

Modernizing the Delivery of Citizen Services with an IVA

Leaving the IVR behind

IVAs are not like IVRs

While they often get lumped together when speaking of contact center solutions, an **intelligent virtual assistant (IVA)** and an **interactive voice response (IVR)** system are not the same. An IVR is a rule-based system that responds to speech or touch-tone, which in a time of hands-free and mobile-enabled conversations, are antiquated and ineffective. Alternatively, IVAs offer a far more modern approach that utilizes a unique blend of human and artificial intelligence to enable citizens to speak in their natural, conversational language. It provides citizen engagement centers with the ability to offer a truly self-service channel that is cost-effective, digitally-enabled, and intelligent.

While IVRs are limited to directed speech, routing and basic rule-based transactions, an intelligent virtual assistant can handle far more complex and lengthier customer transactions that require advanced understanding, handling multiple requests with ease, while interacting with back office systems in real-time. An intelligent virtual assistant replaces many traditional call center technologies and reduces IT and operating costs. It is a hosted and fully managed solution that can successfully process complex customer transactions, some of which are as complex as application for benefit services and program enrollment.

Exploring the Differences

Intelligent Virtual Assistant

Unprecedented understanding and a seamless, self-service experience from utilizing multiple speech recognition methods in real-time for unprecedented understanding and experience.

Human-assisted understanding also helps with analyzing intent and using it for machine learning.

Increased savings from higher comprehension and conversational design mean that applications can handle extremely complex interactions that were previously only possible with live agents.

Improved citizen experience from technology that allows for citizens to speak conversationally. Citizens are able to engage and accomplish more in self-service, without repeating themselves, regardless of language, accents, dialects or background noise.

Hosted solution decreases risk in upfront investment, leads to faster time to market and time to value and with continuous optimization, savings are realized sooner.

Traditional IVR

Some IVRs rely solely on automatic speech recognition (ASR) or use minimal natural language processing (NLP), which leads to higher error rates and citizen frustration.

Focuses on understanding basic dialogue, which often fails to comprehend caller intent. Confusing phone trees create citizen dissatisfaction and low containment rates, due to opt outs.

Long ramp times and costly upgrades drive up total cost of ownership. Key performance indicators (KPIs) for citizen experience are not embedded into design process.

Lengthy upfront system configuration and training investment lengthens time to achieve ROI. Lacks ability to apply continuous improvement.

		Intelligent Virtual Assistants	Traditional IVR	Chatbots	APIs/DIY Solutions
CORE TECHNOLOGY	Automatic Speech Recognition	Y	Some	N	Y
	Natural Language Processing (including NLU & NLG)	Y	N	Some	Y
	Text-to-Speech	Y	N	N	Y
	Machine Learning	Y	N	Some	Some
	Human-assisted Understanding	Y	N	N	N
	Conversational Dialogue	Y	N	Some	Some
CUSTOMER CARE	Multi-channel	Y	N	N	N
	Integration Across All Channels	Y	N	N	Some
	Complex Transactions	Y	N	N	N
	Voice Biometrics for ID & Authentication	Y	Some	N	N
PROCUREMENT & INSTALLATION	Delivery Model	Hosted	On Premises	Hosted / On Premises	Hosted / On Premises
	Professional Services / Implementation	Managed	Licensed	N	N
	Pricing Structure	Outcomes-based	Licensed	Licensed / Consumption-based	Consumption-based
	Integration with Back Office Systems	Y	Some	Some	Some
	Training and Tuning	Y	Some	N	N



Citizen Engagement Services



Business Process Management



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