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Predictive Routing Deployment and Operations Guide

[New Features Log](#)

New Features Log

This topic provides a single point to find new feature information included in Genesys Predictive Routing (GPR). It includes the software version number and release date, and includes links to the related documentation updates (if any were needed).

List of New Features and Modifications

The following significant changes in functionality were made in 9.0.0 releases.

Feature Description	Type of Change	Occurred in Release	Documentation Updates
The addition of nine new KVPs enables detailed reporting on scoring results. In addition, the gpmResult and gpmMode KVPs have new valid values, enabling more precision in reporting on routing outcomes.	New feature	URS Strategy Subroutines 9.0.015.00	<i>Deployment and Operations Guide</i> <ul style="list-style-type: none"> GPR KVPs for Genesys Reporting
You can now log scoring details that you can then use to monitor and better understand the scoring process and outcomes. This release also includes scripts to clean up unneeded score logs from MongoDB.	New feature	URS Strategy Subroutines 9.0.015.00	<i>Deployment and Operations Guide</i> <ul style="list-style-type: none"> View the Scoring Logs
The URS strategy subroutines include the new GPRixnSetup and GPRixnCleanup subroutines, as well as some modifications to existing subroutines. These enable you to pin-point when GPR started handling interactions.	New feature	URS Strategy Subroutines 9.0.015.00	<i>Deployment and Operations Guide</i> <ul style="list-style-type: none"> Deploy the URS Strategy Subroutines
The gpmWaitTime value is now calculated using START_TS rather than gpm-ixn-timestamp.	Improvement	URS Strategy Subroutines 9.0.015.00	<i>Deployment and Operations Guide</i> <ul style="list-style-type: none"> Deploy the URS Strategy Subroutines
The GetActionFilters subroutine was enhanced to identify the list of agents matching the target skill group along with the configured login status expression. This information is also reported in the action filters of the scoring request. This functionality is invoked only when the use-action-filters configuration option	New feature	URS Strategy Subroutines 9.0.015.00	<i>Deployment and Operations Guide</i> <ul style="list-style-type: none"> use-action-filters

Feature Description	Type of Change	Occurred in Release	Documentation Updates
is set to false.			
Two new documentation pages, Routing Scenarios Using GPR and How Does GPR Score Agents? provide detailed discussions of those aspects of GPR functionality.	New feature	AICS 9.0.015.03/ ASc 9.0.015.04/ URS Strategy Subroutines 9.0.015.00	<i>Deployment and Operations Guide</i> <ul style="list-style-type: none">• Routing Scenarios Using GPR• How Does GPR Score Agents?
The <i>Deployment and Operations Guide</i> now contains complete instructions for configuring HTTPS connections among all GPR components.	New feature	AICS 9.0.015.03/ ASc 9.0.015.04/ URS Strategy Subroutines 9.0.015.00	<i>Deployment and Operations Guide</i> <ul style="list-style-type: none">• Configure GPR to Use HTTPS
New API endpoints have been added, enabling you to use the MinIO container to upload Agent Profile and Customer Profile data. Previously, only Dataset data used the MinIO container, which provides a performance improvement over the data_upload worker alone.	New feature	AICS 9.0.015.03	<i>Genesys Predictive Routing API Reference</i> <ul style="list-style-type: none">• Predictive Routing API Reference (Requires a password for access. Please contact your Genesys representative if you need to view this document.)
<p>The numeric datatype now replaces both float and integer datatypes in Agent and Customer Profiles. This change resolves confusion about when to use float and integer datatypes.</p> <div data-bbox="175 1245 565 1455" style="border: 1px solid #ccc; padding: 5px;"> <p>Important This change has been made in both AICS 9.0.015.03 and ASC 9.0.015.04. Neither AICS 9.0.015.03 nor ASC 9.0.015.04 is compatible with earlier releases of these components. If you upgrade one, you must also upgrade the other.</p> </div>	New feature	AICS 9.0.015.03; ASc 9.0.015.04	<i>Deployment and Operations Guide</i> <ul style="list-style-type: none">• GPR KVPs for Genesys Reporting
<p>The connection between ASC and Stat Server is now optional. ASC can now read agent availability information from URS, reducing the number of connections necessary in your environment.</p> <div data-bbox="175 1665 565 1780" style="border: 1px solid #ccc; padding: 5px;"> <p>Important This increases the load on URS. Contact your Genesys representative for sizing guidelines.</p> </div> <p>If you use custom statistics for Predictive</p>	New feature	ASC 9.0.015.04	<i>Deployment and Operations Guide</i> <ul style="list-style-type: none">• Deploy Agent State Connector

