IBM Safer Payments
Version 6.2

Release Notes

BA21-8475-00

This edition applies to Release 6.2.x of IBM Safer Payments, Program Number 5725-Z82, and to all subsequent releases and modifications until otherwise indicated in new editions.

Contents

Chapter 1. Introduction

The Release Notes contain information about new features, update information, fixes, and known issues in IBM® Safer Payments 6.2.x.

How to install and update

For information about how to install and update, see the IBM Safer Payments Implementation Guide.

Versions and PA-DSS certification

For information about versions and PA-DSS certification, see the IBM Safer Payments Implementation Guide.

Download links

- 6.2.0.00 Download instructions
- 6.2.1.00 Download instructions
- 6.2.1.01 Download instructions
- 6.2.1.02 Download instructions
- 6.2.1.03 Download instructions
- 6.2.1.04 Download instructions
- 6.2.1.05 Download instructions
- 6.2.1.06 Download instructions
- 6.2.2.00 Download instructions
- 6.2.2.01 Download instructions
- 6.2.2.02 Download instructions
- 6.2.2.03 Download instructions

Support community

To view and search for troubleshooting topics, alerts, workarounds, and more information, go to the IBM Support Community.

Chapter 2. 6.2.x APAR fix list

The following APARs were fixed in 6.2.x.

IBM Safer Payments patches are cumulative, which means that a new patch contains all of its fixes and all fixes for prior patches of that major release. For example, 6.2.2.00 includes all fixes in 6.2.2.00 as well as those in previous 6.2 patches.

6.2.0.00 APAR fix list

PO08738, PO08705, PO08533, PO07904, PO08709, PO08717, PO06805, PO08511, PO08017, PO08236, PO08672, PO08680, PO08668, PO08731, PO08732, PO08725, PO08275, PO08562, PO08444, PO08682, PO08619, PO08389, PO08649, PO08654, PO08684, PO08243, PO08687, PO08673, PO07963, PO08426, PO08625, PO08645, PO08041, PO08532, PO08647, PO08534, PO08508, PO08453, PO08626, PO08632, PO08126, PO08631, PO08750, PO07671, PO08512, PO08479, PO08547, PO08528, PO08642

6.2.1.00 APAR fix list

PO08885, PO08810, PO08844, PO08829, PO08817, PO08772, PO08851, PO08789, PO08757, PO08797, PO08526, PO08719, PO08777, PO08435

6.2.1.01 APAR fix list

PO08530, PO08557, PO08821, PO08966, PO08834, PO08782, PO08652, PO08850, PO08907, PO08935, PO08793, PO08751, PO08925, PO08873, PO08840, PO08913, PO08871, PO08911, PO08914, PO08837, PO08815, PO08558, PO08778, PO08623, PO08734, PO08824, PO08847, PO08805, PO07896, PO08857

6.2.1.02 APAR fix list

PO08795, PO08899, PO09172, PO08984, PO08987, PO09011, PO09005, PO09213, PO09200, PO09202, PO09130, PO09219, PO09218, PO09217, PO09185, PO09161, PO09041, PO09146, PO09088, PO09124, PO09136, PO08859, PO09008, PO09024, PO09131, PO09066, PO09003, PO09004, PO09110, PO08878, PO09139, PO08887, PO08961, PO08400, PO08922, PO08968, PO08944, PO09020, PO09120, PO08909, PO08890, PO08938, PO08908, PO09103, PO08991, PO08769, PO09180, PO09184, PO09238

6.2.1.03 APAR fix list

PO08390, PO08606, PO08816, PO08865, PO08923, PO08947, PO09037, PO09054, PO09056, PO09063, PO09075, PO09117, PO09137, PO09145, PO09148, PO09149, PO09155, PO09158, PO09173, PO09175, PO09188, PO09192, PO09194, PO09201, PO09203, PO09204, PO09209, PO09241, PO09242, PO09243, PO09245, PO09252, PO09254, PO09262, PO09275, PO09276, PO09281, PO09290, PO09299, PO09306, PO09313, PO09325, PO09327, PO09349, PO09350, PO09373, PO09377, PO09418

6.2.1.04 APAR fix list

PO07255, PO09027, PO09134, PO09138, PO09166, PO09187, PO09196, PO09277, PO09285, PO09295, PO09297, PO09320, PO09323, PO09335, PO09346, PO09361, PO09362, PO09401, PO09408, PO09456, PO09469

6.2.1.05 APAR fix list

PO08515, PO08657, PO09132, PO09240, PO09284, PO09298, PO09319, PO09326, PO09378, PO09379, PO09386, PO09397, PO09400, PO09405, PO09410, PO09426, PO09428, PO09435, PO09440, PO09441, PO09444, PO09446, PO09449, PO09450, PO09452, PO09454, PO09461, PO09462, PO09470, PO09477, PO09480, PO09483, PO09488, PO09495, PO09504, PO09540, PO09545, PO09547, PO09553, PO09584

6.2.1.06 APAR fix list

PO09104, PO09215, PO09300, PO09331, PO09340, PO09383, PO09443, PO09455, PO09465, PO09508, PO09522, PO09537, PO09552, PO09576, PO09607, PO09610, PO09611, PO09613, PO09620, PO09621, PO09639, PO09640, PO09641, PO09661, PO09673

6.2.2.00 APAR fix list

PO09025, PO09399, PO09413, PO09481, PO09525, PO09594, PO09601, PO09619, PO09643, PO09646, PO09664, PO09682, PO09686, PO09690, PO09701, PO09721, PO09724, PO09738, PO09742, PO09743, PO09751, PO09821

6.2.2.01 APAR fix list

PO07683, PO08218, PO08856, PO08906, PO09114, PO09205, PO09212, PO09223, PO09236, PO09279, PO09292, PO09387, PO09394, PO09398, PO09484, PO09578, PO09594, PO09630, PO09631, PO09695, PO09714, PO09723, PO09727, PO09732, PO09735, PO09760, PO09769, PO09770, PO09789, PO09805, PO09808, PO09809, PO09813, PO09815, PO09816, PO09834, PO09839, PO09845, PO09854, PO09867, PO09870, PO09871, PO09872, PO09878, PO09896

6.2.2.02 APAR fix list

PO08111, PO08209, PO08644, PO09191, PO09445, PO09548, PO09557, PO09570, PO09605, PO09632, PO09674, PO09749, PO09784, PO09790, PO09794, PO09796, PO09814, PO09818, PO09824, PO09831, PO09847, PO09850, PO09852, PO09855, PO09857, PO09868, PO09873, PO09882, PO09885, PO09891, PO09894, PO09900, PO09901, PO09910, PO09913, PO09914, PO09920, PO09934, PO09935, PO09942, PO09944, PO09952, PO09960

6.2.2.03 APAR fix list

PO08429, PO08747, PO08864, PO09359, PO09422, PO09756, PO09788, PO09859, PO09895, PO09912, PO09917, PO09918, PO09925, PO09927, PO09938, PO09949, PO09950, PO09951, PO09955, PO09956, PO09957, PO09958, PO09959, PO09964, PO09969, PO09970, PO09978, PO10007

Chapter 3. 6.2.0.00 Release Notes

The Release Notes contain information about new features, update information, fixes, and known issues in IBM Safer Payments 6.2.0.00.

This release changed the version number from 6.1.0.04 to 6.2.0.00 and contains high-impact changes according to PA-DSS.

What's new

6.2.0.00 includes new features and enhancements.

Release highlights

- With the Message Command Interface redesign several new features were added to that interface:

  - Multiple MCI endpoints introduced the option to define multiple endpoints for the MCI of a Safer Payments cluster. For each of these endpoints, you can define an individual priority setting and thread pool sizing. It is also possible to define the message type that each of the defined endpoints will receive. For more efficient handling of endpoints, a new page that allows you define your MCI endpoints as created.

  - Transparent Bypass: If message processing is stopped on a Safer Payments instance, e.g. due to a structural golive, it now provides a transparent bypass capability which will take an incoming request and forward it to another instance of your cluster.

  - Asynchronous message handling: With asynchronous message handling, Safer Payments can decouple the number of threads that process transactions from the number of connections. This allows for better fine tuning for performance needs. Please note that responses are not guaranteed to be in the same order as incoming messages.

  - Processing timeout: If enabled and processing of a message is not finished within the specified amount of time, an error response is sent back. The original message processing is not interrupted, so any attributes are still written eventually, but this will not generate another response.

  - Echo stored response on doublets: In case of doublet detection, Safer Payments can now fetch the "original" record from its storage and use the stored values to construct a response. Please note that the response can only include attributes, that are stored in the data caches.

  - Code page handling for incoming messages : If enabled, incoming messages will be translated to from the specified source encoding to UTF-8 and the responses will be translated back to the source encoding. Safer Payments is using the `iconv` linux utility function to perform the translation. Please refer to its documentation for a list of supported source encodings.

  - Proper response format for FCD formatted messages: the MCI or MQI now create proper FCD responses for FCD formatted messages. We added the option to provide output mappings for FCD type messages.
- Golives that do not require changes to the memory structure may now optionally be performed without stopping transaction processing. The golive report now shows if the promotion of a challenger is a structural golive, that requires changes to the internal memory structure, or if it is a logical golive. If enabled in the system configuration, logical golives can be performed without stopping transaction processing and closing the MCI.
- During transaction processing, IBM Safer Payments can now send requests to external systems and ingest the response. This is supported in a new model component called "External Model", in mergings and masterdata. A new type of outgoing channel configuration is introduced that establishes persistent connections to external systems. In addition, when changing the fraud status manually, users can now select any number of notifications that are being sent out.

- The old user interface is no longer available. All users accessing Safer Payments will now need to do it through the new user interface.
- Safer Payments now supports Kafka as a transportation layer for receiving and sending messages. Safer Payments can connect to a Kafka Broker and read from multiple topics in order to retrieve transaction messages which can be fed into Safer Payments, and can also send the response to a specified topic as well. The Kafka integration only supports Kafka as a new transportation layer, there are no new message formats which can be read by Safer Payments, the existing types of JSON, XML, and FCD are the only message formats which are supported natively for reading messages through Kafka. In addition, the custom parser can also be used with the Kafka interface to allow other message types to be read. Kafka can now also be used as a target for an Outgoing Channel, allowing outgoing messages to be sent to a Kafka Topic from Case Actions and Notifications.
- IBM Safer Payments is now able to ingest files according to the National Automated Clearing House Association rules (NACHA). For this a new type of message was added. Mappings for this type of message allow you to map specific fields or arbitrary substrings of a NACHA record to an IBM Safer Payments attribute. A single mapping can contain different options for different Standard Entry Classes, of which Safer Payments support the following: - Account Receivable (ARC) - Back Office Conversion (BOC) - Cash Concentration and Disbursement (CCD) - Corporate Trade Exchange (CTX) - International ACH Transaction (IAT) - Point of Purchase (POP) - Prearranged Payment and Deposit (PPD) - Represented Check Entry (RCK) - Telephone Initiated (TEL) - Internet Initiated (WEB) For Standard Entry Classes that allow Addenda records of type "705" (CCD, CTX, PPD, WEB) Safer Payments support only a single one out of memory and performance considerations. For IAT transactions all mandatory and optional Addenda records can be mapped and used. Return Addenda records of type "799" can also be mapped to be used with the merging mechanism IBM Safer Payments offers. In addition to fields or substrings of NACHA records the name of the NACHA file can also be mapped to an attribute. IBM Safer Payments offers the same pre-processing options for NACHA as for other types of messages. Please note that for NACHA fields containing amounts or dates no automated conversion is applied. Instead you will have to set up the appropriate preprocessing in the mapping. IBM Safer Payments utilizes its job engine (BDI) to ingest NACHA files. A new option "validate NACHA batches" becomes available when setting up a job with a message of type NACHA. If this setting is enabled the number of Entry Detail and Addenda records within a batch is validated against the Batch Control record of that batch. If the validation fails, all transactions of that batch are ignored. This can negatively impact performance of the job and increase its memory consumption since all transactions of a batch have to be buffered and stalled until the validation can be performed.

Additional enhancements

- When a transaction was marked as fraud manually the timestamp attribute was not adjusted, when that attribute was defined in a sub mandator (APAR PO08738).
- The Selected first parties tables will be opened in separate Internal window/popus when you click on the button or icon for the same in Incriminating first parties tab and first parties at risk tab in Investigation Case.
- A new case action OOC called URI was added. The new OCC allows to specify a message template (generally a URI) that will allow investigators to execute an URI call from the investigation page.
- Operations that require stopping of transaction processing (e.g. structural golives) are now guaranteed to run on only one instance simultaneously to ensure availability of the cluster. In addition, these operations can be blocked if a configurable number of instances is unavailable for planned or unplanned reasons. Execution of the end of day job now stops transaction processing and may close the MCI like structural golives.
- PMML computation now supports missing values for Random Forest, Decision Trees and GBM . The following attributes are now supported: - `missingValueReplacement` of tag `MiningField` - `mapMissingTo` of tags `FieldRef`, `NormContinuous`, `NormDiscrete` and `Discretize` - `mapMissingTo` and `defaultValue` of tag `Apply` In tree models, predicates with missing inputs yield the result UNKNOWN.
- The "latest latency violations" section in system internals has been enhanced with two new toolbar buttons: "Expand all" and "Collapse all". These allow to show or hide all "time per computation" and

"time per element" tables of all URIDs at once. In order to prevent severe load times and to have a clear arrangement, URIDs are now grouped into tabs of 8 URIDs per tab.

- The URLs used for accessing the Safer Payments new UI was changed to add a /sp path before all routes. The user will be automatically redirected to the new URL if they attempt to access the old URL.
- Display information to the individual user when his last login was not only in the user account table in the login column but also in my account page.
- A new setting is introduced to prevent users from changing their password more than once every 24 hours.
- Previously, attributes of length less than 6 characters were not masked. Now, SP will also mask attributes that are shorter than 6 characters when encryption is enabled. This is to enhance the security standards of SP and to make sure that only those who have the necessary privileges to see the data are able to see it.
- It is now possible to freeze the user account settings by adding a start parameter to SP. This way no one would be able to change the user account settings or lower password standards through the UI
- A new setting is introduced to prevent users from changing their password more than once every 24 hours.
- PMML Models will be compressed with bzip2 and b64 in Safer Payments configuration folder on disk.
- Some API requests created error messages and backtraces when saving mandators, case classes, external queries, and when requesting password saves. If performed frequently in a special order, this could also result in crashes in rare cases.

Update information

IBM Safer Payments 6.2.0.00 includes changes that you need to know about if you are updating from an earlier version.

- Inbound endpoints have been introduced in Safer Payments 6.2 to enable users to define reusable connection settings for incoming interfaces like the Message Command Interface (MCI). During startup of a Safer Payments configuration a new inbound endpoint with existing configuration settings will automatically been created and used in the interface configuration to keep the old behaviour. For message type IDs it is not possible anymore to use -1 as id. In case your configuration relies on MTID -1 you need to adjust the configuration before upgrading to this version.
- If you connected to the Safer Payments server with a client which relied on client-initiated renegotiation of the SSL connection then you will need to update the client.
- The API request "getAllRulesTable" was changed. A "type" field is now mandatory to control which types of rules to retrieve. Valid values are "rule", "preprocessing" and "final". The request now also supports two filter options. The first filter named "filterRulesActive" can be used to either retrieve rules that are enabled or rules that are disabled or both. The second filter named "filterRulesInherited" can be used to either retrieve rules owned by the current challenger itself or rules inherited from higher mandators or both.
- Attributes that are used in computation conditions of indexes need to be stored in case they are not set by pre-processing rules/lists but are mapped. Otherwise, counters, patterns and precedents may not be computed during the re-computation of merging targets.
- We recommend to configure the minimum number of available instances on the system configuration page.
- Parsing of PMML models is now stricter with regards to the scope of fields. This means that some non-compliant PMML models may be rejected, that were supported in previous versions. - Computation of PMML fields of datatype `int` are now calculated as `int`. Previous versions internally calculated using `double`. This may lead to different results compared to previous versions.
- No action required. Additional log messages 187 and 192 were added. Also, log message 575 changed to log message 574 in some situations, where it was incorrect before.
- Two options have been added to "System Configuration" - "Case Investigation" which can increase the performance for case search and case selection (see changelog). It is recommended to turn off at least

"include DDC to resolve uncached reporting attributes". If not needed, unchecking "Resolve uncached reporting attributes" increases performance.

- The new functionality "close during end of day job" is optional and needs to be enabled in system configuration, if MCI or MQ should close during end of day job. This option will not exist anymore in Safer Payments 6.2, as this will be included by the "close during golive" option.
- The following features were not implemented in the new UI and will not be available when upgrading to 6.2, since the old UI is no longer available: - The Ticker functionality - The Reminders functionality
- Backup existing PMML models in cfg/pmml_models because they will be compressed when updating.
- After the first start, the following nil values are printed differently in outgoing case actions/notifications:
  - Nil values from query result placeholders no longer print to "empty", but to "original".
  - Timestamp nil values from masterdata placeholders no longer print to "-549755813888", but to "empty".

  These settings can be changed in the Outgoing Channel Configuration definition.
- In PMML models, computation of numeric predicates changed if the constant has more decimals than the Safer Payments attribute. This can lead to different results.
- After the update, it is recommended to check the value that is configured for the new setting "Clear reporting attribute caches after". It should be set to the amount of days a case is usually still viewed or appearing in case selection once it is not active anymore.

Change log

IBM Safer Payments 6.2.0.00 includes critical, major, and minor bug fixes and APARs.

Critical changes

- User interface checks the correct privileges while marking transactions.
- Ruleset conditions are now shown below the rules form.
- My Working Queues page can be accessed again.
- User interface wouldn't allow to save changes to the profiling items because of a validation error.
- Fix crash in Simulation that evaluates a PMML tree model with nested MiningModel structures.
- When manually fraud marking transactions, an RDI update statement is created for the fraud mark timestamp attribute (APAR PO08705).
- Boolean attribute values that were set by applying masterdata or conclusions, were empty in notifications using attribute references. The same applied to hex and IP attributes that were set by applying masterdata.

Major changes

- Index queries with peer indexes now display the sequence and aspect attribute fields
- `Copy to` functionality now works as expected for model components.
- Client-initiated renegotiation of the SSL connection can potentially be used for DOS attacks, so we have disabled that option for any SSL connections.
- Defined risk list can now be defined with numeric output attributes that have categories.
- Dashboard charts height is now independent from the status alarm indicators.
- In conditions, the close to operator now works correctly for timestamp attributes.
- Rules priority validation limit has been corrected (10000)
- IBM text in the user interface header has been removed
- Fixed parsing of PMML decision trees due to not being able to find the output fields.

- Conditions expressions can now use decimals with the operation "Contains" when the selected attribute it refers to, has decimals.
- Python functions used in conclusions are now recognized when creating an new rule.
- Attribute categories can be individually deleted.
- Merchant monitoring rules can now be saved
- Index based evaluation form works correctly when modifying a calendar computation, as the name field no longer corrupts other calendar computations
- Validate client certificate checkbox in cluster settings is correctly saved.
- Conclusions that use python functions with multiple parameters can now be correctly defined.
- Data selection conditions are now validated.
- Data selection input fields behave more user-friendly and performant
- Copying a profiling item which created new attributes could crash the system (APAR PO08827).
- Golives could start with a delay on the API instance when queries were running in parallel. Also updating of elements such as case close codes, case classes, SAIs, case states, charts, user groups, working queues, case work flows, external queries, reminders, notifications, KPIs, messages and mandators could be delayed by queries. The purging of index nodes during eod could potentially also delay golives and updates of elements.
- The structure of the rules table in the new user interface was changed to always show all rulesets and not allow a direct filtering on a specific ruleset. Filtering for enabled or disabled rules and inherited or own rules is still possible. The button to add a new rule is now always enabled as long as there are rulesets defined in the challenger. The ruleset for the new rule can be selected in a new form field instead of depending on a top-level filter.
- Index based evaluations that evaluate multiple value masterdata could access invalid memory and calculate wrong results if the multiple value masterdata contained values that did not correspond to an index node on the associated index.
- PMML Random Forest and Boosted Tree models did not update their output attributes after a golive with no changes to the model.
- Counters, precedents and patterns were not computed during recomputation of targets after a merging when using an index that had computation condition attributes that were not stored and set by pre-processing rules or lists. Also, counters, precedents and patterns were not computed when using peer indexes and selecting the target attribute.
- Relationship values in a masterdata query result are now displayed with formatting applied.
- With standard glibc-malloc there is no way to release memory back to the operating system. This is possible if safer payments is started with tcmalloc. To call the release free memory function, an API call has been implemented.
- Since SP 5.7.0.04, SP 6.0.0.01 and SP 6.1.0.00 the usage of `recompute target` in a merging in combination with the usage of a calendar profile, in which the setting `include current` was disabled, could produce wrong calendar profile output values due to the re-computation of the profile during merging (APAR PO08533).
- The simulation of collusion with firstparties containing text values could crash. Additionally, numeric firstparties were not displayed correctly in the result table.
- In charts KPI data was interpolated when zooming out using a maximum of 5000 data points so peaks were not always visible in the chart. For all types except "external" and "investigation cases" the maximum data points in the range will be used now instead of interpolating the data (APAR PO07904).
- When running random forest generation an instance could have crashed due to an out of memory error. This was more likely when many categoric or custom categoric attributes were activated for model generation and when many records were selected for training or verification.
- When pressing "Stop simulation", PMML models which have been parsed for simulation were not freed from memory.

