Release Notes for SAS® Fraud Management 4.4_M1, Hot Fix 2
Version 5, Release 8

Description	Component	Summary and Business Impact	Test Scenario
The **Explore** tab should display transactions only for multi-organizations to which you have been given permission.	EXPLORE	**Summary:** Users are added to specific multi-organizations on the **Users** tab. If a user has not been added to a multi-organization, the transactions for that multi-organization should not be included in the transaction list on the **Explore** tab. **Business Impact:** Users can see transactions for multi-organizations to which they are not assigned.	After you apply this hot fix, only transactions for multi-organizations that are assigned to you are included in the list on the **Explore** tab.
The **Users** tab might load slowly when the multi-organizational structure is large.	GUI	**Summary:** A large multi-organizational structure might cause the **User** tab to load slowly. **Business Impact:** Any work done on the **Users** tab of the web application takes longer than it should.	After you apply this hot fix, the **Users** tab loads faster when the multi-organizational structure is large.
On Oracle systems, a query that is used in rule estimation is slow.	ESTIMATION	**Summary:** On Oracle systems, a query that is used in rule estimation is slow because of a table scan. **Business Impact:** Long-running estimations prevent timely testing of new rules.	After you apply this hot fix, a new index is created. This index should be used by Oracle to avoid the table scan.

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On the **Models** tab, score band ranges on the Score Distribution graph do not clearly state whether upper and lower values are inclusive or exclusive. The corresponding tooltips are also not clear.	GUI	**Summary:** Because the score band ranges and tooltips are not understandable, the following changes need to be made to the **Score Distribution** graph: • Indicate what values are included or excluded from the score band range. For example, change the current 50 – 100 range labels to >=50, <100. • Adjust the tooltips to match the score band ranges. • Replace **Current Month** with **Transaction count:** on the tooltips. **Business Impact:** The current score band ranges do not clearly state whether the upper and lower values are inclusive or exclusive. The tooltips also are not clear.	After you apply this hot fix, the score band ranges and tooltips on the **Score Distribution** graph are more understandable.
Multibyte characters are not displayed correctly in the Preview Rule window and in the rule conditions.	RULES	**Summary:** When you use the Guided Approach for rule writing, question marks are displayed instead of the correct multibyte characters in the Preview Rule window and on the **Conditions** and **Actions** tab in the grid view. **Business Impact:** Rule writers cannot see multibyte characters when they use the Guided Approach. This behavior makes writing and debugging rules more difficult.	After you apply this hot fix, multibyte characters are displayed correctly in the Preview Rule window and on the **Conditions** and **Actions** tab in the grid view.

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Description	Component	Summary and Business Impact	Test Scenario
On Oracle systems, an error occurs in the web application when more than 1000 multi-organizations are assigned to a user.	GUI	**Summary:** Several areas of the web application report an error when a user is assigned 1000 or more multi-organizations. The areas affected are as follows: • **Users** tab • **Reports** tab • **Alerts** tab When this problem occurs, the following exception is displayed in the web application log: `### Cause: java.sql.SQLSyntaxErrorException: ORA-01795: maximum number of expressions in a list is 1000; bad SQL grammar []; nested exception is java.sql.SQLSyntaxErrorException: ORA-01795: maximum number of expressions in a list is 1000` **Business Impact:** Users cannot complete some tasks in the web application.	After you apply this hot fix, an Oracle error does not occur when a user is assigned many multi-organizations.
Hyperlinks cannot be embedded in several areas of the Analyst Workstation.	ANYLSTSWORK	**Summary:** Hyperlinks cannot be embedded in the following areas of the Analyst Workstation: • Memos • Call scripts • **Contact** and **Demographic**s tabs • Transaction grid **Business Impact:** The inability to embed hyperlinks can hinder analysts in triaging alerts. For example, an analyst cannot click a phone number to initiate a call.	After you apply this hot fix, hyperlinks can be embedded in several areas of the Analyst Workstation.

