

# **GENESYS**

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# Genesys Info Mart Physical Data Model for a Microsoft SQL Server Database

This page supplements the New in Release 8.5.0 page in the *Deployment Guide*, to provide information about schema-related changes introduced in Genesys Info Mart 8.5.0 releases, starting with the most recent release. See New in Release 8.5.1 for information about subsequent schema-related changes introduced in Genesys Info Mart 8.5.1 releases.

For a summary you can sort to see schema-related changes by table/column and type of change, as well as by release, see Summary of Info Mart Schema Changes. See the short video on the New in the Info Mart Database page to learn how to view summary information about schema changes.

#### New in Release 8.5.015.19

- New tables support reporting on voice bot and chat bot activity orchestrated with Genesys Designer. (Support for Genesys Designer is available in certain Genesys Engage cloud and on-premises deployments.) The following tables have been added:
  - SDR BOTS FACT
  - BOT\_ATTRIBUTES
  - BOT INTENT

The new tables are included in Data Export.

- In preparation for future support of alternative data streams, a new column, PRODUCER\_BATCH\_ID, has been added to a number of \* FACT and GIDB tables. The column is reserved for internal use.
- General Data Protection Regulation (GDPR) processing now includes the TARGET\_OBJECT\_SELECTED
  column in the ROUTING\_TARGET table. The description of the CTL\_GDPR\_HISTORY table has been
  updated accordingly.

# New in Release 8.5.015.14

 A new column, GVP\_SESSION\_ID, has been added to the IRF\_USER\_DATA\_GEN\_1 table for internal purposes.

# New in Release 8.5.015.07

• Outbound Contact reporting enhancement — By default, Genesys Info Mart now creates a single, aggregated CONTACT\_ATTEMPT\_FACT (CAF) record for multiple call attempts dialed in the context of the same CALL\_ATTEMPT\_GUID. Previously, Genesys Info Mart created a separate CAF record for each call

attempt dialed as part of multiple attempts to reach a customer. If you want to retain the previous behavior, set the ocs-caf-aggregates-calls option to false.

A new index on the GIDB\_GOX\_CHAIN\_CALL table enables the new behavior.

The new behavior affects when CAF records are created, as well as population of the CALLID field.

#### Miscellaneous

- The size of the SCRIPT column in the GIDB\_GC\_GROUP table has been increased from 255 to 1024 characters. However, note that the length of SCRIPT values remains effectively limited to 255 characters until ICON supports longer values in GC\_GROUP.SCRIPT in IDB.
- The size of the CALL\_ID column in the CDR\_FACT table has been increased from 64 to 255 characters. (The CDR\_FACT table is reserved for future use.)

#### New in Release 8.5.014.34

• Enhanced support for Unicode in Microsoft SQL Server — In Microsoft SQL Server deployments with single-language databases, the data types of some columns in certain dimension tables have been changed from varchar to nvarchar, to extend support of Unicode characters in single-language databases.

Columns in the following tables were modified for single-language databases. See the Summary of Info Mart Schema Changes for a list of the applicable columns.

AGENT LOCATION COBROWSE PAGE RECORD TYPE ATTEMPT DISPOSITION COBROWSE USER AGENT REQUESTED SKILL COMBINATION CALLBACK DIAL RESULTS CONTACT\_INFO\_TYPE **RESOURCE** CALLBACK DIM 1 DIALING MODE RESOURCE ANNEX CALLBACK\_DIM\_2 CALLBACK\_DIM\_3 GROUP ANNEX INTERACTION RESOURCE STATE RESOURCE STATE
RESOURCE STATE REASON ROUTING\_TARGET CALL\_RESULT INTERACTION\_TYPE CAMPAIGN GROUP STATE MEDIA TYPE STRATEGY RECORD\_FIELD\_GROUP\_1
RECORD\_FIELD\_GROUP\_2
RECORD\_STATUS TECHNICAL\_DESCRIPTOR COBROWSE END REASON TIME ZONE COBROWSE MODE **WORKBIN** 

For consistency, the sizes of the SECTIONNAME and KEYNAME columns in the GROUP\_ANNEX and RESOURCE\_ANNEX tables have been modified in multi-language databases as well.

- Data Export enhancements To improve support for scenarios where data is exported from a PostgreSQL or Oracle Info Mart database and subsequently imported into a Microsoft SQL Server target database:
  - The **update\_target\_\*.sql** scripts for Microsoft SQL Server have been modified to be compatible with a case-sensitive Microsoft SQL Server collation.
  - The sizes of all columns in the target database schemas defined in the applicable update\_target\_\*.sql scripts are now the
    same across all RDBMS platforms. Previously, to ensure that indexes did not exceed Microsoft SQL Server size limits, the
    sizes of many dimension columns in the target database schema defined for Microsoft SQL Server were reduced.

