An Environmentally Efficient Network Serving the Medical Community

The British Medical Association is meeting its high-bandwidth needs with a Catalyst solution.

EXECUTIVE SUMMARY

British Medical Association
- Industry: Medical
- Location: United Kingdom
- Number of Members: More than 139,000

Business Challenge
- Replace an aging network with 10 Gigabit Ethernet technology without business disruption
- Maximize investment
- Lack of support for network problems from current vendor

Network Solution
- Cisco Catalyst 3750-E Series switches in the access layer and Catalyst 6500 Series switches in the core
- TwinGig Converter Module providing investment protection
- Cisco SMARTnet support services

Business Results
- Investment protection with a network that delivers the high-bandwidth applications required by its medical-community members
- Enhanced Power over Ethernet—providing power to 802.11n access points in a greener, more efficient and more cost-effective manner
- Full support in deploying, operating, and optimizing the network

Business Challenge

The British Medical Association (BMA) is a household name in the United Kingdom and in the healthcare industry, looking after the professional needs of more than 139,000 members—a number that continues to steadily grow. BMA is the voice of doctors and medical students in the United Kingdom, working for a better healthcare system in Britain.

The time had come for BMA to upgrade its headquarters LAN, and it thus put out a tender to its incumbent vendor and to others, including Cisco®.

The primary objectives were to maximize investment as the organization continued to grow and to help ensure the network would provide around-the-clock reliability— for data, voice, video, and wireless—and that it would offer ample bandwidth for such needs as high-definition images, for which BMA had seen a significant growth rate in recent years.

Another critical evaluation consideration was a reliable support structure: The BMA IT team had been dissatisfied with the support they had previously been receiving.

Network Solution

When BMA was evaluating its next technology decision for wiring closet applications, the IT team considered a number of different vendors. But, says Tony Wood, BMA's senior network analyst, they soon came to the conclusion that Cisco Catalyst® 3750-E Series switches would provide the organization optimal investment protection for the future.

In fact, he emphasizes, that decision was a unanimous one. "When each of us on the IT team independently went through our wish lists of what we'd like the new network to look like and what are criteria were in choosing a vendor," Wood says, "it turned out that we had unanimously decided that Cisco provides the technology and support we wanted to gain."

BMA ultimately decided to replace its entire aging network with Cisco Catalyst 6500 Series switches at the core and Cisco Catalyst 3750-E Series switches in the access layer—a considerable upgrade that was carried out with no interruption to business operations or application availability.

The ability to migrate to 10 Gigabit Ethernet technology was a primary consideration in selecting this solution. The Cisco TwinGig Converter Module that is integrated into the Catalyst 3750-E switches allows BMA to continue to use its switches with Gigabit Ethernet uplinks and to implement 10 Gig Ethernet uplinks as business demands change, without having to upgrade the access layer.

Another major selling point for the Cisco solution was the enhanced Power over Ethernet (PoE) capabilities that it provides. Enhanced PoE enables the new 802.11n access points to be powered by the Cisco Catalyst 3750-E switches without the need for external power supplies or power injectors—a development that allows Wood to rest quite a bit easier.

"When you're looking at that many phones and that many wireless access points," he says, "installing power injectors makes the whole solution a bit messy and harder to support, and it means you've got more chances for component failure.

"With enhanced PoE, if we require more power, the hardware is already in place, and all we need to do is a software fix on the switch."

With the introduction of enhanced PoE into the Cisco Catalyst 3750-E, BMA will be positioned to take full advantage of all the performance enhancements and rich-media applications support that 802.11n offers. Enhanced PoE support on Cisco Catalyst 3750-E and 3560-E provides up to 20 watts per port. Introducing 802.11n requires only a software upgrade, which, says Wood, "is further helping protect our investment with Cisco from future obsolescence."

Moreover, the Cisco enhanced PoE solution optimizes carbon footprint. Cisco switches with enhanced PoE use Cisco Discovery Protocol and intelligent power management to auto-negotiate their power requirements. The Cisco Enhanced PoE switch informs the powered device of the power level that it is capable of providing, and the powered device then selects the appropriate power level.

> **"When we originally submitted our tender for an upgrade, it was just going to be for the head office. But we managed to convince upper management to change it to include all the regional and national offices. Today we're running Cisco equipment consistently across all offices."**
> —Tony Wood, senior network analyst, British Medical Association

Business Results

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"Today we're running Cisco equipment consistently across all offices."

"One of the primary benefits of choosing this Cisco solution was the ability to go to 10 Gig," Wood says. "Though we're not yet running 10 Gig, we know it's just a quick hardware swap out, and we have the infrastructure in place to support it.

"We needed to make sure that we could reliably deliver voice, video, and wireless; and we're doing that today. We're using the network to move quite a number of high-definition images, which are very important in the medical profession. We're also facilitating a lot of videoconferencing, connecting our members from across the country."

A solid support structure was every bit as important as the technology: "Cisco SMARTnet services exceeded our expectations with full support for all aspects of deploying, operating, and optimizing an integrated network that supports our members and applications," Wood says.

"What we'd found in the past," he says "was that with the technology we were using, the turn around time for getting third-party or vendor support to help deliver a services left us exposed. So that was one of our primary goals—to make sure a supplier could not only deliver the technology but help back it up.

"Cisco offered us an industry-leading 10 Gigabit Ethernet-ready solution that's backed by the best service available anywhere. We can easily access their technical knowledge base and they're also directly approachable, which is quite a nice benefit to have."

Cisco's solid reputation among Wood's colleagues was also a major factor in instilling a sense of confidence that this solution was the right way to go. He tells of going to an IT industry "brainstorming session" while he and his team were in the process of selecting a vendor for BMA's network upgrade.

"I took the opportunity to ask the brainstorming panel members what networks they were running," he says, "and about 80 percent of the room put their hands up and said 'Cisco.'"

"That was a very useful piece of information."

PRODUCT LIST
Routing and Switching
• Cisco Catalyst 6500 Series Switch
• Cisco Catalyst 3750-E Series Switch

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