Digital Transformation in a Cybersecure Maritime World

Today, tomorrow and beyond

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Proprietary Notice

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1   Challenges

As the maritime industry migrates to a digitalized world, there is a challenge finding the right long-term technologies to efficiently link terrestrial locations with vessels at sea so business applications and crew traffic can run seamlessly across the entire network, while also ensuring the uncompromised security of the network. You need to avoid the risks of repeated and wasted infrastructure deployments as well as ensure that new applications and revenue opportunities linked to a newer "big data" world can be captured. And as the capabilities and complexity of maritime networks continue to advance, the importance of securing the data as it moves throughout the entire network has never been greater.

With cybersecurity attacks increasing in frequency and sophistication, how can you achieve business-grade performance securely across your entire network between your terrestrial offices and your vessels of today and the future?

2   Enriched connectivity – connect anything, anywhere

Orange Maritime Connect has been designed to address these specific challenges. Combining the world's largest MPLS network with highly reliable satellite technology such as Intelsat's Globalized Network on the ground and in the sky, enables high throughput access between your terrestrial locations and your vessels – seamlessly connecting ship and shore. When your crew aboard vessels are connected to your company's headquarters, or to their family home, or even to "the cloud", it is important to know you can rely on a partner that masters and provides the right technology, at the right time – whether it's via fiber, satellite, cellular, cloud or another medium.

3 Cyber defense – protect your company from threats

With cyber-attacks costing businesses an estimated $400 billion[1] and crew members now taking an average of three personal devices on board a vessel[2], the risk of cybercriminals using the dark web to access your data, malware creeping in, or external DDoS attacks affecting your network all become very real threats. In fact, surveys have found that around 80% of cyber breaches were accidentally and unwittingly caused by employees[3].

Orange has been at the forefront of cyber defence with six Security Operation Centres (SOCs) around the world monitoring and responding to events 24/7 and two specialized CyberSOCs bringing together the best expertise in threat analysis. Knowing that the entire network needs to be securely provisioned to achieve the required security, Orange also works with trusted partners to mitigate any exposure. In the satellite domain, Orange has partnered with Intelsat, who ensures the satellites, teleports and terrestrial networks that they operate remain on the forefront of cybersecurity by maintaining their network and systems to the Service Organizational Control 3 (SOC3) compliance grade. Further, Intelsat maintains a comprehensive information assurance assessment and remediation program that includes annual penetration assessments, organization-wide control assessments and third-party audits. When designing new services or making changes to installed systems, Intelsat incorporates cybersecurity measures as a key part of their process.

4 Business innovation – differentiate through new services

With an estimated size of $3 trillion for the Internet of Things (IoT) B2B market by 2020 and 21 billion connected objects[4], you need to make sure your digital transformation partner will be there to support your company and your communications infrastructure. Orange is at the forefront of IoT, combining modular IoT business services and associated underlying infrastructure. Our 700 IoT and big data analytics experts have helped define the expertise to manage over 11 million B2B active objects around the world. This will help you remain in the forefront of the terrestrial and satellite technology, providing knowledge and support on the latest networks, applications and future satellite systems.

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[1] Lloyd's, World Economic Forum, http://fortune.com/2015/01/23/cyber-attack-insurance-lloyds/, (2015)
[2] "Maritime Satellite Communications & Applications 2016," Futurenautics Research, www.intelsat.com/wp-content/uploads/2016/03/futurenautics-maritime-satellite-communications-applications-survey-2016-wp.pdf, (2016)
[3] "Crew Connectivity 2015 Survey Report," Futurenautics Research, www.futurenautics.com/crewconn15, (2015)
[4] "Gartner Says 6.4 Billion Connected 'Things' Will Be in Use in 2016, Up 30 Percent From 2015," www.gartner.com/newsroom/id/3165317, (2015)

5 Connecting anywhere, securely and with an eye to the future

Cyber threats, complicated technology networks and associated applications are all challenges that need to be mastered from today to tomorrow and beyond. The Orange global infrastructure, relying on years of expertise and strong partnerships, enables access to the most advanced and secure terrestrial MPLS and satellite systems such as Intelsat EpicNG, and future ones.

This ensures that the right communication tools are used for your communication requirements and business needs – wherever these might be required With an eye to the future and avoiding wasted infrastructure deployments, the vast Orange digitalization experience will minimise commercial and cyber risks to your company, and help you in growing into a brave new world of big data and a digitally transformed connected future for new opportunities.

For more information, contact your account team or visit us at www.orange-business.com