# CONNECTED CRUISES

Delivering a differentiated passenger experience with O3b mPOWER

Executive guide



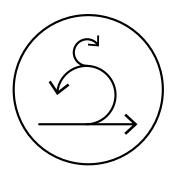
## ELEVATING THE CRUISE EXPERIENCE

In the ultra-competitive cruise industry, passengers are sharpening cruise lines' focus on providing a truly differentiated experience. Connectivity is a critical element to an elevated cruise experience.

Cruise customers—whether they're digital natives, silver surfers, or anyone in between—demand the ability to connect with friends and family on shore, as well as access the same applications and services they have at home. As passengers consume more data, ships are also getting smarter, leaving cruise operators with the pressure of delivering an increasingly higher level of connectivity on a global basis.

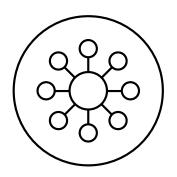
SES Networks offers the only service at sea that is capable of addressing the skyrocketing demand for bandwidth. SES Networks offers the only service at sea that is capable of addressing the skyrocketing demand for bandwidth. Our groundbreaking O3b mPOWER system is a terabit-scale satellite constellation that represents a paradigm shift for satellite-based communications. While other non-geostationary satellite operators (NGSOs) have started to make noise in the market, cruise operators are carefully evaluating their claims in light of the multiple hurdles those players face, including raising billions of dollars in additional funding, obtaining regulatory approvals, and achieving operational status before 2025. O3b mPOWER is the next generation of our market-leading Medium Earth Orbit (MEO) service-the only proven NGSO system in the industry, which has empowered the largest cruise lines in the market to deliver exceptional guest experiences since its 2013 launch.





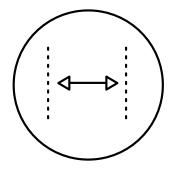
## FREEDOM TO CREATE AND DIFFERENTIATE

The O3b mPOWER constellation will enable unprecedented low-latency broadband to cruise operators on a global basis via our Signature Cruise portfolio. O3b mPOWER will deliver an exceptional streaming internet experience for passengers and crew, while providing the industry's highest forward and return link capacity for shore-to-ship and ship-to-shore communications that support user-generated content, video calling, and all aspects of the vessel's operations. The O3b mPOWER constellation is further enabled by our software-defined global network infrastructure, enabling a seamless and simple guest experience. Maritime connectivity services can be aggregated in areas of the highest demand, such as locations with a high concentration of ships, and then dynamically distributed to follow each ship. This ensures that each vessel has the bandwidth required to support a premium guest experience and application/cloud services—whenever and wherever it's needed.



## FREEDOM TO INTEGRATE AND OPTIMISE

With the industry's only multi-orbit, multi-band fleet, SES Networks has designed O3b mPOWER to enable cruise operators to fully leverage the breadth of our portfolio. The system is backwards-compatible with the O3b MEO constellation, enabling vessels to start using high-throughput, low-latency MEO today, and evolve seamlessly to O3b mPOWER in the future. It also interworks with our Geostationary Earth Orbit (GEO) satellite fleet to provide network resilience, ensuring a seamless communications service regardless of location or conditions. Software-driven traffic identification and control technology automatically routes applications and services over the connection best suited to their individual requirements, ensuring a high quality of service and the most efficient use of network resources.



#### FREEDOM TO ECONOMISE AND SCALE

The step change in throughput provided by O3b mPOWER ensures cruise operators have the ability to easily accommodate their customers' skyrocketing demand. Capacity can be activated as and when needed, providing the flexibility to increase bandwidth on an ad-hoc basis, rather than overprovisioning based on peak demand. Since the O3b mPOWER system is designed to scale up in both capacity and coverage, operators will be able to keep pace with their passengers' evolving bandwidth needs, while also ensuring they can capitalise on state-of-the art smart ship technology.

As cruise operators look to provide an enhanced and personalised cruise experience for their guests, high-quality connectivity at sea plays an integral role in enabling that experience, and providing a new level of customisation empowered by the best connectivity available at sea. O3b mPOWER builds on the proven commercial success of our first-generation MEO constellation, leveraging our extensive expertise and dedicated resources for the cruise market to deliver the efficiency and flexibility required to support the rapidly changing needs of the dynamic cruise industry.

## ELEVATE YOUR PASSENGERS' EXPERIENCE

Ready to meet the growing demand for bandwidth on your ships?

getempowered@ses.com

#### **SES HEADQUARTERS**

Château de Betzdorf L-6815 Betzdorf Luxembourg

#### **REGIONAL OFFICES**

Accra | Ghana Addis Ababa | Ethiopia Bogota | Colombia Bucharest | Romania Dubai | United Arab Emirates Florida | USA The Hague | The Netherlands Istanbul | Turkey Kiev | Ukraine Lagos | Nigeria London | UK Miami | USA Mexico City | Mexico Moscow | Russia Munich | Germany Paris | France Princeton | USA Riga | Latvia Rio | Brazil São Paulo | Brazil São Paulo | Brazil Singapore | Singapore Stockholm | Sweden Warsaw | Poland Washington DC | USA

Published in May 2019. This brochure is for informational purposes onl and it does not constitute an offer by SES.

SES reserves the right to change the information at any time, and assumes no responsibility for any errors, omissions or changes. All brands and product names used may be registered trademarks and are hereby acknowledged.

For more information about SES, visit www.ses.com

