

# **GENESYS**

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Genesys Info Mart

8.5.003.12

## 8.5.003.12

## Genesys Info Mart Release Notes

	Release Date	Release Type	Restrictions	AIX	Linux	Solaris	Windows
12	2/17/15	General		Χ	Χ	Χ	Χ

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#### What's New

This release contains the following new features and enhancements:

- Tenant metric enhancements This release introduces a number of enhancements that allow Tenant metrics to include active multimedia interactions that have not vet been handled:
  - Two new columns, ANCHOR ID and ANCHOR SDT KEY, are added to the INTERACTION FACT table. Values in these columns are derived as follows:
    - For interactions that have been completed or handled. Genesys Info Mart populates the value of ANCHOR ID based on the INTERACTION RESOURCE ID of the INTERACTION RESOURCE FACT (IRF) record with IRF ANCHOR = 1. The ANCHOR SDT KEY value in this case equals the START\_DATE\_TIME\_KEY of the same IRF record.
    - For active multimedia interactions that have not yet List of Release Notes reached a handling resource (that is, are still in mediation), Genesys Info Mart populates the value of ANCHOR ID based on the MEDIATION SEGMENT ID of the MEDIATION SEGMENT FACT (MSF) record for the most recent mediation DN. The ANCHOR SDT KEY value in this case equals the START DATE TIME KEY of the same MSF record.
  - that an inbound interaction enters, even if the **populate-mm-ixnqueue-facts** configuration option is set to false (which is the default value). Because the MSF record for the first Interaction Queue is now always populated, Genesys Info Mart is able to specify an ANCHOR ID for active multimedia interactions that have not yet been handled, which in turn, allows Genesys Info Mart to associate the current user data values with this active interaction while it is in mediation. Because of this change in MSF population, at least one record in either IRF or MSF table now represents an active multimedia interaction. **Note**: In deployments with **populate-mm-ixnqueue-facts** = false, custom reports might need to be modified to exclude the first Interaction Queue activity.
  - The following changes simplify configuration steps needed to take advantage of active interactions reporting in Tenant metrics:
    - Two new configuration options are added to the [gim-etl] section of the Genesys Info Mart Application to enable user data storage for all mediation resources. To simplify configuration, instead of configuring **link-msf-userdata** for each individual gueue, it is possible to specify:
      - link-msf-userdata-voice = true to see the user data associated with all voice mediations.
      - link-msf-userdata-mm = true to see the user data associated with all multimedia mediations.

The default value for these two options is false.

Note: Because storing extra user data can have performance implications, Genesys recommends that you use these options only when absolutely required. In many deployments you can instead specify link-msf-userdata for the desired queues.

The default value of the expand-mediation-time-for-gapless option, in the [gim-

Helpful Links

Releases Info

- List of 8.5.x Releases
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Deployment Procedure

8.5.0 Deployment Procedure

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Starting with this release, Genesys Info Mart creates an MSF record for the first Interaction Queue

**transformation**] section, has been changed from false to true. This change ensures there is no gap during user data collection for mediations of active multimedia interactions that have not yet been handled.

- Multimedia processing improvement—Genesys Info Mart now correctly processes scenarios that
  include a late reply to an e-mail interaction. When a multimedia interaction that represents the reply is
  created after the parent interaction has already been terminated, the transformation job now processes
  the child interaction as a separate interaction. In this scenario, the transformation job creates a new
  record in the INTERACTION\_FACT table with a new INTERACTION\_ID value. If the parent interaction has
  not been terminated, the child interaction uses the same INTERACTION\_ID value as the parent
  interaction. Previously, the metrics related to a late reply could be lost because the transformation job
  might have discarded the child interactions during processing.
- **Unicode characters support**—For deployments with Oracle and PostgreSQL RDBMS, this release of Genesys Info Mart adds supports for data storage in multiple languages. To take advantage of Unicode characters, the Info Mart database must be created with UTF-8 encoding. To enable this functionality on Oracle, the fields with the varchar data types now use the explicit CHAR character length semantics.
- **Reporting on Hunt Group Call Distribution**—Genesys Info Mart now supports reporting on Genesys SIP Server calls that are distributed through Hunt Groups with parallel or sequential distribution strategy. For accurate data representation, Interaction Concentrator release 8.1.504.04 or later is required.
- Logging enhancements:
  - Genesys Info Mart configuration check can generate two new log messages:
    - 55-20037 Configuration check failed. Alarm Advisory: Indicates an abnormal condition. You might consider setting an Alarm Condition for this event. Cancel event: 55-20169
    - 55-20169 Configuration check passed.

