SERVICE BRIEF

SOVEREIGN NAVAL mPOWERED

Connect your maritime assets with high-performance, secure data services

High-bandwidth, low-latency communications are now becoming a necessity for successful naval operations.

INDUSTRY PERSPECTIVE

As seaborne government assets become more sophisticated, connecting them to command-and-control infrastructure and analysis facilities on land requires next-generation data services. Conventional satellite communication services are no longer sufficient. A modern warship might generate hundreds of gigabytes of data per day, producing and accessing much-needed intelligence and operational insights. High-bandwidth, low-latency communications are now becoming a necessity for successful naval operations.

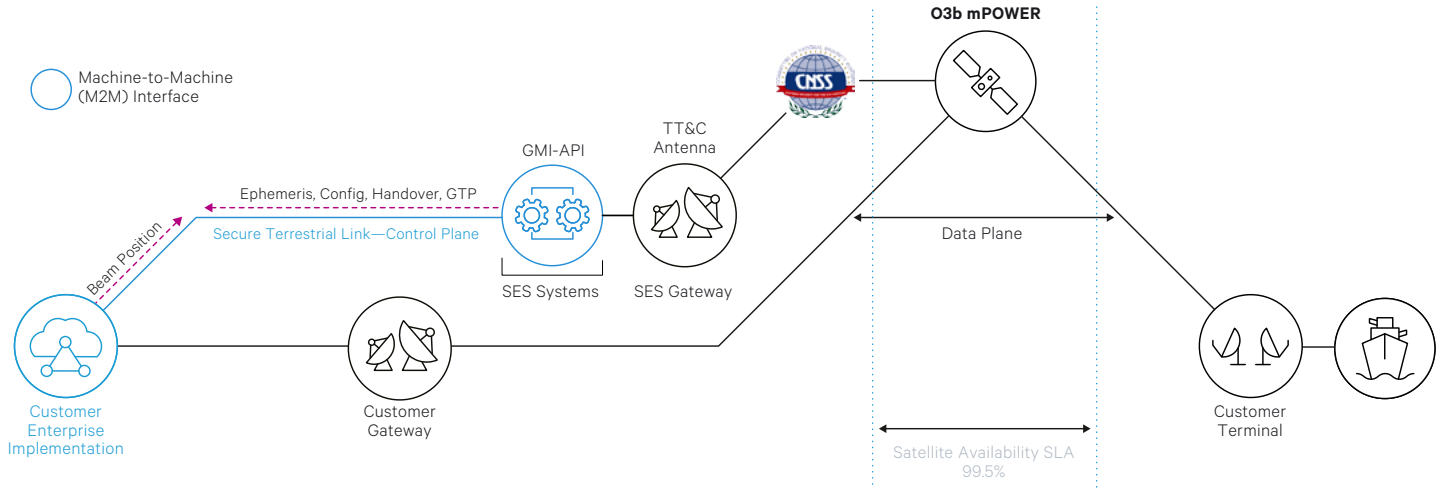
SERVICE DESCRIPTION

To support naval assets engaged in government operations, Sovereign Naval mPOWERED delivers unparalleled high-performance connectivity and operational flexibility on a scalable, global basis. The service is enabled by O3b mPOWER—our next-generation Medium Earth Orbit (MEO) communications system, which delivers a unique solution that allows government maritime customers to maximise sovereign control and security while operating on a commercial satellite system.

As part of O3b mPOWER's Sovereign Product Portfolio, Sovereign Naval mPOWERED allows customers to define and manage their own uncontended bandwidth up to 1.5Gbps per ship, execute secure mobility, land traffic at their sovereign gateway, define unique government private network topologies, and use the waveform and encryption of their choice. Sovereign steerable beam (SSB) mobility can be deployed on a per-ship basis, with location obfuscation and the anti-jam and resiliency features inherent to MEO.

With Sovereign Naval mPOWERED, we deliver a transparent service experience with unrivalled support at every step—from ensuring expert network deployment to maintaining optimal, predictable performance throughout the service lifecycle.