- A crash was possible during rule generation in case an attribute was included in rule generation that had attribute usage intervals and either the same From and To value or a step that exceeded the interval (APAR PO08709).
- While performing multiple case transitions simultaneously on cases that may share the same aggregation history, a fatal error could get triggered in rare cases. In very rare cases, there might even be a crash in such a situation (APAR PO08717).
- Log messages for the start and finish of data export jobs, index based evaluation jobs, report generation jobs and sanction list jobs were added. Also, log message 575 was changed to 574 at locations where it was incorrect before.
- When enabling client certificate validation for the MCI or API the server falsely complained about a missing password file for the client certificate even though there is no certificate password needed for these interfaces. This error only occurs when not using a password file for the server certificate or when the used password file is not named "private.pwd" (APAR PO06805).
- The EU sanction list format changed and couldn't be parsed anymore (APAR PO08511).
- It was possible to run into a `double free or corruption` error with backtrace when sending in invalid data streams through the API.
- The simulation of index sequences wasn't cancelling as fast as possible when priming from DDC. Therefore, stopping simulations that primed index sequences from DDC wasn't possible and it required to wait until the sequence finished priming from DDC (APAR PO08017).
- With overlapping mandator conditions of sibling mandators, it was possible to create cases via rule action that created permanent FLI synchronization issues on the remote instance.
- During case creation from query results, a fatal error occurred when a case was created for a record that belonged to mandator without a champion revision. The fatal error had no further impact except from the case not being created (APAR PO08236).
- The search for not cached reporting attributes in case selection and case search can take a lot of time if case classes with different sets of reporting attributes or new reporting attributes have been selected. This was fixed by attaching optional conditions to the search mechanism, which can be found in "System Configuration" - "Case Investigation" under "Resolve uncached reporting attributes" and "include DDC to resolve uncached reporting attributes" (APAR PO08672).
- The application may crash, if a simulation report of a sub mandator is started while another simulation of a sub mandator is running that includes rules of a head mandator (APAR PO08680).
- Deleting working queues could lead to instances entering a hanging state that could affect the API, FLI and case dispatching as well as shutdowns. In some cases the instance had to be killed and restored (APAR PO08668).
- The users, managers and conditions of working queues were not locked against case investigation related activities. Thus there was a chance that changing working queues while cases were dispatched or investigators working, could lead to inconsistencies or crashes in very rate situations.
- The online help for the "lockdown" status is wrong. Instead of restoring the lockdown instance, it is required to restore all other instances from lockdown instance (APAR PO08731).
- When clicking on the jobs table column 'Next start' the table won't get sorted. If the jobs page is revisited afterwards, without having clicked on other column headers, a 'Loading' sign will appear and from then on no columns can be sorted in the table (APAR PO08732).
- The MCI usually blocks during end-of-day job. An option was added to close the MCI during end-of-day job to make it easier and faster to switch to a failback instance.
- The system could crash when evaluating compliance lists for names that contain an ampersand or Cyrillic characters that increase the length of the name when being romanized (APAR PO08725).
- Changing a working queue priority while the instance was receiving data could block the whole instance and even prevent a shutdown.
- On errors, Safer Payments tried to run gdb if it was installed. This could cause unnecessary timeouts on production systems, in case gdb was actually installed. Therefore, the gdb call was removed while using another internal stacktrace function.

- During shutdown if the ECI is disabled, the file "cfg/auto_generated_key.iris" may be written in a wrong way. This may cause the FLI to not forward users passwords updates and display the SCI as unreachable (APAR PO08275).
- The MQ interface does not pull messages anymore when the FLI buffer threshold for "Close MCI/MQ at" is reached (APAR PO08562).
- Files in the "rep" folder have not been transferred during restore operations. By this, some message statistics might have been a bit lower than expected for an instance that just has been restored.
- An instance could get stuck permanently during golive, if there was a lot of case investigation during the time of the golive.
- There was a rare possibility for the simulation to crash, when multiple threads and method "chunked" was used. The likelihood of the crash increased when profiles were simulated that performed rollovers.
- The application could crash after shutdown, while random forest model generation was still running. Additionally, a small memory leak was fixed that didn't cleanup revisions after deletion.
- There was the possibility of confusing golive report messages and crashes when a rule with rule performance tracking enabled did not use any MDC storage.
- A rare race condition could result in backtraces and crashes when changing queries and requesting them from server at the same time.
- Retiring a champion will fail and may create major synchronization issues, if there are still active or invalidated challengers for the same mandator and if one of the challengers has rulesets defined. Additionally, the log message number for retiring a champion was fixed (APAR PO08444).
- When an alarm is aggregated onto a case which is simultaneously archived by the end of day job, the archived case will not be recreated on remote instances anymore (APAR PO08682).
- It was possible to have some messages computed during shutdown in rare cases, which then were not stored to disk and not forwarded FLI (APAR PO08619).
- Waiting for responses from ODBC Outgoing Channel Configuration message could block the instance from shutdown, if the ODBC driver was not configured to have any timeout (APAR PO08389).
- The python folder was missing when exporting the cfg as zip in system internals or system configuration.
- When receiving HTTP requests via MCI, the 6th HTTP header that was relevant for SP was always ignored (APAR PO08649).
- PMML Random Forest Models now show an estimated memory consumption in the golive report. To do this, models are pre-parsed after upload, which therefore can take a longer time (APAR PO08654).
- The online help of calendars now mentions that the creation time of a calendar does not determine when rollovers are performed (APAR PO08684).
- There was a low risk of a crash when case investigation and golives were performed in parallel.
- When revisions are copied and golives are performed on the API instance in a short time span (on original revision and copy) it was possible that the remote instances receive the copy revision before the golive of the original revision is completed. So when the golive for the copy arrived, it tried to be performed on an invalidated revision. This was detaching remote instances (APAR PO08243).
- Aggregation of compliance lists was causing to increase investigation cases files constantly on remote instances. This could result in FLI issues and constant crashes on remote instances (APAR PO08687).
- The system could potentially crash when running a simulation query with the setting '' enabled, if the data selection definition covers records that arrived in the system after the simulation was started. Simulation queries now show only the simulated records when setting '' is enabled (APAR PO08673).
- If numeric attribute values were sent via outgoing channel configuration messages, like notifications or case actions, while setting 'format values' was disabled, then the values were always sent with three decimals no matter how many decimals were set in the attribute definition. The same happened when setting 'format values' was enabled, but the attribute was formatted with 'decimals without digit groups' (APAR PO07963).

- A pop-up error happened when comparing retired revisions where one revision had PMML models defined. A pop-up error could occur when opening the Model components table with PMML models in retired revisions (APAR PO08426).
- In PMML, random forest or PMML decision tree files conditions can often contain constants with long decimals. When such a condition was created from PMML in Safer Payments, the constant decimals were rounded to the maximum number of decimals of all attributes in the condition. Therefore, a condition like `Amount -> less than -> 0.00112345` was computed as `Amount -> less than -> 0.00`, when Amount had two decimals. Now it is computed with the decimal precision that is defined in the constant. However, a maximum of eight decimals is supported, so any additional decimals in the constant are cut off. For PMML conditions, this change can have the potential side effect that large numeric attribute values cannot be guaranteed to be evaluated as expected, if the condition has more decimals than the attribute. For example, when the constant has eight decimals, this limits the range of correctly evaluable absolute attribute values to 92,233,720,368.xxx.
- PMML model files are now compressed when transmitted over FastLink interface (APAR PO08625).
- Update during merging of events and calendars did not work as expected when using a peer index. The target attribute was never used even if it was selected in the event/calendar. Also, it was potentially possible that the champion MDC of events, calendars, or device identifications could be modified during a simulation if the simulation was performed in a sub mandator and a head element was simulated. This could happen by modifying attributes in the sub mandator for a simulation, which are used in a counter condition in the head mandator. If events, calendars, or device identifications used outputs of the counter in their conditions, this could change the data of the head element. Now, these elements use a dedicated simulation MDC and never access the champion MDC.
- The URI of "export cases table" HTTP request could get too long and could cause an HTTP error 414 during cases export (APAR PO08645).
- When the instance IDs are not consecutive numbers starting with 1 or if risk lists were created on a cluster with fewer instances, risk lists and cases might not be loaded during startup (APAR PO08041).
- A maintenance function was added to discard specific FLI messages.
- After moving a dialog, an included select field was storing the wrong value. By this, it was possible to transmit unwillingly and unknowingly a wrong select value to the server (APAR PO08532).
- There was a fatal error log message during restore on the recipient instance, if deferred writing was enabled and the instance was detached before restore (APAR PO08647).
- Some API requests when saving mandators, case classes, external queries and when requesting password safes created error messages, backtraces and could also result in crashes in rare cases, when performed frequently in a special order.
- With deferred writing enabled, a crash could occur in rare cases when an event or calendar was updated by a merging (APAR PO08534).
- If there are Key performance indicators (KPI) or Status alarm indicators (SAI) with conditions, a remote golive could fail and invalidate an instance, if the golive was received by the instance during status "Synchronizing" at startup (APAR PO08508).
- Jobs could create deadlocks in rare situations, if there were multiple jobs running simultaneously and performing golives or shutdowns, while having W 174 "Thread pool limit exhausted for batch data interface" warnings.
- One or several instances of a cluster could crash when a champion was retired without promoting a new champion and transactions were processed in parallel through the FLI (APAR PO08453).
- Resizing the capacity of multi-value masterdata could result in an infinite loop in a golive, which required to kill the application. Also, restarting with empty multi-value masterdata could also result in crashes and infinite loops when loading multi-value masterdata (APAR PO08626).
- Numeric or timestamp conclusions wrote the value 0 instead of an empty value into the output when reading an empty value from a numeric attribute, e.g., in a conclusion `Numeric Output -> is -> {Numeric Input}`) (APAR PO08642).

Minor changes

- Formatting for category values is broken in tables.
- the CPP highlights don't show in query results.
- If there's an error deleting items from a table, then the table is refreshed.
- Internal windows experience has been improved in lower resolution screens, with boundaries checks and auto resizing in case of being too large.
- Added help for the calendar computation section in Index based evaluation.
- Conditions suggestions while using python functions correctly displays parameters.
- Validation message while using python functions in conclusions is now correct.
- The result tables for reports (case classes, investigation, missed cases, and investigator) show help.
- It is now possible to set time interval masterdata values from a masterdata query result (APAR PO08632).
- It was not possible to create case classes if the champion revision of the head mandator did not define an output with meta attribute "Case Class". The form would always show a validation error for the "id" field. In this version, the meta attribute "Case Class" is not mandatory anymore and case classes can be created without it. Additionally regolives did not check the value ranges of the meta attributes for notifications, reminders and case classes against already existing elements. It was possible to invalidate existing elements with a regolive if the new champion reduced the value ranges of these meta attributes. In this version we added a check to prevent such invalid regolives (APAR PO08126).
- The server name that is sent within the header of HTTP responses can now be configured. If it is empty, no server name will be sent within the response. The default server name is still 'IRIS'.
- Calendar computation could create latencies even though no index node was computed for the index used by the calendar (APAR PO08631).
- There was no validation on the API instance for invalid DDC/MDC changes caused by the maintenance function set MDC/DDC sizes. This caused the remote instances to stop synchronization after calling the maintenance function, as the remote instances performed a validation (APAR PO08750).
- The canAccessAnyMasterdata API request had no practical effect and was removed.
- Category values will now be truncated to their UTF-8 corresponding value, in case that the attribute length is too small for the category length (APAR PO07671).
- There was the possibility of missing attribute or rule performance data in MDC after a golive performed a resize of the MDC where some data was filled up from DDC. This bug was fixed, MDC is now filled correctly after resize (APAR PO08512).
- Information about the current instance ID was added to system internals.
- The user setting `start on tab`, which defines the tab the user sees after login, provided tabs the user may not view. Additionally the `monitoring` tab could not be selected.
- The online help of Outgoing Channel Configuration definitions now lists the "Mask Values" paragraph only once.
- Numeric, text, and timestamp nil values in outgoing case actions and notifications can now be configured separately in an Outgoing Channel Configuration definition. For numeric and text nil values, the available options are "empty", "original" and "configurable". For existing Outgoing Channel Configurations, the value defaults to "original". For timestamp nil values, the available options are "empty" and "configurable". For existing Outgoing Channel Configurations, the value defaults to "empty".
- Case creation showed case classes in select boxes that were disabled (APAR PO08479).
- There was a "SESSION_EXPIRED" error when the user tried to export data, when using OIDC SSO as logging method. Additionally, issues with page display were resolved when clicking the "" button, when using OIDC SSO (APAR PO08547).
- The response headers CacheControl: no-store, no-cache, max-age=0, must-revalidate Pragma: no-cache were added to all export requests.

- In addition to checking the privileges of the user, it is now also checked that investigators who are no supervisors can only work with cases that belong to their private working queue or a public working queue where they are assigned as user. Also, the request to retrieve the users for the filter in case selection was changed to check the supervisor privilege instead of the case investigation privilege since only supervisor can access case selection.
- An option was added to system configuration to configure when the reporting attributes caches of cases are cleared. Previously, the cache was cleared every day during end of day job. This could lead to prolonged waiting times in case investigation after the end of day job and increasing memory usage due to the repeated rebuild of the caches (APAR PO08528).

Download instructions

Download IBM Safer Payments 6.2.0.00 from IBM Passport Advantage.

Follow the installation instructions

For installation instructions, see the IBM Safer Payments Implementation Guide.

Compare the checksum

Use the following hashes to verify the integrity of the download file:

- SHA-256

  SaferPayments_6_2_0_00.zip:

  cd089e0410b4e1e282aac3db1014168978be802bc9a29e6d9c0fc5df3e54f43b
- MD5

  SaferPayments_6_2_0_00.zip:

  05d5ab9394121e559deafb548df820fb

Chapter 4. 6.2.1.00 Release Notes

The Release Notes contain information about new features, update information, fixes, and known issues in IBM Safer Payments 6.2.1.00.

This release changed the version number from 6.2.0.00 to 6.2.1.00. It contains low impact changes according to PA-DSS.

What's new

IBM Safer Payments 6.2.1.00 includes enhancements.

Release highlights

- None

Additional enhancements

- Masterdata conditions on the case selection page were not able to find cases created by Index Based Evaluations.
- Cases created by Index Based Evaluations now support the case aggregation history setting on the "System configuration" page. Similar to regular cases a new table "Consolidated alarms" is displayed on an aggregated case's page. It contains all the alarms including their score and all the index node values involved at the time of alarm creation. Each Index Based Evaluation alarm has additional data associated with it that is displayed in an "Alarm data" section below the table. The contents of that section can be changed by clicking on a different row in the alarm table.
- Data retention can now be configured in terms of days instead of records like in previous versions. This first has to be enabled using the new "Retention settings" page on the "Administration" tab of the user interface (a global privilege is required). Once retention by time is active, all model input and output forms offer two new fields to configure the amount of days for which to retain the data in memory and on disk.

Update information

IBM Safer Payments 6.2.1.00 includes changes that you need to know about if you are updating from an earlier version.

- For SQL statements written by RDI for alerted cases a column INSTANCE_ID was added to the insert statement of the HITTINGURID table. Also the column HITTINGURID was renamed to URID. So for existing HITTINGURID SQL tables add a column INSTANCE_ID and rename column HITTINGURID to URID.
- Additionally to audit and system logs, the log folder will now contain latency report files, in case latency reporting is enabled and latency violations happened in previous days. If external scripts or jobs are in use that delete log files after certain time, those scripts should be checked or adjusted in order to also delete outdated latency report files. The filename structure is 'latency_log_[instance_id]_[yyyy-mm-dd].iris'. From versions SP 6.0.0.07, 6.1.0.05 and 6.2.0.01 the setting `Clear latency entries during eod` was removed. The option is now redundant, because the reports are archived to files. The latencies will always be cleared from system internals during end of day job.

Change log

IBM Safer Payments 6.2.1.00 includes critical, major, and minor bug fixes and APARs.

Critical changes

- An unneeded request ‘benchmarkDiskSubsystem’ was removed for security reasons.

Major changes

- It was possible on some machines with specific versions of the krb5-libs library installed for Safer Payments to crash when doing an SSO login. (APAR PO08885)
- Fix KMI memory and thread leak.
- If simulations were running during end of day jobs, they would produce invalid results afterwards. Superficially it would look like all records have been simulated but for records that were simulated after the end of day job, no revision elements (counters, calendars etc) were considered. The new behavior is that after a golive the end of day job will perform some necessary cleanup operations on the mandators that logical golives happened on. During this, simulations that were running before will be cancelled, since the logical golive could have invalidated them. A simulation will continue after the end of day job, if no logical golive happened on its mandator and its child mandators.
- There is an issue with the mutex when going into the destructor, The sharedThis happens before destruction lock, which the reference is already deleted mutex causing the crashes. (APAR PO08844)
- Safer Payments was able to crash when performing a golive which increases MDC size of an attribute or a rule. This crash happened only when deferred writing was enabled and the golive was executed before there was any data written to the attribute or rule DDC. This crash is no longer possible.
- The change will allow the sp to save the Amount value with 2 decimal places correctly.
- During creation of condition with operator 'number of single character' potentially invalid memory could have been read.
- The system could crash when no rule generation result existed but request 'getRuleGenerationExplore' or 'setRuleGenerationIndicator' was sent. This could for example happen when on one browser tab rule generation was stopped but on another tab the old result was still visible and user performed request 'Explore all indicators'. (APAR PO08829)
- Fix potential memory access violation with JSON over HTTP messages sent to the MCI.
- Values encoding in Outgoing channel configuration now works correctly for UTF-8 values.
- When saving simulation queries, the data selection was not adjusted to be within the simulation data selection when the simulation query data selection was below the simulation data selection. This was only an issue when sending the save request manually without sending checkDataSelection first. When using the UI, the data selection was adjusted correctly.
- Index queries could display results for purged index values if logical golives were used before. The behavior has now been corrected to show empty query results for purged index values.
- Fixed rule generation giving incorrect results for interval attributes.
- UI Preferences are now cached to avoid unnecessary requests to the server when entering the page again.
- Tables will now show previously fetched content while fetching the updated version, diminishing the loading skeleton's impact on the product.
- When rebuilding an index or its sequence, the updated sequence attribute was not written to DDC when deferred writing was enabled. Thus, the values in the sequence were not persistently altered by the rebuild.
- Special characters are now correctly displayed when uploading categories through CSV.
- The system could crash when a condition was computed that used 'ignore cases' and multiple text attributes in the expression. (APAR PO08817)

- Golive did not interrupt data export job and had to wait for it to finish. Additionally resuming an interrupted data export job could take longer than necessary, since the last computed urid was not stored. (APAR PO08772)
- Improved performance of dashboard charts.
- SQL files generated by the RDI did not reflect attribute name changes after a golive. (APAR PO08789)
- No files were generated by the RDI in case the mandator name contained filesystem reserved characters such as / . (APAR PO08757)
- Encryption keys form's actions are enabled / disabled correctly.
- My account tab now get's correctly highlighted when navigating to the page.
- When alarms were aggregated, the remote instance would not update the case class, if the aggregated alarm was for another case class. (APAR PO08797)
- When parsing nested XML messages, XML attributes of the first element were not parsed. Only attributes of the following elements were parsed.
- For alerted cases the SQL insert statement written by RDI did not include the instance id in the HITTINGURID table.
- The consumption of pmml models was not mentioned in simulation report. Additionally simulation could be started although pmml models were still parsing.
- "Show complete audit trail for element" does not falsely redirect to general model page.
- It was not possible to read from DDC of hexadecimal, ipv4, text and time interval attributes in simulation queries when production data was available for the attribute. (APAR PO08526)
- When transactions were loaded via job, values containing multiple spaces forced the program to crash in case the attribute had a length of 1 byte. (APAR PO08719)
- New risk list entries can be created without an expiry date.
- Values in query result could show up under wrong columns when the query included an encrypted numeric attribute and the user did not have the right to view unmasked data.
- Clicking swapped conditions/conclusions no longer causes their values to revert.
- Analysis are now shown while rule optimization is running.
- Reservation and un reserve of elements while navigating through the user interface works correctly.
- When re-computing a target transaction after a merging, URIDs that were already written to DDC in a previous deferred writing cycle were not written to disk again. This could result in data loss for attributes that were set during re-computation. (APAR PO08777)
- Latency violation reports are now archived to files in the log folder. This happens during end of day job in case latency reporting is activated and violations occured. To view these files export the logs folder on 'System Internals' page in section 'General Information'.
- Case class and investigation report results were not showing the correct symbols. "Σ" should be used for sum rows and "Ø" be used for avgs.
- Updated the formatting for several columns on the query statistics table.
- Multiple query executions were performed in special scenarios degrading performance.
- Simulation queries would show an error when refreshing a simulation query.
- The average fraudulent amount column would display as NaN.
- User interface data wouldn't refresh if an operation required a restart.
- Data selection for analysis was working incorrectly.
- First time in any simulation statistic there was no data displayed.
- Alarms were not aggregated into cases when the score of the alarm was lower than the score of the case. (APAR PO08435)
- Fixed a bug in the new user interface where only one value of an external query result is displayed. Also improved the styling of how external query result values are displayed.

