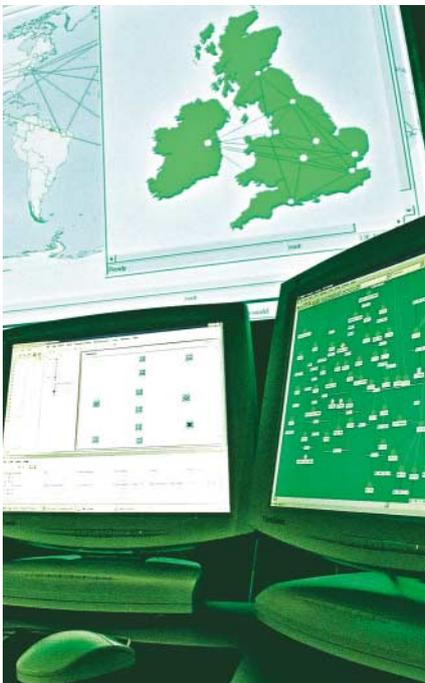




UNITER is strength

Forces network conforms to highest security levels



Outsourcing contracts, in which a third-party organization delivers a managed network service, come in many flavours. But few are as specialized or complex as the network support service provided by Marconi Integrated Systems for the Ministry of Defence (MoD) UNITER network.

The UNITER project is especially interesting to public-funded and security-conscious organizations on three counts:

- Marconi's role encompasses the deployment and managed support of a secure military-grade network operated to defence standards.
- It demonstrates how seamless integration of day-to-day operations with the customers' working practices is essential for the project's success.
- It is an outstanding example of how outsourcing can generate savings for public-funded organizations.

The contract, primarily to provide a managed network support service, is unusual because it has to be operated and maintained according to MoD regulations.

This places particular pressures and constraints on Marconi compared with a conventional civilian network. All aspects – from personnel security clearance to installation work to network traffic reports – have to conform to the highest levels of security.

Though uniquely challenging, the contract has proved highly successful and is a showcase for Marconi's ability to provide specialized network support services.



Marconi builds UNITER

In the late 1970s, the number of independent communications networks across the UK's armed forces was growing rapidly and becoming increasingly more expensive to install and maintain. The RAF operated numerous diverse networks and required integration and security of its strategic communications within the UK. So, a Secure, Survivable, Integrated Network (SSIN) was designed, to be entirely owned by the RAF.

UNITER provides a resilient switching network and on-site communications for operational RAF stations. It is not an acronym, but a project name denoting the fact that it provided new operational communications to meet a defined threat and, in so doing, subsumed a number of other obsolescent voice and data networks.

GPT (now Marconi) was the prime contractor for UNITER. It was responsible not only for the entire network design and installation of equipment at RAF stations, but also for the civil engineering – building hardened structures, for example, designed to withstand a missile attack.

The DFTS contract

The end of the Cold War prompted a strategic defence review of the resources of all three Services, including their various networks, interconnections and overlaps. On behalf of the MoD, Marconi Integrated Systems led a design study that resulted in a rationalized set of networks managed within the UK Defence Fixed Telecommunications Service (DFTS) agreement.

The shift in political climate also heralded a significant cultural change – the introduction of outsourcing: inviting civilian organizations to manage networks on behalf of the military. In 1997, the INCA consortium led by BT won the contract – worth £997 million over 10 years – to manage DFTS. All of the UK fixed assets were sold to BT, apart from UNITER, which remains the property of the MoD.

Within the main agreement, Marconi Integrated Systems was the natural partner to manage UNITER, providing a support service worth £120 million over seven years for the network that Marconi designed and built.

A spokesman for the Defence Communications Services Agency (DCSA) explains: "Marconi's long involvement with UNITER, dating back to the original design study, provided confidence in the ability of the selected DFTS contractor to manage this important asset."

Marconi takes command

To prepare for the task of not only running UNITER, but also meeting the stringent security requirements, Marconi Integrated Systems entered a period of planning and negotiation with the MoD several months prior to taking over the maintenance of each UNITER location. A series of workshops was held with BT to discuss and prepare the numerous procedures necessary for integrating civilian and military processes. Presentations were delivered to DFTS Authorised Telecommunications Officers, responsible for co-ordinating and processing orders for telecommunications services.

The spokesman recalls: "The concept of handing over control of a large and important component of the RAF's communications systems to a civilian contractor did not sit easily with many service personnel." So Marconi took great pains to ensure a smooth transition.

Security demands

The UNITER network is used primarily for secure voice links and 'mission critical' strategic data communications. As a result, the demands placed on Marconi, as managed service provider of an MoD network, are rigorous and far-reaching. They affect all aspects of management, involving rules and procedures for activities that in conventional contracts are taken for granted. Marconi is monitored by the MoD to ensure its software systems and operational procedures conform to security regulations.

