PEGA Skill-Based Routing – An Intelligent Way to Maximize Operational Efficiency

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ABSTRACT

In today's dynamic business landscape, organizations strive to enhance operational efficiency and customer satisfaction. Skill-based routing (SBR) has emerged as a pivotal strategy to optimize resource allocation and streamline customer interactions. PEGA, a leading provider of software solutions, offers a sophisticated Skill-Based Routing mechanism, empowering businesses to intelligently route tasks to the most suitable agents. This paper presents a comprehensive analysis of PEGA Skill-Based Routing, exploring its functionalities, benefits, implementation strategies, and real-world applications. Through a synthesis of academic literature, industry reports, and case studies, this research elucidates the significance of PEGA SBR in modernizing contact center operations and driving superior customer experiences.

Key words: Skill Based Routing, PEGA, Contact Center, Appeals and Grievance, Operational Efficiency
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INTRODUCTION

In the contemporary landscape of customer service management, the ability to efficiently allocate tasks to the most qualified agents is paramount for ensuring optimal operational performance and customer satisfaction. Contact centers, serving as pivotal hubs for customer interactions, rely heavily on effective task routing mechanisms to streamline workflows and enhance service delivery. Skill-Based Routing (SBR) has emerged as a cornerstone strategy in this regard, enabling contact centers and other similar business areas to intelligently match incoming tasks with agents possessing the requisite skills and expertise.

Among the diverse array of software solutions available for implementing SBR, PEGA stands out as a leading provider renowned for its innovative approach to customer engagement. PEGA's Skill-Based Routing mechanism offers a sophisticated platform that leverages advanced algorithms and real-time data analytics to dynamically assign tasks to agents based on their proficiencies, availability, and workload. As organizations increasingly prioritize operational efficiency and personalized customer experiences, understanding the functionalities, benefits, and challenges of PEGA Skill-Based Routing becomes imperative. [1]

A. Research Objective/Scope

- This thesis explores the implementation and impact of PEGA Skill-Based Routing (SBR) in contact centers and other similar business areas including Appeals and Grievances, Claims, Etc. Skill-Based Routing is a critical component in modern contact center operations, facilitating efficient task allocation and enhancing customer experiences. PEGA, a leading provider of software solutions, offers a sophisticated SBR mechanism that dynamically matches tasks with agents based on their skills and availability.

- This thesis also investigates the functionalities, benefits, challenges, and future prospects of PEGA SBR, providing insights into its role in optimizing operational efficiency and improving service quality in contact centers.

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B. Fundamentals of Skill-Based Routing

Skill-Based Routing (SBR) is a mechanism employed by contact centers to intelligently distribute tasks to agents possessing the requisite skills to handle them effectively. By matching the characteristics of incoming tasks with the proficiencies of available agents, SBR optimizes resource utilization and minimizes response times.

By furnishing details regarding the skill sets of the agents, contact center and or any other similar application can precisely determine the routing path for customers, ensuring they are paired with the most proficient agent tailored to their specific requirements. This routing approach guarantees that the customers perceive their importance and enables businesses to deliver exceptional service, thereby enhancing the overall customer experience [2].

PEGA SKILL-BASED ROUTING: FUNCTIONALITY AND FEATURES

PEGA Skill-Based Routing offers a comprehensive suite of functionalities designed to streamline task assignment and optimize agent performance. The key features of PEGA SBR include:

- *Dynamic Task Allocation:* PEGA SBR dynamically assigns tasks to agents based on predefined criteria such as skills, expertise, language proficiency, and workload.
- *Real-time Decision Making:* Leveraging real-time data analytics, PEGA SBR enables swift and informed routing decisions, ensuring prompt task resolution.
- *Adaptive Learning:* PEGA's SBR employs machine learning algorithms to continuously analyze agent performance and refine routing strategies, thereby enhancing efficiency over time.
- *Integration Capabilities:* PEGA SBR seamlessly integrates with other PEGA platforms and third-party applications, facilitating smooth information exchange and workflow automation.

