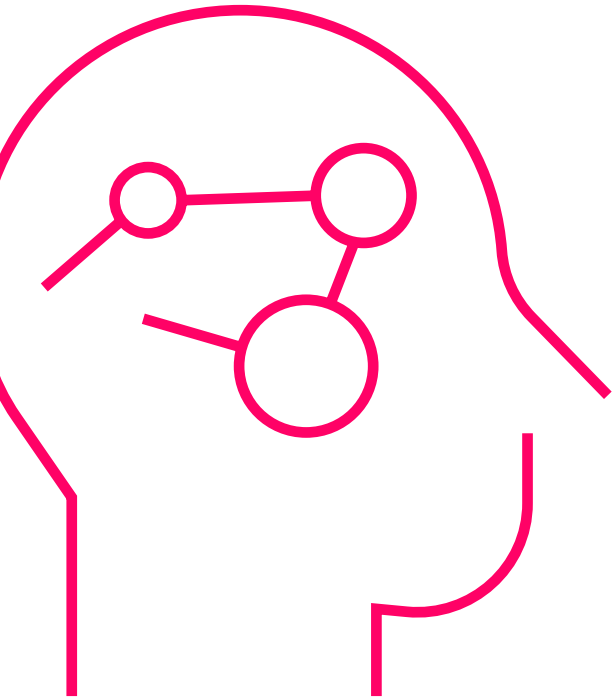
eBook

The Future is Calling: Why it's Time to Upgrade Your IVR to an IVA



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Is This Book for You?

Who's answering your company's calls?

Do your callers reach a self-service system powered by interactive voice response, or IVR? If so, you probably know there's much more powerful technology out there that can provide a better customer experience. But you may not realize that this technology is within the reach of all organizations, not just large companies.

- If callers are being instructed to "press 1 for sales," "press 2 for service," and so forth, read on because there's a better way.
- If your system is primarily just routing calls to people, keep on reading, because many tasks can be automated remarkably easily.
- If you think AI-powered intelligent voice response technology is super expensive and takes a long time to implement, you're in for a surprise in the pages ahead.
- And if you don't have much experience with automation powered by AI and speech recognition, this book is your primer.

Powerful technology is within reach of all organizations, not just large companies.

Why IVAs Are Smarter Than Your IVR

- Speech Recognition
- Natural Language Processing
- Text-to-Speech
- Voice Biometrics
- Sentiment Analysis
- PCI Compliant
- HIPAA Compliant
- Multilingual

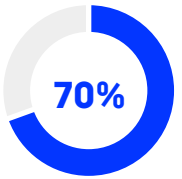
What is an IVA?

IVA is short for intelligent virtual agent. There is an important distinction between older IVR technology and an intelligent virtual agent. A virtual agent aims to emulate the roles and experiences provided by human customer service personnel, rather than just routing phone calls or handling simple, guided pushbutton tasks.

Intelligent virtual agents are powered by artificial intelligence, or AI, and they provide a speech-enabled connection with customers. IVAs are built to automate repetitive tasks, including booking appointments, paying bills and checking balances, which frees up human agents to handle more complex activities.

Today's IVAs have conversations with customers using such technologies as speech recognition, text-to-speech, natural language processing and machine learning. Customers no longer have to listen to a menu of options, then make their request by pressing a string of numbers or saying a very specific word. Conversational AI responds to much more complex customer queries and requests in a more natural way.

An AI-driven virtual agent may ask a broad question such as "How can I help you today?" and it understands and responds to the customer's reply. It figures out what the customer needs, no matter how the question is asked. A customer may say "check my balance" or ask, "How much money is in my checking account?" and the IVA understands and knows how to respond.



By 2023, customers will use speech interfaces to initiate 70% of self-service interactions.

– Gartner

One in three businesses will invest in IVAs over the next year.

Source: Intelligent Automation Post-COVID, 2020

Why Now for an IVA?

Although the technology has been around for more than a decade, the use of IVAs has really taken off more recently. There are a number of reasons. Certainly, just like any technology, it's more powerful than ever, more affordable and easier to use. But there's a lot more behind the growth.

