

A BT Nortel partnership case study

Helping local government to send its service delivery soaring

A BT Nortel converged IP-based infrastructure is enabling the London Borough of Waltham Forest to dramatically improve service and simultaneously reduce costs

“BT and Nortel proposed the most innovative solution; one that met our immediate needs and provided a platform that would take us forward for the next ten years. It also represented excellent value for money and offered voice and data convergence – something that was very attractive to us.”

David Wilde
Head of ICT and e-Government Strategy
London Borough of Waltham Forest

Executive summary

The London Borough of Waltham Forest (LBWF) recognised that investment in new technology would help it improve customer services and meet e-government targets. The Borough formulated a high-level IT strategy, which determined that it needed an integrated IT architecture built on a common platform. Central to this was the replacement and upgrade of its voice and data infrastructure.

BT delivered a fully managed Nortel-based proposition in a £7 million five-year deal. The converged solution includes the supply and management of a wide area network (WAN) extending the IT infrastructure to all LBWF sites. It also provides an IP-based contact centre, new local area networks (LANs), IP Telephony with unified messaging, desktop videoconferencing facilities, and internet access with managed security services.

The new network has facilitated the consolidation of the Borough's IT systems within a network-centric computing architecture. It has already contributed combined cost reductions approaching £1 million and has enabled flexible working – increasing efficiency and productivity. Customer service improvements have already been seen, notably within the contact centre where call success rates have risen by over 20 per cent. Further benefits are anticipated as the rollout progresses.

Marketplace

The London Borough of Waltham Forest (LBWF) comprises a predominantly built-up area and has a population approaching a quarter of a million people. Situated to the northeast of London, the Borough includes districts such as Leytonstone, Walthamstow and Chingford as well as part of Epping Forest.

Each year local authorities are subject to a Comprehensive Performance Assessment by the Audit Commission that gauges their performance to encourage continuous improvement.

The 2004 report on LBWF acknowledged service improvements but highlighted the need for further investment in service enhancement and best value service delivery. In response, LBWF formulated a three-year strategy known as 'Customer First' to deliver a step change in service delivery.

A BT Nortel partnership case study

“The new infrastructure has enabled us to implement a network-centric computing strategy. We have been able to rationalise our business applications and create two new data centres for resilience, and to consolidate and gain control over our server estate. That has already delivered cost savings of £450,000.”

David Wilde
Head of ICT and e-Government Strategy
London Borough of Waltham Forest

BT and Nortel products and services

- BT LAN Extension Service (LES1000, LES100, LES10)
- BTnet Premium internet service
- BT managed security services
- Nortel Ethernet Routing Switch 8600 (formerly Passport 8600)
- Nortel Ethernet Routing Switch 470 (formerly BayStack 470)
- Nortel Ethernet Routing Switch 460 (formerly BayStack 460),
- Nortel Communication Server 1000 (formerly Succession CS1000 Server)
- Nortel Multimedia Communication Server 5100
- Nortel Contact Centre Manager Server (formerly Symposium Call Centre Server)
- Nortel CallPilot unified messaging application
- BT professional services including project management, implementation, proactive support and in-life management

Helping local government to send its service delivery soaring

Business opportunity

Today the effective use of technology nearly always underpins customer service improvement. LBWF had hitherto adopted a decentralised approach to networked IT services, with each department responsible for developing and sourcing its own technology. There was no uniform IT architecture or strategy and little cohesion between corporate systems. Support costs were high, with 17 different vendors supplying disparate legacy systems. Interoperability issues were commonplace, constraining rather than enabling service improvement.

As a key strand of ‘Customer First’, LBWF formulated a high-level IT strategy, which determined that it needed an integrated architecture built on a common platform. This became known as the Council IT Infrastructure (CITI) project. The vision was that by mid-2006 all staff would be able to engage electronically with all the information and services they needed to do their jobs, through a unified set of self-service systems, delivered to the desktop via a customisable portal.

