

Making the move to broadband

Faced with a changing IT environment requiring real-time e-mail and broadband-supported applications, Reederei Werner Bockstiegel realised that it needed to choose a new satcom system for its ships. Albert Bokelmann, Reederei Bockstiegel, told *Digital Ship* about the key criteria in making this choice and the company's early experiences with the new system

Maritime broadband solutions have developed rapidly over the last few years, and in order to attract and retain their shipping company customers satellite communication providers are continuously striving to improve their solutions.

When German shipping company Reederei Werner Bockstiegel recently decided to implement a new communication solution, it selected the newly launched Iridium Pilot system, Iridium's latest enhancement to its satellite broadband platform.

The company had been persuaded to rethink its satellite communication system by the potential it saw to utilise an increasing number of broadband-supported applications, as well as the realisation that experienced crew is more easily retained when modern communication options can be offered.

One of the key reasons that a change was necessary, according to the company, was the fact that real-time data exchange was not practical with its previous solution, which included Vizada's Skyfile Mail application and FleetBroadband 150 antennas.

In addition, the shipping company had realised that a higher volume of traffic would be generated through the implementation of new software applications that it required in order to support the connection of technical systems.

Based on the existing relationship it had developed over the course of the previous seven years, including the provision of e-mail systems on board of its vessels, Reederei Bockstiegel decided to partner with Globecom Maritime for the project.

And so, in July 2011, the companies signed an agreement to implement the new satellite communications solution on the shipping company's fleet of 65 vessels, as part of an upgraded Telaurus se@COMM communications package.

The agreement contained the hardware and software as well as the broadband package, complete with installation and the connection, says Albert Bokelmann, fleet manager, Reederei Werner Bockstiegel.

Mr Bokelmann notes that the broadband package, installation and spare parts are part of a package which Reederei Werner Bockstiegel has negotiated with a fixed flat rate, which offers a maximum of 50 MB on smaller vessels and up to 200 MB on larger ships.

"The monthly fee for the broadband package is comparatively low, which is also extremely important for us," explains Mr Bokelmann.

"We have not agreed on a flexible data rate or the option to balance the used air-time over our entire fleet, because the

monthly fee is so small that the manpower needed to carry out these calculations would exceed the monthly fee and, therefore, be more costly."

Iridium Pilot, Iridium's second-generation maritime broadband platform, was launched in February 2012. The system utilises the Iridium OpenPort service, and is offered via a small, lightweight antenna.

Coverage is available on a global basis, with Reederei Bockstiegel noting that the ability to provide worldwide satellite communication coverage to its vessels,



Reederei Werner Bockstiegel has installed Iridium Pilot across its fleet

which are sailing all over the world, was a key element in its choice.

A further important factor in its decision, explains Mr Bokelmann, was the availability of three independent phone lines, all of which work simultaneously, and data at speeds up to 134 kbps.

"The fact that the platform offers a built-in firewall for traffic management and a bulk configuration capability to assist in managing large volumes of units was very welcome to us, as it enabled us to control the data traffic effectively," adds Mr Bokelmann.

Another pressing issue for Reederei Bockstiegel was the wish to change from the intermittent transmission of e-mails under its previous set-up to a real-time messaging system.

"One of the key reasons for the decision to install the Iridium equipment," says Mr Bokelmann, "was that now we have no delay in sending e-mail messages."

Ultimately, Mr Bokelmann explains that the Iridium solution also provided the benefit of having no moving parts, which should offer benefits in maintaining the equipment.

"A solid antenna, containing no moving parts is more stable and consequently more reliable. We feel there is a huge advantage," he says.

On-time installation

The agreement between Reederei Werner Bockstiegel and Globecom includes antenna installation on all of the vessels. Since the roll-out of the system began in January 2012, the solution has so far been installed on 40 of the shipping company's 65-strong fleet.

vessels are sailing and if we can arrange for the antennas to be sent there, as well as if easy access for the technicians can be provided."

"So far, we are very pleased to announce that we are bang on our revised schedule. There have been no noticeable delays and everything has worked out fine."

The hardware deployment has been carried out without incurring downtime for the respective vessels.

The antennas and other hardware are sent to designated ports, where the vessels are scheduled to berth. Before the main phase of the installation begins, the vessel crew will have carried out the rough cable laying, a process designed to save both time and resources.

"Laying the cable is a very simple process," explains Mr Bokelmann.

"The equipment consists of only one main cable connection, and the crew on our vessels is competent enough to execute the installation. Since the installation is so simple and easily done, our crew is not hampered in the execution of their routine tasks."

Upon arrival of the antennas at the designated port, the commissioning engineers from Globecom Maritime board the Bockstiegel vessels and do the final commissioning of the antennas.

"It was very important for us to organise the implementation in a fashion where no downtime is incurred for our vessels," Mr Bokelmann notes.

"We have successfully done this and never lost time or fallen behind schedule because of the hardware installation."

The Telaurus se@COMM communications package implemented with the Pilot antennas also includes the installation of new software, and to date Reederei Bockstiegel has found the system to be very reliable.

"The price of the basic software already includes a lot of features, which we found significant," says Mr Bokelmann.

"And although other maritime IT software providers offer these kinds of features as well, we get them practically for free."

Crew retention

Having equipped more than half of the fleet with the new satellite communications solution, Reederei Werner Bockstiegel has drawn some conclusions on the additional value gained from its investment.

So far, the expected increase in average data traffic per month has proven to be in line with expectations.

Whereas the shipping company's vessels generally did not exceed 50 MB under the old satellite communication system, already some of the ships that have imple-

mented the Iridium solution are seeing traffic of between 40 and 50 MB, on the smaller vessels, and a minimum of 100 MB of usage on the larger vessels.