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Routing, such as Agent Occupancy, you must retain the connection to Stat Server.			
ASC now validates the values you enter in the include-skills and include=groups configuration options. If ASC detects a skill name or Agent Group specified in these options that does not exist in Configuration Server, ASC triggers a Standard-level log message (Message Server log event number 60401).	New feature	ASC 9.0.015.04	<i>Deployment and Operations Guide</i> <ul style="list-style-type: none"> • include-skills • include-groups
The GPR API now returns a <code>file_path</code> parameter in the response message when you request a presigned URL, which replaces the uploaded file name. You must now pass this <code>file_path</code> parameter in requests to create Datasets or the Agent Profile or Customer Profile instead of the uploaded file name, used in previous releases.	New feature	AICS 9.0.015.03	<i>Genesys Predictive Routing API Reference</i> <ul style="list-style-type: none"> • Predictive Routing API Reference (Requires a password for access. Please contact your Genesys representative if you need to view this document.)
The GPR web application has enhanced security by logging out inactive users.	New feature	AICS 9.0.015.03	<i>Predictive Routing Help</i> <ul style="list-style-type: none"> • Welcome
GPR now accepts only CSV and zipped CSV files for upload to Datasets, the Agent Profiles, and the Customer Profile. JSON file uploads are no longer supported.	Discontinued support	AICS 9.0.015.03	
The NGINX container has been removed from AICS. NGINX is an optional load balancer that had been provided only for use only in test environments.	Discontinued support	AICS 9.0.015.03	<i>Deployment and Operations Guide</i> <ul style="list-style-type: none"> • High-Level Architecture
The method for configuring HTTPS for Agent State Connector has been changed. Previously configuration was done by setting the desired value in the <code>USE_HTTP</code> environment variable, a procedure that was applicable only for Linux-based environments. Now, HTTPS is configured in the jop-base-url configuration option.	Improvement	URS Strategy Subroutines 9.0.015.00	<i>Deployment and Operations Guide</i> <ul style="list-style-type: none"> • Configure HTTP/HTTPS Connections
This release includes an updated and improved version of the <i>Predictive Routing API Reference</i> .	Improvement	AICS 9.0.015.00	<i>Genesys Predictive Routing API Reference</i>

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In particular, there are now cURL request examples for each endpoint.			<ul style="list-style-type: none"> • Predictive Routing API Reference (Requires a password for access. Please contact your Genesys representative if you need to view this document.)
AI Core Services now requires Docker version 18.09.2, which addresses important security issues.	New supported platform	AICS 9.0.015.00	See the Release Notes for AI Core Services 9.0.015.00 for important information about the reason for this change and for Docker deployment information.
You can now convert a regular account into an LDAP account.	New feature	9.0.015.00	<i>Predictive Routing Help</i> <ul style="list-style-type: none"> • Configuring Accounts
<p>This release includes the following improvements to the user interfaces in the GPR web application:</p> <ul style="list-style-type: none"> • A new navigation panel provides a tree view of all Datasets, Predictors, and Models configured for the current Tenant. This tree-view pane is available from the Settings > Datasets and Settings > Predictors windows. Each item in the tree view links to the specified object, enabling easy access to the entire hierarchy of Datasets, Predictors, and Models. • For simplified navigation, breadcrumb links now appear at the top of windows in the GPR web application if you have drilled-down past a top-level window. 	New features	9.0.015.00	<i>Predictive Routing Help</i> <ul style="list-style-type: none"> • Navigating the Predictive Routing Interface
You can now upload Dataset, Agent Profile, and Customer Profile data to Genesys Predictive Routing (GPR) from CSV files that use certain legacy encodings (listed below). By default, GPR always assumes the CSV files are encoded with UTF-8. This change applies to uploads using both the GPR web application and the GPR API. The following encodings are supported:	New feature	9.0.014.00	<i>Deployment and Operations Guide</i> <ul style="list-style-type: none"> • Supported Encodings

