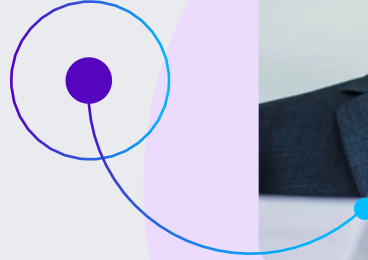




Award-winning innovation for digital-first banking using Talkdesk and Amazon Lex.



Use case
Support

Industry
Financial Services & Insurance

Integrations
Talkdesk Financial Services
Experience Cloud™
Amazon Lex

Key metric
↓ Decrease in check balance time by 90%

The financial services industry can be conservative, which makes sense. When protecting people’s money, tried and true solutions are typically the safest bet. That’s why long-established banks typically have rigid hierarchies and run legacy software. However, fintech startups and neobanks have disrupted how and when

people access their money, thus transforming payments, transfers, and investments.

It’s hard for traditional banks to modernize, but as consumers flock to the digital space, they must find ways to compete in this unfamiliar landscape.

Launching an innovation lab to match the Amazon effect.

Like every other industry, banking is feeling the “Amazon Effect.” People expect excellence and convenience at their fingertips, and that sentiment extends beyond one-click shopping. Consumers don’t delineate between banking and other retail, online, and digital activities. They want the same ease of use across their devices, shopping platforms, payment systems, and banking services. Our clients also demand constant innovation. Just as Apple releases iPhones with new features every year, people expect a rapid pace of innovation from their banks.

Traditional banks can spend eight or nine figures and years updating legacy systems to compete in the digital and retail spaces, but that’s a big and costly lift. A smarter strategy is to build specific digital solutions that improve banking services and customer support. In 2019, WaFd

Bank created an internal innovation lab to launch robust web and mobile offerings to meet clients where they are.

Pike Street Labs is a wholly owned WaFd subsidiary focused on client-facing digital innovations. We are working to realize the bank’s 2025 vision of becoming a “highly profitable, digital-first bank that leverages data to anticipate financial needs and empower our clients by creating frictionless experiences across all interactions and devices.” It’s a tall order when you consider that WaFd was founded in 1917 and now operates more than 200 branches with \$20 billion in assets. Pike Street Labs acts as an internal fintech start-up, delivering new solutions and services while the organization-wide IT team manages and secures the bank’s infrastructure.

An outdated call center.

As WaFd's CTO, I was asked to lead Pike Street Labs. My team started working with [AWS](#) artificial intelligence (AI) and machine learning (ML) tools to solve some of the bank's most pressing problems. After redesigning and rebuilding our online banking platform, we turned to the next major pain point: our contact center.

We were using a dated on-premise telephony solution with limited features, functionality, and reporting. It ran on 19 high-maintenance primary rate interfaces (PRIs), and we were losing time and money managing and updating too many hardware and software components. An outdated system hinders customer service agents' ability to respond to inbound calls effectively, and customer experience suffered.

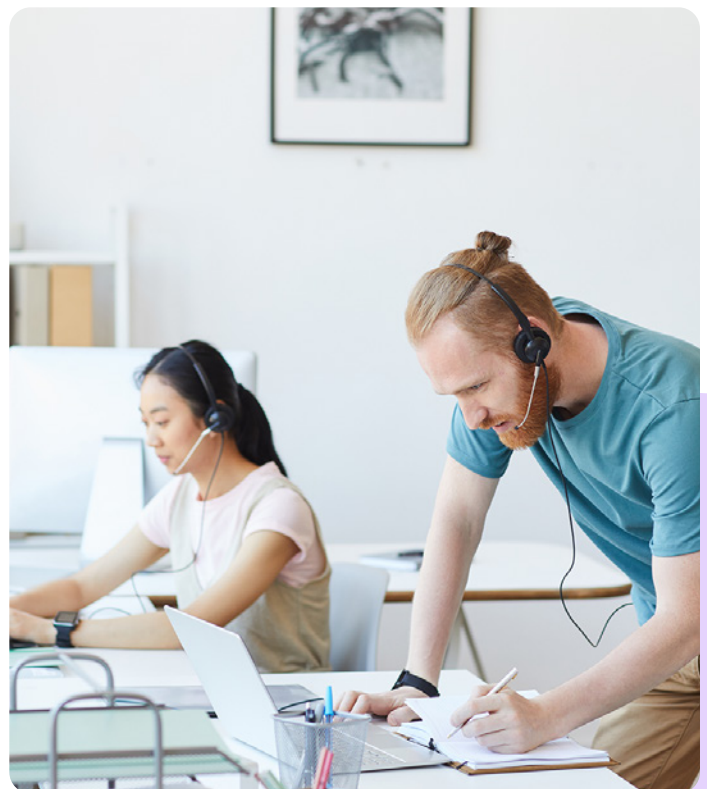
On average, it took our clients four-and-a-half minutes just to hear their account balance. When reaching a live agent, it could take up to five minutes just to verify their identity before the agent could help them. Our agents had no idea who was calling or why they were calling until they entered and confirmed all this information. The process frustrated both our clients and agents.

