



NEW DATA NETWORK ENABLES COUNTY COUNCIL TO ACHIEVE ITS AMBITIONS



Hertfordshire County Council uses Alcatel-Lucent technology to face today's and tomorrow's challenges in local government



Like all the best local authorities, Hertfordshire County Council (HCC) has a number of core goals. In particular, it strives to deliver to its citizens the best services possible, to be accessible and responsive to its electorate, and to spend public money wisely. The achievement of all of these ambitions relies heavily on the effective deployment of information and communications technology (ICT), at the heart of which is the council's data network. That is why HCC recently chose to implement a 10Gbps Ethernet platform based on Alcatel-Lucent **Omniswitch** 9700 technology.



WHY HCC NEEDS A HIGH PERFORMANCE, HIGH AVAILABILITY NETWORK

A million people rely on Hertfordshire County Council for a broad range of essential services including schools and libraries, refuse collection and recycling, the fire brigade, and the protection of vulnerable people, including children and the elderly. Naturally, the council uses its ICT infrastructure to help its staff to deliver these – and many other – services as efficiently and cost-effectively as possible.

However, it also uses it to fulfill a wide array of e-government functions. For example, a citizen can visit Hertfordshire County Council's web site (<http://www.hertsdirect.org/>) in order to report a pothole in his road, order a copy of her birth certificate, apply for his child to be admitted to the local school, order a book from the library, or discover who her elected representative is and send that person an e-mail.

“We will continue to develop the network, and this experience has given us confidence in our ability to roll out new products and services in new areas as the council – and the people it serves – need them.”

Dave Mansfield,
Telecommunications Service Manager,
Hertfordshire County Council

Today, all local authorities struggle to deliver the high quality services that citizens demand within the extremely tight budgets that electors are prepared to provide in taxation. HCC recognizes more than most that a fast and reliable data network, with a low total cost of ownership (TCO), is an essential tool in winning that struggle, and has for many years based its infrastructure on Alcatel-Lucent technology.

MIGRATING TO AN EVER BETTER ENVIRONMENT

Dave Mansfield is Hertfordshire County Council's Telecommunications Services Manager. He recalls a period before the millennium: “Originally, we went for a mixture of Token Ring and Ethernet, using ATM (Asynchronous Transfer Mode) to achieve bandwidth.”

At the time, these were cutting edge technologies and the Alcatel-Lucent platform more than met the council's bandwidth, availability and TCO targets. However, by 2002 things had moved on. ATM was an inherently complicated technology and required a great deal of expensive management time. It also was not as scalable as HCC would have liked. Dave Mansfield and his colleagues identified their needs for the next generation solution. He says: “Our goals were improved performance, both in speed and reliability.”

They talked to a&o systems + services, the council's Alcatel-Lucent Business Partner and, after a tendering process, opted to switch 2,500 users to the much faster and easier to manage



Gigabit Ethernet. This involved re-engineering the network core and deploying Alcatel-Lucent 7000 series switches, a task that was completed in March 2003.

Again, this proved to be an excellent solution, and one that might well still be in use had Dave Mansfield and his colleagues not been presented with an irresistible opportunity for a further upgrade.

Alcatel-Lucent helps Hertfordshire County Council to meet its e-government targets.