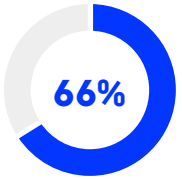
Handling Spikes

First of all, IVAs are pros at taking on spikes in demand for customer service. They're always on-duty, they don't take vacations, and they can automatically scale up if demand suddenly increases. The arrival of the COVID-19 pandemic in early 2020, for example, fueled a tremendous increase in various customer service needs, while at the same time disrupting the availability of the human agent workforce.

The pandemic caused consumers to greatly increase all kinds of digital activities, and one survey found that 56 percent of consumers plan to increase their use of self-service apps.

Increases in Demand

General demand for customer service was increasing even before the pandemic because customers are connecting through more channels than ever. Hiring more live agents is costly, and it's nearly impossible to hire fast enough to keep up with the demand. Changing demographics and consumer expectations are part of the reason behind the increasing demand – along with the simple fact that the customer service experience is improving.



66% of consumers use least 3 different communication channels to contact customer service.

– Microsoft

Customer Appeal

Overall, consumers are becoming accustomed to natural voice-driven interactions with their smart home devices and smartphones, and they're pleasantly surprised when their favorite brands offer a similar experience through customer service provided by an IVA. It's no secret that younger generations are especially open to conducting all kinds of business interactions through digital channels. They're not just open to digital capabilities; they expect them. But it's not just younger people.

The reality is, all generations are increasing their comfort level. Customers are delighted with the experience of processing payments through automated, voice-response self-service. They like using the technology for scheduling appointments, getting product information, checking inventories, placing orders, changing their account address, and countless other applications.

A Competitive Advantage

Given that trend, adopting an IVA-enabled automation strategy increasingly provides a competitive advantage. If you can provide more of what customers are demanding, increase your service levels, and on top of all that, lower your costs, how can you afford not to?

More than half of smart device owners are using voice commands at least once a day.

Source: The Smart Audio Report, 2020

Customer Service Tasks IVAs Can Automate

- Credit Card Payments
- Appointment Booking and Reminders
- Order / Status / Account Checks
- Answering FAQs
- Surveys
- Outbound Notifications
- Password Reset
- Service Activation
- Data Dips to Backend Systems

Why Self-Service?

There are two important reasons your organization may wish to expand its capabilities in customer self-service – for the benefit and delight of customers, and for the efficiencies and cost savings that your company will enjoy. Both are powerful reasons to pursue change.

An Exceptional Customer Experience

Let's first consider the motivation of outstanding customer experience: Many successful companies compete by providing exceptional customer service, providing experiences so amazing that customers tell others. You might think that it takes live humans to deliver delightful experiences, and in certain situations, it does.

But the fact is, these days there are many tasks that can be handled most efficiently through self-service, and an ever-higher percentage of customers prefer to handle them that way. Letting your IVA handle those tasks frees up your live agents for more complex situations and to provide concierge-level, customer-pleasing service when appropriate.

Consider two situations involving customer payment needs. If a customer wants to make a loan payment, an IVA can conduct that transaction quickly and accurately, satisfying the customer's need for speed. If a customer is presently having difficulty paying back a loan right now, the IVA can quickly send the call through to a live agent who can find a suitable and compassionate solution.

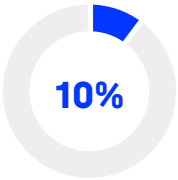
Your IVA also can quickly and intelligently route a call to the right live agent, again raising the bar on exceptional customer service. For the customer, there's no guesswork in figuring out which number to press, no sharing details with the wrong person before being directed to the right one. The customer is taken care of more quickly, with less friction.

The key to executing an effective strategy is accomplishing the tasks within the strategy quickly and successfully.

