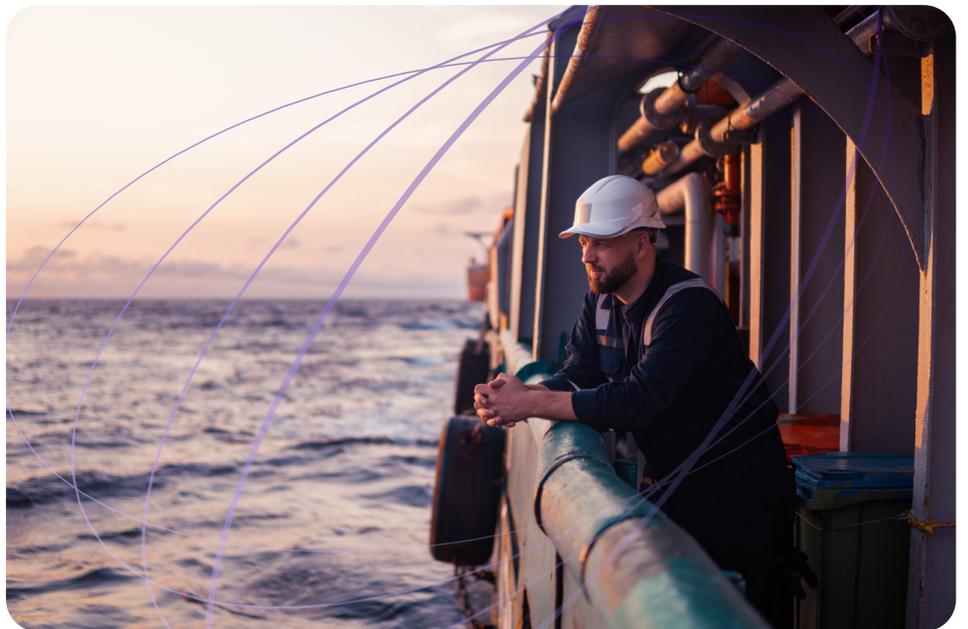SES

Offshore Energy mPOWERED

Fast-track digitalization with high-performance, cloud-scale connectivity.

77%

Typical production capacity of offshore platforms today

1%

Rig-generated data used for operational decision making


Industry perspective

A single oil rig generates terabytes of data daily. Yet only 1% of this data is actually used for operational decision making. Reports by Cisco and McKinsey Global Institute find that offshore platforms today are typically running at 77% of their production capacity, indicating that the scope for efficiency gains and cost savings through the digitalization of oil and gas operations is huge. But only if businesses can get their hands on the data.

Operating in some of the most remote locations on Earth, offshore energy companies face unique challenges in gathering real-time data that can unlock a competitive advantage. With facilities far beyond the reach of terrestrial networks, data transfer to onshore processing centers can be inefficient.

Through O3b mPOWER, our next-generation medium Earth orbit (MEO) communications system, SES delivers managed network services anywhere, enabling offshore energy businesses to capitalize on the benefits of digitalization, now and in the future.
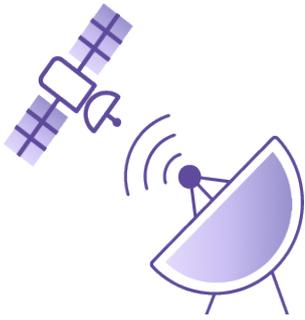
Service description

