

Contents

1	Introduction	3
2	History and Evolution	4
2.1	What Is Skills-Based Routing?	4
2.2	Applications of Today's Skills-Based Routing	6
2.2.1	Overflow Routing	6
2.2.2	Highly Targeted Routing	6
2.3	The Future of Skills-Based Routing	7
3	Common Mistakes in Skills-Based Routing Models	8
3.1	Mistake 1: Every skill set should have a dedicated pool of agents	8
3.2	Mistake 2: If the forecasting window is shorter, the accuracy is better	8
3.3	Mistake 3: A lower call handle time indicates better customer service	9
3.4	Mistake 4: Agents can acquire new skills with training	9
3.5	Mistake 5: Skills-based routing can be done away with if agent desktops have sufficient background information	9
4	Practical Applications	11
4.1	Blended Call Centers	11
4.2	Multiple Queues	11
4.3	Application Processing Servers	11
4.4	Virtual Call Centers	11
4.5	Skills-Based Simulators	11
5	Advantages of Skill Based Routing	11
5.1	Increased First Call Resolution	12
5.2	Reduced Agent Work Time	12
5.3	Decreased Customer-Hold Time	12
5.4	Reduced Operational Costs	12
5.5	Increased Call Center Revenues	12
5.6	Increased Customer Retention	13
6	Critical Success Factors	14
6.1	Being Customer-Centric	14
6.2	Ease of Use	14

6.3	Planned Implementation	15
6.4	Workload Distribution	15
6.5	Successful Skills-Based Routing	15
7	Conclusion	18
8	References	19

1 Introduction

An inbound call center usually handles different types of calls in terms of caller profile as well as purpose of call. It is usually not cost effective to train every agent to handle every type of call. As a result, agents are usually specialized in certain processes or products, and they handle calls related to these areas. Another skill requirement is that of languages, as most call centers receive calls from multiple geographies. Most agents may be proficient in one or more languages, but not in all languages in which calls are received. In highly technical call centers such as those of IT companies, agents may require extensive training to be able to handle calls efficiently. With call centers being outsourced, agents often handle more than one client's calls, and it is not practically possible to train all agents with all the skills necessary to handle every account. This is how skills-based routing became a necessity for call centers.

Today, automatic call distributors have the capability to [route calls to agents](#) based on their skills using a rule base that can identify the skill set requirements for different call types and map it to skill levels of agents.

While skill based routing techniques have evolved over the last couple of decades, there is still plenty of room for improvement, and researchers as well as call center practitioners are on the lookout for better ways to design and manage SBR.

2 History and Evolution

The automatic call distributor (“ACD”), which is common in most call centers today, was first introduced in 1972. Until then, incoming calls were handled on a one-to-one basis, whereby each incoming call was sent to each phone line in a ‘hunting’ pattern until it was answered. Factors such as agent availability or skill levels were not factored in while routing calls. With the introduction of ACDs, it was possible to connect the calls and queue them until an agent was available to answer. This allowed proactive rule based queueing of calls based on the nature of the call, the location of the call origin and the skill levels of agents.

Traditionally, ACDs routed calls based on the ‘longest idle time’ in order to have a uniform workload distribution among agents. The assumption was that all calls are for a similar purpose and that any agent can handle any call effectively. The objective was to minimize agent idle time, and caller wait time.

However, as call centers evolved from a cost centric approach to a customer centric approach, personalized service became a focus area. In order to provide a customized service to each caller, call centers started analyzing the nature of the calls and attempted to provide first call resolution, by connecting them to an agent who had the right set of skills, information, and empowerment to make decisions.

Some of the factors that are considered while routing calls include the account type (new/existing, high value/low value), previous purchase patterns, language, and geography, when the customer last called and which agent serviced him, level of knowledge of the caller, and so on. This information is then mapped to the agent’s skills and knowledge in an attempt to offer customized service to the caller.

ACD manufacturers have been constantly improving their product offerings with several enhancements and add on features such as overflow groups, routing calls to specific agents, allowing agents to be part of multiple queues, etc.