Our limited tech made it difficult to maintain our industry-leading NPS numbers, and we couldn't adapt our systems to new CX best practices. Pike Street Labs had used AWS AI and ML tools to modernize other areas of our online banking platform, so we started looking at ways to apply AI and ML to improve the call center experience.

Combining Talkdesk Financial Services Experience Cloud and Amazon's Conversational AI.

As part of our AWS investment, we integrated [Amazon Lex](#) conversational AI into our banking platform's backend. Amazon Lex uses advanced natural language models to design, build, and deploy conversational interfaces (i.e., chatbots) in applications. I recognized it as a key differentiator and opportunity for our new call center and started looking for platforms that played well with it. I found such a platform in [Talkdesk Financial Services Experience Cloud](#)[™].

I was drawn to Talkdesk Financial Service Experience Cloud because it's a modern, cloud-based platform that's purpose-built to meet the CX needs of banks, including out-of-the-box integrations with core banking systems. [Talkdesk Identity](#) also provides self-service authentication through voice biometrics, or voice print identification, and allows customers to identify themselves using their voice instead of entering account numbers and passwords. It even flags suspicious activities like the use of burner phones and calls from other countries, routing this information to our fraud specialists in real time.



Voiceprint identification is half of the equation. After establishing a unique voiceprint, clients can dial in and say, “My voice is my password.” The system will then ask them what they want and they can simply state: “How much is my account?” or “Talk to an agent.” In any case, they interact using natural language commands instead of navigating menus.

They can ask to speak to a customer service agent anytime during a call. At that point, Talkdesk Financial Service Experience Cloud automatically generates a 360° view of the client’s account information and a document detailing the actions taken during the call, including customer sentiment. It then routes this information to a live agent, who is fully apprised of the situation before answering the call.

A clear vision, a solid foundation, and collaborative tools.

We decided on Talkdesk in January of 2022 and went live in July, months ahead of schedule. I attribute our success to starting with having a clear vision, laying a solid foundation, and adopting collaborative tools that brought all stakeholders to the table.

I clarified our requirements from the very beginning: I wanted to modernize the entire customer experience and eliminate IVR (interactive voice response) trees. Traditional voice menus are cumbersome, and old-school authentication methods are easily circumvented through social engineering and other illicit ways of collecting personal data. I also wanted to offer better self-service options to our clients. We know that 20% of calls that make it through to agents are people calling to check an account balance. They can do that in the WaFd app or on our website, but they prefer using voice, so we want to make it easier for them. That process only takes about 28 seconds now.



The other half of the equation is Amazon Lex. It provides the natural language capabilities that allow our customers to easily choose between self-service options and speaking with a live agent. I liked the idea of laying Talkdesk Financial Service Experience Cloud alongside Amazon Lex, but at that time, the Talkdesk solution didn’t have a built-in integration.

Other solutions providers may have shrugged their shoulders and moved on, but Talkdesk was open-minded enough to continue the conversation. They already had an existing product that was somewhat similar, but their engineers recognized our need for a consistent Amazon Lex backend across our call center and online banking platforms. They came to understand our vision and invested in R&D to interoperate with Amazon Lex.

