Genesys Predictive Routing

Genesys Configuration Options Current

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Genesys Predictive Routing Options Reference

Welcome to the Options Reference for Genesys Predictive Routing. This document provides full information about all the configuration options that are set on the Genesys Predictive Routing application object and in Genesys Predictive Routing–related configuration sections on other objects, such as DNs.

Options for this product are grouped into the following components:

Data Loader

Options for this component are contained in the following configuration sections:

- dataset-<name>
- default
- log

> **Tip**
> In the summary table(s) below, type in the Search box to quickly find options, configuration sections, or other values, and/or click a column name to sort the table. Click an option name to link to a full description of the option. Be aware that the default and valid values are the values in effect with the latest release of the software and may have changed since the release you have; refer to the full description of the option to see information for earlier releases.
>
> **Power users: Download a CSV file** containing default and valid values and descriptions.

The following options are configured at the application level (in other words, on the application object).

Section	Option	Default	Changes Take Effect
dataset-<name>	chunk-size	PT15M (15 minutes)	Immediately
dataset-<name>	csv-separator	comma	Immediately
dataset-<name>	data-type	No default value	Immediately
dataset-<name>	end-date	1970-01-01	After 15 min timeout
dataset-<name>	enforce-schema-on-joined-data	true	After 15 min timeout
dataset-<name>	join	No default value	After 15 min timeout
dataset-<name>	join-keys	No default value	After 15 min timeout
dataset-<name>	join-type	inner	After 15 min timeout
dataset-<name>	location	No default value	After 15 min timeout
dataset-<name>	num-days-upload	120	on initial startup
dataset-<name>	sql-query	No default value	After 15 min timeout
dataset-<name>	start-date	1970-01-01	After 15 min timeout
dataset-<name>	trigger-pipeline-execution	False	On next data upload
dataset-<name>	update-period	PT24H	After 60 sec timeout
Section	**Option**	**Default**	**Changes Take Effect**

Section	Option	Default	Changes Take Effect
dataset-<name>	upload-dataset	see option description	After 60 sec timeout
dataset-<name>	upload-schedule	No default value	On the next upload
dataset-<name>	use-cloud-feature-engineering	True	Immediately
dataset-<name>	vq-filter	No default value	On the next data upload
default	anon-salt	a hashed salt string	on initial Data Loader startup
default	confserv-monitoring-reconnect-count	1	On restart
default	confserv-monitoring-reconnect-min	1	On restart
default	ignore-ascii-characters	false	On restart
default	include-groups	No default value	On restart
default	include-skills	No default value	On restart
default	password	none	After restart
default	platform-api-key	No default value	After restart
default	platform-auth-url	No default value	Immediately
default	platform-base-url	No default value	After restart
default	platform-update-thread-wait-timeout	50	On restart
default	platform-username	No default value	After restart
default	skip-groups	False	After restart
log	all	stdout	Immediately
log	standard	stdout	Immediately
log	verbose	standard	Immediately
Section	**Option**	**Default**	**Changes Take Effect**

default Section

anon-salt

Default Value: a hashed salt string
Valid Values: a hashed salt string
Changes Take Effect: on initial Data Loader startup

WARNING: Do not edit this option manually!

When Data Loader starts up, it generates a unique 64-character salt string to be used for anonymization. It stores an obfuscated version of the salt string as the value for the **anon-salt** option. This same salt value is written to the primary and backup instances of Data Loader, and to the Predictive_Route_DataCfg `Transaction List` object **anon-salt** option.

If you try to change a salt value, Data Loader generates an alarm message and restores the original salt value. If for some reason, Data Loader cannot restore the original salt value, your predictors become unusable for scoring and routing. See the "Data anonymization" section on the "Set up data for import" topic in the *Predictive Routing Deployment and Operations Guide*.

confserv-monitoring-reconnect-count

Default Value: 1
Valid Values: Integers from 10-1000
Changes Take Effect: On restart

Specifies the maximum number of reconnect attempts to Configuration Server before Data Loader generates log event 107-60706, for which you should set an alarm. To be exact, if Data Loader detects a switchover or disconnection the number of times set in this option during the time period set in the **[default].confserv-monitoring-reconnect-min** option, Data Loader generates the log event. The cancel event for this alarm should be 107-60707.

confserv-monitoring-reconnect-min

Default Value: 1
Valid Values: Integers from 10-1000
Changes Take Effect: On restart

Specifies a time interval, in minutes, that Data Loader uses when monitoring multiple Configuration Server switchover events. If Data Loader detects as many switchovers or disconnects as specified in the **[default].confserv-monitoring-reconnect-count** during the time period configured in this option, Data Loader generates log event 107-60702, for which you should set an alarm.

ignore-ascii-characters

Default Value: false
Valid Values: true, false
Changes Take Effect: On restart

Enables you to specify how Data Loader handles Agent Profile columns with the following unsupported ASCII characters: [Space], -, <, >.

- To have Data Loader remove the specified characters for Agent Profile schema columns, but add the affected columns to the schema, set the option to **true**.
- To have columns with the specified characters entirely omitted from the schema, set the option to **false** (the default value).

Important: Columns with other unsupported characters continue to be omitted from the schema. For a complete list of unsupported characters, see Configure Agent Profiles in the *Predictive Routing Help*.

include-groups

Default Value: No default value
Valid Values: A comma-separated list of valid agent group names
Changes Take Effect: On restart

Use this option to specify a list of agent groups for Data Loader to monitor for configuration changes. This list is a subset of the total list of groups present in agent profiles. Data Loader ignores all groups except those you list. To monitor all groups, leave the option value empty (the default setting).

For example, you might set the value of this option as follows to have Data Loader monitor only two groups: `"GROUP1,GROUP2"`

include-skills

Default Value: No default value
Valid Values: A comma-separated list of valid skill names
Changes Take Effect: On restart

Use this option to specify a list of skills for Data Loader to monitor for updates. This list is a subset of the total list of skills present in agent profiles. Data Loader ignores all skills except those you list. To monitor all skills, leave the option value empty (the default setting).

For example, you might set the value of this option as follows to have Data Loader monitor only two skills: `"CLOSING_AN_ACCOUNT,SALES"`

password

Default Value: none
Valid Values: A valid password
Changes Take Effect: After restart

Specifies the password Data Loader should use to connect to Genesys Predictive Routing.

platform-api-key

Default Value: No default value
Valid Values: A valid Predictive Routing API key
Changes Take Effect: After restart

Specifies an access key that is used by Data Loader to access the Genesys Predictive Routing API. To obtain the value of this option, open the **Accounts** tab in the Predictive Routing user interface and click the name of your account. The **API key** field appears on the **Account** configuration window. For details, see Configuring Accounts in the *Genesys Predictive Routing Help*.

platform-auth-url

Default Value: No default value
Valid Values: (string) A valid Predictive Routing URL
Changes Take Effect: Immediately

Specifies the Genesys Predictive Routing API authentication endpoint URL. This value is the host name of the server where you access Predictive Routing, followed by **/api/v2.0/authenticate**.

platform-base-url

Default Value: No default value
Valid Values: (string) A valid Predictive Routing URL
Changes Take Effect: After restart

Specifies the common substring of Genesys Predictive Routing API endpoint URLs. This value is the host name of the server where you access Predictive Routing.

You must specify **https://** in the base URL string.

platform-update-thread-wait-timeout

Default Value: 50
Valid Values: Any positive integer
Changes Take Effect: On restart

Specifies the thread waiting timeout, in milliseconds, used when Data Loader subscribes to updates from the Predictive Routing platform. This timeout can prevent a polling loop from taking up unacceptable CPU bandwidth at busy periods.

platform-username

Default Value: No default value
Valid Values: (string) Any valid email address registered with Predictive Routing.
Changes Take Effect: After restart

Specifies the username Data Loader uses to connect to the Genesys Predictive Routing platform.

skip-groups

Default Value: False
Valid Values: True, False
Changes Take Effect: After restart

If this parameter set to **true**, Data Loader ignores all Configuration Server data about groups and events connected with updates to groups.

Set this option to **true** if the scoring request **action_filters** field contains only the skill expression filters and does not include filters by Agent Group names. Data Loader then skips reading Agent Group information from Configuration Server, which should significantly reduce Data Loader initialization time on start up.

