

## Driving Big Data Through Collaboration and Harmonisation

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With the challenging economic climate, nearly all sectors of the commercial maritime industry are interested in cost-savings and increased operational efficiency. Digitalization is an obvious way to help fleet owners become more efficient. Many vessels are already using sensors and transmitters to report on engine and machinery performance with the associated data being analysed and used

to make important efficiency decisions.

Called the Internet of Things (IoT) such monitoring can indicate the need for replacement parts or highlight a potential system fault long before the problem becomes too serious, saving the time and money on flying out new parts and technicians to fix such issues in an emergency.

Better data reporting also means just in time ordering of provisions and spares to reduce waste and storage space on board especially regarding perishable goods.

Equally, with the availability of global broadband connectivity on many vessels, greater efficiencies can be had with more efficient route planning through electronic chart updates and real-time weather reports so evasive action can be taken if necessary, saving time and fuel.

With the mountain of data available on board and crew not having enough time to analyse it all, getting the data off the ship at a reasonable cost so it can be reviewed by shore-based staff is paramount.

Shore-based personnel can then assist Masters in making the right decisions to improve the efficient running of their vessels.

Software which helps manage this data is being developed by various companies in the maritime industry along with on board connectivity solutions to provide vessels with two-way communication to the outside world.

One such company is KVH Industries, a leading manufacturer of solutions that provide global high-speed Internet, television, and voice services via satellite to mobile users at sea and on land. These solutions include the mini-VSAT Broadband network, TracPhone satellite communications systems, and TracVision satellite television systems.

KVH provides seafarers with access to e-mail and social media making contact with home easier. Some packages allow access to sport, news and film programmes to keep crew entertained during their rest periods and help maintain good morale. It also includes maritime training packages to assist crew with skill development and career progression.

KVH is aware that the investment in terms of hardware and ongoing data usage costs have proved to be a barrier to some vessel owners so it recently announced a ground-breaking subscription service where, for

as little as \$499 a month, it will provide fleet owners with all the hardware and connectivity required to get them up and running.

Called AgilePlans, this no-commitment service includes airtime and voice, data management via the myKVH portal; vessel tracking; crew welfare via NEWSlink daily news to the ship; Videotel training content; and delivery of third-party chart and weather data. TracPhone V-IP series hardware and installation are also included.

Fleet owners will have no maintenance costs, no standard installation costs and have access to global technical support, all with no contract commitments or costly upfront capital investment.

However, having more connected vessels brings greater risks from potential hackers and computer virus infections so the industry does need to address all cyber security risks and minimise the threat level by taking proper precautions with regards to having secure passwords and the latest anti-virus software installed.

Crew must also be educated to the various scams relating to phishing e-mails and the danger of uploading their own content which could be infected with viruses.

Digitalization has revolutionised the business world as a whole and the way in which companies trade with each other.

With regards to future trends in digitalization affecting the maritime industry, fleet owners will be able to benefit from better data speeds with the advent of additional high speed bandwidth capacity incorporating high throughput satellite (HTS) technology.

Better connectivity and more sophisticated sensors will help the fleet achieve greater efficiencies.

Container ships for instance will be able to inform ports about the contents of each specific container on board long before docking, allowing for better planning and faster unloading.

Goods on containers will be able to be tracked all through the supply chain for optimised onward transport and distribution which is particularly important in the case of perishable goods.

Greater automation means the advent of unmanned vessels is becoming a reality with small unmanned vessels already in use for near shore operations although it remains to be seen whether the market will move towards developing larger fully automated ships.

