

# The AI-Powered Virtual Agent: Practical Realities & Actionable Strategies for Contact Center Leaders

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**SmartAction**  
Automating Customer Service. Intelligently

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## INTRODUCTION: LEVEL-SETTING AT A TIME OF RAPID CHANGE

AI-powered virtual agents present significant potential to improve the customer experience (CX) in the contact center. But while the advantages of automating more customer care-related processes are real, it's important to focus on the practical applications of AI rather than the too often overly dramatic headlines associated with it. For Frost & Sullivan, the more sober conceptualization suggested by SmartAction—a company offering AI-enabled customer self-service solutions—is instructive:



The truth is, the future of AI is far from the robot armies of sci-fi movies. If anything, it will be 'cheap, reliable, industrial-grade digital smartness running behind everything'—a utilitarian technology that will transform society in what one Wired magazine article called a 'supremely boring way.' And by boring, we mean that it will become as normal and accepted as any other useful invention, like the Internet.<sup>1</sup>

This type of level-set is important because according to recent surveys by Frost & Sullivan's Stratecast team, 20% of all companies have plans to adopt some type of AI-powered solution in the near future. Meanwhile, those surveys also show that many companies are laboring under the impression that AI is complex and costly to implement. As a result, "What is required is what Stratecast has labeled Practical AI: solutions that come prepackaged with AI capabilities so that the enterprise doesn't need to devote IT resources to custom development. Such solutions are easy to sell to executive decision makers and are popular with IT organizations as well since they do not require inordinate amounts of support."<sup>2</sup>

This paper will clarify the practical applications of new cloud-based AI solutions and then propose a strategic approach to "level-up" contact center capabilities by seamlessly integrating those solutions with your existing infrastructure.

## WHAT YOU ARE FACING: BUSINESS CHALLENGES

While the world is certainly changing rapidly, there are a number of longstanding business challenges companies of all sizes continue to face. When it comes to the contact center specifically, companies are still focused on improving the CX while aiming to reduce costs. These objectives can be accomplished by leveraging cloud-based AI to automate more, but notable roadblocks have remained fairly consistent for the contact center over time that have discouraged many from taking the path of AI automation.

- ✓ **High Customer Expectations.** Customers have always had high expectations of the contact center, but the advent of virtual personal assistants like Siri, Alexa, and Google Assistant has changed the expectations for the ability of contact centers to deliver the same conversational experience. Yet contact centers are still rife with the same archaic, lengthy phone tree menus and minimal natural language self-service, leading to an inability to meet those high customer expectations.
- ✓ **Limited Automation Options.** Due to IVR and contact center system limitations, many businesses cannot offer better self-service options to customers. IVRs either lack the required advanced speech recognition and cognitive abilities to mimic live agent behavior, or the high cost of professional services and long implementation times make it too risky to try and automate something that may not even work. As a result, contact centers have an overt dependency on live agents to handle even the most rudimentary call types, chats, and data gathering processes.
- ✓ **Difficulty Implementing and Deploying New Contact Center Technologies.** Many contact centers view their contact center platform and/or IVR as a closed system that cannot be upgraded to natural language understanding without an expensive rip-and-replace model or professional services to build it from scratch. Unaware of cloud-based AI augmentation for existing systems, contact center leaders can be led to believe AI automation isn't available until their existing IVR or contact center vendor provides it with a costly and disruptive upgrade.
- ✓ **Agent Attrition.** High rates of attrition have plagued the contact center industry from the beginning. Monotonous and repetitive work often leads to stress, apathy, and boredom, leading to high rates of employee defections. Contact centers are caught in a never-ending loop of recruiting and training that strains resources as well as the customer experience.

Business leaders should, therefore, be more focused on finding practical solutions to these stubborn challenges rather than focusing on the wonders of technology per se. Fortunately, the opportunity to address such challenges through cloud-based, AI-powered engagement is considerable.

