Hamburg Harbour
Compact TETRA Communication System, Germany

MOTOROLA

BACKGROUND

Hamburg harbour is the 7th largest container harbour in the world, with a handling volume of 4.2 million TEU, container shipping and cargo handling of 66,2 million tons during the first half-year 2006.

Since 1994 Mobicom, a Hamburg based sub dealer of the German Compact TETRA system partner ATS has been providing a Motorola SmartNet two-way communication system with approximately 1000 users within Hamburg Harbour. Users within the harbour have also been relying heavily on GSM communication. Compact TETRA eliminates this need.

Two-way communication enables different workgroups within the harbour to work together effectively and in 2002 Mobicom decided to upgrade to a digital Motorola Compact TETRA system in order to take full advantage of integrated voice and data communications. Mobicom completed the installation of the Compact TETRA system in August 2002. Its current configuration consists of 1 CTS300 base station, 3 carriers, 1 Gateway, 1 Dispatcher and a continuously increasing number of two-way radios. The base station is located in the Hamburg TV Tower alongside several antennae.

CUSTOMER NEEDS

- **Compliance with the ETSI TETRA open standard**

- **Regional digital TETRA network**

- **Efficient data transfer capabilities**

- **High levels of system redundancy to maintain service in the event of any technical or network issues.**

- **Flexibility to increase capacity as demand increases**

- **Increased capacity per channel**

- **A trusted, competent, and local Motorola partner**

MOTOROLA SOLUTION

One of the main drivers to upgrade to TETRA was the simultaneous voice and data capability as the previous system was limited to voice services only. With Compact TETRA Mobicom is able to offer users full use of packet data as well as short data services to communicate essential information. For example, details about incoming ships and container locations, including registration and cargo data.

Automatic Vehicle Location (AVL) results in more time saving and increased overall workflow efficiency.

One of the many advantages of adopting TETRA is that future applications can be upgraded more easily ensuring longevity of the equipment making this a sound business investment. Furthermore, the fact that Compact TETRA is scalable enables companies like Mobicom to expand their system as customer requirements change. Compact TETRA can support up to 8 sites, which would allow Mobicom to provide its services to up to 10.000 users.

BENEFITS

- Future-proof technology

- Rigorous implementation of TETRA specifications

- Open & standard interface for voice and data applications enabling third party development of value-added applications full duplex calls

- Remote monitoring via ISDN line

- Increased security compared to analogue

  - Small size = reduced storage space

  - Easy and quick installation

  - Frequency efficient = reduced costs

  - Redundant = reliable communications

MOTOROLA

www.motorola.com