

System Requirements

SAS® Digital Marketing 6.4

Overview

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. The version of the SAS System that is required for SAS Digital Marketing 6.4 is SAS 9.4TS1M2.

SAS Visual Analytics Administration and Reporting 7.1 – Non-distributed LASR

SAS Digital Marketing includes the non-distributed version of SAS Visual Analytics Administration and Reporting (single-machine, or SMP environment) by default. SAS Visual Analytics Administration and Reporting is required to enable the Reporting Workspace in the CI Studio user interface. If SAS Visual Analytics Administration and Reporting is not installed, the Reporting Workspace will not be available in your system. For more details, please refer to the deployment instructions.

This version of SAS Visual Analytics Administration and Reporting is supported only on Linux and Windows x64 operating systems.

If SAS Digital Marketing will be installed on an operating system other than supported versions of Linux or Windows x64, SAS Visual Analytics Administration and Reporting must be installed on another machine.

See the SAS Visual Analytics 7.1 [system requirements](#) for more information.

SAS Visual Analytics Administration and Reporting 7.1 – Distributed LASR

SAS Digital Marketing – Distributed Package includes the distributed version of SAS Visual Analytics Administration and Reporting (MPP environment). SAS Visual Analytics Administration and Reporting is required to enable the 'Reporting Workspace' in the CI Studio user interface.

If SAS Visual Analytics Administration and Reporting is not installed, the Reporting Workspace will not be available in your system. For more information, refer to the deployment instructions.

This version of SAS Visual Analytics Administration and Reporting is supported only on Linux operating systems and must be installed on a separate environment from SAS Digital Marketing.

See the SAS Visual Analytics 7.1 [system requirements](#) for more information.

Major Requirements in this Document

The following are the major requirements that are listed in this document:

- 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/94/index.html>.

Administrator Privileges

An installer must have administrator privileges to install various updates. This requirement ensures that SAS Digital Marketing 6.4 can be completely and safely installed. SAS Digital Marketing 6.4 is an application that can reside on multiple platforms.

SAS Digital Marketing 6.4 is a multi-tier application consisting of client tier, middle tier and server tier deployments.

Third-Party Support

To keep pace with changes to third-party technologies, SAS has adopted a general policy of supporting one or more baseline major versions and subsequent minor updates for each officially supported operating system. For example, if the baseline for SAS x is Red Hat Enterprise Linux 6.1, SAS x will also support Red Hat Enterprise Linux 6.7 under this policy.

The full SAS Support policy that applies to third-party software can be found at <https://support.sas.com/en/documentation/third-party-software-reference/baseline-and-higher.html>. As part of this policy, SAS strongly encourages customers to install the latest operating-system service packs.

Software Requirements

Client Tier

Client Applications

The SAS Digital Marketing client tier includes the following software:

- SAS Digital Marketing Studio 6.4
- SAS Management Console 9.4

Web Browser

The primary user interface is an integrated component of SAS Customer Intelligence Studio (included). SAS Customer Intelligence Studio is accessed via a supported web browser.

The list of web browsers that SAS supports is updated as new products are tested and approved. For the latest information, visit the SAS 9.4 Support for Web Browsers and Plug-Ins page at <https://support.sas.com/en/documentation/third-party-software-reference/9-4/support-for-9-4-web-browsers.html>.

Client Tier Operating System Support

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

- Windows 7 32-bit
- Windows 7 64-bit
- Windows 8 32-bit
- Windows 8 64-bit
- Windows 8 Enterprise-32 bit
- Windows 8 Enterprise-64 bit
- Windows 8 Professional 32-bit
- Windows 8 Professional 64-bit
- Windows 10 (32-bit version) on the x64 chip family
- Windows 10 (64-bit version) on the x64 chip family
- Windows 10 on the x86 chip family

Presentation Virtualization Environments

Support for presentation virtualization environments (for example, Citrix) for clients included with SAS Digital Marketing is consistent with the SAS corporate support policy, which can be found at

<http://support.sas.com/techsup/pcn/virtualization.html>.

Specific environment combinations should be reviewed by knowledgeable SAS professional services prior to deployment.

