



Local Area Network & IP Entertainment System Score at Aviva



CUSTOMER OVERVIEW

The Aviva Stadium located in Dublin, with a capacity for 50,000 spectators (all seated). The stadium is built on the site of the old Lansdowne Road venue, which was demolished in 2007 and replaces that stadium as home to its chief tenants: the Irish rugby union team and the Republic of Ireland national football team.

The stadium is Ireland's first, and only, UEFA Elite Stadium and in 2011, it will host the Europa League Final.

INDUSTRY

Entertainment

ORGANISATION SIZE

70 employees, 1,600 to 2,000 on event days

SUMMARY

The PFH Technology Group was chosen to provide Dublin's most modern stadium with a resilient Local Area Network (LAN) and entertainment system. A highly-resilient infrastructure and IP solution were designed and built to deliver optimum performance, meeting diverse requirements from the media and spectators on sport days, and corporate customers at private events.

OVERVIEW

The sweeping architecture of the Aviva Stadium is a striking addition to Dublin's skyline. With its 50,000 capacity and state-of-the-art facilities it is a fabulous new home for Irish rugby and football. But sport is only part of the story.

Like many modern arenas, the Aviva Stadium was purpose-built to meet diverse needs, with special areas and facilities for conferences and corporate events that bring in additional revenue. At the same time, the core business of staging sporting events had to cater for the growing demands of 24/7 media as well as spectators who expect more comfort and better facilities.

Kentz Engineers & Constructors was contracted to build the infrastructure and chose PFH to design, deploy and manage the LAN as well as a TV system to be distributed around the stadium.

BUSINESS CHALLENGE

Not just built for rugby and football, the Aviva Stadium was designed and constructed to prosper in the highly competitive corporate events market. To be able to host meetings that range from six people in a box to a six course



dinner for 900 people is a vast and complex technical requirement.

“You have to talk about it as a stadium and conference centre in the same breath because it’s a massive element of what we do,” said Paul Charles, Technical Services Manager, Aviva Stadium. “We are competing with the facilities you find in five star hotels. That’s our business and that’s our market and if we don’t compete then it will be unsustainable.”

“Many providers have their own systems and need secure access and management of their applications within the LAN. It took six months but it has delivered an affordable, yet highly optimized environment.”

Gavin McCarthy, Private Sector Manager,
PFH Enterprise Communications

For PFH, the challenge was to build a LAN on a green field site to support events and meetings across 50 different spaces on five levels, including 36 boxes. Because so many areas are available to hire outside of the regular sports programme, the infrastructure had to be versatile to accommodate a wide range of corporate functions.

As well as offering exceptional performance and high availability for fixed and wireless users, the new network had to be secure and centrally managed to reap the maximum efficiencies from the investment.

SOLUTION

Having won the contract, the PFH network team embarked on scoping the requirement which came in two parts. The first was a network designed on resilience and therefore focuses on High Availability of Services. The second was a TV network that could deliver programming to 250 TV sets in the stadium.

The LAN was designed with gigabit Ethernet connectivity. A 4,000 port network has two core switches and 87 access switches running all applications to ensure optimised availability to Stadium operations on a day-to-day basis. Siemens HiPath Wireless provides the latest in Enterprise Wi-Fi technology with roaming capability speeds of up to 300Mbps. The Enterasys Secure Networks Management suite provides a central management platform with a real-time view of traffic and status.

A lot of time was allocated to design and scoping because every port on the network is isolated and configured for a specific application or function. PFH programmed each switch in the different parts of the stadium to accommodate different service providers and stakeholders, ranging from security and catering companies to ticketing specialists and the media.

“Many providers have their own systems and need secure access and management of their applications within the LAN,” explained Gavin McCarthy, Account Manager, PFH. “It took six months of detailed work from our consultants, but it has delivered an affordable, yet highly optimised environment.”

Project Manager, Emer O’Connor said “We were delighted to be part of this landmark project. The network at Aviva Stadium was designed taking every possible stakeholder requirement into account. The LAN and ICT Environment is the heartbeat of the stadium from a day to day operations perspective. Early engagement in the process with PFH as specialist ICT Provider, ensured the success of the network deployment on time and on budget”



Wi-Fi is very important. In public areas there are high density access points to a wireless network that is also used in the Media Auditorium. At the stadium entrances all tickets are scanned wirelessly into the ticketing system.

“Whether it is a digital media conference that places particular demands on the infrastructure or sports matches that attract the world’s media, events pass by comfortably because PFH has made sure the technology is all in place”

Paul Charles,
Technical Services Manager, Aviva Stadium

Rather than run a separate TV system, PFH proposed and eventually delivered an IPTV solution using Tripleplay technology. It sits on top of the LAN and benefits from the same centralised management. As well as taking live broadcasts off a satellite feed, it can stream video-on demand or digital signage that can be customised for each event. The same system is used by Soccer City which hosted the 2010 world cup final in South Africa.

CORE TECHNOLOGIES USED

- Siemens
- Enterasys
- LAN (Local Area Network) – Enterasys Secure Networks – Platinum Partner and a division of Siemens Enterprise Communications
- WLAN (Wireless Local Area Network) - Enterasys Secure Networks – Platinum Partner – and a division of Siemens

- Enterprise Communications
- WAN (Wide Area Network) – Juniper - High Availability Firewalls
- IPTV – Triple Play IPTV System – through Nextgen Technologies

CUSTOMER BENEFITS

PFH has worked with Kentz to ensure that a best-of-breed network is adaptable to the requirements of the Aviva Stadium, serving the needs of all stakeholders, from spectators and the media to corporate customers.

On a day-to-day basis the infrastructure has already proved its worth. “My agenda was always about living with the stadium after it was finished. That’s the real test,” said Paul Charles, “and I’m pleased to say we have less to do in the run up to an event because we are technically ready.”

The centrally managed infrastructure ensures greater visibility and efficiency while simplifying the technical support requirement. The Enterasys Network Management suite makes it easier and more cost-effective for network administrators to make any enhancements or roll out new services. PFH provides 24/7 technical support for any problems that are identified.

The innovative IPTV solution opens up new commercial and marketing opportunities as well as fulfilling the basic entertainment requirement. The future-proofed network can be scaled to support other applications, making the Aviva adaptable to the changing role of a twenty-first century stadium.

“Whether it is a digital media conference that places particular demands on the infrastructure or sports matches that attract the world’s media, events pass by comfortably because PFH has made sure the technology is all in place,” said Paul Charles.

Paul Hourican Managing Director of PFH , summed up the project: “The Aviva Stadium is rightly seen by many as one of the most sophisticated stadiums in Europe. Our infrastructure will not only enable the media to



capture all the action, but also enable the fans to avail of a full range of secure onsite services to enhance their experience."

OUR EXPERTISE

PFH is Ireland's leading nationwide provider of ICT solutions for Large Enterprises and SMEs