

Operator hires specialist to maximise broadband benefit

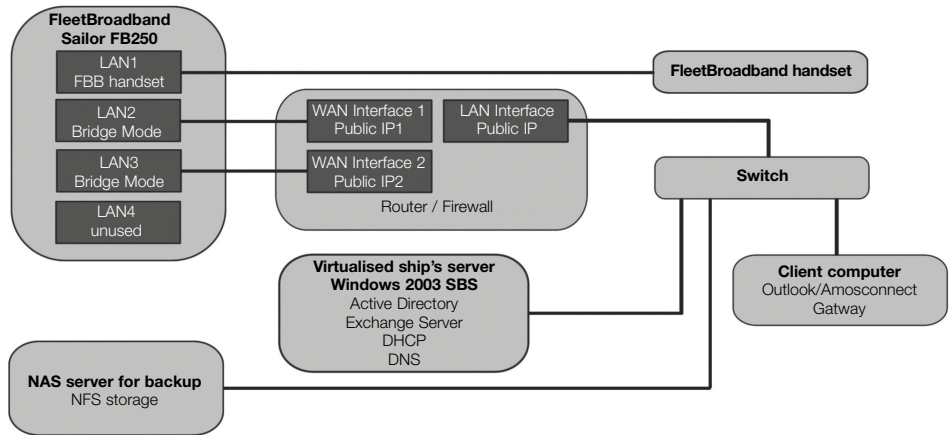
A Hamburg-based bulk and container ship operator has hired a dedicated IT manager to evaluate and oversee the optimal deployment of broadband-based connectivity on board its ships. Does this signal a future trend?

Since its founding in 2001, MPC Steamship (MPC) has emerged as a fast-growing commercial shipping company, currently managing 16 vessels. However, with plans to double its fleet by 2011, MPC is evaluating and deploying the industry's latest communications solutions to ensure peak vessel performance and crew satisfaction.

From MPC headquarters in Hamburg, company officials have long emphasised the importance of deploying efficient communications systems as part of a modern information technology (IT) infrastructure. Understanding the critical impact that communications can have on operational efficiency and crew satisfaction, MPC implemented AmosConnect from Stratos across its entire fleet in 2007.

AmosConnect is a specialised maritime messaging and information service for vessel and shore-based office applications. It combines e-mail, fax, telex, SMS, interoffice communication and access for mobile personnel into a single messaging system.

"MPC was able to integrate the AmosConnect e-mail system seamlessly with e-mail from its existing Microsoft Outlook system," said Stratos' maritime marketing manager, Michiel Meijer. "The company also benefited from AmosConnect's



The highly creative FleetBroadband network configuration on board Yangtze River

high-level compression, duplex transmission and mid-point transmission recovery. In addition, it learned that AmosConnect is compatible with third-party applications for news, weather and sports information services."

MPC's subsequent fleet-wide addition in 2008 of AmosConnect Crew from Stratos expanded its commitment to adopt crew-communications solutions that support the recruitment and retention of well-trained seafarers. Combining AmosConnect and Stratos ChatCard, AmosConnect Crew enables personnel at sea to stay in contact with home via calling, private e-mail and SMS at low-cost rates. MPC expects to add web-browsing functionality for its crew members later this year.

MPC fleet manager Torsten Kappel said: "Crew satisfaction is among our top priorities. We understand that one of the most effective ways to improve shipboard life is to provide advanced voice, e-mail and SMS communications that are powerful, economical and easy to use."

In 2008, MPC's ongoing search for faster,

more reliable and more economical data and voice communications led it to begin evaluating Inmarsat's new FleetBroadband service. FleetBroadband provides global high-speed data and voice communications – available simultaneously – at speeds up to 432 kbps. It also provides on-demand guaranteed IP data rates, regardless of the vessel's location.

MPC chose Stratos as its FleetBroadband provider, based primarily on the wide range of value-added services that Stratos offers. To manage the daily process of deploying FleetBroadband, as well as all other fleet-wide IT services, MPC hired Thomas Hoenig as its dedicated ships IT manager in November 2008.

Prior to joining MPC, Mr Hoenig had served eight years as a technical director for a maritime IT consulting firm and had already become intimately familiar with MPC's IT requirements. As a consultant, he had become known as one of the industry's most creative specialists in communications and IT solutions.

Mr Hoenig explained that MPC began with the installation of the FleetBroadband service on its bulk carrier, *Yangtze River*, which operates worldwide. The new broadband service replaced the Inmarsat B service that had previously been in use.

"Once deployment was completed, it became very clear that FleetBroadband is the future of maritime communications. It truly brings the vessel and the office closer together," Mr Hoenig said. "In addition to voice and data for crew communications, FleetBroadband powers numerous other applications. These include remote management, which allows headquarters personnel to help manage the ship's computers.

Stratos supports real-time video

Stratos Global Corp has signed an agreement with SeaMobile Europe to jointly market the latter's ClipWay real-time video transmission application.

Paris-based SeaMobile Europe developed ClipWay as an easy-to-use software solution for transferring audio/video files to and from anywhere in the world. ClipWay combines a server-side software application that is kept at the office and client-side software that can be loaded onto a laptop. With just a computer,

video source and a communications link, video files can be sent from any location to anywhere else in the world.

ClipWay implements a secure transmission protocol to optimise bandwidth, especially over Inmarsat's BGAN and FleetBroadband mobile satellite services. The protocol features four different compression qualities, ideal for a variety of usages and requirements. ClipWay offers a suite of services designed to meet the needs of a wide range of customers.

It also includes database synchronisation and access to the onboard voyage data recorder. In the future, we also have the option to use FleetBroadband for engine-performance analysis and emissions monitoring."

