

F R O S T & S U L L I V A N

FROST & SULLIVAN BEST PRACTICES AWARD

INTELLIGENT VIRTUAL AGENT - NORTH AMERICA

Customer Value Leadership 2019

  
inference

FROST & SULLIVAN

2019

BEST  
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## Background and Company Performance

### *Industry Challenges*

One of the core and longest-lived self-service applications in the contact center market is interactive voice response (IVR). With its start in the late 1980s, IVR has long served as the front door to millions of customer contact centers worldwide and is still in wide use today. In fact, there is a vast installed base of IVR applications that have had very little done to them since that time; many still utilize dual tone multi-frequency (DTMF) touch-tone input from callers. However, IVR refurbishments over the ensuing decades have ranged from the addition of automatic speech recognition (ASR) for customer input to the increasing use of artificial intelligence (AI) and related technologies to increase the intelligence of self-service interactions.

Over the past 20 years, new, yet similar channels of interaction have emerged with the advent of virtual agents, intelligent virtual agents (IVAs), and then bots that employ variations of AI, machine learning, directed dialog flow, natural language understanding, and other maturing technologies to increase the capabilities of these solutions. Whether for business or consumer use, virtual assistants and agents that replace or augment live resources are being marketed everywhere.

However, not all are created equal. While the drive to provide multiple self-service channels in response to consumer demand is clear, companies face a wealth of options that can be overwhelming and confusing. First, what do they want to automate and why? Where in the customer journey should the virtual agent reside? Is it an IVA that acts as the entry point to the contact center? Is it a chatbot that greets a customer on the Web or pops up when needed during the customer's Web visit? Is it a messaging bot on a website? And what about assisting the agent? Robotic process automation (RPA) digital agents also are being used unassisted in the back office to manage tasks and complete processes, or on the agent desktop to assist during an interaction and even for post-call wrap-up. With demand for customer contact automation growing in importance every day, myriad choices make for a very rich, yet confusing customer contact landscape to navigate.

### *Customer Impact and Business Impact*

Inference Solutions is a global provider of feature-rich IVAs for sales and service organizations, developed over a decade since its initial mission to revolutionize the way that IVR is delivered. The company markets its products to enterprise customers through telecommunication carriers, and contact center software providers such as Cisco and 8x8, so they in turn can provide businesses with intelligent automation to replace or augment aging, legacy IVR systems or to offload live agent resources.

## Customer Purchase Experience

Inference Solutions provides a flexible and scalable IVA platform that is designed for very easy development, deployment, and management. Inference Studio, the design toolkit, untethers the customer from reliance on IT or professional services from solution providers and enables non-technical staff to use drag-and-drop functionality to develop and deploy custom IVA solutions. No coding or specialized training is needed.

The core design components of Inference Studio are called nodes, which are elements that users can drag and drop onto a canvas to design the flow of a dialog. Inference offers more than 50 nodes for building voice, Web, SMS, and email interactions. For example, on a basic level, there is a Prompt node for playing prerecorded prompts or text-to-speech to a caller, and a Standard Form node for collecting touch-tone or spoken information from a caller. Adding capabilities is easy. For instance, if a company chooses to add payment processing to a call flow, it can be inserted into the call flow and fully functional in less than 10 minutes.

Inference Studio is accessed through a simple Web-based portal environment to manage all calling features. Scripts can be built from scratch, or by using templates that are also customizable. Prebuilt templates include an array of core functions such as inbound call handling, intelligent interactions, outbound dialing, automated notifications, NPS surveys, PCI-compliant payment processing, and automated callback. A user also can simply choose a node, such as Call Steering, and then build it out to handle more complex tasks using other nodes.

Frost & Sullivan believes that the Inference Studio design tool, coupled with easily customizable, prebuilt nodes, satisfies the growing need for end-user customers to quickly and cost effectively control their own destiny in deploying areas of customer contact that benefit from automation, without relying on outside resources.

## Price Performance/Value

The use of IVAs in customer service and support has immediate return on investment benefits, as well as positive downstream monetary effects. In the early days of IVR, the goal was to offload agents of tedious, time-consuming tasks, and reduce average handle time. Still a core benefit today, Inference Solutions IVAs go beyond offloading tasks and can handle complex interactions, reducing call volumes into the contact center.

When one considers that the cost to handle an average interaction is roughly \$5, any dip in contact volume for a mid- to large-scale enterprise can result in significant cost savings. For example, with large customers such as telecommunications providers that field millions of calls a month, even a 2% decrease in call volume can result in roughly \$100,000 per month—or \$1.2 million a year—in savings.