2.1 What Is Skills-Based Routing?

Skill based routing is based on the premise that different agents will have different skill sets, abilities and talents which when matched to the right call profile, can produce excellent customer service levels. When skills-based routing was in its initial stages, an agent could be assigned to only a single call group profile and all calls in that group were routed among agents in that group alone. A key improvement that made skills-based routing more commercially viable is the ability to assign multiple skill groups to agents. Thus, an agent can belong to multiple groups and priority will be assigned to each group. Based on the call volume, an agent may answer multiple types of calls.

Good customer service is characterized by the ability of a call center to reduce the wait time of callers and to provide a good match between the agent skill set and the nature of the call. Often,

these goals are in conflict. Wait times can be reduced by having a single large pool of agents handling all calls, although this model provides no option to match the caller's needs to the agent's skills. From the point of view of the caller, the choice is between very long wait times and being shifted from one agent to the other in search of a solution, often with the added frustration of having to repeat information multiple times as the call is transferred.

In the initial stages, SBRs worked only when a couple of skills were assigned to each agent, resulting in serious difficulties to achieve customized service in the practical world. Thus, only a few criteria could be considered for the routing decision – for both the agent's skills as well as the caller's needs. As the number of skills considered increases, the model becomes exponentially complex to design, implement, maintain, and tweak.

Today skills-based routing models have advanced to the extent of allowing agents to be part of multiple pools, enabling the benefits of a single queue to be utilized during peak hours while still allowing a good match between agent and caller whenever possible. Skills-based routing is often achieved with the help of IVR technology that collects information about the caller's needs and then routes it to the agent who is most qualified to respond to the call.

In a group oriented SBR model, it is not possible to dynamically map each call to an agent. However, the latest versions of SBR models allow the creation of virtual groups where skills, skill levels and other details are stored at an individual level and not at a group profile level. Inputs from multiple sources such as ANI, DNIS, CRM, and IVR are used to define the skill profile of each call. The agent who most closely matches the skill profile is assigned to the call, thereby achieving better customization. This technology also offers supervisors the flexibility to set priorities for each skill requirement so that skill requirements can be relaxed in the order of least priority when trying to expand the agent pool available (especially during peak loads, where wait time thresholds are likely to be breached).

This allows much more skills to be mapped to an agent such as language and product knowledge, familiarity with specific customer accounts and even soft skills such as success rate per call type (collection calls vs. sales calls for example), thereby increasing customer satisfaction levels and agent productivity.

For example, Siemens Rolm Communications Inc.'s ResumeRouting software can match agents with caller on the basis of more than a couple of hundred skills including the agent's knowledge and interest levels in each product or service that is being handled by the call center. The system allows detailed agent profiles to be created based on proficiency and preference ratings given against each skill type. The software supports up to 250 skills, each of which can be rated on a scale of 0 to 9 for proficiency and from 0 to 9 on interest.

By using the information of the incoming call number and inputs from the IVR system, the PBX determines the call type and routes it to a matching agent profile stored in the server. This system

thus offers much more flexibility than a rudimentary system where agents are grouped into rigid skill groups based on broad parameters such as product line knowledge, language proficiency, and ability to handle specific customer types.

However, not all call centers may be ready to use such sophisticated tools and investing in a high-end solution has to be done after careful planning and budgeting.

2.2 Applications of Today's Skills-Based Routing

While most ACD manufacturers offer some form of skills-based routing, the solutions vary in terms of the features supported as well as their ease of use.

As the support for the number of skills increases, the solution's routing capability also improves, allowing for more precise routing of calls. Most SBR solutions today have GUIs that supervisors can use to capture skill sets, assign agents to skill sets and specify the rule base for routing calls. Most applications also provide MIS reports to measure how the routing model is affecting key call center metrics.

Workforce management tools also offer the capability to assign skills to agents in order to enable scheduling and forecasting. This combined with the ACD's skill based routing model ensures that customer satisfaction levels as well as call center metric targets are met by the call center.

Skills-based routing can be classified into two categories: overflow routing, and highly targeted routing.

2.2.1 Overflow Routing

Overflow routing aims to achieve the trade-off between waiting time and customer service by offering the call to an initial set of agents who are the 'best-match'. If all the agents in that group are busy, the call is queued against one of the agents in the group. If the call is not answered within a threshold wait time, it is then offered to subsequent sets of agents based on a pre-determined priority.

