SAS® Fraud Management Third-Party Support

☺ - *Support still available into the future*

😐 - *Support is mixed (base expired, extended support still available)*

☹ - *Support has already expired*

(The above states are based on the Third-Party Vendor's view and are shared for awareness below)

Table 1.1 Operating System Support

SAS Fraud Management Version	AIX 6 ☹	AIX 7 😐	Red Hat Linux 6 ☹	Red Hat Linux 7 ☹	Red Hat Linux 8 ☺	Windows XP ☹	Windows 7 ☹	Windows 8 ☹	Windows 8.1 😐	Windows 10 ☺
3.3 M1	✓	✓	✓			✓	✓	✓		
4.1 M0		✓	✓				✓	✓		
4.2 M1			✓	✓			✓	✓	✓	
4.3 M0			✓	✓			✓		✓	
5 Release 6 and lower (4.4M0)			✓	✓			✓		✓	✓
5 Release 7 and higher (4.4M1)				✓						✓
6.1				✓	✓+					✓

+ 6.1 HF7 on SAS 9.4 M7 was fully tested with Red Hat Linux 8.

Table 1.2 Database Mid-Tier Support

SAS Fraud Management Version	DB2 9.7 FP6 ☹	DB2 10 ☹	DB2 10.5 😐	DB2 11 😐	DB2 11.1 FP3 😐	DB2 11.5 ☺	Oracle 11g 11.2.03* ☹	Oracle 12c R2** ☹	Oracle 18c ☹	Oracle 19c ☺
3.3 M1	✓		✓				✓			
4.1 M0		✓	✓				✓			
4.2 M1		✓	✓				✓ ^	✓		
4.3 M0		✓	✓					✓		
5 Release 6 and lower (4.4M0)				✓				✓		
5 Release 7 and higher (4.4M1)					✓			✓	✓	✓ +
6.1					✓	✓		✓	✓ ^^	✓ ^^

* Oracle Client JDBC Driver should be at a minimum version of 11.2.0.4.

** Oracle JDBC Driver should be at version of 12.1.0.2.

^ Oracle 11g systems running SAS Fraud Management 4.2M1 HF1 and later, require the ojdbc7.jar.

^^ Oracle 18c and 19c systems require the ojdbc7.jar.

+ Oracle 19c is supported but not verified.

Table 1.2 Database Mid-Tier Support (continued)

SAS Fraud Management Version	Redis 3.2* ☹	PostgreSQL 11** ☺	PostgreSQL 12** ☺
3.3 M1			
4.1 M0			
4.2 M1			
4.3 M0			
5 Release 6 and lower (4.4M0)	✓		
5 Release 7 and higher (4.4M1)	✓		
6.1	✓	✓	✓ +

* Multi-Entity History (MEH) database only. Python models are not supported when using Redis for MEH.

** XAMS installations only prior to 6.1 HF4.

+ 6.1 HF7 on SAS 9.4 M7 was fully tested with PostgreSQL 12.

Table 1.3 Message Queueing

SAS Fraud Management Version	IBM MQ 7.0.1 FP 5 ☹	IBM MQ 7.1.6 FP 8 ☹	IBM MQ 7.5 FP 7 ☹	IBM MQ 8 FP 5 ☹	IBM MQ 9.0 ☹	IBM MQ 9.2 ☺	Apache ActiveMQ* ☺
3.3 M1	✓		✓				
4.1 M0		✓	✓				
4.2 M1		✓	✓	✓			
4.3 M0		✓	✓	✓			
5 Release 6 and lower (4.4M0)				✓	✓		
5 Release 7 and higher (4.4M1)				✓	✓		
6.1				✓	✓	✓	✓

 Note: Multi-instance QM and MQ clustering require manual configuration of IBM MQ.

* Use the ActiveMQ version that is included with the SAS 9.4 version that SAS Fraud Management was installed with.

Table 1.4 Web Mid-Tier Support

SAS Fraud Management Version	IE 8 ☹	IE 9 ☹	IE 10 ☹	IE 11 ☹	Microsoft Edge Chromium* ☺	Google Chrome ☺	Elasticsearch 2.3.4 ☹
3.3 M1	✓	✓	✓				
4.1 M0		✓	✓				
4.2 M1		✓	✓	✓			
4.3 M0				✓			
5 Release 6 and lower (4.4M0)				✓			✓
5 Release 7 and higher (4.4M1)				✓			✓
6.1				✓^^	✓+	✓+	✓

* For 6.1 releases prior to HF4, Microsoft Edge can be used where IE 11 is supported but Microsoft Edge must be run in IE 11 compatibility mode.

^^ For 6.1 HF4 and later, the use of IE 11 is not supported.

+ Supported in 6.1 HF4 and higher.

