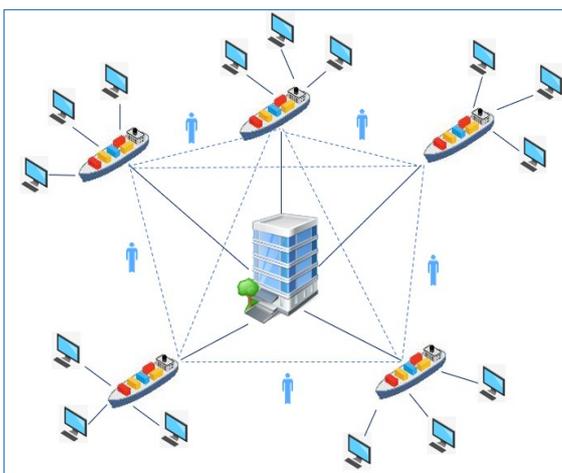


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Navarino introduces Quazar, the world's first complete IT management service for maritime

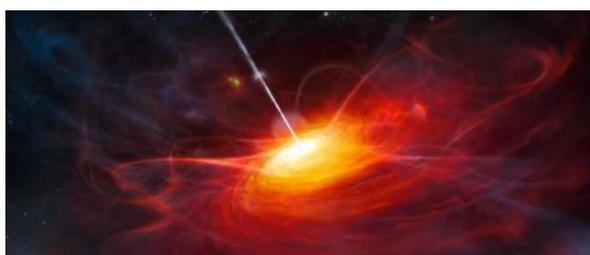
With an increasingly digitized maritime environment, shipping companies are working hard to comply with new regulations, optimize operations to remain competitive, reduce costs, and create efficiencies on new levels. Moreover, IT managers face the heavy burden of ensuring that shipping companies can keep pace with such a significant step forward, even if they lack the proper resources to do so. What the merchant maritime industry currently lacks is an easy-to-deploy system which allows collaboration between all these facets, connecting every aspect of the shipping process from tools, to people, to technology.



The solution is our Quazar service. Quazar is a polymorphic umbrella of turnkey solutions to the maritime industry's most pressing consideration to date; digitalization. Offered for one monthly fee, this revolutionary services is built upon three main pillars:

- **Technology:** all hardware and software for an onboard IT infrastructure
- **Tools:** specialized administrative and technical controls
- **People:** a dedicated team of IT specialists, including a personal IT manager for each fleet using the Quazar platform

Each vessel's devices, such as computers and printers, can be connected and controlled from a singular onboard domain. Users of this domain have unique login credentials, allowing them automatic freedom to move around the fleet, keeping the administrative rights and access that has been authorized to their login. Moreover, in keeping with a very fast-moving and ever-changing digital revolution, changes to onboard procedures can be easily completed centrally which minimizes data consumption and allows for fleetwide implementation. Quazar offers services from the world's biggest technology providers including Microsoft, Dell, Xerox, and more. Quazar's 'IT-as-a-service' concept means no CAPEX for hardware or software acquisition, with hardware leasing, software licensing, and support fees all included in one monthly fee, meaning you can easily budget for your IT outlay. Thanks to economies of scale, Quazar also provides significant cost efficiency.



A quasar is a massive, remote celestial object that emits exceptionally large amounts of energy.

Furthermore, a personal IT manager from Navarino's team of IT experts is assigned per fleet, providing a holistic, personalized understanding of your vessel's IT infrastructure, whilst being able to implement any IT solution you may need installed onto vessels.

To learn more about this revolutionary new IT approach please just contact your account manager or you can email us on sales@navarino.gr

Editor's note



by Christian Vakarelis

Welcome to another Navarino Newsletter! In this edition I am very proud to present our latest customer case study with Millenia Maritime who have chosen Navarino's unique Ku Band service, Prodigy, in combination with Spectrum which offers a centralized platform for remote monitoring, maintenance and management of the entire IT and connectivity infrastructure onboard.

Quazar is a very exciting new service from Navarino which is going to be a game-changer for maritime ICT managers, as it brings a huge amount of value to maritime IT management and I can't wait for its launch which will be later in February of this year.

The Global Xpress network is going to see additional capacity over the coming years, with a further seven new satellites in the pipeline, all set to be in position by 2024. As the world's largest Fleet Xpress distributor, Navarino is delighted to see a very strong future for the service.

We are also excited to expand our cyber security portfolio this quarter with the launch of our new Angel Office service. In partnership with Neurosoft, this extends Angels' cyber protection to the onshore offices of our customers.

We were also very proud to support the Sailors' Society over the festive season via their virtual Christmas Carol concert which was held to celebrate seafarers and to send them a bit of seasonal cheer.

We enter 2021 with an in-depth look at what's ahead for shipping. Enjoy!

