

# Case Study

## London Luton Airport Operations Ltd (LLAOL)

<b>Customer</b>	London Luton Airport Operations Ltd (LLAOL)
<b>Location</b>	London Luton Airport
<b>Requirements</b>	Provide a resilient, highly secure cabling infrastructure as the platform to run a new security search area within the airport.
<b>Equipment</b>	Excel Category 6 <sub>A</sub> F/FTP, Excel Fibre, Environ Racks and Excel Intelligent PDUs

### Customer's View

The security of our passengers and staff is critical to our operation and as part of our redevelopment we needed to find the right infrastructure solution and partner to make the most of the technology available to us today, as well as providing the infrastructure for technology that will be available to us in the future. We feel that we have more than achieved our objectives with Excel and DWM.

*Neil Thompson, Operations Director London Luton Airport*



London Luton Airport is one of the UK's largest airports and carried 10.5 million passengers in 2014. In July 2014 final planning consent was granted for a £110m development that will increase the annual passenger capacity from 12 million to 18 million by 2020 and enable London Luton to become a leading airport serving those living in London, Luton and the surrounding regions.

The plans, include an expanded and modernized terminal building and improved surface access all of which are forecast to increase the airport's annual contribution to the national economy by £1billion to £2.3billion.

### The Requirement

One element of the refurbishment was to take advantage of the latest technologies for the security screening of passengers as well as being able to provide up to date flight information to passengers via the screens. To enable these works the existing infrastructure and the design of the network to accommodate the new equipment needed to be upgraded, as well as future proofed for emerging technologies.

### Sourcing a Partner

DWM Technical Solutions Ltd is an innovative organisation striving to research, design and install cutting edge technology into the networking, audio visual and electrical sectors. Since inception over 14 years ago DWM have steadily grown from strength to strength, supplying a high quality service to an expanding high profile customer base. They aim to deliver and integrate solutions for their clients across a network platform to provide high quality, efficiency and control.



DWM has been working with LLAOL for 12 years and was chosen to work on this part of the project for its proven knowledge and expertise. With the design having to incorporate the migration of critical IT services with minimum downtime and maintaining full airport operations, it was really important to LLAOL that they picked the right partner for the job.

## The Solution

DWM recommended the Excel solution to LLAOL due to its proven track record, its technical capability which is backed up by independent third party verification from Delta and the fact that is backed by a 25 year warranty.

DWM is an authorised Excel Cabling Partner and has undergone regular technical training and, as a result, is able to offer the 25 year warranty on all of its installations.

Due to the nature of the products being installed within the enhanced security area at the airport, an Excel screened Category 6A (Class E A) solution was chosen which provides 10 Gigabit Ethernet to ensure the network is future proofed and with it being screened cable, it ensures that there is no electromagnetic noise and mitigates the chance of alien cross talk within the cable bundles, as well as protecting the cable from potential interference from the various equipment being installed.

Excel OS2 singlemode armoured fibre cable, panels, patch leads and connectors were installed to provide the fibre optic backbone of the network. With the armoured fibre this ensures that it's protected from the chance of any rodents biting through the cable. By utilising OS2 fibre cable, LLAOL was able to future proof its business operations as this fibre has the capability to run up to 10 / 40 and 100 Gigabit Ethernet applications over vast distances. A deployment of 10GBASE-ER/EW (10 Gigabit) can be installed over 22,250 m, where as OS1 would be limited to 2,000 m.

Excel Environ ER Racks were chosen to house all of the equipment. Three black 42U 800 x 800 racks were used, each with ventilated mesh front doors and ventilated rear wardrobe doors providing 70% ventilation within the rack. The racks have advanced vertical management which allows for the racks to operate extremely effectively as a solution when bayed together as they aid inter rack connectivity.

Within the racks Excel Intelligent PDUs were installed with temperature and humidity sensors to provide continual monitoring of the installation and to allow for the remote management of the power within the rack if required. Each PDU is capable of having 7 temperature sensors deployed as standard, allowing for monitoring at the top, middle and bottom of a rack at both the front and rear to gain

maximum and more accurate measurements, to make better management and maintenance decisions relating to the network. The remote management can be done through a standard web browser, making deployment as simple and easy as possible.

## The Result

The installation took part in the summer of 2015 as phase 1 of 14 campus wide infrastructure upgrades. DWM worked to a tight programme as directed by LLAOL and had to coordinate its engineers on site around the other contractors who were providing additional services at the time. The installation ran smoothly with minimal disruption to the everyday workings of the airport.

London Luton Airport now has one of the most up to date and technically advanced security solutions available, which helps to ensure the safety of its passengers and staff every single day with the added knowledge that the Excel infrastructure platform is backed by the comprehensive 25 year warranty.



Excel House  
Junction Six Industrial Park  
Electric Avenue  
Birmingham B6 7JJ  
England

T: +44 (0) 121 326 7557  
F: +44 (0) 121 327 1537  
E: sales@excel-networking.com

[www.excel-networking.com](http://www.excel-networking.com)

**excel**  
without compromise.