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<ul style="list-style-type: none"> UTF-8 Shift JIS <p>All data returned <i>from</i> GPR uses UTF-8 encoding.</p>			
<p>GPR has optimized how cardinalities are stored. Cardinalities are now written into a dedicated database collection, so that the cardinalities for each field are stored in their own document. Previously, the cardinalities were stored along with the schema data. With high-cardinality features, this could lead to performance degradation due to additional conversions needed to extract the cardinality data.</p>	Improvement	9.0.014.00	
<p>The schema management workflow for Agent and Customer Profiles has been simplified and streamlined. The Discovered Fields tab has been removed and cardinality counts have been added to the schema view. This change ensures GPR always presents up-to-date Profile information. The schema tab always presented updated information, if available, but the Discovered Fields tab display was generated only once and did not reflect changes to the Profile schema.</p>	Improvement	9.0.014.00	<p><i>Predictive Routing Help</i></p> <ul style="list-style-type: none"> Configuring Agent Profiles Configuring Customer Profiles Importing and Managing Datasets
<p>The explanation for how to configure and interpret the Agent Variance Report has been clarified and expanded.</p>	Improvement	9.0.014.00	<p><i>Predictive Routing Help</i></p> <ul style="list-style-type: none"> Agent Variance Report
<p>AICS now supports deployment in an environment running on a Kubernetes cluster.</p>	New feature	9.0.014.00	<p><i>Deployment and Operations Guide</i></p> <ul style="list-style-type: none"> (Optional) Installing AICS on a Kubernetes Cluster.
<p>AI Core Services supports Security Enhanced Linux (SELinux) on CentOS 7.</p>	New Feature	9.0.014.00	
<p>If the ASC configuration contains non-empty values for the new filter-by-skills and/or filter-by-groups configuration options, ASC</p>	New Feature	9.0.014.00	<p>At present, these new options are documented only in the Agent State Connector Release Note.</p>

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<p>subscribes to Stat Server for agent statistics only for the agents included in the specified Agent Groups or those satisfying the configured skill expression. If both options are configured, the agents are subscribed for statistics if they either satisfy the skill expression specified in the filter-by-skills option or are included in one of the Agent Groups specified in the filter-by-groups option.</p> <p>This functionality enables you to limit the number of agents monitored by GPR or to use GPR in environments where multiple Stat Servers are deployed to monitor different groups of agents.</p>			
<p>Agent State Connector (ASC) now supports email interactions, as well as voice.</p>	New Feature	9.0.014.00	<p>At present, the procedures for enabling email support are documented only in the Agent State Connector Release Note.</p>
<p>Dataset handling has been made significantly faster by means of the following improvements:</p> <ul style="list-style-type: none"> For the initial data upload, this release introduces the MinIO container. Set the new <code>S3_ENDPOINT</code> environment variable to take advantage of this faster processing. The Dataset import to MongoDB now uses a multithreaded process. 	New feature	9.0.013.01	<p><i>Deployment and Operations Guide</i></p> <ul style="list-style-type: none"> High-Level Architecture Set Values for Environment Variables
<p>The sizing worksheets for Genesys Predictive Routing (GPR) have been entirely reworked and expanded.</p>	Improvement	9.0.013.01	<p><i>Deployment and Operations Guide</i></p> <ul style="list-style-type: none"> Sizing Guide
<p>The explanation for how to use Composite Predictors has been revised and clarified.</p>	Improvement	9.0.013.01	<p><i>Predictive Routing Help</i></p> <ul style="list-style-type: none"> Composite Predictors
<p>The GPR web application and GPR API now use the same process to create Agent and Customer Profile schemas. In addition, the instructions for creating the Agent Profile schema have been revised and expanded.</p>	Improvement	9.0.013.01	<p><i>Predictive Routing Help</i></p> <ul style="list-style-type: none"> Configuring Agent Profiles
<p>The <code>LOG_LEVEL</code> environment</p>	Improvement	9.0.013.01	<p><i>Deployment and Operations Guide</i></p>

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variable has been added to the tango.env configuration file. By default, it is set to INFO, which is a minimal logging level, adequate for most circumstances.			<ul style="list-style-type: none"> • Set Values for Environment Variables
This release upgrades AICS to Python 3.6 from Python 2.7.	Improvement	9.0.013.01	<i>AI Core Services Release Note - Upgrade Notes</i> <ul style="list-style-type: none"> • Upgrade Notes
AICS now performs automatic clean up processes which should maintain an adequate amount of free disk space.	New feature	9.0.013.01	<i>Deployment and Operations Guide</i> <ul style="list-style-type: none"> • Clean Up Disk Space
Memory handling for MongoDB was improved In this release.	Improvement	9.0.013.01	<i>Deployment and Operations Guide</i> <ul style="list-style-type: none"> • Scaling AICS
The Lift Estimation report has been improved, adding Export functionality, the ability to toggle between graph and table displays, and showing the Aggregated view as the first tab listed.	Improvement	9.0.013.01	<i>Predictive Routing Help</i> <ul style="list-style-type: none"> • Lift Estimation report
This release includes a number of changes to the look and feel of the GPR web application interface, as well as multiple user experience improvements to provide more intuitive workflows and better presentation of information. For a complete list, refer to the <i>AICS Release Note</i> .	Improvement	9.0.013.01	<i>AI Core Services Release Note</i> <ul style="list-style-type: none"> • AI Core Services Release Note for release 9.0.013.01
This release provides a number of improvements and additions to the GPR API, including the ability to check job status and support for nesting dictionary fields. For a complete list, refer to the <i>AICS Release Note</i> and the <i>GPR API Reference</i>	Improvement	9.0.013.01	<i>AI Core Services Release Note and Genesys Predictive Routing API Reference</i> <ul style="list-style-type: none"> • AI Core Services Release Note for release 9.0.013.01 • Predictive Routing API Reference (Requires a password for access. Please contact your Genesys representative if you need to view this document.)
The Quality column in the Models list table on the Model configuration window now includes a new metric, <i>Local models</i> . The metric displays the number of local	Improvement	9.0.012.01	<i>Predictive Routing Help</i> <ul style="list-style-type: none"> • Configuring, Training, and Testing Models