The sizes of the following columns have changed in the update\_target\_\*.sql scripts for Microsoft SQL Server:

INTERACTION_DESCRIPTOR	SURVEY SQ6	USER_DATA_CUST_DIM_2
CUSTOMER SEGMENT	SURVEY SQ7	DIM ATTRIBUTE 1
SERVICE_TYPE	POST_CALL_SURVEY_DIM_4	DIM_ATTRIBUTE_2
SERVICE SUBTYPE	SURVEY SQ8	DIM ATTRIBUTE 3
BUSINESS RESULT	SURVEY SQ9	DIM ATTRIBUTE 4
POST_CALL_SURVEY_DIM_2	SURVEY_SQ10	DIM_ATTRIBUTE_5
SURVEY SQ1	USER DATA CUST DIM 1	SDR GEO LOCATION
SURVEY SQ2	DIM ATTRIBUTE 1	COUNTRY NAME
POST_CALL_SURVEY_DIM_3	DIM ATTRIBUTE 2	REGION _
SURVEY SQ3	DIM_ATTRIBUTE_3	TIMEZONE
SURVEY_SQ4	DIM_ATTRIBUTE_4	SDR_SURVEY_S1
SURVEY_SQ5	DIM_ATTRIBUTE_5	SQ1

SQ2	SDR_SURVEY_QUESTIONS_I2	SQ9
SQ3	IQ6	SQ10
SQ4	IQ7	USER DATA GEN DIM 1
SQ5	IQ8	DIM ATTRIBUTE 1
SDR_SURVEY_S2	IQ9	DIM ATTRIBUTE 2
SQ6	IQ10	DIM ATTRIBUTE 3
SQ7	SDR_SURVEY_QUESTIONS_S1	DIM ATTRIBUTE 4
SQ8	SQ1	DIM_ATTRIBUTE_5
SQ9	SQ2	<b>USER DATA GEN DIM 2</b>
SQ10	SQ3	DIM ATTRIBUTE 1
SDR_SURVEY_QUESTIONS_I1	SQ4	DIM ATTRIBUTE 2
IQ1	SQ5	DIM ATTRIBUTE 3
IQ2	SDR_SURVEY_QUESTIONS_S2	DIM ATTRIBUTE 4
IQ3	SQ6	DIM ATTRIBUTE 5
IQ4	SQ7	_ <b>_</b>
IQ5	SQ8	

**Note:** If you are importing Info Mart data into a Microsoft SQL Server database, ensure that your import tool or process is able to handle errors that arise when the sum of the actual values of dimension table columns included in an index exceeds the Microsoft SQL Server limit on index size.

• In the **update\_target\_\*.sql** scripts for Microsoft SQL Server, the data types of the following columns in various GIDB tables have been changed from varchar to nvarchar:

```
GIDB_GC_CALLING_LIST.NAME
GIDB_GC_CALLING_LIST.DESCRIPTION
GIDB_GC_CALLING_LIST.DESCRIPTION
GIDB_GC_CAMPAIGN.NAME
GIDB_GC_CAMPAIGN.DESCRIPTION
GIDB_GC_CAMPAIGN.DESCRIPTION
GIDB_GC_FOLDER.NAME
GIDB_GC_GROUP.SCRIPT
GIDB_GC_GROUP.NAME
```

#### New in Release 8.5.014.26

- Support for Asynchronous interactions in Advanced Chat deployments In Genesys Engage cloud deployments with Advanced Chat, Genesys Info Mart supports reporting on Asynchronous interactions that are placed into a parking queue. Two new columns, PARKING\_QUEUE\_COUNT and PARKING\_QUEUE\_DURATION, have been added to the CHAT\_SESSION\_FACT\_table.
- Miscellaneous The names of the KVPs that populate the USER\_DATA\_GEN\_DIM\_\* tables have been changed in the out-of-box CTL\_UD\_TO\_UDE\_MAPPING table, to avoid confusion with placeholder names for custom KVPs mapped in the make\_gim\_UDE\_template SQL scripts. The tables, which were introduced in the previous release, are reserved for internal use.

- Reporting on agent location A new dimension table, AGENT\_LOCATION, records locations of
  agents for both voice and multimedia login sessions. A new column, AGENT\_LOCATION\_KEY, in the
  SM\_RES\_SESSION\_FACT table, is a surrogate key that you can use to join the SM\_RES\_SESSION\_FACT to
  the AGENT\_LOCATION dimension. The key is used to indicate the agent's specific location for the
  summarized resource session, by agent and media type.
- Miscellaneous schema enhancements:
  - To enhance reporting on Genesys Predictive Routing, two new columns in the GPM\_FACT table VQ\_GUID and VQ\_RESOURCE\_KEY — enable you to join GPM\_FACT to MEDIATION\_SEGMENT\_FACT.

- Use this join to make information about virtual queues (VQs) that participate in Predictive Routing interactions available in reports.
- Two new dimension tables, USER\_DATA\_GEN\_DIM\_1 and USER\_DATA\_GEN\_DIM\_2, have been added
  to the Info Mart schema to store out-of-box user data for internal use. Corresponding keys,
  USER\_DATA\_GEN\_DIM\_KEY\_1 and USER\_DATA\_GEN\_DIM\_KEY\_2, have been added to the
  IRF\_USER\_DATA\_KEYS table, accordingly.