      Description: Configuration check passed, no severe issues were found
- **Purging enhancement**—The maintenance job now purges configuration fact data from GIDB and relevant fact tables. A new configuration option, days-to-keep-cfg-facts, sets the retention policy for configuration fact data.
- Miscellaneous:
  - Extraction job performance has been improved in the area of merge for voice interactions.
  - New combinations in the TECHNICAL\_DESCRIPTOR table are added for multimedia online interactions that are placed into archive gueues.
  - For the deployments that rely on Genesys Info Mart for reporting on Post-Call Survey user data, two new scripts are added to the Genesys Info Mart installation package:
    - make\_gim\_post\_call\_survey.sql—for use with nonpartitioned databases
    - make\_gim\_post\_call\_survey\_partitioned.sql—for use with partitioned databases

Run the appropriate script manually if your deployment uses Post-Call Survey functionality.

- The Application object settings for the following configuration options can now be overridden at the level of individual supported objects:
  - **q-short-abandoned-threshold-voice**—You can now set this value at the Switch or DN (for Virtual Queues or ACD Queues) object level.
  - **q-short-abandoned-threshold**—You can now set this value at the Switch, DN (for Virtual Queues), or Script (for Interaction Queues or Workbin) object level.

- A new column, CREATE\_AUDIT\_KEY, has been added to the SM\_MEDIA\_NEUTRAL\_STATE\_FACT table.
- To accommodate additional custom record fields with high cardinality values, 20 new columns (RECORD\_FIELD\_41 through RECORD\_FIELD\_60) of the varchar data type are added to the CONTACT\_ATTEMPT\_FACT table.
- In the INTERACTION\_RESOURCE\_FACT table, the name of the IRF\_ANCHOR\_DATE\_TIME\_KEY column is changed to IRF\_ANCHOR\_SENT\_TS. This field is now populated with the time when the first response left the contact center (the TERMINATED\_TS value of the first successful reply). This field is populated only if IRF.IRF\_ANCHOR has a value of 2; otherwise the field has a value of NULL.
- Subsequent to the changes that were originally introduced in release 8.1.402, this release includes additional schema changes to prepare for support of additional interaction flows, such as the Voice Callback feature of Genesys Mobile Services.
  - PUSH DELIVERY CONFIRMED TS field has been added to the CALLBACK FACT table.
  - CUSTOMER READY TO START IXN TS field has been added to the CALLBACK FACT table.
  - DESIRED\_TIME field in the CALLBACK\_FACT table has been renamed to DESIRED\_TIME\_TS.
  - A constraint, NOT NULL, has been added for the DESIRED\_TIME\_TS field (with a default value of 0).

#### Supported Environments:

- This release adds support for Java version 8.0.
- This release adds support for Red Hat Enterprise Linux AP 64 bit x86 7.