Frost & Sullivan determined that Inference's pricing and consumption model adds value on top of the flexibility of Inference Studio by enabling finite tuning and pricing on usage of IVAs. Inference's virtual agents are paid like human agents, with pricing based on their skillsets: customers pay for the capabilities, not by the number of minutes consumed by

the virtual agent. This enables companies to adopt Inference Solutions in a mix-and-match fashion according to their needs. Therefore, if a company wants to simply replace an aging IVR system that greets and routes callers, or one that does a single task such as sending outbound notifications, the cost to do so is much lower than deploying a virtual agent that has the full range of capabilities to replace and offload live resources.

The IVA cost is entirely based on what a customer wants the agent to do. For example, one Inference customer used its IVA to simply hold a caller's place in queue for \$20 a month. Yet, many Inference virtual agents process very complex interactions as well.

### **Continuous Innovation**

Inference customers strongly benefit from the company's culture of continuous innovation. The latest major release of Inference Studio (6.0), introduced in February 2019, integrates the most advanced natural language processing and conversational AI technologies from Google and IBM. In this release, Inference provides support for real-time streaming of speech to API providers such as Google. In particular, it provides support for a Google Dialogflow node within Studio.

The Inference Studio 6.1 enhancement added even more powerful capabilities with the Google integration. For instance, Inference introduced a new Open Form node that offers powerful new capabilities including:

- 1) Support for foreign languages within closed grammars
- 2) Improved Dialogflow integration that adds a streaming interface, reducing latency and making the interactions more natural. Previously developers had to use the cloud Speech-to-Text node to get raw transcription and then use that transcription in the Dialogflow node. With the Open Form node, this is now a single-step process.
- 3) Usage of Dialogflow custom built agents or prebuilt agents from the Inference library.

Studio 6.1 also improved speech-to-text accuracy with phrase hints. Google Speech-to-Text now supports open grammars, which means that anything spoken can be translated into text. Previously, voice user interfaces used closed grammars, which meant developers had to predict what a caller might say and then build a set of domain-specific grammars to match variations of requests. In most cases today, building closed grammars is no longer necessary because Google's speech engine has been trained to transcribe almost anything a caller might say. However, for domain-specific applications, customers have the option of using closed grammars or Inference [Phrase Hints](#) which are a list of phrases that act as "hints" to boost the probability that words or phrases will be recognized.

Studio 6.1 also makes it easier to design more life-like text-to-speech by using a visual speech-synthesis markup language (SSML) editor that allows developers to customize the way their virtual agents speak. For example, it can control the rate, pitch, volume or emphasis of text-to-speech.

Finally, Studio 6.1 added a Screen Pop node that allows relevant customer information to be forwarded to a contact center agent or sales representative when a call is transferred from a virtual agent. This ensures that live agents are fully prepared to take the call because a screen pop displays relevant information from the previous conversation.

Most recently, Inference released Studio 6.2, which enables IVA functionality to be delivered via the popular WhatsApp messaging platform. This presents a significant opportunity for businesses to deliver IVA-based support to customers around the world, particularly in geographies where mobile devices are the preferred (or in some cases, the only) means for connecting to the internet.

Frost & Sullivan believes that these latest releases show off the flexibility of the platform as it provides customers access to the latest advancements of a key player under the AI umbrella without locking them into choosing just one technology option. Customers can get the latest that Google has to offer, yet still choose other technology in any area of development.

### **Customer Acquisition**

Inference's customer base has grown exponentially through its partnerships with service providers, and in fact has grown between 96% and 103% annually over the past four years. It sells primarily to end-user customers through service providers such as AT&T, Telstra, Vonage, Masergy, BluIP and Nextiva. Today, its virtual agents are resold by more than 40 telecommunications carriers around the world to businesses of all sizes. The company has been signing up new carriers almost every month for the last three years, and has been working with many other platform partners as well, including Cisco, Cisco BroadSoft resellers and 8x8.

In March 2019, Masergy announced a new AI-driven IVA that integrates chatbot and queuing features for its UCaaS and CCaaS solutions, and promoted the product at Enterprise Connect in Orlando (one of the top industry shows of the year). Inference's IVA capabilities also are sold under the brand names of numerous contact center providers.

