



## How Dejero helped Cal OES upgrade to a Next Generation 9-1-1 system

Dejero provides resilient wireless backhaul connectivity and cloud services to strengthen 9-1-1 critical communications

First responders need robust 9-1-1 communication infrastructure that can handle high-pressure situations at a high volume or in case of disaster.

An all-encompassing first response starts the moment an emergency call is received. In these scenarios time is critical, so communication platforms need to be dependable and resilient.

Public safety agencies like the California Governor's Office of Emergency Service (Cal OES) are constantly aiming to improve the communication infrastructure in their 9-1-1 call centers.

Down time – or any sort of compromised connectivity – is not an option. Helping local governments stay up to date with the latest and best available technology allows Cal OES to better support dispatchers, emergency responders, and ultimately save lives.

### Challenge

Most 9-1-1 systems were originally built using analog rather than digital technologies so as technology evolves so too must 9-1-1 communication infrastructure. Public Safety Answering Points (PSAPs) across the country need to be upgraded to a digital or IP-based 9-1-1 system, commonly referred to as Next Generation 9-1-1 (NG9-1-1). Resilient connectivity is a key component to this improved platform.

#### About Cal OES

Cal OES is responsible for the overall coordination of state agency responses to disasters. This includes response to, recovery from, and mitigation from all hazards, as well as assisting local governments in their overall emergency preparation. Given the size of California and its population, supporting numerous local governments is an enormous undertaking that requires a multi-faceted approach.



Many factors were considered in Cal OES' effort to modernize and strengthen an outdated 9-1-1 system. When examining the infrastructure of an Emergency Operations Centre (EOC) or a PSAP, Cal OES needed a solution that:

- Increased the system's resilience to withstand natural and human-caused disasters – recognizing that single fixed line carrier connections have limited performance and reliability.
- Ensured that emergency calls are quickly and accurately delivered in three seconds or less.
- Reduced 9-1-1 system outages and downtime – eliminating the threat to critical operations of EOCs if the hard-wired connection were ever compromised.
- Easily integrated with existing IT infrastructure.

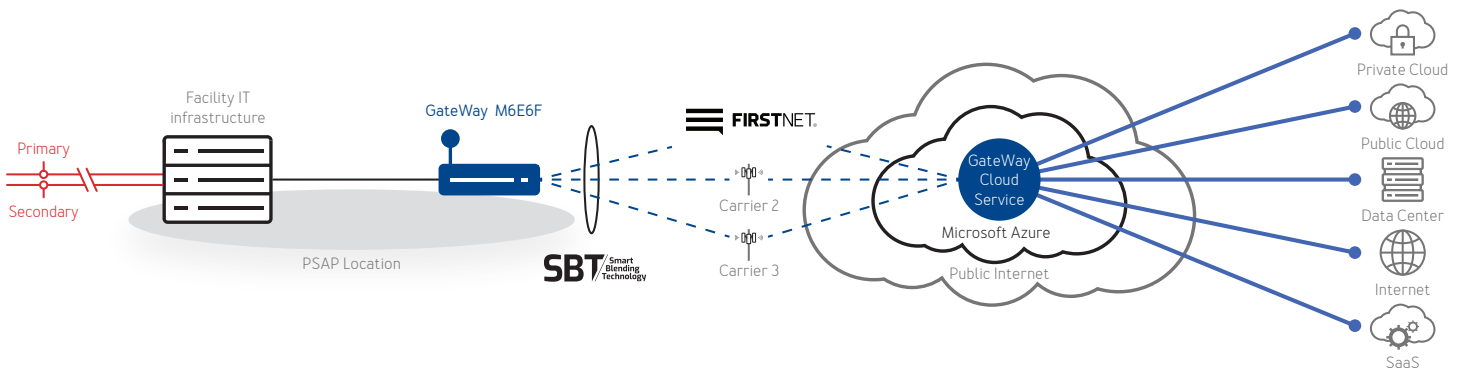
**“ In California, the current 9-1-1 system has a high failure rate. Every month somewhere in California for 10 - 20,000 minutes, 9-1-1 is not available. That's simply unacceptable in today's environment. ”**

*Budge Currier, 9-1-1 Communications Branch Manager, Cal OES*

Designing NG9-1-1 platforms with these considerations is necessary to mitigate the risk of downtime or compromised connectivity. That's why Cal OES chose Dejero to help accelerate their transition to Next Generation 9-1-1.

## Solution

To accomplish their goal of equipping PSAPs with reliable connectivity, over 200 **GateWay M6E6F** network aggregation devices are being deployed on sites across California in 2021. These devices easily integrate with existing facility IT infrastructure and connect with the Dejero **GateWay Cloud Service** to route data to its destination, delivering resilient back-up connectivity and providing Cal OES with the peace of mind that they will never go offline.



When primary and secondary connectivity paths are unavailable at the PSAP, Dejero *Smart Blending Technology* provides resilient wireless connectivity that ensures critical resources and services remain available.

The solution features Dejero *Smart Blending Technology*, which combines diverse connectivity paths, including cellular, satellite, and broadband to create a virtual 'network of networks'. By intelligently managing all these connections in real-time, Dejero provides resilient, uninterrupted connectivity that's essential for the critical communications of the Cal OES PSAPs.

Cal OES no longer needs to rely on a single LTE cellular connection or a 'failover' solution which switches to a new connection when there is a problem. The session persistence provided by the Dejero solution is key since any interruption or momentary degradation in service can have serious negative consequences.

The final component to the solution is the **Dejero Connectivity Service**. This provides Cal OES with the convenience of centralized management of cellular service providers and data plans — greatly simplifying provisioning, billing, management and support. In addition to access to public networks, Dejero provides access to FirstNet®, a nationwide wireless broadband network for first responder and public safety agencies, and a key requirement for Cal OES.

## Results

By implementing Dejero technology into their PSAPs, Cal OES was able to accelerate the transition to their Next Generation 9-1-1 system. With resilient connectivity for their critical communications established, Cal OES has peace of mind that PSAP operations will continue to operate without interruption, even if primary and secondary connectivity paths are disrupted.

Trusting Dejero to ensure continuity of their operations, Cal OES solidified their status as a leader and technological innovator in the public safety space by embracing cloud technology in their NG9-1-1 roll out. Given the success of this implementation, the Dejero solution is now included in the Emergency Services IP Network reference design for LTE backhaul.



GateWay devices deliver reliable connectivity by blending cellular, FirstNet®, and any other wired or wireless IP connection from multiple network providers.

*“ The Dejero solution features diverse cellular connectivity from multiple providers, providing the additional reliability that's needed in the Next Generation 9-1-1 environment. ”*

*Budge Currier, 9-1-1 Communications Branch Manager, Cal OES*

Need help choosing the right connectivity solution for your critical communications?

Start the conversation today

connect@dejero.com | +1 519 772 4824 | dejero.com

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