

# **GENESYS**

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# Genesys Info Mart Deployment Guide

**User Data Mapping** 

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# User Data Mapping

Genesys Info Mart provides a flexible storage mechanism for a potentially very large number of KVPs that are attached by Genesys solutions.

# User Data Mapping Tables

The Info Mart database schema contains two mapping tables that are required to process and store user data:

- CTL UD TO UDE MAPPING
- CTL\_UDE\_KEYS\_TO\_DIM\_MAPPING

The mapping tables instruct Genesys Info Mart on how to populate the user-data KVPs and where in the Info Mart database to store them.

## [+] Show sample mapping table

The following Figure is a snapshot of a sample populated mapping table. For detailed descriptions of the table columns, refer to the *Genesys Info Mart Reference Manual* for your particular RDMBS type.

KEY_NAME	TABLE_NAME ~	COLUMN_NAME -	PROPAGATION_RULE 💌	DEFAULT_
CUSTOMER_SEGMENT	INTERACTION_DESCRIPTOR	CUSTOMER_SEGMENT	CALL	
SERVICE_TYPE	INTERACTION_DESCRIPTOR	SERVICE_TYPE	CALL	
SERVICE_SUBTYPE	INTERACTION_DESCRIPTOR	SERVICE_SUBTYPE	CALL	
BUSINESS_RESULT	INTERACTION_DESCRIPTOR	BUSINESS_RESULT	CALL	
CASE_ID	IRF_USER_DATA_GEN_1	CASE_ID	CALL	
CUSTOMER_ID	IRF_USER_DATA_GEN_1	CUSTOMER_ID	CALL	
CUSTOM_DATA_116	IRF_USER_DATA_CUST_1	CUSTOM_DATA_1_116	PARTY	
DIM_ATTRIBUTE_1_15	USER_DATA_CUST_DIM_1	DIM_ATTRIBUTE_1_15	PARTY	

Example of Populated Mapping Table

To use user data in your reports, you must:

- 1. Ensure that the upstream data sources (for example, T-Server) are configured to propagate user data as required.
- 2. Configure ICON to store this data in IDB.
- 3. Modify a Genesys-provided user-data script to work for your preferred KVP names.
- 4. Adjust the Info Mart database to be able to store this data.
- 5. Specify mapping rules for Genesys Info Mart to extract and process this data.

For information about how to customize the Genesys-provided user-data script for the initial deployment of Genesys Info Mart, see Customizing the User Data Template. Later, as your reporting needs evolve, you can similarly add more custom tables to the Info Mart database to store new user data KVPs.

#### Warning

GCXI **customers please note:** Some queries for out-of-box GCXI reports rely on inner joins to the IRF\_USER\_DATA\_KEYS and IRF\_USER\_DATA\_GEN\_1 tables; if there are no KVPs mapped to these tables, out-of-box GCXI reports might yield inaccurate or unexpected results. To avoid the risk of missing records in tables that GCXI uses, Genesys strongly recommends that you not remove or disable the predefined user-data configuration.

#### [+] Show example

For example, even if your deployment does not report **CustomerSegment**, **ServiceType**, **ServiceSubType**, and **Business Result**, do not set ACTIVE\_FLAG=0 in the fields for all of these KVPs in the CTL\_UD\_T0\_UDE\_MAPPING table, which maps them to the INTERACTION\_DESCRIPTOR table. If you remove all mappings to the INTERACTION\_DESCRIPTOR table and do not have any custom user-data dimensions, there will be no data in IRF\_USER\_DATA\_KEYS for the inner join that GCXI expects to make. As a result, some reports might be empty or interactions might be missing.

## Viewing Current KVP Mappings

To view the current mapping of user-data KVPs to Info Mart tables and columns, execute the following SQL command against the Info Mart database:

SELECT \* FROM CTL UD TO UDE MAPPING

The result will show both predefined and custom mappings in your deployment.

