



Capt. Rajesh Unni,
founder & ceo,
Synergy Marine Group

‘It produces clear, tangible financial and environmental gains in the shape of fuel and predictive maintenance savings, and enhanced asset utilisation,’ Capt. Unni states.

For the front-end user there are intelligent alerts and a visualisation dashboard for critical assets and parameters with drill down options with related information in list and graph views. Among the features are a remote monitoring and diagnostics option allowing for remote trouble shooting, and fuel optimisation elements and AI predictive maintenance applications.

‘We firmly believe that AOT’s approach to tackling pain points and enabling rules-based decision-making gives clients added transparency and delivers multiple operational, financial and environmental benefits,’ he says.

SMARTShip has received type approval from classification society ClassNK and the first ship certified with ClassNK approved SMARTShip was a mid-sized gas carrier delivered in March this year. To date the system has been installed on 30 vessels and further 60 ships are at various stages in the set-up process.

The company recently set-up its AOT ‘Center of Innovation’ in Singapore which operates a Network Operating Centre to remotely monitor and control digitally-enabled ships.

Looking ahead Capt. Unni believes there needs both innovation of products and processes to fully digitalise the maritime industries. He notes how Amazon, through developing a basic e-commerce infrastructure for the fulfilment of its retail business, went on to transform the retail business as whole acting an e-commerce platform for a whole range of retail businesses.

‘I see the shipping industry moving in a similar way whereby we innovate products and services for digitalisation while keeping the return on investment in mind so we have a sustainable business model,’ says Capt. Unni. ‘As the products and services mature it will enable new ways of managing and operating ships. This is what motivates us at Alpha Ori Technologies and Synergy.’

Seeing the ship as a ‘digital enterprise’

The ship has always been viewed very much as its own entity in the supply chain somewhat disconnected and ‘out at sea’, but Synergy Group and Alpha Ori Technologies are looking to transform the vessel into a digital enterprise.

Capt. Rajesh Unni, founder and ceo of Synergy Group, has a clear passion for how technology can bring positive change to the world of shipping. ‘I’m personally fascinated by technology and how it’s changing our world, including shipping and ship management,’ he tells Seatrade Maritime Review: ‘The shipping industry, being inherently conservative, is behind the technology curve by a good 20-plus years.

‘We have this unique opportunity to transform the way ship operations are being done currently.’

Seizing on this opportunity, Alpha Ori Technologies (AOT) was established in 2017 with the company taking the view that the ship is a ‘digital enterprise’.

Capt. Unni, who is also co-ceo of AOT, explains: ‘With our IoT technology, we connect to all systems onboard the ship, and through the ship’s existing communication channel, we plug this connected ship to our digital cloud.

‘This entire set up then lends itself for live monitoring, diagnostics, communications, as well creating many ship specific applications such as fuel savings, predictive maintenance, compliance management, to name a few, that adds direct economic value to various key players in this logistics value chain.’

The flagship product of AOT is SMARTShip a system that collects and transmit from more than 5,000 data points shipboard to cloud-based infrastructure connecting data from all parts of the ship to enable rule-based decision making. The objective of SMARTShip is to reduce ‘pain points’ for users from across the supply chain, including, shipowners, ship managers, operators, port management, surveyors, ship registries, P&I Clubs and shipbuilders.