

# **GENESYS**

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## Genesys Engage cloud Release Note

**Genesys Predictive Routing** 

# Genesys Predictive Routing

#### Important

Not all changes listed below may pertain to your deployment.

- October 7, 2022 (9.0.022.01)
- May 20, 2022 (9.0.021.02)
- April 29, 2022 (9.0.021.01)
- February 24, 2022 (9.0.020.00)
- November 19, 2021 (9.0.019.01)
- September 22, 2021 (9.0.019.00)
- July 12, 2021 (9.0.018.15)
- July 7, 2021 (9.0.018.14)
- May 6, 2021 (9.0.018.13)
- April 12, 2021 (9.0.018.12)
- April 1, 2021 (9.0.018.11)
- February 9, 2021 (9.0.018.09)
- January 28, 2021 (9.0.018.08)
- January 22, 2021 (9.0.018.07)
- January 14, 2021 (9.0.018.06)
- November 11, 2020 (9.0.018.03)
- September 23, 2020 (9.0.018.01)
- August 4, 2020 (9.0.017.05)
- May 26, 2020 (9.0.017.03)
- April 23, 2020 (9.0.016.13)
- February 20, 2020 (9.0.016.11)
- January 14, 2020 (9.0.016.07)
- December 20, 2019 (9.0.016.00)
- Known Issues

## October 7, 2022 (9.0.022.01)

#### What's New

This release includes improvements related to internally-performed upgrades of the GPR Core Services.

• Reporting of normalised score logs in GPR Proxy is now disabled to improve the score response time and to avoid additional delays. The GPR scoring proxy no longer sends a copy of the normalized score to the GPR service when sending scores back to the client thus eliminating additional delays. (PRR-7737)

## May 20, 2022 (9.0.021.02)

#### What's New

• This release includes improvements related to internally-performed upgrades of the GPR Core Services.

## April 29, 2022 (9.0.021.01)

#### What's New

This release includes improvements related to internally-performed upgrades of the GPR Core Services.

- A new **Glue job trigger** option is included to call the feature engineering API to schedule the Glue Job daily. (PRR-7431)
- The inputS3key parameter passed in feature engineering now accepts the dictionary fields as input for the glue job to support Multiple KPIs. (PRR-7458)
- GPR Feature engineering now supports multiple KPIs. (PRR-7429)

## February 24, 2022 (9.0.020.00)

#### What's New

This release includes improvements related to internally-performed upgrades of the GPR Core Services.

- A new Virtual Queue Clustering feature for glue jobs has been included to improve performance. (PRR-7361)
- The glue job parameters have been included with Amazon's Spark Shuffle Manager for improved performance. (PRR-7369)

## November 19, 2021 (9.0.019.01)

#### What's New

This release includes improvements related to internally-performed upgrades of the GPR Core Services.

- The Base OS is changed to RedHat UBI8 from CentOS 7 to comply with Genesys Security requirements. (PRR-7280)
- The paths of files for datasets and jobs have been reorganized for easier management. The content of the datasets and files have not been changed. (PRR-7252)

## September 22, 2021 (9.0.019.00)

#### What's New

This release includes improvements related to internally-performed upgrades of the GPR Core Services.

#### **Resolved Issues**

• Affects Staff users only - The Predictor models training screen has been updated to allow the **Customer Features** and **Agent Features** fields to be scrollable. (PRR-7272)

## July 12, 2021 (9.0.018.15)

#### **Resolved Issues**

• Affects Staff users only - Reporting-related Genesys Predictive Routing (GPR) jobs no longer fail when the minimum and maximum scores are identical and the specified normalization factor, combined with the computed scores, results in normalized score values above 100,000. Previously in this unusual scenario, the GPR reporting jobs failed when they tried to write these high-value scores to the database. This failure happened because most reporting tables in the Genesys Info Mart database are configured for values  $\leq 99999$ . (PRR-7251)

• Affects Staff users only - The highest valid **Max Normalization Score** value has been changed from 1000000 to 10000. This field is a part of predictor configuration. For more information and configuration instructions, see the description of the **Max Normalization Score** field in the Create a predictor section of the "Create and update predictors" topic in the *Predictive Routing Staff Help*. (PRR-7251)

## July 7, 2021 (9.0.018.14)

#### What's New

- Feature for Staff use only Genesys Predictive Routing (GPR) now normalizes agent scores to ensure accurate agent scoring when agents work multiple queues. For more information and configuration instructions, see the descriptions of the **Problem Type** and **Max Normalization Score** fields in the Create a predictor section of the "Create and update predictors" topic in the *Predictive Routing Staff Help*. (PRR-7215)
- Feature for Staff use only GPR now supports the use of XGBoost custom parameters in model training. See the description of the XGBoost parameters field in the Configure a model section of the "Configure, train, and test models" topic in the Predictive Routing Staff Help. (PRR-7208)

## May 6, 2021 (9.0.018.13)

#### What's New

• This release includes improvements related to internally-performed upgrades of the GPR Core Services.