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Description	Component	Summary and Business Impact	Test Scenario
You cannot configure the SAS OnDemand Decision Engine to process transactions sequentially.	ODE	**Summary:** Currently, you cannot configure the SAS OnDemand Decision Engine to process a batch of transactions sequentially, regardless of their arrival order. A sequential batch is configured in the ose.xml file by adding the new property, `sequentialBatch`, to the connector configuration. **Business Impact:** The SAS OnDemand Decision Engine processes transactions in the order they arrive. The sequential processing of a batch of transactions is not supported currently.	After you apply this hot fix, you can configure SAS OnDemand Decision Engine to handle sequential batches of transactions.
The query to retrieve the rule code for an estimation is slow.	RULES	**Summary:** For an estimation, the rule code is stored in a SAS data set. The query to retrieve the rules can be slow. **Business Impact:** Rule estimation takes longer than necessary.	After you apply this hot fix, the rule code for an estimation is stored in a new database table in the System of Record (SOR) database. The retrieval of the rules is faster.
On Oracle systems, the historical report jobs use the incorrect date.	ANYLSTSWORK	**Summary:** On Oracle systems, the report job converts the create timestamp to Coordinated Universal Time (UTC), but the date is already formatted in UTC. The result is that the historical reports do not include the correct data. Impacted reports: • Alerts by Score Band • Overall False Positives • Fraudulent Transaction List **Business Impact:** The historical reports that are listed above do not contain the expected data.	After you apply this hot fix, the create timestamps are converted properly and the historical reports include the correct data.

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Description	Component	Summary and Business Impact	Test Scenario
The **Rules** tab loads slowly.	RULES	**Summary:** The **Rules** tab loads slowly because of duplicate or inefficient database queries. **Business Impact:** Rule writers experience delays when they work in Rules Studio.	After you apply this hot fix, the **Rules** tab loads faster.
When you create a new rule, the New Rule Detail window opens slowly.	RULES	**Summary:** When you create a new rule on the **Rules** tab, the New Rule Detail window takes too long to open after you click the **New Rule** button and select **Code Editor**. **Business Impact:** Creating a new rule in Rules Studio takes longer than it should.	After you apply this hot fix, The New Rule Detail window opens more quickly.
When the rule list is long, adjusting the rule priority is difficult.	RULES	**Summary:** If the rule list does not fit on a page and you use the drag-and-drop feature to adjust the priority, the rule disappears from the page. It is difficult to adjust the priority of a rule without adjusting the custom zoom to force all rules to be displayed on a single page. **Business Impact:** Rules cannot be prioritized in the UI using the drag-and-drop feature.	After you apply this hot fix, you can use the drag-and-drop feature to prioritize rules, regardless of the number of rules in the list.

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Description	Component	Summary and Business Impact	Test Scenario
On mainframe systems, the DB2 log contains uncommitted unit-of-recovery (UR) warning messages.	USC	**Summary:** The DB2 log contains warning messages in this format: `DSNR035I` *`csect-name`* `WARNING - UNCOMMITTED UR AFTER` *`number`* `CHECKPOINTS` Some messages of this type are generated when the Universal SAS Connector (USC) retrieves the next sequence number from DB2 but then does not use it. In this situation, you can ignore the warning. **Business Impact:** Warning messages in the DB2 log can generate alerts in third-party monitoring tools. Alerts require investigation by the database administrator. The administrator might not be able to distinguish between valid warnings and warnings that can be ignored.	After you apply this hot fix, the USC does not generate an uncommitted UR warning in the DB2 log when the USC retrieves the next sequence number.
You cannot specify obfuscation columns and expressions for fraud tagging.	FRDTAG	**Summary:** Consortium jobs enable you to supply a comma-separated values (CSV) file containing obfuscation columns and expressions. The fraud tagging job should have this feature also. **Business Impact:** The obfuscation code that is included with the product is currently used. That code cannot be customized.	After you apply this hot fix, you can optionally provide a CSV file containing obfuscation columns and expressions for fraud tagging. The CSV file name and location can be set in the FT_OBF_FIELDS element in the tag_*entity*_fraud_config.xml file. If the FT_OBF_FIELDS element is not set, the default obfuscation is used.

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Description	Component	Summary and Business Impact	Test Scenario
Rule administrators should only be able to view rule code for business units that they belong to.	GUI	**Summary:** On the **Console** tab in the Deploy folder, you can view rule code by clicking the **Print** button or by double-clicking the rule in the rule list. Any user that can access the **Console** tab can view the rule code for any rule. However, users should only be able to view rule code for the business units that they are members of. **Business Impact:** Rule code can contain sensitive information that should only be visible to users that have been granted permission to the business unit.	After you apply this hot fix, you see the following message if you do not have permissions to a business unit and you try to view the rule code: `The rule code is unavailable because this user does not have access to the business unit that created this rule.`
The analytical-reports batch job 6200 should be expanded to process multiple entities.	REPORTS	**Summary:** In earlier SAS Fraud Management releases, analytic reports for multiple entities (for example Credit and Debit) were delivered in separate packages. In the current release, the analytic reports run as standard batch jobs and the ability to report on multiple entities is not available. **Business Impact:** Analytic reports only run on a single entity. However, some customers want to report on multiple entities.	After you apply this hot fix, the 6200 job supports running reports on multiple entities. A new parameter-named tab is added. The tab parameter accepts a list of table acronyms. **Example:** `bat_run_job.sh -j 6200 -s "monthly tab=csca ccca"` The analytic-reports package that is created for the customer includes a separate configuration file for each table that is used by the package.