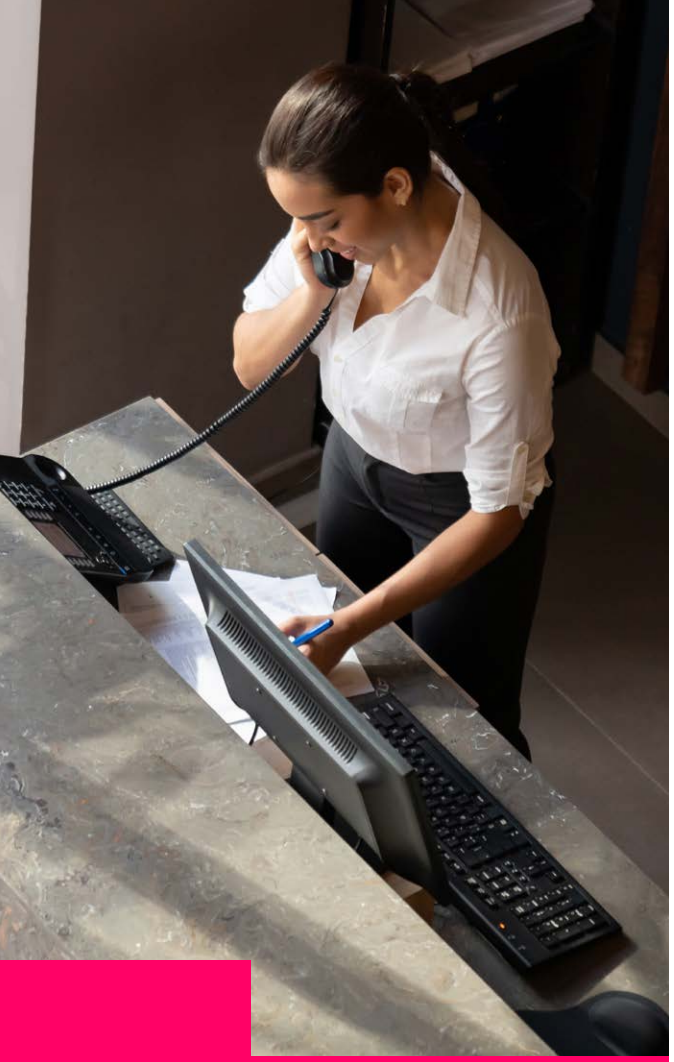
Getting the Job Done

Another key motivation and strategy for self-service is effectiveness and efficiency. In this case, your company is seeking cost-effective ways to solve problems and serve customers, with little to no human effort. Your current IVR steers callers to a live agent, while an AI-powered IVA can take care of many customer needs without ever having to connect with an agent.

The key to executing an effective strategy is accomplishing the tasks within the strategy quickly and successfully, without repeated efforts or redirection. That happens to be what the customer wants in the first place, but it also means your operations are running smoothly. Live humans are effective with good training and exceptional dedication. Virtual agents are efficient and effective as well – and at a significantly lower cost.



Virtual agents typically cost 10% of what a live service agent costs.



A large London hotel used IVAs for virtual concierge and reduced calls to live concierge by 40%.

The Benefits of Upgrading to IVAs

Increased customer satisfaction is incredibly valuable. So are the cost savings that come from higher automation rates. Here's a roundup of benefits.

Saving Money

Consider this example from DMG Consulting: Say that a customer service call handled by a live agent carries a total cost of $5. Now consider a business that handles a million calls a month. If an IVA implementation can achieve just a 2% increase in self-service utilization, that translates into a savings of $100,000 a month, or $1.2 million a year.

That kind of increase in self-service utilization is easily achievable. To understand why, just consider how much better IVA technology can be at containment – that is to say, getting the job done without having to transfer to a live agent.

Automating More Tasks

A hotel, for example, can set up an IVA to answer frequently asked questions about everything from the weather forecast, to connecting to the internet, to finding the fitness center, to understanding checkout details.

The IVA concierge can do much more than answer questions, though. Through a natural language conversation with a guest, it can automatically schedule a wake-up call, for example, and even let the maintenance staff know that there's a problem with the toilet. And this happens through requests made in the guest's own words, not a predetermined menu of pushbutton or spoken choices.

By expertly handling such tasks, a virtual agent achieves cost savings and efficiencies. At one London hotel, this kind of IVA reduced calls to live concierge agents by 40%, freeing them up for more complex interactions – and satisfaction scores showed that guests were as pleased with the automated interactions as they would have been had a live concierge handled the calls.