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models generated for agents in the dataset on which the predictor is built.			
AI Core Services (AICS) has improved handling of UTF-8 characters. Data ingestion, model training, and analysis reports are all correctly processed for data containing non-ASCII UTF-8 characters.	Improvement	9.0.012.01	
The GPR API now enables you to run Feature Analysis reports. The API returns a JSON response containing a list of features ordered by weight--that is, by the strength of the impact that feature has on the value of the target metric. The resulting report is also automatically available for view from the GPR web application.	New feature	9.0.012.01	<p><i>Genesys Predictive Routing API Reference</i></p> <ul style="list-style-type: none"> • Predictive Routing API Reference (access requires a password; contact your Genesys representative for assistance)
The GPR API now enables you to run Lift Estimation reports. The API returns a JSON response containing the Lift Estimation results. The resulting report is also automatically available for view from the GPR web application.	New feature	9.0.012.01	<p><i>Genesys Predictive Routing API Reference</i></p> <ul style="list-style-type: none"> • Predictive Routing API Reference (access requires a password; contact your Genesys representative for assistance)
The Lift Estimation report now uses the scoring expression configured for the predictor (if any) to decide whether the target metric should be minimized or maximized.	Improvement	9.0.012.01	<p><i>Predictive Routing Help</i></p> <ul style="list-style-type: none"> • Understanding Score Expressions
You can now configure Agent State Connector (ASC) to monitor the StatAgentOccupancy Stat Server statistic.	New feature	9.0.012.01	<p><i>Deployment and Operations Guide</i></p> <ul style="list-style-type: none"> • (Optional) Configure ASC to Monitor Statistics
You can now configure ASC to monitor a subset of the total list of agent groups present in agent profiles.	New feature	9.0.012.01	<p><i>Deployment and Operations Guide</i></p> <ul style="list-style-type: none"> • include-groups
You can now choose to have ASC ignore the following unsupported ASCII characters: [Space], -, <, >.	New feature	9.0.012.01	<p><i>Deployment and Operations Guide</i></p> <ul style="list-style-type: none"> • ignore-ascii-characters
You can now configure ASC to monitor a subset of the total list of skills present in agent profiles.	New feature	9.0.012.01	<p><i>Deployment and Operations Guide</i></p> <ul style="list-style-type: none"> • include-skills

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ASC now supports a connection to Stat Server running in single-server mode, without a backup.	Improvement	9.0.012.01	
You can configure the Predictive Routing application to display custom messages on the login screen.	New feature	9.0.011.00	<i>Deployment and Operations Guide</i> <ul style="list-style-type: none"> • Set Values for Environment Variables
New supported platforms: <ul style="list-style-type: none"> • Mongo DB 3.6 (requires a special upgrade procedure; see the <i>AI Core Services Release Note</i> for details) • Oracle Linux 7.3 	New feature	9.0.011.00	<i>AI Core Services Release Note, Upgrade Notes</i> <ul style="list-style-type: none"> • Upgrade Notes
You can now configure parameters to control password-related behavior such as how often users must change them, blocking users after a specified number of login attempts, and adding a custom message when users are blocked.	New feature	9.0.011.00	<i>Predictive Routing Help</i> <ul style="list-style-type: none"> • Password policy configuration
The audit trail functionality has been improved to record additional actions and provide the ability to specify how long audit trail records are kept.	Improvement	9.0.011.00	<i>Predictive Routing Help</i> <ul style="list-style-type: none"> • Audit Trails
This release includes a number of updates to the functionality offered through the Predictive Routing API: <ul style="list-style-type: none"> • You can now generate and purge predictor data. • You can now create a new predictor by copying an existing one. To do so, send a POST request to the new copy_predictor endpoint. • You can now use GET commands to retrieve dataset and predictor details. • The way Predictive Routing recomputes cardinalities when you append data to Agent or Customer Profiles using the API has been changed: <ul style="list-style-type: none"> • Cardinalities are no longer 	New feature	9.0.011.00	<i>Genesys Predictive Routing API Reference</i> <ul style="list-style-type: none"> • Predictive Routing API Reference (access requires a password; contact your Genesys representative for assistance)

