

### From Automating Human Agents to Humanizing Automation

[24]7 AIVA is an AI-powered, intelligent virtual agent that enables a smarter, more accurate, 'near-human' experience on your voice and digital self-serve channels.



According to Forrester, 72% of businesses say improving customer experience is their top priority.

In the last two decades, rapid advances in technology have impacted every aspect of our lives. While consumers are keeping up, the customer service industry has fallen behind. Brands are struggling to keep pace with changing expectations and give consumers a consistently good experience. When it comes to enabling customer self-service, companies need to shift their focus from cost savings to boosting loyalty and retention. Those who know that understanding consumer intent is the basis of digital transformation will thrive. Those who don't will be disrupted. Enterprises need to get smart about automation and optimize customer service operations without compromising customer experience or satisfaction. The time to change is now.

Mapping this shift in market dynamics and organizational expectations, three major trends have emerged as game-changers:

#### Optimize Every Customer Contact

Companies spend a lot of money trying to grab a prospective customer's attention without knowing how they make purchasing decisions. Organizations can now locate "hotspots" to find out where customers get stranded or abandon the brand completely. But first they need to break the silos between voice and digital channels and map out every relevant touchpoint in the customer journey. Visibility is key.

#### Deliver a Consistent Brand Experience Across All Your Channels

Today's empowered customers have high expectations: They want to choose how and when they connect with brands, but they also want brands to anticipate their needs and be proactive. They expect brands to be consistent everywhere, and they expect to be wooed.

Consumers today use multiple devices and channels, and studies show that on average they switch devices almost three times per hour. The 'connected' generation of Millennials and iGens prefer to interact with brands on mobile applications and ever evolving social media channels. An omnichannel strategy, where you manage every contact channel via a single, central platform, is no longer a "nice to have" option—it's a must-have.

Consumers see your company as one brand regardless of which channel they're on and every experience impacts your brand image. It's more important than ever to have one conversation with your customers across all channels. The challenge for businesses is to deliver a consistent brand experience spanning the entire customer journey—on any channel or device.

#### Improve Self-Serve Adoption Without Compromising Customer Satisfaction

Today's consumers are looking for quick fixes. While businesses continue to automate and promote self-serve options to optimize resources and cut costs, consumers are



Only 36% of organizations have some visibility into multichannel data and only 17% are able to locate problem hotspots."

– Dimension Data

demanding a frictionless customer experience (CX). The sheer complexity of human interactions makes this extremely challenging. Companies not only need to provide accurate resolution, they also need to anticipate customer needs.

Customers are quick to abandon brands when their expectations are not met. Reports from Dimension Data and others indicate a higher than 50 percent failure rate for first contact resolution. Businesses need to automate more journeys and complete more transactions through self-serve channels while also growing their CSAT scores.

## [24]7 AIVA: An AI with an EQ

### Drive Better Customer Engagement on Your Self-Serve Channels

[24]7 AIVA is an AI-powered, intelligent virtual agent (VA) that enables a smarter, more accurate, 'near-human' experience on your voice and digital self-serve channels. Operating on a unified platform, [24]7 AIVA thinks, talks, and takes logical action on voice or digital channels just like your best human agent. [24]7 AIVA can help companies expedite their customer service performance while maintaining a high level of customer satisfaction.

AIVA can communicate in natural language, understand context, sense emotions, make logical deductions, solve problems, learn through experience, and support your unified channel strategy to provide an effortless CX in any channel of your customer's choice. With [24]7 AIVA you can now automate both simple journeys and complex interactions smarter, faster, and more securely.

### Where Can Customers Interact with [24]7 AIVA?

Customers can talk to [24]7 AIVA on a company's toll-free number (within the IVR set up) using speech recognition or via both the desktop and mobile version of a brand's website. You can also leverage mobile connect to enable [24]7 AIVA directly inside your mobile application and can even activate AIVA on your brand's social media pages (like Facebook Messenger) using conversation windows.

With a common business logic powering all these channels customers get a consistent brand experience on whichever channel they choose. [24]7 AIVA enables a smooth handoff of context and history so the customer can transition between channels without losing continuity.

