Modernizing Emergency Response with Cloud-Native 911 Solutions

RAPID, RESILIENT, AND RELIABLE EMERGENCY RESPONSE

Carbyne and Amazon Web Services (AWS) have partnered to bring the next generation of emergency response technology to Public Safety Answering Points (PSAPs). By uniting Carbyne's feature-rich, cloud-native 911 platforms with the power and reliability of AWS GovCloud, agencies can rapidly modernize their infrastructure, improve situational awareness, and provide continuity of service in times of crisis. Available via AWS Marketplace, this joint solution offers a secure, scalable, and future-ready path to NG911.

Key Benefits

Rapid Procurement and Deployment: Carbyne solutions are available through AWS Marketplace, simplifying procurement and enabling deployment within days—not months.

Cloud-Native Resilience: Built on AWS GovCloud, the Carbyne platform provides 99.999% call handling uptime, automatic failover, and elastic scalability to handle peak call volumes and emergencies.

Enhanced Situational Awareness: APEX and Universe platforms support live video, two-way text, device geolocation, and real-time AI-powered translation to equip telecommunicators with richer, more actionable data.

Secure and Compliant: End-to-end encryption, zero-trust architecture, and CJIS/FedRAMP-compliant cloud infrastructure help agencies meet the highest public safety and cybersecurity standards.

Cost Efficiency: Transitioning from legacy infrastructure to a subscription-based model on AWS reduces capital expenses and IT overhead, while enabling continuous feature updates without disruption.

Smarter security: End-to-end encryption and zero trust architecture, combined with 24/7 monitoring, provide a highly secure network resistant to penetration, abuse, or misuse.

Seamless Integration: The solution integrates effortlessly with existing CAD, GIS, and recording systems, minimizing disruption and training requirements.

Scalability and Flexibility: Built on AWS GovCloud, the platform offers scalable resources to adapt to evolving emergency response needs.

Rio Grande Council of Governments (RGCOG), Texas: Achieving Precision in Caller Location

In February 2022, the Rio Grande Council of Governments (RGCOG) in Texas made history by launching the nation's first fully i3-compliant, cloud-native 911 call handling system. Powered by Carbyne and deployed on AWS GovCloud, the platform significantly advanced the region's emergency response capabilities—especially in remote, rural areas where accurate caller location had historically been a challenge.

Since deployment, RGCOG has achieved remarkable outcomes. Caller location accuracy improved from a general radius of several miles to pinpoint precision within approximately 10 meters on over 85% of calls. This level of geolocation fidelity has enabled dispatchers to respond faster and with greater confidence, reducing emergency response times and increasing public safety across multiple jurisdictions.

The implementation also demonstrated the flexibility and resilience of a cloud-native architecture. By operating on AWS, the region now benefits from built-in redundancy, elastic scalability, and continuous feature delivery without the need for hardware overhauls—creating a future-ready public safety infrastructure that other agencies are now looking to replicate.

WHY CHOOSE CARBYNE + AWS
Secure, Scalable, and Always On

Built for Government: AWS GovCloud provides government-grade security and compliance. Carbyne's applications meet the strictest standards for public safety operations.

Future-Ready: Agencies can adopt a modular approach with Carbyne's APEX or Universe, integrating seamlessly with existing systems or replacing them entirely.

Continuous Innovation: AI-powered features like real-time transcription and automated call triage are continuously delivered through the cloud—no forklift upgrades required.

Proven Performance: Trusted by agencies nationwide and internationally, Carbyne and AWS deliver scalable solutions already in use by pioneering PSAPs.

AWS Public Safety Competency Designation: AWS Government Competency Partners have demonstrated extensive experience in delivering quality solutions to help agencies meet mandates, reduce costs, drive efficiencies, and increase innovation.

AWS-Backed Solutions: Carbyne's acceptance into the AWS ISV Accelerate Program validates our security, architecture, and customer success, while enabling co-sell support with AWS.

About Carbyne

Carbyne is setting a new standard for how the world responds to emergencies. Our cloud-native platform—built for speed, clarity, and action—uses AI to help emergency responders move faster, see more, and make confident decisions when lives are on the line. Carbyne connects responders with real-time data, live video, multilingual transcription and translation, and intelligent tools that streamline complex workflows and enhance coordination. Deployed across dozens of jurisdictions, integrated with leading public safety systems, and trusted to process over 250 million data points annually with 99.999% call handling uptime, Carbyne delivers resilience at scale. With global reach and an unrelenting focus on impact, we help communities stay safer, better prepared, and more connected—because every second matters, and every person counts.

When every moment matters, Carbyne + AWS deliver a future-proof foundation for rapid, resilient, and reliable emergency response.

To learn more, visit partner-aws.carbyne.com or contact our sales team to schedule a demo