



Pilot project

Real Betis and Cellnex join forces to revolutionise the stadium 'fan experience' via mobile

- Thanks to connectivity, fans will be able to access the images from the cameras that broadcast the match, action replays and live information and statistics through their mobile devices.
- The same application provides an audio description service for blind spectators.

Seville, 23 December 2022. Real Betis Balompié football club has stood out in recent years for its efforts to find the best digital experience for its fans, one of the keys to the future of the sports industry. To deepen this experience, the Club reached an agreement with Cellnex, Europe's main provider of wireless telecommunications and broadcasting infrastructures.

As a result of this agreement, Cellnex has installed a Distributed Antenna System (DAS) at the Benito Villamarín Stadium. This type of infrastructure provides all spectators at the match with optimal mobile coverage, even when its maximum capacity is reached (60,000 spectators in the case of Benito Villamarín). Stadiums need high connectivity mobile and real-time data processing capacities, with very low latency, to optimise the experience for all fans and to meet their growing demand for value-added digital services. Cellnex has a great deal of experience in rolling out this type of DAS solutions in various stadiums throughout Europe.

Based on this type of connectivity infrastructure, Real Betis and Cellnex have tested a disruptive service that improves the fan experience in the stadium, turning it into a Smart Stadium. Cellnex has teamed up with Synamedia to roll out and test an application that can offer fans a unique experience through their mobile phones. This is an innovative real-time edge streaming video, with eight cameras, which allows viewers to enjoy a live audiovisual experience on their mobile phones, on the pitch that complements the match experience.

The spectator will become their own filmmaker

As well as allowing the possibility to rewind from all angles with its replay function to avoid missing a single detail of the match, it integrates metadata so that users can more easily see the most significant events again, such as goals, penalties and fouls, as well as checking line-ups, statistics and other relevant data via mobile, becoming their own filmmaker at the grounds.

The application also sets out to deepen the adaptation of the Real Betis match experience for people with disabilities, following the lines established by the Real Betis Balompié Foundation. The system can provide a channel with a real-time audio description for people with visual disabilities in the stadium. This initiative has been developed by Cellnex together with Real Betis





Balompié and ONCE, the Spanish organisation for the blind. The Real Betis Balompié Foundation and the Pablo de Olavide University have trained audio description professionals for matches, a novel experience in the industry.

All the processing, encoding and transmission of the video from the stadium cameras is performed on Edge servers deployed in the stadium itself. The application also guarantees security of content, making sure it is never broadcast free to air and guaranteeing that the service can be used only by fans who are in the stadium.

Ramón Alarcón, CEO of Real Betis, values this pioneering initiative very highly: "We are committed to providing the best experience for spectators in our stadium. Sports venues cannot turn their backs on the use of the smartphone, especially among the younger generations. This is the background to our project with Cellnex for full 5G connectivity. Live broadcast of the match, with different cameras and data, represents a change in the way of experiencing the match. We will add a whole series of products and services to this app. It has been quite a challenge to work together with Cellnex on a unique initiative like this."

Eduardo Fichmann, Global Director of Innovation and Product Strategy at Cellnex underlined that "with this project, we aim to supply the best technology to the clubs and the League, as well as offering mobile operators a platform to allow their fans to enjoy the best possible digital experience at the stadium. We have rolled out a low-cost solution for streaming video and content in the stadium itself. This initiative is a first step in our Edge computing strategy with a local breakout capability, allowing content to be made available to fans without having to go onto the Internet, further increasing security and reducing back haul bandwidth and latency in real-time images."

Over the next few weeks, Cellnex plans to continue testing this innovative service to further improve it and to include the functionalities and capabilities necessary for it to be deployed as one more service in stadiums, available to all fans who go to a soccer match. Betis has been a pioneer in its development and implementation.

In addition, updating the Benito Villamarín DAS to 5G in 2023 will not only expand the network access capacity but will also further reduce latency (response time of any type of application) for the viewer.

About Cellnex Telecom

The efficient deployment of next-generation connectivity is essential to drive technological innovation and accelerate inclusive economic growth. Cellnex Telecom is the independent wireless telecommunications and broadcasting infrastructures operator that enables operators to access Europe's most extensive network of advanced telecommunications infrastructures on a shared-use basis, helping to reduce access barriers for new operators and to improve services in the most remote areas.

Cellnex manages a portfolio of 138,000 sites —including forecast roll-outs up to 2030— in Spain, Italy, the Netherlands, France, Switzerland, the United Kingdom, Ireland, Portugal, Austria,





Denmark, Sweden and Poland. Cellnex's business is structured in four major areas: telecommunications infrastructure services; audiovisual broadcasting networks, security and emergency service networks and solutions for smart urban infrastructure and services management (Smart cities and the "Internet of Things" (IoT)).

The company is listed on the continuous market of the Spanish stock exchange and is part of the selective IBEX 35 and EuroStoxx 100 indices. It is also present in the main sustainability indexes, such as CDP (Carbon Disclosure Project), Sustainalytics, FTSE4Good and MSCI.

For more information: https://www.cellnex.com

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