IMPLEMENTING PEGA SKILL BASED ROUTING:

PEGA SBR offers diverse implementation pathways tailored to meet a range of business requirements. Presented below are several options and their corresponding applications: [3]

A. GetNextWork

Skill-based routing operates via the "Get Next" button. Upon selecting "Get Next," the system retrieves the most pressing task that matches the user's skill set. This matching process involves comparing the skills assigned to the user with those required for the task, determining if the skill is necessary (yes/no), and if the user's skill rating meets or exceeds the rating required for the task. Skills are assigned with 3 items:

Skill ID – This is the ID assigned to the skill and needed by an operator retrieving the work.

Required – This identifies if the skill is required for retrieval. If the required flag is "N", then the user does not need that skill to retrieve the work. The required flag can be "Y" or "N".

Rating – This identifies the minimum rating that the user must have to retrieve the work. Note that the same skill may have multiple ratings. For example, when retrieving high dollar claims, a claim with an approved amount $1M may require a skill rating of 10, but a claim with an approved amount of $100,000 may only require a skill rating of 5. The rating can be from 1 to 10. [4]
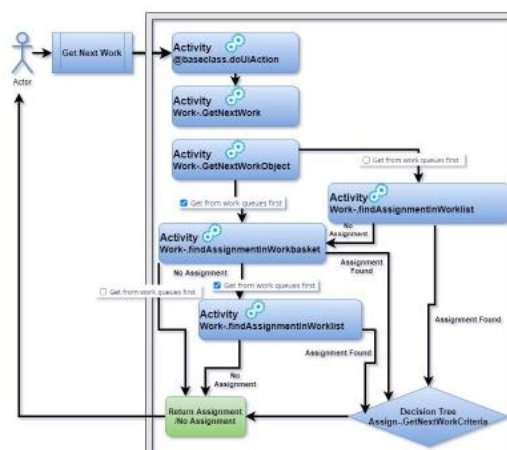

B. To Leveled Group

This routing process will assign the task to the worklist of the team member within the workgroup possessing the necessary skills and the highest "score". This score is determined based on the workload currently on the individual's list and the number of desired skills they possess. Additionally, the routing considers the availability of the individual, taking into consideration any specified unavailable dates recorded in their profile.

This functionality can be integrated into various processes such as Claims Inquiry, Claims Adjudication, Appeals, Grievance Cases, and more. When an inquiry or case is received, the system analyzes its details to determine the necessary features and skill set required for processing. For instance, if a Medicare customer contacts to appeal a denied claim, the system, guided by the configured Routing Logic in PEGA, automatically directs the case to an agent equipped with the specific skills for handling Medicare Appeal Cases.

C. To Skilled Group

This routing process implements skill-based routing by assigning a task to a randomly chosen operator from a designated team. The selected operator must be available within the assignment's start and due time, and possess the necessary skill proficiencies to fulfill the task. Leveraging indexes managed in the Index-OperatorSkills class, this process ensures efficient operation.
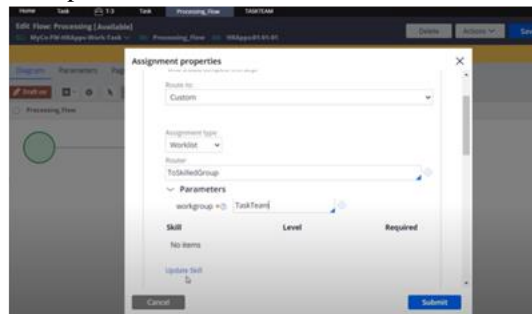
D. Sample To Skilled Group List

This routing process illustrates the utilization of the getAvailableSkilledOperatorsList() function, which is a component of the Routing library. This function retrieves a roster of operators who are both available and possess the necessary skills as per the requirements. Subsequently, application specific routing algorithm can further refine the selection process by applying additional filters and criteria to determine which operator from the list should be assigned the task. In cases where none of the operators in the group meet the standard function qualifications, the list will solely include the Operator ID of the team manager.