 Predictive Routing enhancements — Genesys Info Mart now supports enhanced reporting on Genesys Predictive Routing (GPR) usage, including more detailed reporting about scores, thresholds, predictors, and routing. To enable the enhanced reporting, a new Info Mart dimension table, GPM\_DIM1, and nine new columns in the GPM\_FACT table store the new KVPs from Predictive Routing - URS Strategy Subroutines release 9.0.015.00 or higher. In addition, the values provided in some existing KVPs have been modified.

For more information about the reporting KVPs sent by GPR, see Integrate with Genesys Reporting in the GPR Deployment and Operations Guide.

- Support for Chat Thread reporting In Genesys Engage cloud deployments with Advanced Chat, Genesys Info Mart supports reporting on chat threads:
  - New tables, CHAT THREAD FACT and MEDIA ORIGIN, store data for chat thread statistics.
  - A new column in the <a href="CHAT\_SESSION\_FACT">CHAT\_SESSION\_FACT</a> table, THREAD\_ID, has been included for future use, to associate chat session with chat thread reporting.

### New in Release 8.5.013.06

- Enhanced omnichannel reporting Two new columns in the SM\_MEDIA\_NEUTRAL\_STATE\_FACT table, END\_DATE\_TIME\_KEY and RESOURCE\_GROUP\_COMBINATION\_KEY, enhance support for reporting across all media channels.
- Support for Call Detail Records (CDRs) In preparation for future support of CDRs for billing or
  other monitoring purposes, new CDR\_\* tables have been added to the Info Mart database schema. The
  make\_gim SQL scripts have been modified to include the new table definitions and KVP mappings.
  Although the CDR\_\* tables are populated in cloud deployments, they are considered reserved for
  internal use.

# New in Release 8.5.012.15

- In Genesys Engage cloud deployments with Co-browse Server 9.0.003.02 or higher, Genesys Info Mart now supports reporting on Co-browse sessions. The following fact and dimension tables, which were originally added to the Info Mart schema in release 8.5.011.14, are no longer reserved:
  - COBROWSE END REASON

COBROWSE FACT

COBROWSE MODE

COBROWSE\_USER\_AGENT

- COBROWSE PAGE
- In Outbound Contact deployments with CX Contact release 9.0.000.09 or higher, Genesys Info Mart now supports reporting on
  contact list records that were suppressed from an outbound campaign. The following new tables, which are defined in the
  database-creation scripts (make\_gim.sql, make\_gim\_partitioned.sql, make\_gim\_multilang.sql, or
  make\_gim\_multilang\_partitioned.sql), store relevant fact and dimension data:
  - LDR FACT
  - LDR CAMPAIGN
  - LDR DEVICE
  - LDR GROUP

- LDR\_LIST
- LDR POSTAL CODE
- LDR RECORD

The LDR\_\* tables are populated with data that Genesys Info Mart obtains from CX Contact through Elasticsearch. The new tables supplement existing reporting about campaign activity and calling list usage sourced from Outbound Contact Server (OCS) through ICON.

Genesys Info Mart support for CX Contact reporting on unattempted records is defined out-of-box and cannot be customized. For links to more information about CX Contact historical reporting, see the New in Release 8.5.012 item in the *Genesys Info Mart 8.5 Deployment Guide*.

#### New in Release 8.5.011.18

• The GSW\_CALL\_TYPE column has been added to IRF\_USER\_DATA\_GEN\_1 to provide additional information about OCS calls and about outbound call flows in SIP Cluster deployments where SIP Server can disable recording and monitoring.

#### New in Release 8.5.011.14

• In eServices deployments with Chat Server release 8.5.302.03 or higher, Genesys Info Mart supports detailed reporting on asynchronous (async) chat sessions.

The following new columns have been added to the CHAT\_SESSION\_FACT and CHAT\_SESSION\_DIM tables, to store async chat statistics in the Info Mart dimensional model database schema:

- CHAT SESSION FACT.ASYNC DORMANT COUNT
   CHAT SESSION FACT.ACTIVE IDLE DURATION
- CHAT SESSION FACT.ASYNC DORMANT DURATION CHAT SESSION FACT.HANDLE COUNT
- CHAT\_SESSION\_FACT.ASYNC\_IDLE\_COUNT
- CHAT\_SESSION\_FACT.HANDLE\_DURATION
- CHAT\_SESSION\_FACT.ASYNC\_IDLE\_DURATION
- · CHAT SESSION DIM.ASYNC MODE
- CHAT SESSION FACT.ACTIVE IDLE COUNT

For links to more information about async chat historical reporting, see the New in Release 8.5.011.14 item in the *Genesys Info Mart 8.5 Deployment Guide*.

