

CASE STUDY OPTIMISING BANDWIDTH FOR THE BRITISH ARMY IN GERMANY



‘The relationship was excellent, Fujitsu were flexible in their approach, quick to recognise our business requirements and to suggest effective and innovative proposals to achieve quick results.’

Major Paul Moore - Deputy Programme Director of the DII Army Programme



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SUMMARY OF KEY FACTS

Organisation

British Army

Contract signing date

Part of the DII/C contract, signed in Oct 2001
This project commenced in Jan 2003.

Service/s delivered

Consultancy, design, implementation and support

Benefits For MOD

- Up to 95% less bandwidth with better performance
- £96,000 a year becomes £2,000
- Use the existing network
- Security Accredited
- No technology tie-in
- Cut RESTRICTED Lan Interconnect congestion
- Easy to implement
- Robust and resilient
- Easy to roll-out elsewhere.

The challenge

The Army in Germany needed more bandwidth to cope with growing network traffic into the Rheindahlen Army base where the Defence Information Infrastructure Convergence (DII(C)) core node is located.

The infrastructure was working well, delivering a RESTRICTED Lan Interconnect (RLI) Wide Area Network (WAN) to over 130 Army sites spread across UK and Germany. But the cost of the connection was huge, and set to increase, with more users and the higher security requirements of the Defence Information Infrastructure Future (DII(F)).

It was urgent to somehow reduce the RLI bandwidth whilst also increasing capacity.

The solution

Fujitsu provided consultancy, design, implementation and support for a solution that uses Steelhead hardware from Riverbed.

Steelhead is a small box that maximises effective WAN bandwidth by optimising traffic flows. The boxes at either end of the WAN line use sophisticated caching techniques and compression to reduce the amount of data physically sent over the WAN, reconstructing the actual data at the destination end.

Benefits for MOD

Up to 95% less bandwidth with better performance. Not only does the system greatly reduce bandwidth requirements, it also gives users the perception of a 300 - 1000% performance improvement for log-on, email, and file access times.

£96,000 a year becomes £2,000. Without optimisation, one RLI Service Delivery Point (SDP) would need 6 megabytes and cost almost £100,000 a year in traffic costs. The alternative is now 2 megabytes and just £2000 a year. Installation costs are halved and the capital cost of the Steelhead devices is repaid in two months.

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Use the existing network. Non-optimised solutions need an expensive dedicated line, whereas the Army can now join the standard RLI network already employed in other DII(C) sites.

Security Accredited. During the pilot, Fujitsu demonstrated that the system passed all required industry standards to operate at RESTRICTED level.

No technology tie-in. The solution is built from commercial off the shelf (COTS) components, which means the customer is not restricted to one supplier, or committed to an expensive bespoke system.

Cut RLI congestion. The solution reduces traffic load over the WAN, cutting overall RLI traffic everywhere.

Easy to implement. The Steelhead hardware was installed quickly, requiring downtime of only two hours and occupying very little extra space among existing network equipment.

Robust and resilient. The system is simple and robust, requiring little in the way of field support, saving further cost.

Easy to roll-out elsewhere. The service can be rolled out to other parts of the MOD at a low risk, especially in deployed locations and onboard ships where space is limited but large bandwidth is needed.

Our Approach

Before implementation, Fujitsu proved the technology in pilot sites, greatly reducing the risk for the Army in Germany.

After close liaison with the customer's technical authority regarding equipment compliance, Fujitsu programmed the Steelhead devices at their Basingstoke Defence Centre before transporting to Germany and installing on site (about three days work).

First user live was achieved by April 2005 within six months of contract signature.

Major Paul Moore, Deputy Programme Director of the DII Army Programme said: *'Fujitsu were flexible in their approach, quick to recognise our business requirements and to suggest effective and innovative proposals to achieve quick results.'*

Our Expertise

Paul explained: *'Fujitsu understood our need for a more efficient communications architecture. When issues arose throughout the project, good communications and our close relationship with Fujitsu meant that solutions were easily found.'*

'The benefits the project has demonstrated have been acknowledged by ATLAS so the success of it is being taken forward and put into consideration for DII(F).'

Over 40 years ago, Fujitsu (then ICL) invoiced its first successful IT project to the UK Ministry of Defence. Today, we're one of the UK Defence Industry's biggest IT partners. We also have a long standing association with Defence Intelligence Staffs.

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Phone 0870 242 7998
email askfujitsu@uk.fujitsu.com

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