#### Resolved Issues

This release contains the following resolved issues:

Genesys Info Mart now correctly verifies the presence of indexes in the maintenance job. Previously, Genesys Info Mart might have generated the warning No index for for tables that have indexes. (GIM-10921)

The transformation job now correctly processes updates on TMP\_CHUNK\_IF tables. Previously, the transformation job sometimes failed, logging an exception about CardinalityViolationException. (GIM-10339, GIM-10342)

Genesys Info Mart no longer erroneously creates an IRF record for a routing point in scenarios where the routing point is running a Genesys Designer application that sets the IPurpose KVP with a value of 1 prior to routing the call to a target resource. (Support for Genesys Designer is available in certain Genesys Engage cloud implementations.) (GIM-10305)

On PostgreSQL deployments, the extraction job no longer fails when IDB data contains 'new line' or 'carriage return' special characters. Previously in such a scenario, the extraction job might fail, generating a log message similar to the following:

PSQLException: ERROR: missing data for column "<column-name>" Where: COPY <table-name> (GIM-10298)

The transformation job now correctly processes data in scenarios where a chat conference is placed in a queue that is configured as an archive queue, while another part of the chat session is still active. Previously in such a scenario, the transformation job might have recorded that the interaction ended earlier than it actually did, and the transformation job might have missed some records in Genesys Info Mart Fact tables. (GIM-10302)

When migrating from release 8.1.301.03 (or earlier), the migration job no longer fails in Microsoft SQL Server deployments with large amounts of multimedia data. Previously in such scenarios, the migration job might have failed with messages in the log similar to the following:

Applying XXXXXX\\mssql\update\_gim8.1.301.03.sql com.microsoft.sqlserver.jdbc.SQLServerException: The conversion of the varchar value 'XXXXXXXXX' overflowed an int column..PatchSchema threw runStep - SQLServerException

(GIM-10295)

The extraction job no longer delays transformation when processing the backlog. Previously in such scenarios, the transformation job might have been delayed, and logged warnings such as:

Transformation of chunk has been postponed due to delayed data in dependent tables (GIM-10288)

The transformation job now correctly processes data in scenarios where the records in the GIDB\_G\_PARTY\_MM table indicate that a child party was created with an unusual delay (more than a few seconds) after the parent was terminated. Previously in such scenarios, the transformation job might have left the interaction active in the Genesys Info Mart fact tables, and ignored any subsequently-created parties. (GIM-10285, GIM-9909)

Genesys Info Mart now correctly records a technical result of CustomerAbandoned/ AbandonedWhileRinging in the INTERACTION RESOURCE FACT (IRF) table in the following scenario:

- A strategy is loaded on a SIP Server routing point that is configured with the SIP Server **divert-on-ringing** configuration option set to false.
- The strategy places the call into a virtual gueue.
- The call is routed to an initial target, where a route on no answer (RONA) occurs.
- The customer releases the call prior to the call being routed to a second agent.

Previously in this scenario, the IRF record would have had a technical result of Redirected/RouteOnNoAnswer, while the MEDIATION\_SEGMENT\_FACT (MSF) record would have indicated CustomerAbandoned/AbandonedWhileQueued. Moreover, if this scenario had occurred in the context of an outbound voice callback attempt, the MSF row might have been missing. (Support for callback reporting is available in certain Genesys Engage cloud implementations.) (GIM-10281)

The field IRF.LAST\_INTERACTION\_RESOURCE, which was reserved in previous releases, is now supported for voice interactions. (GIM-10261)

Genesys Info Mart now correctly associates user data with the MEDIATION\_SEGMENT\_FACT (MSF) row for a virtual queue in the following scenario:

- The link-msf-userdata configuration option is set to true for a virtual queue DN.
- User data that is mapped using the IRF\_INITIAL propagation rule is set prior to (but during the same second as) the call entering the virtual queue

Previously in this scenario, the user data associated with the MSF row might not have reflected the correct value. (GIM-10260)

In deployments where predictive callback media attempts are placed into specific outbound virtual queues, for callback calls that are distributed and successfully answered by an agent, Genesys Info Mart now assigns a technical result of Diverted/AnsweredByAgent. Previously in this scenario, Genesys Info Mart assigned a technical result of Cleared/DefaultRoutedBySwitch. (Support for callback reporting is available in certain Genesys Engage cloud implementations.) (GIM-10259)

The transformation job now correctly terminates any expired multimedia interactions that missed their termination in IDB. Previously in scenarios where multimedia interactions were purged from IDB before they were actually terminated, the transformation job sometimes left active records in the INTERACTION FACT table. (GIM-10256)

