SAS Digital Marketing Web Studio and Web Reporting Infrastructure 6.1
- SAS Customer Intelligence Reporting Mid-Tier 6.1
- SAS Marketing Operations Management Artwork Producer (optional, delivered with separately licensed SAS Marketing Operations Management 6.0 R14 U1 mid-tier)

- SAS Marketing Operations Management Digital Asset Management (optional, delivered with separately licensed SAS Marketing Operations Management 6.0 R14 U1 mid-tier)
- SAS Foundation Services 9.3

Note: An “outside the firewall” configuration is applicable for the Tracking servlet (optional in case of reverse proxy).

Supported operating systems are as follows (contact SAS Technical Support for patch levels):

- AIX, Release 6.1
- AIX, Release 7.1
- HP-UX 11i version 3 (11.31), update 5 and above
- Linux (Red Hat Enterprise Linux 5 update 4 and Red Hat Enterprise Linux 6)
- Linux (SuSE Linux Enterprise Server 10 SP3 and 11)
- Solaris 10 Update 8 for SPARC architecture
- Solaris 11 and higher for SPARC architecture
- Solaris 10 x64 (x64-86)
- Windows Server 2003 64-bit with Service Pack 2 or higher
- Windows Server 2008 64-bit with Service Pack 2 or higher
- Windows Server 2008 R2 64-bit

Note: The relevant Java Software Developer Kits (JDKs) and the latest information and special instructions can be found in the Third-Party Support Web site:

<http://support.sas.com/resources/thirdpartysupport/v93/jdks.html>

Web Browser

To use SAS Customer Intelligence Studio, it will be necessary to have a web browser installed on the client. Internet Explorer Version 8 and Version 9 are supported. Firefox Version 4 and higher are supported.

Product Requirements

SAS Digital Marketing 6.1 has the following Java application server software requirements:

Operating Systems/App Servers	JBoss Application Server (see notes below)	**Oracle WebLogic (see notes below)	IBM WebSphere ND (see notes below)
Windows Server	✓	✓	✓
Linux	✓	✗	✓
Solaris	✓	✓	✓
AIX	✓	✓	✓

Operating Systems/App Servers	JBoss Application Server (see notes below)	**Oracle WebLogic (see notes below)	IBM WebSphere ND (see notes below)
HP-UX	✓	✓	✗

Note: Java support.

CI 6.1 supports Java 6 and Java 7. Java 6 is provided by default with the application installers. Java 7 requires [additional installation steps](#), but provides the benefits of 1) currently being in support by Oracle and 2) allowing the use of newer versions of application servers.

Note: Application Server support.

The following tabulates CI 6.1 Application Server support.

	JBoss 5.1.3+	JBoss 5.2	IBM WebSphere 7.0 and 8.0 (ND)	IBM WebSphere 8.5 (ND)	Oracle WebLogic 11g (** aka v 10.3)	Oracle WebLogic 12c
Java 6	Yes	No	Yes	No	Yes	No
Java 7	No	Yes	No	Yes	Yes	Yes

- a. JBoss 4.3 is not support by CI 6.1 as it's beyond its end-of-life.
- b. There is an issue with deploying BI Portlets with JBoss 5.1.2, therefore JBoss 5.1.3 and higher is required for Java 6/JBoss deployments.
- c. In prior communications, neither JBoss 5.2 nor WAS 8.5 were supported. These versions are now supported as a result of Java 7 testing and support.

Note: Please see the following for conditions regarding support of JBoss community editions:
<http://support.sas.com/resources/thirdpartysupport/jbossSupport.html>

Note: WebLogic can be used on Windows, Solaris for SPARC architecture, HP, Solaris 10 x64 (x64-86), and AIX. WebLogic is not supported with Linux. WebSphere can be used on AIX, Windows, Solaris for SPARC, Solaris 10 x64 (x64-86) and Linux. WebSphere is not supported on HP-UX.

Note: Only 64-bit versions of application servers are supported; 32-bit versions are not supported.

Server Tier

SAS 9.3 servers run on the server tier to provide metadata, data, and compute services. The following applications are required on the server tier:

- SAS Digital Marketing Server 6.1
- SAS Digital Marketing Server 6.1Grid Node
- SAS Management Console 9.3
- SAS/ACCESS

- SAS/GRAPH
- SAS/SHARE
- SAS Foundation 9.3, which includes
 - SAS Integration Technologies
 - SAS Metadata Repository

Notes:

- *SAS Metadata Server can go on the same machine as the main server, or on a separate machine.*
- *SAS Digital Marketing includes one SAS ACCESS Engine of choice. When included with SAS Marketing Automation, no additional SAS Digital Marketing SAS ACCESS Engine will be included—just the SAS ACCESS Engines included with SAS Marketing Automation.*
- *The relevant Java Software Developer Kits (JDKs) and the latest information and special instructions can be found in the Third-Party Support Web site:*
<http://support.sas.com/resources/thirdpartysupport/v93/jdks.html>

Server Tier Operating System Support

The supported operating systems for both SDM Server and Grid node are as follows (contact SAS Technical Support for patch levels):

- AIX, Release 6.1
- AIX, Release 7.1
- HP-UX 11i version 3 (11.31), update 5 and above
- Linux (Red Hat Enterprise Linux 5 update 4 and Red Hat Enterprise Linux 6)
- Linux (SuSE Linux Enterprise Server 10 SP3 and 11)
- Solaris 10 Update 8 for SPARC architecture
- Solaris 11 and higher for SPARC architecture
- Solaris 10 x64 (x64-86)
- Windows Server 2003 for 64-bit with Service Pack 2 or higher
- Windows 2008 Server for 64-bit with Service Pack 2 or higher
- Windows 2008 Server R2 for 64-bit

