Composer Help

Routing FAQs

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Contents

Routing FAQs

This page provides answers to common questions that IT personnel might have when planning or considering the addition of Genesys Routing to their site. The information on this page applies to 8.1.x versions of Composer.

What is Genesys Customer Experience Routing and how is it unique?

Genesys Customer Experience Routing is computer software that helps organizations better manage customer journeys. Routing prioritizes and matches the right interaction with the right resource at the right time. Our approach is unique in the industry because it's:

- SIMPLE to support the 80% of customer interactions that are routine
- DYNAMIC to automatically adapt to fluctuations within the 80% (so this variability doesn't consume 100% of resources)
- POWERFUL to drive the 20% of interactions that are not routine but are the most valuable (across time, channels, multimedia, front and back office)

We help companies create better customer experiences. Our DYNAMIC routing frees you to do more than just what is SIMPLE. And that gives you bandwidth to apply the full POWER of Genesys to those moments that truly matter.

What is a routing application? What are the basic elements?

Routing provides instructions about how to handle and where to direct interactions under different circumstances.

Conceptually, a routing application is like a series of prioritized instructions "if&ldots;, then&ldots;, else&ldots;" that take into account various factors to determine the optimal routing target, and what to do next if that action is not possible within the specified constraints.

Routing applications are made up of a number of different elements, described here at a conceptual level:

- Data can come from various sources and may include customer, contextual, operational, or analytical data. Attached Data, which is included in call messaging as Key Value Pairs (KVPs), is what you know about a specific interaction. Attached data can be added and updated throughout the life of the interaction (e.g., as a call flows through the IVR, routing, agent desktop, and reporting).
- Skills are what you know about an agent. To identify the best available resource to handle a particular interaction, routing looks for desired combinations of Skills at the individual level (per agent), at the team level (per skill group, or 'queue'), or across a virtual pool of resources (per 'virtual queue').

Skills should not represent absolutely everything about agents, but simply the minimum needed to accurately route and report on interactions. Because of the combinatorial power of Skills, it is best not to get too granular. Modify an agent's Skills only when the agent acquires new job functions, training, or capabilities; do not change agents' skills merely to redirect traffic.

Each Skill can optionally have a Proficiency, which rates how relatively good an agent is at a Skill (e.g., Spanish level 5 vs. 10). This allows an organization to route to the best-skilled available agent, and then if no agents at that proficiency level are available within a certain amount of time, expand the target to agents with a lower proficiency level and/or an alternative combination of skills.

Logic provides the overall routing decisioning or instructions. Logic specifies the conditions under which the routing applies and the method of target selection. The logic can be based on a number of different considerations, such as skill targeting, service level, load balancing, percentage allocation, statistics, or workforce. (See below for more details.)

Certain aspects of routing can be configured and saved as Reusable Objects. There are various types of reusable objects, including subroutines, list objects, interaction data, etc. Reusing these building blocks within and across routing applications improves the efficiency, quality, and simplicity of the routing.

A well designed and implemented routing solution should be able to handle most of the ongoing routing needs in a dynamic and automated fashion. However, there may be some situations where the business needs or wants to make changes on a frequent or ongoing basis. These select elements can be exposed to business users either as Operational Parameters or as Business Rules to facilitate greater business agility while maintaining system stability:

- Operational Parameters are simple conditional variables that give business users limited control (e.g., After Hour Messages, Hours of Operation, Emergency Status, etc.). Users can make changes to these parameter settings through the Genesys Administrator Extensions (GAX) interface. (Alternatively, this can also be done via list objects in Interaction Routing Designer (IRD).) The business user cannot change the underlying logic (only the pre-specified values of the exposed parameters), and does not require any specialized technical training.
- Business Rules are logical representations of underlying routing that are written in plain language (i.e., meta-language, not code). They are useful when the business user (typically a business analyst) wants greater control over the conditions, logic, and actions associated with the routing (e.g., create differentiated customer service treatments based on segmentation, marketing campaigns, etc.). Users can make updates to the business rules, but only for those parts of the routing that have been exposed through the business user interface within Genesys Conversation Manager. Although the business user isn't actually viewing or changing the code directly, they still require a clear understanding of the business logic and potential impact of changes.

What are some of the most common types of routing?

The table below lists the most common types of routing.