## IT'S ABOUT SOLUTIONS, NOT TECHNOLOGY

While recent breakthroughs in AI research have led the news, when it comes to using AI to improve the CX and lower costs, it's important to focus less on the wonders of AI's potential, and more on the actual ways in which AI can provide practical solutions to specific CX-related challenges.

- ✓ **Meeting High Customer Expectations.** Using cloud-based conversational AI to enhance existing IVR and contact center platforms helps companies deliver the natural language experience that customers prefer and expect. New capabilities in speech recognition and natural language understanding help get to the root of customer issues, moving past simply recognizing what a customer said and into diagnosing what to do about it. Business strategies built on conversational AI can help deepen relationships with customers by learning more about them and helping to resolve issues in a manner that feels more natural and customized to each individual. Agile "conversation flows" that outline dialogue scenarios between automation and customers provide consistency in information gathering and data capture, a process that uses best practices to decrease customer effort and simplify the CX all along the customer journey. "When you think this way, you find efficiencies you didn't realize were there and you'll find that customers feel much more comfortable and natural engaging with the automation."<sup>3</sup>





- ✓ **Overcoming Limited Automation Choices.** Cloud-based AI automation can provide near-effortless natural language augmentation to contact centers in these four areas:
- Instead of menu-based routing that leads to long hold time and frustrates customers, greet every customer with a natural language “front door”—“How can I help you?”—and capture intent before routing calls and chats to live agents, AI agents, or other automation.
  - Gather data upfront, such as customer authentication or product registration, which is passed along to live agents, delivering faster and more efficient support while shortening live agent handle time.
  - Automate the most common inquiries handled by live agents such as order status, appointment scheduling, returns, and much more, with live agent failover in the instances AI automation is unable to fully contain. In such cases, the virtual agent passes along gathered information, so the live agent can naturally pick up where the virtual agent left off to finish the call.
  - Perform outbound calls and texts with live agent failover for high success rates.

Using these contact types as a blueprint, businesses can mix cloud-based “AI agents” with their live agents to automate more, improve the CX, and reduce costs.

- ✓ **Implementations and Deployments Made Easy.** There are cloud-based AI solutions on the market that do not require expensive and complex technology upgrades to legacy contact center infrastructure. These solutions seamlessly integrate with systems in place and will enable the contact center to automate one call or chat type at a time, making for faster deployments and agile improvements with low risk. Since the

transformation to self-service automation can be disruptive to the customer experience without proper customization and guidance, best-of-breed solutions combine a team of CX experts with AI experts to ensure the transformation to automation remains human-centric and enhances the CX rather than detract.

- ✓ **Agent Optimization.** AI solutions streamline processes and increase agent productivity by absorbing low-value and repetitive tasks and freeing up skilled and empathetic agents who can then focus on quality conversations needing a human touch. By using conversational AI to automate the drudgery of data gathering or repetitive conversations, agents are empowered with more fulfilling work, allowing them to tackle challenging problems that can help them evolve into high-value employees. Businesses that use AI automation retain their most valuable agents for high-value work.

As exhibited above, AI has the potential to offer effective solutions to the contact center's most difficult problems, making it an essential part of the contact center toolkit.

## AUTOMATE MORE WITH AI

Artificial Intelligence, as a concept, has been around for decades. Why then does it seem that AI is only now being inserted into CX in such valuable ways? One key driver of this trend is advanced speech recognition capabilities that have finally allowed contact centers to access the vast cognitive abilities that AI has to offer. For so long, the number one challenge was voice recognition: if the system could not understand *what* was said, how could it be expected to understand *what was meant by what was said* and perform the correct task?