Unparalleled performance, operational flexibility, and scale—with enhanced government control



TECHNICAL SPECIFICATIONS

The Sovereign Naval mPOWERED service is available in three packages—Tier 1 (up to 1.5Gbps per ship), Tier 2 (up to 500Mbps per ship), and Tier 3 (up to 100Mbps per ship).

Constellation	O3b mPOWER		
Satellite availability SLA	99.5%		
Gateway	Sovereign government gateway		
	Tier 1	**Tier 2**	**Tier 3**
Terminal options	**Option 1** Customer-provided SES-certified[1] terminal and modem **Option 2** SES-provided 2.4m terminal and/or modem, one-time payment **Option 3** Same equipment as above, payment plan included in MRC[2]	**Option 1** Customer-provided SES-certified[1] terminal and modem **Option 2** SES-provided 1.3m terminal and/or modem, one-time payment **Option 3** Same equipment as above, payment plan included in MRC[2]	**Option 1** Customer-provided SES-certified[1] terminal and modem **Option 2** SES-provided 0.85m terminal and/or modem, one-time payment **Option 3** Same equipment as above, payment plan included in MRC[2]
Antenna/BUC	2.4m/40W	1.3m/20W	0.85m/20W
Capacity packages for operating region (OR) (baseline throughput) Pre-defined OR with CIR	**Option 1** Total throughput 500–1,500Mbps (100Mbps increments) **Option 2** Global service for transit (within MEO coverage): 45Mbps (2:1)	**Option 1** Total throughput 100–500Mbps (50Mbps increments) **Option 2** Global service for transit (within MEO coverage): 45Mbps (2:1)	**Option 1** Total throughput 100Mbps
Link agility	FWD/RTN ratios of 4:1, 3:1, or 2:1	FWD/RTN ratios of 4:1, 3:1, or 2:1	FWD/RTN ratio of 2:1[3]
Coverage Within +/- 50° latitude	Regional service within customer-defined OR ≤10M sq. km Options for 2.5M, 5M, or 10M sq. km	Regional service within customer-defined OR ≤5M sq. km Options for 2.5M Or 5M sq. km	Regional service within customer-defined OR ≤2.5M sq. km
Link reconfigurability Modify FWD:RTN ratio	**Option 1 -** None **Option 2 -** Basic—monthly (at least 72-hour ANP prior to beginning of next billing cycle)		
OR portability Within +/- 50° latitude; no more than three times per calendar year	**Option 1 -** Not available **Option 2 -** Available[1] (must provide at least 72-hour ANP prior to date when ported OR is needed for service)		
Number of ships (Non-concurrent operations/no pooling)	Per-ship service (up to eight ships can be assigned to a beam, but only one can use it at a time)		
Terms and conditions	**Option 1 -** One base year, plus option years (with standard gov early termination) **Option 2 -** Three base years, plus option years (standard gov early termination applies only to option years **Option 3 -** Five years (no early termination)		
Billing	MRC based on CIR; uncontended service		

[1] Certification enabled by the SES Government Technology Certification (GTC) process. Full details provided upon request.

