

## Making Low Cost, Broadcast-Quality Live Streaming Accessible to Sports Leagues at Every Level

How The Lovett School in Atlanta, Georgia enhanced its live sports event coverage, reduced setup time and hassle, and discovered a world of new opportunities with the Dejero LivePlus App

The initial drive to change the school's sports broadcast workflow was driven by the onset of COVID-19. Their desire was to simply give the parents, relatives, faculty, and the wider community of the school, the opportunity to watch Lovett games live without physically attending – whilst implementing a reduced student production crew in order to adhere to social distancing.

“Although social distancing was a driving concern at the time, we immediately realized that the Dejero gear could be set up in a fraction of the time versus our traditional set up – and since then we've realized that Dejero's LivePlus app has opened up a whole new world of opportunities to our students – and the school as a whole,” said Jim Claussen, parent-volunteer and coordinating producer for the school's online athletics channel, 'Lovett Network'. “I can see this technology paving the way for not only live high school sports, but for live lower tier sports, to produce affordable, high-quality live streaming to online audiences.”

### About The Lovett School

Founded in 1926, The Lovett School is an Atlanta independent school serving children in Kindergarten through grade 12. With an emphasis on the whole child, Lovett provides integrated experiences in academics, arts, athletics, and service through an education grounded in learning, character, and community. For more information, visit [www.lovett.org](http://www.lovett.org).

## Challenge

In 'normal' circumstances, it would take roughly a dozen students and sometimes a couple of hours to set up their equipment in order to produce and stream a live broadcast for any given competition or game at the school. This traditional set up saw the students having to physically move all of the associated technical equipment – which included switchers, audio boards, graphics generators, and semi-pro cameras from venue to venue. The equipment required hard-wired Internet connections, coax and power cables and for each sports broadcast, all of this was being carried by foot – to the swimming pool, the football field, the baseball diamond, the basketball courts, and so on. It took a lot of effort, time and prep to haul this amount of gear up and down the countless steps at the various stadiums and arenas, but up until the pandemic, this was how things were done.

When the pandemic hit, the Lovett School administration knew they would have to severely curtail the amount of on-site fan attendance for sports to continue, and consequently approached Claussen to see if there was any way the Lovett Network could still continue to telecast the games.

His initial thought was to utilize RF transmitters for the school's prosumer cameras, but as soon as the fans arrived in the stadium (restricted to two parents per child), their cellphones cluttered the magnetic spectrum, and despite a purported 1500 ft range of the RF transmitters, the production team was sometimes faced with a signal range of barely 50 ft.

## Solution

Claussen's background in sports broadcasting for the likes of FOX Sports and TBS Sports, meant that he could turn to an old friend working in engineering operations at FOX Sports for advice. This is where he first learned about the Dejero LivePlus mobile app for use with smartphones to transmit live, low-latency video. Skeptical at first, Claussen was unsure how an iPhone could maintain a signal across the school's 100 acre campus, so Dejero organized a demo whereby they were able to test the signal across the venues spread out across campus. To say he was impressed would be an understatement. "The signal was rock solid – even while driving around in a golf cart!"



Simple, low-cost Dejero solution could be used as a template for high-quality broadcasting and streaming at high schools, collegiate, and lower tier sports.

The Lovett School decided to incorporate four Dejero LivePlus mobile apps and a WayPoint 104 receiver into its live streaming production workflow for the school's 'Lovett Network' online athletics channel, and simply connected to the existing campus Wi-Fi infrastructure. A Dejero WayPoint 104, located in the school's press box, receives the live feeds from the four smartphones using the Dejero LivePlus app. The app uses Smart Blending Technology to aggregate bandwidth from cellular and Wi-Fi networks for high-quality live video transmission.

For every competition, Lovett's announce team simply watches the feeds on a quad-divided 40" monitor and a couple of LePow 13" flat-panel monitors in the football press box and calls the game as if they were in-venue. They communicate seamlessly with the on-location student production crew over Bluetooth headsets paired to the students' personal mobile phones using the Unity Intercom Cloud app.