Set this option to **false** to have Data Loader use the previously-stored agent profiles.

dataset-<name> Section

The **dataset-<name>** section is used to configure Datasets, in combination with the corresponding **schema-<name>** section. The *<name>* part of the section name should be replaced by a Dataset name of your choice.

Create multiple **dataset-*** sections, each containing the necessary options. Each one corresponds to a Dataset. Note that a Dataset configured in a **dataset-<name>** section can include fields joined from other Datasets, and/or from the Agent Profile and Customer Profile. This joining is also controlled by options configured in that section.

Special Dataset Names and Configuration

The following section names are reserved for the Agent Profile dataset, which is created by direct import from Genesys Info Mart, and the Customer Profile dataset. These reserved names cannot be used for any other purpose. Each has particular configuration options that must be included, while others can be omitted. If an option has a value specified, that option requires that value when you in that section.

- **dataset-agents-gim**
  - **sql-query**
  - **data-type**=agents
  - **enforce-schema-on-joined-data**
  - **join**
  - **join-type**
  - **upload-dataset**
- **dataset-customers**
  - **csv-separator**
  - **data-type**=customers
  - **join-keys**
  - **location**
  - **upload-dataset**

Sections configuring uploads of interaction data from the Genesys Info Mart database do not have a mandatory name, but they do have mandatory options, and some of those options have mandatory values. For example, you might name this section **dataset-interactions-aht**. Interaction datasets require the following options:

-
  - **chunk-size**
  - **sql-query**
  - **data-type**=interactions

- **enforce-schema-on-joined-data**
- **join**
- **join-type**
- **upload-dataset**

Note: Interaction datasets are only uploaded from the direct connection to the Genesys Info Mart database. To add other interaction-related data, such as feedback or outcome data not stored in the Genesys Info Mart database, upload a CSV file with the **data-type** option set to `outcomes`.

Sections configuring CSV uploads of agent data do not have a mandatory name, but they do have mandatory options, and some of those options have mandatory values.

- For example, you might name this section **dataset-agents-csv**. It requires the following options:
  - **csv-separator**
  - **data-type**=agents
  - **join-keys**
  - **location**
  - **upload-dataset**

See Configure Data Loader to Upload Data for a comprehensive discussion of how the **dataset-<name>** and **schema-<name>** sections, and their options, work together to configure data for upload.

chunk-size

Default Value: PT15M (15 minutes)
Valid Values: String in ISO 8601 duration format, PT1S (1 second) or higher
Changes Take Effect: Immediately

Defines the chunk size, defined as interactions that happened within the specified length of time, used when extracting data from the Genesys Info Mart Database for a dataset of the *interactions* data type. Interactions that started within the chunk, as defined by this option value, are uploaded to the GPR Core Services platform as a single file and are then appended to the previously uploaded data for the associated dataset.

The following table provides sample formats that are supported for the chunk-size option.

Value	Description
`PT20.345S`	Specifies 20.345 seconds
`PT15M`	Specifies 15 minutes
`PT10H`	Specifies 10 hours
`P2D`	Specifies 2 days
`P2DT3H4M`	Specifies 2 days, 3 hours and 4 minutes
`P-6H3M`	Specifies -6 hours and +3 minutes
`-P6H3M`	Specifies -6 hours and -3 minutes
`-P-6H+3M`	Specifies +6 hours and -3 minutes

csv-separator

Default Value: comma
Valid Values: comma, tab
Changes Take Effect: Immediately

Indicates the separator used in CSV data files that Data Loader is to upload, as indicated in the **location** option configured in the same section. This option is necessary only if you are configuring a Dataset that is to be created by uploading a CSV file.

data-type

Default Value: No default value
Valid Values: agents, customers, interactions, outcomes
Changes Take Effect: Immediately

Specifies the type of Dataset you are uploading.

- **agents** - Data Loader uploads the data to the Agent Profile on the GPR Core Services platform. This data can come from Genesys Info Mart or from a CSV file. You can also join it with a Dataset of the "interactions" type.
- **customers** - Data Loader uploads the data to the Customer Profile on the GPR Core Services platform. Its source is a CSV file. You can also join it with a Dataset of the "interactions" type.
- **interactions** - The Dataset contains interactions extracted from Genesys Info Mart database, which Data Loader uploads to the GPR Core Services platform. This data can optionally be joined with the

Datasets of the "agents", "customers", or "outcomes" types before it is uploaded.

- **outcomes** - The Dataset contains information extracted from sources other than the Genesys Info Mart database and that is provided as a CSV file, which Data Loader uploads to the GPR Core Services platform. This data can optionally be joined with the Datasets of the "interactions" type.
  Note: This data type is used for *any* data that is not of the "interactions" type and that is being uploaded to a Dataset with a user-specified name (that is, a Dataset other than **dataset-agents-gim** or **dataset-customers**). The data you are uploading does not have to be literal outcome data.

end-date

Default Value: 1970-01-01
Valid Values: date in YYYY-MM-DD format
Changes Take Effect: After 15 min timeout

The last date in the period for which Data Loader should retrieve data for a dataset. This date can be in the future.

- Change the default value to a date suitable for your environment. For example, you might enter 2020-11-04.

This option is required for datasets of the **interactions** and **outcomes** types. It is not used for datasets of the **customers** and **agents** types.

enforce-schema-on-joined-data

Default Value: true
Valid Values: true, false
Changes Take Effect: After 15 min timeout

- If set to **true**, all fields are joined to the "interactions" Dataset from the Datasets listed in the **join** option configured in the same section.
- If set to **false**, all fields from the Datasets listed in the **join** option configured in the same section are added to the "interactions" Dataset.

join

Default Value: No default value
Valid Values: a comma-separated list of section names containing dataset configurations
Changes Take Effect: After 15 min timeout

Specifies the list of the Datasets of the "agents", "customers", or "outcomes" types to join with the current "interactions" Dataset prior to upload to the GPR Core Services platform.

This join can be inner or outer depending on the value of the **join-type** option configured in the same section. The following examples show what you join depending on the value or values specified for this option:

- **agents** - Joins interaction data obtained from Genesys Info Mart with agent information uploaded from Genesys Info Mart or from a CSV file.
- **customers** - Joins interaction data obtained from Genesys Info Mart with customer information uploaded from a CSV file.
- **fcr** - Joins interaction data obtained from Genesys Info Mart with first call resolution (FCR) interaction outcome data provided in a CSV file. For this value to be valid, you must have configured **dataset-fcr** and **schema-fcr** sections.
- **agents, customers** - Joins interaction data obtained from Genesys Info Mart with the data from the Agents and Customer profiles.
- **agents, customers, fcr** - Joins interaction data obtained from Genesys Info Mart with the data from the the Agents and Customer profiles and the FCR interaction outcome data.

join-keys

Default Value: No default value
Valid Values: Comma-separated list of column names
Changes Take Effect: After 15 min timeout

A comma-separated list of the column names defined in the **schema-agents-gim** section that contain key values by which to join the data from this agent Dataset to an interaction type Dataset.

join-type

Default Value: inner
Valid Values: inner, outer
Changes Take Effect: After 15 min timeout

- **inner** - Only the records successfully joined with the specified Datasets (outcomes, agents, customers, FCR, and so on) are uploaded to the GPR Core Services platform. This is the the typical value used in production environments.
- **outer** - All interaction records are uploaded to the GPR Core Services platform. Any missing data is replaced with **null** values. Typically this value is used only for troubleshooting.

location

Default Value: No default value
Valid Values: A valid path name string for a file containing a dataset in CSV format
Changes Take Effect: After 15 min timeout

Specifies the path to a CSV file containing a dataset. Required for the datasets provided as CSV files.

Configure the file location as described in the following steps:

1. Place the file itself in the Data Loader IP folder structure using the following path:
   `<ip_folder>/ai-data-loader-scripts/scripts/datasets_<dataset_type>`
2. The value for the location option is the path inside the Data Loader Docker container. Specify only the final part of the full path as given below:
   `/datasets/<dataset_type>/<dataset file name>.csv`

The possible dataset types are **agents**, **customers**, and **outcomes**.