In deployments that use the **agg-jdbc-url** option, when other options are changed, Genesys Info Mart no longer generates an error message indicating that a Genesys Info Mart restart is required. Previously in such scenarios, Genesys Info Mart logged an inappropriate message, such as the following:

 $\{panel\}\ ERROR\ main\ 20000\ Aggregation\ engine\ parameters\ changed,\ you\ need\ to\ restart\ GIM\ \{panel\}$ 

(GIM-10255)

The transformation job now successfully completes when a KVP (that is configured to be stored in a user data dimension table) exceeds the maximum permitted column length. Previously in this scenario, the transformation job might fail, and generate a log message similar to one of the following:

ORA-00918: column ambiguously defined ... INSERT INTO STG\_TRANSFORM\_DISCARDS

OR

ORA-12899: value too large for column

(GIM-10231)

The transformation job now correctly processes data in scenarios where a chat interaction was stopped in a strategy with a virtual queue (VQ). Previously in such a scenario, the transformation job

might have failed to create an IRF record for this strategy. (GIM-10238)

On deployments with PostgreSQL, the maintenance job now correctly purges partitions. Previously, a purge might fail, generating log messages similar to the following:

ERROR: could not obtain lock on relation ...

ERROR: current transaction is aborted, commands ignored until end of transaction

block ...

(GIM-10230)

On deployments with PostgreSQL, the maintenance job now correctly purges partitions. Previously in PostgreSQL deployments with Genesys Info Mart release 8.5.002.01 and later, the maintenance job did not purge partitions. (GIM-10229)

Genesys Info Mart now correctly reports a technical result of Completed in the IRF table in scenarios where an agent places the customer on hold prior to hanging up. Previously in such scenarios, the agent IRF would have had an incorrect technical result of CustomerAbandoned/AbandonedFromHold, even though it wasn't the customer who ended the call. (GIM-10226)

Using UPDATE\_CONFIG, Genesys Info Mart automatically notifies Genesys Interactive Insights (GI2) and Reporting and Analytics Aggregates (RAA) whenever aggregation properties change in the Annex of DN, Switch or Tenant objects. Previously in such scenarios, Genesys Info Mart detected the change, but did not notify GI2 and RAA unless aggregation options were changed at the Application level, or Genesys Info Mart was restarted. (GIM-10204)

In scenarios where the extraction job fails, subsequent execution of the extraction job is not affected. Previously, after the failure of the extraction job in Genesys Info Mart release 8.5.002.11, subsequent executions of the extraction job might have taken longer than expected. (GIM-10201)

Genesys Info Mart now correctly populates CUSTOMER \* metrics in the IRF table in scenarios where:

- An agent makes a cross-site consultation call to a routing point.
- The consultation call ends due to a transfer or conference and is routed back to an agent on the first switch, and the T-Server reuses the original CallUUID from the main call.

Previously in such scenarios, CUSTOMER\_\* metrics might have been incorrectly populated with values of 0 for the original and transfer/conference recipient agent IRF records, and with non-zero values for the consult initiator IRF record. (GIM-10179)

Genesys Info Mart now more accurately reports facts in scenarios where a network reroute is performed after the call has passed through multiple premise switches. Previously in such a scenario, Genesys Info Mart might have created an extra row in the INTERACTION\_RESOURCE\_FACT table for the premise resource from which the reroute occurred, and, earlier in the call flow, created a row in the MEDIATION\_SEGMENT\_FACT table that was not correctly linked to the IRF row for the handling resource to which the call was distributed. (GIM-10176)

Genesys Info Mart now correctly populates the MEDIA\_SERVER\_IXN\_GUID, MEDIA\_SERVER\_IXN\_ID, SOURCE\_ADDRESS, and TARGET\_ADDRESS columns in the INTERACTION\_FACT table, as well as the INTERACTION\_TYPE\_KEY column in all related tables, in scenarios in which a consultation call is initiated during the first second of the main call. Previously, these columns might have contained values associated with the consultation call instead of the main call. (GIM-10175)