Mr Hoenig added that FleetBroadband enables *Yangtze River* to establish one static IP address, meaning the vessel is reachable anywhere in the world where there is an Internet connection.

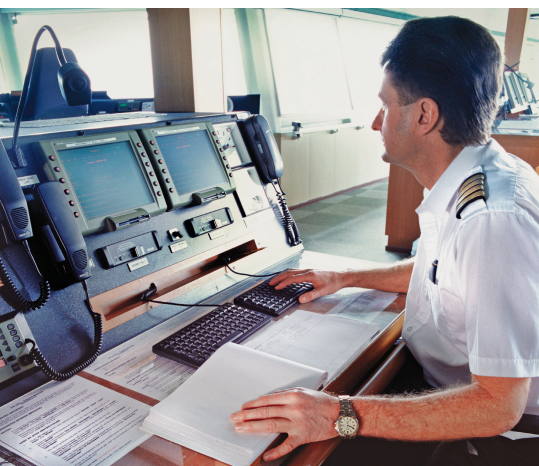
The service supports any IP services – including business applications, Internet access and instant messaging – as well as traditional circuit-switched voice and ISDN data for legacy applications. Terminal costs are relatively low and the network supports all the latest security protocols.

In the coming years, MPC expects to deploy FleetBroadband on the remainder of its existing fleet, and the new service will be automatically installed on all new ships. Mr Hoenig's experience in managing maritime IT infrastructure challenges also led to his implementation of a highly creative FleetBroadband network configuration on *Yangtze River*.

The FleetBroadband terminal is connected to the onboard network via a router. The router also serves as a firewall, to strictly control the type of Internet traffic that is accessible by the network (see diagram). By enabling crew members to use prepaid web browsing cards, crew-based web traffic is effectively separated from office web traffic.

In this network configuration, data traffic is easily managed and controlled from the router. The onboard firewall blocks all unwanted traffic from the ship's computers to the Internet. Another firewall at the Stratos land earth station in Burum, the Netherlands blocks all unwanted traffic from the Internet to the ship.

The availability of effective firewall capabilities is another reason why MPC chose FleetBroadband from Stratos over baseline FleetBroadband offerings. The Stratos



Most ship captains lack the specialist knowledge needed for managing firewall and router settings

Future of cadet training steers towards online study

Broadband is poised to play a leading role in the future training and education of cadets. Fast high bandwidth broadband will enable shipping companies to capitalise on the latest online training programmes from specialist organisations and software providers. It could also play a vital role in helping the global maritime community attract and retain a new generation of officers.

This technology comes at a time when the industry faces a growing shortage of officers. A report by Drewry Shipping Consultants recently found that the industry is currently short by 34,000 of the 498,000 officers required globally – and it predicts that the shortfall will rise to almost 84,000 by 2012. Irrespective of whether this situation will change due to a tougher economic climate, better training – which will offer officers the prospect of continuous professional development throughout their careers – has been identified as one of the key factors in attracting new talent to the industry.

Inmarsat's FleetBroadband service offers owners the opportunity to run remote web-based educational programmes and onboard certification. Training software providers, such as Seagull and Videotel, which supply ships with CDs and DVDs for onboard training, have already made their courses available online.

Trench firewall is an important part of the portfolio of value-added services known as the 'Stratos Advantage'. These field-tested services help shipmanagers attain the highest possible performance and support from FleetBroadband, at the lowest possible cost. They provide users with cost and traffic control, data optimisation, high security options, easy VPN access, messaging services and the full IP range.

MPC also derives significant benefit from Stratos OceanView, a web-based portal that provides global fleet communications monitoring, by monthly airtime costs and AmosConnect mail queue information.

"In addition to monitoring the communications of our entire fleet, Stratos OceanView also helps us achieve accurate vessel tracking," Mr Hoenig said. "The application enables us to visualise ship position with easily readable text. This is valuable for agents and service companies who need to know what time the ship is due into port."

Elsewhere, the Nautical Institute is putting the finishing touches to a web-based system for monitoring training, and Lloyd's Maritime Academy recently announced the launch of the first MBA to be offered entirely online.

Meanwhile, Hong Kong based Wallem Ship Management provides more than 20 value-added courses, giving supplementary knowledge to basic qualifications, and encourages its cadets to complete two-to-three hours of training a day in addition to the average working shift of eight hours.

Assignments are sent by the training officer on board back to the company's training centre in Mumbai. The submission can be quickly checked and, if necessary, cadets can be asked to re-submit their work.

Wallem marine superintendent Chittur Subramanian says completing additional training on board while studying for mandatory courses can mean time saved when a cadet reaches his final exam.

"We have cadets who clearly benefit from training with officers of different nationalities, as the experience is not always the same as they learnt at home," he said. "The cadet's interaction with the master, chief officer, and the second and third officers means they gain information and knowledge while actually carrying out their duties."

MPC's hiring of a dedicated IT manager for its fleet is seen by Mr Meijer as a sign of things to come. He expects more shipping firms will follow suit, as they realise the increasing importance of the fleet IT function for improving performance and profitability in shipmanagement, chartering and ship ownership.

"Managing IT for even a small shipping fleet is truly a full-time job," Mr Meijer said. "The management of firewall and routing settings is a specialised skill that requires a dedicated professional. External consultants can effectively provide additional support, but their attention can tend to be too diluted to manage the ongoing critical needs of a growing company."

He concluded: "Increasingly, more shipping companies realise that the only way to meet their complex business challenges is by having certified professionals implement a unified technological solution that integrates all maritime operations on land and at sea." MEC