

EMC's SpeedNet enables better utilisation of bandwidth

Quite simply, cruise vessels are bandwidth hogs. SpeedNet, an offering from EMC (which acquired cruise industry stalwart communications provider MTN, in mid-2015), is an application that allows cruise operators to better utilise scarce bandwidth as users (both passengers and crew) view websites and connect to all manner of social media.

Even with high throughput Ku-band VSAT, and the advent of Ka-band, shipboard communication 'pipes' are constrained – at a time that users expect onboard connections to rival those available

onshore in their homes and offices. 'Latency,' with the symptom of slow download speeds, is still a problem – even with VSAT, when a website slowly sends individual pages, and objects, down to a ship.

Brent Horwitz, an MTN veteran now president of EMC's Cruise & Ferry business, described SpeedNet as a solution based off a 'learning algorithm'. At a high level, SpeedNet can be thought of as an application that can do more than just cache websites – storing website content locally, after an intelligent backbone compresses the site and transmits it to a vessel's local server.

It is an automated tool, customised for each cruise operator and installed locally on each vessel, with the 'brains' to automatically detect passengers' device usage trends to learn which online sites are most popular.

SpeedNet pre-populates, and pre-emptively refreshes these most popular sites, typically every one or two minutes, then caches them locally each time. Horwitz gives the example of a cruise ship with a large complement of passengers from a particular country, who regularly follow a news site from their home country. Very quickly, in response to the demands of the passengers, SpeedNet caches and then continuously updates.

The result is an overall optimisation of VSAT service, with the main criterion for success being whether the online experience feels like a land-based connection.



Sample page load data provided by EMC shows dramatically reduced load times with SpeedNet. For a popular site such as BBC News, SpeedNet reduces download times from 21.2 seconds (without SpeedNet) to 4.6 seconds. For CNN, the respective metrics can be something like 17.4 seconds and 5.4 seconds.

The roll-out of SpeedNet to the cruise industry is now underway now that MTN customers are fully integrated as EMC customers, with deployment on seven major cruise lines expected by mid-2016.

Foreship navigating towards the sweet spot

Foreship, an engineering and ship design specialist, helps its clients navigate towards the sweet spot where vessel characteristics, itinerary planning and regulatory developments all merge. The 73 person team, headquartered in Finland (including a group based in Miami, Florida) provides services beginning with concept development, and as projects move towards fruition, all the way to supervision of actual

perform conversion work on existing vessels, or to enter into new construction. His colleague, naval architect Markus Aarnio, svp, explained that conversions are more likely to make sense for 'Category C' vessels – those operating in the least severe conditions. For itineraries that cruise through waters requiring the more stringent 'Category B' certification, the decision may tilt in favour of a newbuild with better stability, and thicknesses to handle stresses from icy conditions.

Foreship plays an integral role in two recently announced projects. The first of a possible three Crystal Cruises 'Exclusive' class 1,000 pax newbuilds and Scenic's expedition vessel for operation in both Arctic and Antarctic waters.

Markus Aarnio said that Foreship has been busy with assignments related to Ballast Water Treatment alternatives (and a close communication with the US Coast Guard) and scrubbers – which meet IMO Tier 3 and Tier 4 (USA) requirements. Foreship has quite a bit of experience on reducing emissions for vessels tied to ECA's having worked with numerous Baltic ferry operators on selection of scrubbers and on the complex engineering work in advance of actual installation. Foreship has handled design work and technical consultancy on refitting of Azamara Quest and Azamara Journey, Carnival's Fantasy class vessels, and is presently handling a project for Norwegian on Pride of America.

Crystal's 'Exclusive Class'



vessel construction, conversion or installation of particular component. Foreship was established in 2004.

Its naval architects and technical experts have been quite busy with the advent of the Polar Code set to come into force at the beginning of 2017. Impacting vessels operating in harsh Arctic and Antarctic waters, the code includes both mandatory measures, and recommendations concerning safety and pollution prevention.

In the words of Mattias Jorgensen, vp business development, discussions with existing and potential clients serving affected areas have lately been along the lines of whether to



Ovation of the Seas benefits from Bolideck® Future Teak

The Maritime Division at Bolidit Synthetic Products & Systems has a very busy schedule in 2016. Bolideck® Future Teak is a synthetic product with the look and feel of real teak. During the winter off-season Bolidit undertook a major refurbishment program for Viking River Cruises, cleaning the Future Teak decking on 32 vessels. When the work is completed, the decking '...will look as good as new...' according to Jacco van Overbeek, director of Bolidit's Maritime Division. During April and May, Bolidit will be working on a group of vessels during yard time in the Bahamas, the Mediterranean and in Singapore. The work will consist mainly of resurfacing on top of the existing decking, giving the flooring a more sophisticated appearance.

Bolidit also points with pride to its installation of Bolideck® Future Teak on an existing vessel to be renamed Crystal Mozart, as Crystal Cruises expands into the river

cruising sector. Its relationship with Viking Cruises is being enhanced with its installation on six Longship newbuilds – to be deployed on European rivers. Recently delivered Ovation of the Seas also benefits from Bolideck® Future Teak. van Overbeek says, 'We will have a presence in China this year, and we can adapt to the colour preferences in the region.'

Bolidit's expertise with polymers and synthetics extends beyond teak into customised poured floors. Royal Caribbean's Quantum of the Seas and Anthem of the Seas features Bolideck® Future Teak on balconies as well as on deck areas. Ovation of the Seas, the third vessel in the Quantum class, is the first newbuild outfitted with a 'Smart Balcony' – a prefabricated planking system similar to Bolideck® Future Teak, but featuring multi-coloured planks of varying widths. Ovation also features balconies accessible to handicapped travellers.