### Solving Problems Plus Getting Things Done

**Predict customer behavior for smarter, more personal, more relevant interaction and a better experience every time.** AIVA leverages [24]7's unified, intent-driven platform to predict customer behavior in real-time through data analysis, making interactions smoother and smarter. [24]7 AIVA can find ways to provide relevant, actionable information based on customer preferences and shortens or removes steps making the journey quicker. For example, [24]7 AIVA anticipates a client's channel preference based on their transaction history and automatically routes them to that channel.

[24]7 AIVA is more than just a self-serve assistant. It can provide suggestions and recommendations at the right moment to help customers resolve problems quickly rather than waiting until something goes wrong. AIVA is also capable of applying

its unique insight and skills to personalize journeys and make experiences more memorable.

[24]7 AIVA can consider all relevant data points (i.e. customer's purchase history, class of ticket purchased, webpages visited, etc.) before offering promotions. [24]7 AIVA will engage only when the customer needs assistance—for example, providing accessories to match other purchases or for comparing products or options. And AIVA Mobile and AIVA Social can be used to send reminders or push notifications to clients for things like price changes, promotion codes, or personalized sale options.

## “Near-Human” Conversation in Natural Language

### Reduce Customer Service Costs Without Compromising CX

[24]7 AIVA makes it easy for your customers to communicate with you. We combine the world's most advanced natural language processing (NLP) technology with an intent-driven engagement platform to enable 'near-human' conversations in your self-serve channels. Give customers the support they need from their very first contact with your brand—whether they're searching for information or they need assistance with transactions, [24]7 AIVA can guide them at every step with a natural conversation in their chosen language.

[24]7 AIVA can understand slang, local nuances, and colloquial speech and can even be trained to emulate different tones based on company requirements. Forcing your customers down a pre-defined selection path or providing only canned responses can limit self-serve performance. With [24]7 AIVA you can open up your customer engagement to a whole new world of possibilities. For example, with a telecommunication company rather than just providing information like account balance and data usage AIVA can assist with basic troubleshooting and even help complete plan changes or upgrades.



AIVA can support any language and has pre-built models in some of the common languages for faster deployment.

### Deep Neural Networking

Improve customer satisfaction scores with better and more accurate speech recognition. [24]7 AIVA uses Microsoft's DNN-based speech recognition technology to enhance speech recognition accuracy for your Interactive Voice Response (IVR) systems. Unlike most acoustic models that depend on a single node to determine meaning, DNN uses multiple nodes together—the same way the human brain does, yielding at least 95 percent speech recognition accuracy. Using analysis from Bing search, Xbox, Cortana, and Windows Phone as well as other customer engagement channels, DNN draws on over 10 billion utterances for deeper insight.

### Conversational

**Understand what they mean, not just what they say.** Adding smooth and responsive conversational flow to self-serve interactions speeds up resolution and boosts satisfaction. Your customers can speak with [24]7 AIVA just as they would speak with a live agent, because [24]7 AIVA can understand more than just the spoken word—it can intuit meaning in the specific context of the conversation and can be trained to emulate your brand's tone to further strengthen your brand and improve CX.



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## Disambiguation

**Solve problems faster with a two-way conversation.** To address the complexity of human interactions [24]7 AIVA can engage in a two-way dialogue exchange—what’s known in AI as “disambiguation.” [24]7 AIVA can even handle multiple intents that are stated simultaneously.

For example, a customer in Los Angeles may ask [24]7 AIVA, “What’s the weather in New York and book me a flight to Boston for April fifth.” AIVA can understand the two intents within this request and identify the missing information required to complete the tasks.

So [24]7 AIVA understands:

1. The customer wants to know the weather in New York.
2. The customer wants to book a flight to Boston for April fifth.
3. Based on user-profile or other back-end data, AIVA knows the customer lives in Los Angeles so assumes they want to fly out of LAX.
4. The customer has not provided a return date—AIVA identifies this missing information and knows to request it.

[24]7 AIVA can ask questions to get clarification, validate assumptions, and fill out missing information just like a live agent and then help the customer complete the transaction. It understands context and can manage a non-linear conversation. For example, customers often go off topic or switch back and forth between two topics. [24]7 AIVA is able to handle the two topics and respond appropriately to each by using conversational history and context and asking the right questions.

