



IP telephony helps a national healthcare provider maintain its market lead

“We judged potential suppliers against a matrix that covered technical responses and pricing together with the availability of reference customers to prove that they had the necessary capabilities. Not only did BT score well but it also showed a very proactive and commercially flexible approach to the bidding process.”

Senior Network Engineer
Integrated US Healthcare Organization

BT’s collaborative approach ensures outstanding success for integrated US healthcare organization in a fast-track IP-based network infrastructure project

Marketplace

This integrated US healthcare organization offers services across nine states and Washington DC to over eight million voluntarily enrolled members. With some 30 medical centers, nearly 450 medical offices, and around 12,000 physicians it is a noted leader in its field. Like healthcare providers the world over, the organization is facing increasing regulatory pressure while seeking to leverage technology to achieve greater efficiency and enhanced patient care.

A Senior Network Engineer at the organization explains: “Regulatory compliance, together with advanced applications such as digital imaging and electronic patient records, are just some of the factors that are causing data processing and storage requirements to shoot through the roof. That brings the need for a sharp focus on business continuity, because today information technology is literally our lifeblood.

Prior to 2007, the organization had one production data center in California, with two subsidiary data centers for test and development work. Not only was the 20-year-old production data center running out of capacity – it was actually proving impossible to cool the growing computer and storage estate – but also the architecture was not sufficiently resilient. A disaster at the production data center could have brought the organization virtually to a halt. The decision was taken to create a second production data center, and a separate location in California was found.

The Senior Network Engineer continues: “We also knew that we needed to embrace IP telephony, which would allow us to introduce advanced network applications and encourage more flexible and collaborative working right across our company.”

BT was selected for the fast-track project required to create the IP-based network infrastructure on which the new computing and storage estate would be built; and then to contribute expert knowledge in a conceptual phased implementation of IP telephony across the organization.

The Senior Network Engineer explains that choice: “We compared potential suppliers against a matrix that covered technical responses and pricing together with the availability of reference customers to prove that they had the necessary capabilities. Not only did BT score well but it also showed a very proactive and commercially flexible approach to the bidding process.”

The data center project

A Cisco-based infrastructure had been dimensioned at a conceptual level and BT technicians worked alongside the healthcare organization to turn those top-level plans into detailed specifications. A BT project manager partnered with the organization’s IT team to fine tune implementation plans, develop realistic milestones, and coordinate the many phases involved.

Case study

Integrated US Healthcare Organization

“Our partnership with BT is blossoming, but here on the West Coast the company’s capabilities must be one of the industry’s best-kept secrets. With the truly rewarding experience that we are having right now in working with BT, I don’t think that situation will last much longer.”

Senior Network Engineer
Integrated US Healthcare Organization

The BT offer included verifying and procuring the necessary equipment, staging the network at its Oakdale deployment facility, stress testing a subset of the data center architecture at a BT San Francisco POP, and implementation and final configuration of the Cisco hardware at the data center – all within the non-negotiable four-month timescale that had been stipulated. BT’s partnership with Cisco meant that equipment orders could be turned around in just two weeks, and the BT people showed themselves to be extremely knowledgeable when it came to the Cisco technology.

The Senior Network Engineer brings that process to life. “Nothing was too much trouble for the BT team,” he says. “In my opinion they took the art of network implementation projects to a new level. The BT team was fast-paced, responsive, flexible and – above all – they worked in a truly collaborative fashion.”

Offices worldwide

The 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.

© British Telecommunications plc 2007.
Registered office: 81 Newgate Street, London EC1A 7AJ
Registered in England No: 1800000

The IP telephony implementation

With the data center project substantially complete, BT and the healthcare organization turned their attention to the IP telephony system that would run over the Cisco-based network. The Senior Network Engineer explains: “Our organization has a large number of different PBXs at its various sites. Most are old and many are reaching the end of their useful life. Not only is that diversity costing us a lot to maintain but also we are spending unnecessary money on calls across the public network. So IP telephony was the logical next step.”

There had already been some activity prior to BT’s involvement and site-specific IP telephony implementations undertaken by a third party vendor had met with mixed success. BT’s first task therefore was to trouble shoot what had gone before.

The Senior Network Engineer says: “The BT system engineers brought in to work on the early deployments of VoIP found key problems and recommended solutions that positioned our VoIP deployments much stronger and scalable for the future. Having BT provide these recommendations and guidance before a larger rollout occurred saved us a great deal of time and rework.”

BT created a centralized reference architecture that would enable the healthcare organization to more easily and safely introduce IP Telephony at and between other sites. It also provided training for the healthcare organization’s people, not only to help them spot and avoid the mistakes that had previously been made but also to understand how to properly create quality of service hierarchies in the Cisco network.

Results

The data center network infrastructure project hit all its deadlines and went live under budget and ahead of schedule before the end of March 2007, enabling the healthcare organization to start the process of loading applications into the data center. Key among those is the next phase in the rollout of its electronic patient record initiative, with substantial benefits for the organization and its patient care.

Equally importantly, the organization is now able for the first time to turn its attention to a coherent business continuity and disaster recovery strategy.

In the first phase of an organization-wide adoption of IP telephony, standalone Cisco Unified CallManager installations are being interconnected. For example, at the new data centre, BT deployed 130 Cisco IP Phones. The IP telephony functionality is provided across the network, making economical use of an existing Cisco Unified CallManager at another site. In addition, BT’s work on the existing IP telephony installations at other sites has not only improved service to users but also has closed some serious security loopholes that had been left.

The Senior Network Engineer concludes: “Our partnership with BT is blossoming, but here on the West Coast the company’s capabilities must be one of the industry’s best-kept secrets. With the truly rewarding experience that we are having right now in working with BT, I don’t think that situation will last much longer.”

Main BT products and services

- Professional Services for project management, equipment specification and procurement, network stress testing and staging, commissioning and configuration
- Professional Services for IP telephony technical consultation, trouble shooting, cross-network implementation, and technical training
- Provision of a Cisco-based hardware and software network platform together with an IP Telephony infrastructure