- Database schema improvements related to user data processing are as follows:
  - The index on the START\_DATE\_TIME\_KEY (I\_\*\_SDT) in the user data tables is now defined for partitioned databases. The index improves the performance of the export job, for which purpose the export job will add the index, when necessary, to existing databases at runtime. Previously, the indexes were added to the IRF\_USER\_DATA\_GEN\_1, IRF\_USER\_DATA\_KEYS, and

IRF\_USER\_DATA\_CUST\_\* tables in the schema-creation script for nonpartitioned databases (make\_gim\_UDE\_template.sql), but not in the script for partitioned databases (make gim UDE template partitioned.sql).

- To optimize the performance of the migration job, the columns that store foreign key references to user data dimension tables in the IRF USER DATA KEYS table are added as nullable and without default values.
- The STG TRANSFORM DISCARDS.TABLE NAME column has been increased from 30 to 255 characters.
- · In preparation for future support of a new data source, the following new tables have been added to the Info Mart database schema:
  - COBROWSE FACT
  - COBROWSE END REASON
  - COBROWSE MODE

- COBROWSE PAGE
- COBROWSE USER AGENT

#### New in Release 8 5 011

• In eServices deployments with Chat Server release 8.5.203.09 or higher, Genesys Info Mart supports detailed reporting on Genesys Chat sessions. In deployments that include Bot Gateway Server (BGS) release 9.0.002 or higher, Genesys Info Mart also supports reporting on chat bot activity. (BGS is currently available only in restricted release.)

The following new tables, which are defined in the database-creation scripts (make\_gim.sql, make\_gim\_partitioned.sql, make gim multilang.sql, or make gim multilang partitioned.sql), store chat- and BGS-related data:

CHAT SESSION FACT

CHAT SESSION DIM

BGS\_SESSION FACT

BGS SESSION DIM

BGS BOT DIM

BGS BOT NAME DIM

SDR USER INPUTS FACT

SDR USER MILESTONE FACT

A control table, CTL XML CONFIG, is used internally to map Chat Server KVPs and BGS reporting data attributes to the respective CHAT\_\* and BGS\_\* tables during transformation.

For links to more information about chat session and chat bot historical reporting, see the New in Release 8.5.011 item in the Genesys Info Mart 8.5 Deployment Guide.

• To improve the robustness of queries that involve the GPM FACT table (for example, when converting from a nonpartitioned to a partitioned database), the START\_DATE\_TIME\_KEY is now part of the composite primary key for the GPM FACT table in nonpartitioned as well as partitioned databases.

# New in Release 8 5 010 16

- · Support for General Data Protection Regulation (GDPR) compliance has been extended to employee requests. The scope of the CTL GDPR HISTORY history table has been similarly extended.
- The UPDATE AUDIT KEY column was added to the following tables:

CALLBACK\_FACT **GPM FACT** SDR ACTIVITIES FACT SDR CUST ATRIBUTES FACT SDR\_EXT\_REQUEST\_FACT SDR SESSION FACT SDR\_SURVEY\_FACT
SDR\_SURVEY\_TRANSCRIPT\_FACT

For tables that might contain personally identifiable information (PII), the presence of the audit key enables enhanced GDPR

support in deployments that include the Data Export feature.

#### New in Release 8.5.010

- To enable customers to comply with General Data Protection Regulation (GDPR) Right to Access (export) or Right of Erasure ("forget") requests from their customers ("consumers"), Genesys Info Mart exports or redacts customer-specified personally identifiable information (PII) stored in Info Mart fact tables. New control tables (CTL\_GDPR\_HISTORY, CTL\_GDPR\_HWM, CTL\_KEY\_TO\_CAF\_MAPPING) and a number of new temporary (TMP\_\*) tables support this functionality. The CTL\_GDPR\_HISTORY table reports the actual PII data that was requested for export or was redacted because of a "forget" request.
- In future releases, Genesys Info Mart will support obtaining data from data streams that do not go
  through Interaction Concentrator. In preparation for future support of these alternative data channels,
  the following schema changes have been made:
  - A new column in the CTL\_TRANSFORM\_HISTORY table, HWM\_VALUE2, provides supplemental information for HWMs that might require nonnumeric values for context.
  - In Microsoft SQL Server deployments, the data types of some columns in the following dimension tables have changed, to support Unicode characters in both single- and multi-language databases.

```
CALLBACK_DIM_1
CALLBACK_DIM_2
                                                                                                               SDR_SURVEY_ANSWERS
SDR_SURVEY_QUESTIONS
SDR_SURVEY_QUESTIONS_I1
                                                        SDR_CALL_DISPOSITION
                                                        SDR_CALL_TYPE
SDR_CUST_ATRIBUTES
CALLBACK DIM 3
                                                       SDR_ENTRY_POINT
SDR_EXIT_POINT
                                                                                                               SDR_SURVEY_QUESTIONS_I2
SDR_SURVEY_QUESTIONS_S1
GPM MODEL
GPM PREDICTOR
                                                                                                               SDR_SURVEY_QUESTIONS_S2
SDR_SURVEY_S1
SDR_SURVEY_S2
                                                        SDR_EXT_HTTP_REST
SDR_EXT_REQUEST
GPM RESULT
INTERACTION DESCRIPTOR
                                                        SDR EXT REQUEST OUTCOME
POST CALL SURVEY DIM 1
POST_CALL_SURVEY_DIM_2
POST_CALL_SURVEY_DIM_3
POST_CALL_SURVEY_DIM_4
POST_CALL_SURVEY_DIM_5
POST_CALL_SURVEY_DIM_6
                                                       SDR_EXT_SERVICE_OUTCOME
SDR_GEO_LOCATION
                                                                                                               SDR_SURVEY_STATUS
SDR_USER_INPUT
                                                        SDR_INPUT
                                                                                                               USER_DATA_CUST_DIM 1
                                                        SDR INPUT OUTCOME
                                                        SDR_LANGUAGE
SDR ACTIVITY
                                                        SDR MESSAGE
SDR APPLICATION
                                                        SDR MILESTONE
```

