



Smarter Citizen Conversations: DC 311 Modernized for the Digital Era

Executive Summary

For more than two decades, DC 311 has been the backbone of citizen services in the District of Columbia. As the centralized point of contact for residents, businesses, and visitors, it has simplified access to non-emergency services ranging from bulk trash pickup scheduling to parking regulation inquiries. Operating 24/7 across phone, web, and mobile channels, DC 311 is essential to the city's ability to track service delivery and ensure accountability.

As digital expectations rise, residents increasingly look for services that are faster, easier to use, and more personalized. Recognizing this, the District launched a major modernization initiative in partnership with Pronetx and AWS.

The result is a citizen-centric platform that improves engagement, increases efficiency, and upholds DC's core values of transparency, equity, and responsiveness. The table below shows how Pronetx together with AWS powered this transformation and delivered secure, scalable innovation at speed:

Focus Area	Achievement
Average Daily Call Volume	25,000+ calls
Agents Migrated	3,925 agents
Conversational AI	Smarter conversations with Amazon Lex
Automated Self-Service	FAQ and Self-Service driven by GenAI
Omnichannel Integration	Unified Text-to-311 Experience
Real-Time Insights	Seamless integration for real-time insights



The Challenge: Critical Gaps in Service Delivery

Although functional, the legacy DC 311 platform managed by Content Guru consistently underperformed and lacked the capabilities needed to support a modern government service center. The Office of Unified Communications (OUC) identified several critical gaps that underscored the need for a strategic migration to a modern contact center platform:

Disconnected Reporting and Analytics

The platform's insufficient synchronization with the District's Data Lake and BI utilities restricted visibility into contact and agent performance. Ongoing issues with accessing voice and screen records further diminished operational insight.

Inconsistent Operational Support

The District's support model was reliant on a UK-based team, which resulted in a lack of deep, readily available expertise within the United States.

Outdated Technology Infrastructure

Core system functions failed to meet modern standards. The absence of self-service maintenance options forced reliance on costly professional service interventions. Natural Language capabilities were limited to rudimentary Automatic Speech Recognition (ASR) and Text-to-Speech (TTS). In addition, the system lacked Salesforce integration, while omnichannel support remained unclear and difficult to navigate. These gaps were compounded by a complex software licensing framework, which left the overall environment difficult to manage and scale.

Insufficient Documentation and Training

The legacy platform offered insufficient support documentation for agents, supervisors, and administrators. This made it difficult for staff to navigate system functions, resolve issues, or adopt new capabilities effectively.



The Solution: A Strategic Migration to Amazon Connect

To meet the District's strategic needs and modernization goals, OUC partnered with Pronetx and AWS to deliver a comprehensive Amazon Connect-based modernization. At the heart of the solution was the replacement of the legacy system with Amazon Connect, configured to support DC 311 operations while building a scalable, future-ready architecture.

Smarter, More Accessible Citizen Interactions

Advanced Natural Language Understanding (NLU) was deployed using Amazon Lex with custom machine learning models. This allowed citizens to interact with DC 311 in everyday language, improving accessibility and user satisfaction. The outdated touch-tone menu was replaced with an AI-powered intent classifier while replicating the existing 8-option DTMF menu to ensure continuity and citizen familiarity. Together, these features delivered intuitive, conversational experiences.

Fast, Automated Service for High-Volume Requests

Intelligent self-service flows were created for the District's top 10 most requested services, including bulk collection, parking enforcement, missed trash collection, and other high-demand city services. These flows integrated directly with backend systems to process and confirm requests in real time, often without agent intervention.

Real-Time Insight to Drive Better Decisions

The new solution integrated directly with the District's Data Lake, BI tools, and backend systems like Incapsulate and MARS. This provided OUC with advanced reporting, customizable dashboards, and real-time monitoring. Amazon Connect Contact Lens further enhanced visibility into interactions, enabling data-driven decision-making with clear insights into call volumes, service trends, and agent performance.

Intelligent Routing and Service Continuity

The system introduced skills-based routing, queue prioritization, and callback options for long wait times. These enhancements ensured calls were handled more efficiently, reduced bottlenecks, and improved the citizen experience across both routine and complex requests.

Agent and Supervisor Enablement

A comprehensive training program equipped agents, supervisors, and administrators to leverage new tools effectively. Training covered conversational flows, reporting dashboards, and backend troubleshooting, ensuring staff were prepared for a seamless transition.

Built for Continuous Innovation and Resilience

The solution included a robust CI/CD pipeline with infrastructure-as-code, supported by development, testing, and production environments. Automated testing and deployment processes enabled rapid, reliable updates, which ensured the platform evolved continuously without technological stagnation.





Look Forward

The new DC 311 platform has fundamentally transformed resident services since its launch this year. Nearly 4,000 agents now use Amazon Connect, supporting more than 25,000 calls each day. At the same time, AI-powered self-service resolves thousands of requests instantly, whether for missed trash collection, parking issues, or other needs, without residents ever waiting on hold.

This progress reflects the strength of the Pronetx-AWS partnership: AWS provides secure, adaptive cloud infrastructure, while Pronetx brings deep Amazon Connect expertise. Together, we delivered a citizen-first platform that is fast, scalable, and trusted, and it proves the value of digital government at scale.

And this is just the start. Informed by data and citizen feedback, the District and Pronetx will continue evolving DC 311 through an agile pipeline of enhancements, from AI-driven knowledge bases to full omnichannel support and integrations with other public services. These innovations will keep DC 311 at the forefront of accessible, efficient, and citizen-centered service delivery and ensure it continues to innovate for and with citizens.

