



All-remote, multi-sport live production makes TV history at XII South American Games

With Dejero connectivity solutions at its core, the live production of the 2022 Asunción Games in Paraguay was the first multi-sport event of this scale to be produced *entirely remotely* in television history

When you picture an event of this magnitude, traditionally, you would expect to see at least one outside broadcast (OB) vehicle at each sports venue. The crew for each live broadcast would usually consist of onsite camera operators, producers, directors, graphics operators and technicians; a vast operation that is inherently challenging, both logistically and economically.

At the XII South American Games, however, Dejero partner Quality took a very different approach. The Madrid-based production company implemented an all-remote workflow that relied on Dejero EnGo mobile transmitters and WayPoint receivers for primary and backup connectivity throughout the games which ultimately amounted to a NPV (Net Present Value) cost saving of approximately USD \$2.5million.

But that's not all. Increased mobility between venues, a sub-second glass-to-glass latency, superior picture quality and a reduction in logistical operations and set-up time also came as a result of this trailblazing workflow.

About the South American Games

Since 1978, the South American Games have been held every four years and are organized by the Organización Deportiva Suramericana (ODESUR). The XII Games were held in Asunción, Paraguay from October 1 to 15, 2022 with a record number of 4,526 athletes from 15 countries, competing across 53 disciplines, with many serving as qualifiers to the Santiago 2023 Pan American Games.

Overview

Over the last 5 years, Quality has produced live content for international federations around the world, including FIFA, FINA, FIBA, Rugby Europe, various world sports committees, and many private sports promoters. Such organizations have trusted the Spanish company to make the leap of faith to an all-remote IP production model for coverage of many *single sports* events. The output of this innovative workflow matches the quality and production values that have been experienced with a traditional broadcast set-up; and there are many other benefits. Because of this success, Quality, as the co-host broadcaster for the XII South American Games, were confident that with support from Dejero, they could apply the same model to live *multi-sports* coverage.

A combination of EnGo transmitters and WayPoint receivers were used to blend fiber and 4G cellular connectivity from a variety of local network providers to reliably transport signals from the sporting venues to the International Broadcast Center (IBC) for distribution across the continent and all over the world.

“ It would be impossible to cover several sports in one day with one or multiple OB vehicles because of cost implications and physical distances. ”

Pablo Reyes, chief production officer at Quality.

Challenge

Multi-sports events are intrinsically challenging. The number of venues, the sheer variety of sports, and the event timings are just a few of the logistical challenges to consider, let alone extra pressure from the rights-holders and international and local broadcasters expecting a top quality live production. Factor in the network connectivity limitations and the costs, and the task can be quite daunting.

The XII South American Games in Paraguay attracted Olympic and world stars from across 15 South American nations. The event involved a record total of 4,526 athletes competing in 53 sports at multiple venues across the city over a two week period in 2022. Disciplines included track and field, gymnastics, tennis, swimming, rowing, cycling, marathons and many more. These venues were spread far and wide across Asunción and a traditional set-up would have required multiple OB trucks and radio links to cover such an array of sports, especially when multiple competitions were happening simultaneously.



By using Dejero, Quality created a lean remote production workflow that amounted to an NPV (Net Present Value) saving of approximately USD \$2.5million.

At previous South American Games, broadcasters relied on satellite and fiber connectivity to transport camera feeds from the various venues to the IBC - but not all events could be covered live. Not every venue has the cabling infrastructure and booking satellite time can be expensive. With this traditional type of set up, each venue would require a different camera configuration, with the cameras being tethered to OB trucks, plus the installation of hundreds of kilometers of cables, and a huge amount of manpower on site.

“It would be impossible to cover several sports in one day with one or multiple OB vehicles because of cost implications and physical distances,” explains Pablo Reyes, chief production officer at Quality.



Dejero supported Quality at the XII South American Games in Asunción as they made television history with the first ever all-remote multi-sport production.

