

CASE STUDY  
NAVAL SHORE TELECOMMUNICATIONS  
SYSTEM (NSTN)



*'This is one of the most successful projects we have ever had. The delivery of Naval Messaging has been transformed, with a quantum leap in technology, and we now have been working together for over 20 years.'*

**Kevin Cowie** - Lieutenant Commander



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### The Challenge

The Royal Navy sends approximately 10,000 messages a day but until 1986, a manual system was used to encode, process and decode much of its messaging, from ship to shore and between stations around the world.

This could involve up to 400 people handling telegraph traffic, Morse code, and telegrams in the busy Communications Centre in Whitehall, London.

It worked. But to have all its eggs in one basket like this made the Navy vulnerable. And, the delays and growing cost of manual processing were becoming unacceptable.

The decision was taken to decentralise and computerise message handling and Fujitsu was asked to build a system to do the job.

### The Solution

Fujitsu created a high grade messaging service, developing software to meet the Navy's ultra-strict security requirements but using commercial off-the-shelf hardware.

The system was first piloted in 1975 and rolled out globally in 1986 as the Naval Shore Telecommunications System (NSTN).

NSTN enables individual users to compose and send secure messages on and offshore, automating their delivery and distribution, with an audit trail, proof of delivery, multi-level security clearances and secure networking, both within the Navy and outside, from the Army and the Air Force, NATO and other allied nations.

There are 5,000 users and a number of Communication Centre 'nodes' - in the UK, as well as in further afield locations such as Gibraltar and the Falklands and on board ship. Each node has about 60 personnel functioning 24 hours a day, seven days a week.

Third and fourth line support is handled by Fujitsu from the Basingstoke office.

### SUMMARY OF KEY FACTS

#### Organisation

Naval Shore Telecommunications System (NSTN)

#### Contract signing date:

1st April 2005

#### Service/s delivered

- Designed, developed and manage a high grade messaging service

#### Benefits

- Multilevel security - automatically
- Cuts cost and manpower
- Online audit trail
- Non-repudiated delivery
- Legal proof
- Seamless ship-to-shore
- Robust and resilient

## CASE STUDY

# NAVAL SHORE TELECOMMUNICATIONS SYSTEM (NSTN)



### Benefits to our Customer

#### Multilevel security - automatically

Messages are checked automatically, using protective markings against route, recipient and originator permissions, to ensure that these are all cleared to the correct level. Delivery can be blocked if any of these are not cleared to handle the message.

Use of Protective Markings enables messages to be sent between SECRET and UNCLASSIFIED networks.

#### Cuts cost and manpower

NSTN is a fully automatic system - only rejected messages need to be dealt with manually. This cuts manpower requirements by almost 90% compared to the previous system, saving millions every year.

#### Online audit trail

Authorised personnel can easily check the audit trail of a message online using simple management commands. Submission/delivery disputes are easily resolved.

#### Non-repudiated delivery

When a high precedence message comes in out of normal working hours, the officer on duty can be set to receive the message on another person's behalf - ensuring relevant action is taken.

When messages have not been read within an allotted time period, notification is given to the major nodes, so that further action to be taken.

#### Legal proof

Fujitsu's messaging system provides legal-strength proof of message sending and delivery and checks that recipients are those intended.

#### Seamless ship-to-shore

There is no difference in communicating to colleagues afloat or onshore. Wherever you are in the world, messages can be distributed to terminals or printers as if they were in the same office.

#### Robust and resilient

The system is readied to handle network problems, simply switching traffic through another node to maintain continuity.

### Our Approach

A few years ago, the customer wanted to rationalise its network and to adopt new technology. This new project ran into difficulties so Fujitsu was asked to step in by the customer knowing its strong delivery reputation.

Lieutenant Commander Kevin Cowie, Royal Navy commented, 'the implementation for NSTN was carried out quickly because of the comfortable, easy and professional relationship the Naval team had with the Fujitsu team. Quite simply, Fujitsu clearly understood our requirements.'

He went on to say, 'the strong rapport with Fujitsu was our key to success. The personal touch strengthened the trust on both sides and the system is still performing so strongly that we are looking to enhance its capability yet again.'

### Our Expertise

Lieutenant Commander Cowie pointed out, 'this is one of the most successful projects we have ever had. The delivery of Naval Messaging has been transformed, with a quantum leap in technology, and we now have been working together for over 20 years.'

He explained, 'The system is working extremely well and is the backbone of messaging for the Royal Navy. It thoroughly deserves the approbation of its customers. NSTN is the capability blueprint that will underpin the next generation of messaging technology'.

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