Overflow routing is achieved by mapping a primary and a secondary skill set to each agent. Typically, every agent will have a primary set of skills in which they excel, and then a bunch of secondary skills in which they are average or just above average. For example, if a consumer is contacting a call center for a leisure travel booking, then the routing algorithm will attempt to connect him to an agent handling leisure bookings. However, once the wait threshold is crossed and no agent in that pool is available to handle the call, he will be routed to one of the agents in the next pool. This could be comprised of agents primarily handling business travel but have some prior experience handling leisure travelers.

The call center supervisor is given control over all variables in the routing process and he can fine-tune the system to best meet the call center metric targets.

2.2.2 Highly Targeted Routing

Highly targeted routing aims to offer a high level of customization by subdividing the agents for multiple skills, thus enabling them to be used for multiple types of calls. In this model, a call center can save costs by not having a dedicated agent for a specific type of call, if the call volume for that type of call does not justify the cost of a dedicated agent. Instead, agents are trained on multiple skills in order to offer personalized service to the caller. Highly targeted routing also ensures that agents are not over-specialized to the extent that they have to remain idle for long periods of time, which would drive up operational costs and inefficiencies.

2.3 The Future of Skills-Based Routing

In the future, two strong trends would drive the direction of skills-based routing models. The first is the ever-increasing demand from customers for specialized and personalized service. This means that in an attempt to offer superior quality, call centers would capture and analyze increasing amounts of customer data such as personal profile, preferences, past transactional history and so on. The second trend is the evolution of call centers to contact centers, thereby allowing multiple channels for customers to reach the contact center. This would generate the requirement for agents with the right kind of skills to handle areas such as internet chat, video, email etc. apart from telephone calls. Skill sets as well as wait time SLAs would differ for each mode of communication and the challenge to quickly adapt to these modes of communication would necessitate more complex models of call queueing and routing.

3 Common Mistakes in Skills-Based Routing Models

While skill based routing may seem like a simple concept, in reality, it can often prove to be difficult to generate the benefits of this wonderful idea. Often, the routing process does not aid the call center in achieving the expected results as call centers fail to define what a ‘successful’ implementation is. Effective planning, monitoring, and measurement of results and tweaking of the model are essential in ensuring that the call center derives the expected benefits from a skills-based routing model.

A successful SBR model is one that can constantly evaluate and improve the ideal match rate between the caller and an agent who can successfully handle the caller’s needs. This model delivers the results that the company expects, without overshooting any metrics that the call center has defined.

Often call centers do not identify the core objectives and goals resulting in ‘success’ being poorly defined or wrongly defined. For example, some call centers may have upsell targets as their number one priority, and in such a case, trying to minimize the call time will be counter-productive. On the other hand, if a call center is primarily [resolving customer problems](#), then speed of answer and first call resolution etc. could be good metrics to focus on. Configuring the SBR model should be based on the call center objectives. Before implementing the SBR model, the call center needs to measure where they currently are with respect to their objectives and how they plan to achieve their targets with regard to the objectives identified. SBR models should then be used as a facilitator to achieve the stated business objectives. In this section, we will look at some of the common mistakes that call centers make while planning and implementing skills-based routing strategies, and how they can be overcome to achieve better results.

3.1 Mistake 1: Every skill set should have a dedicated pool of agents

Several call centers, even today, believe that having a dedicated pool of agents for every skill area is the easy way out to provide enhanced customer service. However, this would result in a smaller pool of agents available to handle a given type of call, consequently increasing the wait time for skills where call volume is high. On the contrary, if call volume drops, agent idle time would go up resulting in increased operational costs. Therefore, it is important to opt for a dynamic routing mechanism that can evaluate the traffic load in each customer group on an ongoing basis so as to balance the workload across the entire call center operations.