Example:

- The folder path for the Customer Profile dataset is: `<ip folder>/ai-data-loader-scripts/scripts/datasets_customers`
- The **location** option value for this file is `datasets/customers /<dataset_file_name>.csv`

Note: Interactions are only uploaded using the direct Genesys Info Mart-Data Loader connection. If you are uploading additional interaction data from a CSV file, use the **outcome** dataset type.

If you want to update the dataset using a new CSV file, it must have the same file name or the option value must be changed to reflect the new file name. In either case, the folder where the file is located must remain the same.

num-days-upload

Default Value: 120
Valid Values: integers 1 to 180
Changes Take Effect: on initial startup
Introduced: 9.0.019.01

Specifies the number of days of data Data Loader should upload from Genesys Info Mart when it starts for the first time. The data for each day is uploaded to a separate file.

Warning! Do not change the default value without consulting with your Genesys representative to avoid unintended results.

After this initial upload, Data Loader uploads daily on the schedule you configure using the upload-schedule and chunk-size options.

Note: Do not change the **chunk-size** option value from the default, which is one day.

To avoid uploading partial data for calls in progress, Data Loader does not upload data from the current day. If Data Loader does miss any in-progress interactions, it uploads them the following day.

Genesys strongly recommends that you run uploads between the hours of 00:05am and 5:00am. This enables GPR to retrain your models on the new data during a period that is typically less active.

sql-query

Default Value: No default value
Valid Values: A string starting with "file:" and followed by a valid path to a file in the Data Loader Docker container containing an SQL query
Changes Take Effect: After 15 min timeout
Modified: 9.0.017.01

You need to configure this option only when you are using a customized query to extract data from the Genesys Info Mart database for the Agent Profile and interactions datasets. You do not need to configure the **sql-query** option to create datasets from .csv files, such as for Customer Profile data, outcomes data, and agent data from sources other than Genesys Info Mart.

Two example SQL queries are provided in the Data Loader Docker container for your reference:

- **/dl/interaction_data_aht.sql** - the query used to collect average handling time (AHT) data for Data Loader to upload to the interactions dataset.
- **/dl/agents_data_gim.sql** - the query used to collect data to populate the default Agent Profile dataset.

For instructions to create your own SQL query, see Create your own SQL query in the *Deployment and Operations Guide*.

The following is an example of a valid value for this option: **file:/datasets/outcomes/my_interactions_data_gim.sql**

If you do not configure this option in the **[dataset-agents-gim]** or **[dataset-interactions-gim]** sections, Data Loader uses the appropriate default query.

start-date

Default Value: 1970-01-01
Valid Values: date in YYYY-MM-DD format
Changes Take Effect: After 15 min timeout

The earliest date in the period for which Data Loader should retrieve data for a dataset.

- Change the default value to a date suitable for your environment. For example, you might enter 2018-11-29.

This option is required for datasets of the **interactions** and **outcomes** types. It is not used for datasets of the **customers** and **agents** types.

trigger-pipeline-execution

Default Value: False
Valid Values: True, False
Changes Take Effect: On next data upload

This option enables you to trigger the execution of the Cloud Feature Engineering pipeline. The pipeline execution happens after the next scheduled interactions data upload is complete (unless the number of newly-uploaded records is 0).

update-period

Default Value: PT24H
Valid Values: String in ISO 8601 duration format, from PT15M to P30D
Changes Take Effect: After 60 sec timeout
Related Options: chunk-size

Specifies the interval at which Data Loader attempts to upload data, enabling fresh data stored in the Genesys Info Mart database to be automatically uploaded to the associated dataset. Used with **dataset-agents-gim** and the main interactions dataset, which are the datasets created directly from Genesys Info Mart data.

- If the **update-period** value is less than the value for the **chunk-size** option, Data Loader uploads all data after the watermark marking the end of the previous upload.
- If the **update-period** value is larger than the value of the **chunk-size** option, Data Loader uploads all data after the watermark, split into chunks of the size specified by the value of the **chunk-size** option.

Examples

NOTE: In the the examples below the value of the **end-date** option is set in the future.

- If **update-period** is set to 1 day (P1D) and **chunk-size** is set to one hour (PT1H), all the data after the previous watermark is uploaded in 1-hour chunks. This chunking is designed to prevent overloading your infrastructure.
- If you are uploading a dataset for the first time and set **start-date** to 90 days in the past, **update-period** to 1 day (P1D), and **chunk-size** to 30 days, Data Loader uploads the 90 days of data in three 30-day chunks.

upload-dataset

Default Value: see option description
Valid Values: true, false
Changes Take Effect: After 60 sec timeout
Modified: 9.0.017.01

Notifies Data Loader that the dataset is fully configured and the data processing for this dataset can be started. Data Loader checks every 60 seconds to see whether the value of this option has changed.

If set to `true`, Data Loader starts the dataset upload. If set to `false`, Data Loader does not upload data.

The default value for this option is pre-set to `true` for the **dataset-agent-gim** dataset and to `false` for the **dataset-interactions-gim** dataset. This configuration ensures that the agent profile, which needs to be in place first, is uploaded immediately.

NOTE: The **dataset-interactions-gim** configuration section was included in the default Data Loader configuration template starting in release 9.0.017.01. It is used with the cloud feature engineering pipeline (CFEP).

upload-schedule

Default Value: No default value
Valid Values: A valid schedule in Cron format
Changes Take Effect: On the next upload
Introduced: 9.0.018.00

This option enables you to execute the upload of a dataset on a preconfigured schedule. In release 9.0.017.01 and lower, or if you do not set a value for the upload-schedule option, data upload scheduling is controlled using the update-period and chunk-size options.

The value for this option must be a Cron expression. For a complete explanation of how to create a Cron schedule, see the "Configure the data upload schedule" section of the "Configure Data Loader to upload data" topic in the Genesys Predictive Routing Deployment and Operations Guide.

use-cloud-feature-engineering

Default Value: True
Valid Values: True, False
Changes Take Effect: Immediately

Controls whether Data Loader should upload data to the cloud feature engineering pipeline (CFEP).

- **true** (the default) - Data Loader uploads your data to the GPR Core Platform via the CFEP, where it can be augmented with additional features and joined with other datasets before it is used for predictor and model creation, model training, and agent scoring.
- **false** - Data Loader uploads data as it did in previous releases, uploading it to the Agent Profile schema, Customer Profile schema, or a configured interactions or outcome dataset, depending on the value of the **data-type'** option.

vq-filter

Default Value: No default value
Valid Values: a comma-separated list of valid virtual queue names
Changes Take Effect: On the next data upload

To have Data Loader upload data only from a subset of virtual queues (VQs) for inclusion in an interaction-type dataset, enter a comma-separated list of the VQs to include. Data Loader uploads records from the Genesys Info Mart database associated with the specified VQs.

schema-<name> Section

The **schema-<name>** section is used to define the schema for the dataset with the matching **<name>**. That is, the **schema-mydataset** section contains options describing the data schema to be used in the dataset configured in the **dataset-mydataset** section.

The options in the **schema-<name>** sections depend on the requirements for the specific dataset. Each option name is a dataset column name. The option values are the value for the field (which might be the joined schema from which the value is obtained), the datatype, and, if the field contains sensitive or PII data, the value anon.

Special Schema Names and Configuration

The following section names are reserved for the Agent Profile schema and Customer Profile schema, and cannot be used for any other purpose.

- **schema-agents-gim**
- **schema-customers**

See Configure Data Loader to Upload Data for the options required for each type of reserved schema configuration section.

No public options in this section.

log Section

all

Default Value: stdout
Valid Values: stdout, stderr, network, memory, <filename>
Changes Take Effect: Immediately

Specifies the outputs to which an application sends the log events of the **all** level.

- stdout - Log events are sent to the Standard output (stdout).
- stderr - Log events are sent to the Standard error output (stderr).
- network - Log events are sent to Message Server, which can reside anywhere on the network. Message Server stores the log events in the Log Database.
  Setting the **all** log level option to the network output enables an application to send log events of the Standard, Interaction, and Trace levels to Message Server. Debug-level log events are neither sent to Message Server nor stored in the Log Database.
- memory - Log events are sent to the memory output on the local disk. This is the safest output in terms of the application performance.
- <filename> - Log events are stored in a file with the specified name. If a path is not specified, the file is created in the application working directory.

