



San Diego Police Department ensure public safety at the 2021 US Open Golf Championship with Dejero

Providing uninterrupted connectivity at high profile events for real-time crowd monitoring and critical communications

The 121st US Open golf tournament was a four-day event held at Torrey Pines in San Diego, California, with thousands of people in attendance each day. The 2021 tournament was the largest post-COVID event in the San Diego-area, and the San Diego Police Department (SDPD) was tasked with keeping the public safe throughout.

Having trusted Dejero technology for over two years for various events across San Diego, local network engineering contractors AggreGateway looked to Dejero's easy-to-use solutions to provide San Diego PD police officers and incident commanders with the uninterrupted connectivity required to monitor live video and access mission-critical apps from its Joint Operations Center command post and SDPD headquarters (HQ) in real-time, ensuring the safety and security of the players, spectators, and PGA staff.

About AggreGateway

AggreGateway is a network engineering group specialising in network consulting services, wireless solutions, LAN/WAN design and implementation, network security systems integration, and managed services. The company handles every major event in San Diego County, including musical festivals, sporting fixtures, and Comic-Con.

AggreGateway

“ With the right technology in hand, officers can make better informed decisions. The Dejero solutions provide uninterrupted connectivity to ultimately help SDPD officers make faster and better decisions. ”

Octavio Navarro, Network Engineer & Founder, AggreGateway

Dejero

Challenge

Connectivity challenges are par for the course at any sporting event or large gathering of people. With the general public putting a strain on cellular networks from using social media and other data-intensive apps, congested cellular networks can be a hindrance to public safety operations, delaying crucial communications between commanders and field personnel. Low-latency video, reliable connectivity, and easy-to-use equipment are key to situational awareness and the safety of fans, participants and event organisers alike.

At previous events, SDPD had the additional challenge of using receiving antennas with a limited range, restricting the positioning of its drone pilots and its ability to maintain a high-quality signal while sending and receiving critical video feeds. “The drone pilots had to be in specific areas, dependent on the base stations’ line-of-sight to the receiving antenna in order to send that video transmission back into the police command post,” said Octavio Navarro, Network Engineer & Founder, AggreGateway.

With the US Open being a high-profile event, the Torrey Pines Golf Course also attracted celebrities which drew fans and created unpredictable flows of people. Keeping the 12,000-strong crowd safe each day was the police department’s top priority, with Dejero providing the resilient connectivity to enable the monitoring of activity anywhere along the course.

“ At this year’s US Open, the SDPD’s drone division wanted to be able to fly absolutely anywhere along the golf course without worrying about positioning to achieve reliable connectivity. ”

Octavio Navarro, Network Engineer & Founder, AggreGateway

Resilient internet connectivity was also required at the Joint Operations Centre in order for officers and chiefs to monitor all incoming feeds and access mission-critical public safety applications.

Furthermore, SDPD were looking for solutions that would need little training to set up and operate so that its police officers only need be concerned about the job at hand; protecting the public.



The four-day golf tournament was held at Torrey Pines in San Diego, California, where the San Diego Police Department were tasked with keeping the public safe using Dejero connectivity and drone technology.

Solution

The Dejero EnGo 260 transmitted high-quality live video with latency as low as 0.8 seconds. By attaching the drone base station to the mobile transmitter, the SDPD were able to send the real-time drone feeds not only to their command post, but also to SDPD headquarters, so the department chiefs could monitor the video as well.

With the Dejero EnGo using multiple cellular networks simultaneously to send high-definition tactical video in real-time, the SDPD drone pilot could move freely along the entire golf course with uninterrupted connectivity.

In addition, the Dejero GateWay 211 network aggregation device provided robust internet connectivity during the event. Using the company's patented *Smart Blending Technology*, the GateWay solution simultaneously combined multiple cellular connections to form a dependable and high-bandwidth telecommunications path.

The aggregation device at the command post was equipped with SIM cards from three network carriers. If a connection was lost or overly congested, the technology automatically re-routed packets in real-time across the other connection paths to maintain a persistent connection.



Dejero EnGo 260 mobile transmitter fed real-time video from a drone back to the San Diego Police Department command post and HQ over cellular for situational awareness at the US Open in Torrey Pines.