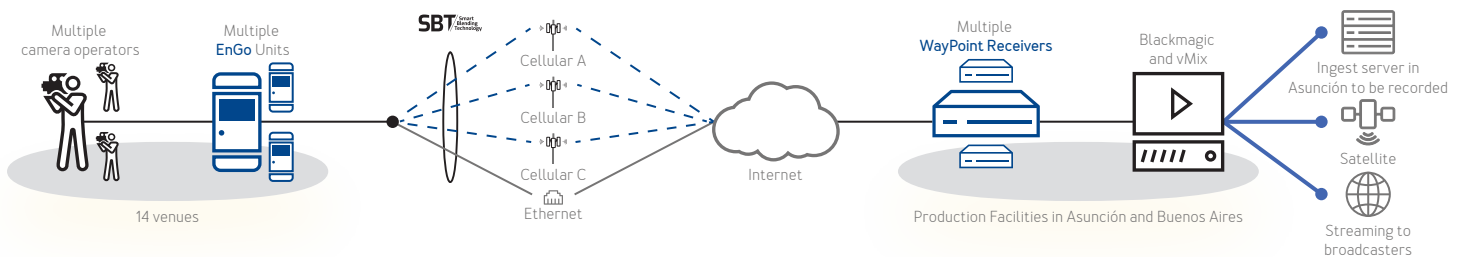
“ The time and cost saved on logistics, resources and time is monumental. ”

Pablo Reyes, chief production officer at Quality.

Solution

To facilitate an all-remote live production, Quality deployed more than 90 cameras to capture live sports in various arenas and other locations across the city. Each camera was connected to a Dejero EnGo 265, an LTE video mobile transmitter, using Dejero’s *Smart Blending Technology™* to dynamically and intelligently manage the fluctuating bandwidth, packet loss, and latency differences of individual connections in real-time to simultaneously combine multiple IP connections.

In Paraguay, the EnGo transmitters blended a combination of fiber at the venues, and 4G cellular connectivity from diverse local network providers TIGO, CLARO and PERSONAL, forming a virtual ‘network of networks’ and achieving average upload speeds of 20Mbps.



Dejero EnGos transmit multiple camera feeds, by blending fiber and 4G cellular connectivity from diverse local network, to WayPoint receivers located at Quality’s Buenos Aires hub where the content is packaged and uplinked via satellite for distribution to the Rights Holding Broadcasters (RHBs).

The EnGos, which have a sub-second glass-to-glass latency, reliably transport feeds from the fixed sports venues and roaming cameras at the XII South American Games, to 23 Dejero WayPoint receivers located at the IBC in Asunción.

Ten additional WayPoint receivers, located at Quality's Buenos Aires hub, reconstruct and decode the video feeds which are entered into a matrix to be shared with the switcher and replay systems. The packaged content is then uplinked via satellite for distribution to the Rights Holding Broadcasters (RHBs) and inserted into the ingest system for logging and clipping. The RHBs include national local broadcasters TIGO and Paraguay TV, as well as TyC Sports in Argentina, TVN Chile, CDO Chile, COB Brazil and Panam Sports.

"The time and cost saved on logistics, resources and time is monumental," said Reyes.

“ The rights holders were complimenting the image quality and signal production every day - and the feedback from the networks has been fantastic. ”

Pablo Reyes, chief production officer at Quality.

Results

Using this new remote production model, Quality only needed to send the EnGo transmitters and camera operators to the sports venues. And, because the devices are easy to operate and don't require a complex setup, the camera operators and crew are ready to go live within minutes.

"By using Dejero at all of the venues in Asunción, in the IBC [International Broadcast Center] and in our Buenos Aires hub, we have created a remote production workflow that amounts to an NPV [Net Present Value] saving of approximately USD \$2.5million," said Reyes.

As the EnGo provides reliable uninterrupted connectivity from any location, the producers, directors, graphics operators and technicians remain in Buenos Aires to package content for distribution from the hub. A microphone at the hub is also connected by an XLR audio cable to a WayPoint receiver, allowing the director to communicate with camera operators using the EnGo IFB voice communication feature.



Each of Quality's 90+ cameras used a Dejero EnGo to transport live feeds from sports venues across Asunción to WayPoint receivers at the IBC and Quality's Buenos Aires hub.

By using Dejero for connectivity, the movement of around six tons of extra material and 40 people has been curtailed - not to mention the installation of hundreds of kilometers of cable that would usually be required.

“The event was a milestone in Paraguay’s audiovisual history. People on the street were so enthusiastic about the quality of the signal we were producing,” concluded Reyes. “The rights holders were complimenting the image quality and signal production every day - and the feedback from the networks has been fantastic.”

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Pablo Reyes, chief production officer at Quality.



Directors at Quality’s remote hub communicated with camera operators at each sport venue using the EnGo IFB voice communication feature.

Content is king. Connectivity is kingmaker. We’re here to help you acquire, produce, and distribute your content with critical connectivity.

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