The log output types must be separated by a comma when more than one output is configured. For example:

all = stdout, logfile

If you specify a file path, you must use the following format: **/log/asc/*Expected_File_Name*** . This is the default path used by the **docker-compose.yml** file, which maps the Data Loader log directory the specified folder in the host machine. If you want to use a different log file location, you must specify the in both the all option and the **docker-compose.yml** file.

standard

Default Value: stdout
Valid Values: stdout, stderr, network, memory, <filename>

Changes Take Effect: Immediately

Specifies the outputs to which an application sends the log events of the Standard level.

- stdout - Log events are sent to the Standard output (stdout).
- stderr - Log events are sent to the Standard error output (stderr).
- network - Log events are sent to Message Server, which can reside anywhere on the network. Message Server stores the log events in the Log Database.
  Setting the all log level option to the network output enables an application to send log events of the Standard, Interaction, and Trace levels to Message Server. Debug-level log events are neither sent to Message Server nor stored in the Log Database.
- memory - Log events are sent to the memory output on the local disk. This is the safest output in terms of the application performance.
- <filename> - Log events are stored in a file with the specified name. If a path is not specified, the file is created in the application working directory.

The log output types must be separated by a comma when more than one output is configured. For example:

standard = stderr, network

verbose

Default Value: standard
Valid Values: all, debug, trace, interaction, standard, none
Changes Take Effect: Immediately

Determines whether a log output is created. If it is, specifies the minimum level of log events generated. The log events levels, starting with the highest priority level, are Standard, Interaction, Trace, and Debug.

- all - All log events (that is, log events of the Standard, Trace, Interaction, and Debug levels) are generated.
- debug - The same as **all**.
- trace - Log events of the Trace level and higher (that is, log events of the Standard, Interaction, and Trace levels) are generated, but log events of the Debug level are not.
- interaction - Log events of the Interaction level and higher (that is, log events of the Standard and Interaction levels) are generated, but log events of the Trace and Debug levels are not.
- standard - Log events of the Standard level are generated, but log events of the Interaction, Trace, and Debug levels are not.
- none - No output is produced.

Predictive_Route_DataCfg

Options for this component are contained in the following configuration sections:

- default
- default-predictor

> **Tip**
>
> In the summary table(s) below, type in the Search box to quickly find options, configuration sections, or other values, and/or click a column name to sort the table. Click an option name to link to a full description of the option. Be aware that the default and valid values are the values in effect with the latest release of the software and may have changed since the release you have; refer to the full description of the option to see information for earlier releases.
>
> **Power users: Download a CSV file** containing default and valid values and descriptions.

The following options are configured at the application level (in other words, on the application object).

Section	Option	Default	Changes Take Effect
default	anon-agent-id	No default value	when the upload-dataset option is set to true for the corresponding dataset
default	anon-customer-id	No default value	when the upload-dataset option is set to true for the corresponding dataset
default	anon-salt	a hashed salt string	on initial Data Loader startup
default	deployment-type	hybrid	on initial startup of GPR
default	emergency-scoring-token	empty string	Immediately
default	enable-log-suppression	true	on the next interaction
default	format-as-map	true	Immediately
default	global-map-timeout	7200	On the next interaction
default	log-to-api	false	On the next interaction
default	orig-connid-key	None	Immediately
default	overload-control-	1000	Immediately
Section	**Option**	**Default**	**Changes Take Effect**

Section	Option	Default	Changes Take Effect
	timeout		
default	password	No default value	After restart
default	platform-api-key	No default value	After restart
default	platform-auth-url	none	immediately
default	platform-base-url	No default value	After restart
default	platform-base-url	No default value	After restart
default	platform-logging-url	none	On the next interaction
default	platform-request-timeout	5000	On the next interaction
default	platform-username	No default value	After restart
default	proxy-host	No default value	On the next interaction processed by GPR
default	proxy-password	No default value	on the next interaction processed by GPR
default	proxy-port	0	on the next interaction processed by GPR
default	proxy-username	No default value	on the next interaction processed by GPR
default	scoring-token-expiration	43200	Immediately
default	send-user-event	false	Immediately
default	udata-keys-to-exclude	no default value	within 24 hours
default	use-double-selection	false	Immediately
default	use-vqid-identifier	True	On the next interaction
default	vq-for-reporting	No default value	Immediately
default-predictor	ab-test-gpr-off-period	0	On the next interaction
default-predictor	ab-test-gpr-on-period	0	On the next interaction
default-predictor	ab-test-time-slice	0	Immediately
default-predictor	context-id-key	No default value	Immediately
default-predictor	default-agent-score	0	On the next interaction
default-predictor	initial-threshold-timeout	0	On the next interaction processed
default-predictor	login-status-expression	no default value	On the next interaction
default-predictor	max-agent-occupancy-factor	0.5	On the next interaction
default-predictor	max-agent-occupancy-threshold	100.0	On the next interaction
default-predictor	max-score	100	On the next interaction processed
default-predictor	min-agent-occupancy-factor	2.0	On the next interaction
Section	**Option**	**Default**	**Changes Take Effect**

Section	Option	Default	Changes Take Effect
default-predictor	min-agent-occupancy-threshold	0.0	On the next interaction
default-predictor	platform-scoring-url	none	On the next interaction processed
default-predictor	priority-increment	1	On the next interaction
default-predictor	priority-init-interval	300	On the next interaction
default-predictor	priority-interval	10	On the next interaction
default-predictor	prr-mode	off	Immediately
default-predictor	score-base-threshold	0	On the next interaction processed
default-predictor	set-dynamic-priority	False	On the next interaction
default-predictor	setreadycondition-timeout	600 (seconds)	On the next interaction
default-predictor	threshold-relaxation-step	1	On the next interaction processed
default-predictor	threshold-relaxation-timeout	1	On the next interaction processed
default-predictor	use-action-filters	false	Immediately
default-predictor	use-agent-occupancy	false	On the next interaction
default-predictor	use-crm-query	true	Immediately
default-predictor	use-keepqueue	true	On next interaction
default-predictor	use-login-status	false	On the next interaction
default-predictor	use-setreadycondition	false	On the next interaction
Section	**Option**	**Default**	**Changes Take Effect**

default-predictor and <predictor_name> Section

> **Important**
>
> All options in this section can be configured either in the **[default-predictor]** section or the **[<*predictor_name*>]** section, where <*predictor_name*> is the user-configured name of a specific Predictor.

Some functionality has multiple options controlling the desired behavior:

- Agent Occupancy Options
- Agent Holdout Options
- Dynamic Interaction Priority Options

Agent Occupancy Options

Agent occupancy is the percentage of time that an agent is working while logged in, a service objective that can be specified when building a staffing forecast. Agent occupancy data is taken from Stat Server by URS using the SData function. Stat Server collects agent occupancy data using the StatAgentOccupancy statistic. The routing strategy filters agents by occupancy in the ScoreIdealAgent callback subroutine. The agent occupancy results are used to sort the agents in the target agent group; over-occupied agents drop down lower in the sorted list.

max-agent-occupancy-factor
max-agent-occupancy-threshold
min-agent-occupancy-factor
min-agent-occupancy-threshold
use-agent-occupancy

Agent Holdout Options

Agent hold-out enables you to have an interaction wait a specified time, even when an agent has become available, if the available agent is has a low score for the interaction and there is a chance a better-matched agent might become available within the configured time window.

initial-threshold-timeout
score-base-threshold
threshold-relaxation-step
threshold-relaxation-timeout

Dynamic Interaction Priority Options

If an interaction has a low score for all targeted agents, it can stay in a queue for a long time. To avoid such situations, you can configure a schedule for incremental priority increases. The schedule is set once for each interaction processed by GPR. The following options control interaction priority increments.