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<p>recomputed automatically across the whole collection each time you append data. Full automatic computation happens only once, when an Agent or Customer Profile is uploaded the first time for schema discovery. When you append data to an Agent or Customer Profile via the API, cardinalities are computed only for the appended data portion and only when the number of agents or customers set in the ADD_CARDINALITIES EVERY_N_RECORDS parameter is reached. The results of computation are added to the already-stored cardinality values. This new behavior significantly improves speed when loading new data by avoiding simultaneous recomputations on the full data collection when there are multiple frequent appends done in small batches.</p> <ul style="list-style-type: none"> The ADD_CARDINALITIES EVERY_N_RECORDS parameter has been added to the tango.env file with the default value of 1000. Each time the counter for appended agents/ customers reaches this number, computation for the last appended 1000 records takes place. The default value can be changed in the tango.env file, which is located in the IP_<version>/conf directory. When you change the value, restart the application to have the new value take effect. You can force recomputation of cardinalities on the full Agent or Customer Profiles 			

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<p>collection using the new POST compute_cardinalities API endpoint.</p> <ul style="list-style-type: none"> You can now retrieve information on the currently deployed platform using the new version endpoint. 			
<p>Predictive Routing now correctly recognizes columns with any combination of the following Boolean values: y/n, Y/N, Yes/No. Previously, only columns with true/false and 0/1 values were discovered as Booleans. The identification is case insensitive.</p>	Improvement	9.0.011.00	
<p>You can now upload data (agent, customer, and dataset) using zip-archived .csv files. Only one .csv file per archive is supported.</p>	Improvement	9.0.011.00	
<p>GPR complies with GDPR requirements for handling sensitive customer information.</p>	New feature	9.0.010.01	<p><i>Genesys Security Deployment Guide</i></p> <ul style="list-style-type: none"> Genesys Security Deployment Guide <p><i>Deployment and Operations Guide</i></p> <ul style="list-style-type: none"> Handling Personally Identifiable Information in Compliance with General Data Protection Regulation (EU) <p><i>Genesys Predictive Routing API Reference</i></p> <ul style="list-style-type: none"> Predictive Routing API Reference (access requires a password; contact your Genesys representative for assistance)
<p>The Lift Estimation report now offers Advanced Group By functionality, which provides more flexibility in customizing the report.</p>	Improvement	9.0.010.01	<p><i>Predictive Routing Help</i></p> <ul style="list-style-type: none"> Lift Estimation Report Overview
<p>GPR now supports LDAP authentication when users log in.</p>	New feature	9.0.009.00	<p><i>Predictive Routing Help</i></p> <ul style="list-style-type: none"> Configuring LDAP-Enabled Accounts

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<p>The following improvements have been made to the Lift Estimation report:</p> <ul style="list-style-type: none"> When generating the Lift Estimation report, GPR now provides the option to produce a report for each unique value for a selected column (feature). Previously, any feature with a cardinality of more than 20 was excluded, which meant that you could not produce reports with a granularity higher than 20 unique features. The agent pool for lift estimation is now constructed on a per-day basis for the interactions in the dataset. Previously, you might have observed a negative lift for higher agent availability or an unexpectedly high lift for low agent availability due to overcorrection caused by a mismatch between the input sample size and the actual sizes encountered through daily simulation. 	New feature/ Enhancement	9.0.009.00	<p><i>Predictive Routing Help</i></p> <ul style="list-style-type: none"> Lift Estimation report
Journey Optimization Platform (JOP) was renamed to AI Core Services (AICS).	Update	9.0.009.00	
<p>You can now enable GPR to look up updated values for certain agent attributes, based on customer or interaction attributes during a scoring request. For instance, you can look up agent performance by virtual queue, enabling you to evaluate the agent’s previous performance when handling interactions from that queue. This avoids comparing agent performance for a specific queue against other agents who handle interactions from a different mixture of virtual queues.</p>	New feature/ Enhancement	9.0.008.00	<p><i>Predictive Routing Help</i></p> <ul style="list-style-type: none"> Gather Updated Scoring Data Using Profile Look Ups
<p>You can now view an entire Agent Profile or Customer Profile record from the Agents Details and Customers Details tabs or an entire record on the Datasets</p>	New feature/ Enhancement	9.0.008.00	<p><i>Predictive Routing Help</i></p> <ul style="list-style-type: none"> Analyzing Agents