3.2 Mistake 2: If the forecasting window is shorter, the accuracy is better

Call center supervisors often make the mistake of using shorter forecasting windows for workforce scheduling in an attempt to improve forecasting accuracy. While it is important to evaluate the performance of the workload allocation and schedules on a near real time basis and make minor tweaks, it is counter-productive to forecast workloads based on short time frames. Statistical theory proves that when the sample size (the data points used for the forecast) becomes too small, the

forecast accuracy drops drastically. As sample sizes reduce, it fails to include a variety of anomalies that appear only less frequently than the sample size window. For example, it is easier to accommodate break times into agents' schedules if the day is broken down into half hour slots; however, if the forecast is generated every day, then chances are high that the actual call volume and handle time would deviate significantly from the forecasted numbers. It is always better to use near real time predictive algorithms along with a longer window forecast output, to predict the potential nature of call arrival patterns based on the call volumes forecasted. This will allow the call center to handle the random arrival of calls and availability of agents.

3.3 Mistake 3: A lower call handle time indicates better customer service

Although a lower call handle time is typically an indication of fast and efficient service, it may not always be the case. Call centers with upsell/cross sell/revenue targets may find that shorter call times are often the result of frustrated customers abandoning the call. This is also true of inbound call centers. Thus, the call handle time metric has to be read along with the numbers for call abandonment. Sometimes, a well-matched agent may be able to convince the customer to spend more money, although the call itself may take longer. Therefore, every metric should be tracked in conjunction with other metrics as well as the end objectives, in order to obtain the real picture.

3.4 Mistake 4: Agents can acquire new skills with training

While training can be helpful in increasing the proficiency level of an agent, it may not always be cost effective to invest in training an agent in a completely new skill. A judicious call has to be taken by the call center's HR and operations teams in order to arrive at the optimum mix between training and new hires. Recording and reviewing calls is a good way to identify hidden soft skills of agents such as their ability to handle tough customers, their ability to cross sell etc., which can then form a basis of routing such calls to these agents in order to improve the top line and the bottom line of the call center.

3.5 Mistake 5: Skills-based routing can be done away with if agent desktops have sufficient background information

Today, highly sophisticated CTI (computer telephony integration), and agent desktop tools can ensure that all information pertaining to the caller, such as nature of call, prior transactions, current status of the account etc. can be made available on the agent's desktop as soon as the call is transferred to the agent. This makes the agent equipped with all the skills necessary to successfully handle the call – not necessary. Information availability and agent skill levels are two different aspects of offering a successful customer service experience. Even if the right information is made available to the agent, it is of little use if he does not have the expertise to use it effectively. Thus, skills-based routing and agent desktop tools are complementary to each other – one is not a replacement of the other.

Some of the other issues faced by call centers during an SBR implementation are caused by the creation of multiple virtual teams that are a fraction of the size of the entire call center. This is further complicated by the fact that the number and complexity of the virtual teams is dependent on agent availability and changes every time an agent logs in or out of the pool. Some of the issues caused include:

- Efficiency of call handling may drop with multiple skills being a factor that affects handle time and wait time. Consequently, more and more calls may be queued for a longer period of time.
- Skills-based routing can result in priorities being assigned to calls based on skill type requirements. Thus, newer calls may be handled while earlier calls continue to remain in queue. Unless forced overrides are defined in the SBR rule base based on a threshold wait time, calls can enter into a spiral on infinite wait times.
- Unavailability of forecasting and scheduling tools that effectively support the skills-based routing model is another major challenge faced by call centers.

4 Practical Applications

Some of the practical applications of skills-based routing are discussed in this section.

4.1 Blended Call Centers

Blended call centers handle both inbound and outbound calls using the same group of agents. In this case, inbound call activities are assigned as one skill and outbound call handling is assigned as a second skill, with agents often having both skills. Along with CTI and an advanced ACD, IVR is also used as an input for routing calls in this environment.

4.2 Multiple Queues

Multiple queues enable agents to be part of multiple queues simultaneously, thus taking away the issues associated with smaller virtual teams. Agents or supervisors control the queues from which they take calls to form and prioritize the queues. In addition, there may also be multiple supervisors handling different queues, and agents can select which supervisor will monitor them during different times of the day.

4.3 Application Processing Servers

Skills based routing has given rise to the possibility of having two different servers working in parallel – one for application processing activities and another for call handling. CTI links between the two servers enable calls to be routed to agents based on availability as well as skill sets, rather than using only one of these as the routing criteria.