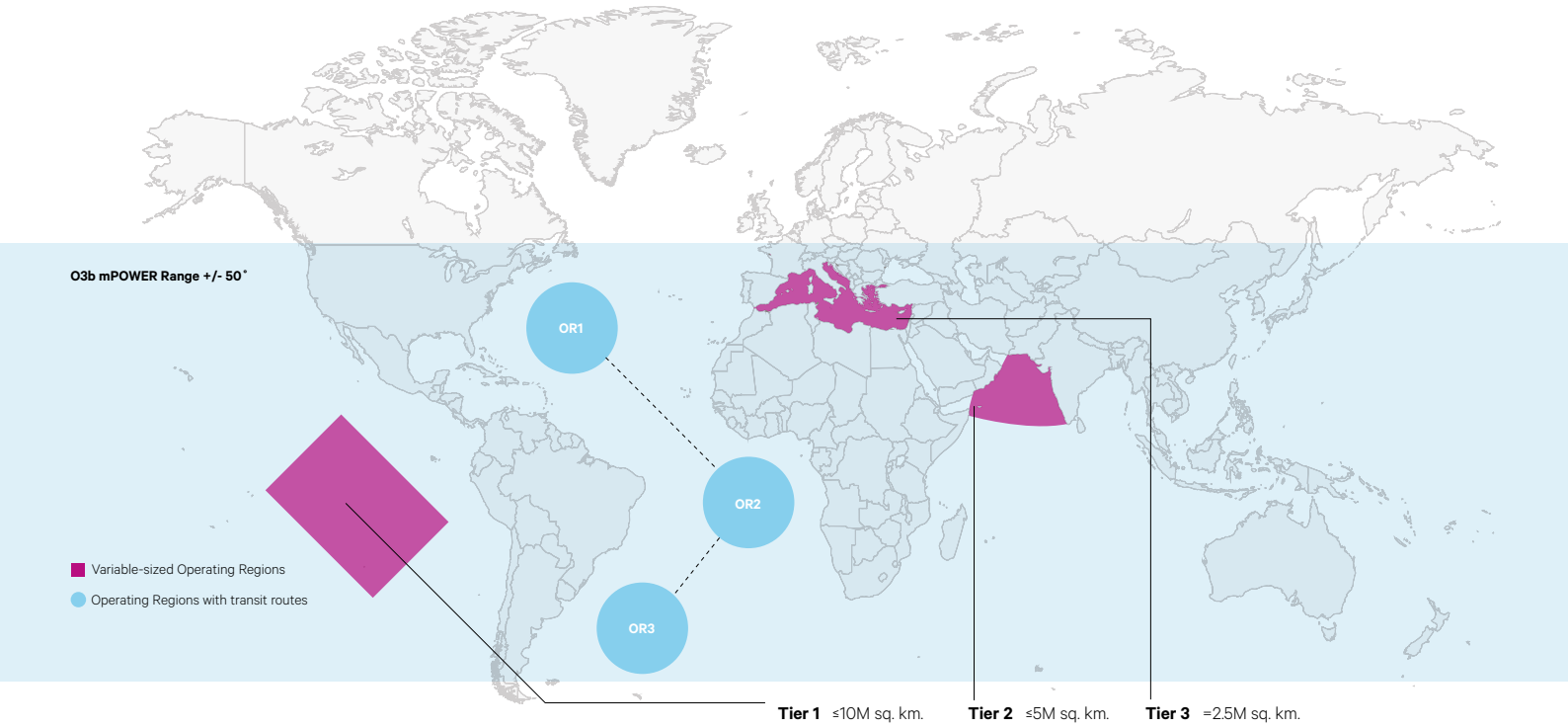
[2] In Option 3, equipment is amortised over the base years of the original contract. Once the contract is complete, the customer retains complete ownership of the equipment. If the customer chooses to renew the contract, the MRC is updated to no longer include equipment costs.

[3] The link budget does not allow for a greater FWD:RTN ratio than 2:1 for the Tier 3 package due to the smaller antenna size.

Sovereign Naval mPOWERED offers a range of features to meet the requirements of government users:

- The use of customer-selected terminal hardware (subject to certification) ensures that existing equipment in your network can continue to be used to create mission-optimised ground and shipborne elements.
- Ability to execute secure mobility, land traffic at sovereign gateways, define unique government private network topologies, and use the waveform and encryption of your choice.
- Customer-controlled sovereign steerable beams (SSB) through a Generic Modem Interface–Application Programming Interface (GMI-API), with location obfuscation.

GLOBAL COVERAGE MAP



REIMAGINE YOUR MARITIME COMMUNICATIONS WITH SOVEREIGN NAVAL mPOWERED

Having ample bandwidth, reconfigurable on a per-ship basis, allows your naval assets to remain in constant touch with shore-based systems, enabling them to deliver intelligence and operational data in a reliable and timely manner.

Sovereign Naval mPOWERED provides unmatched high-throughput, low-latency, and secure data services for a wide variety of use cases. From mission-critical information transfer to video conferencing and enhancing the quality of life (QoL) of shipboard personnel, only O3b mPOWER offers the scale needed to enable a fibre-like quality of experience—even at sea.

Learn how Sovereign Naval mPOWERED can help you optimise your naval communications.

Learn more about our full portfolio of services and solutions at **ses.com**.