Offshore Energy mPOWERED harnesses the unmatched scale, unprecedented flexibility, and superior performance of the O3b mPOWER system to meet the connectivity needs of the oil and gas sector. It breaks down the barriers to digitalization, seamlessly delivering high-performance connectivity, one hop away to offshore platforms, production and storage facilities, service vessels, and headquarters. With Offshore Energy mPOWERED, you can optimize operations and harness real-time data to build a competitive edge.
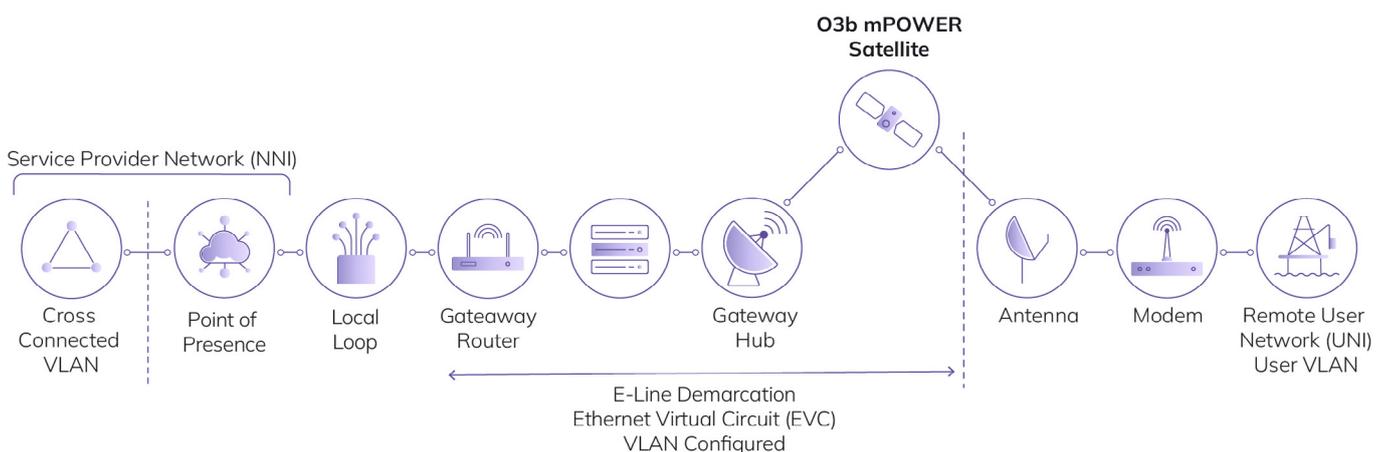
Key features:

- **Future-proof scalability:** Leverage system-level scalability that no other satellite operator can match, ensuring your service keeps pace with future demand.

- **Superior performance:** Support your most critical latency-sensitive services and applications via guaranteed high throughput and proven low-latency performance, backed by a robust service level agreement (SLA).

- **Unprecedented flexibility:** Simply allocate satellite capacity exactly where and when it's needed on a per-site basis. Route traffic with unmatched efficiency to your main operational centers, whether it's your company headquarters, another offshore site, or a cloud data center.

- **Cloud ready:** As a value-added service for Offshore Energy mPOWERED, SES can connect offshore sites to top-tier cloud service providers over a private, dedicated, high-performance connection, enabling optimization of critical workloads and applications.

- **Commercially proven solutions:** Deploy next-generation satellite-enabled services built on more than seven years of market tested MEO solutions serving the offshore energy sector.

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

According to the World Economic Forum, digital transformation of the offshore energy sector has the potential to deliver benefits of approximately 640 billion USD for the wider society.

Expand your network to remote facilities with Offshore Energy mPOWERED

O3b mPOWER Satellite

Service Provider Network (NNI)

Cross Connected VLAN · Point of Presence · Local Loop · Gateaway Router · Gateway Hub