One of the powerful promises of today's IVA implementations is their ability to grow in scope. Companies may choose to start out deploying virtual agents to handle relatively basic tasks, then automate more complicated tasks later. The more your organization automates over time, the greater your cost savings.

> **"The key to customer loyalty is less about over-the-top service efforts, and more about getting customer needs met as effortlessly as possible."**
>
> **– Matthew Dixon**

Boosting Customer Retention

Of course, there's more to success than simply achieving lower operational costs. Customer retention is a vital measure, and it's only going to happen when customers are satisfied with both the product you're delivering and the service you're offering.

Virtual agents can be a key part of increasing customer retention because they enable self-service. Self-service, in turn, builds what bestselling author Matthew Dixon has referred to as "The Effortless Experience." In his book by that name, he suggests that the key to customer loyalty is less about over-the-top service efforts, and more about getting customer needs met as effortlessly as possible.

A famous over-the-top example is that story about the boy who accidentally left his toy giraffe in a Ritz-Carlton hotel room. Not only did the hotel return the prized possession, but the hotel staff sent along photos of the fun that the giraffe had on his extended stay. It's a great story of customer delight but misses the point of most customer service – resolving an issue as effortlessly as possible. As Dixon points out, "four of the five drivers of disloyalty are about additional efforts customers must put forth."

So, imagine that a customer can connect with a virtual agent and get the need or problem resolved in the first call. That's efficacy in action. Was that interaction fast and straightforward? That's effortlessness in action. That efficacy and effortlessness build customer loyalty and boost retention.

Ease of Management

Moving from an IVR system to an IVA implementation makes sense for organizations of all sizes. As the following chapters explain, today's IVA technology is intuitive and cost-effective enough for even small organizations to handle. Meanwhile, larger organizations with multiple locations will appreciate the ability to centralize management of self-service automation.

A centralized system serving multiple locations lets companies such as retailers deploy advanced self-service solutions, accessible through a single and smart auto-attendant. Any required updates can be made once in the centralized system, which is far better than having to make changes at each individual location.

That centralized system and its virtual agents can intelligently route calls to the right location, the right department within that location, or the right customer service agent if necessary. The system's integrated call reporting helps the organization understand overall call volumes and customer requests, and that helps uncover new tasks that can be automated to increase containment and reduce the need to transfer to live agents.

At the same time, the centralized system can allow decentralized control when needed. If a local store needs to change hours of service (as was often the case during local pandemic shutdowns), that local control is easy to establish.

Higher Revenue and Higher Satisfaction

Virtual agents are not here to take the jobs of live humans. It's true that many companies can get by with fewer live agents when more tasks are automated, but that's far from the whole story.

Perhaps the most important point is that live agents can save their efforts for the customer service needs that really benefit from their human intuition and problem-solving skills. Repetitive tasks are offloaded to the automated virtual agents, freeing up live agents for interactions that are more rewarding from a job satisfaction perspective.

The end result is valuable for reducing costly turnover, and also for revenue generation. Certain revenue-generating tasks, such as booking simple reservations, can be automated. On the other hand, some complicated big-ticket sales are best left to the live agents, and if you've freed them from answering FAQs, they've got more time to generate income.

Your aim is to make the experience effortless on any channel, and also make it easy to move between channels.

The Omnichannel Experience

There are many types of customers out there, with many different preferences. Some look first for a toll-free phone number, while others are eager to initiate an online chat and let their fingers do the talking. Your aim is to make the experience effortless on any channel, and also make it easy to move between channels.

An omnichannel IVA approach to automation lets you build a self-service application once, and deploy it not just across voice channels, but also through chat and messaging channels. No matter how you interact with the customer, your application is connected to the right back-end resources, such as datastores and payment gateways. To make it seamless for your customer to change contact channels, your voice-enabled channel is contextually aware of a previous interaction via chat, or vice versa, and if the contact escalates to a live agent, that human is aware of the virtual interactions that happened previously.

