Nuvalence

A Practical Guide to Building an AI-Powered Contact Center

Forward-thinking organizations know that traditional IVRs often fall short of modern customer service expectations.

Customers demand world-class customer service.

IVRs can be difficult to personalize, with unintuitive menu trees that make assumptions about the caller's intent. Additionally, callers often need to wait for a live agent instead of getting the instant response that they want.

Managing traditional call centers is costly.

Whether managing an in-house customer support team or not, a call center is a cost center. Staffing, training, and retaining live agents requires a significant ongoing investment; leaders need ways to achieve efficiency and predictability without incurring additional cost.

Leaders need scalability and business agility.

IVRs can be complex and difficult to maintain, and integrating them into the overall customer journey (especially a digital one) is rarely seamless. Meanwhile, live agents are still needed to support callers who need assistance completing automated tasks, negating the value of the IVR.

This is where automated, AI-driven contact center technology comes in.

Conversational AI solutions[1] can deliver a personalized, consistent self-service experience that seamlessly transitions between topics with fewer handoffs and zero

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[1] "Four Ways to Create Business Leverage with Conversational AI," Nuvalence, 2023: https://nuvalence.io/insights/4-ways-to-create-business-leverage-by-integrating-with-conversational-ai/

wait times, translating to an improvement in first-contact resolution (FCR) and lower abandonment rates. AI-powered contact centers are becoming essential for modern organizations with ambitious goals.

From government agencies to utility companies, virtually any organization using traditional IVR systems can leverage AI to offer a great customer experience, reduce costs, and unlock valuable insights that can create a virtuous cycle of improved customer service over time. All you need to do is build the right foundation.

For many organizations, the first step to an AI-powered contact center is the integration of virtual agents (chatbots) into the existing web or telephony platform.

In this guide, we'll share insights and techniques that you can use to plan a Minimum Viable Product (MVP) of an AI-powered contact center using virtual agents.

Planning your Virtual Agent MVP

The intent of an MVP is to (a) produce a baseline capability that can provide immediate quantifiable business value and (b) provide a foundation for iterative development that can extend the scope of the MVP.

→ **Assess your current contact center operations.**
Analyze your existing contact center infrastructure, processes, and customer interaction data to identify areas where AI can make the most impact.

→ **Set clear objectives and KPIs.**
Define your MVP's goals, focusing on improvements in client satisfaction, core metrics, throughput, and cost savings.

→ **Assess accessibility and multi-language support needs.**
Evaluate your customer base and target markets to determine how to support all customers equitably. Plan for integrating accessibility and language capabilities into your AI-powered contact center.

→ **Determine the type of virtual agent.**
Identify the best agent types ("bots") for the interactions you want to support. You can choose from advanced bots that support complex interactions, FAQ-style bots to respond to common questions, or even a hybrid approach that combines multiple bot styles for optimal customer support.

→ **Establish default agent behaviors.**
Beyond questions and answers, behavior like small talk, unexpected responses, agent requests, navigation prompts, and other scenarios should be established from the earliest design phases to ensure you build a consistent, testable experience.

→ **Design conversational agents with utterance and intent assessment.**
Carefully analyze customer utterances and map them to appropriate intents. The agents must be able to understand and effectively respond to all types of customer inquiries.

→ **Ensure data privacy and security.**
Maintain compliance with data protection regulations and implement robust security measures to safeguard customer data.

→ **Integrate your agent with your support channels.**
For phone support, implement call routing algorithms to create an intelligent IVR system that ensures callers are routed appropriately, considering factors like language preference and agent expertise. To support the customer experience within your web application, build all necessary integrations between your AI platform and your backend systems.

→ **Train and onboard live agents.**
Educate your staff on how to work effectively with AI tools and integrate them into existing workflows. This includes training on handling escalations from AI bots and providing providing feedback for improvements.

→ **Test and refine your MVP.**
Conduct thorough testing and gather feedback from both customers and agents to optimize your AI-powered contact center before launching. Develop a process to optimize your agent based on performance metrics and user experience feedback.

Building on Your Successful MVP

A virtual agent MVP is considered a success when you can track the performance of your AI-powered contact center using key metrics, such as FCR, AHT, and CSAT. Use insights from this data to drive continuous improvement.

Once you have launched your MVP and measured its success, you can start to explore how you can use your virtual agent to drive value elsewhere. These next steps can be as unique as your organization and the services you provide. For example:

1 Integrate with additional channels.
While your MVP might initially only integrate with a single channel, such as your telephony/call center, your business and users will benefit most from an omnichannel approach that offers a consistent user experience across your entire platform, such as in-app chatbots.

2 Enhance AI virtual agent capabilities.
Continuously refine and expand your agent, adding new features and capabilities to address a broader range of customer inquiries and functions.

3 **Integrate AI assistance for live agents.**
Implement AI-powered recommendations and responses for live agents during calls, improving response times and overall support quality.

4 **Automate call summarization and transcription.**
Implement real-time call transcription and summarization to aid agents in addressing customer issues and maintaining comprehensive records of interactions.

5 **Scale your infrastructure.**
If you use cloud-based infrastructure, ensure it is scalable, reliable, and secure to accommodate the growing needs of your AI-powered contact center.

6 **Continuously refine your AI algorithms.**
Monitor and adjust your AI algorithms based on performance and customer feedback to ensure ongoing improvement in customer interactions and agent assistance.

NOTE: While the possibilities for expanding and evolving your MVP are practically limitless, it's important to ensure that you nurture and maintain your existing virtual agents. Maintenance is a complex and important part of preserving the customer experience over time.