4.4 Virtual Call Centers

Skills-based routing can be a good aid to implement a virtual call center – where agents from multiple physical geographies log on to a single virtual ACD environment. Here routing calls based on agent's skills is a network requirement and hence the routing is done over the public switched network rather than by the ACD.

4.5 Skills-Based Simulators

Skills-based routing simulators can be used to analyze what-if scenario analysis before going ahead with the actual implementation. It will help to identify whether the skills identified are accurate. An inaccurate grouping of skills may necessitate huge amounts of additional expenses in terms of the headcount requirements to handle specific skills. Simulators help to identify such situations upfront, giving call center management the opportunity to try a different scenario that works well.

5 Advantages of Skill Based Routing

Apart from the increased customer satisfaction levels that customized call routing can offer, there are several added advantages of implementing skills-based routing in your call center:

5.1 Increased First Call Resolution

First Call Resolution Rates are considered the best measure of customer satisfaction in a call center. An increase in FCR rates leads to a proportionate increase in customer satisfaction levels. Often FCR rates drop because of potential skill mismatches between the agent and the call requirements. One of the biggest advantages of a well-configured SBR system is the ability to increase FCR rates. An increase in FCR rates also translates to lower operating costs, improved revenue, and higher agent satisfaction levels, as satisfied customers will not shift to competitors and a call with a positive outcome reduces agent stress levels.

5.2 Reduced Agent Work Time

When the right agent handles a customer call, the query is likely to get resolved faster, reducing the call time as well as post-call work time of the agent. The right agent is also likely to spend less time on non-value adding activities such as discussing irrelevant issues. The focus on reduced work time often results in agents attempting to finish the call, regardless of whether the caller was satisfied or not. With SBR, the call center will be able to reduce call handle time without compromising on call quality.

5.3 Decreased Customer-Hold Time

One of the biggest problems with SBR in the initial days was an increase in customer hold time due to dedicated agents handling each queue. With the advent of multiple queues, SBR has enabled customer hold time to be drastically reduced, as any calls that cross a threshold wait time, are automatically routed to a new group of agents.

5.4 Reduced Operational Costs

As the call-handling time and customer hold time reduces, the per-minute charges for the telephone network also come down. Thus, SBR contributes positively towards reducing the operational costs of the call center.

5.5 Increased Call Center Revenues

Skills-based routing models can help to increase call center revenue in the following ways:

- 1 *Increasing the number of calls handled by agents in a given period of time:* As call-handling time reduces, agents are able to handle more calls within a given period of time. This automatically means that you need a lesser number of agents to handle the same call

volume. Thus, the call center is able to handle more accounts with the same headcount, improving revenues.

- 2 *Increasing revenue sources:* As customers' satisfaction rises due to communicating with the right agent, they become more open to cross sell and upsell offers. This combined with using agents with the right skills for sales helps call centers in optimizing their revenue generation potential.

5.6 Increased Customer Retention

As customers are handled by skilled agents, the customer churn due to poor call center experience drastically drops. Thus, a successful SBR model can help increase customer retention levels in the call center.

6 Critical Success Factors

The concept of skills-based routing is deceptively simple – all you need to do is to map each customer contact request to the right agent. It should ensure that the agents are neither over-qualified nor under qualified to handle the call and that they have the appropriate skills. From the call center’s perspective it is also important that every agent be utilized fully and that the SLAs on productivity and efficiency metrics are met. While SBR seems like a great tool to achieve the best of both worlds – cost efficiency and customer satisfaction – in the practical world, it has a high failure rate. This is because the often botched-up implementation can add a layer of complexity to already complex call center architecture, without offering any corresponding rewards.

In this section, we will look at some of the key critical success factors for a successful SBR model – being customer-centric, ease of use, proper workload distribution and planned implementation.