For a summary of whether the changes occurred only in single-language databases, only in multi-language databases, or in both, see What's New in the Documentation. For full details about the changes, see the table descriptions.

# **Important**

Because of the schema changes, Genesys strongly recommends that Microsoft SQL Server deployments for Genesys Info Mart 8.5.010 or higher use Microsoft SQL Server 2016 or later supported version. See Microsoft SQL Server Considerations in the Deployment Guide for more information.

In multi-language Microsoft SQL Server databases, to correct data type inconsistencies between IDs that
might be used for joins, the data types of the following columns have been changed from nvarchar to
varchar:

```
CALLBACK_FACT.ORIGINATION_IXN_ID

CALLBACK_FACT.FIRST_OUT_IXN_ID

CALLBACK_FACT.LAST_OUT_IXN_ID

CALLBACK_FACT.LAST_OUT_IXN_ID

CALLBACK_FACT.ORS_SESSION_ID

CALLBACK_FACT.ORS_SESSION_ID

GPM_FACT.MEDIA_SERVER_IXN_GUID

SDR_SURVEY_TRANSCRIPT_FACT.SESSION_ID
```

• To extend Unicode support for user input in multi-language Microsoft SQL Server databases, the data types of the UTTERANCE and INTERPRETATION columns in the SDR\_USER\_INPUTS\_FACT table have been changed from varchar to nvarchar.

- New tables and columns, which are defined in the database-creation scripts (make\_gim.sql, make\_gim\_partitioned.sql, make\_gim\_multilang.sql, or make\_gim\_multilang\_partitioned.sql), extend support for Callback reporting by providing more data about dialing attempts and dial results.
  - Two new dimension tables, CALLBACK DIAL RESULTS and CALLBACK DIM\_4, have been added.

• The following columns have been added to the CALLBACK\_FACT table:

	CALLBACK_DIAL_RESULTS_KEY		POS_WHEN_LAST_DIAL
	CALLBACK_DIM_4_KEY	EWT_WHEN_REJECTED	PRIORITY_WHEN_A_CONNECTED
	CUSTOMER_ANI	FIRST_OUT_IXN_ID	PRIORITY_WHEN_C_CONNECTED
	DIAL_1_TS through	LAST_OUT_IXN_ID	PRIORITY_WHEN_CB_ACCEPTED
	DIAL_5_TS	ORIGINATION_IXN_ID	SERVICE_END_TS
	FWT THRESHOLD WHEN OFFERI	ED	

The columns are populated with actual data when you use a Genesys Mobile Services (GMS) release that provides the required user data KVPs. For more information about the KVPs that GMS supports, see Genesys Mobile Services (GMS) — for Callback in the Genesys Info Mart Deployment Guide.

ORS\_SESSION\_ID

# **Important**

If you use the Data Export feature, ensure that you modify your target database schema and import processing to match the Info Mart schema changes.

• The index I\_GPM\_FACT\_SDT, on the START\_DATE\_TIME\_KEY in the GPM\_FACT table, is now defined for partitioned databases. The index improves the performance of queries that are bounded by time. Previously, the index was added to the GPM\_FACT table in the schema-creation script for nonpartitioned databases (make\_gim.sql), but not in the script for partitioned databases (make gim partitioned.sql).

# New in Release 8.5.009

- In premise deployments, Genesys Info Mart now supports reporting on Genesys Predictive Routing (GPR) usage and the impact of predictive routing on agent and interaction-handling KPIs for voice, web, and mobile channels. The following new **GPM\_\*** tables in the Info Mart schema store GPR-related data:
  - GPM\_FACT
  - GPM\_RESULT
  - GPM PREDICTOR

WAITED\_BEFORE\_OFFER\_TIME

- GPM MODEL
- Audit keys were added to the CTL\_TRANSFORM\_HWM and CTL\_TRANSFORM\_HISTORY control tables, as well as to a number of staging tables.

