



Kentec's K-Mesh wireless technology wins praise from Chester Cathedral

> SITE OVERVIEW

Chester Cathedral is an architectural gem founded over 1,000 years ago as a Benedictine Monastery. Today it is the largest free and accessible visitor attraction in Chester.

> THE CHALLENGE

Brad Parker, founder of Charles Thomas Heritage Fire Protection, "was tasked with specifying and upgrading the wireless fire detection system previously installed in historic Chester Cathedral. The thick walls and lead-lined roofs and the other challenges that come with a building that can trace its roots back to 1093, meant Brad had to think outside the box.

Kevin Swann, Managing Director of Kentec Electronics, says wireless fire detection is the future:

"We are very pleased and excited about our new K-Mesh system and seeing it installed in such an important landmark is an honour and confirmation of our best practice."



> SOLUTION AND BENEFITS

Brad opted for Kentec’s new K-Mesh system, a technology that uses self-healing and configuring Mesh technology to deliver optimum levels of reliability and performance. It also makes it easy to use, install and commission – and ultimately provides robust assurance that fire incidents are detected and communicated immediately. It is available as part of a complete fire detection system with Kentec-manufactured panels, such as the renowned Syncro AS panel and in this case the award-winning Taktis panel.

A wireless translator module, which sits at the centre of the K-Mesh system, is hard-wired to the fire alarm control panel loop and communicates continuously with the wireless devices. Sensors are supplied in three variants: optical; thermal; and multi-criteria, with the optical and multi-criteria sensors featuring adaptive signal processing and double dust traps to prevent false alarms. Thermal detectors can respond to a fixed temperature threshold or detect a rate of rise in temperature. Wireless sounders, call points and testing kits are also available within the range.

K-Mesh has a seven-to-ten-year battery life, which is approximately twice that of the industry standard. The technology is also fully expandable, and configurable from anything from two to 2,000 devices so even the largest, most disparate and complex sites can now be protected wirelessly. Further capabilities include a communication range of up to 1,200 metres and immunity to hacking.

Due to the size of Chester Cathedral, many expanders are needed, and with the K-Mesh system, each expander has up to 5 redundancy paths which connects to the strongest expander, creating the Mesh. Even the dead spots in the cathedral are able to communicate with the strongest radio signal expander within its area, so in case of an emergency, every corner of the building is covered.

“With the latest MESH technology, rather than one expander we can have three, four or even five redundancy paths and the signal connects itself automatically to the strongest expander to create the MESH,” Brad explains.



Brad’s colleague, **Operations Manager Byronn Alty**, says that from an engineer’s perspective, the new technology is ‘phenomenal’:

“We went to what we would believe would be the dead spots within the cathedral and low and behold the device started communicating with the strongest radio signal expander within its area. I would look at the drawings and thought it would communicate with expander one, and yet the device ends up linking to expander two!”

A further benefit to the MESH technology is that it is simple plug and play: “The cathedral has an outbuilding with an old bell tower so there needed to be a link between the two,” Byronn continues. “This was an initial design challenge for us to think how we were going to get radio over there, but the new wireless MESH is just plug and play and it was just great to see it working.”

“Even having used it only once, my confidence with installing, programming and commissioning is now on a high, and that tells you how easy it is to use.”

Brad Parker similarly describes K-Mesh as ‘wizardry’: “My love of old heritage buildings made this project extremely enjoyable and being able to use the new Kentec K-Mesh system and seeing it work at its full potential, was a delight.”

CHARLES THOMAS

HERITAGE FIRE PROTECTION

Specialist installer of bespoke fire detection systems in commercial and residential heritage buildings.



About Kentec

Kentec Electronics is one of the world’s leading life safety solutions manufacturers of conventional, analogue addressable fire detection and extinguishant control panels.

Founded in 1985, Kentec is an end-to-end manufacturer, with everything sold made in the UK. It employs approximately 250 employees in its Head Office, Production and R&D facilities.

Kentec Electronics Ltd.
Units 25-26, Fawkes Avenue, Questor,
Dartford, Kent, DA1 1JQ, England

+44 (0)1322 222121
www.kentec.co.uk

