

DATA SHEET

Cruise mPOWERED

ENABLING A NEW ERA OF GUEST CONNECTIVITY EXPERIENCES

INDUSTRY PERSPECTIVE

In the intensely competitive cruise industry, customer experience is critical. And connectivity is a key aspect of any onboard experience today.

Guests aboard cruise ships expect to stay connected with friends and family, no matter the itinerary. Enabling connectivity to meet their expectations not only helps you elevate the onboard experience, but also brings opportunities for ancillary revenue. However, as cruisers return to sea, cruise operators need to ensure their onboard networks can accommodate their customers' growing bandwidth requirements. Each passenger can consume multiple Mbps, and the bandwidth demand is expected to increase even further as the cruise customer base grows to include more tech-savvy millennials and Generation Z customers. Euroconsult forecasts that the average bandwidth consumption per vessel will increase from 40Mbps in 2020 to 340Mbps by 2030.





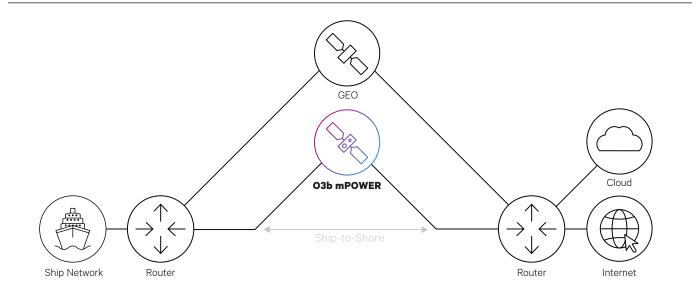
O3b mPOWER provides unprecedented flexibility, scalability, and cloud-scale reach, so you can elevate the customer experience, improve crew satisfaction, and reduce operational risk and complexity.

SERVICE DESCRIPTION

The Cruise mPOWERED service is enabled by O3b mPOWER—our next-generation medium Earth orbit (MEO) communications system. Cruise mPOWERED sets an entirely new standard for cruise ship connectivity worldwide, with industry-best bandwidth per ship and low-latency performance, fully managed end-to-end. In combination with SES's GEO fleet, the Cruise mPOWERED service ensures seamless broadband globally. As the only commercially successful multi-orbit satellite operator in the cruise market, SES brings you the right combination of satellite and networking technologies for your business to sail smoothly.

KEY FEATURES:

- Future-proof solution: Cruise mPOWERED is built on operationally proven, terabit-scale MEO technology, ready to grow in lock step with your passenger and crew connectivity demands
- Unrivalled combination of low-latency performance and gigabit-scale throughput, supporting thousands of passengers per ship
- Unprecedented flexibility, with demand-driven capacity allocation and traffic routing that can be tailored to individual vessel requirements
- Global network coverage via the industry's only multi-orbit fleet, with unmatched capacity for key demand areas, including the Caribbean, Mediterranean, and Asia-Pacific markets
- Dedicated 'follow-the-ship' beams from 100 Mbps Committed Information Rate (CIR) to multiple gigabits per second of guaranteed bandwidth per ship
- Ability to maximise the value of advanced technologies—including the cloud, Internet of Things (IoT), and artificial intelligence (AI)
- Ability to optimise critical cloud workloads and applications via dedicated, private connectivity to top-tier cloud service providers
- Adaptive traffic management, including SD-WAN for optimised traffic prioritisation, quality-of-service (QoS), and application performance



TECHNICAL SPECIFICATIONS

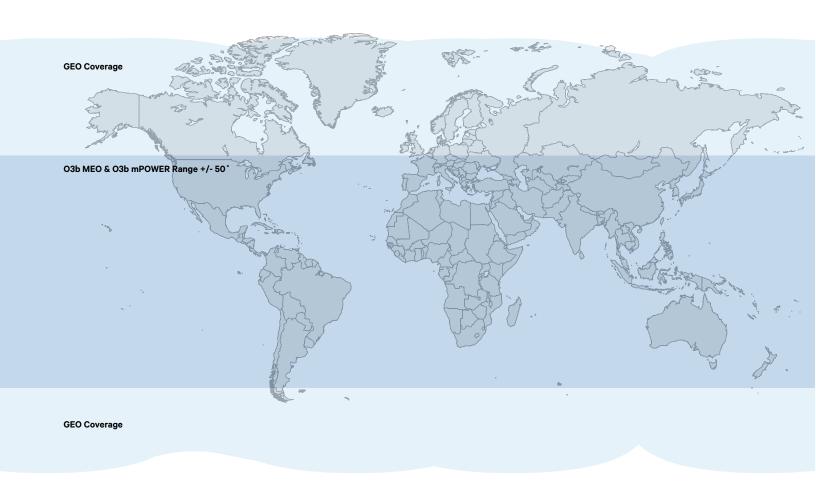
Cruise mPOWERED is available in three service packages—Prime, Pro, and Premium—allowing you to align service features and capabilities to your specific needs.

	PRIME	PRO	PREMIUM
Antenna type	Maritime (3-axis stabilised)	Maritime (3-axis stabilised)	Maritime (3-axis stabilised)
Antenna size	2.4m	2.4m	2.4m
Number of modems for CONOPS	4	4	6
Link technology	DVB-S2X,eSCPC	DVB-S2X,eSCPC	DVB-S2X,eSCPC
MEO bandwidth (CIR)	100-300Mbps	300Mbps – 1.5Gbps	300Mbps – 1.5Gbps
MEO bandwidth (MIR)	Same as CIR	CIR + 10%	CIR + 20%
GEO availability for primary service	No	Yes	Yes
GEO bandwidth (CIR)	Not applicable	1-100Mbps	100-300Mbps
GEO-based back-up (1-70Mbps)	Not available	Available	Available
Round-trip satellite latency (MEO)*	160ms	160ms	160ms
Service availability	99.5%	99.5%	99.5%
Traffic termination	SES gateway or SES- defined point of presence	SES gateway or SES- defined point of presence	SES gateway or SES- defined point of presence



^{*} from customer modem to SES gateway

GLOBAL COVERAGE MAP



REIMAGINE YOUR BUSINESS WITH CRUISE mPOWERED

With the flexibility to provide seamless regional and global coverage at multi-gigabit scale, Cruise mPOWERED sets a new industry standard for enabling superior guest and crew experiences. It offers three levels of service that

allow you to tailor the right set of performance and networking features to your specific requirements. With Cruise mPOWERED, you're ready to reimagine what it means to delight passengers and crew at sea.

Learn how Cruise mPOWERED can help you deliver exceptional guest experiences onboard.

For more information, please reach out to us at getconnected@ses.com

SES HEADQUARTERS

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Published in November 2021.
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