#### New in Release 8 5 008 29

- The following new SDR\_\* fact and dimension tables, which are defined in the database-creation scripts (make\_gim.sql, make\_gim\_partitioned.sql, make\_gim\_multilang.sql, or make\_gim\_multilang\_partitioned.sql), have been added:
  - SDR\_SURVEY\_FACT
  - SDR SURVEY QUESTIONS
  - SDR\_SURVEY\_ANSWERS
- In deployments that support Session Detail Record (SDR) reporting, the way Genesys Info Mart stores
   URL values in the SDR\_EXT\_HTTP\_REST table has changed. For more information, see
   SDR\_EXT\_HTTP\_REST.URL.

### New in Release 8.5.008

- The following changes have been made to CALLBACK\_FACT columns: The data type of DS\_AUDIT\_KEY
  has been increased from 10 to 19 digits; a default value (0) has been added for
  LAST CALLBACK OFFERED TS.
- Additional schema changes support reporting on interaction flows that involve applications developed with Genesys Designer. (Support for Genesys Designer is available in certain Genesys Engage cloud implementations.) In particular:
  - The following new column has been added to the previously implemented SDR\_\* fact and dimension tables: SDR\_CALL\_TYPE.MEDIA\_TYPE.
  - The following SDR\_USER\_INPUTS\_FACT columns have been modified: START\_TS\_MS is no longer mandatory; UTTERANCE and INTERPRETATION have been increased to 512 chars.
- To support internal performance improvements, additional fields have been added to indexes in the GIDB\_GC\_\* tables.

# New in Release 8.5.007

• In deployments that use ICON 8.1.512.08 or higher, Genesys Info Mart now supports storage of e-mail subjects up to 1024 characters. The data type for INTERACTION\_FACT.SUBJECT has been extended from 255 to 1024 characters to accommodate this enhancement. You can also store up to 1024 characters in fields with character data types in custom user data fact tables, as defined now in the user-data

template scripts (make gim UDE template\*.sql). Previously, the limit was 255 characters.

Genesys Info Mart support for data storage in multiple languages has been extended to Microsoft SQL Server. A new database-creation script (make\_gim\_multilang.sql or make\_gim\_multilang\_partitioned.sql) uses nvarchar instead of varchar data types to enable you to take advantage of Unicode characters in Microsoft SQL Server deployments, provided that ICON and Genesys Configuration Layer components have been configured as required (see Configuring for Multi-Language Support in the Interaction Concentrator Deployment Guide). Note that in the Unicode schema certain internally used fields, such as CTL\_UD\_TO\_UDE\_MAPPING.UDE\_TABLE\_NAME, retain the varchar data type.

#### **Important**

There is no migration path from an existing Info Mart database to a Unicode one. Contact Genesys Customer Care if you need assistance with data transfer.

- Additional schema changes support reporting on interaction flows that involve applications developed with Genesys Designer. (Support for Genesys Designer is available in certain Genesys Engage cloud implementations.) In particular:
  - The following new SDR\_\* fact and dimension tables, which are defined in the make\_gim.sql and make\_gim\_partitioned.sql scripts, have been added: SDR\_ACTIVITIES\_FACT, SDR\_ACTIVITY, SDR\_SURVEY\_I1, SDR\_SURVEY\_I2, SDR\_SURVEY\_QUESTIONS\_I1, SDR\_SURVEY\_QUESTIONS\_I2, SDR\_SURVEY\_QUESTIONS\_S1, SDR\_SURVEY\_QUESTIONS\_S2, SDR\_SURVEY\_S1, SDR\_SURVEY\_S2, SDR\_SURVEY\_SCORES, SDR\_SURVEY\_STATUS.
  - The following new columns have been added to the previously implemented SDR\_\* fact and dimension tables: SDR\_CALL\_DISPOSITION.FINAL\_DISPOSITION,
     SDR\_SESSION\_FACT.SDR\_SURVEY\_QUESTIONS\_I1\_KEY,
     SDR\_SESSION\_FACT.SDR\_SURVEY\_QUESTIONS\_I2\_KEY,
     SDR\_SESSION\_FACT.SDR\_SURVEY\_QUESTIONS\_S1\_KEY,
     SDR\_SESSION\_FACT.SDR\_SURVEY\_QUESTIONS\_S2\_KEY, SDR\_SURVEY\_STATUS.OFFER.

- A new propagation rule, **IRF\_ROUTE**, enhances the flexibility of user-data reporting with the capability to store the final KVP value that is present during mediation, regardless of whether the call is abandoned in mediation or delivered to a handling resource (where additional changes might be made to the key's value).
- A new column, TARGET\_ADDRESS, has been added to the INTERACTION\_RESOURCE\_FACT (IRF) table.
  For voice interactions, if the IRF row represents a resource initiating an interaction or consultation, this
  column contains the target media address that received the interaction or consultation; otherwise, a
  null value is recorded in this column.
- In eServices outbound scenarios where an outbound interaction is originated outside the scope of
  eServices (for example, by OCS) and is placed into an Interaction Queue, an IRF record is now created
  when a strategy handles and completes the interaction without agent involvement. When user data
  changes initiated by the strategy are reported, they are associated with the new IRF record.