- In the new ui, all case investigation functionality is now available immediately after reopening a case. This resolves a bug where the case investigation screen stayed in reopen mode.
- Users are now able to insert stencil names without re-clicking the input field after every keystroke. This resolves a bug where the focus of the stencil name input field was lost whenever a character was typed.
- Pattern "to" values of records time range, filler number and filler time range were not saved properly. This was fixed.
- It was possible that "Expand all" and "Collapse all" were both enabled in sidebar menu to be clicked at the same time.
- During message computation, the access of attributes' internal data structures have been optimized for stability.

Minor changes

- The RDI Update statement generated when updating a case memo or the CPP of a case was missing. (APAR PO08810)
- Sending in invalid messages to the Message Command Interface while bypass is active only produced an error log message. No error response was returned which caused the connection to stay open until closed by other means e.g. a timeout.
- Added a div tag as parent of dropdown with the css of width and position (relative).
- Storage type field is now read only when there's no privileges to edit it.
- Validation prohibited saving a condition or a formula with the seconds denominator 's', e.g. ({Timestamp}+2s). (APAR PO08851)
- In the user interface, the dropdown options in popup should no longer be masked by the modal.
- Read-only tags (ex. condition value) are styled similarly to other read-only fields.
- Disabled sorting for rule optimization statistics tables.
- Imitate existing behavior for copy rules.
- Encryption keys form is now displayed to show the comments when the key is already active.
- Encryption keys tables now refresh according to the system configuration refresh setting.
- Read-only multiselect fields appear as tags (with an optional popup that shows all items).
- The model revision table refreshes automatically, based on the refresh interval setting. When a go-live is updating the status of model revisions, their status is displayed as "Revision changes".
- Fixed issue where toolbar buttons for non-editable tables weren't clickable in Firefox (ex. help button, execute report button).
- Mandators that can't be edited are shown as disabled in the mandator tree.
- Sequences section in the index configuration page now have a help section.
- The mandator tree on the admin tab shows conditions beside each mandator.
- Revision overview page now correctly disables the save button if there's no privilege to edit the revision.
- While performing a copy of an element, clicking on the same element that was copied now works as expected.
- During the copy of an element, if wanted to copy a second element now the information it's correctly reflected.
- The job messages dropdown in the new UI also shows the message MTID.
- During upload of a case attachment the user is now seeing a loading indicator.
- Dashboard charts on the new UI show a help button when configured to do so. Dashboard charts on the new UI no longer show an empty tooltip if no tooltip is configured.
- Single rule analysis takes you to the simulation report page.
- Status Alarm Indicators show tooltips properly.
- Fixed a problem in the UI while switching between attributes, the old storage type would persist.

- After starting an analysis, the mandator selection in data selection are emptied and you have to reopen the page.
- User interface would not allow to delete multiple analysis at the same time.
- It is now possible to view multiple case attachments at once in the new user interface. The opened view dialogs now scale in a much more user friendly way.
- In the form of a pattern definition, the occurrences related fields where not hidden when the occurrences value was decreased from a larger value to the value "1".
- The additional text to inform the user when there are more audit trail entries that can be loaded from disk was moved to a more central and obvious place.
- For FCD messages, the response header contained 128 extra null bytes, which have been removed.

Download instructions

Download IBM Safer Payments 6.2.1.00 from IBM Fix Central.

Follow the installation instructions

For installation instructions, see the IBM Safer Payments Implementation Guide.

Download the installation image

Use the following link to download the installation image from Fix Central:

Download link	Release Date	Language	Size
Safer Payments 6.2.1.00 download link	31 Aug 2020	English	152.91 MB

For information about using Fix Central, see Fix Central help.

Compare the checksum

Use the following hashes to verify the integrity of the download file:

- SHA-256

  SaferPayments_6_2_1_00.zip:

  82902a910d52cd4445eb68e6b6f2c9f1d4c148c8a993d6944a025a4d25c03c8e
- MD5

  SaferPayments_6_2_1_00.zip:

  c07e2e96845ce9657c3dd68eea2231ff

Chapter 5. 6.2.1.01 Release Notes

The Release Notes contain information about new features, update information, fixes, and known issues in IBM Safer Payments 6.2.1.01.

This release changed the version number from 6.2.1.00 to 6.2.1.01 and contains no impact changes according to PA-DSS.

What's new

IBM Safer Payments 6.2.1.01 includes enhancements.

Release highlights

- None

Additional enhancements

- Event log message 0284 is now activated by default in system log. It helps to spot when a message's computation was stopped due to duplicate sequence values.
- OpenSSL was updated to version 1.1.1g.

Update information

IBM Safer Payments 6.2.1.01 includes changes that you need to know about if you are updating from an earlier version.

- The base path to the Safer Payments new UI has been changed. It was previously available at `/sp/` but now is available at the root path, `/`. The new "base path" parameter can be used to allow the path to be set to a custom value, in combination with a reverse proxy. If you are currently using a reverse proxy, then you may need to update the configuration when updating to this Safer Payments version, as the API requests for the new UI will now be based off this base path.
- PMML Predicates on numeric fields are now always calculated as IEEE 754 double precision values. Due to rounding errors, some results may be different compared to previous versions of Safer Payments.
- When a merging finds and recomputes a target record, the source record will never be stored. In previous releases the source was stored when a merging with the store source setting did not find a target, but a subsequent merging found and recomputed the target.

Change log

IBM Safer Payments 6.2.1.01 includes critical, major, and minor bug fixes and APARs.

Critical changes

- The application could crash when using hard timeouts for python callouts.
- A caching system for the user interface (UI) static files has been added and the static UI files are now delivered in a bundled version. This can significantly improve the loading time when Safer Payments is deployed on a network with high latency, some configurations can see up to 10x improvement in loading times (APAR PO08557).
- Transactions containing future timestamp could cause issues in profilings that use a reference timestamp such as calendars and events. A possibility to discard or alter these future timestamps was added.

Major changes

- Counters, precedents, and patterns did not evaluate the index sequence during re-computation after a merging. Therefore, their output values were incorrect in this case (APAR PO08530).
- In the new UI, python scipts are not shown as suggestions in conclusions.
- It was not possible to use the Safer Payments new UI when it was placed behind a reverse proxy. This is now possible by setting the 'basepath' property in the instance API settings. All API instances should be set to the same basepath (APAR PO08821).
- When saving a load file job while it was running on a remote instance, the remote instance potentially crashed (APAR PO08966).
- On the new UI, the MDC/DDC could not have a value higher than 2,147,483,647 in some forms.
- Batch job files may be loaded from NFSv4 shares now. Note: NFSv3 shares were always working in RedHat version until 7.3 and since RedHat version from 7.4 kernel-3.10.0-693.18.1.el7.
- Character encoding conversion not working for load file jobs.
- A crash could occur when executing maintenance function `resetOutgoingFli` in fast succession.
- A deadlock could occur when a revision was updated, erased or unreserved while a simulation is running for this revision (APAR PO08834).
- When deferred writing was enabled, the creation of RDI files was bound to the general deferred writing cycle instead of the cycle selected in Mandator settings. By creating a seperate deferred writing thread for RDI files, this has been changed (APAR PO08782).
- Memory consumption of tree based PMML models (Decision Tree, Random Forest) was decreased (APAR PO08652).
- When a pmml model file that had transformations was loaded in a Safer Payment below 6.1.x, after upgrading to 6.1.x or higher the system potentially crashed during computation of the model in realtime path or simulation (APAR PO08850).
- The application could crash when simulation was stopped shortly before finishing computing (APAR PO08907).
- On the new UI, when viewing a data export job that exports encrypted data with a user that is not allowed to change jobs, the "salt" field showed garbage values instead of a proper hint to the user that he does not have the privileges to view the salt.
- In some cases times entered in data selections of the old UI, could show different times in the new UI.
- On the new UI, the user was not able to edit the time in the Defined risk lists entry expires field.
- On the new UI, when defining a substring preprocessing in mappings, users could not start on the first character of a string.
- In reporting queries result, the performance indicator column for amount is shown with the same number of decimals as the meta attribute amount. Also, Average amount is shown with two decimals and ratio would is shown with four decimal precision.
- A crash could occur while marking transactions as fraud or genuine in case investigation page if there are more than one queries available for the case class.
- After having saved a memo or cpp within case investigation the context menu in alerted transactions table didn't show up anymore (APAR PO08935).
- When an IBM Safer Payments instance comes up it reads all the entries in the retention audit trail and displays them on the retention page. This can potentially lead to decreased performance on the retention page when the audit trails become too large.
- When a revision got copied on the API Instance, using a source revision that was assinged to a remote instance simulation wise lead to an error when opening the new challenger. The copied revision gets automatically assigned to the API Instance now (APAR PO08793).
- The system could have crashed when 'delete index entry' was executed from masterdata query result on an index that originally had a sequence, but the sequence was later removed (APAR PO08751).

- A performance decrease in queries and purging of index nodes was fixed which was introduced in versions 5.7.0.10, 6.0.0.07, 6.1.0.05 and 6.2.0.00 as part of a change to make sure that queries do not block golives and configuration updates. (APAR PO08925).
- When performing changes to the retention administration page, the whole audit trail was synchronized with other instances in the IBM Safer Payments cluster potentially leading to decreased performance on the retention page if the audit trails became too large.
- Values were potentially shown in wrong coloumns in reporting query.
- The issue was that values were displayed with incorrect decimal values. The issue is fixed by passing the decimal as an parameter. So that the correct funtion is hit.
- Copying a ruleset to another revision resulted in malformed masterdata rule actions (APAR PO08913).
- Using case search with encrypted attributes would yield no search results and disable further access to case search page (APAR PO08871).
- On the new UI, it was not possible to have values less than zero as ratio in sampling.
- Under rare circumstances an instance could crash when two users ran the same report (investigation, investigator, case queue or missed cases report) at the same time (APAR PO08911).
- When a FLI message was written exactly 17 bytes before the end of the buffer file, which means the message header exactly fit at the end of the buffer, the FLI buffer was corrupted. Additionally a misleading log error was printed after attempting to write 0 bytes to a file (APAR PO08914).
- On the new UI, in the user account form the copy icon was disabled even with the correct privileges.
- The real-time computation of internally generated random forest model components was predicting the output twice instead of once increasing the latency to compute a transaction.
- It was not possible to download files from the Safer Payments old UI when Safer Payments was used behind a reverse proxy (APAR PO08837).
- When rules which contain Python functions returning a string within a conclusion were triggered, instances on Linux® would crash. This is the case for Python versions greater than 3 (APAR PO08815).
- The online help of calendar profiles did not mention that update calendar profiles and events should be enabled in all mergings that have conclusions which use the profile's amount attribute or the profile's conditions attributes to avoid unexpected values in profile output attributes (APAR PO08558).
- The system crashed when the `getRulesStatistics` contained a ruleset that does not exist.
- A crash could occur when unreserving a revision while a simulation was running for this revision on a remote instance (APAR PO08778).
- On the new UI, key entry permission dropdown, key management dropdown and view unmasked data checkbox are shown in system configuration page only when the SP instance is encrypted. Log field has been removed from the Page refresh section in system configuration page.
- When a user did not have the privilege for a top mandator, then inside a sub mandator revision that user was not able to view some revision elements (like counters, calendars etc.) that belonged to the top mandator (APAR PO08623).
- When performing a head mandator golive in between simulations of a sub mandator including attributes of the head mandator, the application could crash or incorrect simulation results for attributes could be produced (APAR PO08734).
- On the new UI, Count Records function popup has "Cancel" and "Confim" buttons with same effect.
- Changing tabs in any revision element page would remove previously displayed form below the table.
- Decimal precision in value expression of a condition is changed while changing the operator.
- The performance of uploading defined risk entries on secondary instances was too slow. Adding/editing/deleting/uploading defined risk list entries during upload is prevented to speed up the upload on remote instances and shows a dialog describing the reason (APAR PO08824).
- The system enters a deadlock situation when a message is being processed and a defined risk list or a compliance list is deleted (APAR PO08847).
- Changing stencil name no longer causes the stencil form to re-render.

- Correctly sets start date and expiry date for a defined risk list entry as per the start date, expiry date and default lifetime setting of the corresponding defined risk list.
- Uploading a docx template file for a DOCX Outgoing Channel Configuration failed with an error in the UI. This has been fixed.
- Improves the UI performance of Audit trail and compare revision tabs under revision control of a revision by reducing the initial load time of audit entries.
- After logical golives while transactions were coming in, an index query might access values for a record that is actually not part of the MDC anymore.
- The golive checks for the mdc size, if its greater than or equal a resize is happening. The mdc size is greater than filled entries then go for resize.
- Revision pages would not work on a recently updated Safer Payments instance if during the update the API was enabled on a different instance that still has not been updated yet. This was due to the fact, that during updates, all revisions are automatically assigned to run simulations on the API instance. After the update of the first instance, opening the revisions on that instance will cause it to try and get the revision information from the previous API instance which is still outdated and cannot handle these requests returning invalid responses leading to UI errors. The changed behavior will automatically assign the opened revisions to the current API instance in such cases.
- The system could crash when there is no space while the export jobs was scheduled (APAR PO08805).
- The online help for calendar projection did not reflect correctly how projection is currently calculated (APAR PO08857).
- Case investigation list table and Query results table now display the number of rows.
- It was not possible to collapse all unless you first expand all in the audit trail.

Minor changes

- Now "Not Synchronized" FLI state is correctly displayed in the FastLink status table in cluster settings page.
- When a hyperlink query is opened and transaction is marked as fraud, the select field in the opening popup had incorrect labels.
- Categories were not displayed in case selection and tables of alerted transactions in case view.
- The Golive report message shows correct sizes of the MDC and DDC consumpation, when there is a memory decrease (APAR PO08873).
- Index attributes are not listed for creating a masterdata insertion or deletion condition (APAR PO08840).
- Simulation keeps loading on the screen when the rule generation is under process.
- The message Id is required for external call. Safer payments generates one if it is not given in the transaction.
- The configurable nil value timestamp in outgoing channel configuration was changed to allow 19 characters, in order to support standard timestamp definitions.
- Fixed UI error while loading the dashboard page immediately after adding a new KPI.
- Case search and selection is debounced.
- In the the old UI the case search page showed an empty table with a "no results" message when the search returns no results. New UI has been adjusted to this.
- After changing decimals of a numeric attribute in a challenger, simulation and Model/Test potentially produced wrong computations, because it calculated with the old number of decimals.
- When a merging recomputed a target, but a previous merging or masterdata had already marked the merging source record for being stored, following issues happened: On the primary instance the primary urid of the merging source record was empty. The merging source was recomputed instead of the target. Potentially wrong values were written to output attributes of the source record. In case a merging recomputes a target, the merging source will never be stored now (APAR PO07896).

- Added revision status bar to model component pages.
- On the new UI, when there are too many data points on a bar charts x-axis, the bar chart component takes a while to load. (Causing page to be irresponsive in the mean time)

Download instructions

Download IBM Safer Payments 6.2.1.01 from IBM Fix Central.

Follow the installation instructions

For installation instructions, see the IBM Safer Payments Implementation Guide.

Download the installation image

Use the following link to download the installation image from Fix Central:

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  SaferPayments_6_2_1_01.zip:

  a5411ef91d45a108d262d448e34aa225cd4ed101f1d672007de7d1827346cad0
- MD5

  SaferPayments_6_2_1_01.zip:

  a5228f6e838ab49fd7b0766dc3eab388

Chapter 6. 6.2.1.02 Release Notes

The Release Notes contain information about new features, update information, fixes, and known issues in IBM Safer Payments 6.2.1.02.

This release changed the version number from 6.2.1.01 to 6.2.1.02 and contains no impact changes according to PA-DSS.

What's new

IBM Safer Payments 6.2.1.02 includes enhancements.

Release highlights

- None

Additional enhancements

- When a query was changed while another user requested the queries table through the UI or a script it was possible that invalid memory was accessed and a segmentation fault occurred (APAR PO08795).
- The system could crash when no rule generation result existed but request 'setRuleGenerationFollowingIndicators' or 'setRuleGenerationPrecedingIndicators' was sent. This could for example happen when on one browser tab rule generation was stopped but on another tab the old result was still visible and user performed request 'select this and all following intervals'.
- Case score of value larger than 6 digits showed an incorrect value due to rounding to the nearest 10th divisible in alarm score table and case data table (APAR PO08899).

Update information

IBM Safer Payments 6.2.1.02 includes changes that you need to know about if you are updating from an earlier version.

- Cluster page context actions reflect to the `cluster.iris` regardless of whether a remote instance refused the cluster configuration change.
- The logout call of the new UI was changed from POST back to GET. If you are monitoring the SP calls through a proxy then you need to ensure that you update the pattern for the logout call.
- If you used the "getDefaultMaskEncryptedValues" API request in any script, you will have to adjust this script. There is no real replacement here, since the setting really did not serve any purpose except initializing the corresponding setting of a new outgoing channel configuration. So at most you might want to request a specific outgoing channel configuration from the server and check its "maskAttributeValues" setting.
- Make sure there were no log messages 742 - which indicate missing python functions - in the last start up logs . If such messages occurred, resolve the missing python functions as otherwise starting up with this version will be prevented.
- When OIDC is enabled, it was possible to send API requests without doing an explicit login. This has been fixed and it is now required that the user do a login first, before sending any other API requests and should also include the session id in the following requests.

Change log

IBM Safer Payments 6.2.1.02 includes critical, major, and minor bug fixes and APARs.

Critical changes

- Random Forest Generation can cause intermittent crash during data selection, or getting status of RF generation, or saving Random Forest model after the general. Also, switching API after Random Forest model generation may also cause instance to crash (APAR PO09238).
- When a golive is performed on a revision that has a PMML model in the current champion of the same mandator already, fatal errors "F 0099 Internal error in PmmlModel::computeRealtime() for PMML model" may be printed in the logs and the PMML model will not compute anymore after the golive. If a simulation is performed on the same revision before such golive, the application may also crash (APAR PO09172).
- In revision files attribute references of internal random forests were duplicated exponentially with each golive, causing large revision files and long times to copy revisions or startup an instance. Already existing duplicate entries will be removed on startup with this Safer Payments version (APAR PO08987).
- We have resolved a potential crash that occurred when executing an investigator report before and after a new case state was added to the configuration (APAR PO08984).
- It was possible that during the end of day job invalid memory was accessed when cases were aggregated in parallel. Data leaks were not possible but segmentation faults could occur.

Major changes

- Safer Payments can now calculate detailed latencies that previously were only combined under 'Misc Wait Times'. To enable this turn on 'Log misc wait time details' in system configuration.
- There was a possibility that a FLI connection is simultaneously sending two messages. This could result in a FastLink acknowledge error and to duplicate transactions on the remote instance. The probability of this bug was increased when using a large amount of FLI threads (APAR PO09011).
- Parsing of PMML models with a `TransformationDictionary` fails if not all transformation fields are mapped to Safer Payments attributes. It succeeds on the API instance but fails on all others.
- Several additions to logging were made:

  - Added log messages with number 822 whenever starting a report (case queue report, investigation report, missed cases report, user report) and 823 whenever a report finishes.