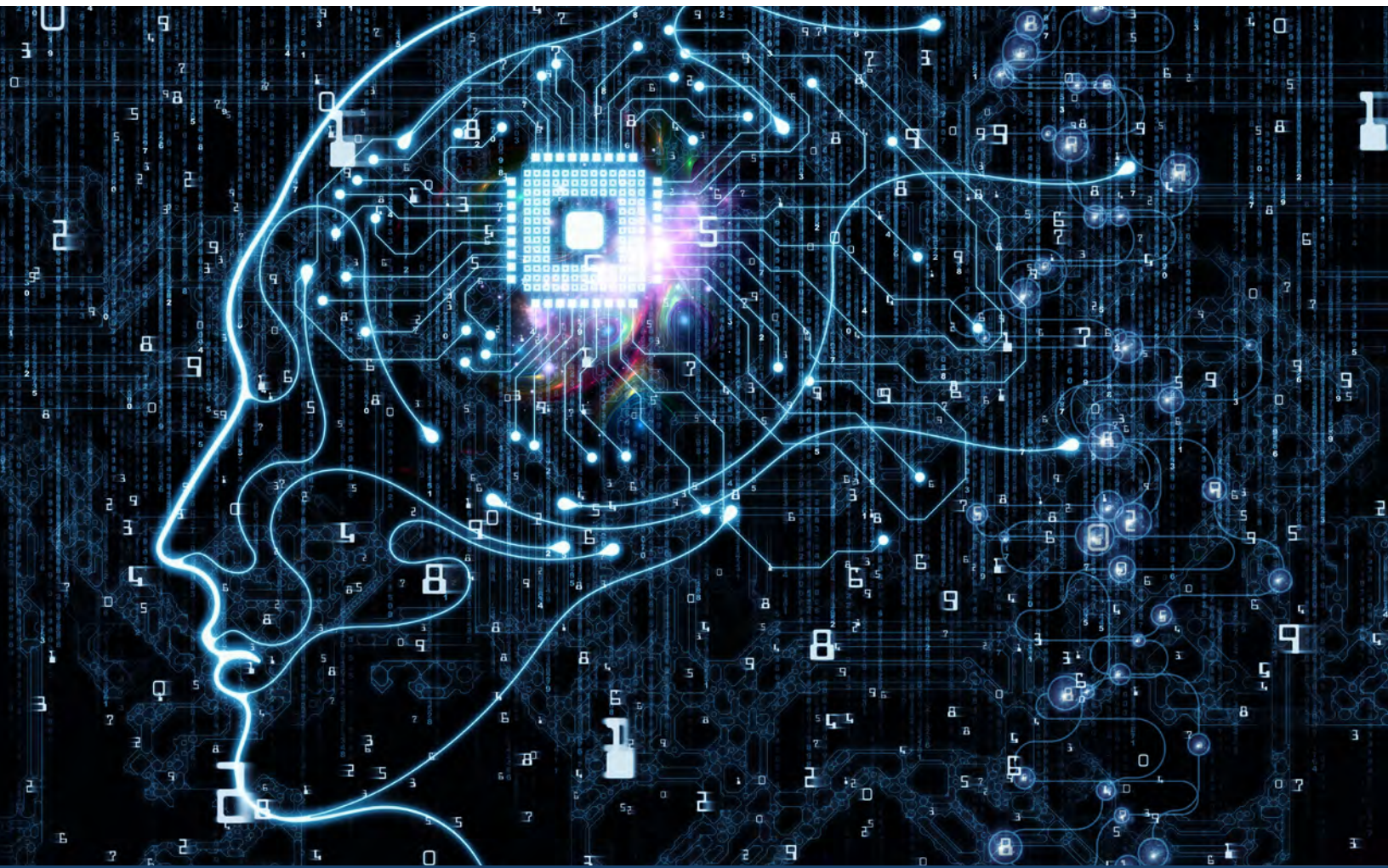
With that in mind, speech recognition systems began by capturing simple responses, then evolved minimally to directed dialog—neither of which were particularly successful or popular with customers. Now, the next evolution, known as natural language understanding (NLU), means AI-enabled machines can hear, process, and correctly capture intent and context. With this newly acquired accuracy, AI solutions are now demonstrating their true power in a variety of interesting and beneficial ways.