- The Export and Import model buttons have been removed from the GPR web application Models and Predictors windows, respectively. This functionality is not supported in hybrid deployments. This functionality is available to Staff users only. (PRR-6992)
- The **Override** and **Expression** fields are now correctly removed from the **Predictor** configuration window when you select Dataset Generated as the agent identifier or None as the customer identifier during predictor configuration. This functionality is available to Staff users only. (PRR-2184)

## April 12, 2021 (9.0.018.12)

#### What's New

• This release includes improvements related to internally-performed upgrades of the GPR Core Services.

## April 1, 2021 (9.0.018.11)

#### What's New

- The KPI Outcome tab is now available for users with the Admin and Reviewer roles. (PRR-7035)
- A non-functional menu has been removed from the Account list view (available to Staff users only). Previously, this menu appeared to enable you to select whether to view test or production accounts, but the functionality underlying the UI control was not implemented. (PRR-7018)
- Links from the GPR web application to the Help now open correctly for all windows visible to Admin and Reviewer users. The Help links on windows available only to Staff users generate a misleading error saying you need to log in. Logging in does not correct it. Staff users should open the Staff version of the Help directly. (PRR-6985)

## February 9, 2021 (9.0.018.09)

#### What's New

• This release includes improvements related to internally-performed upgrades of the GPR Core Services.

### January 28, 2021 (9.0.018.08)

#### What's New

This release includes no new features.

#### **Resolved Issues**

• This release includes improvements to resolve inconsistencies in the internal configuration related to backend operation of the GPR Core Services.

## January 22, 2021 (9.0.018.07)

#### What's New

This release includes no new features.

#### **Resolved Issues**

• This release corrects an issue that prevented the feature engineering pipeline from deploying correctly. The feature engineering pipeline processes data uploads, augments your datasets with engineered features and data joins, and automatically performs complex data selection and manipulation steps that otherwise require much more hands-on effort.

## January 14, 2021 (9.0.018.06)

#### What's New

• Upgrades to the GPR Core Services, which are performed by Genesys, now use a blue-green deployment model. In this model, Genesys supports two deployed production environments, enabling the one not serving customers to be upgraded and tested for stability and performance before switching users to the new version. This ensures that users experience no downtime or negative issues with upgrades and allows for immediate rollbacks to the previous version if some unexpected issues arise in a customer environment. (PRR-6566)

- This release includes the following corrections and improvements to the way the GPR web application displays the graphs on the Feature Coverage and Model Accuracy windows:
  - The model error lines on the Model Accuracy graph are now clearly visible. (PRR-7029)
  - The date values on the Feature Coverage Trends graph are now spaced so you can read them clearly. (PRR-7040)
  - The dates displayed on the x-axis of the Model Accuracy graph no longer shift when you switch to the KPI Outcomes window and then return. Previously, the dates shown shifted each time you navigated away and returned. (**Note:** The KPI Outcomes report is available only to users with STAFF permissions.) (PRR-7041)
- Export of the KPI Outcomes report now works correctly. (**Note:** This report is available only to users with STAFF permissions.) (PRR-7039)