  - Added further details to condition and conclusion log messages.
- After an instance was restored then it was possible for the heartbeat thread to not be able to reconnect, which results in numerous SCI messages in the logs (APAR PO09005).
- When logical golives overlapped with the deferred writer it could happen that the deferred writer was stopped during the golive but not started up again afterwards. To restart the deferred writer again, either a structural golive or the end of day job could be executed (APAR PO09202).
- Deadlock when end of day job is running and case escalation happen at the same time (APAR PO09213).
- External Model Components allow the HTTP headers to be configured with static values or attribute placeholders from which the value will be read and forwarded in header.
- When saving the settings form, then if the save button was hit more than once (e.g. accidentally double clicked) then it was possible for some of the values to be saved incorrectly (APAR PO09200).
- When a persistent connection was disconnected by the remote side, every single reconnection attempt was logged. This could lead to an excessive number of log messages, when the connection couldn't be reestablished.
- A detection mechanism for sequence loops in simulation of precedents and counters is introduced. This prevents simulation being stuck because of sequence loops (APAR PO09130).

- The redundant made option "forward to external system" inside of mergings has been removed. Using an external model component by having either "store source" or "recompute target" enabled in the merging enforces a configuration that is easier to maintain.
- When instances were detached or deleted from a cluster, it was possible that a problem within the heartbeat functionality resulted in a crash.
- PMML model parsing fails if a model references an output field of a previous model inside a model chain (APAR PO09219).
- Parsing of PMML models fails if it contains a `DerivedField` without a name. The PMML standard explicitly allows this to happen outside of a `TransformationDictionary` or `LocalTransformations`. For example inside a `NeuralInput` of a neural network (APAR PO09218).
- Parsing of PMML models fails if a `DerivedField`, which is defined in the global `TransformationDictionary`, is referenced anywhere in the model file (APAR PO09217).
- In Safer Payments new user interface, in the CPP query result page, while resizing a column the UI freezes or crashes due to infinite updates of the table component. This issue has been fixed and now column resize would work as expected.
- When attempting to upload a PMML model with many Data Field Mappings then the new UI can crash(APAR PO09185).
- When an instance was removed from a cluster, the instances still kept on sending heartbeat statuses to it. Now the heartbeat stops once the instance is removed from the cluster.
- Log message number for undefined api requests of mci endpoint and message command interface was 768, but should be 118. Log message of mci endpoint just mentioned message command interface.
- The instance list in the MCI bypass settings could not be sorted and sometimes clicking on one checkbox affected the state of another.
- When enabling or disabling an outgoing channel configuration of type "persistent connection" while transactions are being processed using that connection, an invalid memory access could occur causing the instance to crash.
- When the length of an attribute and the categories were saved at the same time, then the simulation was not invalidated, if a simulation query was run on the invalidated simulation data, then it was possible for the instance to crash(APAR PO09161).
- When retrieving an outgoing channel configuration through the user interface, an API request or when writing out the configuration to disk, invalid memory could be accessed. This only happened when the configuration file of the outgoing channel contained invalid instance uids in its "connectionPoolPriorities" field.
- When using an external model component with unused response message mappings, synchronization of the response mappings fails completely and the transaction record becomes inconsistent between the primary instance and the other instances.
- We have guarded Safer Payments against a crash that was possible when a MCI ssl socket was shut down due to inactivity (APAR PO09041).
- FLI rate dropped for the duration of FLI retry connection at random times causing higher buffering rate than sending rate (APAR PO09146).
- Context actions on the cluster table (e.g. "Enable API" / "Disable MCI", etc.) do not write changes to file, if any of the instances in the cluster rejected the change (for example, during a feature upgrade scenario)(APAR PO09088).
- An instance could crash when deferred writing overlapped in a bad way with a rule action overwriting a defined risk list entry (APAR PO09124).
- From the release 6.2 of Safer Payments, if the mask level of the user is set as "may see masked values", then the queries tab and masterdata tab in the case investigation page do not display any records. The reason is that the masked value of the reporting attribute was passed as query value to the index query and masterdata query and hence no records were returned from those queries. This fix passes unmasked reporting attribute value to the index query and masterdata query in the case investigation page.

- When using OIDC, if a user logged in to 2 browsers at once and then logged out in one of the browser tabs, it was possible for the UI to hang and display a white screen (APAR PO09136).
- In Safer payments' new user interface, in the mappings page, the table's performance becomes very slow while resizing the column and there are large number of messages. It could also cause the browser to crash. Out of the three tabs namely, Input attributes, Output attributes and All attributes, now only the active tab's content will be rendered (APAR PO09180).
- Added a "Hide Logout" setting to the Authentication Settings, which appears when OIDC, LDAP with SSO, or LDAP & Local with SSO are selected. Enabling this setting hides the logout button (APAR PO08859).
- There were some files which were not being cached. We introduced the ETag header to allow for caching of these files.
- The logout call from the New UI was changed from POST back to GET.
- It was possible for some KMI threads to not properly stop if the KMI was started and stopped very quickly (APAR PO09008).
- When using case aggregation history, the highlighting of the most important alarm did not work as documented. Instead of highlighting only the most important alarm, i.e. the most recent alarm with the highest score, the old user interface highlights all alarms with the highest score while the new user interface only highlights the most recent alarm even if it did not have the highest score.
- The system configuration setting "mask values in notifications and case actions" was basically meaningless as the "mask values" setting in each individual outgoing channel configuration overwrote it. We therefore removed the system configuration setting along with the "getDefaultMaskEncryptedValues" API request that retrieved it. The PCI DSS report will now check the "mask values" setting of each outgoing channel configuration individually and contain a warning for each channel that does not mask outgoing values.
- Golives that increased the system time attribute could result in an application crash if a sub-mandator owns rules that were enabled for performance reports (APAR PO09024).
- Retention by time: Status Alarm Indicator and Key Performance Indicator might show infinity or negative numbers for retention usage and decimal numbers are not displayed for Key Performance Indicator.
- Retention by time: Total annual transaction volume including all mandators should be greater than zero because end of day job can hang if retention by time is enabled and total annual transaction volume is zero.
- The start up of the application will be prevented in case python callouts cannot be resolved that are referenced in the model. For debug purposes a start up parameter was introduced. When starting up with ignore_python_errors, it is still possible start with missing python functions. This start up parameter should not be used in production as missing python modules can lead to crashes during golive.
- MCI connection overflow may cause the processing thread to hang (APAR PO09131).
- There was a possibility of a wrong outcome when evaluating case masterdata conditions of data type text.
- In Safer Payments's new user interface, in any of the profiling page like counters, calendars, etc, when user quickly selects a profiling one after another before the previous selected profiling has loaded completely, then the attribute of the previous profiling item would be displayed for the current one. Upon saving the current profiling, the previous profiling's attribute would be saved for the current profiling. This led to same attribute being referred in two profiling (APAR PO09066).
- The column width preference was lost upon sorting a table.
- The end of day job was trying to access case attachments that have been wiped previous been wiped causing an exception.
- It was not possible to define masterdata on a time interval attribute when using a peer index (APAR PO09003).
- The system internals page did not show any information about the availability of the WebSphere® MQ functionality on a given Safer Payments instance.

- The `LastActionOn` from Case was not updated in case, when a case action is triggered.
- Masterdata values with decimals did not show up in the hit condition values table of cases created by an index based evaluation.
- External callouts in external model components, mergings or masterdata did not work with third party services.
- Deletion of attributes in calendar form in the new ui was not possible as the delete button was always disabled.
- When using the Kafka Message Interface (KMI) then there were some cases where disabling the KMI from the cluster settings table context menu would not result in the message processing failing over to the next priority instances (APAR PO09004).
- Case alarms that were created and aggregated on a remote instance did not show up in the case on the local (API) instance. Additionally, the highlighting in the "consolidated alarms" table was wrong as it always highlighted the most recent alarm instead of the one with the highest score.
- Jobs that have the curtail masterdata option checked, could not be executed (APAR PO09110).
- When a simulation query with conditions on data selection is run and the user has enabled the checkbox to use the simulation data, a crash can happen.
- If multiple masterdata elements for an index linked to the same output attribute, the values of these masterdatas were not shown correctly in the masterdata query result.
- The case attachments table preference was stored for each case individually, which resulted in a huge number of preferences to be stored in the user's file. Since these files are transferred over the FLI often, their increased size slowed down the overall synchronization speed of the cluster. We changed the behavior of the software to now only store a single user preference for this table. If you've suffered from the aforementioned problem, it is recommended to reset the user preferences of each account that opened a lot of cases in the past. Preferences can be reset for each user individually on that user's "My account" page. A global reset for all users can be done using the maintenance function "reset user preferences" (APAR PO08878).
- A deadlock was possible when starting the rule generator right after the instance had been started and when the rule generator then ran into an error or was manually stopped at a bad time.
- Golives that changed the system time attribute from not being stored to being stored resulted in an application crash if rules existed that were enabled for performance reports.
- The expression under condition or conclusion in merging was not showing attributes at multiple instances, for example when the page reloads after creation of new merging (APAR PO09139).
- Crash (segmentation fault) could happen when sending the "logout" API request more than once in parallel (APAR PO08887).
- Some reporting attributes within a case might have wrongly showed empty values if the reporting attribute was added to the case class after the case was created and if a numeric index was used as remote lookup index.
- After a masterkey change, encrypted values in revision audit trail files were not reencrypted with the new key and created "parser errors" when viewing them (APAR PO08961).
- Retention by Time: Unable to specify expected annual transactions per mandator.
- A condition with preceding zeroes in the numeric expression and operators 'endsWith', 'starts With' or 'contains' could have computed incorrectly because the zeroes were not taken into account. For example condition 'NumericAttribute->endsWith->06' returned true instead of false for attribute value '456' (APAR PO08400).
- In the model revision page of safer payment's user interface, sharing the revision from the general tab does not hide the modelling option from the left side navigation.
- Due to a defect in API calls, revision comparison showed "undefined" values (APAR PO08922).
- In conclusions section in rules on selection of the a numeric attribute the user is not able to pass a string parameters in a python function.
- It was not possible to use python functions in rule conclusions on the new UI.

- After a master key change, group by query conditions that include encrypted attributes were not recrypted correctly and thus not usable anymore (APAR PO08968).
- In mergings conclusion, attributes which were not stored in MDC or DDC are not able to be selected.
- In conditions form, saving an interval expression does not remove letters t, n and r when they are provided as fist letter in the interval value. e.g. "tue~thu"(APAR PO08944).
- We resolved rare race conditions that could lead to crashes when operating rule generation or random forest generation while disabling simulation at the same time. The crashes could happen when starting rule generation while disabling simulation or when commiting a condition while disabling simulation or when disabling simulation while random forest generation is running.
- When selecting a new value for the “mask level” field on the user account form, the change was not reflected on the UI. However, the new value was still being set invisible to the user, so saving it still worked properly (APAR PO09020).
- Various changes to the Help section fixing links and images.
- After Investigation - Cases- "Send case action" was disabled from Admin - roles, the case investigation was not accessible because of the error popup informing about no privileges.
- A csv download functionality is made available for all tables. The download contains the data shown to the user, incorporating filter settings and the appropriate formatting. Exceptions for that are tables with encrypted data. They still provide the encrypted zip download only (APAR PO09120).
- The computation of a compliance list could crash in rare cases during real time computation when using the starts with option or when searching entries manually (APAR PO08909).
- Status alarm indicator's email form now allows multiple email addresses in the "To" field (APAR PO08890).
- Remote instance execution of rule changes was too slow causing a severe slow down in FLI synchronization (APAR PO08938).
- Fixed a bug where Safer Payments was able to crash when a MCI socket is shut down for two different reasons at the same time. This was only possible when MCI was operating through SSL (APAR PO08908).
- When aggregating audit trails for a case the result might have been incomplete if the aggregated cases still contained unloaded audit trails entries on disk. These were not loaded from disk during aggregation and therefore not included in the result.
- It was not possible to modify the copy of the default case workflow.
- It was not possible to select attributes in Transaction Message Conditions when creating a status alarm indicator of type transaction message rate.
- Numeric attributes in tables are now aligning to the right.
- When retention by time was enabled, the indexes table still showed the sequence's MDC and DDC records capacity instead of its MDC and DDC retention.

Minor changes

- Warning messages during CPP query execution were treated as errors and it was therefore not possible to display CPP query result.
- MCI Endpoints are not enabled, when MCI gets re-enabled (APAR PO09103).
- When opening data selection for rule generation and if 'timestamp' or 'account' meta attributes did not exist, an error popup was shown that did not mention the error root cause (APAR PO08991).
- In the user interface, when the user is online and user's password has expired, then the user could continue to work until any page refresh is performed. But when the page refresh is done, then UI would only display the menu bar. This fix would logout the user in such a scenario so that the user could login again and change the password
- The mci endpoints Ui could have duplicate endpoints forms.
- Client side Validation for MCI Endpoints was missing.

- In the Safer Payments' new user interface while creating a Key Performance Indicator of type "number of cases", the dropdown to select the "case close code" was not displayed and hence it was not possible to create a KPI with a particular case close code.
- In the user interface, in the model components table under the model revision page, changing the status of model components using "enable/disable" buttons in table toolbar would change the status of those model components on the server but their status in the table was not refreshed. Hence the status of model components in the table in UI was not the same as that on the server.
- The functionality to stop pending messages when disabling an outgoing channel configuration was missing in the new user interface.
- The outgoing channel field inside the generate report job was getting validated even when it was disabled while creating a generate report job.
- It was possible for an external query to not function properly until it was saved a second time.
- The system configuration setting "Clear latency entries during eod" was removed in an earlier version but the new user interface was not updated and still showed a checkbox without proper label and functionality.
- When retrieving the cases table while also changing preferences of the same user in parallel, it was possible to access invalid memory causing retrieving the preference to fail.
- In a status alarm indicator definition, threshold fields would accept any numeric value
- Conclusion showed dropdowns that were only applicable to conditions.
- The time range validation for patterns displayed wrong error messages.
- The last changed user and timestamp were not updated on remote instances when risk list entries were updated (APAR PO08769).
- Cases created by index based evaluations did not support case histories and audit trail aggregation. The \"reporting attributes\" selection in both of these sections was always empty.
- The Sorting of the Amount column in the case Investigation and the Query Results were not working as it should be. Also the dimension or the currency symbol was missing in these tables (APAR PO09184).

Download instructions

Download IBM Safer Payments 6.2.1.02 from IBM Fix Central.

Follow the installation instructions

For installation instructions, see the IBM Safer Payments Implementation Guide.

Download the installation image

Use the following link to download the installation image from Fix Central:

Download link	Release Date	Language	Size
Safer Payments 6.2.1.02 download link	01 Mar 2021	English	159.359 MB

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  SaferPayments_6_2_1_02.zip:

  0c98a54b3d0035d46355fc149cce279ae0e8e9f417b2d71214ab7f84171b0268

- MD5

  SaferPayments_6_2_1_02.zip:

  f307183695440c5b60f6046d0fb42bbd

Chapter 7. 6.2.1.03 Release Notes

The Release Notes contain information about new features, update information, fixes, and known issues in IBM Safer Payments 6.2.1.03.

This release changed the version number from 6.2.1.02 to 6.2.1.03 and contains no impact changes according to PA-DSS.

What's new

IBM Safer Payments 6.2.1.03 includes no new features and enhancements.

Release highlights

- None

Additional enhancements

- None

Update information

IBM Safer Payments 6.2.1.03 includes changes that you need to know about if you are updating from an earlier version.

- The format of FLI messages generated due to an External model component computation has changed, the old format is still supported; however, large messages must use the new format (all instances are updated to contain the fix). The new FLI message format is not backward compatible.
- All existing modeling workflows in all existing revisions will be properly modified by irreversible removing all rule generation entries and saved back to the disk during first initial SP startup. This action will be logged with log message number 749.
- Due to the necessary changes to signal handling, writing backtraces in case of a crash works differently. Files for backtraces are not longer written into one file pay day called "backtrace_log_[InstanceID]_[YYYY-MM-DD].iris", but to two different places:

  1) Backtraces are written into a file opened at startup of Safer Payments called "backtraces_starting_at_[InstanceID]_[YYYY-MM-DD].iris". Once Safer Payments is started, this file is created and will contain all backtraces which have been created since startup. A new file with a new date is created once Safer Payments is restarted. This file is created no matter if there is a backtrace or not. If you find empty files like this after updating, everything is okay. If you have automated file management processes around the SP config, especially log folders, please make sure that those files are not moved or deleted while Safer Payments is running.

  2) Also, backtraces are written to standard error (stderr) of the process. Please make sure that you store the stderr of the Safer Payments process. If you use systemd services to manage saferpayments, it will be written to syslog which usually ends up in /var/log/messages or journald using "journalctl -u [servicename]".
- Defined risk list files in the configuration folder will be corrected if a file contains invalid JSON encoding in the audit trail. No further action required.
- Due to an improvement of incoming FLI performance, after the update a remote instance an existing FLI buffer might get synchronized substantially faster than before. If deferred writing is enabled, this in turn can mean that the minimum MDC size of deferred writing settings need to be adjusted so that they take the improved FLI speed into account. Contact Safer Payments support if you have questions.

Change log

IBM Safer Payments 6.2.1.03 includes critical, major, and minor bug fixes and APARs.

Critical changes

- Rule generation is temporarily removed and no longer supported as a modeling workflow entry type.
- The system was likely to crash when performing structural golives while the MCI bypass was enabled for that instance.

Major changes

- When using retention by time it was possible that the system time attribute ended up with invalid MDC and DDC sizes preventing further golives. The golive can be made possible by increasing the system time attribute's data cache sizes manually using the UI. The problem is caused by boolean attributes since their data caches are required to be multiples of 8. When converting a retention time to a data cache capacity, the capacity for boolean attributes is rounded up to the next multiple of 8. This can lead to a situation in which a boolean attribute has a larger MDC or DDC than the system time attribute, which is invalid for further golives since the meta attribute always has to have the biggest MDC and DDC in the system.
- When using retention by time, the MDCs and DDCs of rule performance reports were not properly resized along with the meta attribute system time leading to missing data for these reports.
- An instance could have crashed when starting simulation while a PMML model was being uploaded (APAR PO09281).
- Improved how MCI threads in various status are monitored and displayed on the UI. Defined a new KPI that allows the user to monitor MCI threads in given state (idle, reading, waiting for processing coordinator and writing response) per MCI inbound endpoint. Additionally, defined two new user configurable network connection timeouts on the inbound endpoint that allow the user to define the time after which inactive connections should be closed and when a read request would timeout. Included more information in the logs when an MCI connection fails.
- Corrupted FLI message when the MCI message size is larger than 10000 characters and external model component is active (APAR PO09350).
- There could be a system freeze when running the same query simultaneously at the same fraction of a second by multiple users (APAR PO09418).
- It was not possible to set masterdata from a masterdata query.
- External model components produced sequence loops on remote instances causing data inconsistencies.
- Latency reporting was enhanced:
  - Writing latency reports could have negatively impacted the overall latency of a record and the CPU usage. To avoid this it is now done asynchronously.
  - It is now possible to write latencies to a log file as they happen. Previously only the last latencies available in memory could be written to log during end of day job, older latencies were lost.
  - The amount of text written for a latency report to memory and to log file was reduced. This does not negatively impact the data system internals shows in latency report.
  - It is possible to limit the number of processing elements (e.g. counters, rules etc.) in the latency report to the most time consuming elements.