Central to the CITI project was the replacement and upgrade of its network infrastructure. The Borough drafted a statement of requirements for the provision of local and wide area network services – using an Office of Government Commerce (OGC) framework agreement – to invite potential suppliers to table proposals for the transformation and ongoing management of voice and data services.

David Wilde, Head of ICT and e-Government Strategy at LBWF, says: “BT and Nortel proposed the most innovative solution; one that met our immediate needs and provided a platform that would take us forward for the next ten years. It also represented excellent value for money and offered voice and data convergence – something that was very attractive to us.”

Solution

The BT-supplied Nortel solution provides a fully converged environment that includes the supply and management of a wide area network (WAN) extending the IT infrastructure to all LBWF sites. It also provides an IP-based contact centre, new local area networks (LANs), IP Telephony with unified messaging, desktop videoconferencing facilities, and internet access with managed security services.

The five-year £7 million contract was placed in June 2005 and implementation started immediately. The first phase was the deployment of a Nortel Ethernet Routing Switch 8600 at the Borough’s four principal sites, with optical fibre connections running at 1Gbps. With that core established the focus turned to the access network and connectivity to remote sites. This involved the provision of BT LAN Extension Services (LES) running at speeds of either 10Mbps or 100Mbps and terminated on either a Nortel Ethernet Routing Switch 460 or a Nortel Ethernet Routing Switch 470. The solution incorporates Power over Ethernet for IP Telephony, and Quality of Service capability to ensure appropriate network traffic prioritisation.

The BT solution also provides LBWF with internet connectivity, backed by a fully managed security service. That comprises dual fed BTnet Premium optical fibre connections terminating at different points of presence (POPs) with firewall filtering, authorised access control, intrusion detection, web and email anti-virus scanning and protection, web site blacklisting, and state-of-the-art web caching.

The original plan was to deploy IP Telephony after this rollout, but as David Wilde explains: “In our quest to improve service we decided to consolidate all inbound voice calls onto the Waltham Forest Direct contact centre. That dramatically increased traffic and our old call centre technology could not cope. Routing limitations meant we were unable to manage traffic efficiently and calls were being lost. An immediate solution was needed, so we turned to BT and Nortel for help and they responded magnificently.”

In just five weeks, BT and Nortel scoped, designed and implemented an IP contact centre solution that has transformed the Waltham Forest Direct service. The project involved advancing the installation of an IP-based Nortel Communication Server 1000, to provide the IP Telephony platform for the contact centre. A Nortel Contact Centre Manager Server provides the advanced routing, management and reporting capabilities necessary for the efficient operation of the Waltham Forest Direct service. The Borough is now also considering the introduction of interactive voice response (IVR) to automate the management of council tax queries and payments.

Results

LBWF is already realising significant benefits. David Wilde says: “The new infrastructure has enabled us to implement a network-centric computing strategy. We have been able to rationalise our business applications and create two new data centres for resilience and to consolidate and gain control over our server estate. That has already delivered cost savings of £450,000 and the new simplified, standardised infrastructure has enabled us to reduce IT support resources by redeploying 16 people, realising an annual saving of £250,000.”

Why BT and Nortel?

- BT and Nortel offered a future proof IP-based converged solution, that would take the Borough forward for the next ten years
- The BT solution was commercially attractive and presented a one-stop-shop for networked IT services
- BT and Nortel were able to provide broad and deep technical skills coupled with comprehensive support and service management

Already over 85 per cent of LBWF staff – more than 3,000 people – can enjoy the benefits of more flexible working. The new network has given them the ability to log on to their desktop from anywhere in the Borough, increasing their efficiency and productivity. Those productivity gains will be even more pronounced as the IP Telephony rollout gathers speed.

Moves and changes have become simpler, shown by the trouble free move of 400 people into a newly refurbished building. The network centric computing approach enabled the building to be pre-equipped so that the change could be achieved over a weekend with no loss of productive time and at £200,000 less expense than previously projected.