1. **Enabling a Voice Interface for Intelligent Routing.** Using data from the customer record, as well as from recent or repeated activity, AI can ask more intuitive questions about why a customer is calling. This eliminates lengthy phone tree menus and leads to faster, more accurate routing. For example, if the previous eight times a customer has called the business was to request a copy of an invoice, AI will recognize that pattern and greet him or her with, "Are you calling to request a copy of your most recent invoice?" If the pattern is unknown, AI offers a generic, open-ended greeting with the ability to understand context and intent and route accordingly to save time and improve CX.
2. **Short- and Long-term Memory.** AI solutions access vast amounts of data, whether it is data from a current conversation or a past one. For example, during a roadside assistance call, AI can reference location information captured earlier in the conversation when assigning a service technician (short term); it can also recall user preferences from a previous conversation, such as preferred channel to receive an ETA notification (long term). This memory is important for contact centers because it actually extends beyond the aptitude of live agents in terms of efficiency and accuracy. Imagine if live agents were able to recall every conversation a customer has ever had with the business!



3. **Predictive Prompts.** For many businesses, a single issue can cause a flood of inbound calls, chats, and messages. During these high-volume times, AI solutions can detect the uptick and its underlying reason and dynamically predict why customers are reaching out. For example, if inbound contacts are trending toward shipping delay questions, AI could dip into customer data, identify if customers had placed a recent order, and proactively ask if that was why they were calling or chatting. This type of predictive prompting exudes customer-centricity.
4. **Extensive Personalization.** While predictive prompts offer a small level of personalization, it is possible to go much deeper. With access to customer records, AI offers the ability to personalize every aspect of an automated conversation. A good example is in pizza ordering. Once the caller ID is recognized, AI automation scans the customer's account, confirms the caller identity, identifies recent orders, and recommends something appropriate for an occasion based on day and time of the order. On a Friday night with several great family specials running, AI might recommend a meal similar to what that customer has ordered for their family in the past. It can even upsell customers into buying additional items, like soda or a cookie, when offered just before accepting payment.

The advancement in speech recognition and cloud-enabled delivery has opened the door to rapid expansion of AI cognitive abilities that mimic live agent behavior across dozens of conversations, which simply wasn't possible before.



## SO, WHAT'S REALLY POSSIBLE?



### Case Study #1:

### Leading Healthcare Company Automates 75,000 Conversations Per Month with AI Virtual Assistant Solution

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“SmartAction has been a long-term partner and has allowed us to automate many of our simple to medium complexity calls, freeing up resources to focus on more value-added activities. SmartAction has been a true collaborator as we continue to evolve our business.” – Dr. Stephen Shaya, CEO, J&B Medical Supply

J&B Medical Supply provides medical and surgical products to patients, caregivers, health systems, clinics, and first responders.

#### Challenge:

Like any healthcare company that handles personal information, J&B is bound by HIPAA regulations and therefore has a complex three-factor authentication process for all callers. Since many of the patients that J&B serves are unable to make calls for medical reasons, the typical call could be from a caretaker, nurse, or other family member. This creates challenges when callers do not have the correct information or do not have the information readily available. This was causing long authentication times and generally took agents more than three minutes to complete.

Once authenticated, callers were often checking on orders, reordering supplies, or checking on coverage paperwork. These are complex processes required for Durable Medical Equipment (DME) suppliers, specifically those that rely on payers to earn their revenue. J&B thought that agents were the only legitimate option for providing customer service, since their legacy IVR did not offer the capabilities needed to successfully automate and the risk associated with an expensive and ongoing build using professional services would not allow them to grow. J&B also found it difficult and expensive to hire, train, and retain agents—even more so in the particular location that the company operates. This led to a series of specific challenges, including:

- Could not achieve growth without hiring, training, and retaining live agents
- Expensive agent costs and time-consuming hiring processes
- Regulated by HIPAA, requiring a complex patient authentication process
- The traditional professional services model for automation was too costly and didn't guarantee success