## Sense Emotions

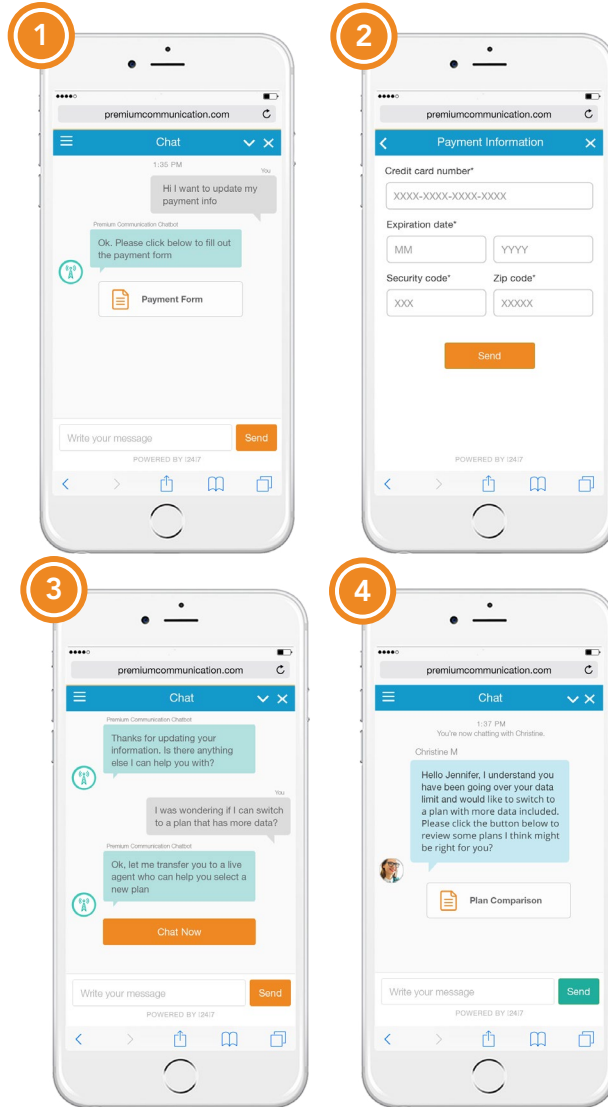
**The Emotional Quotient (EQ) factor.** Unlike a human agent, [24]7 AIVA can stay calm and respectful even with the most disgruntled customers. AIVA recognizes negative emotions and takes logical actions to reduce customer frustration. Its ability to separate negative emotions like frustration or anger from the actual issue allows it to more accurately figure out what’s causing it. [24]7 AIVA can then offer an appropriate resolution.

## Seamless Escalation

When negative emotions cross a certain threshold (set by the company) or if [24]7 AIVA is unable to assist a customer further, it can escalate the interaction seamlessly to a live agent for better handling. [24]7 AIVA can also route customers directly to a live agent based on past preferences. [24]7 AIVA connects with the live agent in the same browser window providing conversational history and intent for a smooth hand-off.