The shipping company says that it is planning on using most of its satellite communication volume for data traffic, with exchanges between ship and office to be mainly conducted via e-mail.

Only in urgent matters, where e-mail communication would cause a significant delay, is the vessel contacted via telephone, notes Mr Bokelmann.

With the installation of the Iridium Pilot solution, the shipping company has also been able to accomplish one of the key goals of the implementation by initiating real-time e-mail exchange.

In addition, Reederei Werner Bockstiegel has recently acquired a new software package that requires satellite broadband connectivity to be available to support remote maintenance.

This is therefore another objective reached, says Mr Bokelmann, and the company is very pleased with the outcome.

Technical systems, such as the main and auxiliary engines, have been connected, via a special server, to the Iridium system. The first such systems have now been installed, but the roll-out is ongoing and Reederei Bockstiegel plans to have finished the implementation by the beginning of 2013.

"As of late," explains Mr Bokelmann, "we are operating new order and maintenance software on the vessels, which we remotely control from shore."

"We can afford to do this remotely because the communication is so cheap. Real-time connectivity enables us to further look into remote maintenance, which will be a strong focus of ours in the near future."

Remote maintenance is mainly managed by the Reederei Werner Bockstiegel IT department, though in some cases the

remote control of machinery equipment is carried out by the supplier, Mr Bokelmann notes.

In addition to utilising its new satellite communications package for operational data traffic, Reederei Werner Bockstiegel is now using three separate voice lines. Although voice is not the primary means of communication, the shipping company is glad to have the option available.

"The distribution of our satellite communication traffic is very clear. A minimum of 80 per cent is spent on data traffic. This is extremely important to us. The remaining 20 per cent are spent on voice traffic. These phone calls are mostly comprised of crew communication and the occasional emergency call," says Mr Bokelmann.

"Voice lines are not new to us. We used to have them under the old solution as well. However, the newly implemented satellite communication system provides us with different dedicated voice lines."

"Although communication via voice lines is not the most important communication feature and we almost exclusively use voice lines for crew communication, we're happy about the fact that there are no special requirements for voice communication. We are further pleased with the quality we receive with the Iridium package. Both the captains on our vessels and the staff in the office have deemed it to be sufficient."

Reederei Werner Bockstiegel has now installed extra equipment for crew communication on its vessels within the framework of the new Iridium-backed network.

"The new crew calling and communication features," explains Mr Bokelmann, "are not affecting the business communication on board, because we have installed extra phone systems connected to the Iridium platform, which enable us to offer

parallel crew and ship traffic."

The shipping company offers satellite services to its crew via scratch cards. So far, only voice communication and e-mail is provided.

Surfing the internet has not been on offer up to now, because, as Mr Bokelmann explains, new PC systems are needed first. However, the shipping company is planning to install the required hardware on its vessels from the beginning of 2013.

In the wake of the satellite communications revamp, Reederei Bockstiegel anticipates crew retention rates to increase.

"We have had extremely positive feedback from our crew," says Mr Bokelmann.

"Our seafarers can utilise the dedicated voice lines 24/7 and have experienced the voice communication from ship to shore to be both reasonably priced and readily available. In addition, our crew appreciates the simplicity of the system."

The shipping company is further pleased to be able to offer Wi-Fi services to the crew, with wireless access points allowing crews to connect to the communications services from their own cabins, affording them a comparatively high level of privacy.

The opportunity to communicate with family members in private, Mr Bokelmann says, is appreciated by the seafarers, and it is hoped to provide an additional incentive to attract crews that are becoming increasingly difficult to obtain.

Cost control

Despite having agreed on fixed data packages, Reederei Werner Bockstiegel has nevertheless put control systems in place to ensure cost containment.

In order to make sure that satcom access does not get out of control and lead to unexpected bills, the shipping company internally checks the monthly communi-

cation bills of all its vessels. In the course of this process, the data usage is analysed and assessed.

If additional costs are incurred, explains Mr Bokelmann, a special department at Reederei Bockstiegel tries to establish the root cause of the excess costs and assists the crew in keeping to the limit in future.

With the Iridium Pilot system in place the company has also been able to reduce costs through easy access to the vessels' technical equipment, limiting the number of man hours spent on maintenance as well as reducing travel costs.

"Especially for our big heavy lifters, we now have ready access to all the relevant data regarding all the technical equipment as often per day as we like," Mr Bokelmann explains.

"We find this solution to be very helpful and economical."

The shipping company estimates that it has so far been able to save about 40 per cent on travel costs overall since the implementation of Iridium Pilot. Remote access, on heavy lifters especially, is utilised to monitor all relevant data, such as the main engine, auxiliary engines, nautical equipment, cranes and others.

Overall, Mr Bokelmann notes, Reederei Werner Bockstiegel has been able to achieve a significant cost reduction through the implementation of Iridium Pilot.

"Our cost savings," he says, "began on the very first day of the installation."

Ultimately, Mr Bokelmann says, shipping companies looking at acquiring a new satellite communication solution should pay attention to a number of key concerns. Apart from the ever-present cost considerations, he particularly emphasises the importance of reliable equipment.

Only then, he points out, can effective and timely data transfer be ensured. DS

Digital Ship

KOREA 2012

30-31 OCTOBER 2012, BEXCO, BUSAN



Interested in exhibiting or sponsoring?

For all international enquiries, please contact: Ria Kontogeorgou Tel: +44 20 7017 3401 E: ria@thedigitalship.com M: 07815481036

Korean companies, please contact: Youngsuk Park Tel: +44 20 7017 3408 E: yong@thedigitalship.com

www.thedigitalship.com