#### Solution:

J&B was attracted to SmartAction's unique cloud-based model that integrated seamlessly with existing systems, required no upfront or ongoing professional services charges, and allowed it to start small by automating one call type—outbound reminders—before expanding to nearly two dozen additional use cases. The low-risk implementation fit perfectly into its automation initiatives to improve CX while lowering costs. In cooperation with J&B's Customer Service Team, SmartAction refined and perfected an approach that was



comprehensive and HIPAA-compliant, incorporating industry best practices that J&B's agents had been using. The authentication self-service solution triangulates three pieces of patient data out of a possible six to eight and uses these data elements to positively identify the caller. Since some of the data points are not always top-of-mind (i.e., Patient ID), the system asks for one of two data elements at the same time to increase the odds that the data being requested is something the caller knows: "Please tell me the five-digit ZIP code of the account address or the last four digits of the patient's Social Security number." When a caller does not have some piece of information, the AI-powered engine can move on to ask for a different element.

Once the application went live, J&B received the full suite of benefits and services that come bundled with SmartAction's simple per-minute usage model, including ongoing customization, tuning, and enhancements to all applications for improved engagement and authentication rates over time.

With the capability to automate more, J&B could limit its reliance on agents and stimulate growth to reach its lofty expansion goals. The distributor could now offer 24-hour self-service for those common tasks that patients were calling about, like order status, reorders, and authorizations. The SmartAction approach offered the following advantages:

- A comprehensive, HIPAA-compliant process for automating complex patient authentication
- Replicated live agent behavior across a dozen use cases via advanced AI and natural language processing
- A roadmap for future AI automation to further enhance CX and reduce costs

#### Results:

After just a few short weeks of configuration by the SmartAction team, the application went "live." Patients were engaging with self-service on 96% of calls, and three-quarters of those callers were fully authenticated and contained in AI automation. J&B discovered that self-service authentication took less than half the time it took agents, reducing handle times by over two full minutes. By automating approximately 75,000 conversations per month, J&B saved 65% in call center costs.

J&B has been able to achieve growth, reduce reliance on the difficult process of hiring and retaining live agents, and focus on its core business. As an added benefit, J&B has maintained HIPAA compliance—a key initiative for any healthcare company.

Consider the following results of the SmartAction approach:

- 96% of callers engage automation while 75% fully authenticate using self-service, which rivals their agents
- Accurately and consistently authenticates callers in less time than agents, decreasing patient effort by 60%
- Significantly reduces agent minutes, resulting in savings of 65%



## Case Study #2: TechStyle Fashion Group

### Uses AI Agents for a Full Suite of Self-service Options

TechStyle Fashion Group is an innovative fashion ecommerce company that operates brands like JustFab, Fabletics, Fabkids, and ShoeDazzle. Its disruptive subscription model offers 5 million active members personalized, on-trend style at significant value. However, being a subscription service with 5.5 million calls and 1.5 million chats annually also creates unique challenges for the company that other fashion retailers do not face.

#### Challenge:

As a subscription service, TechStyle billed members on a monthly basis and found itself vulnerable to volume spikes that came along with the billing cycle. Forecasting and staffing were an ongoing challenge due to these spikes; though they were relatively predictable, it was costly and difficult to staff up each month. TechStyle, a company inspired by innovation and technology, knew that AI-enabled self-service could help “dial-in” its customer experience and alleviate the monthly staffing challenges it faced. Unfortunately, bringing natural language automation to the contact center is difficult within the traditional model of expensive and ongoing professional services needed to build a solution that could take a year to build and ultimately may not even work—a high-risk proposition.

#### Solution:

TechStyle built a strong partnership with SmartAction, whose cloud-based model seamlessly integrated with its existing systems to help automate many of the conversations its agents had previously handled, allowing it to start small and then expand.