IMPLEMENTATION STRATEGIES AND BEST PRACTICES

Successful implementation of PEGA Skill-Based Routing entails careful planning, stakeholder engagement, and adherence to best practices. Key strategies include:

Defining Routing Criteria: Organizations must identify relevant criteria for task routing, such as agent skills, language proficiency, and geographical location, to ensure accurate and efficient allocation.

Training and Development: Adequate training and skill development programs should be provided to agents to enhance their proficiency and adaptability to the PEGA SBR system.

Performance Monitoring and Optimization: Continuous monitoring of routing performance metrics is essential to identify bottlenecks and inefficiencies, enabling timely adjustments and optimizations.

CASE STUDY

A. Problem Statement

A scenario involves a customer managing cases across multiple languages, with different operators assigned to each language. Operators are restricted to handling cases within their designated language proficiency. Additionally, a manager operator possesses the capability to oversee cases in all languages.

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Note: It's worth noting that this language-based scenario can be readily modified to accommodate other variables such as cities, currencies, and more.
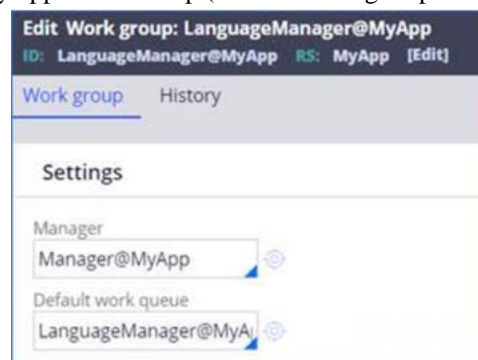
B. Solution Approach:
One of the solution approaches can be to define a Skill for each language used in the application and configure each operator with the proper one. This way skilled-routing feature can be leveraged through ToSkilledGroup activity, having all operators belonging to the same Work Group (where the manager is also configured to receive work not routed to any operator).
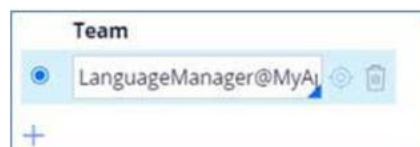
C. Technical Solution & Execution
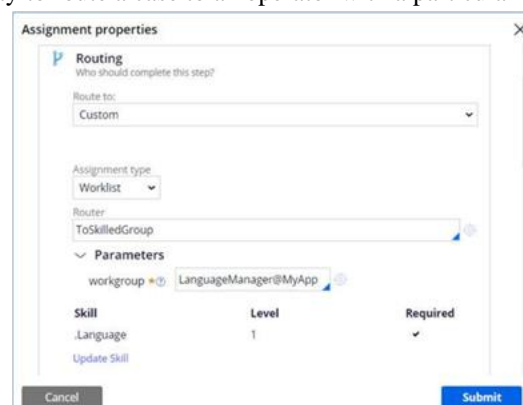Create a Skill per language and add the proper skill to each operator:

Skill	Rating	
English	1	🗑
+		
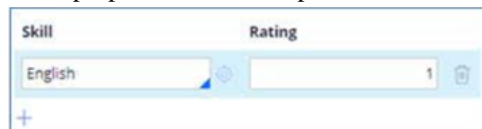
Create a LanguageManager@MyApp Work Group (with the manager operator as manager):

Edit Work group: LanguageManager@MyApp
ID: **LanguageManager@MyApp** RS: **MyApp** **[Edit]**

Work group   History

Settings

Manager
Manager@MyApp

Default work queue
LanguageManager@MyAj

And configure the operators with it:

Team
⦿   LanguageManager@MyAj
+

Use the ToSkilledGroup activity to route a case to an operator with a particular language:

Assignment properties   ✕

 ⍮ Routing
    Who should complete this step?

