



Banking case study

Leading bank scales customer service with cloud and AI

Cognizant implemented a modern, cloud-based contact center powered by advanced AI and flexible solutions for a leading bank that addresses scalability, cost and customer experience challenges.

At a glance

Industry
Banking

Location
US

Challenge

US-based bank wanted to implement a digital strategy with AI-based solutions to increase efficiency, profitability and customer satisfaction.

Products and services

- AWS Lex-based conversational design
- Jenkins-based CI/CD deployment baseline
- CCBU as a tool for to configure and manage contact center operations

Success Highlights

- Saved 200 FTEs, equating to \$9 million in savings
- Boosted efficiency by increasing containment rate to 77.35%
- Improved CSAT from 57.5% to 66%

The challenge



A leading US-based bank was using a legacy contact center platform that hindered its ability to expand and adapt to the current dynamic banking environment. The bank was incumbered by a high cost of ownership, maintenance and change management challenges, and inflexible scaling options.

The bank's contact center handled 4.7 million calls per month on average during peak seasons when call volumes doubled from the usual 190,000 calls per day. The outdated system made it difficult to adopt new digital strategies that would support a comprehensive customer journey. Post-call analytical capabilities were also insufficient and this impacted decision-making and operational efficiency.

While most of the contact center platforms utilized AI, the IVR system had limited options and could not support a natural language-based solution, which the bank needed to enhance customer experience. The system didn't use AI-driven features, or allow any operational challenges, and this made the premises-based operations expensive and inefficient compared to emerging cloud solutions. These constraints negatively impacted profitability, customer satisfaction (CSAT) and Net Promoter Score (NPS)—all factors that would ultimately increase customer churn.

Our approach

Cognizant was engaged for the project to design an approach to improve customer experience, optimize agent utilization and enable robust data analytics that could drive better business decisions. We partnered with AWS to implement a CCaaS-based solution and transition the bank's contact center to a cloud-based platform. Our approach included mitigating risks for critical business units moving to the platform by first transitioning smaller entities with limited impact. It also involved creating a staggered release plan that operates with agility while continuously delivering features to end users. More than 7,000 contact center agents were migrated to the platform. The agents use two different custom desktop configurations based on business needs, along with the default AWS CCP desktop application. We also implemented an AI-based voice solution to handle calls across three business lines and one helpdesk—to manage 10 million interactions monthly.

A custom tool for contact center operations streamlined business-driven changes without the need for developers. Integration with external contact centers and back-end systems ensured seamless operations, while an agile rollout minimized risks. The implementation of solutions enabled Cognizant to transform the call handling process while driving efficiencies and cost savings.

Solutions implemented include:

- Natural language understanding and AI strategies for better customer intent recognition
- Dynamic routing logic for optimized agent utilization
- Clear data logging approach for detailed analytics
- Integrated APIs with third-party systems for seamless operations
- Decreased platform transition risk by moving smaller entities first
- An agile release plan for continuous feature deployment
- AWS Lex-based conversational AI for more detailed and interactive calls
- Jenkins-based CI/CD pipeline for enhanced deployments



Business outcomes

The new modern, cloud-based solution led to significant improvements in the bank's contact center operations and addressed issues of scalability, cost and customer experience. The advanced AI solutions added flexibility that generated \$9 million in savings. The containment rate (the percentage of inbound calls completely handled by the IVR, divided by the number of total incoming calls) increased to 77.35% adding to further efficiency gains.

We identified areas for optimization and provided strategic guidance on architecture, reporting, routing and complex integrations. The accelerated rollout of Amazon Connect shortened time to value, improved customer satisfaction and cut operational costs.

Key improvements included:

- Implementation of Pindrop for simplified authentication
- Optimized IVR call flow
- Automated call routing
- Self-service options for common issues
- Improved natural language recognition



These key improvements resulted in \$15 million in savings over six months, improved customer satisfaction scores, lowered operational costs and drove more efficient call handling—as measured by agent handling time, CSAT call, operational platform usage costs and call disposition.

Quantifiable results

\$9
million in savings due to staff reallocation

77.35%
increase in containment rate

57.5%
to 66% CSAT improvement

23%
reduction in contact center operational costs

3.7%
QoQ reduction in transfer rate