

Release Notes for SAS® Fraud Management 4.4_M1, Hot Fix 8 Version 5, Release 14

Description	Component	Summary and Business Impact	Test Scenario
<p>Transaction processing fails when either the vxxEnabled property, the ixxEnabled property, or both are set to false.</p>	<p style="text-align: center;">ENGINE</p>	<p>Summary: When either the vxxEnabled property, the ixxEnabled property, or both are set to false in the post-score-actions.xml file, the OnDemand Decision Engine reports an error and transactions are not inserted into the Transaction Data Repository (TDR) database.</p> <p>The error in the console.log is shown here:</p> <pre style="margin-left: 40px;">ERROR SqlDatabase java.lang.NullPointerException</pre> <p>The vxxEnabled property controls whether user-variable data is inserted into the VXX table for each transaction type. When the property is set to true, the data is inserted. When it is set to false, the data is not inserted.</p> <p>The ixxEnabled property controls whether client input variable (CIV) data is inserted into the IXX table for each transaction type. When the property is set to true, the data is inserted. When it is set to false, the data is not inserted.</p> <p>Business Impact: Since the vxxEnabled and the ixxEnabled properties cannot be set to false because of this issue, the IXX and VXX tables in the TDR are populated. As a result, additional space might be used in the TDR database if custom variables are used.</p>	<p>After you apply the hot fix, the vxxEnabled and the ixxEnabled properties work properly when set to true or false. The transactions are inserted successfully into the transaction tables in the TDR.</p>

Description	Component	Summary and Business Impact	Test Scenario
<p>Invalid date and time values are passed to Python.</p>	<p>ENGINE</p>	<p>Summary: Field variables that contain date and time data (for example, RQO_TRAN_DATE and RQO_TRAN_TIME) have an invalid format when they are passed to the Python scoring engine.</p> <p>The value in the RQO_TRAN_DATE field should be a number that represents the offset between a given date and 01 Jan 1970. Instead, the value is passed as a number that represents the string representation of the actual date. For example, the date 01 Dec 2018 is passed in as the number 20181201.0.</p> <p>The value in the RQO_TRAN_TIME field should be the number of seconds since midnight, a value between 0 and 86399. Instead, the value is padded with zeros to make it an eight-digit number. For example, the value 3647 is passed in as the number 36470000.</p> <p>This issue does not impact the values that are stored in the TDR database.</p> <p>Business Impact: The business impact depends on the customer's Python code in the model. If the logic in the code uses these date and time values, the results might be incorrect.</p>	<p>After you apply the hot fix, the date and time values are properly formatted when they are passed to the Python scoring model.</p>

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<p>An error occurs when Python script files other than the score.py file are located in the model-package directory.</p>	<p>ENGINE</p>	<p>Summary: When you register a Python model, all .py files in the model-package directory are checked to see whether the modules contain the model-package class name. If the modules do not contain the class name, the Python scoring engine shuts down. This check should be performed only on the score.py file.</p> <p>Business Impact: When this problem occurs, the Python model does not score transactions, and fraudulent transactions might not be identified.</p> <p>If a SAS® model is also in use, the model is not impacted by this issue.</p>	<p>After you apply the hot fix, the check for the model-package class name is performed only on the score.py file, and no error occurs.</p>
<p>When you run a Python model, an error occurs when the code reads transactions that are longer than 128 kilobytes.</p>	<p>ENGINE</p>	<p>Summary: Transactions that are longer than 128 kilobytes are truncated when the code reads them from the socket that is connected to the Python engine. An error occurs when the process tries to deserialize these incomplete transactions.</p> <p style="text-align: right;"><i>(continued on next page)</i></p>	<p>After you apply the hot fix, the code reads from the socket until the entire transaction is received. Transactions that are greater than 128 kilobytes are processed without error.</p>

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		<p>When this problem occurs, the following error appears in the Python log:</p> <pre> ose (receive) DEBUG: Caught exception :[Errno 104] Connection reset by peer Traceback (most recent call last): File "/sasvol01/SASConfig/Levl/Applications/SA SFraudManagement/6.1/SAMS/engine/Server1/ bin/ose.py", line 878, in receive bytes = self.socket_read_n(4) File "/sasvol01/SASConfig/Levl/Applications/SA SFraudManagement/6.1/SAMS/engine/Server1/ bin/ose.py", line 867, in socket_read_n data = self.sock.recv(n) ConnectionResetError: [Errno 104] Connection reset by peer ose (run) DEBUG: Terminating ose (main) INFO: Python scoring engine shutting down... </pre> <p>Business Impact: Transactions are not scored by the model, and fraudulent transactions might not be identified.</p>	
<p>The Transactional Analysis Server (TAS) does not index custom variables with numeric prefix.</p>	<p>TAS (GUIDED RULES AND EXPLORE TAB)</p>	<p>Summary: User variables and client input variables that have a numeric prefix are not indexed by TAS. Since they are not indexed, the values are not displayed in guided rules or on the Explore tab.</p> <p>Business Impact: A rule writer cannot view the values of custom variables whose names have a numeric prefix. This fact impacts the rule writer's ability to explore the data and to write guided rules that are based on the values of the custom variables.</p>	<p>After you apply the hot fix, user variables and client input variables with numeric prefixes are indexed and their values are displayed in both guided rules and on the Explore tab.</p>

