

System Requirements

SAS[®] Fraud Management 3.1

Operating System and System Software

The following are the operating system and system software requirements for SAS Fraud Management 3.1:

- z/OS v1.8 or later
- CICS Transaction Server v3.1 or later
- DB2 for z/OS v8.1 or later
- AIX 5.3.7+
- WebSphere Application Server v6.1 FP21
- WebSphere MQ Series v6
- DB2 UDB v9.5 FP2 or greater (Mid-tier)
- Java 5 (64 bit for AIX)
- Flex/Flash 10
- MS Internet Explorer 7

Server Tier

For information about the file sizes required for the server-tier software, please visit Install Center (<http://support.sas.com/installcenter>) and refer to the SAS 9.2 Foundation System Requirements document appropriate for the host.

SAS Fraud Management Server

Host: z/OS

The following products are included in SAS Fraud Management Server - OnDemand Scoring Engine Server. Unless explicitly licensed, use of this software is limited to SAS Fraud Management Server - OnDemand Scoring Engine Server.

- Base SAS software
- SAS Fraud Management OnDemand Scoring Engine software
- SAS Fraud Management Transaction Extensions software
- SAS/ACCESS engine of choice

SAS Fraud Management Alert Generation Server

Host: AIX

The following products are included in SAS Fraud Management Alert Generation Server. Unless explicitly licensed, use of this software is limited to SAS Fraud Management Alert Generation Server.

- SAS Fraud Management Common Macros software
- SAS Fraud Management System of Record DB Maintenance Macros software
- SAS Fraud Management Systems Monitor Server Macros software
- SAS Fraud Management Transaction Extensions software
- Base SAS software
- SAS Integration Technologies software
- SAS/ACCESS engine of choice
- SAS/ACCESS Interface to PC Files software
- SAS/CONNECT software

In addition, SAS Fraud Management Alert Generation Server includes a vertical product, SAS Fraud Management Alert Generation Server, which is not included with SAS Foundation. For information about SAS Fraud Management Alert Generation Server's specific requirements, please see its System Requirements document which is available from Install Center (<http://support.sas.com/idsearch?ct=200000>).

SAS Fraud Management Operational Reports Server

Host: AIX

The following products are included in SAS Fraud Operational Reports Server. Unless explicitly licensed, use of this software is limited to SAS Fraud Operational Reports Server.

- SAS Fraud Management Operational Reports software
- Base SAS software
- SAS Integration Technologies software
- SAS/ACCESS engine of choice
- SAS/ACCESS Interface to PC File Formats software
- SAS/CONNECT software
- SAS/GRAPH software

SAS Fraud Management Reporting History ETL Server

Host: AIX

The following products are included in SAS Fraud Management Reporting History ETL Server. Unless explicitly licensed, use of this software is limited to SAS Fraud Management Reporting History ETL Server.

- SAS Fraud Management Common macros software
- SAS Fraud Management Reporting History DB Maintenance Macros software
- SAS Fraud Management Reporting History ETL Server Macros software
- SAS Fraud Management Reporting History ETL Server software
- Base SAS software
- SAS Integration Technologies software
- SAS/ACCESS engine of choice
- SAS/ACCESS Interface to PC Files software
- SAS/CONNECT software

SAS Metadata Server

Hosts: Microsoft Windows, Microsoft Windows for 64-Bit Itanium-based Systems, Microsoft Windows for x64, AIX, HP-UX, HP-UX for the Itanium Processor Family Architecture, Linux for Intel Architecture, Linux for x64, Solaris, Solaris for x64, z/OS

The following products are included in SAS Metadata Server. Unless explicitly licensed, use of this software is limited to SAS Metadata Server.

- Base SAS software
- SAS/CONNECT software
- SAS/SECURE software

Mid-Tier

***Note:** If you are using an application server on a UNIX machine, SAS strongly recommends that you set the ulimit on that machine to 10240. For details about the procedure to set the ulimit for your operating system, contact your system administrator.*

The following products are included with this solution and should be installed on the mid-tier. For information about each product's specific requirements, please see its System Requirements document available from Install Center (<http://support.sas.com/idsearch?ct=200000>).

SAS Fraud Management Mid-Tier

Host: AIX

SAS Fraud Management Mid-Tier should be used on this mid-tier machine.

SAS BI Mid-Tier

Hosts: Microsoft Windows, Microsoft Windows for x64, AIX, HP-UX for the Itanium Processor Family Architecture, Linux for x64, Solaris, Solaris for x64

- SAS Web OLAP Viewer for Java
- SAS Web Report Studio

Application Server

Host: AIX

IBM WebSphere Network Deployment is required and separately licensed, but not automatically included.

Mid-Tier Storage Requirements

- System of Record (SOR) – dependent upon the number of days retained, determined per customer installation
- Reporting History (RH) – dependent upon the number of months retained, determined per customer installation
- MQ queues – dependent upon queue depth, determined per customer installation

Mid-Tier Server Hardware Requirements

- WAS: POWER6 server*
- AGS/ETL/BI/Metadata: POWER6 server*
- SOR: POWER6 server*
- RH: POWER6 server*

*number and speed of processors, internal storage in addition to the number of physical servers per installation for redundancy is TBD per installation and customer requirements

Client Tier

The following products are included with this solution and should be installed on the client tier. For information about each product's specific requirements, please see its System Requirements document available from Install Center (<http://support.sas.com/idsearch?ct=200000>).

Hosts: Microsoft Windows, Microsoft Windows for x64

- SAS Add-In for Microsoft Office
- SAS Enterprise Guide
- SAS Information Map Studio
- SAS Management Console

Mainframe Hardware Requirements

As a starting point estimate, SAS has measured total CPU utilization of about 10 ms per transaction on an IBM 2066-0A2 computer with 2 CPUs. This figure includes all host components and subsystems

including CICS, DB2 OSE and other components. A rough estimate of daily mainframe CPU consumption on a z990 class machine with 16 CPUs would be approximately 3.3 CPU-hours per day. This would include debit, credit, and savings transactions.

The SAS Fraud Management Solution when applied to credit, debit, and banking problems could be expected to require approximately 300 GB of mainframe disk space (completely dependent on volumes). The vast majority of this would be for DB2 table space to support the signature and user variable data base.

The SAS Fraud Management mid-tier is both highly configurable in its data retention policy and flexible in its support of various configurations, including high availability and clustering. As a result, sizing requirements and specifications are heavily dependent on configuration and architecture decisions. True sizing of hardware (CPUs, memory and storage) are performed as part of the project.

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