Ensuring Compliance

All organizations must take industry regulations seriously because the penalties for noncompliance can be hefty. Take HIPAA as an example. Among other things, the Health Insurance Portability and Accountability Act spells out stringent privacy rights and hefty fines for violations involving inappropriate access to health information. Virtual agents can collect and process sensitive health data without the potential for human agents compromising the data.

Similarly, IVAs can collect sensitive credit card information. That offers the highest level of security, and for many customers, the highest level of comfort.

Scaling Up

An IVA deployment is easy to scale up as the demand increases. A retailer, for example, can dynamically add virtual agents during the holidays, or when there's a big sale, or if a product recall is increasing call volume.

Just try that with live agents. Every new, temporary hire must be trained and familiarized with the business, and it takes time to get them up to speed. Every new virtual agent, on the other hand, reports to work ready to hit the ground running.

The penalties for violating industry regulations can be staggering. PCI-DSS fines can range from $5,000 to $10,000 per month,[1] and HIPAA fines range from $500–$5,000 per violation[2] and can include criminal prosecution.

1 5 Consequences to PCI Non-Compliance, APS Payments, 2019. https://creditcardprocessing.apspayments.com/blog/5-consequences-to-pci-non-compliance

2 What are the Penalties for HIPAA Violations?, HIPAA Journal, January 15, 2021. https://www.hipaajournal.com/what-are-the-penalties-for-hipaa-violations-7096/

IVAs help organizations avoid violations and penalties by collecting sensitive customer data without revealing information to a human agent.

The Old Way

Purchase and install the software – This includes speech, text-to-speech, natural language processing and VoiceXML (VXML) elements. The organization had to pay upfront, then keep on paying for annual maintenance.

Hire the development team – These are the experts responsible for designing, developing, and testing the system and making the VXML do what it's supposed to do.

Tune and train – This is a lengthy process that is essentially trial and error, fielding test calls, refining grammars and optimizing recognition.

Deploy and refine – Finally, it's time to set the system loose so it can interact with customers. But the work is never really done, as the development team needs to be ready to make changes and improvements based on real-world experience.

How long did this all take? Sometimes as long as a year, but at least six months. No wonder organizations ended up spending a million dollars to make it happen.

But Aren't IVAs Costly and Complicated?

What can get in the way of an effective automation strategy? What barriers have been keeping organizations from pursuing their automation objectives in the past?

A 2020 survey conducted by Inference Solutions found three big and very interrelated challenges that have stood in the way of developing self-service automation:

Cost

In the past, this kind of work carried a high price tag. Organizations had to invest heavily in both hardware and software. Custom applications were needed for such tasks as natural language processing and text-to-speech, requiring big upfront spending along with ongoing maintenance expenses.

Complexity

This hasn't been do-it-yourself kind of work in the past, which meant relying on expert professional services to design, develop, test, tune and train the solution. Professional expertise could be hired internally or secured externally. Either way, it added to the cost and potentially left organizations relying on others, which continued to complicate things when it came time to refine or update the system.

Time to Develop

Complexity, in turn, takes time to sort through. The various tasks leading up to launch could take six months to complete – maybe even a year. Time, of course, means money. By the time organizations were ready for launch, they could have spent a million dollars or more.

Here's a look at what the traditional development process looked like in the past, and you can see why it hasn't been a good fit for many organizations, especially smaller firms or mid-sized companies.

Times and Tools Have Changed for the Better

Today, many complicated tasks are far easier than they ever were just a few years ago. Take ordering dinner for carryout or delivery, for example. You used to have to pick up the phone, dial a number, sit on hold waiting for the correct restaurant employee, recite your order and hope it was heard correctly, and then verbally provide a credit card number and address.

Today, it's all automated on an app, and your preferences and payment details are safely maintained in the cloud. Ordering take out is now fast, easy and accurate.

It's an equally night-and-day comparison with regard to the modern development process for self-service automation, compared to the complex and costly process described in the previous chapter. It's far easier, far faster, and far less frustrating. And while you're not saving any money with today's simpler restaurant delivery process, you will save big bucks with the modern-day development process for intelligent virtual agents.

To begin with, the core technologies that provide the magic of conversational AI are now packaged as cloud-based services from such trusted names as Google, IBM and Amazon. These SaaS, or software-as-a-service, options include speech-to-text, text-to-speech and natural language processing.

