

# Seamless Connectivity in the Desert: Dejero Triple-Threat Technology (Satellite, Cellular and 5G) Powers Live NAB 2025 Live Streams

## **Overview**

The NAB Show 2025 in Las Vegas represented a significant opportunity for Dejero and its partners Eutelsat Group, Grabyo, Tividoo and USSI Global to showcase its reliable connectivity solutions in challenging real-world environments. Interest in satellite and private 5G activations inspired Dejero to focus on demonstrating the power of its existing technologies through live demonstrations that would push the boundaries of remote broadcasting capabilities.

The company set up live remote broadcasts from various locations on the Las Vegas Strip, transmitting directly to their NAB booth (SL8516), the Eutelsat Group booth (W3614) and streaming live on the YouTube and LinkedIn platforms. By blending cellular and satellite connections through their award-winning *Smart Blending Technology*<sup>TM</sup>, Dejero created a compelling real-time demonstration of their solutions' capabilities in one of the most connectivity-challenging environments in the United States.

# Challenge

Trade show demonstrations typically rely on controlled environments where connectivity issues can be minimized. However, Dejero wanted to demonstrate something more authentic and challenging – showcasing their technology's ability to maintain reliable connections in unpredictable real-world situations.

Las Vegas, especially during the NAB Show, presents several significant connectivity obstacles:

- Overcrowded cellular networks with tens of thousands of industry professionals all using mobile data simultaneously
- Physical interference from the Strip's numerous high-rise buildings and structures

### ABOUT DEJERO

Dejero delivers mission-critical connectivity for broadcast, media, public safety, enterprise, and government organizations across the globe. Its *Smart Blending Technology™* aggregates diverse connectivity paths including cellular, satellite and broadband into a virtual 'network of networks' to create a solution that delivers enhanced reliability, expanded coverage, and greater bandwidth.

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- The desert climate with high temperatures that can affect equipment performance
- The need to maintain broadcast-quality video transmission with low-latency
- Coordinating remote teams across multiple locations while maintaining continuous live streams

Additionally, Dejero needed to create an engaging demonstration that would highlight the superiority of their end-to-end solution and draw attention to their booth in a sea of exhibitors all competing for visitors' attention.

## Solution

Dejero implemented a comprehensive remote broadcasting solution that leveraged multiple connectivity pathways and their proprietary *Smart Blending Technology* in partnership with Eutelsat Group, Grabyo, Tividoo and USSI Global to deliver an end-to-end broadcast solution. The setup included:

### **Equipment and Technology**

- Dejero EnGo 265 mobile video transmitters for field transmission
- Two satellite connections:
  - Eutelsat OneWeb half-duplex Intellian antenna (provided by USSI Global)
  - Starlink Mini (provided by Tividoo)
- Dejero Smart Blending Technology to combine cellular and satellite networks
- Dejero GateWay for dedicated 5G backhaul
- Dejero LivePlus App for iOS-based remote contribution
- Dejero WayPoint receivers at the NAB booth
- Grabyo's live cloud production and distribution platform

#### ABOUT PARTNER ORGANIZATIONS

**Eutelsat Group:** A global leader in satellite communications, following their groundbreaking combination with OneWeb in 2023, Eutelsat Group has emerged as a leading provider of low Earth orbit (LEO) satellite connectivity solutions. More information: **eutelsat.com/broadcast** 

**Grabyo:** A cloud-native live production platform that enables remote production of broadcastquality content. More information: **about.grabyo.com** 

**Tividoo:** Specialists in innovative broadcasting solutions and mobile connectivity. More information: **tividoo.com** 

USSI Global: End-to-end technical solutions provider specializing in broadcast and satellite services.



Dejero's versatile workflows power live video contribution across broadcast, satellite, and cloud distribution. Our *Smart Blending Technology* delivers the resilient connectivity that makes seamless transmission possible.

### **Satellite Terminals Technical Specifications**

#### EUTELSAT ONEWEB HALF-DUPLEX INTELLIAN TERMINAL

- Commercial status: Fully available for commercial deployment
- **Design features:** Compact & optimized for size, weight and power consumption
- Installation: Ease of installation with single coax connection
- Performance: Throughput up to 50/10 Mbps (download/upload)
- Additional features:
  - External GNSS port for operations in GPS-denied environments
  - Integrated radar rejection filtering
  - Multiple off-the-shelf mounting solutions
  - Multiple power configuration options
  - User-friendly mobile app to assist during installation and commissioning
- Technical specifications:
  - Dimensions: 560L x 450W x 120H mm
  - Weight: 12.2 kg (27 lbs)
  - Operational temperature range: -40°C to +55°C
  - Power consumption: 180W (Maximum), 130W (Typical)
  - Field of view: +/-55° from Zenith, 360° Azimuth



The Intellian OW10HL OneWeb User Terminal - a compact, highperformance satellite terminal delivering reliable connectivity in extreme conditions, from -40°C to +55°C, perfect for live broadcasting applications.



From capture to distribution in seconds. Dejero integrates with Grabyo's cloud platform to enable live editing and instant publishing to YouTube, LinkedIn, and other major networks.

