

AGENT ASSISTED

AUTOMATION



WWW.SPECIALYANSWERINGSERVICE.NET

Contents

1	Introduction	3
2	Background and History	4
2.1	The Concept of Universal Agents	4
3	Technology	6
3.1	Agent Assisted Voice Systems	6
3.1.1	Configuring an Agent Assisted Voice System	6
3.2	Desktop Integration	7
3.2.1	Single Sign-On	7
3.2.2	Computer Telephony Integration (CTI)	7
3.2.3	Dynamic Call Scripting	8
3.2.4	Multiple Application Access	8
3.2.5	Simplified Data Entry	8
3.2.6	Context Sensitive Help and FAQs	8
3.2.7	Notifications and Alerts	8
3.2.8	Personalization	9
3.2.9	Management Dashboards and Reports	9
3.3	Interaction Management Systems	9
3.4	Pre-Recorded Audio	10
3.5	Fraud Prevention	10
3.6	Desktop Automation	10
4	Critical Success Factors	11
4.1	Process Definition	11
4.2	Testing and Training	11
4.3	Ongoing Monitoring and Improvement	11
5	Benefits of Agent-Assisted Automation	12
5.1	Improve Data Security	12
5.2	Increase Script Adherence	12
5.3	Improve Data Accuracy	12
5.4	Centralized Change Management	13
5.5	Reduced Costs	13

5.6	Higher Customer Satisfaction Levels	13
5.7	Better Agent Experience	14
5.8	Improvement in Call Center Metrics	14
6	Conclusion	15
7	References	16

1 Introduction

As call centers increasingly look towards offering superior customer service while keeping operational costs at an acceptable level, agent-assisted automation technologies have been considered as a means to improve productivity and consistency among customer service agents. Both automated systems and live agents have a part to play in call centers, and for a long time automated systems such as IVRs were thought of as a means to provide higher accuracy and efficiency in the call center. Yet, often [customers prefer to interact with live agents](#) for resolving their problems and answering their queries. Live-voice representatives are certainly more warm and friendly than automated service, but they may have potential issues such as inaccurate handling of calls and lower efficiency. Agent-assisted automation is a middle ground, enabling agents to improve accuracy and efficiency, with the assistance of technology-enabled tools. It is a relatively new area of call center technology, which automates portions of the actual call as well as post call work. With the help of the right tools, agent-assisted automation offers call centers the possibility of utilizing the best of both worlds when working with clients – human intelligence and automation. Thus, agent-assisted automation enables call centers to blend the accuracy and efficiency of automation with the flexibility and intelligence of live agents.

2 Background and History

Today, most call centers rely on a [wide variety of software applications](#) for their day-to-day operations. These include CRM systems, workforce management systems, clients' business applications, knowledge management tools, workflow tools, scripts, email, instant chats, and so on. As a result, an agent's desktop is often a cluttered mass of multiple systems. Agents often struggle to navigate between these systems to find the right answers while attending a call, keeping the call length within acceptable limits, and still offering superior customer service. In addition to this, as product portfolios of businesses increase, agents find it increasingly difficult to master the technical nuances required to handle a customer call satisfactorily. Agent assisted automation tools such as unified desktops can help resolve this by hiding the IT complexities and offering a simplified solution for agents.

According to a survey conducted by the Winn Technology Group among 200 corporate call centers, it was found that more than half of the call centers surveyed, required the agent to access up to five applications during a single customer call. Nearly one-third of the survey respondents expected agents to master at least six applications, and even enter the same data in multiple systems. Agents are often required to handle unstructured calls and although pre-defined scripts and workflows may aid the agent to manage the call, it is often the intuition of the agents that govern the outcome of a call. As a result, agents often cannot find the data that they require from a single application, and navigate multiple tools and applications during the course of the call to achieve a satisfactory outcome. In addition, most of these applications do not talk to each other, thus requiring the agent to enter the same information multiple times, leading to delays and frustration on the side of the agent as well as the caller.

These complexities combined with the high attrition rates in call centers mean that despite high training costs, customer satisfaction objectives take a back seat as agents struggle to master the complex internal systems.