And like many cloud-based services, your costs are far lower than they would have been before. Here's why:

The SaaS pricing model – You're paying for the application services that you use rather than buying applications outright. It's a "pay as you go" model. The service can be provisioned by your carrier, which is yet another convenience.

In the cloud – There's no hardware to deploy, no software to install, and you're not on the hook for upgrade or maintenance costs.

Self-managed tools – Easier-to-operate tools get things rolling faster, and they also mean you don't need your own dedicated technical resources.

"Self-managed?" Really? Believe it. Read on to learn more about today's best-practice development scenario for self-service applications using speech recognition and natural language understanding. It's really a whole new world.

A Modern Process

As described earlier, perhaps the most significant barrier keeping many smaller and mid-size organizations from deploying IVAs has been the fact that, until recently, it was just too complicated. You needed to hire or contract with some serious technical expertise to get the job done, and that added to the cost as well as the time commitment.

With today's tools and a much more modern process, even non-technical people can make it happen. The SaaS model and user-friendly tools create a situation that is more "do it yourself" than you could have imagined not long ago. No wonder that three-quarters of IT decision-makers surveyed said their future automation strategies will rely on tools that let them build and manage their own applications.

Here's an overview of how the process can work for your organization:

Sign up for the service – With today's model, the service can be provisioned by your provider. All applications are in the cloud, so you don't have to install, deploy, maintain or upgrade anything.

Pay as you go – With no upfront technical installation, you just start paying a periodic fee that is linked to the types and volumes of service that you need. It's far more easy to scale than increasing and decreasing a human workforce as demand ebbs and flows – or adding to the capabilities of an on premises deployment.

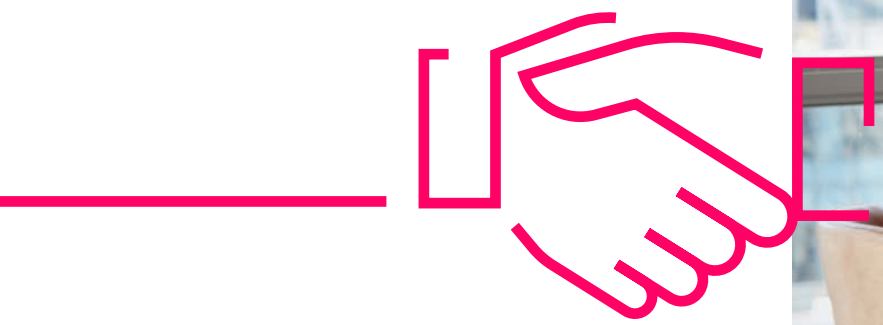
Configure the applications – This is the do-it-yourself part. You can select from a library of prebuilt applications. There's no code to learn. Just build and extend your applications with a drag-and-drop user interface.

Tune and train – This is still an important part of the process, as it was in the traditional development approach described earlier. It's still vital to field test calls, refine grammars and optimize recognition. But today's tools that enable this process are more advanced and end-user friendly.

Deploy and refine – This stage is still part of the process, too, but you have complete visibility into the applications, and can make changes yourself in real time as the need arises. You didn't have to hire special expertise to get to this point, so you don't have to maintain that expertise going forward, either. That translates to major cost savings in the long haul.

So how long does it take to reach the finish line in this scenario? Far less time than the old way. With this new, improved approach, you're looking at days or weeks, not six months to a year that this kind of work used to take.

You're out of the gate and on to perfecting the system in a flash. And that means you can enjoy cost savings and compliance improvements, along with more satisfied customers and happier service agents, much sooner. Everyone wins!



Making it Happen

If you've made it to this page, there's a good chance you are convinced that it's time to make the upgrade from your IVR system to an implementation powered by intelligent virtual agents. So how do you get there?

Five9 provides IVAs that can automate interactions between your organization and your customers and provide all the value and cost savings outlined here.

Learn More

Want to learn more about how virtual agents can help you improve customer service and support? Visit our **website** or call us at **+1-800-553-8159.**

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