Following the initial phase of the CITI project, the programme will extend the rollout of IP Telephony using the Nortel Communication Server 1000, which has the capacity to provide IP Telephony to all 4,200 voice extensions in the Borough. This will initially replace Centrex services and standalone key systems currently serving the Borough’s smaller sites. Ultimately it will replace the legacy PBX at the main offices. Completion of the entire programme is scheduled for the end of 2006.

At the Waltham Forest Direct operation the new Nortel IP Contact Centre technology has provided total visibility of call volumes and workflow – enabling the management of demand peaks and more effective use of available resources. This has already delivered a significant improvement in customer service with an increase of over 20 per cent in calls successfully answered. With the implementation of IP Telephony further cost reductions are anticipated, as calls between the Borough’s locations will be routed over the new converged infrastructure, avoiding external call charges.

David Wilde concludes: “The new network has enabled us to both reduce costs and increase the productivity of our people. BT and Nortel have shown great commitment and have really delivered on their promises, with a solution that will be the key enabler for us to improve customer service.”

A BT Nortel partnership case study

Helping local government to send its service delivery soaring

Technology blueprint

The WAN comprises an Ethernet 1Gbps core network connecting the four principal LBWF locations over optical fibre. Subsidiary offices are linked into this core with BT LAN Extension Services (LES) running at speeds of 10Mbps and above. The heart of the network comprises four Nortel Ethernet Routing Switch 8600 pairs, configured to run at Layer 3 to make full use of available bandwidth. The access network comprises either a Nortel Ethernet Routing Switch 470 or a Nortel Ethernet Routing Switch 460 at each remote location.

Internet access is provided through resilient duplicated 10Mbps BTnet Premium optical fibre connection to the LBWF Town Hall and the Uplands Business Centre, backed by redundant components with transparent failover. The BT-hosted fully managed security service includes firewall filtering, authorised access control, intrusion detection, web and email anti-virus scanning and protection, web site blacklisting, and state-of-the-art web caching.

A Nortel Communication Server 1000 provides IP Telephony capability. This is a server-based, full-featured IP PBX, providing the benefits of a converged network plus advanced applications and over 450 world-class telephony features. With in-built reliability and survivability it supports business critical applications including unified messaging, customer contact centre, IVR, wireless VoIP and IP phones.

Nortel Contact Centre Manager Server (CCMS) supports both IP Telephony and conventional TDM extensions. It provides skill-based routing, call treatment flexibility, real time displays, multimedia routing, and comprehensive management and reporting functionality – empowering contact centre managers with the tools and agility to deliver unprecedented care to customers.

Unified messaging is provided by Nortel CallPilot, combining voicemail, email and fax messages into a single mailbox accessible by phone, any desktop PC, or mobile email enabled devices (PDAs). The solution at LBWF initially provides 3,000 voice mailboxes and 20 unified messaging ports.

The desktop videoconferencing capability is delivered by a Nortel Multimedia Communication Server 5100 (MCS 5100), which enables multimedia and collaborative applications using industry standard protocols. As well as video conferencing the MCS 5100 offers advanced IP-based capabilities such as virtual presence and instant messaging.

The BT Nortel value proposition

BT and Nortel have worked in partnership since 1990, delivering market leading converged communications solutions to businesses in all sectors and of all sizes across the UK and beyond. Together we have enabled six million desktops and empowered one million call centre agents, and those numbers continue to rise.

Today, BT is Nortel's biggest EMEA enterprise partner and one of its three largest global partners, and is fully accredited as a Nortel Gold partner with over 1,000 Nortel-trained technicians. The enduring success of the relationship comes from our intense focus on designing and supporting transformational approaches to clients' needs: fashioned by people who care from the strength of our combined products and services portfolios.



Offices worldwide

The telecommunications services described in this publication are subject to availability and may be modified from time to time. Services and equipment are provided subject to British Telecommunications plc's respective standard conditions of contract. Nothing in this publication forms any part of any contract. BT and the BT logo are trademarks of British Telecommunications plc.

© British Telecommunications plc 2005.
Registered office: 81 Newgate Street, London EC1A 7AJ
Registered in England No: 1800000
Produced by BT Group
Designed by Westhill Communications

PHME 49631