> **Important**
>
> If you already use priority increments for the strategy into which you are inserting the GPR subroutines, you doo not need to configure these options. If you are using priority increments only for predictive routing, use the following options to configure it.

priority-increment
priority-init-interval
priority-interval
set-dynamic-priority

- ab-test-gpr-off-period
- ab-test-gpr-on-period
- ab-test-time-slice
- context-id-key
- default-agent-score
- initial-threshold-timeout
- login-status-expression
- max-agent-occupancy-factor
- max-agent-occupancy-threshold
- max-score
- min-agent-occupancy-factor
- min-agent-occupancy-threshold
- platform-scoring-url
- priority-increment
- priority-init-interval
- priority-interval
- prr-mode
- score-base-threshold
- set-dynamic-priority
- setreadycondition-timeout
- threshold-relaxation-step
- threshold-relaxation-timeout
- use-action-filters
- use-agent-occupancy
- use-crm-query
- use-keepqueue
- use-login-status
- use-setreadycondition

ab-test-gpr-off-period

Default Value: 0
Valid Values: 0, positive integers
Changes Take Effect: On the next interaction
Dependencies: prr-mode, ab-test-gpr-on-period

Introduced: 9.0.018.01

Specifies the period of time, in seconds, that skills-based routing should route interactions when using time-sliced A/B test mode. This option alternates with the **ab-test-gpr-on-period** option, with each routing method used for the length of time you specify in the corresponding option. The split percentage is calculated based on the ratio of the two option values.

Important: These options take effect ONLY when the value set for the **prr-mode** option is `ab-test-time-sliced`.

For each interaction, the **gpmUse** KVP records whether GPR (gpmUse = 1) or skills-based routing (gpmUse = 0) routed the interaction.

If either the **ab-test-gpr-on-period** or **ab-test-gpr-off-period** option is set to `0`, or has a negative or invalid value, GPR defaults to a 50/50 time split with the duration of each routing mode defined by the value of the **ab-test-time-slice** option.

ab-test-gpr-on-period

Default Value: 0
Valid Values: 0, positive integers
Changes Take Effect: On the next interaction
Dependencies: prr-mode, ab-test-gpr-off-period
Introduced: 9.0.018.01

Specifies the period of time, in seconds, that GPR should route interactions when using time-sliced A/B test mode. This option alternates with the **ab-test-gpr-off-period** option, with each routing method used for the length of time you specify in the corresponding option. The split percentage is calculated based on the ratio of the two option values.

Important: These options take effect ONLY when the value set for the **prr-mode** option is `ab-test-time-sliced`.

For each interaction, the **gpmUse** KVP records whether GPR (gpmUse = 1) or skills-based routing (gpmUse = 0) routed the interaction.

If either the **ab-test-gpr-on-period** or **ab-test-gpr-off-period** option is set to `0`, or has a negative or invalid value, GPR defaults to a 50/50 time split with the duration of each routing mode defined by the value of the **ab-test-time-slice** option.

ab-test-time-slice

Default Value: 0
Valid Values: 0, positive integers
Changes Take Effect: Immediately
Dependencies: prr-mode
Modified: 9.0.017.00

To enable 50/50 A/B testing, which when Predictive Routing and skills-based routing are turned on alternately for equal periods, set the **prr-mode** configuration option in the same section to `ab-test-time-sliced` and configure a value for this `ab-test-time-slice` option. The time slice you set is

how long each routing method is enabled before switching to the other.

Note: To configure non-50/50 A/B test periods, set the `ab-test-gpr-on-period` and `ab-test-gpr-off-period` options in such a way as to create the on-off split you want to use. For instructions, see the "Configure a non-50/50 comparison test time split" section in the "Routing scenarios using GPR" topic of the *Genesys Predictive Routing Deployment and Operations Guide*.

When enabled and set to one of the following values, time-sliced A/B testing works as follows:

- 0 (the default) - The SetIdealAndReadyCondition subroutine uses a formula based on the time of day and the date to determine whether particular interaction belongs to Group A or Group B. The change from A to B and then back to A, and so on, occurs hourly. Which period starts at midnight depends on the whether the day of the year is even or odd. If the date is an odd number, A starts at midnight; if it is an even number, B starts at midnight.
- A nonzero value (in seconds) - Genesys recommends that you do not set the value of this option to less than `3600` seconds in a production environment. The SetIdealAndReadyCondition subroutine uses a formula based on the configured time slice to determine whether a particular interaction belongs to Group A or Group B.

In release 9.0.017.00, the default value for this option was changed from 1741 to 0.

context-id-key

Default Value: No default value
Valid Values: A valid customer ID or the ANI
Changes Take Effect: Immediately
Modified: 9.0.017.01

Specifies the name of the user data key containing an ID for the current interaction. The Predictive Routing scoring engine uses this key to retrieve a record from an internal database of customer profiles (such as a CRM database) and uses features from the record to compute agents scores for the interaction.

To incorporate customer profile data into models for matching the agents, you must upload this data to the GPR Core Platform before you train a model. The URS ActivatePredictiveRouting subroutine attaches a `context_id` key to the scoring request body and provides the value of the user data key defined by this option as the `context_id` value.

- If you do not set a value for this option, the score response and the score log have an empty value for the context id.
- If you set the option value to ANI, the score response and the score log have the ANI as the value for the context id.
- If you set the option value to a valid user data key name, the score response and the score log have the value for this user data key for the context id.
- If you configure this option with an invalid user data key name, the score response and the score log have the value INVALID for the context id.

default-agent-score

Default Value: 0
Valid Values: max, median, global, min, 0
Changes Take Effect: On the next interaction

The option specifies the value the ScoreIdealAgent and isAgentScoreGood subroutines should use as the agent score for an interaction for those agents who belong to the target Agent Group but that GPR did not score. For example, an agent might be logged out, or in another status configured as unavailable, until after the scoring request it sent. If such an agent then becomes available before the interaction is routed, GPR assigns that agent the default score.

If an agent is assigned a score of 0, the agent is unlikely to receive an interaction from the queue.

Important: This option functions differently depending on the release of URS Strategy Subroutines you have deployed:

- In release 9.0.015.00 and higher, gpmAgentScore records the default score assigned to agents GPR did not score. The ScoreIdealAgent subroutine uses this value to sort the scores and the isAgentScoreGood subroutine compares it against any threshold you have configured to determine whether the agent is acceptable.
- In release 9.0.014.04 and lower, the gpmAgentScore user data KVP always contains the value `0` for unscored agents. The score specified in this option is used only when URS is sorting the agents in the target group according to their scores.

Valid values:

- **max** - Use the maximum score calculated for an agent in the target agent group.
- **median** - Use the median score calculated for the target agent group.
- **global** - Use the average global score for the agents in the target group.
- **min** - Use the minimum score calculated for an agent in the target agent group.
- **0** - Use the value `0` as the score.

initial-threshold-timeout

Default Value: 0
Valid Values: (integer) 0 - <max>
Changes Take Effect: On the next interaction processed

Defines a timeout, in seconds, during which the `isAgentScoreGood` URS callback function uses an initial minimum agent score, defined by the **[default-predictor].score-base-threshold** option, to match agents to an interaction. After this timeout expires, the minimum score required to allow an agent to handle the interaction is gradually decreased.

login-status-expression

Default Value: no default value
Valid Values: &((loginStatus>0&loginStatus<23)|loginStatus>23), &(loginStatus=4|loginStatus=9)
Changes Take Effect: On the next interaction

If you set the value of the **[default-predictor].use-login-status** option to **true**, the value of the **login-status-expression** option is added to the action_filters expression in the ActivatePredictiveRouting_v3 subroutine when the scoring request is created.

- &((loginStatus>0&loginStatus<23)|loginStatus>23) - Instructs the scoring engine to evaluate scores for those agents identified as part of the target group by a skill expression or an Agent Group name who are logged into the voice channel.
- &(loginStatus=4|loginStatus=9) - Instructs the scoring engine to evaluate scores for those agents identified as part of the target group by a skill expression or an Agent Group name who are ready to accept an interaction, or have status AfterCallWork on the voice channel.