2.1 The Concept of Universal Agents

Increasingly, call centers are evaluating the concept of universal agents. A universal agent model is one in which any agent can handle any type of call (regardless of complexity) and from any geographic location. Typically, these agents should be able to handle both inbound and outbound calls, as well as handle customer interactions from multiple channels such as websites, email, and fax. This means that the call center has a wider pool of agents who can handle calls, thus effectively reducing the cost of operation. However, for this model to be practical, it is necessary that call centers are able to minimize the complexities and unpredictability of call handling to the maximum extent possible with the help of technology such as agent-assisted automation. Otherwise, call centers may end up spending a fortune on training costs and will take much longer to bring a new agent up to speed. Agent assisted automation technologies enable agents to handle multiple situations without having to internalize several different scripts and process workflows or master

multiple applications. Effectively using pre-recorded audio, pre-programmed workflows and desktop integration can help achieve efficiencies and cost savings that would provide a good return on investment on these technologies.

Regardless of what industry a contact center is serving, business complexities are driving up the need for simplification as a means to improve efficiencies. In highly competitive industries such as retail banking or telecommunications, a call center is often measured by its ability to convert every call into a sales opportunity. In other industries such as healthcare, the focus is on data accuracy and data protection. In all these cases, agent assisted automation can allow call centers to improve their financial and operational results while driving up compliance levels.

3 Technology

There are different formats in which agent assisted automation can be put into practice. Some of these include desktop integration tools, pre-recorded audio, agent-assisted voice systems, and fraud prevention systems. Despite the introduction of self-service channels such as IVR menus and web-based applications, numerous customers still prefer to talk to a live agent. Agent-assisted automation allows call centers to derive the benefits of automation, without affecting the satisfaction levels of such customers.

The focus on agent-assisted automation is not to improve the percentage of automation that can be achieved, but rather how effectively automation systems can be used hand in hand with live agent interactions, ensuring that the amount of variability in call handling is reduced and call center performance is improved.

3.1 Agent Assisted Voice Systems

An agent-assisted voice system allows agents to handle customer calls with the help of pre-recorded system workflows and audio files. This may or may not be used in conjunction with speech recognition systems.

3.1.1 Configuring an Agent Assisted Voice System

The first step in configuring an agent assisted voice system is to identify the call types for which this system shall be used. Typically, calls with metrics such as first call resolution, handle time, and script adherence that falls below target levels are good candidates. However, it is not a good idea to use agent-assisted automation in complex calls, which are typically handled by highly trained and specialized agents. An example of this would be a complex technical support call for high-end servers. Other calls that are handled by entry-level agents are ideal candidates for assisted automation, as it helps to reduce the variability in call handling typically caused due to lack of experience and training. By defining a much more simple call handling process, the possibility of errors and omissions are drastically cut down while still allowing the agents the flexibility to pitch in with their live voice when required.

Once the call types are identified, the ideal process flow for the call including the call script, the system interactions, and documentation requirements are clearly laid out. The final step is to pre-record the audio files as well as pre-program the system interactions. Agents are then trained on how to use the system to handle live calls. Typically, a call will be handled using a simple desktop interface and headphones. The agents listen to the customer, and playback pre-recorded messages as well as execute the pre-programmed tasks using simple mouse clicks. If the agent feels that the call is not going as per expectation, then they intervene with their live voice.

Since the pre-recorded audio will be in a different voice from that of the agent, it is a good practice to inform callers that automation software is being used for better accuracy and efficiency of the call.

3.2 Desktop Integration

One of the biggest productivity drains for agents is the use of multiple desktop tools, which make the call handling process time consuming and complex. Since call centers are often focused on cost reduction, and are reluctant to change the IT systems and applications being used (considering the cost of infrastructure, training etc.), they invariably keep adding new software for additional functionality, thereby forcing agents to master several applications in order to be able to successfully manage a call. A unified desktop solution is the smart way to handle this problem as it creates a layer of simplicity over the existing IT applications, thus enabling the agent to have a single point access to all the tools and applications based on a need to know basis during the call. This also simplifies the desktop and makes it easier to train new agents.

