

Cat6_A Case Study - Chesterfield Football Club

Customer – Chesterfield Football Club

Location – Chesterfield, Derbyshire

Requirements – A cabling solution for their brand new stadium

Equipment – Excel Cat6_A, Excel OM3 fibre cable and Excel Comms Cabinets

Integral's View – “The final result has given Chesterfield FC a true competitive advantage over other football clubs, with hi-tech equipment and up to 10 Gig network speeds. Also, with the fact that the cable we've installed has a 25 year warranty, it means that it won't need changing for many years to come, offering a clear return on investment.”

Paul Taylor, Managing Director, Integral Network Solutions Ltd

At a cost of £13 million, in 2010 Chesterfield FC opened its new 10,400 capacity all-seated stadium for the first time, located roughly one and a half miles north of the town centre. Completed before the start of the 2010/2011 season, the team and fans alike were very pleased with the final result.

The new stadium, called the b2net stadium, is a large step forward for the club and is a stark contrast from the old ground that the football club had played at throughout most of its history.

The opening brings with it many benefits, but to ensure it's success moving forward, many elements had to be taken into consideration during its creation, not least of which was the IT infrastructure.

Brand New

As the site was completely new, being built from scratch, a completely new structured cabling installation was required. The club needed a reliable solution in order to support the converged network they were implementing including: IPTV live streaming, IP telephony and also to operate and manage all their electronic facilities, such as computers, CCTV, tills, wireless systems, ticketing and turnstiles. With such a great requirement, not only was a competent solution needed, but also one that had longevity so they wouldn't have to replace it any time soon.

Addooco IT, who were already providing all the new IT systems and support for the football club, mapped out the initial design of the cabling infrastructure but they chose to recruit specialists to undertake the actual implementation. They chose to work with Integral Network Solutions Ltd.

Integral Network Solutions Ltd specialises in designing and installing a wide range of networking infrastructure services for all types of businesses and premises. Based in South Yorkshire, the company works UK-wide with clients in both the private and public sector and offers expertise for a large range of services to end users and contractors.

The Excel Solution

After speaking to Addooco IT and understanding the club's needs, Integral recommended the Excel cabling solution, in particular using Excel Cat6_A, as it met their criteria for bandwidth and longevity.

Integral was able to use its expertise to really help move the project forward. They played a big part in getting the electrical contractor to understand the size of the cable and the issues with bend radius of Cat6_A compared to Cat5e/6. The whole of the dado trunking needed to be re-designed to support the Cat6_A cable with additional drops installed to accommodate it.

More than just Cat6_A, Integral recommended Excel OM3 fibre for the backbone, as this was one of the best choices available in the market.

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First Steps

This project was Integral's first Cat6_A installation and they utilised support from Excel to ensure they were up to speed with this next level of cabling system.

Excel Category6_A (augmented Category6) cables and associated connectors take the performance capabilities of copper infrastructure to new levels. Designed to the current ISO and EIA/TIA standards for Class E_A augmented Category6_A performance, these products are intended to deliver reliable, high network performance over link distances of up to 90 metres, including support of emerging applications such as 10GBase-T, 10 Gigabit Ethernet.

Having worked with Excel previously and having completed all the training, Integral is an Excel Cabling Partner. This means that they are an Excel authorised installer that can offer a 25 year product and application warranty on their installations.

Once they had mastered the differences with Excel Cat6_A, the next challenge they faced was getting the electrical contractor to agree to change pathways and spacers to allow these larger cables to be installed throughout the four stands of the club.

Results

The challenges were all overcome successfully, and between February and July 2010 the infrastructure was installed into the new stadium, which consisted of 550 x Cat6_A points, 6 x 50-Pair CW1128/1308 voice links between the stands, 6 x 8-Core OM3 fibre optic links between stands and 6 x Excel Comms Cabinets.

Paul Taylor, Managing Director of Integral, is very pleased with the final outcome of the project, commenting, “The final result has given Chesterfield FC a true competitive advantage over other football clubs, with hi-tech equipment and up to 10 Gig network speeds. Also, with the fact that the cable we've installed has a 25 year warranty, it means that it won't need changing for many years to come, offering a clear return on investment.”

The hard work is now all complete and Chesterfield FC can start the new season in their brand new stadium, marking a historical step for the club.

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