TYPE	DESCRIPTION
Agent Group	sRouting interactions to a specified group of agents. This may be based on job type (e.g., Tier1Agents), location or site (e.g., MiamiAgents), etc.
Auto Attendant	Routing implemented to support simple menus

	(e.g., audio prompts and touchtone selections), mimicking the functionality of a basic IVR.
Blended	Routing which allows the same agent or select resources to handle more than one type of interaction (e.g., Inbound/Outbound, multimedia). Blending should be used to make use of underutilized resources and to prevent service level fluctuations (e.g., forcing agents to log off a voice queue due to an influx of Social Media interactions). Consider how many interactions of each type an agent can handle at a time and define capacity rules according. Also, increment and/or cap priority values based on interaction types, so voice interactions don't always take precedence over non-voice ones, or vice-versa.
Business Case	Routing to provide differentiated customer service treatments for specific business processes or use cases (e.g., marketing campaigns, account status, payment due, collections, regulatory, etc.).
Callbacks/Virtual Hold	Routing that accounts for the prioritization and targeting when a call back to a customer is required, requested, or scheduled.
Cascading Routing	Routing that uses multiple tiers of prioritized routing decisioning, such that if the conditions for the highest priority routing instructions are not met, the routing automatically overflows to the next level of routing instructions. Conditions can also be checked in parallel, so that time is not wasted waiting to execute the first tier of decisioning before considering the next one.
Concierge Routing/Hunt Groups	Routing to a specific agent or a small group of individuals when specialized or personalized service is required. Typically the interaction is first directed to the primary agent assigned to a particular customer account. However, if that agent is unavailable, the routing will search for the next available team member within a small hunt group.
Cross-Channel	Routing based on what a customer was just doing on another channel (e.g., a customer is on the company's website or mobile application and then calls in).
Default Routing	Routing an interaction to the default destination that is to be used when none of the conditions for the previous tiers of routing decisioning have been met. This typically occurs when traffic volumes spike for some reason and the timeout thresholds for the previous tiers have been exceeded, so the interaction overflows to the final default destination.
Dynamic Routing	Routing that automatically adjusts based on pre-specified priorities and conditions. Examples include: cascading routing, target expansion,

	timeout thresholds, data dips, holidays, emergencies, service outages, etc. Dynamic routing is an efficient and valuable alternative to reskilling agents on the fly, an inefficient and costly practice that is often used in legacy contact center environments to manually redirect traffic.
Enterprise Workload Management	Routing of work items across the enterprise. The same Genesys routing capabilities that can be used to direct customer-facing interactions (calls, emails, chat, etc.) can also be leveraged to schedule, assign, distribute and track work activities across the back-office.
Escalations	Routing of interactions which require the support or intervention of a more highly skilled agent (e.g., 'Tier 2') or manager. This may be handled as a transfer, or it may involve a conference call or consultative support with the specialist.
eServices/Multimedia	Routing of various types of non-voice interactions (e.g., email, chat, text, social, video, open media). Different media types may require unique skills (e.g., +Written could be a skill type for email, chat, and text). Consider how many interactions of each type an agent can handle at a time and define capacity rules according (e.g., 1-4 chats per agent).
Interaction Type (a.k.a. Call Type)	Routing based on the type of customer and/or ccustomer's intent. This is typically determined based on the number dialed (DNIS), from the caller's menu selection or activity within the IVR, or from content analysis on an email or chat.
Interactive Voice Response Integration	Routing a call to the appropriate target based on what the caller did or selected within an IVR. Based on integration with Genesys Voice Platform (GVP) or a third-party IVR.
Last Agent Routing	Routing to the last agent the customer interacted with. Especially useful for routing to a single point of contact (such as a case owner) or for dropped calls that call back in within a specified timeframe.
Outbound	Routing of interactions that are initiated by the organization and directed outward to the customer (e.g., outbound calls, marketing campaigns, collections, outbound emails, text messaging, proactive contacts, etc.).
Overflow/Sharing Agents	Routing to an alternative queue or agent group, when the primary target is unavailable or over-utilized. Lending and borrowing of resources can be contingent upon certain predetermined business conditions being met, so that spikes in one team's volume does not unduly impact another team's availability or service levels.
Percentage Allocation	Distributing interactions between queues based on a percentage of total volumes (e.g., 60% to Site A and 40% to Site B).