6.1 Being Customer-Centric

One of the key elements of successfully designing an SBR model is to start with the callers’ needs (call types) rather than the agents’ skill sets. Effectively sorting and categorizing call types gives a map of the customers’ requirements, profiles, and purpose of calls. Based on this, skill levels needed for each category of calls can be identified. This can then be used to create agent profiles that closely match each call category. The agents can then be mapped to each profile based on their skill set. Sometimes, this exercise also helps to unearth training needs for your agents, enabling the right number of agents to be available in each profile type.

You will also need to invest in the right technology to capture the relevant call information, which ensures successful call routing. This may include a state of the art ANI system, DNIS, IVR technology and maybe even human intervention. It is important to invest in the supporting technology as well, if you want to make sure that the model is successful.

6.2 Ease of Use

If the model is too complicated, it often fails. For example, the SBR design has to be aligned to the forecasting and scheduling models in the workforce management system. Defining too many skills in the SBR system means that the workforce management system has to be able to forecast agent requirements for each skill group and then create schedules for each agent group. If call volumes for a particular call type are low, then chances of errors in the forecasting and scheduling module are likely to be high. In addition, any deviation from agent schedule can wreak havoc in the system. For example, if there is only one agent scheduled to handle a call type, and that agent is absent, you would realize it only when such callers all go into an infinite queue.

It is much better to plan for that rarely used foreign language skill by using an agent with other skills, and training him on the language rather than have a dedicated agent for the specific language.

This would help to keep costs low and enable the agent to be part of multiple skill groups, thus making it easier to plan and schedule. Another problem with SBR is uneven workloads, and call center supervisors have to plan and manage the system in such a way that call volumes are more or less uniformly distributed to avoid excessive agent turnover.

6.3 Planned Implementation

Even if you have successfully identified the call types and agent skill profiles, it is still challenging to make the SBR implementation a success. SBR implementation involves changes to be made at multiple levels – people, process, and technology. At the people level, it involves retraining agents to ensure the right skill mix and sometimes even hiring new agents to fill skill gaps. It also involves training supervisors on how to use the tool for effective configuration, real time monitoring and tweaking. At the process level, it may involve a change in the way initial information is captured during the call, so as to route the call effectively. SBR also involves technology changes – both at the hardware and software layers. It would involve building interfaces between the existing workforce management system and the SBR system. All of this means that the change management process has to be handled in a planned manner for the implementation to be successful. This involves, implementing a pilot, testing it and correcting the bottlenecks prior to rolling it out to the entire call center. If the call center metrics show a drop in performance, it is an indicator that the design may require further change. It is also better to go about SBR in a phased manner, so that it is easy to revert to the earlier mode with relative ease and minimal loss.

6.4 Workload Distribution

One of the key challenges of an SBR system is workload distribution. It is important to ensure that the higher skilled agents are not overworked. It is also important to structure the compensation package to be commensurate with skill levels. For this, the HR department of the call center has to work closely with the operations team to devise the right career growth path, training calendars, and compensation packages.

It is a good idea to use a workforce management tool for creating staff schedules for agents based on historical call volumes. This can help in ensuring that staffing is done based on call volumes for each skill set, and a near uniform workload is assigned to agents regardless of their skills.

Call center supervisors must also focus on the soft aspects of agent motivation. Highly skilled agents may not always be motivated by more money. Other ways to motivate your agents include more vacation time, rewards, and recognition among teammates.

There should also be a detailed HR plan that is aligned to the operational plan for the call center, so that there is a constant process of hiring for specific skills and training agents with rudimentary proficiency in a skill to improve it.

6.5 Successful Skills-Based Routing

A successful skills-based routing project shall broadly consist of the following steps:

