

Gratte Brothers calculate PoE reduces the cost of IP based security systems by 30%

Gratte Brothers Group is one of the UK's leading independent building services companies, providing a complete range of electrical, mechanical, security and commercial catering facility services. Originally registered in 1946, today the Group employs more than 650 personnel and has a turnover in excess of £100 million per year.

Gratte Brothers Security Management specialises in the design, installation and maintenance of closed-circuit television (CCTV), access control, intruder alarm and integrated security systems, with projects ranging in value from £25,000 to £1,000,000. The security division operates throughout the UK and Republic of Ireland.

Having identified the potential benefits to both Gratte Brothers and its customers of switching to IP surveillance cameras in early 2013, the search started for a switch manufacturer that could meet the high power budget demands, rigorous security requirements and L2 management features to form the cornerstone for IP driven projects.

After researching the market and comparing PoE switches from various manufacturers, the test results clearly demonstrated that the TP-LINK portfolio was feature rich, meeting all the technical requirements specified by the team. Tests involved the installation of the switches on different sites, taking into account the total time of installation and ease of use. As a result Gratte Brothers took the decision to standardise on TP-LINK switches as the backbone to all their IP projects.

Specialist security needs

Gratte Brothers Security Management predominantly works with retail, commercial buildings, office blocks, residential areas and datacentres across the country, all of which contain high value equipment requiring careful monitoring and surveillance. Although Gratte Brothers' clients monitor the footage of their cameras themselves, the company manages everything else relating to the systems, including maintenance and upgrades.

Until recently, most security networks were CCTV systems running on their own closed circuit over coaxial cabling. However, as the security landscape changes, IP-based security is growing exponentially. Driven by customers demanding control over their buildings' security systems, lower cost of installation, lower cost of ownership and improved features like infra-red and remote management, IP cameras are approaching market dominance. Shane Garner, Design & Development Manager at Gratte Brothers Security Division, says: "An IP camera can be plugged in anywhere on the network with just one cable, while you need to modify the electrical circuit to install an analogue one. Basically, it is faster, quicker and cheaper to install IP based security systems, and the cameras are more feature rich."

Moreover, IP cameras generate savings that reduce the overall project cost, making Gratte Brothers services even more competitive. Shane Garner continues, "Because most of our business comes via tender, being able to pass on the initial installation savings to customers puts us in a very strong position each time. We have found that swapping to PoE is a true win-win situation."

Switching over

Gratte Brothers started using TP-LINKs SG3424P (JetStream 24-Port Gigabit L2 Managed PoE Switch with 4 Combo SFP Slots) in February 2013. The team submitted the switches to a rigorous internal

trial - the results demonstrated their flexibility and ease of use plus to impressive up-time. For example, depending on the situation and the clients' technical requirements, the switch could be used as a simple *plug & play* device, a web smart or deployed in its full potential as a L2 PoE Switch.

Gratte Brothers also have the peace of mind that the full TP-LINK portfolio comes with a Limited Life Time Warranty. "TP-LINK switches offer great value. They are incredibly flexible and use industry switching protocols so they work seamlessly on any network. This means we can replace an entire network or simply a seamless spot solution, plus we don't have to invest in additional training for our engineers," says Shane Garner.

The TL-SG3424P provides 24 ports that support 802.3at/af-compliant PoE , with a total PoE power budget up to 320W, ideal for deploying wireless access points or IP-based network surveillance cameras. Regarding industry security protocols, TL-SG3424P switches offer robust security and management features. For example, their IP-MAC-Port-VID Binding and Access Control List (ACL) functions protect against broadcast storm and Denial-of-Service (DoS) attacks. Moreover, their quality of Service (QoS, L2 to L4) provides enhanced traffic management capabilities to move data more effectively.

Other benefits offered by the switches include a faster installation process, as they are "plug and play" meaning they do not need to undergo a complex configuration processes. Gratte Brothers estimates that TP-LINK switches require 10-15% less time to set up, compared to main competitors, meaning that overall installation time is significantly decreased, reducing labour and time costs, saving money all round and providing the customer with a rapid and comprehensive solution.

Furthermore, the switches allow for voice, data and video service integration on one network by applying QoS policies, meaning that the administrator can designate the priority of the traffic based on a variety of means including IP or MAC address, TCP or UDP port number, etc – ensuring that voice and video are always clearly transmitted.

In order to effectively implement a CCTV system, Gratte Brothers specialists always seek fast switching capabilities, in addition to PoE and the flexibility to install at least two fibre optic ports – all features included in the latest TP-LINK switches.

"We estimate that we have reduced costs for our customers by 30%, due to reduced overall costs and savings in electricity," adds Shane Garner. The company also praises the benefits of PoE, as it results in more cost savings regarding cabling and labour. With PoE and IP cameras, a single cable is required and eliminates the additional costs incurred when installing a power supply and the on-going running costs for the end user.

Future plans

To date, Gratte Brothers has installed 500 cameras across multiple locations and vertical markets, all connected to more than 50 TP-LINK PoE switches. TP-LINK switches are also now part of the company's portfolio and are purchased on a weekly basis.

"Gratte Brothers' brand reputation is based on high standards of quality and service," adds Shane Garner. "And that is why we selected TP-LINK's products for our IP security systems – we need reliable switches that offer the latest technology to support our solutions."