In June, RLH Corporation, the owners of Red Lion Hotels, announced that they had successfully deployed an industry-first AI virtual agent for central reservations to support all 1,400 hotels in its system. "The results of our pilot have been very positive," said RLH Corporation Director of Telephony Optimization & Analytics, April Weatherly. "We're seeing travelers engage with the technology at a rate higher than we anticipated and are very pleased with the virtual agent's ability to resolve traveler questions autonomously, reducing the cost of non-revenue related calls."

And in July 2019, Inference announced its collaboration with Pizza Hut, in which Inference's IVA technology powers Pizza Hut's call-steering application that uses natural language processing to efficiently route Australian customer inquiries either to the central contact center or to the caller's neighborhood store.



## **Growth Potential**

Inference's development of AI-infused capabilities for its IVR platform comes at a time when the industry is fast embracing the use of technologies under the umbrella of AI across all aspects of customer interaction. In particular, demand is growing for the use of IVAs in numerous parts of the customer journey, including as the traditional front door to the business, replacing IVR, or performing the part of card payment processing that requires compliance with security regulations. The use of IVAs also helps businesses cut costs and improve agent engagement by offloading tedious, time-consuming tasks.

Inference has a strong history of powering a sizeable number of telecommunications carrier offerings with IVR, and is rapidly increasing its installed base through additional partnerships across all industries. The capabilities of the platform continue to flourish in areas such as the inclusion of AI, which is poised for rapid adoption by businesses and will drive additional growth for the company.

The company's creative and flexible consumption model makes it an even more attractive offering that should help continue its rapid growth.

## *Conclusion*

Frost & Sullivan believes that Inference Solutions' many years of R&D have given the company one of the most feature-rich and flexible IVA products on the market. It has more than kept pace with the change in requirements for simple yet rich self-service customer care offerings, and infused the platform with cutting-edge technologies that more and more customers are adopting. Moreover, Inference's unique pricing model and its ability to deliver Studio's robust capabilities without complex professional services engagements have vaulted the company into a strong leadership position and earned it Frost & Sullivan's 2019 Customer Value Leadership Award for IVAs.

## Significance of Customer Value Leadership

Ultimately, growth in any organization depends on customers purchasing from a company and then making the decision to return time and again. Satisfying customers is the cornerstone of any successful growth strategy. To achieve this, an organization must be best in class in 3 key areas: understanding demand, nurturing the brand, and differentiating from the competition.



## Understanding Customer Value Leadership

Customer Value Leadership is defined and measured by 2 macro-level categories: Customer Impact and Business Impact. These two sides work together to make customers feel valued and confident in their products' quality and performance. This dual satisfaction translates into repeat purchases and a lifetime of customer value.



## *Key Benchmarking Criteria*

For the Customer Value Leadership Award, Frost & Sullivan analysts independently evaluated Customer Impact and Business Impact according to the criteria identified below.

### *Customer Impact*

#### **Criterion 1: Price/Performance Value**

Requirement: Products or services offer the best value for the price, compared to similar offerings in the market.

#### **Criterion 2: Customer Purchase Experience**

Requirement: Customers feel they are buying the optimal solution that addresses both their unique needs and their unique constraints.

#### **Criterion 3: Customer Ownership Experience**

Requirement: Customers are proud to own the company's product or service and have a positive experience throughout the life of the product or service.

#### **Criterion 4: Customer Service Experience**

Requirement: Customer service is accessible, fast, stress-free, and of high quality.

#### **Criterion 5: Brand Equity**

Requirement: Customers have a positive view of the brand and exhibit high brand loyalty.

### *Business Impact*

#### **Criterion 1: Financial Performance**

Requirement: Overall financial performance is strong in terms of revenue, revenue growth, operating margin, and other key financial metrics.

#### **Criterion 2: Customer Acquisition**

Requirement: Customer-facing processes support the efficient and consistent acquisition of new customers, even as it enhances retention of current customers.

#### **Criterion 3: Operational Efficiency**

Requirement: Staff is able to perform assigned tasks productively, quickly, and to a high quality standard.

#### **Criterion 4: Growth Potential**

Requirements: Customer focus strengthens brand, reinforces customer loyalty, and enhances growth potential.

#### **Criterion 5: Human Capital**

Requirement: Company culture is characterized by a strong commitment to quality and customers, which in turn enhances employee morale and retention.

## Best Practices Recognition: 10 Steps to Researching, Identifying, and Recognizing Best Practices

Frost & Sullivan analysts follow a 10-step process to evaluate award candidates and assess their fit with select best practices criteria. The reputation and integrity of the awards are based on close adherence to this process.