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Details tab. Click a single record to open a new window containing a table with all the related key-value pairs.			<ul style="list-style-type: none"> Analyzing Customers Analyzing Dataset Trends and Details
Agent State Connector now supports connection to a secured Configuration Server port and TLS 1.2 connections to Stat Server.	New feature/ Enhancement	9.0.008.00	<i>Deployment and Operations Guide</i> <ul style="list-style-type: none"> Secure Connections
You can now configure Agent State Connector to automatically create an Agent Profile schema, if none exists, or to verify the existing schema.	New feature/ Enhancement	9.0.008.00	<i>Deployment and Operations Guide</i> <ul style="list-style-type: none"> Create the Agent Profile Schema
You can now have Agent State Connector collect call connId data from Stat Server and write it to the Agent Profile schema for use in Predictive Routing.	New feature/ Enhancement	9.0.008.00	<i>Deployment and Operations Guide</i> <ul style="list-style-type: none"> Enable Collection and Storage of Call ConnIds
Agent State Connector is now supported on Windows and Linux 64-bit systems.	New feature/ Enhancement	9.0.008.00	<p>For the exact Windows and Linux versions supported, see the <i>Genesys Supported Operating Environment Reference Guide</i>.</p> <ul style="list-style-type: none"> For Windows and Linux 64-bit deployment instructions, see <i>Installing on Windows</i> and <i>Installing on RedHat Linux 7 64-Bit</i> in the <i>Deployment and Operations Guide</i>.
Predictive Routing now supports datasets of up to 250 columns for predictor data generation, model training, and analysis.	New feature/ Enhancement	9.0.008.00	<i>Deployment and Operations Guide</i> <ul style="list-style-type: none"> Data Size Guidelines - Data Import, Model Training, and Feature Analysis
Model training speed has been considerably improved.	New feature/ Enhancement	9.0.008.00	
Predictive Routing now provides progress indicators when loading predictor data and generating predictors. The progress indicators show the percent complete and the number of data rows already loaded.	New feature/ Enhancement	9.0.008.00	
The maximum supported cardinality for the Group By Estimation report has been increased to 20. All features with	New feature/ Enhancement	9.0.008.00	<i>Predictive Routing Help</i> <ul style="list-style-type: none"> Lift Estimation Report Overview

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cardinalities between 1 and 20 are now available in the Group By selection menu.			
You can now enter a maximum value of 500 simulations in the Lift Estimation analysis report settings. This prevents you from entering numbers too large to efficiently analyze and which can lead to an out-of-memory situation. The Number of Simulations field accepts any value larger than 0 and less than or equal to 500.	New feature/ Enhancement	9.0.008.00	<i>Predictive Routing Help</i> <ul style="list-style-type: none"> • Lift Estimation Report Overview
Predictive Routing now provides a text search field for use when selecting attributes for analysis.	New feature/ Enhancement	9.0.008.00	<i>Predictive Routing Help</i> <ul style="list-style-type: none"> • Creating and Interpreting Analysis Reports
The documentation and the user interface have been updated to reflect the new product name (changed from Genesys Predictive Matching to Genesys Predictive Routing).	Update	9.0.007.01	
The product name has changed from Genesys Predictive Matching to Genesys Predictive Routing.	New Feature	9.0.007.00	The documentation and the user interface are scheduled to be updated as a post-release activity.
Support for both single-site and multi-site high availability architectures.	New Feature	AICS and ASC 9.0.007.00	<i>Deployment and Operations Guide:</i> <ul style="list-style-type: none"> • Deploying: High Availability
Support for historical reporting, provided by the Genesys Reporting solution. The following reports are available in Genesys Interactive Insights: Predictive Routing AB Testing Report, Predictive Routing Agent Occupancy Report, Predictive Routing Detail Report, Predictive Routing Operational Report, and Predictive Routing Queue Statistics Report. <div style="border: 1px solid orange; padding: 5px; margin-top: 10px;"> <p>Important</p> <p>This functionality requires Genesys Info Mart 8.5.009.12 or higher, Reporting and Analytics Aggregates 8.5.002 or higher, and Genesys Interactive Insights 8.5.001 or higher.</p> </div>	New Feature	AICS and Strategy Subroutines 9.0.007.00	<i>Deployment and Operations Guide:</i> <ul style="list-style-type: none"> • Deploying: Integrating with Genesys Reporting • send-user-event (new) • vq-for-reporting (new)
Real-time reporting templates are available for use in Pulse dashboards: Agent Group KPIs by	New Feature	AICS and Strategy Subroutines	<i>Deployment and Operations Guide:</i>