Contrary to the high cost and ongoing expense of the traditional professional services model, SmartAction’s cloud-based “AI-brain” has been purpose-built for the call center, with templates that support every industry and pre-built components that service hundreds of call types and chats from order management to roadside assistance. This made it quick and easy for TechStyle to implement natural language understanding with zero professional services within an affordable, predictable, per-minute usage model. After customizing SmartAction’s proprietary “AI-brain” to support TechStyle’s specific needs, TechStyle was able to introduce AI automation sooner than expected. Since every SmartAction solution includes a suite of services and benefits as part of the per-minute usage, TechStyle now has a dedicated team that provides ongoing customization, tuning, and enhancements to the application for improved process and containment over time.

TechStyle first implemented a conversational AI front door to start every call and chat with, “How can I help you today?” instead of the lengthy and archaic phone tree menu that frustrates customers. From there, if members want to check on the status of an order, manage their account, or ask a billing question—typically the most common inquiries—they remain in AI automation to complete their task with live agent failover if needed. For more difficult requests, AI automation handles the up-front data gathering then passes off to a live agent to eliminate the repetitive drudgery and shorten agent handle times.

To recap, SmartAction's AI automation handles the following processes:

- Conversational AI front door with routing to AI automation or live agent
- Up-front customer data gathering to authenticate members before passing to live agent
- Automating the most common call types and chats with live agent failover

Because SmartAction is automating the top drivers of inbound volume (order status, membership management, and billing), TechStyle agents can focus on high-value engagements that require empathy, upselling, or fashion advice—truly human things that automation cannot provide. It has also helped increase containment without sacrificing member satisfaction scores. TechStyle is now able to offer AI self-service in a truly omnichannel way, which includes voice and chat.

#### Results:

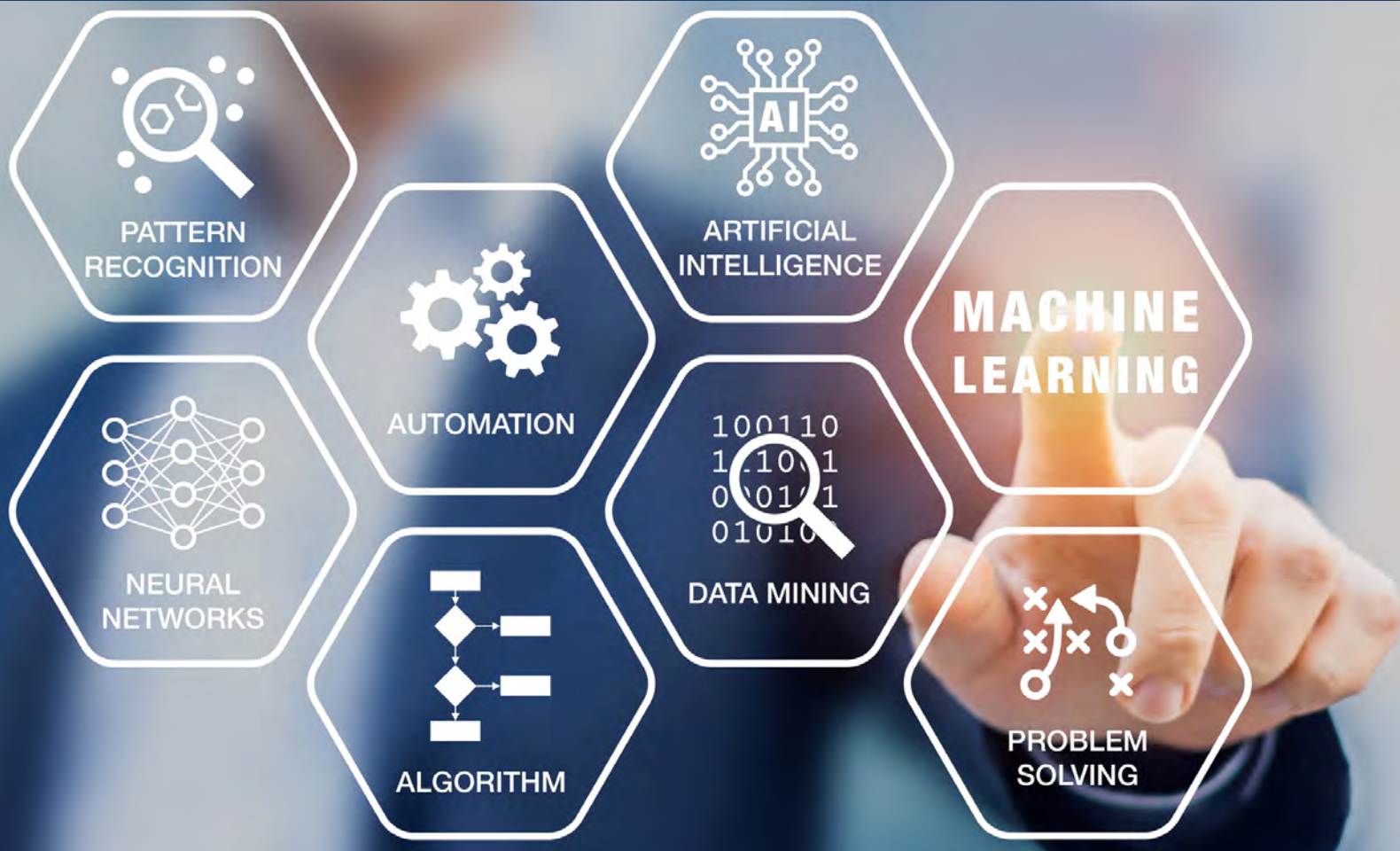
- Saved \$1.1 million in one year (calculated using agent reduction, AHT decrease, and containment improvement)
- Member satisfaction scores in line with historical averages from live agents
- 18.5% fewer calls to live agents
- 45-second reduction in average handle times