Table 1.5 Web Application Server Support

SAS Fraud Management Version	WebSphere AS 7.0 ☹	WebSphere AS 8.0 ☹	WebSphere AS 8.5 ☹	SAS Application Server ☺
3.3 M1	✓	✓	✓	
4.1 M0				✓
4.2 M1				✓
4.3 M0				✓
5 Release 6 and lower (4.4M0)				✓
5 Release 7 and higher (4.4M1)				✓
6.1				✓

Table 1.6 SAS Support

SAS Fraud Management Version	SAS 9.3 😐	SAS 9.4 M1 😐	SAS 9.4 M2 😐	SAS 9.4 M3 😐	SAS 9.4 M5 😐	SAS 9.4 M6 🙂	SAS 9.4 M7 🙂
3.3 M1	✓						
4.1 M0		✓					
4.2 M1				✓			
4.3 M0				✓			
5 Release 6 and lower (4.4M0)				✓			
5 Release 7 and higher (4.4M1)					✓	✓	
6.1 HF10 and lower						✓	✓+
6.1 HF11 and higher							✓

+ 6.1 HF4 was fully tested with SAS 9.4 M7 (20w34).

Table 1.7 Java Support

SAS Fraud Management Version	Oracle Java 1.6.0_21 ☹	Oracle Java 1.7.0_15 😐	IBM Java 6 SR8 FP1 +iFixIZ7743 ☹	IBM Java 7.0.0.60 (7.0 SR3) ☹	SAS Java (shipped with SAS 9.4) ☺
3.3 M1	✓	✓	✓	✓	
4.1 M0		✓	✓	✓	
4.2 M1					✓
4.3 M0					✓
5 Release 6 and lower (4.4M0)					✓
5 Release 7 and higher (4.4M1)					✓
6.1					✓

Table 1.8 Python Support

SAS Fraud Management Version	Python 2.7.5 ☹	Python 3.0.1 ☹	Python 3.8* ☺	Protobuf 3.6.1 😐	Protobuf 3.14 ☺	Protobuf 3.19 ☺
3.3 M1						
4.1 M0						
4.2 M1						
4.3 M0						
5 Release 6 and lower (4.4M0)						
5 Release 7 to 8 (4.4M1 to 4.4M1 HF2)						
5 Release 9 to 15 (4.4M1 HF3 to 4.4M1 HF9)	✓	✓	✓	✓	✓	
5 Release 16 and higher (4.4M1 HF10 and higher)	✓	✓	✓			✓
6.1 to 6.1 HF8	✓	✓	✓	✓	✓	
6.1 HF9 and higher	✓	✓	✓			✓

Notes:

- Python models are not supported in Mainframe environments.
- Python models are not supported when using Redis for the MEH database.

*Python v3.8 requires Oracle v.19c and higher.

Table 1.9 Supported Languages

SAS Fraud Management Version	English	Spanish	Portuguese (Brazilian)	Chinese	Polish	German	Japanese	Korean	Italian	Russian
3.3 M1										
4.1 M0										
4.2 M1	✓	✓	✓	✓	✓					
4.3 M0	✓	✓	✓	✓	✓					
5 Release 6 and lower (4.4M0)	✓	✓	✓	✓	✓	✓	✓	✓		
5 Release 7 and higher (4.4M1)	✓	✓	✓	✓	✓	✓	✓	✓	✓+	
6.1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

NOTE: This indicates languages supported within the software solution, documentation is not provided for all documents in all languages.

+ Available on 5 Release 10 and higher.

Table 1.10 SSL/TLS Support

SAS Fraud Management Version	SSL/TLS Web	SSL/TLS ODE/MQ	SSL/TLS ODE/Socket	SSL/TLS AGS
3.3 M1	✓	✓		✓
4.1 M0	✓	✓		✓
4.2 M1	✓	✓		Not applicable
4.3 M0	✓	✓		Not applicable
5 Release 6 and lower (4.4M0)	✓	✓	✓	Not applicable
5 Release 7 and higher (4.4M1)	✓	✓	✓	Not applicable
6.1	✓	✓	✓	Not applicable

Table 1.11 MVS Support

SAS Fraud Management Version	IBM MQ 7.1 ☹	IBM MQ 8 ☹	DB2 10 ☹	DB2 11 😐	DB2 12 ☺	CICS TS 4.1 ☹	CICS TS 4.2 ☹	CICS TS 5.1 ☹	CICS TS 5.2 ☹	CICS TS 5.3 ☹
3.3 M1	✓		✓			✓	✓			
4.1 M0	✓		✓			✓	✓	✓		
4.2 M1	✓	✓		✓		✓	✓		✓	
4.3 M0	✓	✓		✓					✓	
5 Release 6 and lower (4.4M0)	✓	✓		✓					✓	✓
5 Release 7 and higher (4.4M1)	✓	✓		✓	✓				✓	✓

Table 1.11 MVS Support (continued)

SAS Fraud Management Version	z64 Only ☺	z/OS 1.13 ☹	z/OS 2.1 ☹	z/OS 2.2 😐	COBOL 5.x ☹	COBOL 6.x ☺
3.3 M1		✓			✓*	
4.1 M0			✓			
4.2 M1	✓			✓		
4.3 M0	✓			✓	✓	
5 Release 6 and lower (4.4M0)	✓			✓	✓	✓
5 Release 7 and higher (4.4M1)	✓			✓	✓	✓

* Requires SAS Fraud Management 3.3M1 HF17.