With the use of desktop integration software, call centers can present agents with a unified view by hiding the underlying complexities of IT systems, thereby making it easier and less expensive for agents, callers, and the call center itself. Desktop integration tools allow agents to focus on the caller interaction without being bogged down by the navigation of multiple applications. Several vendors provide desktop integration software with various features including report generation and alerts. A well-designed desktop integration tool should be able to leverage information from existing applications, should be adaptable and customizable based on call types, and should not be computationally heavy. The chosen solution should have the ability to present only the relevant information for the agents based on the call type in order to make the call handling process more efficient and effective.

A list of commonly found features is given below:

3.2.1 Single Sign-On

Typically, agents work on roughly half a dozen applications during a single call, each of which will require a separate login id and password. The agent usually ends up signing into these applications multiple times during the day, resulting in time wastage and compromised password security. Most universal desktop solutions allow the agent to log-on to all the applications using a single user name and password, allowing easy access to all applications that are necessary for his/her role. The supervisor can define user groups who have access to a predefined set of applications in the admin screen of the integration tool.

3.2.2 Computer Telephony Integration (CTI)

Good desktop integration tools also offer integration with the CTI servers, thus [allowing access to telephone functionality through the desktop](#). This eliminates the need for the agent to access another physical telephone device for activities such as callbacks, outbound calls etc., thereby saving time, and effort. Usually the telephone application will have all the functionality of a normal

device including conferencing, call transfer, and keeping the caller on hold. Rules can be built into the system to ensure that certain functionalities can be activated only after certain actions have been completed. For example, prior to call transfer, the agent may be required to capture the caller identification information. Virtualization of the call center is also possible with tools that can integrate multiple CTI servers, thus enabling a single agent to handle calls arriving from multiple geographies.

3.2.3 Dynamic Call Scripting

Some desktop integration tools also provide call-scripting facilities. Pre-recorded call scripts can be played out based on the call flow in some dynamically arranged sequence, which is controlled by the agent through the desktop.

3.2.4 Multiple Application Access

Desktop integration tools allow easy access to multiple business applications based on the context of the script based interactions. Application access can be controlled based on the agent's role. Data entry into the applications can also be automated in some cases, with the application pre-populating some of the fields with information already revealed during the call, such as caller identification information, account details etc.

3.2.5 Simplified Data Entry

Agent assisted automation tools offer the benefit of simplified data entry by 'auto filling' data fields in multiple applications with just one manual entry by the agent. This not only boosts agent productivity and reduces after call work time, but also increases the accuracy of data entry by making the process automated.

3.2.6 Context Sensitive Help and FAQs

Desktop integration tools also offer context sensitive help and FAQs to the agents depending on the type of call, empowering the agent with relevant information to provide better customer service and FCR. Some applications even allow real-time help that is displayed constantly on the agents' screens thus reducing the hold time when agents search for information. The FAQs page would include pre-scripted answers to typical questions asked by a caller during a specific type of call, and these can be configured by supervisors based on the historical trends observed in similar calls. This has been found to effectively reduce handle times as agents can respond quickly to customer queries such as, 'When will the request for change in billing cycle take effect?'

3.2.7 Notifications and Alerts

Desktop integration tools also allow alerts and notifications to be pushed to the agent desktop. This can be useful to provide information such as customer account details, or to suggest potential cross-sell options. It can also be used as a warning mechanism to alert the agent when metrics such as hold times go beyond the threshold levels. Mandatory policy changes can also be pushed through

as notifications that the agent has to read and acknowledge before proceeding to handle calls. The number of alerts generated as well as the priority of the alerts can be configured in such a way that the agent does not feel overwhelmed with the alerts popping up on his desktop.

3.2.8 Personalization

Most desktop integration tools also have the feature of personalization of the desktop based on the agent's access rights and privileges. In addition to elements controlled by the supervisor, most tools also offer a fair amount of customization options for the agent himself, so that he can arrange the tabs and layouts as per his own convenience.

3.2.9 Management Dashboards and Reports

Desktop integration tools also offer management dashboards and reports around achievement of call center metrics, agent interactions, and compliance levels. The reports can be used to [measure the performance of the call center](#) as well as to pinpoint areas of improvement. Some applications, even allow tracking of work paths followed by the agents during different call types, allowing supervisors to find ways in which the call flow can be tweaked further. Sometimes, custom reports can be created by the supervisor based on the specific requirements of the call center.