Priority Queuing	Routing which uses priority values to give preference for one queue or interaction over another. Priorities can be incremented over time, so if a lower-ranked interaction has been waiting longer, it will be serviced before a higher-ranked interaction that has just arrived. This ensures that no interaction ever waits too long for service.
Queue Treatments	Routing that plays audio (e.g., music, ads, messages) or provides certain functionality while callers are waiting in queue or on hold.
Ring No Answer/Redirect on No Answer (RONA)	Routing to an alternative target if the original target fails to answer (e.g., agent failed to log out). The agent will be targeted the first time, but after that an action can be specified (e.g., log out) so that agent isn't targeted again subsequently.
Segmentation	Routing based on the type of customer, the value of the opportunity, or other marketing segmentation data.
Skills-Based	Routing to the best-skilled available agent based on a combination of skills specified in the routing. This is sometimes called 'agent-level routing,' since Genesys routing is capable of looking down to an individual agent's unique set of skills. However, in practice routing typically looks for the desired skill set across a 'universal queue,' to optimize utilization across a large pool of resources.
Statistical Routing	Routing based on various database lookups and operational conditions, such as Estimated Wait Time (EWT), queue depth, service levels (SLAs), performance goals, agent occupancy, skill utilization, seasonality, special events, business processes, etc.
Target Expansion	Routing that expands its targets to increase the pool of agents able to handle an interaction, be it after a time period or triggered by the Estimated Wait Time (EWT) being greater than a defined threshold. The highest skill level is first targeted until the time limit is reached, and then routing expands to include the next level of skills, cascading down until all skill levels are included in the targeting. This ensures that if the best suited pool of agents are unavailable, then after the expansion timeout the next best pool of agents are included in the targeting.
Transfers	Routing to handle transfers. Need to consider the routing for transfers that are directed either into or out of the contact center. The routing priority may vary depending on whether it is an internal transfer (within the contact center) or external transfer (to/ from an outside group or entity).
Workforce	Routing that factors in various workforce considerations such as schedules, shrinkage, absenteeism, training, skill development, desktop/

	tools, new-hires/career paths, agent affinity for particular interactions, outsourcers, unions, labor laws, etc.
Voicemail	Routing of inbound calls to voicemail (e.g., after hours group voicemail inboxes). Or outbound routing which addresses what to do if a voicemail is reached (i.e., leave a message or not).

How many skills total does an organization typically have?

It depends on the size and requirements of the organization, but generally we see a range somewhere between 20-75 skills total. Once you start to approach 100 or more skills, you need to question if you are really taking advantage of the combinatorial power of Genesys skills (i.e., where agents can be multi-skilled and Genesys routing can look for multiple combinations of skills).

The average agent is typically highly proficient in 3-4 skills each, but may have lower proficiency in other skills to provide backup. Expert agents may be highly proficient in 10 or more skills.

Skills and proficiencies grow and change over time, which is useful for staff development and retention. Skills need to be monitored and aligned across staffing and routing.

If you find there are certain skills &endash; a, b, c &endash; that every agent has, then maybe you've dissected the skills too granularly. Try renaming/regrouping these into one mega-skill (e.g., A). At the same time, you don't want to group so many skills together that you've gone back to queue-based routing, where each skill maps to a separate queue.

If an organization requires many skills, rather than hard-coding each one separately directly into the routing logic, a better and simpler approach may be to reference the skills as variables within the routing logic. Then do a data-dip into a database or table look-up from a separate file. That way when skills need to be modified, this can be done in the external data source housing the skill information, without having to change the actual routing logic itself. Soft-coding skills is an effective approach if you find that skills change frequently over time, but the core routing does not. Certain industries demand a high level of subject matter expertise (e.g., finance, insurance, healthcare), so there are more total skills the organization needs. At the same time, since each agent requires more specialized expertise to handle these inquiries, each agent typically handles fewer call types than in other industries where agents may be more of generalists.

Don't confuse Skills with Attached Data. For instance, consider situations in which many corporate clients need to be supported, or there are state-specific licensing requirements (e.g., 401ks, insurance plans). The specific account or plan can be identified based on the phone number dialed (DNIS) or other information gathered in the IVR and attached to the call. There may be hundreds of these possibilities. However, this doesn't necessarily mean there need to be hundreds of different skills corresponding to each. An individual agent might be trained to handle a more generalized skill (e.g., 401Ks in general), and a particular plan's specifics can be screen-popped through to the agent's desktop based on the Attached Data.

How many routing applications should an organization have?

As a rule of thumb, a large contact center solution (a major line of business) should not need more than 10 routing applications and subroutines (not counting reusable objects and subroutines used across applications).

It’s important to encompass two key design considerations when planning routing &endash; Flexibility and Simplicity. This can be done by creating generic components and modularizing parts for reuse. A routing model which is data-driven and accommodates the logic shared across applications and lines of business helps to eliminate duplicated logic or code. Functionality which is replicated should be separated out into a sub-routine to minimize the need to change multiple applications for feature enhancements and/or defect fixes. This minimizes the number of applications required and still meets the demands of complex routing requirements.

What are skill proficiency levels, and what are they used for?

Proficiency is an optional way of reflecting how relatively good an agent is at a particular skill (e.g., Spanish level 5 vs. 10). Following the ‘Simplicity’ design principle, it’s best to keep to three (or fewer) levels of skill proficiencies &endash; for instance, High = 9, Medium = 6, and Low = 3. This allows additional proficiency levels to be added in between if required in the future.