The following numerical values correspond to the following agent login states:

- 4 - WaitForNextCall (Ready)
- 5 - OffHook
- 6 - CallDialing
- 7 - CallRinging
- 8 - NotReadyForNextCall
- 9 - AfterCallWork
- 13 - CallOnHold
- 16 - ASM_Engaged
- 17 - ASM_Outbound
- 18 - CallUnknown
- 19 - CallConsult
- 20 - CallInternal
- 21 - CallOutbound
- 22 - CallInbound
- 23 - LoggedOut

max-agent-occupancy-factor

Default Value: 0.5
Valid Values: Float numbers between 0.0 and 1.0
Changes Take Effect: On the next interaction

If you set the value of the **use-agent-occupancy** option to **true**, and the value of the agent occupancy statistic is higher than the threshold specified in the **max-agent-occupancy-threshold** option, the ScoreIdealAgent subroutine multiplies the score received for each agent for the current interaction by a coefficient defined by this option.

max-agent-occupancy-threshold

Default Value: 100.0
Valid Values: Float numbers between 0.0 and 100.0
Changes Take Effect: On the next interaction

If you set the value of the **use-agent-occupancy** option to **true**, the ScoreIdealAgent subroutine compares the value of the occupancy statistic with the value you set in this option. If the occupancy value is higher than the specified threshold, the subroutine multiplies the score received for an agent for the current interaction by a coefficient defined in the **max-agent-occupancy-factor** option.

max-score

Default Value: 100
Valid Values: (integer) 1 - <max>
Changes Take Effect: On the next interaction processed

Defines the maximum score that an agent can be assigned for an interaction. The value of this option is used by the `ScoreIdealAgent` callback function to re-scale the agent score as the distance from an ideally matched agent for the interaction (assumed by URS to be `0`).

The value you set should correspond to the largest possible value returned by this Predictor from the scoring engine. To function properly, this value must be consistent with the value configured for the Predictor **Score expression** field. Because the GPR scoring engine and URS have different scales, you might need to adjust returned scoring values using the **Score expression** field in the Predictor configuration. See the instructions for how to configure this field in the "Creating and Updating Predictors" topic in the *Genesys Predictive Routing Help* for more information.

To take advantage of the most precise values, set **max-score** to `10000` and the value for Score expression in the Predictor configuration to `10000 * p_score`. (*p_score* is a term used in the GPR documentation to indicate the raw score returned from the scoring engine. It is not in any way derived from or related to the statistical term *P value*.) For example, if scores range from -4 to 10, use the following **p_score** - `((p_score + 5) / 16) * 100`.

min-agent-occupancy-factor

Default Value: 2.0
Valid Values: Float numbers higher than 1.0
Changes Take Effect: On the next interaction

If you set the value of the **use-agent-occupancy** option to **true**, and the value of the agent

occupancy statistic is lower than the threshold specified in the **min-agent-occupancy-threshold** option, the ScoreIdealAgent subroutine multiplies the score received for an agent for the current interaction by a coefficient defined by this option. If the resulting adjusted score is higher than the value specified in the **max-score** option, the adjusted score is set to the value of the **max-score** option.

min-agent-occupancy-threshold

Default Value: 0.0
Valid Values: Float numbers between 0.0 and 100.0
Changes Take Effect: On the next interaction

If you set the value of the **use-agent-occupancy** option to **true**, the ScoreIdealAgent subroutine compares the value of the occupancy statistic with the value you set in this option. If the occupancy value is lower than the specified threshold, the subroutine multiplies the score received for an agent for the current interaction by a coefficient defined in the **min-agent-occupancy-factor** option.

platform-scoring-url

Default Value: none
Valid Values: A valid GPR API scoring endpoint + a valid Predictor ID
Changes Take Effect: On the next interaction processed

The ActivatePredictiveRouting strategy subroutine in URS uses the URL defined by this option as the HTTP address to send scoring requests to the GPR API. This URL should be the value for the **[default].platform-base-url** option with `<predictor_name>/score` appended.

You can locate the Predictor ID in messages returned from the GPR API or in the browser URL address when you are in the GPR web application with the page for the desired Predictor open.

priority-increment

Default Value: 1
Valid Values: (integer) any integer
Changes Take Effect: On the next interaction

Specifies the increment by which priority is increased each time.

priority-init-interval

Default Value: 300
Valid Values: (integer) any non-negative integer
Changes Take Effect: On the next interaction

Controls the time interval, in seconds, the strategy waits before starting to increment priority for a queued interaction.

priority-interval

Default Value: 10
Valid Values: (integer) any integer greater than 5
Changes Take Effect: On the next interaction

Specifies the time period, in seconds, between priority increments for a queued interaction.

prr-mode

Default Value: off
Valid Values: prod, off, ab-test-time-sliced, dry-run
Changes Take Effect: Immediately

Specifies whether an instance of Predictive Routing should run as a production instance or as a test instance.

- **prod** - All the interactions that pass through the ActivatePredictiveRouting strategy subroutine are processed using Predictive Routing.
- **off** - No interactions use Predictive Routing.
- **ab-test-time-sliced** - The periods of time when Predictive Routing and skill-based routing are alternately turned on. The duration of each period is configured in the in the **ab-test-time-slice** option located in the same section as this **prr-mode** option.
- **dry-run** - Predictive Routing scores agents for your interactions, but does not use the scores for routing.

score-base-threshold

Default Value: 0
Valid Values: (integer) 0 - <max>
Changes Take Effect: On the next interaction processed

This option defines the initial minimum agent score required for an agent to be considered a match for an interaction. After the timeout defined by the **[default-predictor].initial-threshold-timeout** option expires, the minimum score required to handle the interaction is gradually decreased. If you set the value to `0`, no initial minimum score is required and agents with any score are considered for an interaction.

set-dynamic-priority

Default Value: False

Valid Values: True, False
Changes Take Effect: On the next interaction

Specifies whether dynamic priority interaction handling is enabled and handled in the GPR subroutines. When set to `true` interaction priority is incremented based on the settings configured for the other priority options. When set to `false`, dynamic priority interaction handling is not set by the Predictive Routing subroutines. If dynamic priority parameters are set elsewhere in the strategy, the option must be set to `false`.

setreadycondition-timeout

Default Value: 600 (seconds)
Valid Values: Any positive integer
Changes Take Effect: On the next interaction

Warning: If you need to change the value of this option, contact Customer Care to ensure that the value you specify is compatible with your environment.

Defines a timeout value that sets the maximum delay, in seconds, between the moment when URS receives an Event from T-Server and when the IsAgentScoreGood subroutine is called. If the delay is greater than the value set in this option, Predictive Routing considers that the call has waited in the IsAgentScoreGood subroutine for the configured period and routes the call to an agent in the target group without checking value configured in the **[default-predictor].score-base-threshold** option.

threshold-relaxation-step

Default Value: 1
Valid Values: (integer) 1 - <value of the **max-score** option>
Changes Take Effect: On the next interaction processed

Defines an increment by which, while an interaction remains queued, the minimum agent score required to match the interaction is decreased after each period defined by the value of the **[default-predictor].threshold-relaxation-timeout** option, following the initial period defined by the **[default-predictor].initial-threshold-timeout** option.

threshold-relaxation-timeout

Default Value: 1
Valid Values: (integer) 1 - <max>
Changes Take Effect: On the next interaction processed

This option defines a timeout, in seconds, after which the minimum agent score required for matching an interaction is decreased by the amount defined by the value of the **[default-predictor].threshold-relaxation-step** option.

use-action-filters

Default Value: false
Valid Values: true, false
Changes Take Effect: Immediately

Note: In a hybrid environment, this option should *always* be set to `false`.

- true - URS uses a skill expression or Agent Group names taken from the action_filters field in the scoring request.
- false - URS checks with the Stat Server for the target list of agents, as specified in the **login-status-expression** option, and adds the target Agent IDs to the scoring request.

Note: If **[default-predictor].login-status-expression** is set to &(loginStatus=4|loginStatus=9), indicating that the agents who are in the Ready state or ACW state (for voice calls) are the designated target agents, then the GetActionFilters subroutine uses a custom statistic called RStatGPRAgentsReadyOrACWvoice. This custom statistic is provided in the **object.kvlt** file in the URS Strategy Subroutines IP.

use-agent-occupancy

Default Value: false
Valid Values: true, false
Changes Take Effect: On the next interaction

The value you set for this option determines whether the ScoreIdealAgent subroutine checks for agent occupancy and adjusts the agent's score for an interaction to increase, or decrease, the probability that the agent receives the interaction. If you set the value of this option to **true** and the value of statistic StatAgentOccupancy is above a threshold specified by the **max-agent-occupancy-threshold** option value, the subroutine adjusts the agent score lower. The score is multiplied by a coefficient defined in the **max-agent-occupancy-factor** option. Similarly, if the agent occupancy is lower than the value of the **min-agent-occupancy-threshold** option value, it is adjusted higher. The score is multiplied by a coefficient defined in the **min-agent-occupancy-factor** option. If the adjusted score exceeds the value specified by the **max-score** option, its value is set to the maximum score specified for the Predictor.

use-crm-query

Default Value: true
Valid Values: true, false
Changes Take Effect: Immediately

Option name reserved for future use.

use-keepqueue

Default Value: true
Valid Values: true, false
Changes Take Effect: On next interaction

Specifies whether a higher-priority interaction, entering a queue, is answered before interactions that arrive after it. If the high-priority interaction has a score too low to satisfy the criteria configured for routing, setting this option to `true` can block routing of higher-scoring but lower-priority interactions.

