

Port of Lübeck *Finds Great Success* with Wireless.

CASE STUDY

PORT OF LÜBECK handles around 25 million tons a year, making it Germany's second busiest logistics port. The four terminals extend over an area of 300 acres. Warehouse space includes more than 2.15m square feet.



Busy Port Goes Wireless

Customers of the port operator, Lübecker Hafengesellschaft (LHG), include shipping companies, paper concerns and automotive manufacturers. Key to providing customer satisfaction is the complete logistics solution offered by LHG, which incorporates the most up to-date technologies and enables customers to track the location of their goods on-line.

The hardware system at the port is built around several HP-9000 servers, various PCs and an LXE wireless network. The Lübeck port gave LXE some specific challenges:

- The territory to be covered was vast; people were moving continuously between indoor and outdoor environments.
- The extreme conditions in Lübeck meant that the wireless equipment had to resist dust, sea air, frost, moisture and more.
- Redundancy was a key requirement

Currently over 200 LXE wireless computers (80 vehicle-mounted and 130 handheld) are used in the port. On three of the four quays, a narrow band wireless network is used. For the fourth one - the Scandinavian Quay - LHG wanted a system that was capable of transmitting graphics. Narrow band cannot do this, so LHG opted for a 2.4GHz network. Each of the five access points enables a data transmission of up to 10 Mbps, which allows for the use of Windows® applications. Due to the reduction of errors and the fact that employees and machinery can work more efficiently, LHG management calculated that the return on investment for the LXE wireless system will be less than 2 years.



About LXE Inc. LXE Inc. improves supply chain performance by applying over 30 years' experience developing wireless products and solutions. From wireless computers, advanced auto-ID technologies, and wireless network infrastructure, to our award-winning customer support - LXE's easy-to-use products are as reliable as the people who install and support them.

Based in Norcross, Georgia, LXE also offers a full range of turnkey services, including radio integration, project and installation management, network design, technical support, and repair services. LXE is a wholly-owned subsidiary of EMS Technologies, Inc. (DAQ: ELMG), and has offices worldwide. For more information, visit www.lxe.com.