3.3 Interaction Management Systems

Because interactions vary with the type of caller as well as the nature of the call, managing the interactions with callers is a complex requirement in most call centers. In addition, call center agents are also expected to respond immediately to changing business scenarios and often require agents to quickly re-skill themselves to ensure superior customer interactions. One of the major roadblocks in quickly responding to business changes is the change required in the IT applications, which is a long and tedious process. While the changes itself are often minor, such as price changes or product updates, the resulting change management and training process is what often causes delays, preventing the call center from quickly responding to the changed business environment. Interaction management systems allow such changes to be quickly deployed and rolled out, by automating the changes in the workflow and sending context sensitive information about the changes to the agents. A typical interaction can be defined as consisting of the following elements:

1. *The call flow*: The call flow, while dynamic in nature, needs to be controlled in such a way that the interaction between the agent and the caller travels as much as possible through a pre-designed path. This will enable the call center to tweak each of the interaction elements such as greeting, authentication, query handling, and call closure to make sure that it is optimized.
2. *The business rules*: Often, callers request specific deals and concessions in the course of a call. Interaction management systems allow business rules to be configured so that the

agent is aware of the deals and concessions for which the caller is eligible, thereby increasing the FCR rates, and reducing transfer rates and hold times.

Interaction management systems usually consist of a scripting component which allows either the scripts to be displayed on the agent's desktop or be played back using pre-recorded audio. They would also enable audit trails to be maintained, aiding compliance monitoring and agent performance management.

3.4 Pre-Recorded Audio

Most agent assisted automation tools also make use of pre-recorded audio. This helps to increase the accuracy of information provided to customers. Pre-recorded audio is most suitable for calls where regulatory disclosures, customary greetings etc. have to be made during each call. While a live agent may get tired and irritated after repeating the same message multiple times during the day, a pre-recorded message can help achieve the objective without compromising the customer's understandability or the agent's comfort. The pre-recorded audio can even be integrated with other IT systems such as the CRM software, in order to play back the relevant messages for the caller based on the previous purchase patterns and interactions with the company. Controls can also be built into the system, such that call processing does not happen until the complete disclosure is played back, making the process error proof.

3.5 Fraud Prevention

Agent assisted automation technologies can also be used for fraud prevention in areas such as credit card fraud and identity thefts. The agents can continue to remain online while customers directly enter sensitive information using the keypad on their phones. The information is then directly passed on to secure systems such as the payment gateway or the business application. Automating this layer of the interaction makes it impossible for agents and supervisors to steal sensitive information such as credit card numbers, bank account numbers, and social security numbers.

3.6 Desktop Automation

Yet another class of agent assisted automation tools belong to the category of desktop automation. These solutions allow the call center to automate complex navigational sequences that are often repetitive in nature. It also allows automatic population of data fields into multiple applications from data received through other channels during the call (such as voice) or through a single entry by the agent. These tools help reduce data error and remove the redundancy associated with a call center job. In addition, some intelligent applications will also be able to select the right application for the agent based on predefined 'trigger points' in the call. Desktop automation tools also allow agents to adhere to a predefined process and help reduce fraud by automating such data entry points.

4 Critical Success Factors

Just as in any technology implementation, there are several critical success factors that influence how successful agent assisted automation can be in a call center.

4.1 Process Definition

One of the key success factors in implementing agent assisted automation technology in a call center is to be able to define the right process for handling each call type. One of the ways to achieve this is to have a process re-engineering team that is responsible for defining the process for each call type in such a way as to maximize the adherence to call center metric targets.

4.2 Testing and Training

Once the process has been designed, it needs to be tested with a small group of agents to identify ways in which the call handling can be made more consistent and less time consuming by altering the scripts, minimizing data entry points, simplifying the workflow, making relevant data available for the agents and so on. Once the process has been tested and modified, then all agents have to be trained on the new process.

4.3 Ongoing Monitoring and Improvement

There should be a team responsible for ongoing monitoring and performance improvement of each call type. The process re-engineering team itself can take on that role and coordinate with the scheduling, MIS, training and technology teams to drive improvements using agent-assisted automation. Each of the KPIs in the call center needs to be monitored by call type, to identify how the agent-assisted automation tools being used can be made more effective, and drive overall performance improvements.