*“ I can see this technology paving the way for not only live high school sports, but for live lower tier sports, to produce affordable, high-quality live streaming to online audiences. ”*

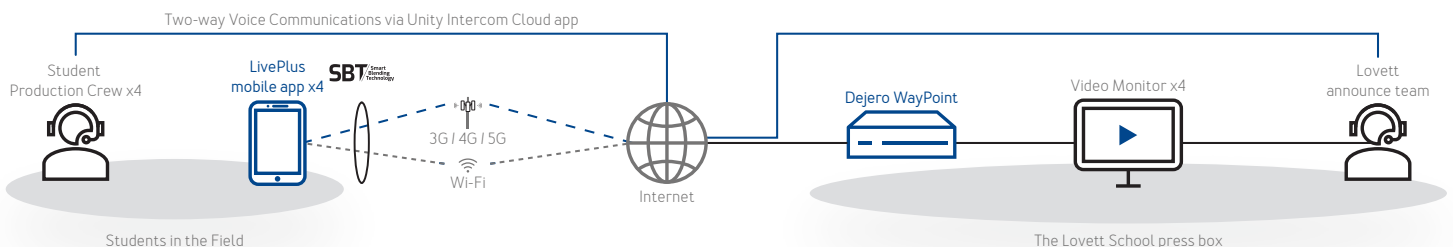
*Jim Claussen, parent-volunteer and coordinating producer*



The Lovett School reduces kit, crew and costs by adopting Dejero LivePlus mobile apps and WayPoint receiver in order to deliver its live sports broadcasts.

## Results

By incorporating four Dejero LivePlus mobile apps and a WayPoint 104 receiver into its live streaming production workflow, and connecting to the existing campus Wi-Fi infrastructure, the school is able to reduce its production crew at games from fifteen students to just a small handful, meaning they can adhere to social distancing regulations while covering sporting events – a feat that could not have been achieved with their pre-pandemic set up. The students can now set-up and break down for a game in literally one-tenth of the time with smartphones on lightweight tripods.



A Dejero WayPoint 104, located in the school's press box, receives live feeds from four smartphones over the campus Wi-Fi using the Dejero LivePlus app, where Lovett's announcers watch the feeds on four monitors to call games as if they were in-venue.

“We have had incredibly positive feedback from our viewers on our live sports telecasts. These parents/grandparents are always so amazingly appreciative, and the one predictable comment I get from them is how “professional” the telecast appears – and the Dejero equipment is a big part of why we always hear that.”

*Jim Claussen, parent-volunteer and coordinating producer*

Now, the switchers, audio boards and graphics generators all stay in the school’s press box ‘control room’. Only students capturing the content need to attend away games, rather than the entire production crew. A longer term gain, following the trend of remote production, is that the technical production crew can now be in one centralized location to perform operational tasks, whilst even more students can be deployed on the ground to capture even more rich content out in the field.

“Last year, using traditional prosumer cameras and mostly hard-wired connections and endless AC power cables, it would sometimes take up to 2 hours to set up, and an hour to break down,” said Claussen. “This year we can set up all four cameras (with backup USB-Lightning batteries if games go long) in under 20 minutes, total, and even shorter to break down.”

The LivePlus smartphone app is also enabling the students to produce more engaging content for the viewers at home. Utilizing low-cost, handheld gimbal stabilizers in conjunction with their smartphones, camera operators can now get inside team huddles during timeouts, follow players from the locker rooms to the field and track swimmers alongside the pool.

“From a mobility perspective, the Dejero gear has opened up endless possibilities. We’re considering using the LivePlus apps’ ability to blend cellular networks in order to produce formerly impractical programming like cross-country running and golf!”

From an ease-of-use perspective, this workflow also encourages more of the school’s students to hone broadcasting and journalism skills for potential college scholarships in those disciplines; plus having extra ISO camera feeds provides additional video sources for quickly packaging high-end post-game highlights to showcase Lovett athletics on local TV affiliates’ nightly sports coverage. The solution can also be used in ‘sizzle’ reels helping to promote Lovett’s star athletes’ efforts to catch the eye of college recruiters.



This quick and simple set up allows students the freedom to capture a variety of sports – like track and field.



The Dejero LivePlus app is enabling The Lovett School students to produce more engaging content for the fans watching school sports events live at home.

“Using smartphones with the Dejero app, the students not only instinctively know how to operate them, but are also less intimidated by them compared to operating a prosumer video camera,” added Claussen, who believes this simple, high quality and low cost solution from Dejero could be used as a template to facilitate broadcasting and streaming capabilities in high school, collegiate, and lower tier sports.

“We have had incredibly positive feedback from our viewers on our live sports telecasts. These parents/grandparents are always so amazingly appreciative, and the one predictable comment I get from them is how “professional” the telecast appears – and the Dejero equipment is a big part of why we always hear that.”

With the Dejero LivePlus App, more lower league sports clubs and high schools with tight budgets can truly consider the possibility of live streaming high quality, low latency video to their online channels and social media platforms.

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*Jim Claussen, parent-volunteer and coordinating producer*



In the press box, students are able to offer live commentary to viewers all over the country, who are unable to attend in-person.

## Need help building the right solution for your video transport needs?

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