## November 11, 2020 (9.0.018.03)

#### What's New

- Anonymization of sensitive data and personally identifiable information is no longer done in the cloud. If you have data to anonymize, GPR now anonymizes it in your environment before uploading it to the GPR Core Platform. (PRR-6821)
- The **Predictors** > **Simulator** tab has been removed from the GPR web application. The bar chart showing the features with the strongest impact on your chosen metric, which previously appeared on the **Simulator** tab, now appears on the **Predictors** > **Feature Coverage** tab. This features chart has also been improved to display all features with an impact on the metric equal to or greater than 0.01, listed in descending order of impact. (PRR-6783)
- GPR now uses only one model type rather than three. All models are now of the type formerly known as Global models. Hybrid models and Disjoint (also known as Local or Agent) models are no longer used. (PRR-6870)
- Predictive Routing has converted to a managed service, which means that many functions are now handled internally in a way transparent to end users. As a result, GPR now uses the following roles: Staff (internal users), Service (used only by Data Loader), Admin, and Reviewer. These roles can do the following:
  - STAFF Access more than one account. Within the active account, add and edit users, assign roles, and set password policies. Create, edit, update, and delete Agent and Customer Profile data, datasets, predictors, and models. View the Feature Coverage, Model Accuracy, and KPI Outcome graphs. Generate Agent Variance and Feature Analysis reports, and view jobs.
  - ADMIN Access a single account, update password permissions, and manage users. View predictor Feature Coverage and Model Accuracy graphs.
  - REVIEWER View the Feature Coverage and Model Accuracy graphs. Change their own password.

To support the change to GPR as a managed service, Predictive Routing Help has been separated into the following two versions:

- STAFF users: https://all.docs.genesys.com/Draft:PE-GPR/Staff/Help
- ADMIN and REVIEWER users: https://all.docs.genesys.com/PE-GPR/9.0.0/Help

(PRR-6819); (PRR-6827); (PRR-6825); (PRR-6826); (PRR-6411)

- Composite predictors, created by combining multiple simple predictors, are no longer supported. (PRR-6907)
- The Tenant ID field in the Account Update and New Accounts windows has been renamed to Genesys Engage Tenant ID and made mandatory. Previously it was labeled PEC Tenant ID. (PRR-6718)

- The bar chart showing the predictor features ranked in terms of how strongly they affect the metric now rounds the importance values to the nearest thousandth. (PRR-6987)
- A misconfiguration in AI Monitoring resource prefixes has been corrected so that it no longer leads the search and analyze functionality to fail with a table does not exist error message. (PRR-6916)

## September 23, 2020 (9.0.018.01)

#### What's New

- Documentation explaining how to use the GPR Search and Analyze API is now available. If you need access to this documentation, contact your Genesys representative. (PRR-6765)
- A new button enables users with STAFF permissions to turn audit data collection on or off. This control appears on the **Accounts** settings window. (PRR-6751)
- The Feature Coverage report now displays tooltips, which explain the data on each dial. (PRR-6341)
- The context-sensitive Help link on the GPR Core Platform user interface now points to the documentation for the hybrid (Genesys Engage cloud + on-premises) releases of GPR. (PRR-6071)

#### **Resolved Issues**

- This release corrects an internal issue that prevented the KPI Outcome report from appearing in certain scenarios. (PRR-6864)
- Weighted dials on the Feature Coverage tab now correctly display negative coverage when features having a strong impact on the target metric are missing. (PRR-6863)
- The job that populates billing data now produces correct results. (PRR-6811)

## August 4, 2020 (9.0.017.05)

#### What's New

- Audit trail information is now available by request from your Genesys representative. This change is the result of updates to the underlying architecture that provides audit data. Previously, you could access audit data from the GPR web application **Accounts** tab. (PRR-6641, PRR-6642)
- The new KPI Outcome tab shows a comparison of KPI results using GPR and without. See View KPI outcome for a description of this graph and for how to configure your environment to supply the data required to use this tab. Note: The KPI Outcome tab functionality is available only to users with the STAFF role. (PRR-6477)
- The new Model Accuracy tab enables you to track how well a model functions over time. See View model accuracy for how to interpret this graph. (PRR-6539)

- The agent feature-related dial graphs on the Feature Coverage tab no longer appear if there are no agent features included in the selected model. (PRR-6339)
- A **Clear query** link no longer appears above the table listing datasets created for your account on the **Settings: Datasets** window. This field was introduced in error. (PRR-3623)

#### Upgrade Notes

An upgrade to technology underlying the GPR machine learning capabilities renders models made using earlier releases of GPR invalid in this and later releases. To use an updated release of GPR, you must recreate your models. (PRR-6394)