## Mapping Call-Based Attached Key-Value Pairs

Genesys Info Mart extracts attached data KVPs from the ICON Voice details and ICON Multimedia details data sources — specifically, from the following IDB tables:

- G CUSTOM DATA S
- G USERDATA HISTORY
- G\_SECURE\_USERDATA\_HISTORY
- GM\_F\_USERDATA and GM\_L\_USERDATA

ICON automatically stores predefined router-specific KVPs in the G\_ROUTE\_RESULT table, provided that you configure URS to attach the KVPs to interactions. For more information, see Universal Routing.

ICON stores voice and multimedia attached KVPs in the G\_USERDATA\_HISTORY and G\_SECURE\_USERDATA\_HISTORY tables, based on the options that you configure in the ICON application and in the ICON attached data specification (adata\_spec) XML file. For multimedia interactions, ICON automatically stores predefined KVPs, including workbin usage details, in the G\_USERDATA\_HISTORY table.

ICON stores multimedia-specific attached data in the GM\_F\_USERDATA and GM\_L\_USERDATA tables. The storage and mapping of the attributes that Genesys Info Mart uses for multimedia-specific attached data is predefined, and Genesys Info Mart does not process any custom KVPs in the GM\_F\_USERDATA and GM\_L\_USERDATA tables.

By default, Genesys Info Mart stores the values of the KVPs that are listed in the "KVPs that are mapped by default" section of the table, Commonly Used Attached Data KVPs. If you want to store additional, custom user data, you must define mapping and propagation rules and store them in Control tables in the Info Mart database. Genesys Info Mart then extracts the user data details on the basis of the KVP name and stores the value in the table and column that you designate in the mapping tables (CTL UD TO UDE MAPPING and CTL UDE KEYS TO DIM MAPPING).

As part of the mapping, you specify the propagation rule that Genesys Info Mart will use to determine what value to store if more than one value is extracted for the same key in the same interaction. For more information, see Propagation Rules.

You can also specify what value is stored as a default if a particular KVP is missing for an interaction.

#### Special Requirements

Be aware that your downstream reporting application might have specific requirements for user data that Genesys Info Mart does not store by default. For example, if you want to include reporting on social media metrics — such as Sentiment, Actionability, or Influence — in a deployment with the Genesys historical reporting presentation layer, GCXI has specific requirements for the user-data tables and columns that you must use to store the required KVPs.

For the convenience of GCXI customers, the sample ICON attached-data specification file that Genesys Info Mart provides includes commented-out lines that specify the social media-related KVPs that GCXI requires. For GCXI customers, more information about configuring Genesys Info Mart to store the user data that GCXI requires for social media metrics is available in the Using Attached Data in the Genesys CX Insights User's Guide, and in the Customizing reports section.

#### **RDBMS** Considerations

Depending on the RDBMS, you might have to consider RDBMS limitations when you specify customized mapping of KVPs to user-data dimension tables.

Microsoft SQL Server and PostgreSQL

An RDBMS limitation restricts the maximum length of index keys:

- On Microsoft SQL Server releases earlier than 2016, to 900 bytes
- On Microsoft SQL Server 2016+, to 1700 bytes
- · On PostgreSQL, to 2730 bytes

To avoid failures of the transformation job, the total length of values for KVPs that are configured to populate any one of the user-data dimension tables must not exceed the RDBMS limit.

For the KVPs that are mapped to any one of the user-data dimension tables by default, in releases earlier than 8.5.010.14 Genesys Info Mart restricts the length of individual user-data KVP values to 170 bytes (89 characters in multi-language Microsoft SQL Server databases), to ensure that combinations of KVPs do not exceed the limit.

Starting with release 8.5.010.14, in both single-language and multi-language Microsoft SQL Server databases the data types of certain user-data KVP columns was changed from varchar to nvarchar, without reducing the length of the values. As a result, the potential length of the indexes for some tables (for example, INTERACTION\_DESCRIPTOR, various SDR\_\* dimensions) might exceed the RDBMS limit in deployments with Microsoft SQL Server versions earlier than 2016. For this reason, Genesys strongly recommends that Microsoft SQL Server deployments for Genesys Info Mart 8.5.010.14 and later use Microsoft SQL Server 2016 or later supported version.

This limitation does not apply to KVPs that are configured to populate user-data fact tables.

#### Oracle

There are no RDBMS limitations that you have to consider.