5 Benefits of Agent-Assisted Automation

Some of the key benefits of using agent-assisted automation are detailed below:

5.1 Improve Data Security

Some of the biggest incidents of mass identity theft and credit card fraud have occurred in call centers. Customers who often provide agents with sensitive information such as account numbers and credit card details in the course of normal business are vulnerable to this data being misused. They can also be subject to ‘friendly fraud’ whereby the agent may request the caller to reveal information such as passwords, which are not necessary for the call. Thus, agents can represent a huge security risk to the call center, not to mention the financial and reputational losses that would be incurred in case of a fraud.

Tools that allow customers to directly enter sensitive information through their keypads, combined with pre-recorded scripts ensure that the customer data is protected and secure, even while a live agent is handling the call.

5.2 Increase Script Adherence

One of the biggest challenges that call centers face in terms of call quality is to ensure that there is consistency in call handling and that all regulatory requirements are adhered to by the agents during the course of the call. In addition to this, as product features change, agents have to be re-trained on call scripts and this is further complicated by the high level of agent churn in the industry. In addition, most call centers also have reporting requirements around compliance levels, and this can only be achieved using expensive call recording and monitoring.

However, agent-assisted automation techniques such as pre-recorded scripts enable disclosures to be automated, and put rule-based conversation flows in place. So instead of agents having to repeat lengthy disclosures multiple times during the day, they can use a simple ‘click and play’ model to ensure 100% compliance. Alerts can be built in to automatically notify a supervisor in case a disclosure is not fully played back, thus enabling easy monitoring of compliance levels.

5.3 Improve Data Accuracy

Call center interactions often consist of several data exchanges during the course of a single call. This would include situations where the agent repeats back information to the caller to confirm the accuracy of the information as well as instances where the agent is providing some new information such as account balances. This process is prone to data accuracy errors due to accent issues, voice quality and so on. Automating this process using agent-assisted automation tools helps to increase the accuracy of the data being exchanged by allowing the agent to use pre-recorded audio of numbers and letters for playback.

5.4 Centralized Change Management

When new products or new processes are introduced, the toughest challenge for a call center is change management. This is typically handled through trainings, knowledge bases, on-screen alerts and so on. However, verifying that the agents have internalized the change and have started functioning according to the changed workflow requires call monitoring, evaluation, and course correction, which is a time consuming and costly process.

Agent assisted automation, if implemented correctly, can offer the advantage of being able to manage change easily and accurately through centralized techniques such as changing the pre-recorded scripts and workflows as well as tweaking the rule base. This helps reduce training costs, and permits the call center to achieve 100% compliance to the new way of functioning at a much faster pace.

5.5 Reduced Costs

By streamlining the process for every call type, agent assisted automation helps to reduce costs, primarily by reducing the average handle time and increasing first call resolution rates. Configuring the agent assisted automation tools is critical to arrive at the optimal process for each call type and this includes a detailed analysis of all the steps involved in the process including data capture, data retrieval and troubleshooting problems.

Apart from prompting callers to use self-service options and reducing the labor cost of agents, the only way to reduce cost is to reduce call handle time. By removing unnecessary verbiage from call scripts, and removing unnecessary steps from the workflow combined with the use of pre-recorded audio and automated workflows, call handle time can be drastically reduced. This is because the re-engineered scripts are instantly used by all the agents, ensuring much better results than training agents with a re-engineered process.

5.6 Higher Customer Satisfaction Levels

Agent assisted automation allows call centers to reduce the variation between agents in terms of call handling, thereby leading to higher customer satisfaction levels. It also helps to error proof the call handling process, offering more accurate information for the caller. Higher process adherence increases customer satisfaction, especially in aggressive 'collection center' type of call centers where agents often deviate from the script in an attempt to coerce the customer to pay, often leading to poor customer experiences and worse still, regulatory non-compliance. Yet another way in which agent assisted automation helps to increase customer satisfaction levels is by reducing the workload on the agents and making it easier for them to find the information they need to handle the call effectively.