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<p>Modifying a business unit enables a cross-site scripting vulnerability.</p>	<p>BROWSER</p>	<p>Summary: When you edit a business unit, a cross-site scripting vulnerability exists. This vulnerability can be evident when you use Microsoft Internet Explorer, where all script security is disabled. If an attack string that contains a newline character is inserted into the URL, the input validation is bypassed.</p> <p>Business Impact: When a business unit is edited in the Manager’s Workbench, a cross-site scripting vulnerability enables an attacker to inject malicious code. Then, malicious code can execute in your browser session, placing sensitive data at risk of being compromised.</p>	<p>After you apply the hot fix, editing a business unit no longer enables a cross-site scripting attack.</p>
<p>The OnDemand Decision Engine fails to start when a rule calls the %hasAnyAuthorizationRuleFired macro.</p>	<p>ENGINE</p>	<p>Summary: When a system has many authorization rules in testing or in production, a call to the %hasAnyAuthorizationRuleFired macro might prevent the OnDemand Decision Engine from starting.</p> <p>The error reported in the SAS log is as follows:</p> <pre>ERROR: The text expression length (65535) exceeds maximum length (65534). The text expression has been truncated to 65534 characters.</pre> <p>Business Impact: If the OnDemand Decision Engine does not start, then incoming transactions are not scored. When this happens, fraudulent transactions are not identified.</p>	<p>After you apply the hot fix, a call to the %hasAnyAuthorizationRuleFired macro is successful and the OnDemand Decision Engine starts successfully.</p>

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<p>When you use Python models, missing numeric variables have a value of 0. Also, values for client-input variables and user variables are not reset between transactions.</p>	<p>ENGINE</p>	<p>Summary: Currently, the value for missing numeric fields defaults to 0. This behavior can cause logic errors in the Python model because a field with a 0 value cannot be distinguished from a field that has no value or that is undefined.</p> <p>Business Impact: If a custom Python model relies on the ability to determine whether a numeric field is missing its value, then a logic error can occur. When values for client-input variables and user variables are not cleared between transactions, a logic error also can occur. The impact of these errors depends on the custom code.</p>	<p>After you apply the hot fix, numeric fields are generated with a default value of NaN (Not a Number). In addition, values for client input variables and user variables are cleared between transactions.</p>
<p>The size for the Python transaction queue cannot be configured.</p>	<p>ENGINE</p>	<p>Summary: The size of the Python transaction queue cannot be configured, and the default size might not be large enough for high transaction volumes. If the queue size is not large enough, transactions are discarded before they are processed by the OnDemand Decision Engine.</p> <p>The default queue size is 2, and that size cannot be overridden.</p> <p>Business Impact: If some transactions are not processed by the OnDemand Decision Engine, fraudulent transactions might not be identified.</p>	<p>After you apply the hot fix, the default queue size is increased to 25 and that value can be overridden.</p> <p>To customize the queue size, add the queueSize property to the pythonController bean in the ose.xml file.</p> <p>For example, to set the queue size to 50, add this property:</p> <pre><property name="config.queueSize" value="50" /></pre>

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<p>On IBM DB2 systems, you cannot use an alternate TDR database for rule estimation.</p>	<p>ESTIMATION</p>	<p>Summary: When an alternate TDR database is specified on DB2 systems, estimations fail.</p> <p>The error in the web application log is similar to the following:</p> <pre> NOTE: Line generated by the macro variable "RUL_TRANSREPOS_DATABASE". 60 /t44mlqd _____ 22 ERROR: Libref ADB2 is not assigned. ERROR: Error in the LIBNAME statement. </pre> <p>The alternate TDR database URL is specified by the estimate_alt_tdr_url property.</p> <p>Business Impact: When you run many large estimations against the primary TDR database, they can impact the performance of that database. Because of this issue, you cannot use an alternate TDR to separate the estimation workload.</p>	<p>After you apply the hot fix, you can use an alternate TDR database for rule estimation on DB2 systems.</p>
<p>In the OnDemand Decision Engine configuration files, the SOCKETx_WHITE_LIST property should be renamed to SOCKETx_ACCEPT_LIST.</p>	<p>ENGINE</p>	<p>Summary: The ose.xml and the ose.properties configuration files contain a property named SOCKETx_WHITE_LIST. This property should follow new terminology standards and be renamed to SOCKETx_ACCEPT_LIST.</p> <p>Business Impact: There is no business impact.</p>	<p>After you apply the hot fix, the ose.xml file and the ose.properties file use the property name SOCKETx_ACCEPT_LIST.</p>