Antenna · Modem · Remote User Network (UNI) User VLAN

E-Line Demarcation
Ethernet Virtual Circuit (EVC)
VLAN Configured
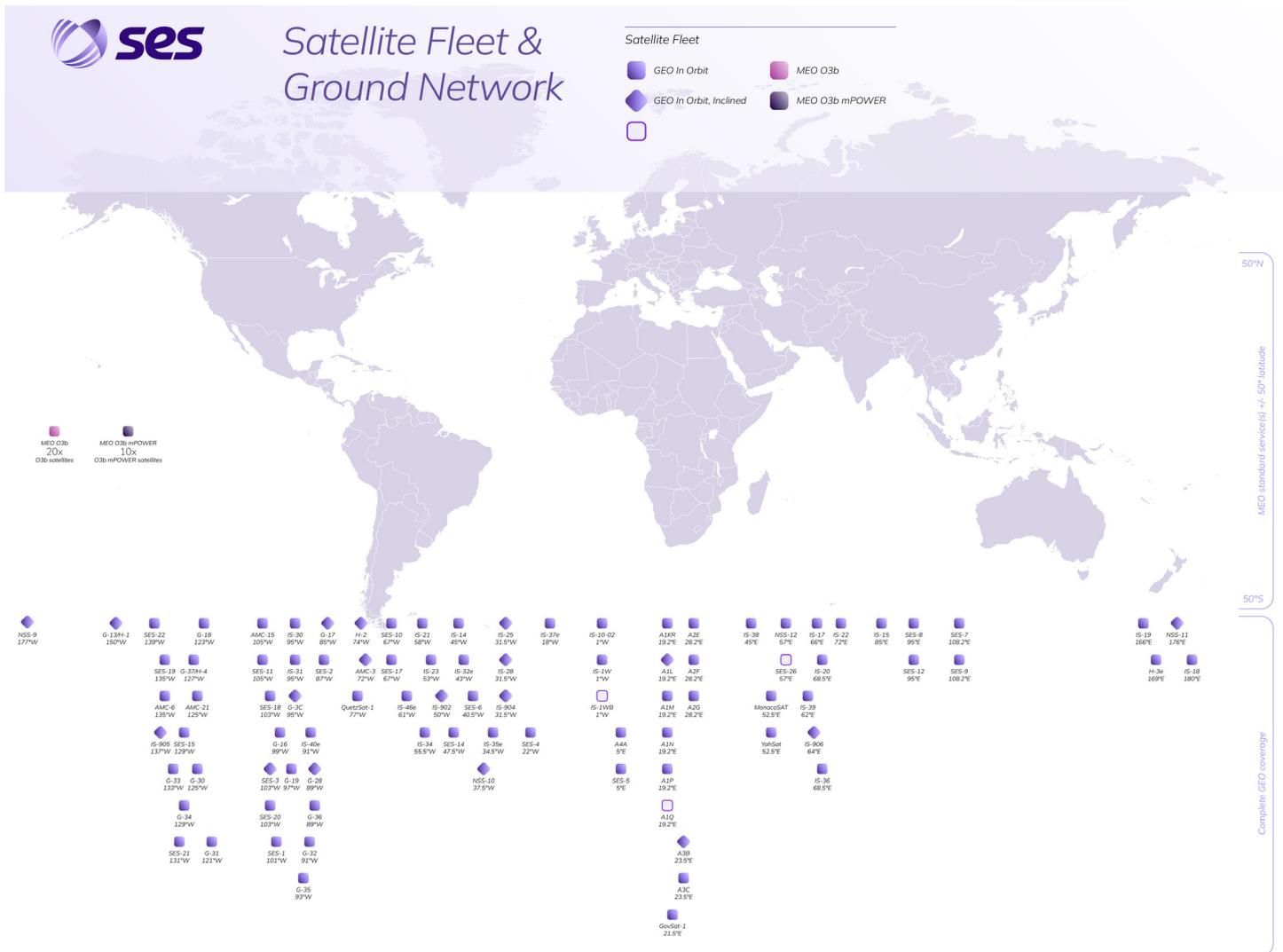
Technical specifications

Offshore Energy mPOWERED is available in two base packages—Pro and Premium—with a range of value added service options to ensure the service features and capabilities match your needs.

	Pro			Premium		
Connectivity transport service	Layer 2, IP transit, Layer 3 IPVPN			Layer 2, IP transit, Layer 3 IPVPN		
Capacity packages[1]	30Mbps minimum per site (FWD+RTN)			50Mbps minimum per site (FWD+RTN)		
		Min.	Max.		Min.	Max.
	FWD	15	300	FWD	25	1000
	RTN	15	300	RTN	25	500
Link agility—flexibility	Ability to choose symmetrical or asymmetrical link ratios			Ability to choose symmetrical or asymmetrical link ratios		
Link agility—size[2]	Ability to change the CIR configuration every quarter			Ability to change the CIR configuration once a month		
Portability	Ability to port links and capacity across the customer's network, once a year			Ability to port links and capacity across the customer's network, once a month		
Service fulfilment and assurance	Hybrid managed service, with 24x7 link monitoring capability			Hybrid managed service, with 24x7 link monitoring capability		
Billing (frequency, basis)	Monthly, CIR			Monthly, CIR		
SLA scope	Layer 2			Layer 2		
Network uptime SLA	< 99.5%			< 99.5%		
Round-trip satellite latency	< 150ms			< 150ms		
Customer interface—remote	1GigE			1GigE		
Customer portal	Portal view: Usage (Mbps), uptime, and latency			Portal view: Usage (Mbps), uptime, and latency		
SLA demarcation	SES hand-off point to 1cm above the customer antenna			SES hand-off point to 1cm above the customer antenna		
Terminal modem	Gilat Aquarius-e			Gilat Aquarius-e		
Antenna manufacturers	Intellian, Orbit			Intellian, Orbit		
Antenna size	2 x 1.3m 20W 2 x 1.5m 40W 2 x 2.4m 40W			2 x 1.3m 20W 2 x 1.5m 40W 2 x 2.4m 40W		