## THE LAST WORD

With this in mind, Frost & Sullivan recommends that companies seek out practical AI solutions and consider the following action items:

- ✓ **Understand How AI Agents Mix with Live Agents.** Conversational AI solutions engage customers with natural language instead of lengthy phone tree menus and help them self-serve through automation. Think of these solutions as AI agents that work alongside live agents to create a more effortless CX by automating the lower-level drudgery and upfront data gathering processes that agents no longer need to handle. AI agents help make the contact center more efficient and optimize live agents.
- ✓ **Put Omnichannel CX at the Center of Your Strategy.** Based on ongoing research and advisory engagements at Frost & Sullivan, omnichannel CX has been identified as one of the top strategies and business priorities—both for large global brands as well as midsize businesses. While chatbots have risen in popularity as a means to deflect call volume, they create silos within the contact center because they cannot scale the same experience to the voice channel, where the majority of conversations take place. A more effective self-service strategy relies on AI technology that can be deployed across voice and then digital for a true and seamless omnichannel experience.
- ✓ **Determine which Engagements are Suitable for AI Automation.** Creating a self-service infrastructure from the ground up is self-defeating. Some processes are suitable for automation, and some are not. Gather data on the nature and distribution of your contact center contact points. How many demand engagement with a human being? Which proportion of inquiries requires some logic but is also predictable and repeatable? How many are so basic they need no critical thought? Opportunities to apply AI automation working in sync with human agents will become clear.





Above all, approach business-focused AI in a low-risk, high-value manner. Start to scale your contact center by augmenting your current technology with cloud-enabled AI that can seamlessly integrate with your existing systems to automate one conversation at a time, rather than undertaking a complete rip-and-replace overhaul. After all, according to Frost & Sullivan, “Taking a practical approach to AI simplifies the decision to implement AI capabilities, but it also ensures that AI-enabled tools will deliver value upon implementation, rather than requiring a protracted period of training and customization.”<sup>4</sup>

## REFERENCES

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