

A Global CX Provider Achieves Real-Time Contact Center Visibility Using AWS EventBridge

Overview

This rapidly growing customer support contact center depends on accurate operational data to manage agent performance, maintain service levels, and support informed decision-making. As its operations expanded, the organization needed to integrate real-time data from Genesys Cloud CX into its Avaya CMS reporting environment to enable workforce management, executive reporting, and operational analytics.

The company initially relied on a custom Genesys SDK-based integration, which used periodic polling to extract agent and queue data. While functional, this approach introduced latency, increased maintenance effort, and limited scalability. To enable real-time operational intelligence and support its digital transformation goals, this contact center partnered with Black Box to implement a scalable, event-driven, cloud-native integration architecture.

AT A GLANCE

CHALLENGES

- Polling-based SDK integration causing latency in agent and queue reporting
- Limited scalability to support growing event volumes and future integrations
- High maintenance overhead from custom-built integration logic
- Lack of true real-time visibility into contact center operations

SOLUTIONS

- Implementation of AWS EventBridge-based event-driven integration architecture
- Real-time ingestion of Genesys Cloud agent, skill, and queue events
- Event transformation and normalization for Avaya CMS-compatible reporting
- Serverless and scalable cloud-native integration framework

RESULTS

- Achieved true real-time operational visibility across contact center operations
- Eliminated polling delays and reduced integration latency significantly
- Improved system scalability and reliability with built-in fault tolerance
- Reduced maintenance overhead and operational costs

BENEFITS

- Instant access to accurate agent performance and queue metrics
- Improved workforce optimization and decision-making capabilities
- Future-ready architecture supporting growth and new integrations
- Reliable, scalable reporting foundation aligned with digital transformation goals



Challenges

As event volumes increased, the limitations of the polling-based integration became more pronounced. The system relied on frequent API calls in every 15 seconds for real-time updates, alongside scheduled historical and metadata synchronization, which created delays between actual events and their availability in reporting systems. This lack of immediacy restricted supervisors' ability to respond effectively to changing operational conditions.

In addition, the architecture generated unnecessary system overhead, increased operational costs, and required continuous maintenance and manual intervention. The existing framework lacked the scalability, flexibility, and reliability needed to support the company's growth, highlighting the need for a modern solution capable of delivering real-time synchronization while reducing operational complexity.

Solutions

Black Box designed and implemented a modern event-driven integration framework powered by Amazon EventBridge, fundamentally transforming how operational data flowed across the contact center ecosystem. Instead of periodic polling, Genesys Cloud events, including agent state changes, skills, and queue activity were captured and transmitted instantly through EventBridge.

EventBridge served as a centralized event bus, automatically routing and delivering normalized data to Avaya CMS-compatible systems for reporting and analytics. The serverless architecture eliminated the need for custom infrastructure while ensuring scalability, resiliency, and fault tolerance. Black Box delivered the solution end-to-end, including architecture design, lab validation, and deployment of a scalable, cloud-native integration platform.

Results

The new event-driven architecture enabled true real-time synchronization of agent and queue data, providing supervisors with immediate operational visibility and improving decision-making speed and accuracy. By eliminating polling-based delays, the contact center significantly improved system responsiveness, reporting consistency, and overall performance.

The cloud-native framework also reduced operational overhead and improved reliability by eliminating custom SDK maintenance and leveraging built-in resiliency features. As a result, the customer support contact center established a scalable, future-ready integration foundation capable of supporting continued growth, improving efficiency, and enabling advanced analytics initiatives.

Why Black Box?

The organization selected Black Box for its expertise in contact center integrations and cloud-native transformation. Black Box delivered a strategic, well-executed transition from a legacy polling architecture to a modern, event-driven framework aligned with the CX provider's operational and scalability objectives.

By implementing a resilient and scalable integration platform, Black Box enabled this contact center to achieve real-time operational intelligence while reducing complexity and operational burden. This partnership provided this CX provider with a strong digital foundation to support future innovation, automation, and business growth.