Middle Tier

Middle Tier Applications (Inside the Firewall)

The following products are included on the SAS Digital Marketing middle tier machine:

- SAS Customer Intelligence Studio 6.4, which includes SAS Digital Marketing Extensions for SAS Customer Intelligence Studio
- SAS Digital Marketing Web Studio and Web Reporting Infrastructure 6.4
- SAS Digital Marketing Server 6.4
- SAS Customer Intelligence Reporting Mid-Tier 6.4
- SAS Foundation Services 9.4

Your SAS Digital Marketing package may also include the following optional SAS products:

- SAS Marketing Operations Management Artwork Producer
(delivered with separately licensed SAS Marketing Operations Management mid-tier)
- SAS Marketing Operations Management Digital Asset Management
(delivered with separately licensed SAS Marketing Operations Management mid-tier)

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

Middle Tier Operating System Support

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

- IBM AIX, Release 7.1 TL0 on the pSeries chip family
- HP-UX 11.31 (HP-UX 11i v3, Update 9) on the Itanium chip family
- Red Hat Enterprise Linux 6.1 (64-bit version) on the x64 chip family
- Red Hat Enterprise Linux 7.1 (64-bit version) on the x64 chip family
- SUSE Linux Enterprise Server 11 SP1 (64-bit version) on the x64 chip family
- SUSE Linux Enterprise Server 12 (64-bit version) on the x64 chip family
- Oracle Linux 6.1 (64-bit version) on the x64 chip family
- Oracle Linux 7.1 (64-bit version) on the x64 chip family
- Oracle Solaris 10 Update 9 for SPARC architecture
- Oracle Solaris 11 and later versions for SPARC
- Oracle Solaris 10 x64 (x64-86)
- Oracle Solaris 11 (64-bit version)
- Windows Server 2008 64-bit with Service Pack 2 or a later version
- Windows Server 2008 R2 64-bit
- Windows Server 2012 64-bit
- Windows Server 2016 64-bit

Middle Tier Java Application Server Support

The relevant Java Software Developer Kits (JDKs) and the latest information and special instructions can be found on the Third Party Support website:

<https://support.sas.com/en/documentation/third-party-software-reference/9-4/support-for-java.html>.

Product Requirements

The middle tier of the SAS 9.4 Intelligence Platform includes a SAS Web Application Server and a SAS Web Server for use as an HTTP server.

When you install your SAS solution software, SAS Deployment Manager installs and configures the required web application servers and web servers.

To install these servers, select one of the supported operating systems for the middle tier.

Note: These servers cannot be installed on the z/OS or 32-bit Windows platforms.

Server Tier

Server Tier Applications

SAS 9.4 servers run on the server tier to provide metadata, data, and compute services. The following applications are required on the server tier:

- SAS Management Console 9.4
- SAS/ACCESS
- SAS/GRAPH
- SAS/SHARE
- SAS Foundation 9.4, which includes
 - SAS Integration Technologies
 - SAS Metadata Repository

Notes:

- *SAS Metadata Server can go on the same machine as the solution 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 is 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 on the Third-Party Support website:
<https://support.sas.com/en/documentation/third-party-software-reference/9-4/support-for-java.html>.

Server Tier Operating System Support

The supported operating systems for SAS Digital Marketing Server are as follows:

- IBM AIX, Release 7.1 TL0 on the pSeries chip family
- HP-UX 11.31 (HP-UX 11i v3, Update 9) on the Itanium chip family
- Red Hat Enterprise Linux 6.1 (64-bit version) on the x64 chip family
- Red Hat Enterprise Linux 7.1 (64-bit version) on the x64 chip family
- SUSE Linux Enterprise Server 11 SP1 (64-bit version) on the x64 chip family
- SUSE Linux Enterprise Server 12 (64-bit version) on the x64 chip family
- Oracle Linux 6.1 (64-bit version) on the x64 chip family
- Oracle Linux 7.1 (64-bit version) on the x64 chip family
- Oracle Solaris 10 Update 9 for SPARC architecture
- Oracle Solaris 11 and later versions for SPARC
- Oracle Solaris 10 x64 (x64-86)
- Oracle Solaris 11 (64-bit version)
- Windows Server 2008 64-bit with Service Pack 2 or a later version
- Windows Server 2008 R2 64-bit
- Windows Server 2012 64-bit
- Windows Server 2016 64-bit

For information about specific patch levels, see the following website:

<http://support.sas.com/supportos/list>.

SAS Metadata Server 9.4

SAS Metadata Server Operating System Support

You can find information about specific operating system support in the BI Server system requirements, available at

<http://support.sas.com/documentation/installcenter/en/ikbisrvofrsr/66644/HTML/default/index.html>.

Notes: *If your configuration deploys the Metadata Server on the same computer as the Server Tier, the supported operating systems are the same as those listed above under “Server Tier Operating System Support.”*

VARs supports Windows 64-bit and Red Hat Enterprise Linux 6.1 only for its Metadata Server and is not supported with any other operating systems.