Pike Street Labs spent the last few years building our abstraction layer, which simplifies the adoption of new platforms and technologies as WaFd moves toward becoming a digital-forward bank. We do all the heavy lifting and handle the complex processing, so Talkdesk and AWS didn’t have to integrate with WaFd and Fiserv core services. Instead, they went through our API, which takes all the inbound requests from the different client apps and routes them to the core. This approach simplifies integrations, reduces vendor-to-vendor interdependencies, puts less of a load on our core systems, and is more secure. It allowed us to shave months off our call center implementation and deployment.

To further speed things along, we eliminated stakeholder silos. In many projects of this magnitude, external vendors and internal entities don’t talk to each other. We set up a Slack channel for WaFd, Pike Street Labs, AWS, and Talkdesk engineers. Instead of waiting two weeks for a minor issue to escalate into a major roadblock, engineers spoke to each other directly and worked out any hiccups as soon as they arose. Open communication also created a “get-to-yes” attitude amongst the various teams working on the call center project. I never heard the words, “We can’t do that.” It was always, “We’ll figure it out.”

Lower wait times and happier agents.

When we launched the new call center, we saw immediate results. We reduced inbound calls to our agents via improved self-service options and improved the ability to reach an actual person by 90%. More clients are choosing self-service options to get the information and perform the transactions they need, thanks to voiceprint identification and our AI-driven chatbots. Those who speak to customer service agents are connected to live assistance in 28 seconds instead of waiting almost five minutes. Voiceprint identification and AI-driven chatbots allow clients to self-serve better and get the information they need.

Moving to the cloud and decommissioning our on-premise telephony system has lowered our maintenance, connectivity, and electricity costs. Our Talkdesk/Amazon Lex environment is also an omnichannel solution. Our previous solution required our call center agents to log into multiple systems to engage with clients reaching out via our chatbot. Now they assist customers via a single interface regardless of the origin of the inbound connection, be it a voice call or chatbot.

Award-winning innovation.

I'm proud of our work at Pike Street Labs and thrilled to be the first banking customer to integrate Amazon Lex with Talkdesk, thus creating a dynamic customer engagement (DCE) chatbot using a third-party platform. As a technologist, I want to pick and choose the solutions we pull together, and we got the best-in-class solutions for call center and conversational AI on this project. AWS is like the world's biggest "plug-and-play" kit, and I love what we've achieved by combining their suite of tools like Amazon Lex with the robust functionalities of Talkdesk solutions.

On top of the conversational AI features, Talkdesk Financial Service Experience Cloud allows our call center managers to plan agent schedules and provides deep insights into call volumes. When our CEO asked our call center head about Talkdesk, the enthusiastic response was, "We love it. Our managers and agents are happy with this change because it simplifies our lives."

We just rolled out [ScreenMeet through Talkdesk AppConnect](#). It is a combined video chat, screen sharing, co-browsing, and remote support tool that allows us to assist our clients when using our website or mobile app. Instead of asking customers to call our 800 number, we can gain permission to take control of their device or computer remotely and guide them to a resolution.

We also hope to expand Talkdesk voice biometrics to other non-call center applications. One potential use case is to authenticate wire transfers. Using voiceprints instead of easily hackable identifying information and email or SMS authentication, we can substantially reduce the risk of wire transfer fraud.

Other vendors might have shut me down or insisted we use their walled garden solution. However, Talkdesk listened and helped craft a multivendor system perfectly tailored to our needs. In fact, WaFd received a [Talkdesk CX Innovator Award](#) for our conversational AI-driven call center solution.

To repeat what I said upon accepting this accolade: We're excited to bridge the gap between our bankers and clients with the help of great technology. By innovating, we can reduce fraud, anticipate needs, and help make WaFd a digital-first bank.

About Talkdesk

Talkdesk® is a global AI-powered cloud contact center leader for enterprises of all sizes. Talkdesk CX Cloud and Industry Experience Clouds help enterprises deliver modern customer service their way. Our trusted, flexible, and innovative contact center platform leverages AI and automation to drive exceptional outcomes for their customers and improve the bottom line.

[Learn more](#) and take a [self-guided demo](#) at www.talkdesk.com.

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