1. Identify caller needs
2. Identify skill-sets needed to meet the caller needs
3. Categorize agents into skill groups based on skill-sets identified in Step 2. Ideally, there will be multiple skill groups with preferences assigned to handle each call type. Thus, if all agents in the most preferred group are busy, then the call can be dynamically routed to the next group.
4. Define queues for call handling based on the technology available in the call center. Using basic ACD technology, separate queues can be created for each skill group. This method presents difficulties as neither agents or callers can dynamically move from one group to another. This would create problems such as uneven workload distribution among agents and long wait times for callers. Advanced ACD technology enables routing logic to be used to seamlessly route calls to the secondary agents when the primary agents are unavailable.
5. Define the call routing model. If the call routing is done through DNIS, different numbers can be given to different caller profiles so that calls received through one number are routed to a specific set of agents. A better option is to use a single call center number and identify the call type using an IVR menu. While there is a possibility of callers getting confused with a complicated IVR menu, it is still better than no customization at all. Another option is to use an advanced IVR system. A major portion of the call profiling is done automatically by identifying the caller using their ANI, caller ID, account number etc., which in turn is used to get further information about the customer from the CRM system such as the caller priority, products used, and even the agent who handled the last call. This comprehensive profile is then used to route the call to the best agent for the call.
6. Train/re-skill your agents. In some cases, agents may need to be re-skilled in order to match the requirements of the SBR system. In other cases, agents who already possess the skill may need to be trained to improve their proficiency levels in order to improve call quality. This is especially true for revenue generating call centers, as each agent who can sell better and identify cross-sell and up-sell opportunities directly contributes to the top-line of the call center.
7. Constant Improvement: In order to keep the SBR working well, it is important to critically analyze call center metrics reports and customer feedback. Use these as inputs to fine tune the system, so that the best combination of skill profiles and call types is achieved.

The success of a skills-based routing implementation is measured by an evaluation of the improvements generated. However, often call centers fail to measure the current state prior to implementation against which improvements can be measured. For example, if you are running a contact center with multiple contact channels and if the objective is to achieve a 90% match rate

regardless of the channel of contact, then it is important to measure the match rate per channel prior to implementing SBR. This will help to identify the bottlenecks at a channel level in case the targeted match rate is not obtained. It is important to obtain the current state figures at a granular level prior to switching over to the new system, so that the SBR model can be tweaked in the right manner for improving results. It is also important to set interim benchmarks to measure progress towards success as changes will not come overnight and it is necessary for supervisors to know whether the implementation is going in the right direction. Knowing where you are at the start of the project and at specific intervals will help to measure, evaluate, and report success in an easier manner.

7 Conclusion

With the diverse range of solutions available from vendors, it is important that call centers choose the right one for their needs. For example, a call center handling multiple product lines may opt for a multiple queue approach whereas a customer service call center handling different queries about a single product may want to assign multiple skills to agents, and select them based on availability. The requirements of all stakeholders – the customers, the business, and the call center - have to be evaluated before choosing the best option to implement. If you are looking for ways to increase revenue and customer retention through your contact center, start with skills-based routing. There may be no better project for a dramatic impact in your contact center. Skills-based routing is one of the most valuable and impactful changes you can implement. Here are considerations of your skills-based routing: 1. Identify the skills that your customers need. 2. Identify the skill-sets of your agent pool that match your customer needs. 3. Segment your agents into skill groups based on their skills. 4. Define your queues. 5. Define how calls will should be routed to those agents. 6. Train your agents. 7. Monitor, measure and adjust.

8 References

1. Rohde, D. (1995). Siemens rolm enhances skill-based call routing. *Network World*, 12(35), 24-24.
2. Rodney, B. W., & Whitt, W. (2005). A staffing algorithm for call centers with skill-based routing. *Manufacturing & Service Operations Management*, 7(4), 276-294.
3. Fried, J. (1997). Skills-based routing leverages agents' strengths. *Telemarketing & Call Center Solutions*, 15(8), 26-26,132+.
4. Fiszer, M. (1997). Customizing an inbound call center with skills-based routing. *Telemarketing & Call Center Solutions*, 15(7), 24-24. Retrieved from <http://search.proquest.com/docview/208160459?accountid=10559>
5. Jordan, B. (1997). Skills-based routing: An industry survey. *Telemarketing & Call Center Solutions*, 15(8), 134-136. Retrieved from <http://search.proquest.com/docview/208148580?accountid=10559>
6. Passios, T. (2009). Ask the EXPERTS. *Customer Inter@ction Solutions*, 28(6), 20-21. Retrieved from <http://search.proquest.com/docview/208158451?accountid=10559>
7. Klenke, M. (2001). Skill-based routing: Boon or bust? *CC News*. Retrieved from <http://search.proquest.com/docview/225206815?accountid=10559>