  The new functionality can be setup in system configuration (APAR PO09290).
- It was not possible to enable SSL options for the MCI bypass (APAR PO09349).
- In the new User Interface, if there are no rows in the report while making a revision "golive" and if there were any previously displayed rows in the "Golive report table", then those rows are not removed from the table. This issue has been fixed in this version so that the "Golive report table" content would be correctly refreshed to display current report status of the revision

- During upgrades the `Last Action On` of the cases being worked upon is set to an invalid timestamp, which causes these cases that were worked on during the upgrade to be archived on the next EOD.
- The new User Interface now correctly handles conclusions with timestamp attributes where the expression would contain constant values including "w", "d", "m", "h". Eg. "4w" (APAR PO09313).
- Startup of 6.2.1.02 fails when a PMML model with unmapped transformation fields was created with a lower version (APAR PO09299).
- External callouts fail to parse the response if more than one response is received at the same time.
- Because of rare occasions of missing backtraces in case of a crash, the signal handling code of safer payments has been refactored (APAR PO08923).
- In the new UI, a user without the privilege to edit indexes was not allowed to edit counters (APAR PO09243).
- Switch to OpenSSL 1.1.1k on all SP versions that use OpenSSL 1.1.1
- Memory associated with a rule is not freed when the rule is deleted or performance report for that rule is unchecked after a golive has been done in the parent mandator (APAR PO09245).
- When profiles are in real-time computation path, performance was severely impacted, resulting in latency to increase by ~10x. This fix addresses this issue (APAR PO09201).
- The investigator report showed incorrect results as actions were counted multiple times. The audit trail entries in the investigator report should be counted based on the final state of cases (APAR PO09158).
- Import Risk List Download report displays stats gathered from mandators other than the Primary one currently in use or head mandators (APAR PO09275).
- When executing a missed cases report, there was an unnecessary long period that could lead to blocking, for example, for golives or updates of elements that happened at the same time (APAR PO09117).
- Persistent connection OCC reset leads to crash.
- A crash could occur when stopping rule generation while a simulation was running for this revision (APAR PO09188).
- Introduced checkboxes in the settings, to make the checks on IP address and on the HTTP header X-Forwarded-for optional during session binding.
- Restoring and shutting down an instance could result in a backtrace in rare cases. Data integrity was not affected, as the backtrace was after files were closed.
- Improved logs when MCI connections are opened and closed. Included the IP address and port number when MCI connection is opened. Log connection ID (instead of thread pool position) on both opening and closing of MCI connections.
- There can be a deadlock when a simulation and golive are run at the same time on two different challengers (APAR PO09377).
- When using conditions in the new User Interface, the "is empty" and "is not empty" operators for text input attributes were always evaluated to "false" if "ignore case" was selected. There was no issue when evaluating the input attribute with "case sensitive". In the old User Interface, the comparison was always set to "case sensitive". This is fixed in the new User Interface. On selection of the "is empty" and "is not empty" operator, the drop down of case sensitive is removed in the conditions section of the form in Rules (APAR PO09276).
- URI case actions could expose values of encrypted attributes to an external system e.g. a web server. This could happen when the case action used encrypted attributes in its message template. When executed by a user with the privilege to view clear values for encrypted attributes, the generated URI would contain those clear values potentially forwarding them to an external system. Several warnings were added to the application to reduce the likelihood of such data leaks. Whenever a case action with a potentially problematic configuration is opened, the User Interface will show a warning to the user. Whenever such a case action is executed, even just for testing purposes, a log message is generated. For PCI DSS compliant environments this log message must be enabled. Furthermore, our built-in PCI DSS report will contain a warning for any URI case action that uses at least one encrypted attribute in its message template.

- Models containing at least one external model component produced invalid results for calendar elements since the calendar counted each transaction twice.
- New analysis could be saved without selecting a proper data range type leading to crashes when executing these analysis (APAR PO09306).
- The check whether a text attribute is empty was incorrect during realtime computation of PMML.
- The check whether an output attribute is empty was incorrect in simulation. This impacted conditions and PMML computation (APAR PO09262).
- Added a condition to prevent check for the sampling condition when samplingStategy is "No".
- Added a condition to prevent unnecessary API calls.
- In the new UI, a newly created user could see "No privileges to perform this action" after saving the my account form due to a redundant server call which was not required while saving it (APAR PO09054).
- The MCI bypass connection did not produce a response for messages with message ids of less than 16 characters. The transaction message was still computed though.
- This fix will modify the defined risk list files in config if it includes invalid JSON encoding in the audit trail. We fix it with an escape character, and write it back to the file (APAR PO08865).
- When a structural golive fails with a crash, it is possible that other instances have already been informed about the golive and will also crash once they perform it themselves.
- Hyperlink queries were not able to refresh in the main window.
- Added online Help about logical golives.
- Log messages 131, 408 and 535 were used incorrectly.
- Attribute values were printed without formatting within table constructs inside a DOCX case action (APAR PO08606).
- The MCI bypass failed for transactions that delivered their "message id" within the "IRIS" tag of a flat XML message. Other message types were not affected as well as flat XML messages that utilized the "x-sp-message-id" HTTP header.
- In the new UI, the validation of the "reset value" conclusion operator falsely required a right hand side expression to be entered (APAR PO09252).
- The application could crash when viewing the case table with masterdata conditions after a golive (APAR PO09173).
- Console messages for Text not found were coming in production (APAR PO09192).
- Need to add revision attribute as it was expected by the API for the streamType - "queryResultExport" and the export of simulation query (APAR PO09254).
- A condition is added to stop the "Stop pending message popup" when we disable a persistent connection type occ as this does not makes sense for them.
- Golive runs on multiple instances at the same time with default configuration.
- Stopping simulation at the same time as the analysis is started could cause a 'Segmentation Fault' instance shutdown (APAR PO09241).
- The Case Management tab is visible and enabled even if case investigation is disabled for a user.
- There was no feedback after saving changes to the revision general page in the new UI. Also, the keyboard shortcut for saving (CTRL + S) was not working.
- The case creation page flickered when changing the mandator or case class selection. This was due to the page needlessly switching to a loading state.
- It was not possible to create Masterdata or Mergings with the option "forward to external system" when the model did not contain any overwritable input attributes. This was because the "forward to external system" section required at least one response message mapping to be defined although these should have been optional.
- Safer Payments could hit the error [E 0768 decompressing PMML model failed] during a startup or golive, if the component "Random Forest model" was added into the configuration created in the previous version of Safer Payment v6.1 (APAR PO09204).

- Navigating from a simulation query to any other page can produce log message [API request 'unreserve' failed with 'F, ITEM_NOT_FOUND' unreserve uid: NNNN] (APAR PO09203).
- After upgrade from 5.7.0.09, the "PMML random Forest" component can hit parser error during the startup if the operator isMissing/isNotMissing is used inside PMML file (APAR PO09056).
- When creating a new load file job with a message that had the `monitor latency` option disabled, then enabling the option and running the job, the latencies were not monitored (APAR PO09194).
- There was a bug in the internal error handling code, which meant that some null pointer exceptions could result in crashes. These were fixed so that they will print an error and a backtrace but not cause a crash (APAR PO09327).
- The API request "isOffline" reported the wrong status when the instance in question used deferred writing. Even after a successful execution of the "setOffline" API request on such an instance, "isOffline" would return the status "INSTANCE_IS_FINISHING_DEFERRED_WRITING" although deferred writing was already done by that time (APAR PO09148).
- The API requests "setOffline" and "setOnline" behaved differently depending on which instance they were sent to. When being sent to the API port of the instance in question, deferred writing of that instance would be stopped properly. When the request is sent to a different instance e.g. the API instance, the deferred writer would just be paused, causing some data to still be in flight and missing on disk (APAR PO09149).
- FLI performance was significantly improved for incoming connections (APAR PO09242).
- The system could have crashed when running rule generation on remote instance (APAR PO08947).
- It was possible to delete compliance lists that were referenced by a sanction list job which could lead to an invalidation of a golive. The find reference functionality was introduced for compliance lists (APAR PO09155).
- When transaction is sent which changes masterdata for an index, and it does not contain the XML tags for a boolean masterdata (e.g. because it's not changing that value), the masterdata will be reset to False (APAR PO09137).
- It was not possible to create a job of type "export data" because the "salt" field was not initialized with valid random data.
- Records imported via load file jobs showed incorrect (too high) misc wait time and overall latency in latency report. This could have lead to each record causing a latency, which results in higher CPU usage and in turn higher actual latencies (APAR PO08816).
- Long body in model component is managed by adding a scroll (APAR PO09373).
- NaN is shown in FLI status.
- The decimal digits for hours are displayed with decimal digits now for execution time for Job Schedule under Administration.
- Golives that increased the size of the sequence attribute could result in an application crash if the index conditions only allow a subset of all messages being sent to the application to be inserted in the index (APAR PO09075).
- In the new UI, using a loop construct for regular cases in a case action template does not render the correct values depending on what transactions are added to the case action. For example, while adding transactions from the Alerted transaction, the preview renders the Amount field as `[object Object]` and while adding transactions from an embedded index query, the preview displays the amount value from the highlighted alerted transaction for each selected transaction instead of the original transaction. These two issues have been fixed now.
- The startup parameter limit_index is now applied to multi value masterdata. Using this start parameter, the size of the masterdata will be the capacity of the multi value masterdata multiplied with the limited index size.
- OCC templates can be modified by several threads, e.g. being updated while being read in a case action, which may lead to a crash in rare cases (APAR PO09037).
- When using the "execute" button to perform a "save and execute" on a new query, the UI reported "Requested item not found" instead of showing the result of the new query.

- In the new UI, when there are many KPIs displayed in charts in the dashboard page, for example, with combined number data points more then 30000 data points, then the page would become very slow and it would take 1 to 2 min to initially load it. This fix addresses the issue and improved the performance of the dashboard page to load within 30 seconds with 30000 data points.
- Only the last child was parsed in a nested xml structure with multiple layers.
- Dropdown text is not fully visible in confirmation message box during shut down of a cluster instance.
- Defined Risk List Entries Table showed expiresAt data even when the expires at is unchecked in Defined Risk List.
- When using "forward to external system" in masterdata elements, each instance of the Safer Payments cluster would perform the callout to the external system itself. This was now changed to follow the same rules as external callouts performed by external model components: the callout is only performed once on the instance computing the transaction message. Other instances take the callout related information from the FLI message that is generated by the primary instance.

Minor changes

- Added online Help about LDAP SSL settings (APAR PO09209).
- A more detailed explanation of the functionality was added to the help page of missed cases report.
- Defined risk list's export functionality now exports all the entries, instead of being limited by the setting "Maximum number of displayed entries" in system configuration (APAR PO09325).
- Golive report does not show memory freed messages while deleting the rule with performance report enabled.
- Working queues did not offer an option to include closed cases.
- The user assigned to a working queue who is not a queue manager cannot see this queue nor stored cases on the investigation tab.
- Reporting attributes placeholders were not replaced during HTML template processing while sending SMTP case action (APAR PO08390).
- Improve the dialog for the interlock on the system configuration page. A popup appears when the interlock is set to permanently block Safer Payments entering the maintenance mode.
- In most cases users enable "Performance report" Rule setting by default, which has considerable impact on application performance since this setting requires additional memory in MDC or DDC.
- When revisions were retired while a remote instance was not reachable, it was possible that log message 480 was printed once those instances come back up. The log message was caused by invalid FLI messages for the retired revision that were created when viewing the retired revision while the remote instances were unreachable. This also affected other non-editable revisions such as invalidated challengers (APAR PO09063).
- When using OIDC authentication, the Safer Payments User Interface sometimes showed incorrect error popups or unexpected errors caused by wrongly handled server responses. These responses are now handled correctly and only in rare cases the user is prompted with a valid error message including instructions on how to resolve the issue (APAR PO09175).
- Some log messages showed a fatal error with event log ID as 99, when it should only show standard error level. Those messages stated that a service could not be interrupted as it was not running.
- The conditions forms in the new UI did not properly react to changes to fields outside of the conditions even if those fields would change the available select options within the conditions.
- The "Check LDAP Settings" button on the System Configuration page of the New UI didn't work correctly (APAR PO09145).
- In the new UI, the help icon in rules designer and generated rules table is disabled when the rule generation is in progress. It has been fixed.

Download instructions

Download IBM Safer Payments 6.2.1.03 from IBM Fix Central.

Follow the installation instructions

For installation instructions, see the IBM Safer Payments Implementation Guide.

Download the installation image

Use the following link to download the installation image from Fix Central:

Download link	Release Date	Language	Size
Safer Payments 6.2.1.03 download link	17 Jun 2021	English	153.86 MB

For information about using Fix Central, see Fix Central help.

Compare the checksum

Use the following hashes to verify the integrity of the download file:

- SHA-256

  SaferPayments_6_2_1_03.zip:

  730ee1f8b4ca303a85693cca1cb90b03172daf32d38288fd11d624678b039504
- MD5

  SaferPayments_6_2_1_03.zip:

  2569f30cdb98c1dc756aee2a8bbeac95

Chapter 8. 6.2.1.04 Release Notes

The Release Notes contain information about new features, update information, fixes, and known issues in IBM Safer Payments 6.2.1.04.

This release changed the version number from 6.2.1.03 to 6.2.1.04 and contains no impact changes according to PA-DSS.

What's new

IBM Safer Payments 6.2.1.04 includes no new features and enhancements.

Release highlights

- None

Additional enhancements

- None

Update information

IBM Safer Payments 6.2.1.04 includes changes that you need to know about if you are updating from an earlier version.

- Safer Payments is now able to detect problems about deferred writing configuration that were previously undetected. This is done by printing more log messages of E 0005. This event log message E 0005 now also includes additional information, to which one should pay special attention after the update.

Change log

IBM Safer Payments 6.2.1.04 includes critical, major, and minor bug fixes and APARs.

Critical changes

- When using the MQ interface with a response queue, Safer Payments may crash while sending the response (APAR PO09469).
- An instance could crash when starting rule generation manually in the same time rule generation was running in modeling workflow. Additionally a deadlock could happen when stopping modeling workflow when rule generation was running. Rule generation is now permanently removed from modelling workflows. Rule designer is re-integrated after it had been removed in the previous fixpack (APAR PO09297, PO09295).
- Rule generation is temporary removed and no longer supported as a modeling workflow entry type.

Major changes

- The Change master key feature did not work, when cases existed. There was a deadlock preventing the master key change to progress (APAR PO09456).
- MCI Bypass did not work for TCP messages with binary header. Safer Payments dropped the binary header before forwarding the message to a remote instance, and the remote instance could not process the message without it (APAR PO09408).
- If the noTrueChildStrategy set in PMML boosted tree model is returnLastPrediction and if there is no child node that meets the criteria, Safer Payments does not use the score attribute value in the parent node (APAR PO09196).

- Safer Payments could crash during shutdown routine, potentially leaving sockets open without proper close. This didn't result in any data loss as all DDC files were already written after "163 Shutdown completed successfully" was printed in the log.
- Highlighting of a case's consolidated alarms in query results did not work correctly when more than one alarm was present. Only the current master alarm was highlighted.
- The index value in a Masterdata query and Hyperlink queries were not correctly escaped leading in some occasions to empty results or potentially invalid JSON that would pop up an error message in the User Interface (APAR PO09277).
- PMML string arrays were not correctly parsed in case the values inside the array were not enclosed in double quotes.
- The "view model structure" visualization for PMML random forest and PMML boosted trees is correctly displayed (APAR PO09320).
- A defect might cause the memory leak or crash when the user removed the MCI endpoint.
- Saving the modeling section or the revision general page caused a running rule generation on a remote instance to be stopped and could have caused wrong simulation results (APAR PO09285).
- A defect in bypass might cause the program crash.
- The time to replicate defined risk list entries uploaded from file has been reduced substantially on remote instances. Additionally the time to delete entries on remote instance has been reduced (APAR PO09401).
- A parse error "Unexpected Token in JSON at position" could occur when opening an investigation query that was migrated into the configuration from another instance with enabled encryption and different encryption keys (APAR PO09027).
- In very rare cases, when a lot of investigation cases were added or archived, there could be an issue for working queues that worked on the the same cases.
- The system could have crashed when deleting a challenger in which rule generation was running.
- When a user changed their password, Safer Payments did not invalidate the old session ID and other session related tokens.
- When adding a new defined risk list entry from a query, the default life time is now correctly setup. Also, risk list entries are enabled by default during creation (APAR PO09362).
- The user form in the new User Interface would show the settings for masking values even when the encryption on the instance was disabled (APAR PO09323).
- The internal calculation of available/used memory on the RHEL system have been improved by fixing 32-bit integer overflow problem and taking into account MemAvailable or SReclaimable field values from /proc/meminfo to provide more accurate results (APAR PO09166, PO07255).
- If checksum check was enabled and transaction data contained a double quote followed by a closing curly bracket, the FLI could get stuck (APAR PO09335).
- Clicking on a row in the case histories and aggregated audit trail tables changed the URL of the page but did not load the case that belonged to that URL.
- The MCI was temporarily deactivated during cluster page save when it was not necessary (APAR PO09361).
- It was not possible to add a new MCI endpoint with SSL set up to read certificate passphrases through the console. The application would not ask for a passphrase and fail to open the new endpoint. Only during startup could certificate passphrases be entered.
- There was a potential deadlock while computing index and updating KPI which could block incoming computation and block the instance from shutdown.
- MCI doesn't accept new connections after disabling SSL.
- During deferred writing it was not checked correctly whether the chunk about to be written was within the safety margin of the MDC. Potentially records outside of the MDC were written to DDC.
- When working with case attachment, any simultaneous action on it, like changing and viewing it at the same time, could result in a blocking instance that needed to be restarted.

Minor changes

- The online help was updated to note that the ephemeral port range should not be used for the interface ports of the Safer Payments instances (APAR PO09134).
- Add exception handling while adding the same condition to the rule (APAR PO09187).
- When trying to delete a simulation query using the form button the browser would navigate to the revision selection page and show a deletion confirmation popup to the user. Clicking on "Confirm" then resulted in a "Cannot find model revision" error message. The query was not deleted.
- The simulation report would show an incorrect message when the selected instance for a simulation was not enabled for simulation (APAR PO09138).
- Download of files that contain non ASCII characters on the filename are now correctly named (APAR PO09346).
- On "Administration > System > Configuration > Interfaces >Application Programming Interface" the meaning of the option "Use default HTTP headers" was backwards. To actually use the default HTTP headers, the setting had to be disabled. It was also not possible to enter multiple HTTP headers as the form only supported a single-line text input.
- Kafka failover was not triggered when removing instance from cluster.

Download instructions

Download IBM Safer Payments 6.2.1.04 from IBM Fix Central.

Follow the installation instructions

For installation instructions, see the IBM Safer Payments Implementation Guide.

Download the installation image

Use the following link to download the installation image from Fix Central:

Download link	Release Date	Language	Size
Safer Payments 6.2.1.04 download link	30 Jul 2021	English	161.36 MB

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- SHA-256

  SaferPayments_6_2_1_04.zip:

  3b4e1c7522831c506f4c6b001c3c48e7b58620eaf4d15b206ddbc062a58fc3b5
- MD5

  SaferPayments_6_2_1_04.zip:

  4274c7e5e06d93cf932e78bf748a5cb0

Chapter 9. 6.2.1.05 Release Notes

The Release Notes contain information about new features, update information, fixes, and known issues in IBM Safer Payments 6.2.1.05.

This release changed the version number from 6.2.1.04 to 6.2.1.05 and contains no impact changes according to PA-DSS.

What's new

IBM Safer Payments 6.2.1.05 includes enhancements.

Release highlights

- None

Additional enhancements

- The words "blocklist" "blocklist" "allowlist" "allowlist" were replaced with the words "blocklist" "block list" "allowlist" and "allow list" in the User Interface (APAR PO09400).
- On all pages where a date selector is shown a hint is shown now which timezone the date and time is in.
- New log messages were added to mark the FLI buffer roll over.

Update information

IBM Safer Payments 6.2.1.05 includes changes that you need to know about if you are updating from an earlier version.

- We are no longer supporting Python 2.6 version. If you were using this version make sure to first upgrade the Python version on your system to a version that is supported by Safer Payments. Python 2.7 will still work as before.

Change log

IBM Safer Payments 6.2.1.05 includes major and minor bug fixes and APARs.

Critical changes

- None

Major changes

- Remote instances could crash when running a curtail masterdata job (APAR PO09584).
- An instance could be invalidated after restart when a revision was created, then the instance was shutdown, the API instance was changed and a golive was triggered on the new API instance.
- When changing pages in the User Interface there was a chance that the user will get an Unexpected Error page (APAR PO09240).
- The maintenance function "skip current FLI messages" was displayed in the maintenance dropdown even when user privilege "Reset FLI" was missing, causing a popup privilege error when executing the maintenance function.
- An instance could crash in rare cases if the operating system was able to open a file but could not close the file properly for some reason (APAR PO09547).