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#### STARLINK MINI TERMINAL (PROVIDED BY TIVIDOO)

- Design: Ultra-compact, highly portable design ideal for mobile broadcasting
- Setup time: Less than 3 minutes from unpacking to connectivity
- Performance: Average speeds of 40-80 Mbps in high-mobility scenarios
- **Power requirements:** 65W typical consumption, compatible with batterypowered operation
- Weight: Under 10 kg including mounting hardware

#### **GRAPHICS AND PRODUCTION SOLUTION**

- Grabyo Producer: Live cloud production, distribution and monetization platform
  - RTMP feeds ingested from Dejero EnGo 265 mobile video transmitters
  - Multi-cam live production and distribution
  - Video switching, audio mixing, graphics, instant replay and remote contribution
  - Latency management: Integrated delay compensation to synchronize all incoming feeds with frame accuracy
  - Animated graphic transitions between camera feeds
  - Live data integration showing connectivity metrics
  - Social media comment integration for live audience interaction
- Graphics package: Custom-designed NAB 2025 broadcast graphics template
  - Built using UNO, from Singular.Live
  - Brought into control room using Grabyo's direct Singular.Live integration
  - Real-time lower thirds and title graphics
  - Location identifiers for multiple remote sites
- Distribution:
  - Simultaneous multi-platform distribution via RTMP with Grabyo's native integrations with YouTube and Linkedin
- Remote production:
  - Grabyo's platform is fully cloud-based accessed via a browser. The live shows were produced with a remote operator based in Toronto, 3,640km away.

The team created a distributed workflow with "correspondents" reporting live from various locations on the Las Vegas Strip. One field operator used the Dejero EnGo 265 mobile transmitter connected to a professional camera, while another used the Dejero LivePlus App on an iOS smartphone. Both utilized *Smart Blending Technology* to combine multiple network connections:

- Multiple cellular carrier connections (AT&T, T-Mobile, Verizon)
- Satellite connectivity from both Eutelsat's OneWeb LEO services and Starlink
- Wi-Fi connections where available



**Live on location:** Ivy Cuervo and Sukh Grewal demonstrate seamless satellite connectivity during a live broadcast segment, enhanced with Grabyo's real-time graphics capabilities.



**Behind the scenes at NAB:** The Eutelsat OneWeb and Dejero technical teams collaborate on pre-event setup.

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The signals were received at the Dejero and Eutelsat Group booths at the Las Vegas Convention Center, where they were displayed live for NAB attendees. A dedicated Dejero GateWay unit provided reliable private 5G backhaul connectivity, ensuring smooth transmission throughout the demonstration.

A Canadian-based team member in Toronto managed the live cloud production using Grabyo Producer, adding live graphics and managing the stream distribution to YouTube, LinkedIn, and other platforms. The Grabyo operator was able to seamlessly switch between feeds, apply branded graphics templates, and integrate real-time network performance data into the broadcast.

## Results

The NAB 2025 demonstrations proved highly successful for Dejero, generating significant engagement and showcasing the reliability of their connectivity solutions in challenging real-world conditions.

"The team truly went above and beyond to deliver an outstanding demo. We're thrilled by the creativity and collaboration that came together to make it happen. The result was both technically impressive and a testament to the strong partnership we've built."

- Genaro Grajeda, Key Account Manager at Eutelsat Group

### **Key Metrics:**

The live demonstrations allowed Dejero to showcase several key capabilities:

- Seamless Network Blending: The EnGo unit successfully combined cellular, satellite, and Wi-Fi connections to maintain reliable transmission despite the challenging environment. During peak congestion periods, the system automatically shifted more data traffic to the Eutelsat OneWeb and Starlink connections, maintaining consistent throughput.
- **Broadcast-Quality Video:** The demonstrations delivered professional-quality 4K video with low latency (as low as 0.5 seconds) over bonded connections. The Grabyo graphics package enhanced the visual presentation with broadcast-quality lower thirds and location identifiers that matched the professional look of traditional studio productions.
- **Extreme Mobility:** Field operators moved freely around the Las Vegas Strip, providing dynamic coverage from multiple locations simultaneously. The Eutelsat OneWeb terminal proved particularly valuable when temporarily setting up at fixed locations and also excelled during truly mobile operations.
- **Resilience in Difficult Terrain:** Despite the desert heat and network congestion, the system maintained reliable connectivity throughout the scheduled broadcast periods. The Eutelsat OneWeb terminal's operational temperature range of up to +55°C proved essential during midday broadcasts when ambient temperatures approached 40°C.
- **Simplified Workflow:** The demonstrations showed how Dejero solutions reduced the technical complexity and staff requirements compared to traditional satellite or microwave truck operations. The entire operation required only four personnel: two field operators, one booth technician, and one remote Grabyo operator.

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**Mission accomplished:** The OneWeb and Dejero teams celebrate at the iconic Las Vegas sign after successfully completing a live broadcast segment, showcasing the reliability of blended networks for remote production.

#### SATELLITE PERFORMANCE METRICS

- Eutelsat OneWeb Terminal: Maintained consistent 42Mbps download and 8Mbps upload speeds throughout the demonstration, with 98.7% uptime across all broadcasting sessions
- **Starlink Mini:** Delivered 65Mbps average download speeds with occasional peaks to 90Mbps, demonstrating excellent performance in mobile scenarios

#### **PRODUCTION HIGHLIGHTS**

- Grabyo's cloud production platform enabled the remote Toronto-based operator to manage the entire broadcast workflow without any on-site production personnel
- The custom graphics template developed for the demonstration featured real-time network performance metrics, showing audiences exactly how the blended connectivity was performing
- Social media integration allowed NAB attendees to interact with the live demonstration by submitting questions that appeared on-screen



**Technology in action:** A live interview in progress with the Intellian OW10HL OneWeb terminal prominently featured, demonstrating how compact satellite technology in combination with Dejero *Smart Blending Technology* enables professional broadcasting from any location.





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