inference

## COMPANY

Pizza Hut Australia (pizzahut.com.au) is undergoing a digital transformation aimed to improve the customer experience, while simultaneously driving additional revenue and creating operational efficiencies for its franchisees. Inference Solutions' AI-powered virtual agents are an important aspect of this initiative.

## PROBLEM

Web and phone orders for pizza delivery and pick-up constitute a majority of Pizza Hut Australia's business. Because phone orders cost more than web orders to process, the company is keen to efficiently route callers to their neighborhood stores.

## SOLUTION

Pizza Hut Australia implemented a call-steering application using natural language processing to route customer inquiries more efficiently than its legacy solution.

Using intelligent virtual agent technology from Inference Solutions, callers can choose to pick up, get a delivery or get answers to questions. The system enables them to provide their address or current location, and either get details of the nearest restaurant or be connected to place an order.

## IMPACT

By fielding inbound calls with AI-powered virtual agents Pizza Hut hopes to overcome some limitations of its legacy call-routing solution and streamline customer interaction.

- Drag-and-drop functionality of Inference Studio enables existing IT personnel to update IVA functionality on demand.

# Pizza Hut Orders Up a Better Customer Experience

## How Natural Language Call-steering is intended to Reduce Customer Wait Times, and potentially Drive Additional Revenue

### THE COMPANY

Pizza Hut operates a total of 270 restaurants in Australia, all linked via a single phone number that fields more than 3,000 calls each day.

"Much of our business originates via phone, with customers phoning in orders for pick-up or scheduling delivery. With such a massive call volume, even the smallest inefficiencies are greatly magnified, negatively impacting our business, and that of our franchisees," explains Patrick Branley, Director of Technology at Pizza Hut Australia.

### THE CHALLENGE

Pizza Hut Australia identified its call-routing system as one of the organization's business-critical functions in need of improvement. The legacy system routed calls to the franchisees based solely on caller location, resulting in high lead-generation fees paid by the franchise with only a subset of those paid leads converting to orders. To make this process more efficient for its franchisees, Pizza Hut Australia decided to overhaul the company's fragmented call-routing infrastructure to increase the quality of inbound calls to its franchisees.

The fragmented legacy system was cumbersome and provided limited visibility into the customer experience. For example, the old system made it possible to catalog which customers abandoned their calls prior to ordering, however it lacked the ability to determine when those customers dropped off—insight that would have helped the team understand how to optimize the performance of the self-service application.

> "With such a massive call volume, even the smallest inefficiencies are greatly magnified, negatively impacting our business, and that of our franchisees."

**Patrick Branley, Director of Technology at Pizza Hut Australia**

**Inference Solutions' Intelligent Virtual Agents (IVAs) handle upwards of 3,000 calls per day, routing up to 85 calls per minute during peak times.**

## THE SOLUTION

The Pizza Hut Australia team considered updating its legacy call-steering system, but ultimately chose to build a new solution from the ground-up using Inference's intelligent virtual agent platform. Updating the legacy system would have been challenging as the fragmented system required updates to several disparate components, with no guarantee that the patchwork approach would deliver much advantage compared to the original solution. Pizza Hut Australia ultimately decided to build new applications for natural language call-steering and self-service based on the latest intelligent virtual agent technology from Inference Solutions. The decision to integrate Inference's technology was driven by the attractive cost structure, robust reporting capabilities, and the ability to make future changes and updates without needing to engage outside development resources.

"We were at the end of life for our existing system. We needed to upgrade, and we also wanted to improve the customer experience and create efficiencies for our franchisees. said Patrick Branley, Director of Technology at Pizza Hut Australia

Inference Studio's IVA capabilities act as an abstraction layer to Google's speech and mapping APIs which enable an intuitive voice-based interaction that effortlessly connects the caller with his or her neighborhood restaurant. Upon dialing Pizza Hut Australia's main phone number, the IVA asks if the customer is 'calling for pickup, delivery or something else.' Once that question is answered, the customer is asked to speak their address or postal code, and the IVA then routes the call to the customer's neighborhood restaurant.

Because speech recognition is based on Google's Speech-to-Text and not a set of closed grammar, the experience is truly conversational and highly accurate. And due to the richness of Google's mapping data, the customer can even geo-locate based on landmarks. For example, someone could indicate they are near a grocery store at the intersection of X and Y Streets, and automatically be routed to the nearest restaurant location.

"Closed grammar architecture would have required significant front-end work to get the IVA up and running. But through Inference we were able to use Google's Speech-to-Text engine, which has been trained to understand and translate into text the numerous ways people describe addresses and locations. This meant that we didn't have to construct grammars that would have included street names, house numbers, postal codes or other types of location-matching information. We were also able to use Google's geolocation API to find the location of the nearest store after the caller gave the virtual agent an address or location," added Branley.

"The Inference IVA solution was easy to implement and actually wrapped up ahead of schedule, which is unheard of with a project of this magnitude."

Patrick Branley, Director of Technology at Pizza Hut Australia

## THE IMPACT

Inference's virtual agent capabilities enabled Pizza Hut Australia to centralize customer data via flexible API integration, coalescing what used to be disparate systems around a common set of services. Offering a broader array of self-service options enabled Pizza Hut Australia to improve customer satisfaction, increase loyalty and ultimately drive repeat purchases. At a more granular level, these new virtual agent capabilities are driving unique benefits for Pizza Hut Australia as well as the individual franchisees.

Benefits to Pizza Hut Australia:

- **Streamlined future calls:** System retains answers from each customer interaction, therefore subsequent calls from the same phone number automatically route the caller to his or her preferred restaurant.
- **Robust reporting:** On-demand reporting aggregates customer interaction data and enables Pizza Hut Australia to identify trouble spots and adjust as necessary.
- **No outside development resources required:** Inference Studio's drag-and-drop interface enables existing IT personnel to make updates and build-in additional functionality without having to engage outside development resources.
- **Ease of management:** Centrally located data repository empowers in-house staff to update the system without involving outside vendors.
- **Single API layer:** Website and IVA capabilities utilize the same intelligence to support existing and future capabilities.
- **Cloud-based architecture:** No need to manage separate hardware, software and other equipment—everything's managed centrally in the cloud.

Benefits to Franchisees:

- **Universal local calling:** Because Pizza Hut Australia purchased Inference's virtual agents through their carrier, Telstra, the telephony costs were reduced. Calls are connected as local calls, reducing transit costs for the franchisees.
- **Ability to automate re-orders:** Future iterations of the solution will include the ability to automate re-orders for frequent customers.

**THE FUTURE**

This Inference-enabled natural language call-steering application is the first element of a multi-phase plan underway at Pizza Hut Australia.

"Using natural language processing to automate the routing of inbound calls is an important first step in this process, but we have plans to use Inference's IVA technology to further streamline and enrich the customer experience," concluded Branley.

Now that the call-steering application has been deployed, Pizza Hut Australia is focused on subsequent phases of its contact center initiative: for example, automation of common inquiries.