- Earlier log message number zero was used to log "allocation / deallocation of an attribute's simulation MDC". To keep this simulation logging enabled all the time, a dedicated log message number 826 was added since log message number zero is for development purposes.
- Deactivating the MCI when Bypass was enabled could cause a crash (APAR PO09553).
- Switched OpenSSL 1.1.1.k to OpenSSL 1.1.1.l as countermeasure against CVE-2021-3711 and CVE-2021-3712.
- The performance on the User Interface has been improved when performing changes in the forms for configurations with many mandators.
- The "setOffline" request did not close files obtained by the application before this fix, which could have caused problems during backup of an instance after using the "setOffline" request. Now after the "setOffline" API request execution, all files obtained by the application instance except the backtrace file will be closed. The request "setOnline" will re-obtain files.
- The End of day job performance was improved during index purging for configurations with many mandators (APAR PO09426).
- It was possible to do certain changes, e.g. copying/deleting elements via context menu, on a revision that was waiting to perform a golive, e.g. if interlock was enabled and the instance had to wait for the required number of instances to be available. In that case a remote golive could have failed, causing the remote instance to shut down and become invalidated (APAR PO09477).
- When saving the settings page it would always say that the watchdog and persistent connections thread pool values had changed even though there was no change to these settings.
- When a cluster update happened on an instance while it was shutting down a crash could occur. It could for example happen during a restore on the restore recipient instance (APAR PO09480).
- Starting a simulation while saving a revision element could cause a crash (APAR PO09483).
- Query results could contain invalid JSON, if the query did not include the DDC and the CSV export options for nil values were set to "empty value" and the query returned data that was only available in DDC but not MDC. Under these circumstances the query result would not load and produce an error on the user interface (APAR PO09452).
- The retention administration page could only be fully utilized by users that had the role privilege to either view the model tab on all mandators or to view the mandator administration for all mandators. Additionally the user also needed the global privilege to view the system configuration. Now only the global privilege for retention administration is needed. Note though, that this privilege still allows a user to view the hierarchy of mandators on the retention page.
- When having more than one instance in the cluster, filtering the status alarm indicators in the dashboard would cause some SAIs to be duplicated (APAR PO09440).
- When starting a rule report "without context", a complete simulation would be started instead of just simulating the elements relevant for the simulation of this particular rule like it was in the old User Interface.
- It was possible that index entries and entries in index using elements such as masterdata, events, calendars and device identifications were duplicated after running a recreate index job with deferred writing enabled (APAR PO09454).
- In the User Interface the date selector did not allow to define the time in hours, minutes and seconds in following places: defined risk list import page for expires / starts at, case transition "follow up on" field, defining a timestamp reporting attribute in create CPP from a query. Additionally, the timestamp that was saved was not at 00:00:00 of the user's timezone as expected.
- Investigation cases from different Index Based Evaluation case classes using the same index were not consolidated (APAR PO09444).
- SP instance while starting up could be wrongly considered to be ready to process transaction, resulting in wrong evaluation of number of active instances in cluster for the interlock functionality (APAR PO09462).
- The privilege check for 'unreserveCase' request was simplified to avoid unnecessary no privileges errors (APAR PO08515).

- The justification code was missing in the data sent to the server with the request of a bulk case transition, which prevented the transition from being executed in the case of a mandatory justification code (APAR PO09470).
- Safer Payments now support all Python 3 versions starting with 3.2.
- When a PMML model component is copied, the uploaded PMML file would be copied as well. Therefore, the PMML model file won't be missing (APAR PO09379).
- When saving the same model element twice at the same time, the system could have crashed if during save an output attribute was replaced (APAR PO09446).
- Saving the simulation data selection repeatedly during a small frame of time could lead to a crash (APAR PO09449).
- Model test (sandboxing) functionality was not working for PMML models and internally trained models.
- While an instance is offline, it was possible for its interfaces to become active when cluster update action is performed. Now interfaces of an offline instance would not be activated even after cluster update actions. Also a new status named "Offline" is added to indicate the status of an offline instance in the cluster settings page (APAR PO09284).
- Deleting a Key Performance Indicator could rarely result in an application crash.
- A backtrace could have happened in index based evaluations due to outdated condition references.
- A deadlock could have occurred when a modeling workflow was running in a challenger revision and at the same time the revision was deleted or taken over by a user who did not have simulation memory assigned (APAR PO09461).
- Using cluster interlock can result in golive being stuck for long time, if restore is in progress with in the cluster. This fix let's golive proceed if minimum active instances condition is satisfied (APAR PO09378).
- When simulating rules, more rules than necessary could have been simulated leading to prolonged simulation times. Rules that alter the same outputs and are computed before the simulated rules are automatically included. However, rules that are computed after the simulated rules were also simulated although not required to get valid simulation results (APAR PO09428).
- In attribute settings of the User Interface, after changing storage type to "not stored" the attribute could only be saved if the DDC capacity had been set to 0 manually before that.
- The default storage type and xdc capacities defined in system configuration were not used when creating new attributes in counters, profiles and device identification. Additionally when changing storage type in an attribute definition capacities could have been predefined to zero instead of the default value (APAR PO09397).
- Large redundant data was stored in the configuration file when the storage type in an attribute definition was changed and saved from the User Interface (APAR PO09410).
- Performing a change on an attribute in a sub mandator while executing a golive on an upper mandator, could lead to a crash (APAR PO09495).
- Changing the data selection on a rule generation that is already running could lead to a crash (APAR PO09450).
- Simultaneous shutdown of MCI interface and a MCI connection request could result in an instance crash. Closing an MCI connection during deactivation of the MCI might be slower than before in case the sending side keeps the connection to SP open until the MCI is deactivated. In a worst case scenario the overall additional time it takes during the deactivation of the MCI could be the number of connections * 1 second (APAR PO09435).
- A defect in outgoing persistent connection might cause the User Interface to become unresponsive.
- When Text or Hex values were computed with Python, used in Conclusion or Formula expressions, the return values leaked in memory (APAR PO09405).

Minor changes

- The User Interface was attempting to parse any response as JSON and would fail for example when a Proxy/CDN returns a non JSON response which gives the "Unexpected token < in JSON at position 0" message, this behavior is now replaced with a more informative modal (APAR PO09504).
- A new event log id 827 was added for errors from file closing, instead of using the event log id 0.
- Writing large numbers in the time field of a date picker field caused the selected date to change to a value further in the future (APAR PO09540).
- The application's built-in help did not explain how privileges to change a given type of element on one mandator affect other mandators. The change privilege on one mandator actually implies a view privilege on higher mandators to avoid creating duplicate elements. A hint was added to the online help for user accounts.
- The ability to filter the Status Alarm Indicators by instance on the dashboard was missing from the User Interface.
- Position settings for Status Alarm Indicators were not reflected on the dashboard page (APAR PO09326).
- The charts of the dashboard wouldn't automatically refresh after the configured refresh interval. The values were also not reloaded after manually refreshing the page (APAR PO09319).
- It was not possible to delete a modelling workflow, if it was used in a simulation of a challenger or a retired revision within the same mandator. It's now possible to delete workflows as long as they are not used within its own challenger or challengers of submandators (APAR PO09298).
- Normally users that can change an element on a lower mandator automatically are allowed to view this element type on higher level mandators. This behavior was not true for index based evaluations. The table did not include higher level mandators if the requesting user only had the privilege on a lower level mandator.
- Sending the "confirmGolive" API request with an invalid revision uid caused the API instance to create a backtrace and a fatal error log message (APAR PO09386).
- The icon of the "count number of records" action available for simulation and investigation queries was changed to an uppercase sigma.
- The revision general page did not show the revision status information correctly. Also the menu bar showed incorrect info text that the revision would be editable during golive report.
- In reports, if every value of a report result row is 0, a hint text is displayed now instead of a pie chart with invalid data (APAR PO09545).
- In the case workflow definition it was possible to set a comment for a case transition as mandatory, but not allowed, which could block the user from submitting the case transition.
- In the General Revision Settings page, a pie chart will be displayed only after a user clicks a value in the Memory Statistics table. Now the "MDC memory consumption" column is selected by default. Users can still click other columns to change the displayed chart. Additionally, a misleading text was displayed when the selected column did not contain enough data to display a pie chart.
- Sorting of numeric columns in query results that belong to output attributes would be sorted alphabetically instead of numerically (APAR PO09488).
- The persistent connection occ is cluster dependent. Its configuration of connection pool priorities was not adapted to the cluster change.
- For model revision elements, the "New element" button is active for inherited elements, even though that is not possible.
- The version information was removed from getUserProfile API request. There was no further impact for the User Interface or server.
- There were some typos in the online help and the User Interface which have been corrected (APAR PO09441).
- In the User Interface, shortcut Ctrl+S didn't save changes done to date fields when the field was still focused.

- When adding a new common point query it was not enabled by default in the User Interface.
- It was not possible to filter for defined risk list entries that were last edited by deleted users. Entries from all users will now be displayed when no user is selected in the filter (APAR PO08657).
- In attribute definition and in default xdc capacities setting in system configuration of the User Interface, it was not validated that the MDC is smaller or equal to DDC capacity. This however was validated on server. Additional validation behavior was improved in attribute and index sequence settings.
- Adjusted the displayed values in the query results when the attributes were not present in DDC and "include DDC" is disabled in the query, and when data is not available (APAR PO09132).

Download instructions

Download IBM Safer Payments 6.2.1.05 from IBM Fix Central.

Follow the installation instructions

For installation instructions, see the IBM Safer Payments Implementation Guide.

Download the installation image

Use the following link to download the installation image from Fix Central:

Download link	Release Date	Language	Size
Safer Payments 6.2.1.05 download link	28 Oct 2021	English	161.413 MB

For information about using Fix Central, see Fix Central help.

Compare the checksum

Use the following hashes to verify the integrity of the download file:

- SHA-256

  SaferPayments_6_2_1_05.zip:

  d28bae2bfba69d018f3064fab20bc82f141b9b1972753d6bcfadfd43ffb66e42
- MD5

  SaferPayments_6_2_1_05.zip:

  c57ed92a545f84fe3a862c37e57d874e

Chapter 10. 6.2.1.06 Release Notes

The Release Notes contain information about new features, update information, fixes, and known issues in IBM Safer Payments 6.2.1.06.

This release changed the version number from 6.2.1.05 to 6.2.1.06 and contains no impact changes according to PA-DSS.

What's new

IBM Safer Payments 6.2.1.06 includes no new features and enhancements.

Release highlights

- None

Additional enhancements

- None

Update information

IBM Safer Payments 6.2.1.06 includes changes that you need to know about if you are updating from an earlier version.

- SQL notifications previously only worked by manually adding single quotes around attribute placeholders in the message template. This is not required anymore and will actually result in errors now. If you've been using SQL notifications in the past, please update them accordingly.

Change log

IBM Safer Payments 6.2.1.06 includes major and minor bug fixes and APARs.

Critical changes

- None

Major changes

- In very rare situation it was possible that SP was temporary blocked and looked like it was in a deadlock state. This mostly happened during high-traffic / high computation situations (APAR PO09661).
- There was a possibility of a deadlock during golive if the Status Alarm Indicator or Key Performance Indicator of type 'retention usage' was computed in parallel (APAR PO09455).
- Fixed a crash that could happen to an instance in rare cases where the outgoing FLI would timeout (APAR PO09610).
- Instances could rarely crash during golive when sending a message without message ID and having bypass enabled (APAR PO09576).
- In rare cases a model element could have been saved while simulation was running on a remote instance, which could have caused a crash on the remote instance (APAR PO09552).
- The retention settings page on the administration tab overestimated the memory and disk space needed to perform resizes. The computation assumed that both the old and new requirements need to be satisfied at the same time to perform the resize. This meant that if resource utilization was quite high already, further changes to the retention settings were not possible even if those changes would have overall reduced memory and disk consumption. We changed the calculation now to be more

conservative. During a resize only the larger of the two requirements (old or new) is required as well as an additional temporary buffer only needed during the resizing process itself. The additional buffer is required for both memory and disk space but is always only as large as the data cache of the largest attribute according to the new retention settings. The retention report was adjusted to give a better overview of each mandator's memory consumption, both old and new, as well as a clear explanation of any errors that happened.

- Case actions applied dashed pan formatting to every masked value of an encrypted numeric attribute even if that attribute did not specify dashed pan formatting in its settings.
- Case action previews showed masked values to an investigator even if that investigator was not allowed to view any values of encrypted attributes at all. This happened only if the outgoing channel configuration enabled masking of attribute values as that setting took precedence over the masking privilege of the user account. The new behavior completely ignores the outgoing channel configuration's setting within case action previews.
- For systems with many mandators the query performance and simulation performance was improved in case all mandators are selected or in case only a few are selected that only contain a small subset of the overall transactions (APAR PO09639).
- An instance could have crashed when starting a simulation while saving a model element.
- Attempting to create an external model would fail as the program would claim that there was an error that could neither be seen nor corrected.
- The application could crash when running the logical golive.
- In user-interface many numeric data fields did not allow numbers larger than 2,147,483,647 (APAR PO09640).
- When using remote simulation then after saving rule generation settings the simulation was stopped and needed to be started again in order to allow running rule generation. Additionally changes from saving only showed up after saving a second time.
- Rule generation's "intercepted by existing ruleset" row would count every rule hit (APAR PO09443).
- When a message in HTTP format was followed by messages without an HTTP header on the same MCI thread, the subsequent messages were either not computed correctly or not stored (APAR PO09522).
- A crash might happen when the user disabled MCI while bypass was running or when MCI was already disabled before bypass kicked in (APAR PO09641).
- The order of computation in simulation was different than the real time computation. In simulation, profilings were not computed mandator wise but type wise, i.e. instead of iterating through all profilings of the head mandator first, then moving to the next lower mandator etc, it would simulate the calendars of all mandators, then the patterns of all mandators etc. As a result, if there were dependencies across different mandators, the simulation result would differ from the production result (APAR PO09104).
- Attribute can be removed although it is still used by a submandator revision that is waiting for golive confirmation (APAR PO09620).
- When performing a head mandator golive in between simulations of a sub mandator including output or overwritable input attributes of the head mandator, the application could crash or incorrect simulation results could be produced (APAR PO09611).
- The incrementing of closed cases and not closed cases in investigation reports was incorrect. Cases closed as Genuine would increment the Fraudulent field. The Unknown field also used to increment incorrectly. In addition, the user-defined cases and Created cases were reading their values from the wrong variables (APAR PO09215).
- Safer payments in rare occasions could have miscalculated whether the FLI buffer was full and needs a rollover.
- When updating masterdata manually or from rule actions, the change would be written synchronously to disk when deferred writing was enabled causing additional disk access (APAR PO09607).
- An instance could have crashed when running multiple simulation reports in parallel, which can happen via rule reports (APAR PO09383).
- A deadlock could have happened when deleting a mandator while running a query (APAR PO09331).

- A user without cpp privileges was receiving an error when trying to create a case from an executed query (APAR PO09621).
- In earlier versions, masterdata conditions in case selection page would incorrectly evaluate "not" based operators like "not equal to", "not starts with" etc. It has been fixed and now masterdata conditions in case selection page would return correct results for "not" based operators (APAR PO09340).
- Previously when trying to delete an attribute no check was performed if the attribute was used in an export job. Now such a check is performed (APAR PO09300).
- Running a simulation with low available memory would show an incorrect error message suggesting that simulation wasn't available rather than one indicating that there was insufficient memory (APAR PO09613).
- The "Private client key password file" label in Bypass settings was duplicated, the first field should be labelled "Certificate private key file" (APAR PO09537).

Minor changes

- When multi value masterdata was started with limits, the limited value could be persisted on disk, if a revision write operation was triggered; for example when copying a revision or performing a golive. Multi value masterdata also uses the limit_index parameter which could result in unexpected capacity values. A dedicated start-up parameter limit_multi_value_masterdata was introduced to limit the capacity to the desired value (APAR PO09673).
- In case multi value masterdata is corrupted for example due to a previous crash and infinite loops exist in their internal structure, the instance could become stuck.
- When trying to select multiple rules and enable or disable them, an error would occur if any of the rules had a condition regarding an encrypted attribute.
- Archiving audit files when they are already archived overwrites the archived .latest case file.
- SQL notifications could not be executed due to the attribute placeholders being replaced with the attribute's value. A potential workaround was to include single quotes in the message template to surround each attribute value. In this version the behavior was changed to not require single quotes in the message template to be consistent with SQL case actions.
- Before the fix disabled PMML models were parsed during Sandbox testing. Now only enabled PMML models are parsed by Safer Payments during Sandbox Testing. The fix also disables Sandbox compute button while Sandbox testing is still running.
- Users could previously interact with certain pages under the Model tab without the associated privilege to edit a page. Interactive components within model pages are now set to read-only mode and cannot be interacted with if the user doesn't have the required edit privilege.
- Lists should always have at least one output value and condition, but on the new UI it was possible to delete the last value or condition and still save.
- User preferences for the field separator were ignored in CSV exports (APAR PO09465).
- Users who did not have the "Modelling..." privilege on their role were still able to see the "Modelling" pages within a revision.
- The numbers in the FLI status "Reconnecting" were shown incorrectly, and the numbers in the FLI status were displayed as floats instead of integers.
- Added help text for two settings, "Use IP address for session binding" (EnableIPSessionCheck) and "Use HTTP header X-Forwarded-For for session binding" (EnableXForwardedForCheck), in Authentication Settings within the Administration tab (APAR PO09508).

Download instructions

Download IBM Safer Payments 6.2.1.06 from IBM Fix Central.

Follow the installation instructions

For installation instructions, see the IBM Safer Payments Implementation Guide.

Download the installation image

Use the following link to download the installation image from Fix Central:

Download link	Release Date	Language	Size
Safer Payments 6.2.1.06 download link	21 Jan 2022	English	157.3 MB

For information about using Fix Central, see Fix Central help.

Compare the checksum

Use the following hashes to verify the integrity of the download file:

- SHA-256

  SaferPayments_6_2_1_06.zip:

  102253051016ee8f0d1c7f33faf60c1af858aaeec8a530345cb3c2d0b7b38bc6
- MD5

  SaferPayments_6_2_1_06.zip:

  7f5279ff13761516eb7be50529fc9c57

Chapter 11. 6.2.2.00 Release Notes

The Release Notes contain information about new features, update information, fixes, and known issues in IBM Safer Payments 6.2.2.00.

This release changed the version number from 6.2.1.06 to 6.2.2.00. It contains low impact changes according to PA-DSS.

What's new

IBM Safer Payments 6.2.2.00 includes enhancements.

Release highlights

- None

Additional enhancements

- Improved the performance for specific counters. Specific unnecessary computations were optimized for counters that don’t calculate amount computations.

Update information

IBM Safer Payments 6.2.2.00 includes changes that you need to know about if you are updating from an earlier version.

- A warning was added when running encrypted import file jobs without AES-CTR, as the previously used AES-CBC had known security issues. It is recommended to switch encrypted import jobs to AES-CTR.
- The remote wait factor was considered redundant with the introduction of interlock. It is recommended to use interlock because it ensures that recreate index jobs are not executed in parallel on multiple instances.
- To use external models, it is required to have the meta attribute “primary urid” and “urid computation complete” as well as the fraud mark index.
- The following API requests now enforce to use a POST request. Any potential scripts that use these requests must also use POST: 'Login, ChangeAuthAddress, InsertPin, ChangePassword, CreateDefinedRiskListImportSettings, GetCaseAction, IsPasswordValid, PathExists, Save, SendCaseActionFromPreview, SetMasterdata, SetQuickSearchCasesTablePreference, SetUserExportPassword’.
- To avoid remote code execution in spreadsheet applications, CSV exports are now prepended by a single quote when text values start with '=’, '+’, '-', '@’, ‘tab’ or 'return’. You can still switch to the old behavior by disabling “sanitize CSV exports” in Administration > System Configuration > Misc.
- Since version 6.0.0.10 Safer Payments has created a backtrace file every time it starts (called “backtraces_starting_at_[InstanceID]_[YYYY-MM-DD].iris”). This file was previously empty until a crash occurred. The file now has a line stating the version.

  If you have automated file management processes which move older log files to a separate directory then you should ensure that the backtrace files are not moved along with the logs. All backtrace files should stay in the logs directory, and if any of them contain more than a single line then they should be shared with IBM support.
- If the option to “Resolve uncached reporting attributes” is enabled, it will no longer show values for reporting attributes in the cases table which are not selected in the case class of the respective case. If you want to see additional reporting attributes, please enable the respective attributes in the case class. For existing cases, the values for the additional reporting attributes will be loaded from transactional data.

If you are experiencing slow loading times for the cases table, it is recommended that you disable the “Resolve uncached reporting attributes” and “Include DDC to resolve uncached reporting attributes” options, if they are not necessary for your use case. For more information, see the online help for more information.

- After a crash occurs, an instance is now automatically invalidated. Use an additional cli parameter “after_crash=start” to continue previous behavior.
- In case you use channel names with 20 characters, reduce the name to 19 characters to prevent MQ from connection issues for this channel.