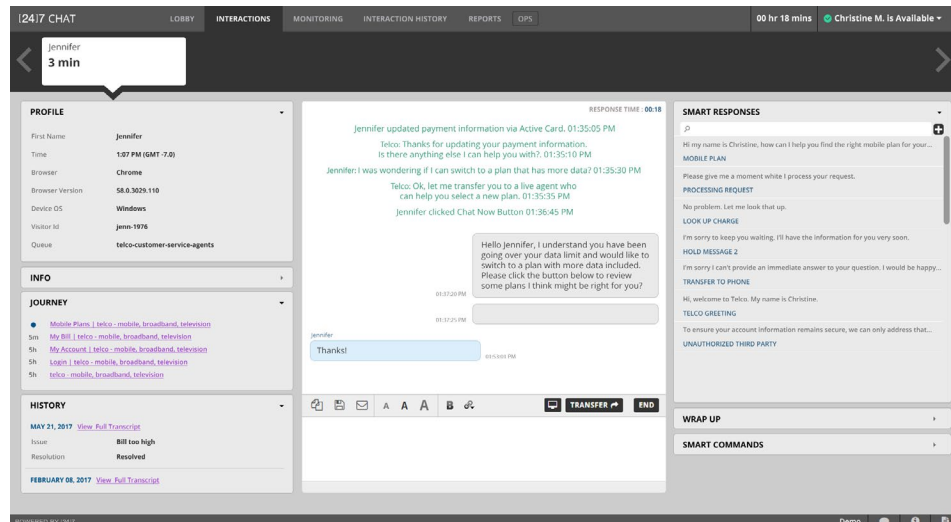


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In this example, the customer engages with [24]7 AIVA to complete a payment update. The customer can easily complete this journey using an Active Card. When the customer requests information about switching data plans, a journey indicated by business rules to be handled by a live agent, [24]7 AIVA seamlessly transfers the customer to a live chat.

The agent receives the customer context from [24]7 AIVA right in the agent console, so the customer never has to repeat their information or what they are trying to do.





#### Deep Learning Explained:

1. Inspired by the human brain's neural network, AI first assigns layers of individual virtual neurons to each varying factor of an image or a sound wave
2. Then combines the multiple layers by allocating specific weight to each layer to reach a conclusion.
3. Programmers can then train the model by blitzing the network with digitized versions of images or sound waves containing those factors and use an algorithm to adjust the weight of each individual factor to improve accuracy.

For example, when the AI first sees an image of a cat it notices individual factors (i.e. color, shape, size and sound a cat makes) and retains each of these factors in different layers of individual virtual neurons. When it sees another image of a different color cat the AI examines each factor individually (size, shape, and color) and makes a highly educated guess called the "probability vector" by weighing each factor. The AI may conclude that there is an 80 percent probability that the image is a cat.

## Deep Learning

### AI That Keeps Learning, Evolving, and Improving

[24]7 AIVA is a powerful third generation virtual agent (VA) with deep learning capabilities. First generation VAs are rule-based, with limited application. Like a child who memorizes the answers to a series of mathematical questions, they recite answers without actually understanding them. If you change the question, they need to memorize a different set of rules so they can match the correct response. Ruled-based VAs are expensive and time-consuming to build and maintain.

Second generation VAs are still heavily rule-based but also have the ability to learn from labeled data. If you make any changes to the basic rule-based question you have to "label" correctly it so the VA will know how to respond. So if you change, "What is 2+1?" to "What is 1+2?" you have to label this question, "2+1 is the same as 1+2" for the VA to respond correctly. Labeling is a labor-intensive process that can be managed in-house via an administrative team or through the VA vendor's professional services options.

[24]7 AIVA is a third generation VA that brings smarter and more accurate automation to customer interactions by using deep learning technologies combined with [24]7's unique collaborative tagging to learn and evolve over time.

### Deep Learning Technologies

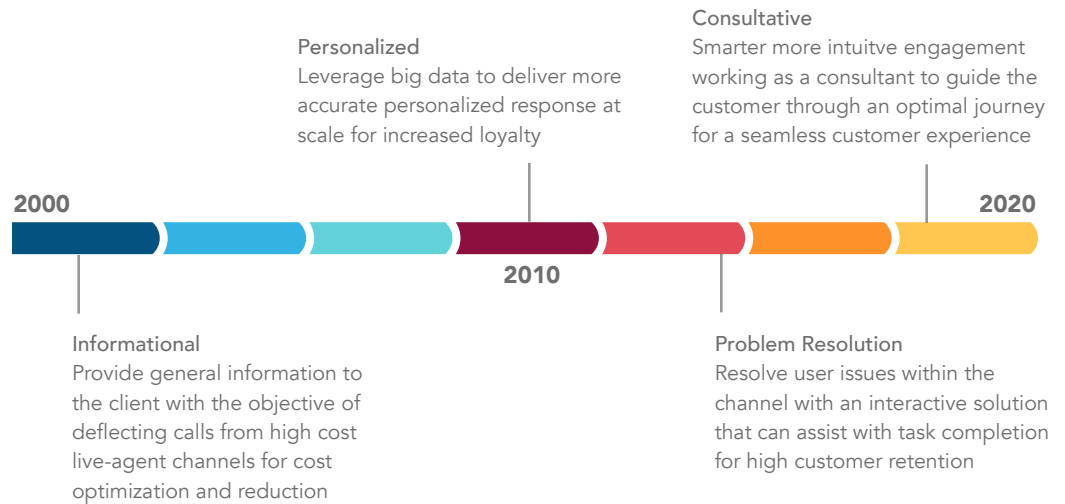
**Experience cannot be taught; it must be learned.** Deep learning technology is a machine learning technique inspired by the human brain or "neural network." It allows AI to learn by association, just like a child.