## May 26, 2020 (9.0.017.03)

#### What's New

- If your environment has been configured for anonymization on-premises, users with the ADMIN role can only view datasets, the Agent Profile, and the Customer Profile. Users with the ADMIN role cannot use either the GPR web application or the GPR API to create, modify, or delete the specified objects. (PRR-6269)
- To improve performance, a number of changes have been made to the Agent and Customer Profile schema functionality:
  - The maximum number of indexed fields is now five fields per schema. (PRR-6260)
  - The number of features is now limited by default to 50 features per schema. If necessary, STAFF users can change the limit. Existing Agent and Customer Profile schemas are unaffected by this change. However, the limit takes effect the first time you change a schema. (PRR-6253)
  - The information displayed on the **Agents** and **Customers** pages has been simplified. The **Details** tabs now show tables containing the top 15 features that you marked as **Visible** when you prepared the schema. **Details** tab filtering is now done only by indexed fields, and you can select only one filter parameter at a time. The **Distribution** tabs no longer enable filtering. You can select from any of the indexed fields in the **Distribution** tab **Group By** parameter. (PRR-6216)
- Controls for starting, stopping, and restarting jobs have been removed from the **Jobs** tab in the GPR web application. The functionality these controls were intended to support was not implemented. (PRR-6202)
- The GPR web application now includes a new feature coverage report, located on the **Predictors** > **AI** Monitoring tab. For a complete description of how to use this tab, see Monitor predictor feature coverage in the *Predictive Routing Help*. (PRR-6009)
- A progress indicator now appears on the GPR web application Settings > Datasets page, showing the percent of data uploaded as GPR uploads the dataset. (PRR-5554)

#### **Resolved Issues**

• The value for the **latency** field in scoring requests is now reported correctly. Previously, the returned value was always 0. (PRR-6252)

## April 23, 2020 (9.0.016.13)

#### What's New

• The GPR Core Platform now supports data anonymization on premise, as well as anonymization in the cloud. For more details, see Data Anonymization. The Accounts window in the GPR web application now includes a read-only field that indicates where GPR anonymizes data. (PRR-6230)

## February 20, 2020 (9.0.016.11)

#### What's New

- The **Predictors** analysis window has been completely replaced with new **Simulator** functionality, which provides improved insights into Predictor performance. You can now run simulated scoring requests to match customers in your Customer Profile with agents in your Agent Profile. For a complete description of the updated page, see Assess Predictor performance in the *Predictive Routing Help*.
- Audit trail records are now automatically retained for 365 days. Previously, this was a configurable field in the Account configuration window, presented in the *Predictive Routing Help*. The new value complies with global data retention requirements.
- The **Jobs** window has been updated to improve performance. The fields available for filtering the job displayed are now static lists containing all possible values. Previously, Genesys Predictive Routing (GPR) created these lists dynamically. For a full description, see Monitor jobs in the *Predictive Routing Help*.

## January 14, 2020 (9.0.016.07)

#### What's New

- Users with the ADMIN role can use the Model export/import functionality. For an explanation of how to use this feature, see the following documentation topics:
  - Export a Model
  - Import a Model

(PRR-6089)

- You can now make updates to already-uploaded records in the Agent Profile and Customer Profile datasets, even if you have reached the limit on the maximum number of records GPR supports (20,000 agents and 20 million customers). (PRR-5350)
- The GPR API response to a GET request to the **/schemas** endpoint now indicates whether you have reached the limit on the number of records you can upload to the Agent Profile and/ Customer profile

datasets.

For example, a response containing entity\_limit\_remaining : 0 indicates that you have uploaded as many records as GPR supports.

(PRR-5290)

• During Predictor configuration, you can now enter an expression that specifies data to be skipped. See Step 6 under Create a Predictor for more information.

## December 20, 2019 (9.0.016.00)

#### What's New

#### **Initial release**

- The Genesys Predictive Routing (GPR) Core Services platform (also known as AI Core Services) is now available in Genesys Engage cloud. It provides the following functionality:
  - Account and user configuration
  - Predictors and Models
  - Agent Scoring
  - Analysis Reports (the Feature Analysis and Agent Variance Reports)
  - The GPR application
  - The GPR API
- The Dataset **Trend** tab has been reconstructed to make the information clearer and more intuitive. The Dataset **Details** tab has been removed.

Consult the following documentation for help using the Core Platform functions:

• Predictive Routing Help

Use of GPR requires on-premises components as well. Consult the following documentation for information about these components:

- Predictive Routing Deployment and Operations Guide
- Predictive Routing Configuration Options
- Data Loader Release Note
- URS Strategy Subroutines Release Note

## Known Issues

- The Help links on windows available only to Staff users generate a misleading error saying you need to log in. Logging in does not correct it. Staff users should open the Staff version of the Help directly.
- Some graphics do not appear when you open the Predictive Routing Help from the GPR user interface. (PRR-6857)