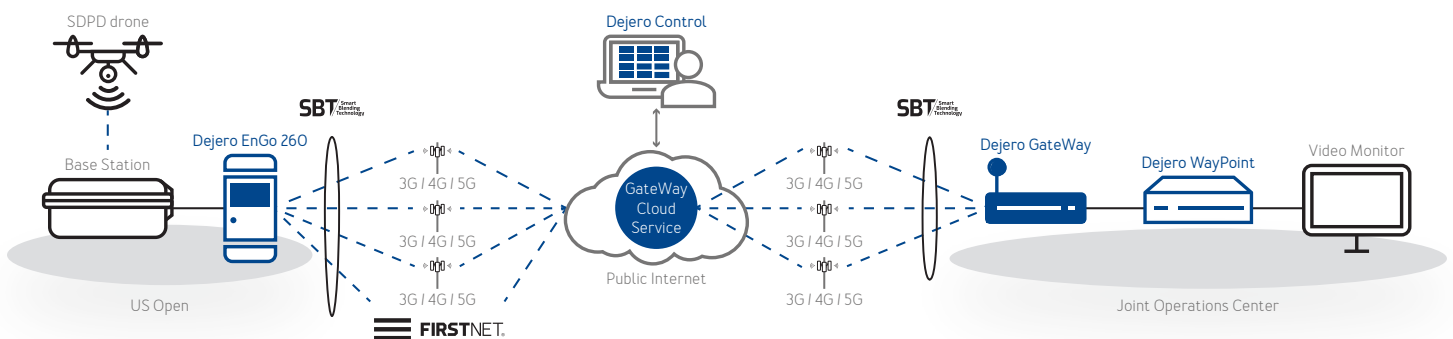


Dejero GateWay 211 network aggregation device provided resilient internet connectivity during the 2021 US Open, allowing SDPD officers to monitor all incoming feeds and access mission-critical public safety applications.

Solution components

Dejero EnGo 260: Works seamlessly with unmanned aerial systems to transmit high-quality, real-time video from aerial vantage points that enhances situational awareness

Dejero GateWay: Simultaneously combines wireless (3G/4G/5G and satellite) IP connections from multiple providers to form a virtual 'network of networks' as a single service



The real-time drone feed was transmitted by a Dejero EnGo 260 mobile transmitter over multiple cellular connections using Dejero *Smart Blending Technology*. A Dejero WayPoint receiver reassembled, decoded, and outputted the feed in the Joint Operations Center, which had resilient internet connectivity provided by the Dejero GateWay solution, also using *Smart Blending Technology*.

Results

The EnGo 260 eliminated the line-of-sight constraints of previous solutions to provide continuous, uninterrupted video transmission with extremely low latency, enabling the SDPD officers to monitor and react to events in real-time.

“EnGo provided true mobility by allowing the drone pilot to roam throughout the course during the event while continuously transmitting video with low latency, which is crucial for real-time situational awareness,” stated Navarro. “The performance was flawless, despite the congestion of the cellular networks that was caused by thousands of people in the crowd using smartphones for communications and to upload content to social media.”

Furthermore, the EnGo solution came pre-configured, meaning no extra training was required for the officers who could channel all their attention onto the safety of the attendees.

The GateWay device provided officers and chiefs with secure internet connectivity, allowing them to monitor all incoming feeds in real-time, access critical public safety applications and focus solely on the job at hand. Meanwhile Dejero’s 24/7 tech support ensured that AggreGateway could instantly address any issues.

“Working with Dejero is very easy,” concluded Navarro. “I always tell people Dejero is like the magic button that you just press and it works.”

AggreGateway plans to use Dejero connectivity solutions for situational awareness at future events across the state as it continues to work with local, state, and federal government agencies, as well as private companies, to ensure the safety of all event attendees.



With the Dejero EnGo mobile transmitter leveraging multiple networks simultaneously to send high-definition tactical video in real-time, the SDPD drone pilot could move freely along the entire golf course with uninterrupted connectivity.

“ The Dejero EnGo worked flawlessly, even during the busiest times of the event. We used the system for five days straight, for approximately 15 hours of flight time. It was extremely easy to use for sending and receiving the live transmission. It is by far the best uplink device I have seen or used for its low latency and reliability. ”

San Diego PD UAS Personnel

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

Start the conversation today

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