The transformation job no longer generates unique constraint violation errors in scenarios where previous transformation did not complete successfully and user data is configured to be associated with MEDIATION\_SEGMENT\_FACT (MSF). Previously in such scenarios, the transformation job might generate unique constraint violation errors against Genesys Info Mart user data fact tables, such as:

Database error: ORA-00001: unique constraint (GIM.PK\_IRF\_USER\_DATA\_KEYS) violated (GIM-10171)

Genesys Info Mart now loads all MEDIATION\_SEGMENT\_FACT records that don't already exist in the database. Previously, when Genesys Info Mart encountered a situation where recently transformed MEDIATION\_SEGMENT\_FACT data already existed in the database, it did not insert MEDIATION\_SEGMENT\_FACT records with START\_DATE\_TIME\_KEY values if there were already records with the same START\_DATE\_TIME\_KEY in the database. (GIM-10170)

The transformation job now handles invalid KVP values more efficiently. Previously, the transformation of large amounts of user data containing invalid KVP values might have been significantly delayed.(GIM-10153)

On Oracle deployments, the transformation job no longer fails due to large values in outbound RECORD\_ID fields.

The RECORD\_ID field can hold up to ten digits (to a maximum value of 999999999). Previously, Genesys Info Mart expected a value in the RECORD\_ID field between 1 and 2147483647, and if the value was greater than expected, the transformation job failed and logged the following exception:

java.lang.NumberFormatException

(GIM-10150)

The transformation job no longer generates unique constraint violation errors in scenarios where the transformation job artificially terminates multimedia interactions that were stuck in a mediation queue used for user data metrics. Previously in such scenarios, the transformation job might generate unique constraint violation errors against Genesys Info Mart user data fact tables, such as the following:

Database error: ORA-00001: unique constraint (GIM.PK\_IRF\_USER\_DATA\_KEYS) violated (GIM-10122)

Genesys Info Mart now correctly reports the resource role in the IRF table for scenarios in which a call

is transferred to a routing point and subsequently queued on parallel mediation devices prior to reaching a target agent. Previously in such scenarios, Genesys Info Mart recorded an incorrect resource role of ROUTEDTO or DIVERTEDTO, instead of RECEIVEDTRANSFER. (GIM-10105)

The transformation job now correctly populates the IRF\_ANCHOR field in the INTERACTION\_RESOURCE\_FACT table in scenarios with multiple OutboundReply interactions. Previously in such scenarios, the transformation job might attribute the first response to the wrong agent. (GIM-10101)

The transformation job now correctly populates records in the MSF table in multimedia scenarios where:

- The option adjust-vq-time-by-strategy-time = true, and
- The record in GIDB\_G\_PARTY\_MM associated with a strategy was created in one ETL cycle and a record in GIDB\_G\_VIRTUAL\_QUEUE\_MM associated with a virtual queue defined in the strategy was created in another ETL cycle.

Previously, the transformation job might ignore virtual queues in such scenarios, and the MSF record associated with the virtual queue could be missing. (GIM-10096)

### Upgrade Notes

Refer to the Deployment Procedure for this release to deploy the installation package within your environment.

### Dependencies

- To enable all of the functionality provided in this release, Genesys Info Mart requires Interaction Concentrator (ICON) release 8.1.500.04 or higher. At a minimum, Genesys Info Mart release 8.5 requires Interaction Concentrator 8.1.100.36. For additional recommendations, see ICON Recommendations in the Known Issues and Recommendations section.
- Genesys recommends that you manage jobs using Genesys Info Mart Manager, but if you continue to use Genesys Info Mart Administration Console, Genesys recommends that you use Genesys Info Mart Administration Console release 8.1.3 or higher.
- Genesys Info Mart Manager release 8.5 requires Genesys Info Mart release 8.5.002 or later. Genesys Info Mart release 8.5 is compatible with Genesys Info Mart Manager release 8.1.4 and higher.