Hardware Requirements

Client Application Machine: Minimum Recommended

- Modern Intel or AMD processor running at 2.33GHz or faster
- **Memory:**
 - 1 GB above your current environment (for both Adobe Flash and SAS CI Studio)
 - 128 MB graphical memory
- **Disk Space:**

Component	Installation Space Required
SAS Digital Marketing Studio 6.1	100 MB

Middle Tier Machine: Minimum Recommended

Memory

The minimum recommended memory for the mid-tier is 8 GB per core. Memory requirements for optimal performance may vary based on the requirements of other Web applications running, number of total and concurrent users accessing the SAS Digital Marketing applications, and the amount of content accessed by the user.

Disk Space

- SAS Customer Intelligence Studio 6.1 : 300 MB above your current environment
- SAS Digital Marketing Web Studio and Web Reporting Infrastructure 6.1 : 250 MB above your current environment
- SAS Customer Intelligence Reporting Mid-Tier 6.1 : 250 MB above your current environment

Review the system requirements of your application server for additional space and memory requirements.

Application Server

As supported by SAS Digital Marketing and operating system (check support matrix above)

Further information regarding capacity planning and WebLogic Server Performance and tuning can be found at:

http://download.oracle.com/docs/cd/E12840_01/wls/docs103/perform/appc_capplan.html

and

http://download.oracle.com/docs/cd/E12840_01/wls/docs103/perform/index.html.

SAS Server Tier: Minimum Recommended

For memory and disk space requirements of other SAS products, please see SAS 9.3 System Requirements located at <http://support.sas.com/resources/sysreq/93/index.html> under the relevant operating system.

Database Support

SAS Digital Marketing 6.1 can connect to various databases. The following list contains the versions of databases with which SAS Digital Marketing 6.1 is compatible:

- IBM DB2/UDB Version 9.1 , 9.5, and 9.7
- IBM Netezza Version 4.6, 6.0, 6.1, and 7.0
- Oracle 10g, 11g
- SAS Datasets Version 9.3 Maintenance 2

Note: *SAS Datasets are not supported with use of the CI Common Reporting Data Model and no more than 5 million customer equivalent records.*

- SAS Scalable Performance Data Server Version 4.53 (no more than 5 million customer records)

- Teradata Version 12, Version 13, Version 13.10, and Version 14
- MySQL 5.1.51 (minimum)
- Microsoft SQL Server Version 2008, 2008 R2, and 2012 Enterprise Edition—only through SAS/ACCESS to OLE DB, not ODBC

Note: The OLE DB access engine runs only in a Windows environment, therefore support of SQL server is limited to the Windows platform.

- Microsoft SQL Server Version 2008, 2008 R2 and 2012 Standard Edition, only through SAS/ACCESS to OLE DB, not ODBC

Note: The OLE DB access engine runs only in a Windows environment, therefore support of SQL server is limited to the Windows platform.

Note: *Mixing of databases will not perform to an acceptable level and is not recommended.*

Note: *You should not hold SAS Digital Marketing Response and Opt-Out tables as SAS Datasets in order to avoid possible concurrent update issues. It is advisable to use another supported database, or if necessary, SAS/SHARE. See SAS Note 47241 available at <http://support.sas.com/kb/47/241.html> for further information.*

Specific Product Requirements

SAS Digital Marketing requires a Mail Transfer Agent (MTA) Server. A Mail Transfer Agent is a mail server program. MTAs interact with each other generally through the Internet. Your customer needs to satisfy this requirement directly from a third-party vendor of choice. Some MTA vendors include Port25's [PowerMTA](#) or code-crafter's [Ability Mail Server](#).

Note: *Most high performance Mail Transfer Agents (MTA), like PowerMTA, automatically implement domain throttling. For high volume implementations that require domain throttling, such as a daily e-mail transmission rate over a few hundred thousand, throttling at the MTA level will be required. Also it is advisable to use MTA when the organization needs to send e-mail campaigns, which have offers that are for short periods; for example, when e-mail recipients need to respond quickly for offers that are valid for one day.*

In addition to a third-party MTA; an SMS/MMS gateway is needed in order to send out SMS/MMS broadcasts. Suggested gateways are [Velti](#), [NowSMS](#) and [Clickatell](#).

It is the customer's responsibility to satisfy this requirement if there is an interest in sending out SMS/MMS broadcasts. Please contact the third-party vendor of choice for pricing.

You must also provide a fully configured e-mail server. JavaMail supports Simple Mail Transfer Protocol (SMTP), Post Office Protocol (POP), and Internet Message Access Protocol (IMAP) communication methods to an MTA.

Note: *IMAP support for the JavaMail application programming interface (API) is experimental in this version of SAS Digital Marketing and that extended functionality, such as sub-folder processing, is not supported. Documentation is not available for this e-mail protocol.*

References

SAS Install Center: <http://support.sas.com/documentation/installcenter/>.

Third-Party Software Requirements:

<http://support.sas.com/resources/thirdpartysupport/v93/index.html>.

SAS Marketing Operations Management Version 6.0 Release 14 Update 1 is an optional product to use along with SAS Digital Marketing 6.1. Please contact your SAS sales enablement team or SAS services delivery team to get the latest system requirements for SAS Marketing Operations Management.

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