- Following the initial 8.5.005 release, starting with release 8.5.005.20, a new table, SDR\_SURVEY\_TRANSCRIPT\_FACT, has been added to the schema to support survey transcription data.
- Genesys Info Mart now supports reporting on Genesys Callback activity on voice, web, or mobile channels, in deployments with Genesys Mobile Services (GMS). Genesys Info Mart support for Genesys Callback reporting is provided out-of-box.

Callback applications provide Callback-related data that Genesys Info Mart processes and stores in dedicated tables, which were initially introduced in an earlier Genesys Info Mart release:

- CALLBACK\_FACT
- CALLBACK DIM 1
- CALLBACK DIM 2
- CALLBACK DIM 3

Additionally, new values have been added to the following columns in conjunction with Callback support implementation:

- OUTBOUNDCALLBACK in the INTERACTION TYPE.INTERACTION SUBTYPE column
- DEFERRED and INCOMPLETE in the TECHNICAL\_DESCRIPTOR.TECHNICAL\_RESULT column
- CALLBACKACCEPTED in the TECHNICAL\_DESCRIPTOR.RESULT\_REASON column

Genesys Callback reporting requires Interaction Concentrator 8.1.500.04 or higher and GMS 8.5.102.11 or higher, with Genesys Callback properly configured. For links to more information about configuring GMS, ICON, and other components to support Genesys Callback reporting, see the *Genesys Info Mart Deployment Guide*.

- Additional schema changes support reporting on interaction flows that involve applications developed with Genesys Designer. (Support for Genesys Designer is available in certain Genesys Engage cloud implementations.) In particular:
  - The following new SDR\_\* fact and dimension tables, which are defined in the make\_gim.sql and make\_gim\_partitioned.sql scripts, have been added: SDR\_CUST\_ATRIBUTES, SDR\_CUST\_ATRIBUTES\_FACT, SDR\_SURVEY\_I1, SDR\_SURVEY\_I2, SDR\_SURVEY\_S1, SDR\_SURVEY\_S2, SDR\_SURVEY\_STATUS, SDR\_SURVEY\_SCORES.

- Genesys Info Mart now supports reporting on how much time a particular interaction was in focus (that
  is, actively being processed) on the agent desktop. Two new columns, FOCUS\_TIME\_COUNT and
  FOCUS\_TIME\_DURATION in the INTERACTION\_RESOURCE\_FACT (IRF) table, store focus time data. This
  functionality requires Workspace Desktop Edition (WDE) release 8.5.112.08 or higher and Interaction
  Concentrator release 8.1.507.06 or higher.
- Genesys Info Mart now stores data that enables you to determine who ended a chat session. If a customer leaves the chat session before the agent, a new flag, called CUSTOMER\_LEFT\_FIRST, is added to the ANCHOR\_FLAGS dimension and is set in the IRF.ANCHOR\_FLAGS\_KEY field. For conference calls, the flag is set for each IRF record that is active when the customer left the chat session. The time when the customer left the chat, or the time when the agent stopped the chat session is stored in the IRF.IRF\_ANCHOR\_TS column. (IRF\_ANCHOR\_TS is the new name for the column that was called IRF\_ANCHOR\_SENT\_TS in release 8.5.003 and IRF\_ANCHOR\_DATE\_TIME\_KEY prior to that.) The IRF\_ANCHOR\_TS column is populated in each IRF record that is active when the customer leaves the chat session. To support this functionality, Interaction Concentrator release 8.1.507.06 or higher is required.

- In Outbound VoIP environments, with Outbound Contact campaigns running in an Active Switching
  Matrix (ASM) dialing mode, the time that the engaged agent is waiting to be connected to the customer
  (ASM engage duration) is now reported separately from regular talk time, if so configured. Two new
  columns, ASM\_COUNT and ASM\_ENGAGE\_DURATION in the IRF table, are populated based on the
  setting for the new configuration option, populate-irf-asm-engage-duration. (The default option value is
  false.) Genesys Info Mart requires that OCS attaches a special KVP, GSW\_CALL\_TYPE="ENGAGING", to
  identify engaging calls.
- To improve processing of user data that is attached during mediation, a new column, USERDATA\_FLAG, has been added to the MEDIATION\_SEGMENT\_FACT (MSF) table. This flag facilitates an unambiguous join between the MSF and fact extension tables to retrieve correct user data that is attached during mediation.
- The field IRF.LAST\_INTERACTION\_RESOURCE is now supported for all media types. Release 8.5.003 supported this field only for voice interactions. Prior to release 8.5.003, this field was reserved.
- Starting with release 8.5.003.17, to distinguish an agent from other persons in a contact center, a newly introduced value, Person, is set in the RESOURCE\_.RESOURCE\_SUBTYPE column for any persons who are not agents. The previously existing value, Agent, is now used in the RESOURCE\_.RESOURCE\_SUBTYPE column only to identify Agents (that is, the resources for whom the IsAgent flag is set in the Person configuration object). Both subtypes are associated with the Agent resource type that is stored in the RESOURCE\_.RESOURCE\_TYPE column.

