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NETWORKS

## CASE STUDY: GREATER LONDON AUTHORITY

### London City Hall Gets High-Tech Makeover from Foundry and Mitel

# LONDON

#### SUMMARY

The opening of the Greater London Authority's headquarters, City Hall, in 2002 symbolized a new era for Great Britain's capital. City Hall houses the Mayor's office, the London Assembly, and some 500 Greater London Authority (GLA) staff. With a mandate to develop London-wide strategies for major public services including transportation, fire, police, health, economic renewal, the environment and cultural affairs, the GLA decided to prepare its building for the future. The networking and telephony infrastructure adopted for the new building represents a new era in speed, reliability, and innovation.

#### OBJECTIVE

The City Hall development was the first opportunity for the GLA to specify a modern, "future-proof" IT environment. Manny Lewis, executive director of corporate services, explains, "We had very specific requirements for fast, integrated communication channels both nationally and internationally that would support mobile and remote working. We required links to our Brussels office and connections to New York, Moscow, Tokyo, Paris and Berlin. Network reliability is crucial: Our existing environment was antiquated and caused a lot of frustration as there was too much downtime. Ninety-nine percent availability wasn't a 'nice-to-have,' but paramount."

After its formation in 1999, the GLA moved into offices that had managed service contracts already in place. The GLA was forced to rely on a call center in Glasgow to handle all switchboard traffic, and expensive outside engineers had to be called in to make changes to the voice network. As people telephoned the GLA, calls would be routed to Glasgow and back, which was far from satisfactory. The construction of City Hall gave GLA the opportunity to take full ownership of its communications and install a more convenient, cost-effective, and manageable telephone system.

#### SOLUTION DESCRIPTION

Through its own research, the GLA chose Foundry Networks as its network infrastructure supplier, with two BigIron<sup>®</sup> 8000 Layer 3 switches forming the network core, linked by trunked Gigabit Ethernet. Fifteen FastIron<sup>®</sup> Layer 2/3 switches, incorporating both four- and eight-slot chassis, were deployed to provide connectivity to each floor with 10/100 Mb copper to the desktop.

"Our assessment showed that Foundry offers better price-performance and reliability compared to its competitors. Future-proofing is also key to us: We want products that will stand the test of time well, which is inherent in Foundry's product design," Lewis said.

"The BigIron and FastIron lines are modular, so it's easy to swap and change blades if you want to add capacity and scale up. Foundry is 10-Gigabit Ethernet ready, so it's an easy upgrade should the GLA need extra capacity" says John Thornton, a network consultant at Computacenter, the GLA's IT infrastructure services provider.

The new network's capabilities led to more technology advancements. Foundry introduced GLA to Mitel Networks, and GLA selected and deployed the Mitel voice technology. Initially, the GLA considered installing a single network solution at City Hall, integrating voice with data traffic using Internet Protocol (IP), but a migratory approach was adopted instead—a traditional PBX solution for today but one that can easily deliver IP telephony in the future. Foundry provides a world-class networking infrastructure for the GLA's mission-critical data applications as well as voice over IP (VoIP) when required. Lewis explains, "We've gone through a lot of change recently. Obviously there is the move to a new building, but we've also upgraded our Compaq servers to Windows 2000 and installed Windows XP on desktops. We decided to adopt a staged approach with our telephony, especially as we are now managing it ourselves."

[HTTP://WWW.LONDON.GOV.UK/INDEX.JSP](http://www.london.gov.uk/index.jsp)

#### INDUSTRY

Government

#### AGENCY DESCRIPTION

Made up of the Mayor, the London Assembly, and a team of more than 600 staff supporting their work, the GLA's home is City Hall, on the south side of Tower Bridge. A small GLA office is located in Brussels, representing London in the European Parliament. The GLA was established in 1999 and administers the 32 London boroughs and the City of London.

#### OBJECTIVE

- An integrated, modern communications infrastructure with fast links to transnational offices and the ability for workers to telecommute
- A scalable solution that would support gradual phase-in of VoIP and other IP-delivered media
- High availability to keep government services functioning

#### SOLUTION

- Foundry BigIron 8000 Layer 3 switches form high-performance network core
- FastIron Layer 2/3 switches deliver Gigabit Ethernet to desktops
- Mitel Networks 3300 Integrated Communications Platform supports TDM voice switching, as well as a clear upgrade path to VoIP
- Mitel Networks 6500 Speech-Enabled (SE) Applications reduces workload for switchboard operators
- Mitel Networks 6100 Contact Center Solutions identifies and prioritizes calls for better service, and provides extensive reporting on call volume, response time, and more

