

Embracing Multimedia Future

Consolidating Critical Business Systems into One Cohesive Environment

Newcastle International Airport (NIA) was opened in 1935 and is the UK's 9th largest airport, serving over 5 million passengers a year to 85 destinations around the world. Most major airlines fly from Newcastle making it the UK's fastest growing airport. NIA's goal of achieving 10 million passengers per year meant that significant investment was required to bring the IT infrastructure up to a standard that would provide a platform for future growth. Croft Computers was commissioned to undertake the design and implementation of the infrastructure to facilitate the major changes that would be required during the remodelling of the terminal.

Consolidation

This work was to be the basis for the consolidation of critical business systems such as the flight information display system across the airport. Before the upgrade, the Arrivals and Departures boards operated on separate networks. There was a need to consolidate the airport's disparate systems into one cohesive environment to provide access to IT facilities at any location.

Successful installation and ongoing support would depend upon a reliable platform assisting the airport in its goal to achieve passenger targets.

The airport looked to embrace new multimedia systems in order to provide improved customer service and information delivery, while incorporating the latest security measures. It also sought improved operational efficiency with reduced cost through the consolidation of disparate systems, such as IP telephony and CCTV.

Quality of Service

The priority for Croft has always been to provide a high performance and secure infrastructure. For



NIA and Croft, the decision to adopt networking technology from Enterasys Networks proved to be a critical stage of the project. In its former incarnation as Cabletron, Enterasys had overseen the deployment of its Smartswitch platform at the airport and this was still in place as NIA looked to update its infrastructure. Today, its latest design principals allow the infrastructure improved and extended reach to all areas of the terminal buildings and the airfield - via the fibre optic cabling deployed in a 1998 upgrade. The deployment of this infrastructure is continuing, with NIA enjoying constant growth and development year on year. In order to ensure that the business critical applications receive the priority they need on the network, a 'Layer 3 Quality of Service' has been implemented, guaranteeing that critical applications are not run in such a way that they are competing with lesser applications, such as email.

Optimal Operating Conditions

In order to ensure that network bandwidth is not an issue for more demanding applications such as multimedia, high capacity Gigabit ports and VLAN technology is widely used to provide these applications with their own virtual network to operate within. This combination of bandwidth and application specific networking ensures that these traditionally greedy applications are assured the optimal

operating conditions required for successful deployment. The approach has meant that the IP network-based Television and the Flight Information Display System runs smoothly and uninterrupted at all times. The same format will allow technologies such as IP CCTV to be embraced securely.

Enterasys Networks' N series switches have demonstrated through their natural evolution from legacy Cabletron equipment a stability that made them the switch of choice for NIA. The N switches offer in-built features that ensure the core of a network is fully protected from accidental and malicious attack; Enterasys' architectural design means each port on the network is effectively accompanied by its own internal firewall. NIA considered this ideal for those occasions when the network needs to be opened up - perhaps for partnering purposes or for flexible staff working - at the same time ensuring that sacrifices over security are not necessary.

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