Market News

Millenia Maritime chooses Navarino's Prodigy Ku band service in combination with Spectrum

One month ago, Millenia Maritime oversaw the installation of Navarino's new Prodigy service on a chemical tanker in Piraeus port. With 6 of their 7-vessel fleet under the support of Navarino's FX service, the Prodigy installation was a perfect way to test the waters of this new service on their 7th vessel.

Prodigy is Navarino's new hybrid service, which combines Intelsat's FlexMaritime's network over a 1m Intellian antenna and the fastest L-band network by Iridium Certus. "Until now, everything has been stable. We had some opportunities to make some calls and already we see that call quality is amongst the clearest we have experienced" states Mr Ioannis Rizos, Millenia's IT Manager.

Millenia have mostly been using the newly installed service for file sync applications, Infinity Mail, and smart relays, with 5 PCs from the IT side connected to the business network.



For the crew of the MV Futura, Millenia offers 50 MB data PINs presently in order to grant them internet access in a controlled manner, and in the near future will introduce the Infinity time-limited data PINs which control internet usage on board with time quotas to ensure that the vessel's connectivity is not constantly being used for non-business purposes.

Additionally, Prodigy provides what is rare in the industry; no minimum contact durations and no early termination fees, as well as three levels of the service to suit the specific needs of each shipping company. Technology was also cited by Mr Rizos as a key driver. In a climate of constant change, its encouraging to see companies such as Millenia Maritime moving forwards; keeping pace with maritime digitalization.

Navarino's Account Manager for Millenia Maritime, Ioannis Brougiannakis, said 'Our Prodigy service combines Intelsat's FlexMaritime network of KU satellites with Iridium Certus, the fastest L-band network, for a new concept in connectivity . Prodigy offers connectivity as a managed service and by combining it with Infinity which acts as the 'brain' of the system we are able to offer Millenia a highly robust experience in terms of internet access and overall connectivity. We all know that reliable links with shore are vital in today's industry to ensure operational efficiency, crew welfare and vessel safety. Especially now during these very difficult pandemic-affected times, crewmembers often stay onboard for many months so the need to keep in touch with their families ashore makes reliable connectivity services more important than ever.

With Prodigy we enable our customers to configure their connectivity to their exact requirements, while at the same time we increase the value for our customers by giving them the chance to freely upgrade /downgrade between the 3 main packages we offer, namely Entry, Business and Premium without downgrade penalties.'

Inmarsat marks five years of Global Xpress worldwide service and confirms plans for major extension

This quarter, Inmarsat marked the five year anniversary of its Global Xpress (GX) network. The network remains the world's most reliable, high-speed broadband network that is owned and managed by a single operator. Since its introduction, extra redundancy and additional capacity to support high-demand growth regions has seen the launch of additional satellites, the most recent of which is the new GX5 satellite.

The GX5 is Inmarsat's latest and most powerful satellite to date. Launched in December of 2020, it is geostationary like its counterparts and is a major addition to the service, currently providing additional capacity to the Middle East. The satellite offers double the combined capacity of the entirety of the existing GX fleet and is especially important in the aviation, governmental, and commercial maritime sectors where Inmarsat is seeing a rapid growth in customer demand within the Middle East region.

GX5 is significant as it marks the next step in Inmarsat's technology roadmap that will see the capacity, capability, and agility of Global Xpress evolved further - both for new and existing customers - with a further seven launches planned by 2024.

Five of these satellites will remain in geostationary orbit, whilst two will sit in highly elliptical orbit - which will mark the beginning of the world's only commercial mobile broadband service in the Arctic region.



Events and News

Navarino introduces Angel Office, extending Angel’s cyber security protection to ship operator’s onshore infrastructure

As shipping company’s fleets become increasingly office-like in their operations, communication and cohesion between onshore / offshore activities has expanded and evolved. This means greater care is needed to protect the infrastructure pervading the entirety of fleet operations, both onboard and in-office.

Powered by Neurosoft, Angel Office is an advanced 24/7 Cyber Security Defense Centre which monitors, detects, responds and analyses cyber threats and attacks.

Angel Office follows a holistic approach to Cyber Defense, through a number of cyber security modules for proactive threat hunting, advanced digital forensic analysis, cyber threat intelligence, vulnerability research and advanced deception technologies, which are specifically catered to each organization’s needs to further enhance their security defense.



Angel Office uses state-of-the-art security solutions such as IBM QRadar and IBM Resilient, with standardized methodologies and is supported by a team of highly skilled cyber security analysts and security professionals.

The new service embeds an award-winning Security Orchestration, Automation and Response (SOAR) Platform, for orchestrating and automating incident response processes. This Security Incident Response Platform (SIRP) enables teams to analyze, respond to and mitigate incidents faster, smarter and more efficiently. The latest innovation to SOAR platform Dynamic Playbooks, provides Angel Office team with the agility, intelligence, and sophistication needed to contend with complex cyber-attacks, which are becoming more and more prevalent across the maritime industry.