[1]Should not be lesser than the initially contracted CIR
[2]Increase in CIR is subject to availability

Global coverage map

Satellite Fleet & Ground Network

Satellite Fleet

- GEO In Orbit
- GEO In Orbit, Inclined
- MEO O3b
- MEO O3b mPOWER

MEO O3b
20x
O3b satellites

MEO O3b mPOWER
10x
O3b mPOWER satellites

50°N

MEO standard service(s) +/- 50° latitude

50°S

Complete GEO coverage

Satellite	Position
NSS-9	177°W
G-13/H-1	150°W
SES-22	139°W
G-18	123°W
AMC-15	105°W
IS-30	95°W
G-17	85°W
H-2	74°W
SES-10	67°W
IS-21	58°W
IS-14	45°W
IS-25	31.5°W
IS-37e	18°W
IS-10-02	1°W
A1KR	19.2°E
A2E	28.2°E
IS-38	45°E
NSS-12	57°E
IS-17	66°E
IS-22	72°E
IS-15	85°E
SES-8	95°E
SES-7	108.2°E
IS-19	166°E
NSS-11	176°E
SES-19	135°W
G-37/H-4	127°W
SES-11	105°W
IS-31	95°W
SES-2	87°W
AMC-3	72°W
SES-17	67°W
IS-23	53°W
IS-32e	43°W
IS-28	31.5°W
IS-1W	1°W
A1L	19.2°E
A2F	28.2°E
SES-26	57°E
IS-20	68.5°E
SES-12	95°E
SES-9	108.2°E
H-3e	169°E
IS-18	180°E
AMC-6	135°W
AMC-21	125°W
SES-18	103°W
G-3C	95°W
QuetzSat-1	77°W
IS-46e	61°W
IS-902	50°W
SES-6	40.5°W
IS-904	31.5°W
IS-1WB	1°W
A1M	19.2°E
A2G	28.2°E
MonacoSAT	52.5°E
IS-39	62°E
IS-905	137°W
SES-15	129°W
G-16	99°W
IS-40e	91°W
IS-34	55.5°W
SES-14	47.5°W
IS-35e	34.5°W
SES-4	22°W
A4A	5°E
A1N	19.2°E
YahSat	52.5°E
IS-906	64°E
G-33	133°W
G-30	125°W
SES-3	103°W
G-19	97°W
G-28	89°W
NSS-10	37.5°W
SES-5	5°E
A1P	19.2°E
IS-36	68.5°E
G-34	129°W
SES-20	103°W
G-36	89°W
A1Q	19.2°E
SES-21	131°W
G-31	121°W
SES-1	101°W
G-32	91°W
A3B	23.5°E
G-35	93°W
A3C	23.5°E
GovSat-1	21.5°E

Drive digital transformation with Offshore Energy mPOWERED

Game-changing digital technologies have the potential to transform the offshore energy sector, unlocking higher efficiencies and lower costs than ever before. To make next-generation capabilities a reality, companies need high-performance network services that can connect entire operations, even in the most remote locations. With Offshore Energy mPOWERED, SES delivers reliable low-latency, high-performance connectivity designed to support offshore digitalization, giving your customers the power to reimagine their success story.

Learn more about our purpose-built satellite and connectivity solutions at ses.com