Programmers can train an AI model to improve accuracy. The more data an AI is exposed to the better it gets and the more accurately it can respond over time. [24]7 AI models are trained with over two decades of contact center data from various voice and digital channels, making [24]7 AIVA smarter and more accurate than other similar models.

## Embracing a Holistic Journey Approach for Intuitive, Smarter Customer Engagement

The role of customer service has changed a lot over the last two decades. To meet new market demands and customer expectations, the customer service industry has changed too.

## Shifting Focus of Customer Engagement



Contact centers, which used to be cost centers, are now becoming profit centers because they do more than just answer questions. Reports show that better CX drives loyalty and retention with customers willing to pay a premium price for faster, more accurate service. The focus for contact centers has evolved from cost-optimization to delivering a better brand and customer experience.

In this Age of Intent, businesses have to be proactive—you must anticipate, understand, and act on consumer intent. Customers expect organizations to act as consultant and provide guidance as they navigate various channels. You can't wait for customers to start the conversation.

Companies that are already engaging prospects, not just offering post-sales interactions, are already ahead of the game. Your goal should be to optimize every contact a prospect may initiate with your brand and focus on providing an excellent brand experience wherever they meet your brand—not just on a single channel.



Delight your customers while reducing costs with [24]7 self-serve solutions. Let your customers choose how and when they engage with your brand and be assured they'll get the same great experience everywhere.

### [24]7 Leads the Way

[24]7 was one of the first to adopt an intent-based, customer-first approach by breaking the silos between voice and digital channels and leveraging the power of AI.

### Make It Simple: One Platform

Customer Engagement today is usually siloed between separate voice and digital channels. For most organizations, internal departments are also isolated—voice calls and automated voice responses are likely managed by the call center and operations



In today's competitive world where customer experience is a key differentiator, can your brand afford this kind of frustration?

management department, while a different department such as marketing manages the website and online experience. These departments barely communicate with each other let alone share data and best practices. Linking these channels becomes even more complicated when multiple vendors power each silo.

The result? Broken, inconsistent experiences—a customer engagement nightmare.

Customers often go back and forth between channels to complete their journey. Lack of visibility between channels forces them to keep starting over, providing the same input again and again and receiving disparate information in different channels. This inefficiency leaves customers feeling frustrated and overwhelmed.

Give your customers a consistent, connected experience and make it easy for them to do business with you. [24]7 solutions operate on a unified platform that powers smart, connected customer journeys across channels.

## Build Once, Deploy Everywhere

**Connecting customer journeys for a seamless experience.** Let your customers decide how they want to interact with you, and keep it seamless. Running all your channels on a single, unified platform makes it easy to move from one channel to the next without compromising the experience. Your customers can start in any channel of their choice (voice or digital) and switch between channels, devices, networks, and even applications at any time without losing the conversational chain. Integrate intelligence into every channel.



Focus on contextual customer journeys, not channels.

## Flexible, Agile, and Future-Ready

Support additional channels easily while boosting customer satisfaction scores. With this new unified architecture, you only need to develop the AI common business logic (or “unified brain”) once. You can then share it across all channels (voice response, web support, mobile support, and even live assistance) leveraging the same intent model and application logic everywhere. The unified brain controls all applications across various channels and modalities and drives smart decision-making to trigger the right response in the right channel in real-time.

[24]7 AIVA is also future-ready with the ability to support any new web-based applications so you can optimize your investment today and protect it tomorrow.