Maritime cyber attacks have increased by 900% in just 3 years, with more than 310 reported significant OT attacks last year—up from 50 in 2017. Hackers have now realized the full potential of exploiting and attacking the what was previously an undefended technology haven. However, shipping and its cyber defenses after fast evolving. Along with this evolution are the new IMO cyber regulations released in January of 2021, making services such as Angel Office vital to both the protection of fleets and regulatory compliance.



The Sailors’ Society virtual Christmas Carol service celebrated seafarers everywhere over the festive season



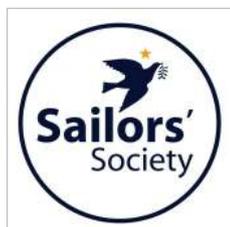
Like most things that have turned virtual since the pandemic, the annual Sailors’ Society Christmas Carol service was held online this year; bringing Christmas cheer through the power of our screens and Navarino was a proud supporter of this worthy cause held to celebrate seafarers everywhere.

The Sailors’ Society is an international maritime charity supporting seafarers both through practical and emotional support since 1818. The organization runs projects across the entirety of the seafaring community around the world, from providing grants to those with financial difficulty, to healthcare for retired seafarers, or building facilities for communities that have been devastated by natural disasters.

In such a challenging time across the globe, the Sailors’ Society has carried out many campaigns in order to support the maritime community through the coronavirus pandemic.

Particularly at the beginning of the growing pandemic situation, the Sailors’ Society acted to coordinate relief efforts and rescue missions for hundreds of stranded seafarers, such as the some 300 seafarers caught in a suspected outbreak on 20 ferries in September of 2020, who were stranded for weeks in the Indian Ocean without medical supplies and with 70% of crew showing signs of symptoms.

The Sailors’ society now has a growing list of resources for the maritime community to access regarding the coronavirus, providing necessary advice for the protection of the health, jobs, and families of seafarers. However, the Sailor’s Society has also expanded its mental health resources, offering wellness and relaxation podcasts, as well as other activities, to help support what has been a significant plight for mental and emotional health.



The virtual Christmas Carol service is one such activity that the Sailor’s Society has arranged; with almost 500 live viewers on YouTube, the service proved a success in providing some light in an otherwise difficult period. As part of the festive spirit, the organisation also visited several vessels to donate gifts to those onboard, including warm winter gloves, hats and other essentials.

Out of the office

The environmental, regulatory, digital, and political factors that will help shape the maritime sector in 2021

As we hesitantly enter 2021, it's easy to remain pessimistic about what the new year brings for shipping after what has been a chaotic, challenging, and devastating year across the globe. Not only is Covid-19 still rocking the boat in terms of certainty for a better future for shipping, but shipping is also facing challenges in new areas; big data, autonomy, environmental regulation, and a shift in global power, to name a few.

This article, of which the full version can be found on our website, intends to explore, or touch upon, some of what shipping may face in 2021.

Of course, much of the revelations and predictions for maritime 2021 rely wholly on the rate of Covid-19 infections and whether this new strain will pose the threat of yet another year of hardship and challenge. Assuming that Covid-19 is controlled and world economic output recovers, the United Nations Conference on Trade and Development expects maritime trade to grow by 4.8% in 2021, after what has been a 4.1% drop in 2020, according to UNCTAD.

However, these predictions are fraught with uncertainty and ambiguity, but maritime can take solace in the fact that despite depressed levels of demand, freight volumes, for example, remained fairly stable throughout the pandemic.



Green Shipping

Green shipping has, in recent years, all that's been talked about. But in 2021, we will begin to see some drastic regulatory action which could really push maritime into that 'greener future' we've always dreamed of.

The IMO and United Nations Environment Programme are jointly hosting a Maritime Zero and Low Emission forum in the summer of 2021, which will address key innovation and R&D opportunities.

Alongside the forum, the IMO are set to pass new regulation as part of the IMO GHG Strategy established in 2018, which seeks a reduction of carbon intensity of international shipping by 40% by 2030, compared to 2008.

The Biden Administration

Another hugely influential part of 2021 will be the influence of the incoming Biden administration, which must consider the geopolitical decisions made by the previous administration.

Furthermore, Biden is expected to end Trump's protectionist measures for a more trade-centric mindset, meaning trade should see some major changes across the Biden presidency, especially with respect for pushing for stronger trade relationships with the EU, which is particularly important now after the recent establishment of the Asia Pacific Free Trade Agreement, known as the Regional Comprehensive Economic Partnership (RCEP).



Digitalization

Digitalization is still a hot topic in maritime and will continue to be in 2021. Lloyds List have discovered the main drivers of the digitalization process, which will be (and are) big influencers for new technologies, these include: operational costs and creating operational efficiencies, compliance with regulation and certification requirements, improving vessel safety, and creating better value for customers.

As more fleets digitalize and the true capabilities of a digital maritime unfold as technologies are developed to meet these drivers, more regulations that consider new threats and opportunities must be considered and introduced quickly.

Read the full, detailed analysis on our site in the News section.