Change log

IBM Safer Payments 6.2.2.00 includes critical, major, and minor bug fixes and APARs.

Critical changes

- The attach button in case investigation was always deactivated. The drop and drag functionality was not working (APAR PO09821).

Major changes

- The following elements allowed a user without the privilege to view unmasked data to create conditions to enumerate encrypted data: simulation data selection and target conditions, rule generation training and verification data selection and rule generation predefined conditions, random forest training and verification data selection, reporting query performance indicator, defined risk list entries, and defined risk list upload alert lists.
- A backtrace or crash could occur after a golive if the data from the champion to retire was accessed from a query, case investigation, etc (APAR PO09619).
- Improved restoration times on the Receiving side by optimizing the parsing functionality.
- The application crashed when trying to save a model generated by the random forest generator after it was stopped manually (APAR PO09721).
- Empty double quotes appeared in the response object if more than 10 rules were mapped from a client response. The fix introduces a sorting function to handle those scenarios (APAR PO09690).
- In rare situations, a crash might occur when conducting multiple save operations on a case. It can happen when a CPP or memo is saved multiple times for the same case during a short time frame, for example, by double clicking the save button (APAR PO09701).
- An option was added to load encrypted file jobs that use AES-CTR as cipher. The online help was updated to use this algorithm.
- In rare situations, the FLI connection hangs (APAR PO09686).
- The remote golive factor has been removed from the recreate index job form (APAR PO09682).
- Saving attributes with computation impact did not invalidate an active simulation, causing possible access to invalid data. Additionally when saving revision elements a warning popup will be shown when there is an active simulation (APAR PO09525).
- Maximum latency, FLI rate, and latency violations SAIs did not work correctly because the option for instance selection was missing from the user interface (APAR PO09751).
- Computation results were inconsistent between instances when using external models with mergings recomputation (APAR PO09743).
- In rare cases where a deadlock prevented a simulation from being stopped, it would prevent the API being disabled, which could result in two instances having an API enabled. This change prioritizes deactivation to prevent that scenario (APAR PO09481).
- Running a curtailing masterdata job could have caused a deadlock when index entries were update at the same time in parallel (APAR PO09664).

- The login request and other PADSS sensitive API requests were not rejected by the server when sent as GET instead of POST request. The requests that now enforce POST are: ‘Login, ChangeAuthAddress, InsertPin, ChangePassword, CreateDefinedRiskListImportSettings, GetCaseAction, IsPasswordValid, PathExists, Save, SendCaseActionFromPreview, SetMasterdata, SetQuickSearchCasesTablePreference, SetUserExportPassword’.
- Random forest generation within IBM Safer Payments ignored the conditions configured during data selection. This caused inconsistency in the number of records being processed during a simulation and random forest generation (APAR PO09646).
- In attribute settings, the table had incorrect data types.
- Compliance lists did not hit a record when the list used the metaphone setting and a search was done for more than one name (APAR PO09643).
- The missed cases report included cases whose generation time was within the selected time range, although the reference parameter is set to case closed time.
- During recreate index job the MCI, MQI and KQI interfaces were not closed when bypass was activated or when close during golive option was activated. This could have caused redundant deferred writing.
- In rare situations, a crash occurred if an analysis was deleted while being accessed by another part of the code. This change introduces protection to prevent a crash from occurring in that scenario (APAR PO09724).
- The table on the report page can sometimes show an extra column of data, misaligning the regular columns with their headers, and causing some columns not to be displayed.
- Generating a reporting query by a job resulted in a report that did not contain any headers for the columns. Now, the correct headers are included. In addition, CSV files exported from reporting queries and group by queries had the header for the grouping attribute as "Grouping attribute value", this also has been changed to reflect the actual name of the attribute. For both reporting queries, and group by query reports when they are used for rule performance, the header of the first column was changed from “rule performance” to "rule".
- The icon and text of the simulation progress component did not indicate that the simulation had started and was undergoing initialization. Now, a distinct icon and text line makes that transition is more apparent (APAR PO09601).
- CSV exports generated by IBM Safer Payments could trigger remote code execution when opened with an external stylesheet application that was vulnerable for remote code execution.
- To facilitate issue investigation, added a release string to the backtrace file (“backtraces_starting_at_[InstanceID]_[YYYY-MM-DD].iris”).
- The options to enable/disable “Resolve uncached reporting attributes” and “Include DDC to resolve uncached reporting attributes” were not available on the user interface. Added them to Administration > Configuration > Case Investigation. The default is false for new configurations.

  In addition, the cases table no longer show values for reporting attributes which are not selected in the case class of the respective case, as this could cause negative performance impact (APAR PO09399).
- Users with mask level ‘must not see values’ could still see constant values in clear text in the expression fields of conditions that used encrypted attributes.
- Salts for export jobs have been generated with a weak random number generator on client side, when not modified by user. Additionally, when not refreshing the browser, newly created export jobs got the same salt value.
- The latency report showed redundant computation element ‘unknown’ and printed ‘0’ instead of 'External Model’.
- On encrypted instances, a popup error could have appeared when opening a case creation page.
- Multiple buffer overflows have been fixed:

  - Configuring the MCI incoming buffer smaller than an incoming message causes the message to be written into invalid memory regions.

- Configuring the MCI response buffer to be smaller than 80 leads to the application writing parts of the response into invalid memory regions.

- Configuring the FLI buffer to be less than 80 Bytes leads to a buffer overflow whenever a configuration update or transaction message is synchronized.

- Triggering a case action from the “Potential first parties” section of a collusion case causes a null terminator to be written into invalid memory when the case action message placeholder "[Firstparty]" is used and the value for the first party has the maximum length of the first party attribute.

- Configuring the MQ interface to use more than 256 characters for most fields causes a buffer overflow inside the MQ library.

- The value for MQ Channel is not 0 terminated, possibly leading to security problems. The maximum length for the MQ Channel name is now 19 characters.

Buffer overflows in general can have severe security impact although it is hard to judge how exploitable the aforementioned overflows really are. Buffer overflows can also cause the application to crash in rare cases.

- An instance is now automatically invalidated after a crash occurs. This was changed because a crash usually causes broken data and data loss. Added a button in cluster user interface settings to force an instance to startup. Added an optional command line argument “after_crash” to enforce different startup behaviors.
- If a user swiped over a component with a tooltip on a read-only page, the tooltip message box remained open after the user moved the cursor away. The tooltips now disappear as expected (APAR PO09413).

Minor changes

- When restoring one instance from another, the checksum calculations for each file are slower than necessary as they are only performed by single thread.
- Updated the online help as follows: removed the manual restore steps, added further information about simulation load balancing and server time zone setting, and replaced the word “blacklisting” with “blocklisting” (APAR PO09742).
- Updated the online help: improved the description of "Model Factory’s Relax All Up Threshold".
- Number of selected items is not shown in query result table (APAR PO09738).
- The UID assignment code for some elements was slightly refactored to remove the possibility that some elements could claim more UIDs than necessary (APAR PO09025).
- Code around the usage of conditions, internal model, random forest and lists computation was streamlined without a change to functionality.
- Sandbox records and modeling workflows could be deleted without the required privileges. Also, it didn’t require the proper privilege to create modeling workflows.
- Users would occasionally be presented with an incomprehensible error message when attempting to encrypt an attribute. This would occur when a rule conclusion existed that would overwrite or change the attribute in some way. The error message now provides easily readable information about which rule conclusion is blocking the change to encryption status.

Download instructions

Download IBM Safer Payments 6.2.2.00 from IBM Fix Central.

Follow the installation instructions

For installation instructions, see the IBM Safer Payments Implementation Guide.

Download the installation image

Use the following link to download the installation image from Fix Central:

Download link	Release Date	Language	Size
Safer Payments 6.2.2.00 download link	13 Apr 2022	English	157.31 MB

For information about using Fix Central, see Fix Central help.

Compare the checksum

Use the following hashes to verify the integrity of the download file:

- SHA-256

  SaferPayments_6_2_2_00.zip:

  5fcfb933addf307bcb10f2207b066cab826a7979ba546793ed170e442ece3801

- MD5

  SaferPayments_6_2_2_00.zip:

  3595aa06c03bd6b76de632f902ff4533

Chapter 12. 6.2.2.01 Release Notes

The Release Notes contain information about defect fixes, changes, and updating to IBM Safer Payments 6.2.2.01.

This release changed the version number from 6.2.2.00 to 6.2.2.01. It contains No Impact changes according to PA-DSS.

What's new

IBM Safer Payments 6.2.2.01 includes no new enhancements.

Release highlights

- None

Additional enhancements

- None

Update information

IBM Safer Payments 6.2.2.01 includes changes that you need to know about if you are updating from an earlier version.

- To use external models, it is required to have the 'Primary URID', 'Primary instance ID', and 'URID computation complete' meta attributes and the fraud mark index.
- Review the definition of remote look up indexes. Ideally, the remote lookup index should provide a value for every transaction. Otherwise, it is possible to see occasional empty values for reporting attributes in case investigation (cases table, case history, case actions, external queries, CPPs) when values are not stored in the case data but need to be read from the transactional data of the case alarm. This does not affect embedded investigation queries.
- The option of record purged entries is automatically enabled if the purged outdated entries is enabled.
- The attribute 'system time' of the server response of a message of type JSON now uses the same date format as messages of type XML. This means that the format changed from yyyy-m-d to yyyy-mm-dd, so days and months with a single digit now contain a preceding 0.
- In past versions, unnecessary attributes were simulated, resulting in additional memory requirements because rules and final rules were automatically added to the simulation if they change the same conclusion attribute as a rule selected for analysis. Now, only selected rules are simulated. If all rules affecting a certain attribute are required (the previous behaviour), make sure to explicitly enable this attribute for simulation in Model>Modelling>Attribute settings.

Change log

IBM Safer Payments 6.2.2.01 includes critical, major, and minor defect fixes, APARs, and changes.

Critical defects

The following critical defects were fixed:

- Safer Payments hangs and some operations never finish. Certain operations, for example, disabling or changing FLI, SCI, or MCI, are more likely to cause the problem even though they themselves might not hang (APAR PO09870).
- Retrieving data for reporting attributes from transactional data during case investigation takes too long if the remote lookup index cannot be used to find the unique record IDs (URIDs). Now, the

search is omitted and it is assumed that the remote lookup index provides a URID for each case. As a consequence, it is possible to see occasional empty values for some attributes if a case (alarm) does not have a value for the remote lookup index (APAR PO09813).

- Broken multivalue masterdata is erroneously detected during data deletion that involves relationship attributes (APAR PO09809).

Major defects and changes

The following major defects were fixed and major changes were made:

- Computation results of counter and precedent on remote instance are missing when external models exist.
- Data is inconsistent due to the omission of the primary instance ID in external model synchronization.
- Data is inconsistent due to a defect in the index search for external model synchronization.
- A crash occurs if a defined risk list is concurrently queried and modified (APAR PO09854).
- In the user interface, it is not possible to set multiple emails as to address in notifications (APAR PO09398).
- Now, simulation automatically detects rule condition attributes that need DDC access and informs the user in the report (APAR PO09839).
- Deferred writing is needlessly interrupted when mandators, messages, working queues, key performance indicators, status alarm indicators, charts, case classes, case close codes, case workflows, case states, case user groups, notifications, external queries, or reminders are saved (APAR PO09594).
- Added a button to the System Internals general page to export the page to a zip file.
- The preview for case investigation attachments does not display images (APAR PO09114).
- A crash might occur when analysis is stopped multiple times (APAR PO09723).
- The user interface unnecessarily displays 'is true / false' in the expression field for conclusion operators (APAR PO09630).
- When a malformed transaction message is received, the system issues a misleading log message that FCD data stream is faulty even though the message type is not FCD (APAR PO08856).
- Broken multivalue masterdata is erroneously detected during data deletion (APAR PO09808).
- Updated OpenSSL to 1.1.1n.
- MCI bypass connections fail with a certificate error when the target MCI endpoint validates client certificates. This problem is caused by the bypass connection not sending the configured client certificate.
- In rare situations, a backtrace or crash occurs after a golive if the data from the champion to retire is accessed from analysis, reports, simulation, query count, or some maintenance functions.
- A crash might occur during case investigation and escalation-related operations when a golive is run in parallel (APAR PO09205).
- Remote instances crash during startup after another instance prints the log message: "513 Could not initialize incoming socket for StatusControlInterface" (APAR PO09878).
- A crash might occur due to an out of memory error during computation. Now, required memory is calculated to avoid such a crash, and the peak memory usage for random forest generation is reduced (APAR PO09735).
- The timed rollover setting for calendars is not available in the user interface.
- The system information page can show a wrong number of open MCI connections if multiple MCI connections get opened or closed at the same time (APAR PO09834).
- Documentation for maintenance function 'Create conclusion expression pair list' is missing in the online help (APAR PO08906).
- The maintenance function 'create conclusion expression pair list' does not work in the user interface (APAR PO09292).

- Scheduled jobs are potentially run twice instead of once (APAR PO09769).
- When revisions are compared, the message "changedNoImpact" is shown as a comparison result for an index even though no field is shown as changed, and the index has indeed not changed (APAR PO08218).
- Realtime interception code for the conditions field shows an invalid verdict even with the valid code (APAR PO09484).
- When revisions are compared, changes to FCD mappings display only if both start and length were modified. The change is excluded if either start or length was modified (but not both). Now, the change displays if either or both start and length are modified.
- For security reasons, fields for entering sensitive data now explicitly set autocomplete to off.
- When comparing revisions and using the audit trail, the following attributes are missing: 'Retry mergings', 'Max merging attempts', 'Retry wait time', 'Update calendar profiles', and events fields for 'Mergings'. Even if 'Enforce time' is cleared, 'Tolerance days' incorrectly displays in the revision compare (APAR PO07683).
- Removed the version information of libraries from 'main.js'. This change was made for security reasons.
- The constants of encrypted conditions in rule or random forest generation display as encrypted values instead of clear text.
- It is possible to create reports with an invalid data range by using a script (the from date value is larger than the to date value).
- Added the 'SameSite=Strict' directive to the Http cookie that is set during the user login. This change was made to reduce the risk of Cross-Site-Request-Forgery (CSRF) attacks.
- An error occurs when a reporting query is run with rule performance checked.
- Now, additional information is logged to more closely investigate and monitor the simulation operation.
- When comparing revisions, an error is issued if changes to an external model were made between these two revisions (APAR PO09896).
- List element is shown as changed in revision comparison result if it has more than two output values, even though there is no change between these two revisions (APAR PO09760).
- Now, data loading when a doublet is detected is only performed on the primary instance (APAR PO09815).
- Enhanced the index performance after index size is increased. Fixed a potential buffer overflow after index size is decreased (APAR PO09578).
- Using retention by time can lead to increased computation latencies for huge configurations. Now, there is no difference in the computation flow between retention by records and retention by time. To limit the visibility of data to the configured retention periods, the end of day job removes outdated values from the data caches in a process called "trimming". For more information, see the online help for Administration>System>Retention settings (APAR PO09816).
- Saving rule generation settings with a condition that uses an encrypted attribute fails. This problem leads to an invalid revision being sent using FLI, causing remote instances to remove all elements in that revision (APAR PO09805).
- In rare situations, a crash occurs when simulation data selection is saved while rule generation is running.
- When messages in JSON format are used, the server response from the message contains an inconsistent format for the attribute 'system time' compared to when messages in XML format are used. In the JSON response, changed the format from yyyy-m-d to yyyy-mm-dd, so days and months with a single digit now contain a preceding 0 (APAR PO09279).
- In rare situations, a crash occurs when a case is exported from a cases table export while the working queue of the case is unassigned from it, for example, because a user started investigating the case (APAR PO09223).
- Extract query data functionality is missing in query result tables in the user interface. Validation for the extract query template is also missing. Now, the whole extracted data can also be copied with the Confirm button in the pop-up window (APAR PO09714).

- A crash might occur when a defined risk list entry is saved while it is being computed. This problem is due to a read access violation (APAR PO09631).
- In past versions, unnecessary attributes were simulated, resulting in additional memory requirements because rules and final rules were automatically added to the simulation if they change the same conclusion attribute as a rule selected for analysis. Now, only selected rules are simulated. If all rules that affect a certain attribute are required (the previous behavior), make sure to explicitly enable this attribute for simulation in Model>Modeling>Attribute settings.
- Now, group by queries can use all valid attributes in conditions (APAR PO09212).
- The responder URL field on the MQI configuration page is erroneously marked as required (APAR PO09727).
- "Include DDC" cannot be enabled for Counters and Precedents.
- Model elements like counters and events do not display the peer index aspect attribute when the form is opened from within a challenger (APAR PO09732).
- Creating cases manually with Boolean reporting attributes always results in a validation error.
- Modified the purging mechanism to replace outdated values with constant values that are easier to compress. This change increases the performance of the restore (APAR PO09871, PO09872).
- When data is exported, the attributes that are stored only in DDC are ignored even if the 'includeDdc' checkbox is checked. Now, data for the attributes that are stored only in DDC can be exported (APAR PO09695).
- A crash might occur if successive simulation reports are not explicitly canceled by clicking the "Stop simulation" toolbar action before leaving the page. Now, simulation check report cancellation requests are automatically sent when leaving the report page, regardless of the means (APAR PO09394).
- Condition operators 'same/distinct Bnet/Cnet' had no short string representation in table columns and other places. The short string representation for conclusion operator 'is (if not empty)' was slightly adjusted.

Minor defects and changes

The following minor defects were fixed and minor changes were made:

- Text is missing in the Model Rules deletion dialog.
- If simulation is interrupted, a false Fatal Error code might be logged.
- Backtraces are written to multiple different files, and old empty backtraces are not deleted during startup.
- The mdc or ddc storage capacities of an attribute are incorrect in the audit trail. The values of 'limit_mdc' and 'limit_ddc' command-line arguments are shown (if applied) instead of the capacity that the user defined.
- The Show reference button for attributes of patterns causes an error. Removed the Show reference button for counters because counters cannot have references. Also, the Show reference button for attributes of events incorrectly shows untranslated text (APAR PO09867).
- Streamlined the code in PMML (Predictive Model Markup Language) without a change to functionality.
- If the simulation of a PMML (Predictive Model Markup Language) random forest model is stopped and simulated again, the model is not simulated, which causes empty output attributes (APAR PO09236).
- Some formulas in the online help display incorrectly, for example, formulas in Summary Statistics, Masterdata, and Calendar Profiles (APAR PO09387).
- In Model, final rulesets and rules are visible even when they are not enabled in the mandator.
- Values in the "Account" and "Period" columns incorrectly show in the reporting query results table (APAR PO09770).
- For rebuild index, added a log message that indicates progress when nilifying large sequence attributes. For reset index, improved the log message to indicate progress. The new log messages for nilifying

sequence and reset index have log ID 841 and 840, respectively. Log messages for rebuild index and reset index are now also in the console log (APAR PO09789).

- Improved tooltip text for Reserved RAM in System Internal -> General Information, Enable extended authentication, Case consolidation, and Message for MQ Queue. Added more online help information for KPI type of FastLink message rate, Heartbeat, Case consolidation, and Message for MQ Queue. Added Reporting query to the online help. Updated the pop-up warning message about master key change.
- Added an option to the System configuration that allows compression to be disabled during a restore.

Download instructions

Download IBM Safer Payments 6.2.2.01 from IBM Fix Central.

Follow the installation instructions

For installation instructions, see the IBM Safer Payments Implementation Guide.

Download the installation image

Use the following link to download the installation image from Fix Central:

Download link	Release Date	Language	Size
Safer Payments 6.2.2.01 download link	29 Jul 2022	English	150 MB

For information about using Fix Central, see Fix Central help.

Compare the checksum

Use the following hashes to verify the integrity of the download file:

- SHA-256

  SaferPayments_6_2_2_01.zip:

  7f17a6569e76df7721546bb8e0f3bc9060505df69f9a0d8850f715af4ba0e76e
- MD5

  SaferPayments_6_2_2_01.zip:

  7636ca23b02f0f3bdf1cfe70d77b64ef

Chapter 13. 6.2.2.02 Release Notes

The Release Notes contain information about defect fixes, changes, and updating to IBM Safer Payments 6.2.2.02.

This release changed the version number from 6.2.2.01 to 6.2.2.02. It contains No Impact changes according to PA-DSS.

What's new

IBM Safer Payments 6.2.2.02 includes no new enhancements.

Release highlights

- None

Additional enhancements

- None

Update information

IBM Safer Payments 6.2.2.02 includes changes that you need to know about if you are updating from an earlier version.