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Description	Component	Summary and Business Impact	Test Scenario
The fulfillment interface is being retired.	ANYLSTSWORK	**Summary:** The fulfillment interface is being removed from SAS Fraud Management. You should use the external enterprise case management (ECM) feature instead. **Business Impact:** The fulfillment interface will no longer function.	After you apply this hot fix, fulfillment messages are not generated, stored, or sent. The following properties are removed from the Analyst Workstation (**Preferences ► System Properties ► Analyst Workstation)**: • fulfillment.enabled, • fulfillment.white.list.alert.types, • fulfillment.white.list.multiOrgIds The Fulfillment Submission Monitor remains on the **Console** tab so you can view completed and in-flight messages.
On Oracle systems, a rule export fails when you select more than 1000 rules.	RULES	**Summary:** On Oracle systems, if you select more than 1000 rules and click the **Export** button, the export fails. The message that appears in the web-application log is as follows: `ORA-01795: maximum number of expressions in a list is 1000` **Business Impact:** A rule export fails when more than 1000 rules are selected.	After you apply this hot fix, rule export completes successfully.
The REST API fails to create an alert with an entity value.	ANYLSTSWORK	**Summary:** The REST API returns an error when it creates an alert with an entity value. The following error message is generated: `HTTP/1.1 500 Internal Server Error` **Business Impact:** You cannot use the REST API to create an alert with an entity value.	After you apply this hot fix, the REST API successfully creates an alert with an entity value.

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Description	Component	Summary and Business Impact	Test Scenario
Job 3002 completes successfully, but it reports an exit code of **1** instead of **0**.	ETL	**Summary:** The batch job 3002 updates the FMX_TDR_STATS table in the System of Record (SOR) database. This table is used during rules estimation. In some cases, the job can complete successfully, but it reports an exit code of **1**. The FMX_JOB_RUN database table does show that the job completed successfully in these cases. **Business Impact:** If the batch-job exit code is used to determine job success instead of the FMX_JOB_RUN table, then a successful run might be incorrectly interpreted as a failure.	After you apply this hot fix, a successful run of job 3002 consistently exits with a code of **0**.
On Oracle systems, the SAS Fraud Management Database Management System (DBMS) package checks that the database user has schema owner authorizations before proceeding.	DATABASE	**Summary:** On Oracle systems, the DBMS package requires that schema owner authorizations to be assigned directly to the database user. Some customers prefer assigning authorizations to an Oracle role instead. This allows them to easily remove the user from the role after the installation completes. **Business Impact:** It is more difficult to remove the increased privileges required to run the DBMS package from an individual user than it is to remove the user from a role that has those privileges.	After you apply this hot fix, the user running the DBMS package can be assigned to a role that has the required authorizations.
On Oracle systems, rule test and rule debug processes fail when there are more than 1000 multi-organizations.	RULES	**Summary:** If there are more than 1000 multi-organizations, rule test and rule debug processes fail. The message that appears in the web-application log is as follows: `ORA-01795: maximum number of expressions in a list is 1000` **Business Impact:** Rule writers are unable to debug and test rules.	After you apply this hot fix, the rule test and rule debug processes complete successfully.

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Description	Component	Summary and Business Impact	Test Scenario
For systems that send EBCDIC data to the SAS® OnDemand Decision Engine in Linux environments, an encoding error might occur when there is a gap in user variable fields that are used by rules.	ODE	**Summary:** If there is a gap in the user variable fields that are used by rules and the variable after the gap is a character variable, a transcoding error occurs. The unused variable(s) are not included in the calculation of the total length of the data and some of the data is not transcoded. The result is that the character variables after the gap might be stored as ASCII instead of EBCDIC, which means they are corrupted. **Business Impact:** User character variables might be corrupted when you use EBCDIC encoding under Linux.	After you apply this hot fix, user character variables are properly transcoded on systems that send EBCDIC data to SAS OnDemand Decision Engine under Linux.