“Marconi’s long involvement with UNITER provided confidence that the contractor could manage this important asset.”

DCSA spokesman

Day-to-day operations

Since September 1998, UNITER has been managed by Marconi Integrated Systems’ customer service management staff in Wellingborough, supported by network-design experts organizing system moves and changes, and by maintenance operations management staff.

24-hours-a-day, 365 days a year, network monitoring and fault management functions are provided by a dedicated team of Marconi staff, working closely with BT and MoD staff at the MoD Global Operations & Security Control Centre.

A field force of specially trained and security-cleared Marconi networks services staff carries out routine maintenance and fault investigation/rectification at any of the 43 UNITER sites throughout the UK.

UNITER is a complex, dynamic network in which moves and changes are a constant feature. Each task must be carried out by Marconi engineers to stringent requirements, from gaining security clearance to using the correct materials during installation.

Recent conflicts have increased the number of operational requirements for moves and changes, highlighting the continued importance of UNITER and the value of a flexible and rapidly responding service organization.

As the DCSA spokesman says: “The ending of the Cold War has not removed the need for secure reliable communications within the UK.”

An improved performance

The RAF had an established Mean Time To Restore Service (MTTR) performance target for UNITER and, with the move to a commercial arrangement, Marconi agreed to a contractual MTTR requirement of eight hours. This agreement to restore service – not simply to respond – is being met well within the target.

The spokesman says: “Many RAF personnel doubted that the contracted MTTR would result in a maintenance of the existing levels of service. Marconi’s speed of response and performance – well in excess of the agreed levels – has, in the vast majority of cases, satisfied all but the most-hardened critics.”

Level of detail

Marconi staff also provide detailed UNITER traffic reports and statistics to the MoD. The level of detail is far higher than would be made available for a conventional managed network. For example, most outsourcing customers are concerned largely with service continuity, whereas, within a military network, it is important to know when, where and how many interruptions or deviations in service occurred.

Marconi staff often have to explain the workings of UNITER to members of the other defence services. To help this process, they liaise with MoD operations officers who represent the interests of all three Services. These serving officers also help resolve issues such as prioritizing fault resolution: the MoD may perceive a military need to repair a fault differently to the usual chronological order.

“The good working relationship between Marconi staff and the Network Control Centre staff is essential to the task of maintaining UNITER services at a high level,” says the spokesman.

Cost-saving and incentivization

Marconi has played a pivotal role in the success of the MoD Defence Fixed Telecommunications Service (DFTS) outsourcing contract. Over the last five years, the fixed communications assets of the MOD have been transformed in private management to realize proven annual savings in excess of £30 million.

As a result of a Strategic Defence Review by the MoD, some of the previous stringent security and electromagnetic pulse protection requirements were reduced. This development, coupled with BT’s introduction of VPN and Managed PSTN Service for DFTS, opened the door to possible network refinement and cost efficiencies. Taking up this opportunity, Marconi worked with BT to provide service delivery improvements and rationalization of the UNITER voice and data network.

May 31st 2002 marked the completion of a programme to re-engineer and downsize the network in order to achieve overall cost savings on the DFTS programme for the MoD. The UNITER network was reduced from 46 RAF sites with 88 Circuit Switch Exchanges,

connected by 212 Encrypted Inter-Site Bearers, to 32 RAF sites with 64 Circuit Switch Exchanges, connected by 96 Encrypted Inter-Site Bearers. The military-owned BOXER bearer system was decommissioned in parallel with the Marconi programme and all of the bearers were moved onto newly provided BT Megastream links.

As part of the DFTS contract, the partners were incentivized in realizing the primary cost-saving goal as part of a win-win relationship. This meant that the target savings achieved by the network reduction programme were shared equally between the MoD, BT and Marconi.

A successful partnership

Without doubt, PFI projects are not to be undertaken lightly: the complexity and differing commercial interests of the public and private parties need to be considered and addressed in advance and in an innovative way to ensure long-term success and favourable cost advantages.

To work successfully alongside military personnel, Marconi technicians have to be prepared to ascribe themselves to military culture and ways of working to carry out their work successfully. That success is measured, as in the commercial world, from the perspective of the customer, the MoD, but with very different priorities and outcomes.

Such success is not easily achieved, requiring commitment from all parties. Nonetheless, with a track record this positive, the UNITER project bears closer examination as a potential benchmark or blueprint for future successful government PFI deals.

Few networks need anything like the equivalent levels of security, confidentiality and completeness of service as UNITER. The ability to deliver, as a civilian commercial organization, an effective service to the UK’s own defence establishment is testament to Marconi’s experience in managing networks for large public and private organizations under a wide variety of circumstances.



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