Hardware Requirements

Client Application Machine: Minimum Recommended

- Modern Intel or AMD processor running at 2.33 GHz or faster
- **Memory:**
 - 1 GB above your current environment (for both Adobe Flash and SAS CI Studio)
 - 128 MB graphical memory
- **Disk Space:** SAS Digital Marketing Studio 6.4 requires a minimum install space of approximately 800 MB.

Note: *SAS Digital Marketing Studio is a thick client which is useful for server configuration, broadcast management, and complex broadcast editing options. A marketer can use SAS Customer Intelligence Studio, which is a web-based client that provides a user interface for creating, modifying, scheduling, and executing email and SMS broadcasts.*

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. These should be determined based on consultation with SAS Enterprise Excellence Center.

Disk Space

- SAS Customer Intelligence Studio 6.4: 300 MB above your current environment.
- SAS Digital Marketing Web Studio and Web Reporting Infrastructure 6.4: 250 MB above your current environment.
- BESS (SDM Tracking servlets): 200 MB above your current environment.
- SAS Customer Intelligence Reporting Mid-Tier 6.4: 250 MB above your current environment.

SAS Application Tier: Minimum Recommended

For memory and disk space requirements, please see SAS 9.4 system requirements located at <http://support.sas.com/resources/sysreq/index.html>, under the relevant operating system.

Database Support

SAS Digital Marketing 6.4 can connect to various databases. SAS Digital Marketing 6.4 is compatible with the following databases:

- IBM DB2/UDB versions 10.1, 10.5 and 11.1
- IBM Netezza versions 6.0, 6.1, and 7.0
- Microsoft SQL Server versions 2008, 2008 R2, and 2012 Enterprise Edition
 - SAS/ACCESS to OLE DB; only supported on Windows
- Microsoft SQL Server versions 2008, 2008 R2 and 2012 Standard Edition (supports no more than 10 million customer records)
 - SAS/ACCESS to OLE DB; only supported on Windows
- Microsoft SQL Server 2014 Enterprise Edition using the SQL Server 2012 native client
 - SAS/ACCESS to OLEDB is required.
 - For the libname parameter, the provider must be set as PROVIDER=SQLNCLI11.
- Microsoft SQL Server 2014 Standard Edition using the SQL Server 2012 native client (supports no more than 10 million customer records)
 - SAS/ACCESS to OLEDB is required.
 - For the libname parameter, the provider must be set as PROVIDER=SQLNCLI11.
- Oracle 11g, 11.2, 12.1

Note: If your installation includes Oracle Database 12c, note that Oracle Multitenant architecture is not supported.
- PostgreSQL versions 9.2, 9.3, and 9.4
- SAS Data Sets version 9.4 Maintenance 2 and later

Note: It is necessary to use SAS Data Sets along with SAS/SHARE so that response records can be updated concurrently.
- Teradata versions 13.0, 13.1, 14.0, 14.1, 15.0 and 15.1

Notes:

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

To avoid possible issues with concurrent updates, do not hold SAS Digital Marketing Response and Opt-Out tables as SAS Datasets. SAS recommends using another supported database, or if necessary, using SAS/SHARE. For more information, see SAS Note 47241, available at <http://support.sas.com/kb/47/241.html>.

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. You can satisfy this requirement directly from a third-party vendor of choice. Code-crafter's [Ability Mail Server](#) is an example.

Note: Most high performance Mail Transfer Agents (MTA), automatically implement domain throttling. For high volume implementations that require domain throttling, such as a daily email 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 email campaigns that have offers that are for short periods; for example, when email 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 [Clickatell](#) and [NowSMS](#)

It is the customer's responsibility to satisfy this requirement if they plan to send out SMS/MMS broadcasts. Contact the third-party vendor of choice for pricing.

You must also provide a fully configured email 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 email protocol.

References

SAS Install Center:

<http://support.sas.com/documentation/installcenter/>.

Third-Party Software Requirements:

<https://support.sas.com/en/documentation/third-party-software-reference/9-4/support-for-java.html>.

SAS Marketing Operations Management is an optional product to use along with SAS Digital Marketing 6.4. Find the latest documentation for SAS Marketing Operations Management here:

<http://support.sas.com/documentation/onlinedoc/mom/index.html>.

SAS and all other SAS Institute product or service names are registered trademarks or trademarks of SAS Institute Inc. in the USA and other countries. Other brand and product names are registered trademarks or trademarks of their respective companies.

® indicates USA registration.

Copyright © 2017 SAS Institute Inc., Cary, NC, USA. All rights reserved.