    Route to:
    Custom   ⌄

    Assignment type
    Worklist ⌄

    Router
    ToSkilledGroup

    ⌄ Parameters
       workgroup * ⍰   LanguageManager@MyApp

    Skill   **Level**   **Required**
    .Language   1   ✓
    Update Skill

    Cancel   Submit

BENEFITS OF PEGA SKILL BASED ROUTING

The benefits of PEGA Skill-Based Routing (SBR) are multifaceted, offering organizations significant advantages in optimizing resource allocation, enhancing operational efficiency, and delivering superior customer experiences. Some key benefits include: [5]

Optimized Resource Allocation: PEGA SBR intelligently matches tasks with agents based on their skills, availability, and workload. By dynamically routing tasks to the most suitable agents, organizations can maximize resource utilization and minimize idle time, leading to improved productivity and cost efficiency.

Enhanced Operational Efficiency: By automating the task routing process and reducing manual intervention, PEGA SBR streamlines workflows and accelerates task resolution. This results in faster response times, reduced bottlenecks, and increased throughput, thereby enhancing overall operational efficiency.

Personalized Customer Experiences: PEGA SBR ensures that customer queries are routed to agents with the relevant skills and expertise to address their specific needs. This personalized approach leads to quicker resolutions, higher first-contact resolution rates, and improved customer satisfaction, ultimately fostering stronger customer relationships and loyalty.

Agility and Adaptability: PEGA SBR is highly adaptable and scalable, allowing organizations to easily accommodate fluctuating workloads, changing business requirements, and evolving customer demands. Its flexible routing logic enables quick adjustments to routing strategies based on real-time data and changing priorities, ensuring agility in response to dynamic market conditions.

Data-Driven Decision Making: PEGA SBR leverages advanced analytics and reporting capabilities to provide insights into routing performance metrics, agent productivity, and customer interactions. By analyzing these data, organizations can identify trends, uncover bottlenecks, and make informed decisions to optimize routing strategies and improve overall operational effectiveness.

Compliance and Quality Assurance: PEGA SBR enables organizations to enforce compliance requirements and quality standards by ensuring that tasks are routed to agents with the necessary certifications, training, and expertise. This helps mitigate regulatory risks, uphold service level agreements (SLAs), and maintain consistency in service delivery.

CONCLUSION

In conclusion, this thesis has provided a comprehensive exploration of PEGA Skill-Based Routing (SBR) and its implications for contact center operations. Through an examination of its functionalities, benefits, implementation strategies, and real-world applications, several key findings have emerged. Firstly, PEGA SBR offers a sophisticated platform for dynamically matching tasks with agents based on their skills, availability, and workload, thereby optimizing resource allocation and enhancing operational efficiency. Moreover, the adoption of PEGA SBR has been shown to improve customer experiences by ensuring that queries are routed to the most suitable agents, resulting in quicker resolutions and enhanced satisfaction.

The implications of this research extend beyond theoretical understanding to practical implications for contact center practitioners, managers, and decision-makers. By leveraging PEGA SBR, organizations can streamline workflows, reduce response times, and elevate service quality, ultimately driving business growth and competitive advantage. Additionally, the insights gleaned from this study can inform strategic decision-making processes related to technology investments, workforce management, and customer engagement strategies.

Looking ahead, there are several avenues for future research and exploration in the field of PEGA SBR. Further investigation into the impact of SBR on specific industry verticals, such as healthcare or finance, could yield valuable insights into sector-specific challenges and opportunities. Additionally, exploring the integration of emerging technologies, such as artificial intelligence and predictive analytics, into PEGA SBR could unlock new possibilities for enhancing task routing efficiency and personalizing customer interactions.

In summary, this thesis has underscored the significance of PEGA Skill-Based Routing as a transformative tool for modernizing contact center operations and driving superior customer experiences. By continuing to explore and innovate in this space, organizations can unlock new opportunities for growth, efficiency, and innovation in customer service management.

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