## Intent Prediction: Proactive and Personalized

**Flip your customer engagement from, “How can I help you?” to, “Here’s how I can help.”** Just like customer service, data too has evolved from a reactive role to proactive. Data analysis used to be all about looking at customer behavior post-sales and implementing best practices learned from those interactions. Smart businesses now analyze prior behavior to accurately predict a customer’s intent in real-time. Why limit yourself to using best practices for future customers when you can leverage technology to course-correct in real-time for a better customer experience now?

Why is this important? For an AI model to work you need to start by setting a goal or objective for it to work towards. Initially the AI model learns through a series of trial and error methods, improving its accuracy over time based on the outcome of each action. The more defined the end- goal, the easier it is for the AI model to react and





[24]7 AIVA is powered by an intent-prediction platform that leverages 1.6 billion predictions and 1.3 million successful customer interactions to improve and expedite customer journeys.

take appropriate counter actions. But most human interactions do not have set rules or well-defined objectives. Human beings are complex, unpredictable, and individual. Aggregating behavioral trends can accurately anticipate customer intent—the more data you aggregate, the more accurate you can get.

[24]7 has succeeded in training a customer engagement AI model where even well-known, general purpose AI technologies have failed. Leveraging the vast amount of data from our live and chat agent outsourcing operations, plus our contact center experience with both voice and digital journeys, we predict customer intent more accurately to enable smarter, faster outcomes. We train our AI using real customer service interaction data from multiple channels by experts who've been doing this for two decades. Take advantage of our deep data and expertise and train your AI model to be the very best it can be.

## [24]7 AIVA Applications

[24]7 AIVA can be deployed as a smart virtual agent that sits on your digital asset (website, mobile application, or inside your social media messaging page) to drive better customer engagement by resolving issues within the self-serve channel and helping customers get things done. You can also deploy [24]7 AIVA as a conversational voice agent on your toll-free number or as a combination of the two—an omnichannel solution that enables all your customer engagement points from voice, to digital, to mobile and messaging based channels.

Some of the most popular applications for [24]7 AIVA include:

**General inquiry:** Provide one correct response to frequently asked questions about products and services through your digital self-serve options. E.g. What is the data usage limit?

**Personalized customer service:** Leverage back-end CRM and other systems and databases via flexible API integration, enabling virtual customer assistants to provide personalized information such as order status, account, or billing information. E.g. How much data have I used on my account?

**Interactive customer service:** Leverage natural language and machine learning to engage the customer in an open two-way conversation just like a live agent. Understand what they mean, respond to open-ended questions, and enhance customer satisfaction. E.g. Why is my bill so high?

**Guided task completion:** Provide customer assistance and/or guide them through step-by-step process to help them complete a task. E.g. I would like to switch my data plan.

## [24]7 AIVA Advantage

### Automate More Journeys

Reduce the complexity of human interaction and drive better engagement on your self-serve channels. Automate 30%\* or more of journeys within self-serve channels to cost-effectively address high volume, low impact customer interactions while maintaining a high level of customer satisfaction (CSAT) score.

### Faster Resolution

Achieve a higher percentage of first contact resolution as well as reduced agent handling time. [24]7 provides a smarter AI with predictive engagement to help complete consumer journeys.

### Build Once, Deploy Everywhere

Support your omnichannel strategy by deploying a smart assistant in your mobile or social media channels and extend customer service wherever your customers are. [24]7 makes it easy to continue interaction across multiple devices, over text or voice based digital channels, through a longer period of time.

### Big Picture View

[24]7 has access to multiple channel, contact center data to enable a more holistic view of a customer's journey. Locate problem hotspots in your customer's journey and resolve them proactively.

### Target And Retain Millenials

Engage with Millennials on social media channels. Connect with more clients while making the most of your resources.

\*Based on current customer results

Let [24]7 help your organization achieve extraordinary results. Contact us today.

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#### ABOUT [24]7

[24]7 is redefining the way companies interact with consumers. We help you attract and retain customers, and make it possible to create a personalized, predictive, and effortless customer experience. For more information visit: [www.247-inc.com](http://www.247-inc.com)