

Case Study: Communications

Parts supplier uses chatbots to revamp search, order tracking

A major supplier of precision telecommunications equipment implemented intelligent virtual assistants to help customers find parts, place orders and track delivery.

A U.S. global telecommunications provider asked Cognizant to help automate buyers' searches for parts.

Our client had grown through acquisitions, requiring buyers to log in to different websites to learn if various parts were available. They also struggled to track orders online to ascertain when parts would be delivered.

Inevitably, buyers would call customer service, straining company resources, increasing the time service representatives spent handling buyer inquiries—including repeated calls about order lead times. Streamlining customer service and reducing contact center call volume were imperatives.

At a Glance

Cognizant implemented intelligent, automated virtual assistants to help a large European supplier of telecommunications equipment to reduce call volume in its contact center:

Outcomes

- 16% reduction in contact center call volume.
- 90% chatbot accuracy.
- Real-time information on availability of over 50,000 parts.

Intelligent bots automate key processes

Our client's contact center agents were fielding huge numbers of inquiries about part availability and spending inordinate amounts of time trying to meet each buyer's needs—checking databases, searching for alternatives, confirming orders and providing updates on order status.

One impediment was the sheer scale of the company's catalog, which used product identification numbers tied to corresponding sets of part specifications. Another was the client's multiple legacy parts databases. A third was that buyer inquiries came into its systems through the company's parts webpage, its customer service portal, and through email and telephone calls. Together, these factors led to significant lag in responses to buyers' questions, increasing wait times and operating costs and frustrating customers.

Using natural language processing to meet customer needs

Cognizant mapped the customer journey through each entry point—web, email and calls to the contact center. The mapping sessions helped us identify ways to simplify the process of delivering information while saving time.

We then proposed that AI-based, text-driven conversational "bots" could augment or replace much of the company's website functionality: intelligent, AI-driven virtual assistants could answer questions about part availability, link buyers to alternative parts that would meet their specifications and allow customers to track orders.

In an eight-week timeframe, using a client-provided master database of approximately 8,000 parts, we demonstrated a proof-of-concept (POC) for how a virtual assistant using natural language processing—a conversational chatbot—could answer questions about order status and fulfillment

lead times in real time. We chose Microsoft LUIS, a natural language understanding software powered by keyword recognition, to complement our client's technology stack, hosting our solution on Azure and using Microsoft's add-on utility QnA Maker.

The client was impressed by the POC and asked us to expand our work to create a parts validation bot. We then built and deployed a series of bots that automatically search various databases to determine part availability, link to specifications and provide lead times. We also implemented an internal chatbot for contact center agents that automatically creates service tickets integrated with the company's customer relationship management system. Another automated assistant helps the company's human resources group track CSR absences to manage workloads and give supervisors and associates an easier way to learn their schedules.

Chatbots speak to greater value

Cognizant's conversational AI-based virtual assistants dramatically lessen the time our client's call center agents spend answering simple and repetitive queries, freeing them to handle more complex ones while streamlining call center response and optimizing operations. By automating parts searches across multiple databases, we provided a virtual integration of the client's disparate parts catalog while improving customer service times, even as we reduced operating costs.

The client replaced its service desk and call center webpages with a single chat-based portal. Call volume dropped by 16% and our chatbot now automates searches for more than 50,000 parts by part number, with more than 90% accuracy.

Learn more

To learn more about Cognizant's natural language understanding solutions, visit www.cognizant.com/conversational-AI.

About Cognizant Artificial Intelligence Practice

As part of Cognizant Digital Business, Cognizant's Artificial Intelligence Practice provides advanced data collection and management expertise, as well as artificial intelligence and analytics capabilities that help clients create highly personalized digital experiences, products and services at every touchpoint of the customer journey. Our AI solutions glean insights from data to inform decision-making, improve operations efficiencies and reduce costs. We apply Evolutionary AI, Conversational AI and decision support solutions built on machine learning, deep learning and advanced analytics techniques to help our clients optimize their business/IT strategy, identify new growth areas and outperform the competition. To learn more, visit us at cognizant.com/ai.

About Cognizant

Cognizant (Nasdaq-100: CTSH) is one of the world's leading professional services companies, transforming clients' business, operating and technology models for the digital era. Our unique industry-based, consultative approach helps clients envision, build and run more innovative and efficient businesses. Headquartered in the U.S., Cognizant is ranked 193 on the Fortune 500 and is consistently listed among the most admired companies in the world. Learn how Cognizant helps clients lead with digital at www.cognizant.com or follow us [@Cognizant](https://twitter.com/Cognizant).



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