#### RESULTS

- High-performance, feature-rich voice and switch technology from Foundry Networks and Mitel Networks is easy to manage, flexible, and cost effective
- Voice and data infrastructure allows IP telephony, unified messaging, 10-Gigabit Ethernet, and multimedia upgrades to meet the GLA's future technology requirements
- GLA was able to reduce IT headcount, saving about £75,000 per year in salaries
- Mitel Networks 3300 Integrated Communications Platform gives the GLA both traditional TDM voice switching and capacity for IP telephony, allowing for gradual phase-in of VoIP
- Mitel Networks 6500 SE applications provide the GLA with extensive, PC-based messaging capabilities that are accessible remotely
- Mitel applications enable better resource planning

The GLA purchased three Mitel Networks 3300 Integrated Communications Platforms (ICPs), which provide both traditional time-division multiplexed (TDM) voice switching and IP telephony in the same device. This unique environment introduced a clear upgrade path to IP, which will meet the GLA's future needs and technology aspirations.

Graham Bevington, Mitel's managing director, EMEA explains: "The GLA had the option to install a standard PBX, but this would not have provided future IP capability within the same platform. It just didn't make commercial sense to go through the time, effort, and expense of a 'forklift' upgrade later on when a solution offering the best of both worlds could be installed today."

The three Mitel Networks 3300 ICPs are clustered together, providing resilience across the networks in conjunction with the Foundry switches, which also offer high availability. "All the Foundry switches are cross-linked for redundancy and features, such as Virtual Router Redundancy Protocol (VRRP) and Rapid Spanning Tree Protocol (RSTP), offer sub-second failover should there be a problem," says Thornton.

Mitel also installed speech-enabled auto-attendants at City Hall via its server-based Mitel Networks 6500 Speech-Enabled (SE) Applications. "Callers both externally and internally can simply ask for people by name and the system will dial the number automatically. It significantly reduces the burden of calls on the switchboard and means only two operators are actually required," Bevington says.

The Mitel Networks 6500 SE applications will provide the GLA with extensive messaging capabilities that gather all communications—e-mail, voice messages, even faxes—in one place on their PC. The platform is speech enabled, so it allows users to listen to both their e-mail and voice mail via any telephone, in the office or remotely, with the ability to respond, delete, or sort using voice commands.

The GLA has enhanced the 3300 ICP system by adding Mitel Networks 6100 Contact Center Solutions (CCS), providing automatic call distribution that routes calls to a team dedicated to dealing with the public. Effective call routing and distribution based on caller identity means that queries can be addressed more quickly and members of the public always have a "real person" to help them. This flexibility is crucial because the GLA provides such an important service to Londoners.

Alongside the 6500 SE Applications and the 3300 ICP platforms installed, the Mitel Networks 6100 CCS provides information to the GLA about the number of calls received, time taken to answer, the number of calls abandoned, which individuals dealt with them, and so on. This information will allow the GLA, for the first time, to effectively plan and schedule staff in response to peaks and valleys of activity.

## THE RESULTS

"The biggest risk on this project has been slippage," says Lewis. "All our technology partners, Computacenter, Foundry, and Mitel, worked extremely hard to ensure we were on track. In six months, everything was delivered, installed, tested, and working—a testament to product quality and professionalism of the three IT companies involved."

Not only was the implementation delivered on time, but the GLA has also benefited from partners prepared to aggressively price their products. "Both Foundry and Mitel have been extremely competitive with their pricing. We have established long-term relationships with them and will be taking up their maintenance and support contracts. The partnership approach is very much demonstrated by the fact that senior executives from both vendors have played an integral role to ensure on-time delivery and project success," Lewis says.

The GLA is now saving money on management of the new IT infrastructure as well. "We had planned for an IT staff of 23, but really only need 20, a savings of about £75,000 per year in salary cost," says Lewis.

The Foundry and Mitel Networks-based infrastructure provides considerable scope for development. In the words of Andy Palmer, Foundry's vice president and managing director for EMEA, "Flexibility is inherent in the solution deployed. Our switches are multimedia ready; the quality of service features mean that multicast traffic can be handled properly, so IP telephony, IP videoconferencing, or any IP-based solution can be easily implemented. Delivering flexibility has been the mantra on this project: The technology team—Foundry, Mitel, and Computacenter—have reacted quickly to the GLA's needs, and I know we have exceeded their expectations."

**“ OUR ASSESSMENT  
SHOWED THAT  
FOUNDRY OFFERS  
BETTER PRICE-  
PERFORMANCE  
AND RELIABILITY  
COMPARED TO ITS  
COMPETITORS. ”**

— Manny Lewis,  
Executive Director  
of Corporate Services,  
Greater London Authority

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