5.7 Better Agent Experience

Agent assisted automation also offers the benefit of better agent experience by reducing the amount of actual talk time for the agents, making data retrieval easy, simplifying their desktops and helping them to achieve the call center metrics with ease.

Similar to the manufacturing sector where automation improved the work environment for factory workers, even in the call center industry, agent assisted automation has brought in a means to improve productivity and manage costs without having to make life difficult for the agents. By removing the complexities and the redundant aspects of the job, agent-assisted automation allows call centers to offer a better experience for agents and reduce attrition rates as well.

5.8 Improvement in Call Center Metrics

One of the biggest benefits of using agent-assisted automation is the ability to achieve continuous improvement in call center metrics. It allows processes to be streamlined so as to eliminate redundancies, thus reducing both call handle time and after call work time. It also increases agent productivity by eliminating multiple data entry, and by providing a single view of all customer data on a unified desktop.

One of the triggers for a drop in call center KPI is a change to the process – due to factors such as the introduction of a new product or some new features, or a regulatory change. Since, each agent is different in terms of skill levels and experience, the ease with which the call center as a whole migrates to the new way of call handling is a people-dependent factor. Agent assisted automation helps to fasten the change management process, preventing a drop in the KPIs.

Another factor that causes a drop in KPI is the variability among agents. Every organization will have a range of call center agents – from the expert to the novice – at any given point in time. Some may be high performers while others may be non-performers. Regardless of the amount of training being imparted, call center KPIs are affected by the varying performance levels of the agents. In addition, even the same agent's performance may vary from one call to another. It is not cost effective for a call center to monitor 100% of the calls, and monitoring on a sample basis will not yield all improvement opportunities.

Additionally, KPI attainment becomes a challenge for call centers as a result of high agent turnover, which causes experienced agents to be replaced with low performing new agents.

Agent-assisted automation solutions help to resolve all these performance-related issues. It helps to define and improve the process and ensure adherence with pre-recorded voice and actions.

6 Conclusion

As call centers strive for continuous improvement in both operations as well as customer service, it is imperative that they use the right kind of tools to facilitate these advances. Rather than adopt a drastic change of IT systems, it is much better to leverage the existing applications in such a way that efficiencies can be improved. Agent-assisted automation helps to bring in consistent call handling and process simplification, making it easy for call centers to achieve their service level objectives without frustrating their agents. It offers several benefits for the call center, and since most tools have a quick deployment schedule, the benefits will start accruing very quickly and the call center can show positive Return on Investment in a relatively short time frame. Agent-assisted automation thus offers the best of both worlds – human and automation – to take the call center performance to the next level of excellence. This technology has the potential to completely change the business landscape of the call center industry. Every call center aiming for continuous improvement is bound to use it going forward.

7 References

- 1 "Overseas credit card scam exposed". [bbc.co.uk.com](http://news.bbc.co.uk/2/hi/uk_news/7953401.stm). March 19, 2009.
http://news.bbc.co.uk/2/hi/uk_news/7953401.stm.
- 2 <http://kombea.com/articles/CCW20080709.pdf>
- 3 <http://www.jacada.com/>
- 4 Adsit, Dennis (May, 2011). "Small Daily Security Breaches Worse than Large High-Profile Ones". [cardnotpresent.com](http://cardnotpresent.com/library/default.aspx?id=498&_taxonomyid=97).
http://cardnotpresent.com/library/default.aspx?id=498&_taxonomyid=97.
- 5 Adsit, Dennis. "Call Centers: The Deep and Still Largely Untapped Vein of Operational Profit". http://www.kombea.com/docs/WP-CallCenters_Untapped_Profit_Vein.pdf.
- 6 Carden, Francis (November, 2009). "Improving Call Center Agent Productivity and Customer Service". [connections magazine.com](http://www.connections magazine.com/articles/9/084.html).
<http://www.connections magazine.com/articles/9/084.html>.
- 7 Fleming, J., Coffman, C., Harter, J. (July, 2005) Manage Your Human Sigma, Harvard Business Review
- 8 Patel, S. (2008) How to win a no-win situation. In Queue.
<http://www.nationalcallcenters.org/images/stories/InQueue/vol3no12.pdf>