- **true** - If a higher priority interaction enters a queue, it must be routed to a suitable agent before the interactions already waiting are routed.
- **false** - Interaction priority is not considered when routing waiting interactions to a suitable agent. Preserves routing behavior used before release 9.0.018.00.

use-login-status

Default Value: false
Valid Values: false, true
Changes Take Effect: On the next interaction

Set the value of this option to **true** to have the value of the **[default-predictor].login-status-expression** option added to the action_filters expression in the ActivatePredictiveRouting_v3 subroutine when the scoring request is created.

Important: Genesys recommends that you set this option to **true** and provide a valid value for **[default-predictor].login-status-expression** to reduce the number of agents for whom scores are evaluated. The value **false** should be used only for debug and troubleshooting purposes in a staging environment.

use-setreadycondition

Default Value: false
Valid Values: true, false
Changes Take Effect: On the next interaction

If option is set to **true**, the strategy executes calls to the isAgentScoreGood subroutine, which temporarily removes low-scoring agents from consideration for routing. If option is set to **false**, the strategy does not execute calls to the isAgentScoreGood subroutine and, as a result, the interaction is routed to the agent with the highest availability; that is, the one who has been waiting longest for an interaction.

- *Low-scoring agents* - Agents with scores for the current interaction lower than time-dependent minimum required score, which is defined by the following options: **[default-predictor].initial-threshold-timeout**, **[default-predictor].threshold-relaxation-timeout**, **[default-predictor].threshold-relaxation-step**.

- *Temporary* - Until the agent's score for the interaction becomes higher than the time-dependent minimum required score.

Important: This option takes effect only when the **[default-predictor].prr-mode** option is set to **prod** or to **ab-test-time-sliced** for the same predictor.

default Section

anon-agent-id

Default Value: No default value
Valid Values: true, false
Changes Take Effect: when the upload-dataset option is set to true for the corresponding dataset
Introduced: 9.0.017.00

NOTE: Data Loader automatically sets the correct value for this option depending on whether the ID field is configured to be anonymized in the **schema-agents-gim** configuration. Do not manually set or change the value for this option.

If the Agent ID should be anonymized, Data Loader sets the value of this option to `true`. This ensures that the Agent ID is always anonymized in the logs generated by the URS Strategy Subroutines.

If you do change this option value, Data Loader automatically reverts it to the value corresponding to the setting in the **schema-agents-gim** configuration. This ensures that your existing datasets and predictors remain usable.

anon-customer-id

Default Value: No default value
Valid Values: true, false
Changes Take Effect: when the upload-dataset option is set to true for the corresponding dataset

Introduced: 9.0.017.00

NOTE: Data Loader automatically sets the correct value for this option depending on whether the ID field is configured to be anonymized in the **schema-customers** configuration. Do not manually set or change the value for this option.

If the Customer ID should be anonymized, Data Loader sets the value of this option to `true`. This ensures that the Customer ID is always anonymized in the logs generated by the URS Strategy Subroutines.

If you do change this option value, Data Loader automatically reverts it to the value corresponding to the setting in the **schema-customers** configuration. This ensures that your existing datasets and predictors remain usable.

anon-salt

Default Value: a hashed salt string
Valid Values: a hashed salt string
Changes Take Effect: on initial Data Loader startup
Introduced: 9.0.017.00

WARNING: Do not edit this option manually!

When Data Loader starts up, it generates a unique 64-character salt string to be used for anonymization. It stores an obfuscated version of the salt string as the value for the **anon-salt** option. This same salt value is written to the primary and backup instances of Data Loader, and to the Predictive_Route_DataCfg `Transaction List` object **anon-salt** option.

If you try to change a salt value, Data Loader generates an alarm message and restores the original salt value. If for some reason, Data Loader cannot restore the original salt value, your predictors become unusable for scoring and routing. See the "Data anonymization" section on the "Set up data for import" topic in the *Predictive Routing Deployment and Operations Guide*.

deployment-type

Default Value: hybrid
Valid Values: hybrid, cloud
Changes Take Effect: on initial startup of GPR
Introduced: 9.0.017.00

The URS Strategy Subroutines takes the value for this option to populate the gpmDeploymentType KVP, which is recorded in the GPR score log for internal reporting and monitoring purposes.

emergency-scoring-token

Default Value: empty string
Valid Values: Any valid security token string
Changes Take Effect: Immediately

Provides an emergency token in the event of continued authentication errors. It is intended for use only in scenarios where the strategy is unable to automatically update the token required to access the Predictive Routing API.

Warning: This option should only be used in an emergency situation.

enable-log-suppression

Default Value: true
Valid Values: true, false
Changes Take Effect: on the next interaction
Introduced: 9.0.017.00

Enables you to suppress logging from the URS Strategy Subroutines to reduce the volume of messages in the URS log files.

- `true` - Suppresses log messages from the following subroutines for the following actions:
  - GetActionFilters subroutine, while building a list of agent IDs for scoring.
  - ActivatePredictiveRouting subroutine, while building the scoring request and while parsing the scoring response before storing the returned agent scores in the global map.
  - ScoreIdealAgent subroutine, while updating the values of KVPs for the default scored agent.
  - GPRIxnCleanup subroutine, while building the score log request and while generating the content for the UserEvent message.
- `false` - No logs are suppressed; all messages are printed in the URS logs.

format-as-map

Default Value: true
Valid Values: true, false
Changes Take Effect: Immediately

The ActivatePredictiveRouting subroutine supports two types of responses to, and score requests to, the Predictive Routing API, either containing both **list** and **list_ranks** fields or just the **list** field.

If set to **true**, the response and the score request to the Predictive Routing API contains two fields, **list** and **list_ranks**. The **list** field contains a JSON dictionary with agent employee IDs as the keys and agent scores for the current interaction as the values. The **list_ranks** field contains a JSON dictionary with agent employee IDs as the keys and agents ranked according to their scores in the target group as values.

If set to **false**, the response and the score request to the Predictive Routing API contains only the **list** field. The value of this field is a JSON list object, where the items in the list are JSON dictionary objects. Each dictionary item contains the fields: **id** (agent employee ID), **score** (the score that agent has for the current interaction), and **score_type** (the type of Model, Local or Global, used to compute the score). The list is sorted by agent score in decreasing order.

global-map-timeout

Default Value: 7200
Valid Values: (integer) any non-negative integer
Changes Take Effect: On the next interaction

Defines the time period, in seconds, during which supporting information about an interaction (such as the predictor name and ID, the model name and ID, the Predictive Routing operation mode, and the interaction time in queue) are stored in the Universal Routing Server (URS) global map. If option value is set to `0`, the records are stored indefinitely.