Feature Description	Type of Change	Occurred in Release	Documentation Updates
Predictive Model and Queue KPIs by Predictive Model.		9.0.007.00	<ul style="list-style-type: none"> • Deploying: Integrating with Genesys Reporting
Two new analysis reports have been added to the Genesys Predictive Routing application: Agent Variance and Lift Estimation.	New Feature	AICS 9.0.007.00	<i>Help File:</i> <ul style="list-style-type: none"> • Agent Variance Report • Lift Estimation Report
The Model creation interface now includes additional model quality and agent coverage reporting.	New Feature	AICS 9.0.007.00	<i>Help File:</i> <ul style="list-style-type: none"> • Receiver Operating Characteristic (ROC) Curve
The Feature Analysis report, the model creation and training functionality, and the dataset import functionality have been improved to handle large datasets.	Improvement	AICS 9.0.007.00	<i>Deployment and Operations Guide:</i> <ul style="list-style-type: none"> • Data Size Guidelines - Data Import, Model Training, and Feature Analysis
You can now combine simple predictors to create composite predictors.	New Feature	AICS 9.0.007.00	<i>Help File:</i> <ul style="list-style-type: none"> • About Composite Predictors
Agent State Connector now enables you to set alarms if there are persistent connection issues with Configuration Server or Stat Server.	New Feature	ASC 9.0.007.00	<i>Deployment and Operations Guide:</i> <ul style="list-style-type: none"> • Monitoring Agent State Connector
Improved logging for the AICS Tango container when you train a model. The relevant log message now includes the model ID and feature size.	New Feature	AICS 9.0.007.00	<i>Deployment and Operations Guide:</i> <ul style="list-style-type: none"> • Model Training Logs
The agent occupancy control feature was improved.	Improvement	Strategy Subroutines 9.0.007.00	<i>Deployment and Operations Guide:</i> <ul style="list-style-type: none"> • agent-occupancy-factor (new) • use-agent-occupancy (updated) • agent-occupancy-threshold (updated)
The behavior of the time-sliced A/B testing mode (the pr-r-mode option is set to ab-test-time-sliced) has been improved.	Improvement	Strategy Subroutines 9.0.007.00	<i>Deployment and Operations Guide:</i> <ul style="list-style-type: none"> • ab-test-time-slice (new default value)
You can now set a timeout value that enables Genesys Predictive	New Feature	Strategy Subroutines	<i>Deployment and Operations Guide:</i>

Feature Description	Type of Change	Occurred in Release	Documentation Updates
Routing to tell whether URS is overloaded, at which point Predictive Routing turns itself off.		9.0.007.00	<ul style="list-style-type: none"> overload-control-timeout (new)
When you are training a model, new status indicators immediately inform you of the progress of model training, from "IN QUEUE", to a blinking "IN TRAINING" when the training job starts being processed, to "TRAINED" after job has been completed.	Improvement	AICS 9.0.007.00	
Predictive Routing now enforces conversion of non-string ID values into strings in the Agent and Customer Profile schemas.	Improvement	AICS 9.0.007.00	
The Predictive Routing strategy integration with URS now automatically deletes interaction scoring data stored in the URS global map once the interaction is routed or abandoned. As a result, the PrrlxnCleanup subroutine is no longer needed. This change requires URS version 8.1.400.37 or higher.	Improvement	Strategy Subroutines 9.0.007.00	
Apache Kafka is no longer used for triggering the execution of model training or analysis jobs. This functionality has been taken over by MongoDB. As a result, the kafka container is no longer part of the AICS installation package.	Discontinued container	AICS 9.0.007.00	<i>Deployment and Operations Guide:</i> <ul style="list-style-type: none"> Deploying AICS on a Single Host
In the Predictive Routing interface, the Action Features label is now <i>Agent Features</i> ; Context Features is now <i>Customer Features</i> ; Action Type is now <i>Agent Identifier</i> ; Context Type is now <i>Customer Identifier</i> .	Improvement	AICS 9.0.007.00	<i>Help File:</i> <ul style="list-style-type: none"> Settings: Creating and Updating Predictors
Added support for updating, deleting, and reading the indexes on Agent and Customer Profile collections through the Predictive Routing API.	Improvement	AICS 9.0.007.00	<i>API Reference:</i> <ul style="list-style-type: none"> Predictive Routing API Reference
Models now show how many versions have been created. In addition, you can now copy activated models.	Improvement	AICS 9.0.007.00	<i>Help File:</i> <ul style="list-style-type: none"> Settings: Configuring, Training, and Testing Models
The Composer	Improvement	Strategy	<i>Deployment and Operations Guide:</i>

