

# The SmartAction™ Virtual Agents raise the bar for self-service

## Traditional IVR systems have reached their peak

### More intelligent and more capable than the best speech IVRs

While traditional interactive voice response (IVR) systems have automated many self-service applications, they have just about reached their limits when it comes to enriching the call experience, meaningfully improving performance, and tackling new applications.

Based on outdated designs and repetitive menus, even the best traditional IVRs can only recognize a narrow range of words and provide a narrow range of responses. They can take a long time just to identify why customers are calling, and longer still to realize when they can't help and need to transfer callers to live agents.

Frustrated by the "IVR hell" of excessive call times, convoluted navigations and lack of answers, customers frequently abandon calls or bypass IVRs. There are even websites that facilitate the bypass process. The problem is clear: Unsatisfying call experiences diminish customers' perception of businesses and reduce their loyalty.

The shortcomings of traditional IVRs go beyond poor call experience and relatively low call-completion rates. Implementations can be very costly and time consuming to program. Even minor improvements often require laborious analyses, reprogramming and system tunings that take many weeks and are very expensive.

And traditional IVRs have overstretched their capacity to automate applications beyond the relatively simple problems they handle today. The alternative of using live agents is expensive. In many cases it's so uneconomic that telephone-based service is not even an option, which is particularly problematic for mobile customers without immediate access to websites.

High implementation costs combined with marginal service improvements result in financial paybacks that are reasonable only for the highest volume IVR applications, and even those may experience only minimal positive effects on customer experiences.

## SmartAction starts where traditional IVR systems end

The major artificial intelligence and linguistics breakthroughs of the SmartAction Virtual Agents redefine the boundaries of self-service.

It surpasses traditional IVRs by:

- Completing a higher percentage of calls,
- Quickly identifying why customers are calling,
- Providing more user-friendly, pleasant call experiences,
- Permitting less expensive implementations and subsequent improvements, and
- Enabling a much broader range of applications.

In a world with increasing expectations of instant "anywhere anytime" communication, the speed with which the SmartAction solution successfully completes calls is by itself a major step forward for customer satisfaction and cost reduction.

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## Smarter call experiences

The ultra-intelligent, natural language conversational ability of the SmartAction Virtual Agents complete a higher percentage of self-service calls than traditional IVRs.

They *quickly* determine the caller's reason for calling, reducing hang-ups or system bypasses. They let customers speak naturally as they would to a person. They remember callers and what they said in previous conversations. Unlike traditional IVRs, the SmartAction Virtual Agents don't lead callers through endless menus of keywords. Instead, they ask open-ended, natural language questions like, "What can we do for you today?"

They understand both the meaning and intent of the customer's free-form answers, and can shift direction in response to customer interruptions and topic changes. They do this as humans do — guided by the evolving context of the conversation, caller preferences and previous interactions.

The SmartAction Virtual Agent respond clearly and promptly with personalized, accurate answers. If uncertain, they provide callers with options and asks for clarification.

Not only do they determine what callers are looking for faster than other IVRs, they also know more quickly if only a live agent can provide the right answer. By transferring at the right time — neither too early nor too late — they reduce costs and customer frustration.

Like live agents, they automatically obtain information in real time from databases and websites, send confirmation emails, and update databases with call results. And they seamlessly capture the necessary information from each call and integrate information from previous calls and customer preferences. Calls transferred to live agents include complete history of the call so they don't need to ask questions previously answered, once again improving the customer's call experience.

With the SmartAction Virtual Agents, customers are less frustrated and less likely to abandon calls or seek immediate live assistance. As a result, they complete a higher percentage of calls than traditional IVRs, significantly lowering costs.

## Smarter implementations and enhancements

The benefits of the SmartAction Virtual Agents go far beyond higher rates of call completion and more satisfying caller experiences. Traditional IVRs are costly and time-consuming to implement, and so expensive to tweak that even minor incremental improvements are often difficult to cost-justify. In contrast, the intrinsic intelligence of the SmartAction technology greatly shortens the time needed to implement new IVR applications.

## Smarter applications

The engaging, natural language conversations of the SmartAction solution enable applications that are virtually impossible to accomplish with traditional IVR systems. For example, traditional IVRs cannot handle technical troubleshooting or cross-selling and up-selling during customer-service calls because their cumbersome and inflexible menus rapidly annoy callers.

The SmartAction Virtual Agents succeed with conversational dialogs that adapt themselves to each call, quickly determining caller intent and giving the right answer, or promptly transferring the call to a live agent when appropriate.

## Smarter technology: The LiveAGI™ Brain

The core component of the SmartAction Virtual Agents is the LiveAGI™ Brain, where “AGI” stands for artificial general intelligence. It incorporates breakthrough innovations in speech recognition, linguistics, cognition and artificial general intelligence to create a reasoning engine with an extensive knowledge base of linguistics, common-sense information and user behavior. It executes many tasks right out of the box without programming, and can be “taught” with relative ease what it doesn’t know. Deploying and maintaining applications requires minimal programming, resulting in shorter schedules and smaller budgets.

The LiveAGI™ Brain’s speech recognition module greatly enhances the capability of the Nuance Recognizer by Nuance Communications.

For instance, the reasoning module searches the most likely meaning and resolves ambiguities. By dynamically tuning itself to each conversation’s context, it identifies callers’ intent even when they utter ambiguous terms, such as *I want to make sure my sister canceled an order* where the system verifies a cancellation versus *I want to make sure I cancel an order for my sister* where the system cancels an order.

It also recognizes conversational synonyms for terms and manners of speech, such as understanding the answer *Not the first one* for the question *Which model would you like to order?*, or *The second cheapest* for *Which shipping option would you prefer?*

The learning module enables the acquisition of new skills and knowledge by “teaching” the system what it doesn’t already know without custom programming.

The memory module remembers caller preferences and information from previous calls, enabling the system to pick up a conversation where it left off and saving callers from the annoying repetition of information previously provided.

## Try it at no risk

The SmartAction Conversational Virtual Agents are typically available as a hosted solution that does not require up-front purchases of hardware or software. It is generally compatible with all telephony networks and can be programmed to interface with most databases.

We take pride in our “no hassle, no disruption” turnkey implementations. We work with you every step of the way in designing and testing the interactions, managing the system’s auto-learning processes, establishing suitable measures of success, interfacing with your information systems, and training your staff.

And please ask us about our no-risk proof-of-concept trials.

**SmartAction™**  
VIRTUAL AGENTS

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