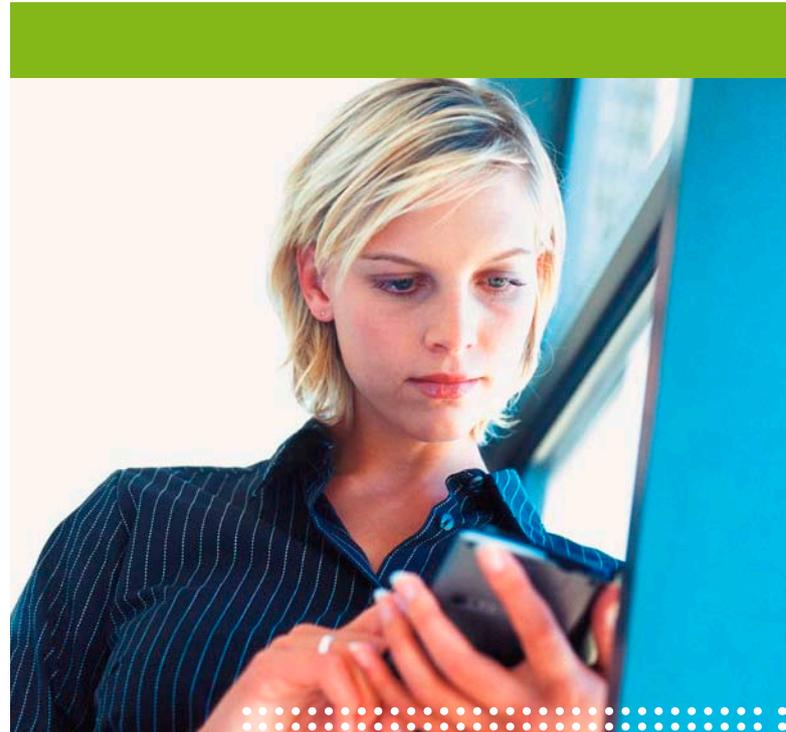
BUILDING A BETTER NETWORK

Back in June 2006, the council embarked on a building rationalization and consolidation programme that would not only save it money but also help its people to work more efficiently. This provided HCC with the chance to upgrade the network earlier than otherwise. The Return on Investment (ROI) calculation that Dave Mansfield and his colleagues compiled, was suddenly made highly attractive both because the building programme would require some network reconfiguration anyway, and because some components at the core of the network could be redeployed to the edge.

As importantly, the new upgrade would further all three of the council's most important goals for its network: high performance, high availability and low TCO. That was because the newly available technology that HCC could deploy was 10 Gbps Ethernet, usually called '10-Gig Ethernet'.

Dave Mansfield takes up the story again: "With over 100 servers and 6,000 users, many applications need the performance provided by Gigabit Ethernet. And the introduction of SAN (Storage Area Network) technology required 10Gig in the core area of the network to maintain the levels of performance we enjoy."

As a public body, Hertfordshire County Council naturally had to follow EU purchasing rules for its proposed network upgrade and therefore undertook a transparent competitive bidding process. For the third time in a row, Alcatel-Lucent and its Business Partner, a&o systems + services, won the contract, this time to supply, implement and support a network core based on Alcatel-Lucent **Omniswitch** 9700 series switches. The Alcatel-Lucent **Omniswitch** 9700, which at the time of the bid had just been launched onto the market, is a 10-slot chassis providing high availability, wire-speed performance, high-density 10-Gig Ethernet and dramatically improved network response times.



CHALLENGES

- Provide the high performance necessary for demanding back-office applications
- Deliver unbeatable levels of availability and continuity of service
- Keep the total cost of ownership low
- Ensure that likely future demands can be met at minimal or zero network cost

SOLUTIONS

- Alcatel-Lucent **Omniswitch** 7000 Series
- Alcatel-Lucent **Omniswitch** 9700 Series

BENEFITS

- Improved citizen satisfaction through more efficiency and greater e-government functionality
- Enhanced productivity through higher network performance and availability
- Increased return on investment



**AVAILABLE NOW;
AVAILABLE FOR MORE TOMORROW**

The all-important high availability that was designed into the Alcatel-Lucent **Omniswitch** 9700 series switch is already apparent to Dave Mansfield. He reports: "It's at least 99.9 per cent."

However, some benefits of the new system are yet to become apparent. By carefully complying with the best industry standards, and by providing itself with scalability and capacity for the future as well as high performance today, the council has opened opportunities for new applications. For example, the network now has an infrastructure capable of supporting the necessary Quality of Service (QoS) for Voice over IP (VoIP) telephony. This has the potential to provide very considerable savings in the future, especially if HCC ever chooses to implement a contact centre.

CONTINUING SUPPORT

Alcatel-Lucent and its Business Partner, a&o systems + services, provide ongoing support for Hertfordshire County Council's data network, ensuring that it continues to deliver the high

Hertfordshire County Council
can serve its citizens better using
Alcatel-Lucent technology.

performance, high availability and unbeatable value for money that one million citizens demand. James Lewis, Account Manager at a&o systems + services, explains: "We monitor not only the availability of all the various devices, but also the traffic and activity on the network itself. That provides a predictive failure ability. We have a very good understanding, across the entire network, of what is likely to fail and when. This gives the council the benefit of increased stability and end-user uptime."

The whole experience has left Dave Mansfield feeling self-assured. He remarks: "We will continue to develop the network, and this experience has given us confidence in our ability to roll out new products and services in new areas as the council – and the people it serves – need them."



BUSINESS PARTNER INFO

a&o systems + services is a fast-growing, vendor-independent provider of services to IT support functions in Europe and across the globe. It augments the customer's capabilities in terms of resource, technical skills and geographical reach by designing and delivering a distributed IT infrastructure that enhances mobility, collaboration and business communications; supporting IT assets and end-users locally, nationally and internationally; and implementing best practice and supporting toolsets to enhance service delivery and reduce cost. a&o's target group includes IT functions within medium/large enterprises and public sector organisations, IT outsourcers and systems integrators and OEM hardware vendors.

"As well as the standard maintenance and break/fix support, we provide active management and monitoring of the network."

James Lewis,
Account Manager, a&o systems + services

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