Feature Description	Type of Change	Occurred in Release	Documentation Updates
<p>ActivatePredictiveMatching subroutine now supports two types of responses to score requests, either containing both list and list_ranks fields or just the list field. These are controlled by the request parameter format_as_map.</p>		<p>Subroutines 9.0.007.00</p>	<ul style="list-style-type: none"> • format-as-map (new)
<p>The following two configuration options are no longer supported as of this release. The functionality they enabled has been adjusted to make them unnecessary.</p>	<p>Discontinued Support</p>	<p>ASC 9.0.006.07</p>	<p><i>Deployment and Operations Guide:</i></p> <ul style="list-style-type: none"> • reset-jop-on-startup - This option is no longer required, and is now permanently set to false. To delete agents, delete your current agent profile schema in the Predictive Routing application, and then upload an updated schema. • stat-srv-ws-conn - This option is no longer required, and is now permanently set to true. ASC now supports warm standby connections by default.
<p>You can now deploy the AI Core Services (AICS) in Docker containers.</p>	<p>New Feature</p>	<p>AICS 9.0.006.05</p>	<p><i>Deployment and Operations Guide:</i></p> <ul style="list-style-type: none"> • Deploying: AI Core Services
<p>This release includes updates to the Predictive Routing web interface for improved usability.</p>	<p>Improvement</p>	<p>AICS 9.0.006.05</p>	<p><i>Help File:</i></p> <ul style="list-style-type: none"> • Genesys Predictive Routing Help
<p>This release includes context-sensitive Help. To open the Help from the interface, click the ? icon on the top menu bar.</p>	<p>Improvement</p>	<p>AICS 9.0.006.05</p>	<p><i>Help File:</i></p> <ul style="list-style-type: none"> • Genesys Predictive Routing Help
<p>In ASC, you can now specify a timeout between each subscription to avoid overloading Stat Server.</p>	<p>Improvement</p>	<p>ASC 9.0.006.06</p>	<p><i>Deployment and Operations Guide:</i></p> <ul style="list-style-type: none"> • A new option, ss-subscription-timeout, enables this functionality.
<p>Agent State Connector and Strategy Subroutines components can be deployed in a high availability configuration.</p>	<p>New Feature</p>	<p>ASC 9.0.006.06/ URS Strategy Subroutines 9.0.006.00/ Composer Strategy</p>	<p><i>Deployment and Operations Guide:</i></p> <ul style="list-style-type: none"> • Deploying: High Availability

Feature Description	Type of Change	Occurred in Release	Documentation Updates
		Subroutines 9.0.006.01	
Routing using Predictive Routing can now take agent occupancy into account when selecting the best target.	Improvement	URS Strategy Subroutines 9.0.006.00/ Composer Strategy Subroutines 9.0.006.01	<i>Deployment and Operations Guide:</i> <ul style="list-style-type: none"> The new use-agent-occupancy and agent-occupancy-threshold options control this functionality.
You can customize how Predictive Routing handles the authentication tokens that enable the URS Strategy Subroutines to request agent scores from AICS.	New Feature	URS Strategy Subroutines 9.0.006.00/ Composer Strategy Subroutines 9.0.006.01	<i>Deployment and Operations Guide:</i> <ul style="list-style-type: none"> Two new configuration options, scoring-token-expiration and emergency-scoring-token, enable this functionality.
Predictive Routing IRD strategy subroutines now utilize the URS TimeBehind[] function to detect when URS is overloaded and adjust their behavior accordingly.	New Feature	URS Strategy Subroutines 9.0.006.00/ Composer Strategy Subroutines 9.0.006.01	<i>Deployment and Operations Guide:</i> <ul style="list-style-type: none"> Troubleshooting for a URS-based Predictive Routing Environment
The workflow for creating Predictors has been made more logical and straightforward.	Improvement	AICS 9.0.006.05	<i>Help File:</i> <ul style="list-style-type: none"> Settings: Creating Predictors
Users can now reset their passwords from the Predictive Routing web interface.	Improvement	AICS 9.0.006.05	<i>Help File:</i> <ul style="list-style-type: none"> User Profile: Managing Passwords