- To enhance Tenant metrics to include active multimedia interactions that have not yet 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 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.
- To enable Unicode characters support on Oracle databases, the fields with the varchar data types now use the explicit CHAR character length semantics.
- 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.
- · A new column, CREATE AUDIT KEY, has been added to the SM MEDIA NEUTRAL STATE 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.
- A previously reserved field, LAST\_INTERACTION\_RESOURCE, in the INTERACTION\_RESOURCE\_FACT table
  is now populated for voice interactions.
- New combinations in the TECHNICAL\_DESCRIPTOR table are added for multimedia online interactions that are placed into archive gueues.

- Completed/Archived/InConference/Unspecified
- Completed/Archived/InConference/ConferenceInitiator
- Completed/Archived/InConference/ConferenceJoined
- Completed/Archived/InitiatedConsult/Unspecified
- Completed/Archived/ReceivedConsult/Unspecified
- Completed/Archived/ReceivedRequest/Unspecified
- Completed/Canceled/InConference/Unspecified
- Completed/Canceled/InConference/ConferenceInitiator
- Completed/Canceled/InConference/ConferenceJoined
- Completed/Canceled/InitiatedConsult/Unspecified
- Completed/Canceled/ReceivedConsult/Unspecified
- Completed/Canceled/ReceivedRequest/Unspecified
- 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).
- For the deployments that rely on Genesys Info Mart for reporting on Post-Call Survey user data, new tables can be added to the Info Mart installation database by using the appropriate post-call survey script (make\_gim\_post\_call\_survey.sql, make\_gim\_post\_call\_survey\_partitioned.sql, make\_gim\_post\_call\_survey\_multilang.sql, or make\_gim\_post\_call\_survey\_multilang\_partitioned.sql).

- To support reporting on media-neutral agent states, a new fact table, SM\_MEDIA\_NEUTRAL\_STATE\_FACT, stores the summarized states for each agent across all media. Population of the table is controlled by a new configuration option, **populate-media-neutral-sm-facts**. Priority of agent states relative to each other is controlled with an existing configuration option, **sm-resource-state-priority**.
- To provide Call Detail Record (CDR) data, a new database view, CDR, has been added to the Info Mart schema. The CDR view is based on the INTERACTION\_RESOURCE\_FACT table and MEDIA\_TYPE, INTERACTION\_TYPE, RESOURCE\_, TECHNICAL\_DESCRIPTOR, and DATE\_TIME dimension tables. The DATE\_TIME dimension is presented as a new CDR\_DATE\_TIME view, for purposes of CDR data reporting.

- To assist in exporting and archiving data, audit keys (CREATE\_AUDIT\_KEY and UPDATE\_AUDIT\_KEY) have been added to user-data fact extension tables:
  - IRF\_USER\_DATA\_CUST\_1
  - IRF\_USER\_DATA\_GEN\_1
  - IRF USER DATA KEYS
- To improve performance for downstream reporting applications, organization of the user-data fact and dimension tables has been changed to a clustered model (referred to as index-organized in Oracle).
- A new role reason and technical result reason, IntroducedTransfer, identify IRFs for agents involved in an introduced transfer. For information about when a conference qualifies as an introduced transfer, see the description of the new configuration option, introduced-transfer-threshold.
- A new interaction subtype, InternalConferenceInvite, supports simplified, more meaningful reporting on chat conferences or consultations through a queue, by identifying the subordinate interactions that the agent desktop uses to implement the interaction flow.
- Support for reporting on chat consultations affects the population of various IRF metrics. For more information, see IRF details in the section about documentation changes.
- Population of thread-related columns in the ANCHOR\_FLAGS table is no longer enabled by default. A new
  configuration option, populate-thread-facts, controls whether thread-related metrics will be populated.
  Enabling this functionality might negatively impact Genesys Info Mart performance.
- The initial 8.5.001 release includes schema and configuration changes to prepare Genesys Info Mart to support reporting on interaction flows that involve applications developed with Genesys Designer. In addition, release 8.1.402.07 included schema and configuration changes to prepare Genesys Info Mart to support additional interaction flows, such as the Voice Callback feature of Genesys Mobile Services. The following observable changes in the Info Mart schema support functionality in a future release:
  - New SDR \* fact and dimension tables
  - A new CALLBACK\_FACT table and new callback dimension tables (CALLBACK\_DIM\_1, CALLBACK\_DIM\_2, CALLBACK\_DIM\_3)
  - User data mapping for additional KVPs