Important: To improve URS performance, agent scores are stored in the URS global map with a timeout value of `0` (indefinitely). To remove them, you must call the PrrIxnCleanup subroutine after the interaction has been successfully routed.

log-to-api

Default Value: false
Valid Values: true, false
Changes Take Effect: On the next interaction
Discontinued: 9.0.018.01

Specifies whether logging is enabled to the Predictive Routing application REST API from the routing strategy. If the option value is set to **true**, the context of the interaction is submitted to Predictive Routing when the PrrIxnCompleted subroutine is called, before interaction is routed to an agent. If set to **false**, logging is not enabled.

orig-connid-key

Default Value: None
Valid Values: Any valid user data key holding the original interaction connection ID
Changes Take Effect: Immediately

Defines a user data key that the Predictive Routing strategy must attach on initialization. It holds the original connection ID of an interaction, which is used to uniquely identify the interaction for the scoring engine. The ActivatePredictiveRouting subroutine checks for the presence of this key when it starts processing an interaction.

overload-control-timeout

Default Value: 1000
Valid Values: Any positive integer
Changes Take Effect: Immediately

Defines a timeout value that sets the maximum delay, in milliseconds, between the moment when URS receives an Event from T-Server and when URS starts to process the Event in the strategy. If the

delay is greater than the value set in this option, Predictive Routing considers the URS application overloaded and temporarily turns off. Once the URS overload ends and the strategy is processing events within the limit defined by this timeout, Predictive Routing restarts.

password

Default Value: No default value
Valid Values: A valid password
Changes Take Effect: After restart

Specifies the password the ActivatePredictiveRouting subroutine in URS uses to connect to Genesys Predictive Routing.

platform-api-key

Default Value: No default value
Valid Values: Any valid Predictive Routing API key
Changes Take Effect: After restart

Specifies an access key that is used by the ActivatePredictiveRouting subroutine in URS to access the Genesys Predictive Routing API. To obtain the value of this option, open the **Accounts** tab in the Predictive Routing user interface and click the name of your account. The **API key** field appears on the **Account** configuration window. For details, see Configuring Accounts in the *Genesys Predictive Routing Help*.

platform-auth-url

Default Value: none
Valid Values: A valid Predictive Routing URL
Changes Take Effect: immediately

Specifies the Genesys Predictive Routing API authentication endpoint URL. This value is the host name of the server where you access Predictive Routing, followed by **/api/v2.0/authenticate**.

platform-base-url

Default Value: No default value
Valid Values: (string) A valid Predictive Routing URL
Changes Take Effect: After restart

Specifies the common substring of Genesys Predictive Routing API endpoint URLs. This value is the host name of the server where you access Predictive Routing.

You must specify **https://** in your base URL string.

platform-base-url

Default Value: No default value
Valid Values: (string) A valid Predictive Routing URL
Changes Take Effect: After restart

Specifies the common substring of Genesys Predictive Routing API endpoint URLs. This value is the host name of the server where you access Predictive Routing.

You must specify **https://** in your base URL string.

platform-logging-url

Default Value: none
Valid Values: (string) any valid URL
Changes Take Effect: On the next interaction

Defines the URL for logging the interaction routing score log and outcome results to the Predictive Routing web application REST API.

platform-request-timeout

Default Value: 5000
Valid Values: Any nonnegative integer
Changes Take Effect: On the next interaction
Introduced: 9.0.017.01

The timeout duration, in milliseconds, specifying how long Universal Routing Server (URS) should wait for a response from the GPR Core Platform after a GPR subroutine makes a request that the routing strategy sends to the GPR Core Platform. After this timeout expires, the subroutine logs a GPR error and URS continues to process the strategy.

This option overrides the URS **request_timeout** option, which has a default value of **0**. If the default value is set for **timeout_response** and, for some reason, GPR Core Platform does not respond correctly, URS waits indefinitely instead of proceeding with the strategy and the interaction is not routed.

platform-username

Default Value: No default value
Valid Values: (string) Any valid email address registered with Predictive Routing
Changes Take Effect: After restart

Specifies the username the ActivatePredictiveRouting subroutine in URS should use to connect to the

Genesys Predictive Routing platform.

proxy-host

Default Value: No default value
Valid Values: Any string
Changes Take Effect: On the next interaction processed by GPR
Introduced: 9.0.017.00
Related Options: proxy-port, proxy-username, proxy-password

Specifies the name of the HTTPS Proxy host to which the GPR Subroutines should send the request to connect to the GPR Core Platform.

proxy-password

Default Value: No default value
Valid Values: any string
Changes Take Effect: on the next interaction processed by GPR
Introduced: 9.0.017.00
Related Options: proxy-host, proxy-port, proxy-username

Specifies the password to be used to connect to the HTTPS Proxy, if it requires client authentication to connect.

proxy-port

Default Value: 0
Valid Values: Any positive integer
Changes Take Effect: on the next interaction processed by GPR
Introduced: 9.0.017.00
Related Options: proxy-host, proxy-username, proxy-password

Specifies the HTTPS Proxy port to which the GPR Subroutines should send the request to connect to the GPR Core Platform.

proxy-username

Default Value: No default value
Valid Values: Any string
Changes Take Effect: on the next interaction processed by GPR
Introduced: 9.0.017.00
Related Options: proxy-host, proxy-port, proxy-password

Specifies the user name to be used to connect to HTTPS Proxy, if it requires client authentication to connect.

scoring-token-expiration

Default Value: 43200
Valid Values: Any positive integer
Changes Take Effect: Immediately

If configured, overrides the default token expiration time of 43200 seconds. For example, if set to 3600, the token expires in the URS memory map in one hour, and a new token is requested from the Predictive Routing platform.

send-user-event

Default Value: false
Valid Values: true, false
Changes Take Effect: Immediately

When set to **true**, the routing strategy used with Predictive Routing sends the EventUserEvent TEvent, which includes the following attributes:

- AttributeThisDN with a value indicating the virtual queue where the strategy is executed. This is set in the **[default].vq-for-reporting** option.
- AttributeUserData containing the Predictive Routing-specific key-value pairs which provide the foundation for reports on routing outcomes presented in Genesys Interactive Insights/GCXI.

The KVP data is stored in Genesys Info Mart, and is then available to the Genesys reporting suite and to Predictive Routing, which can use this KVP data to refine Predictor and Model performance.

For more information on creating reports based on Predictive Routing data, see Integrate with Genesys Reporting.

udata-keys-to-exclude

Default Value: no default value
Valid Values: a list of KVP names to be excluded, separated by commas and no spaces
Changes Take Effect: within 24 hours

Use this option to exclude unnecessary user data keys from the scoring context.

Data is updated daily at 3 am UTC. A change in the value for this option takes effect at the next update, in no more than 24 hours.

use-double-selection

Default Value: false
Valid Values: true, false

Changes Take Effect: Immediately

Specifies whether URS uses a double selection mechanism, applying a custom statistic when agents have the same score to select the target agent for an interaction.

If the Predictive Routing routing solution is configured to use the agent hold-out feature (the **[default-predictor].use-setreadycondition** option is set to **true**) and the **use-double-selection** option is set to **false**, when two or more agents are in ready state and have the same score for an interaction, the target agent for an interaction is selected at random. If the **use-double-selection** option is set to **true**, URS selects a target agent from a group of agents with equal scores based on a predefined statistic. This is a statistic passed as an argument to the SelectDN function by the routing strategy or one defined in an IRD routing block.

use-vqid-identifier

Default Value: True
Valid Values: True, False
Changes Take Effect: On the next interaction
Introduced: 9.0.017.01

When set to **true**, the InteractionID value sent in score_log requests to the GPR Core Platform have the format <CallUUID_RPVQID>, where CallUUID refers to the AttributeCallUUID generated by T-Server/SIPServer for the interaction and the RPVQID KVP generated by URS.

When set to **false,** the InteractionID value sent in score_log requests have the format <CallUUID>, where CallUUID refers to the AttributeCallUUID generated by T-Server/SIPServer.

Note: Set this option to **false** only in the following scenarios:

- URS does not generate the RPVQID KVP, even when VQs are used for routing.
- The RPVQID value is not pushed to the mediation_guid column in the MEDIATION_SEGMENT_FACT table.

vq-for-reporting

Default Value: No default value
Valid Values: Any valid virtual queue or DN name
Changes Take Effect: Immediately

This option is mandatory.

Indicates the virtual queue or DN where URS sends the Genesys Predictive Routing (GPR) user event data describing the routing decision made for the interaction. The user event data, in the form of key-value pairs, is attached to EventUserEvent in the AttributeUserData attribute. This should be the same value as AttributeThis DN in the EventUserEvent event.

NOTE: The values for **VQ Number** (on the VQ DN object **General** tab), **VQ Alias** (on the VQ DN object **Advanced** tab), and the value for the **vq-for-reporting** option should all be identical.

For more information on creating reports based on Predictive Routing data, see "Integrate with

Genesys Reporting" in the *Predictive Routing Deployment and Operations Guide*.