- After the update, transactions always use only a single FLI message for synchronization. When external model components are involved, the FLI message is sent after all external model components have been processed. This increases the time until other instances in the cluster are made aware of a transaction. If aggressive fail-over mechanisms are employed for the online data interfaces and a transaction that does not compute in a given amount of time is resent to another instance in the same cluster, the same transaction might be computed on multiple instances because neither instance can properly detect the doublet. All instances will thus perform the full computation, including the execution of external model components. You must consider the additional traffic in your external system setup. In cascaded horizontal scaling environments, where external model components are used to target other Safer Payments clusters, those clusters should now enable doublet detection to avoid problems caused by the same transaction being sent in from different instances of the primary cluster. When upgrading the cluster, you must disable FLI on all instances and enable it only on instances that have been upgraded.
- Added MCI response error code "1017". It is used for MCI messages that cannot be correctly computed due to index deletion issues.
- Log message "0490" now displays more often, usually in cases where "0361" was previously printed.
- When updating a cluster or a persistent connection type outgoing channel, it takes about five seconds to process after the save button is clicked. It will be improved in a future fix pack.
- Added more and stricter error checking for JSON mappings. Now, mappings that were previously accepted might be rejected, which might prevent startup. After the upgrade is complete, look for error message E0526 in the startup logs. If you find the error message, return to your configuration backup. Fix the incorrect mappings and attempt the upgrade again.

Change log

IBM Safer Payments 6.2.2.02 includes critical, major, and minor defect fixes, APARs, and changes.

Critical defects

The following critical defect was fixed:

- The CPU usage of an instance can reach 100% if more realtime threads are used than the number of CPU cores (APAR PO09914).

Major defects and changes

The following major defects were fixed and major changes were made:

- When bypass is enabled and the MCI uses SSL, a crash might occur during a structural golive. The crash occurs if the golive takes a short amount of time, for example, a few milliseconds if it is the initial golive of a new mandator. It is caused when the instance is establishing the SSL handshake while the golive completes and shuts down the bypass connection (APAR PO09934).
- During the end of golive, external models get no response from external systems.
- At the beginning of golive, MCI does not respond even if bypass is enabled (APAR PO09960).
- At the end of golive, MCI does not respond even if bypass is enabled.
- Golive is blocked due to starting bypass while MCI is inactive.
- The unrecoverable error message "Attribute reference in condition not found" displays if case selection attributes are added that do not belong to the selected mandators (APAR PO09632).
- During startup, the 'iris_sql_util.so' file cannot be loaded and an error message is displayed. On RHEL7, the message is "/lib64/iris_sql_util.so: undefined symbol: initImpl". On RHEL 8, the message is "iris_sql_util.so: cannot dynamically load position-independent executable".
- Errors about loading external fonts display in the browser debug console (APAR PO09191).
- Certain operations that require maintenance mode, for example, golives or saving a mandator, appear to hang in the user interface. Now, when a user performs an operation that requires maintenance mode (except for golives) and the instance is performing another operation in maintenance mode or cannot enter maintenance mode, the operation is canceled. The user is warned and must retry later. When a user performs a golive when maintenance mode is active, the golive is queued and the user is warned. In addition, the maintenance mode status was added to the cluster page and the revision information page. Help text was updated to better explain maintenance mode (APAR PO09570).
- An unrecoverable crash might occur if certain invalid mapping definitions are used to generate a message report or if those definitions are in use when a message is received. An example of an invalid mapping definition is a JSON element name that contains double square brackets (APAR PO09847).
- In the formulas under model components, saving the form by using the Ctrl+S keyboard shortcut while the focus is on the expression field does not save the formula expression correctly.
- Exporting a case table with masked data to CSV can result in incorrect columns. The defect happens when the user cannot see the masked values and the value is smaller than 10 characters. All the characters get replaced by X, including the separator (APAR PO09674).
- Cases and case audit files on a remote instance are stored as temporary files in an arc directory rather than as case files in an inv directory when the case is transferred over FLI. As a consequence the case cannot be worked on that instance (APAR PO09831).
- Expression elements that are generated from expressions that were pasted from Excel sheets do not remove special characters (white space, newline, and so on) from the expression. The user interface might crash if more expressions are added or if the newly generated ones are sorted manually by the user (APAR PO09445).
- If any number of rules are changed within a ruleset, revision comparison displays every rule in the ruleset as changed.
- Form fields that contain a message or body template are too small for most use cases. The user must manually resize them to be usable (APAR PO09818).
- When the option "format values" is used in an Outgoing channel configuration or case action/notification, the decimals for the amount attribute are lost (APAR PO08209).
- When extended authentication is enabled, after a user logs in with two-factor authentication, the navigation menu is not displayed. Additionally, the initially selected tab is not the "Start on tab" that is defined in the user's profile settings (APAR PO09796).

- The attributes that are available on the left side of merging conclusions depend on the system configuration setting "Mergings may use DDC" in Administration>System>Modeling. If the setting is not enabled, attributes that are stored only in DDC are not available in merging conclusions. In fact, the system setting should affect DDC access only for merging target conditions and termination conditions.
- In rare situations, a crash occurs when simulation data selection changes to a smaller URID range and the save hangs. Then, in the same moment, the user opens and runs a simulation report in another tab (APAR PO09850).
- A crash can occur during the end of day job if an index is corrupted and the index entry is purged (APAR PO09784).
- SSL handshake blocks the system when it waits for the response from external server (APAR PO09605).
- In the user interface, improved the performance of the external model page (APAR PO09749).
- The filter at the top of the model components page does not initialize correctly. If the filter selection is changed, the results are not updated correctly.
- When output attribute values are included in doublet detection responses, the output values might have random data. Added a checkbox that is named "Access protection for outputs". If it is selected, access protection is applied to doublet detection. Also, "retry" in access protection of mergings was renamed to "attempt" (APAR PO09868, PO09814).
- On the Own Input Attributes page, default storage options are displayed for existing inputs and outputs rather than the saved options.
- In rule conclusion under model revision, if the attribute's data type is anything other than numeric or timestamp and a Python function without parameters is added in the expression field, an error message displays and the conclusion cannot be saved.
- A crash might occur if a broken timestamp in YYYYDDDhhmmss format, for example 2022000000000, is sent (APAR PO09882).
- In rare cases, the FLI buffer gets corrupted and messages hang if the message header or the complete message exactly hit the buffer end during rollover (APAR PO09873,PO09900).
- In case investigation, actions like Followup and Close cannot be completed in Case History (APAR PO09857).
- Save and execute simulation query fails and stops simulation when simulation is running on a remote instance. Refresh simulation query result fails when simulation is running on remote (APAR PO09855).
- In case investigation, when an attachment comment in the attachments table is edited, the newly entered value is displayed in the table only after the page is reloaded.
- Improved message synchronization so that transactions use only a single FLI message. Up until now, Safer Payments used two FLI messages to synchronize a single transaction when that transaction involved the execution of external model components. This method of synchronization led to data loss and data inconsistencies due to the complexity involved in merging the two messages. Notably, in the gap between the two FLI messages, profiling elements like counters produced wrong results by counting (or not counting) unfinished transaction records (transaction records for which the second FLI message was not yet handled).
- When a multiline value is present in the title or explanation field in the compliance list xml, only the first line of the text is displayed on the Compliance List Hits pop-up. The appearance of the pop-up for entry details is inconsistent across several pages (APAR PO09557).
- The results of group by queries and reporting queries show incorrectly formatted values for timestamp grouping attributes. Also, the results do not take the Safer Payments time zone into account if the system time meta-attribute is used (APAR PO09894).
- If aggressive fail-over mechanisms are employed for the online data interfaces and a transaction that does not compute in a given amount of time is resent to another instance in the same cluster, multiple instances might compute the same transaction at the same time. In rare cases, both instances end up with the same transaction but with different primary instance IDs and URIDs. This leads to problems when fraud marking is performed. The likelihood of this happening is increased when external model components are used. Now, doublet detection handles these cases by correcting the primary

instance and URID of the found doublet. The system always takes the smaller primary instance and the corresponding primary URID and stores them in the doublet.

- Added data to the log message for corrupted FLI buffers (APAR PO09891).
- A crash might occur if rules are enabled or disabled while an analysis is running (APAR PO09910).
- Performance issues and errors occur in the user interface because queries are not correctly cleared from memory (APAR PO09920).
- If the simulation instance is set to an instance that is not the API instance, the getRevisionStatus request is forwarded to the simulation instance. It might contain trailing zeros or more characters at the end of the response that can cause 503 errors in combination with some proxies and load balancers (APAR PO09913).
- A crash might occur during rule generation if the page is refreshed at the same moment that the "Stop rule generation without saving" button is clicked or a rule is committed (APAR PO09885).
- Mandator memory limit is calculated with revisions that are not running (APAR PO09548).
- A reporting query might access invalid memory if it runs in parallel with golive (APAR PO09901).
- Simulation MDC is created for overwritable inputs when data for that input is already available in MDC.
- The connection to IBM MQ times out if MQ definition values, for example, the channel name or queue manager name, is longer than 19 characters (APAR PO09942).
- A crash might occur if simulation data selection is saved multiple times and the analysis that is included in the simulation is defined to use simulation data selection (APAR PO09935).
- Golives can hang if there is a simultaneous case action activity in the user interface to send case actions (APAR PO09952).
- A crash might occur when disabling MCI if bypass is applied earlier.

Minor defects and changes

The following minor defects were fixed and minor changes were made:

- The audit trail report does not include MDC and DDC retention values. Now, the fields are included (APAR PO09944).
- Improved the online help. Added information about multi-relations workflow, model revision golive, index internals, and latest latency violations. Added more details to information about batch jobs, MCI bypass, MCI XML format, and conditions. Corrected tooltip text for Show uncomputed simulation elements, CPP > Case group, Highlight CPP attributes, and Archive sent messages. Also, the error "This entry must be greater than or equal to 1" is now printed if the number of records is set to 0 in query definitions.
- An unrecoverable error occurs during startup if a revision has an invalid PMML model (either the attachment is missing or it is invalid) (APAR PO09824).
- If an error occurs during the sending of a notification, log message "0361" contains an invalid path to OCCM. Now, log message "0490" is listed after log message "0361". It contains the correct OCCM path along with the case action name and case UID, if available (APAR PO08111).
- The "Show on dashboard" checkbox on the Administration tab does not toggle the display of Key Performance Indicator (KPI) tiles (APAR PO09794).
- PMML scorecards that do not end in a newline character cannot be imported. For cards that can be imported, there is no notification that an import was successful. There is no warning that all the rules of the ruleset for which the scorecard is being imported will be overwritten by those that are parsed from the scorecard (APAR PO09852).
- In the Outgoing channel configuration page, the "Show references" toolbar button displays a reference list with a nonexistent Case class reference.
- External model reference items do not have a link to a corresponding external model definition.
- When model profiling is copied, the output keeps the same name as the copy source.

- The number of active FLI connections counter can turn negative when FLI threads hang while FLI is disabled and enabled again. This in turn can cause a wrong system time output (APAR PO09790).
- The log message 518 prints the message "Ignoring incoming SSL API connection" not only for the API but also for all SSL interfaces, for example, MCI, ECI and API. Now, log message 518 displays the correct name of the interface (APAR PO08644).
- The configuration form for collusion and index based evaluation case classes contains the settings "Manual case creation" and "Highlight case alarms in queries". The settings apply only to regular case classes.
- The dropdown menu on the Send test case action prompt does not scroll correctly.
- It is not possible to delete multiple outgoing channel configurations if at least one of them is of type HTTP. The API always responds with `NO_PRIVILEGES` and aborts the deletion after it encounters the HTTP channel configuration.
- Enhanced the error logging for API requests, for example, interruptions. Now, log message 0459 is written by default in the system logs.

Download instructions

Download IBM Safer Payments 6.2.2.02 from IBM Fix Central.

Follow the installation instructions

For installation instructions, see the IBM Safer Payments Implementation Guide.

Download the installation image

Use the following link to download the installation image from Fix Central:

Download link	Release Date	Language	Size
Safer Payments 6.2.2.02 download link	27 Oct 2022	English	150.55 MB

For information about using Fix Central, see Fix Central help.

Compare the checksum

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- SHA-256

  SaferPayments_6_2_2_02.zip:

  0b8a8d4f86936d3765c11625bd93c5a2f1deb74d52a422923897374a8d28485a
- MD5

  SaferPayments_6_2_2_02.zip:

  0e4746311abfa5a6f78ba9b5efe11955

Chapter 14. 6.2.2.03 Release Notes

The Release Notes contain information about defect fixes, changes, and updating to IBM Safer Payments 6.2.2.03.

This release changed the version number from 6.2.2.02 to 6.2.2.03. It contains No Impact changes according to PA-DSS.

What's new

IBM Safer Payments 6.2.2.03 includes no new enhancements.

Release highlights

- None

Additional enhancements

- None

Update information

IBM Safer Payments 6.2.2.03 includes changes that you need to know about if you are updating from an earlier version.

- Added log messages 850 and 851 to monitor disk access of attributes. Log message 850 is enabled if deferred writing is enabled. No action is required if there is no external log monitoring.
- Now, when a message is recomputed during merging, the computation results and the standard computation results are the same. Previously, the results were different because profilings were calculated for each mandator during recomputation. Then, formulas and rules were computed separately for each mandator. Now, formulas and rules are computed together with profilings for each mandator, which is the same process that is used during standard computation.
- Now, white spaces are omitted in JSON responses on MCI, MQI, KMI, and BDI. Before the update, test that all systems can receive the JSON responses from the interfaces. If they cannot, delay the update and plan to upgrade to a newer major release when a fix is available that allows you to control the white spaces.

Change log

IBM Safer Payments 6.2.2.03 includes critical, major, and minor defect fixes, APARs, and changes.

Critical defects

The following critical defect was fixed:

- A crash or data corruption can occur if asynchronous mode is enabled on MCI endpoints (APAR PO09359, PO09964).

Major defects and changes

The following major defects were fixed and major changes were made:

- A deadlock can occur if a simulation is running on a lower-level mandator when a mandator higher up in the subtree runs a golive (APAR PO09978).

- When a merging is recomputed, the MDC oldest URID on an attribute can be set to a value before the attribute is created. Queries then contain unexpected results. Also, the MDC oldest URI is then smaller than DDC oldest URID (APAR PO09756).
- Multiple regolives that are run and queued at the same time might result in FLI errors and failed golives on remote instances (APAR PO09970).
- Updating a persistent outgoing configuration channel is slow.
- If settings on **Administration** > **System** > **Configuration** are changed, some warning and error messages are not issued.
- MCI responses of type JSON contain unnecessary white space.
- Unconsolidated alarms can cause the application to hang during shutdown.
- In rare situations, a crash occurs with external model components after a remote EMC server is enabled or disabled.
- PCI DSS-relevant event log message number 834 is not automatically enabled for audit logs on fresh installations.
- The user interface might crash if an input attribute with categories is added while, at the same time, a compare revision is done.
- A no privilege error is issued if a case moves to another nonexclusive working queue for which the user has no privileges from the My working queues page.
- On **Cluster** > **Interfaces** > **Inbound**, the thread priority selection options are not limited by the respective thread priority limit in the system settings. An option to set a thread priority limit for Kafka endpoints is missing in the system settings. If the thread priority limit for MCI or KMI is lowered, the respective values of inbound endpoints are not updated.
- Mergings cause direct disk access even if deferred writing is enabled.
- Report generation jobs that use outgoing channel configurations mask values of encrypted attributes according to the starting user's privileges and ignore the masking setting of the outgoing channel configuration. Jobs that are not triggered by a user always mask values and also ignore the setting of the outgoing channel configuration (APAR PO08864).
- If an empty cookie is sent in the HTTP header, it can cause incorrect responses.
- The deletion of large bulk defined risk list entries is slow on the API instance (APAR PO09895).
- A crash can occur when rule generation data selection is saved multiple times (APAR PO09925).
- A crash can occur during restoration because the case service is not stopped (APAR PO09950).
- Rule generation creates too many threads, which cause real-time processing to stop for a few seconds (APAR PO09859).
- A crash occurs if a data export is run after the EOD job and it contains a condition or column attribute that is owned by a mandator who ran a logical golive before the running of the EOD job (APAR PO09912).
- A crash can occur if rule generation settings are saved while it is running (APAR PO09917).
- An error message is logged by the donor of a restore if IBM Safer Payments is started with Python 3.x support and at least one Python script is uploaded. The error message ID is 0354 and the text states that a folder named `__pycache__` is skipped for the transfer. Now, the folder is skipped but the error message no longer displays. The restore itself is not impacted.
- If numerous case investigations exist, some cases do not have a working queue (APAR PO08747).
- IBM Safer Payments closes the connection early when it receives a SHUT_WR TCP message on the MCI. This can prevent sending an MCI response. It happens mostly when MCI Bypass is enabled and active (APAR PO09918).
- Stopping deferred writing in system configuration or during shutdown might lead to loss of data.
- If you generate rules, and then click **Explore all indicators**, percentages in the **Amount**, **Hit rate**, and other columns are incorrectly rounded depending on the decimals of the attribute (APAR PO09951).

- Changes that are made to certain fields of some revision elements are not shown in the compare revision and audit trail of the model revision.
- If element generation threads are configured to be greater than one, rule generation results are not accurate, and might be different between multiple runs.
- In rare situations, an element can be saved with a name that is already used, which invalidates the configuration (APAR PO09938).
- In rare situations, a crash can occur after a golive when a query is started during the golive.
- Rule actions in preprocessing rules can be defined but are never run (APAR PO08429).
- An instance can hang if you stop a simulation that was started as workflow with rule designer enabled. Shut down is prevented.
- Potential security issues exist in some external statically linked server libraries. Updated Libcurl, librdkafka, libxml, opencv, lib, and zstd to the most current version.
- During merging, recomputation messages are computed differently than during normal computation.
- Logs do not show who sent the signal (APAR PO09958).
- Logs for simulation show the user name.
- Realtime computation performance is slow if many outputs and mappings are processed (APAR PO09955, PO09959).
- During golive, bypass is activated after deferred writing and jobs are stopped. However, stopping them can take time during which latencies can occur (APAR PO09956).
- A crash can occur if a save request for a persistent connection outgoing channel configuration is sent without a connectionPoolPriorities field.
- Primary URID and Primary Instance ID are not printed when the Outgoing Configuration Channel message is sent by a case action, and the message is not archived when delivery fails (APAR PO09949).
- If an instance's bypass setting is changed, the change is not applied (APAR PO09957).
- An invalid HTTP response is returned if the simulation instance is different than the API instance and the response is larger than 3000 characters.
- SSL settings to reject TLS 1.0 and TLS 1.1 connections are not enabled by default for MCI, ECI, and API.
- During a logical golive, the instance status is set to waiting for interlock and stays this way until a structural golive is done. This also happens when interlock is disabled in system configuration (APAR PO09969, PO10007).
- MCI, FLI, BDI, MQI, and KMI can be enabled while a maintenance function is running that requires them to be disabled (APAR PO09788).

Minor defects and changes

The following minor defects were fixed and minor changes were made:

- Improved the online help for Main Memory settings, MCI StatusResponse example, and Fraud marking reports. Added more content to several topics, for example, case types, internal model generation, outgoing channel configuration, and inbound endpoints. Improved user interface text about feedback. The language options in the user interface are now always listed in their own language (APAR PO09422).
- In the Output Attributes table, the meta attribute "case class" displays inconsistent values.
- When a simulation is run without attributes that require simulation, the message "simulation initializing" is displayed. The simulation appears to be in progress when, in fact, it is finished.
- If a master key is changed, the case class configuration is not written to disk even though case classes can use encrypted attributes in condition forms.
- If the SCI communication to a remote instance fails and thus does not prevent updating a revision while a remote analysis is running, the analysis is not stopped upon the revision update (APAR PO09927).

Download instructions

Download IBM Safer Payments 6.2.2.03 from IBM Fix Central.

Follow the installation instructions

For installation instructions, see the IBM Safer Payments Implementation Guide.

Download the installation image

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Safer Payments 6.2.2.03 download link	30 Jan 2023	English	158.85 MB

For information about using Fix Central, see Fix Central help.

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  SaferPayments_6_2_2_03.zip:

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- MD5

  SaferPayments_6_2_2_03.zip:

  ba6cb9fc760fcfcd7a4b0d1e9df2e5d2

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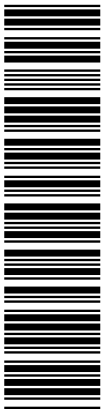

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