Proficiency enables Target Expansion &endash; e.g., first target agents with skill of Sales ≥ 9 proficiency for 15 seconds, then target Sales ≥ 6 for 15 seconds; then target Sales > 0). This circumvents agents having to log off one agent group/queue and log into another, which is a common issue with legacy ACD-based solutions and can be avoided using Genesys routing.

How many tiers of cascading routing should there be?

With basic Skills-Based Routing, 4 tiers are typical &endash; 3 for the three skill proficiencies and the forth tier for emergency (e.g., breached threshold, all agents log off).

When using additional soft skills to provide an extra level of customer experience, then an additional tier will be required before the 4 tiers previously mentioned.

What Reporting considerations need to be taken into account?

First, the Reporting requirements need to be well defined. What are the business goals of the solution? How will success be measured? What are the KPIs? How does the business need to slice and dice the data? How will reporting be represented? What needs to be monitored in near real-time vs. historically? Who are the different consumers of reporting and what do they want/need to see? What business intelligence is needed &endash; analytics, trends, outliers, outcomes, actionable insights, alerts?

Routing must then be aligned with those Reporting needs. This is typically supported through Attached Data associated with each interaction (e.g., line of business, customer segment, routing

point/agent, service type, disposition code, business result, etc.). Decide on a flexible approach for attaching data. Don't attach too much (as it may have a performance impact). Consider codifying values to reduce the total data overhead. And be very clear about what data represents at the point it was attached.

What Workforce Management considerations need to be taken into account?

Genesys routing allows an interaction to be serviced by the best-skilled available agent across a virtualized pool of resources, and to expand the target (to lower proficiency level and/or a different skill set) if the desired target isn't available. Altering the original target (such as in target expansion) will always affect Workforce Management (WFM), so it's important to include WFM into the routing considerations.

- For instance, sometimes an agent might be working on a call type that is outside of what they normally work on. So supervisors/team leads need the right insight to know their people are working on the right thing at the right time.

Genesys Routing works with a variety of industry WFM solutions, but there are additional advantages to using Genesys Workforce Management:

- The Genesys WFM solution provides historical data collection and real-time analytics for all interaction types being monitored by the Genesys environment.
- Genesys WFM integrates with the Genesys suite to utilize all of the Site, Agent, Skill, and Skill level information contained therein.
- Genesys also provides the ability to base routing on agents' specific future schedule states in Genesys WFM. For instance, if an agent is scheduled to go on break soon, routing will not direct an interaction to them, to stay in adherence.

Skills should not be changed to re-route traffic, due to absenteeism or overflow.

- Frequent ad hoc re-skilling of agents (to redirect traffic flow) is inefficient, fails to leverage dynamic routing, and can wreak havoc with the accuracy of WFM forecasting for skill types.
- Agents should already have their skills and proficiencies in their profiles, but they may be scheduled to take particular call types based on their scheduling and routing logic. Re-skilling of agents typically only happens if they have acquired new skills (after training) or taken on a new job role.
- Most interaction flows should be handled via dynamic routing (such as target expansion). If traffic must be manually redirected, then rather than re-skilling agents, keep agent skills the same and redefine the 'activity set' object within Genesys WFM. This reschedules agents to work on different activities during a given time period. That way you are rescheduling the types of work they are handling, rather than changing the agents' actual skills. This approach is based on doing schedule-based routing (not just skills-based routing), and has a dependency on Genesys WFM, thus taking advantage of the interoperability across the Genesys suite of solutions.

What are the best practices for migrating from traditional queue-

based routing to Genesys Customer Experience Routing?

The most common mistake that organizations make when moving away from legacy ACD environments is trying to replicate a like-for-like solution. While this is sometimes inescapable as an interim step (e.g., due to end-of-life equipment), it should be avoided at all costs as the end state. Seize the opportunity to re-evaluate your current customer experience and create an optimal solution:

- Start by identifying the business goals and customer experiences you want to deliver.
- Segment your customers and determine an appropriate customer service strategy for each (e.g., Elite Customers, High Value, Mass Market, and Low Value).
- Consider the various channels and contact drivers of customer interactions. Rather than treating these as siloed touch points, craft them into seamless customer journeys. (These journeys will likely vary per segment.)
- Evaluate your workforce and identify their hard and soft skills. Determine which skill sets and proficiencies are needed to deliver the desired customer journeys. Are there gaps? Do job roles, teams, or training need to change?
- Prioritize (rank) desired customer journeys and match with optimal skill targets for each. Then consider the next best treatment and target if these conditions cannot be met.

As a rule of thumb, routing should be designed so that:

- Your most valuable customer interactions (top 10-20%) receive the best service most of the time.
- The majority of your customer interactions (60-80%) receive good service (e.g., slightly longer wait, less skilled agents) much of the time.
- Your costly customer interactions, overflows, or exceptional situations (bottom 5-20%) receive adequate service and the minority of the time.