exterity ®

Celtic Park Stadium

Exterity IPTV solution enables Celtic FC to offer a state of the art experience to fans and improve player training with live and on-demand access to match footage at Celtic Park

Established in 1888 and part of the legendary Old Firm, Celtic Football Club is one of Scotland's best known brands. Its home stadium, Celtic Park, is the biggest football stadium in Scotland, with a capacity of 60,832 and includes a series of hospitality and conferencing facilities. In 2007 the club also opened its brand new off-site training and educational facility, Lennoxtown.

With an ageing audio visual system in place throughout the Celtic Park venue and facing the pressures of an increasingly competitive sporting and entertainment marketplace, the decision was taken by venue management to install a new state-of-the-art building IPTV system.

The system was designed to give fans, visitors and staff access to live and pre-recorded match footage as well as sports and news channels.

AVMI

"Exterity technology has had a profound impact on how the club operates and we are really excited by the countless ways we can expand its use in the future to benefit both the club and its thousands of passionate fans. It's also a bonus for us to see that the best technology for the job was provided by a local Scottish company."

David Howel, IT Manager, Celtic Park.

The challenge

As one of the country's best known sporting establishments, football fans, corporate guests, players and staff alike expect Celtic Football Club to be equipped with state-of-the-art technology, that enables access to all the sporting activity, news, views and developments whenever they want it, wherever they are in the stadium. A big ask certainly, but a challenge that all world-leading sporting establishments are looking to address as they strive to tackle competitive challenges both on and off the pitch.

"Ultimately, Celtic is a top-class team and when you're competing in the game at this level, you absolutely need to have the support of a world-class venue and infrastructure," says David Howell, IT Manager at Celtic Park. "As part of the ongoing review of Facilities and IT upgrade work, it became clear that our existing coaxial audio visual set-up was no longer adequate. Not only was the old analogue system reaching the end of its life, it was simply not fit for purpose given the sheer size of the stadium and huge amount of screens throughout the site. The stadium's legacy system had struggled with the increase of screens over the years and the signal quality had become compromised, particularly over long distances. Whilst it just about did the job, it was by no means a future-proof system, not to mention difficult to manage on a day-to-day basis. Each screen had to be controlled and set individually and manually – a huge task when you're looking at a venue that is capable of seating more than 60,000 fans."

The Facilities team, headed by Stephen Donnelly, was tasked with finding a cost-effective alternative that was efficient and relatively easy to integrate into existing IT systems.

The solution

After extensive research, the team selected leading technology integrator, AVM, to install Exterity IPTV solution, which operates over the excess capacity of the venue's IP network (LAN) to distribute live and recorded match footage and other sporting coverage to the 60+ HD TV screens mounted throughout the stadium.

The deployment includes three AvediaStream TVgateways to stream all available Freeview channels across Celtic Park and six AvediaStream Encoders, which provide enough capacity to stream five Sky Sports channels as well as the in-house Celtic match day TV service. 53 AvediaPlayer Receivers are located throughout the corporate hospitality areas to deliver high-quality TV and video throughout these areas and the whole network is managed using Exterity management Solution.

The result

"Our Cisco IP infrastructure throughout the venue was already being used for voice and data, so it made sense to use that existing network to also stream TV and video content," adds Howell. "Exterity technology means we can now cost-effectively deliver high-quality streams of sports channels, news channels and live feeds from cameras – something that would have traditionally required a costly and inflexible coaxial system to do the same job."

In addition, content could now also be streamed beyond the Celtic Park stadium site itself. The 100 megabit connection between the main ground and the Lennoxtown training and educational facility means that live feeds from cameras could be streamed to the second site 20 kilometres away in real time and without any loss of picture quality. Something that would simply have not been possible with an analogue set-up.

"With a club that has such an illustrious history as Celtic, it is vital that it remains as polished off the field as the performances on it. The sheer scale of this deployment demonstrates the substantial benefits that IPTV solutions present compared to traditional analogue approaches to distributing TV and video content – not only is it significantly more cost-effective, but enterprise IPTV delivers a better quality service for match day attendees and employees, is vastly more scalable and can be easily adapted to take advantage of new revenue-generating opportunities in the future."

Colin Farquhar, CEO, Exterity

"The seamless flexibility of the system is absolutely key for us. The Facilities team is now able to control each screen individually - or banks of screens in different areas or rooms – all from one central point. The need to have a team member walking the venue to switch channels and turn screens on and off has been completely removed now that all content can be accessed and controlled centrally. The system is also future-proof in that new screens can be added to the network without putting additional strain on bandwidth requirements. A tangible return on investment was also very important to us and significant savings are already being made on operational and management costs.

The team at AVM were great from start to finish and really understood our needs and how to address them. With their support we're now able to maximise our existing IP investment, with voice, data and video running over the same network."

Continuing the IPTV revolution

The scalability of the solution means that when the Facilities team is required to add new screens to the system it's a very simple process that, crucially, won't impact on the picture quality. Adding a new screen is as simple as connecting an additional Exterity receiver to the network. Looking forward, there are also plans underway to utilise the IPTV technology even further, enabling additional functionality and revenue-generating opportunities.

"In addition to streaming match footage, we're currently also looking at how we can use advertising and other video materials developed by Celtic FC throughout different parts of the stadium." Howell concludes; "The team is also looking to broaden out the content shown above and beyond purely footage of matches to maximise the system's use for team and staff training. Finally, phase two of the Lennoxtown facility, if it goes ahead, could see the site being developed to include conference facilities and live-in dormitory accommodation for younger players. This will present another great opportunity for us to utilise IPTV to improve the daily lives of both players and staff, whilst enabling us to explore new revenue-generating opportunities from corporate events."

About Exterity

Since 2001 Exterity has been designing, developing and manufacturing technically innovative products that deliver video over an IP network to some of the leading organisations across the globe.

Enabling distribution of HD quality TV, video and digital signage over enterprise IP networks to an unlimited number of end points, Exterity solutions support large volumes of content and receiving devices without compromising system performance or availability.

Highlights

- Deployed in over 40 countries
- Scalable IP video and digital signage solutions for organisations of any size and across any sector
- Unique industry leading features and market specific application

Headquartered in Scotland UK, we extend our global reach through our offices in Atlanta, London, Paris, Melbourne, Munich, Dubai, Hong Kong and Johannesburg. Localized knowledge and expertise is enhanced through the Exterity StreamForce program of credible, technically innovative partners, plus an extensive network of in-country resellers and distributors.