STEP	OBJECTIVE	KEY ACTIVITIES	OUTPUT
1 <b>Monitor, target, and screen</b>	Identify award recipient candidates from around the world	<ul style="list-style-type: none"> <li>• Conduct in-depth industry research</li> <li>• Identify emerging industries</li> <li>• Scan multiple regions</li> </ul>	Pipeline of candidates that potentially meet all best practices criteria
2 <b>Perform 360-degree research</b>	Perform comprehensive, 360-degree research on all candidates in the pipeline	<ul style="list-style-type: none"> <li>• Interview thought leaders and industry practitioners</li> <li>• Assess candidates' fit with best practices criteria</li> <li>• Rank all candidates</li> </ul>	Matrix positioning of all candidates' performance relative to one another
3 <b>Invite thought leadership in best practices</b>	Perform in-depth examination of all candidates	<ul style="list-style-type: none"> <li>• Confirm best practices criteria</li> <li>• Examine eligibility of all candidates</li> <li>• Identify any information gaps</li> </ul>	Detailed profiles of all ranked candidates
4 <b>Initiate research director review</b>	Conduct an unbiased evaluation of all candidate profiles	<ul style="list-style-type: none"> <li>• Brainstorm ranking options</li> <li>• Invite multiple perspectives on candidates' performance</li> <li>• Update candidate profiles</li> </ul>	Final prioritization of all eligible candidates and companion best practices positioning paper
5 <b>Assemble panel of industry experts</b>	Present findings to an expert panel of industry thought leaders	<ul style="list-style-type: none"> <li>• Share findings</li> <li>• Strengthen cases for candidate eligibility</li> <li>• Prioritize candidates</li> </ul>	Refined list of prioritized award candidates
6 <b>Conduct global industry review</b>	Build consensus on award candidates' eligibility	<ul style="list-style-type: none"> <li>• Hold global team meeting to review all candidates</li> <li>• Pressure-test fit with criteria</li> <li>• Confirm inclusion of all eligible candidates</li> </ul>	Final list of eligible award candidates, representing success stories worldwide
7 <b>Perform quality check</b>	Develop official award consideration materials	<ul style="list-style-type: none"> <li>• Perform final performance benchmarking activities</li> <li>• Write nominations</li> <li>• Perform quality review</li> </ul>	High-quality, accurate, and creative presentation of nominees' successes
8 <b>Reconnect with panel of industry experts</b>	Finalize the selection of the best practices award recipient	<ul style="list-style-type: none"> <li>• Review analysis with panel</li> <li>• Build consensus</li> <li>• Select recipient</li> </ul>	Decision on which company performs best against all best practices criteria
9 <b>Communicate recognition</b>	Inform award recipient of award recognition	<ul style="list-style-type: none"> <li>• Present award to the CEO</li> <li>• Inspire the organization for continued success</li> <li>• Celebrate the recipient's performance</li> </ul>	Announcement of award and plan for how recipient can use the award to enhance the brand
10 <b>Take strategic action</b>	Upon licensing, company is able to share award news with stakeholders and customers	<ul style="list-style-type: none"> <li>• Coordinate media outreach</li> <li>• Design a marketing plan</li> <li>• Assess award's role in strategic planning</li> </ul>	Widespread awareness of recipient's award status among investors, media personnel, and employees

## The Intersection between 360-Degree Research and Best Practices Awards

### Research Methodology

Frost & Sullivan's 360-degree research methodology represents the analytical rigor of the research process. It offers a 360-degree-view of industry challenges, trends, and issues by integrating all 7 of Frost & Sullivan's research methodologies. Too often companies make important growth decisions based on a narrow understanding of their environment, resulting in errors of both omission and commission. Successful growth strategies are founded on a thorough understanding of market, technical, economic, financial, customer, best practices, and demographic analyses. The integration of these research disciplines into the 360-degree research methodology provides an evaluation platform for benchmarking industry participants and for identifying those performing at best-in-class levels.

### 360-DEGREE RESEARCH: SEEING ORDER IN THE CHAOS



## About Frost & Sullivan

Frost & Sullivan, the Growth Partnership Company, helps clients accelerate growth and achieve best-in-class positions in growth, innovation and leadership. The company's Growth Partnership Service provides the CEO and the CEO's growth team with disciplined research and best practices models to drive the generation, evaluation, and implementation of powerful growth strategies. Frost & Sullivan leverages nearly 60 years of experience in partnering with Global 1000 companies, emerging businesses, and the investment community from 45 offices on 6 continents. To join Frost & Sullivan's Growth Partnership, visit <http://www.frost.com>.