SES^

MOBILE BACKHAUL mPOWERED

Extend your network with low-latency,
5G-ready satellite backhaul

40%

of the population in low- and middle-income countries will remain excluded from mobile Internet, according to GSMA

INDUSTRY PERSPECTIVE

Most mobile towers are connected to the mobile core via traditional copper, fibre, or microwave links. Yet, for remote and under-served areas, distance to the nearest point of presence (PoP) brings challenges that make these technologies infeasible.

GSMA predicts that, by 2025, 40% of the population in low- and middle-income countries will remain excluded from mobile Internet—leaving a wide untapped market available to mobile network operators. Additionally, in developed countries, RAN modernisation to LTE and 5G places additional pressure on existing mobile backhaul infrastructure, stressing it to meet new throughput demands. Closing these gaps requires a new generation of mobile backhaul services, since GEO-based solutions can only serve a fraction of a market Northern Sky Research (NSR) predicts will reach an aggregated data transfer of 22 terabits per second in the next decade. More robust, low-latency, and high-throughput services will be crucial to meeting this demand.

O3b mPOWER

SERVICE DESCRIPTION

The Mobile Backhaul mPOWERED service is enabled by O3b mPOWER— our next-generation medium Earth orbit (MEO) communications system. Mobile Backhaul mPOWERED is the only satellite backhaul solution that's ready to support 5G networks' high throughput demand. Scalable to multiple gigabits per second per site, it connects your mobile core network to either a single mobile tower site or an edge aggregation point with a managed service backed by a carrier-grade Service Level Agreement (SLA).
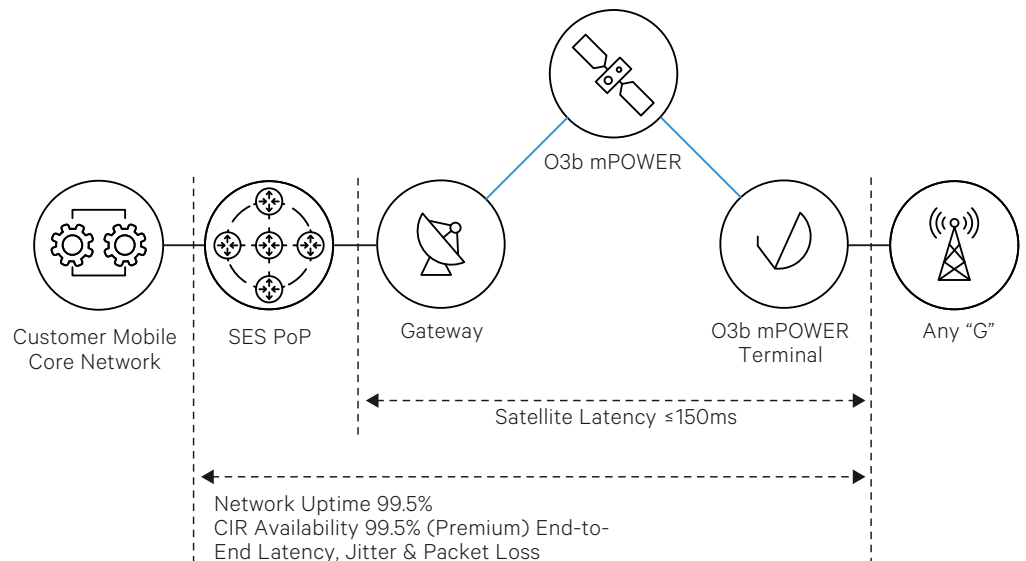
Mobile Backhaul mPOWERED provides reliable, uncontended high-throughput bandwidth with low-latency performance— capable of supporting migration to future generations of mobile services. Whether you are upgrading to 4G or 5G networks, or extending your current services to new markets, Mobile Backhaul mPOWERED enables you to modify the link symmetry and throughput to meet demand per site.

With a fully digital payload and the unmatched scalability of thousands of beams available across the O3b mPOWER system, Mobile Backhaul mPOWERED provides you the ability to land traffic with unrivaled flexibility. Now, mobile network operators can direct traffic to in-country gateways or directly to the cloud with ease, optimising performance to match your needs.

With Mobile Backhaul 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.

Extending your MNO core network with Mobile Backhaul mPOWERED

O3b mPOWER

Customer Mobile Core Network | SES PoP | Gateway | O3b mPOWER Terminal | Any "G"

Satellite Latency ≤150ms

Network Uptime 99.5%
CIR Availability 99.5% (Premium) End-to-End Latency, Jitter & Packet Loss

O3b **mPOWER**

TECHNICAL SPECIFICATIONS

Mobile Backhaul mPOWERED offers flexible bandwidth rates, from 50Mbps up to 1800Mpbs on forward and return for single towers or where multiple towers are served by a single O3b mPOWER link.
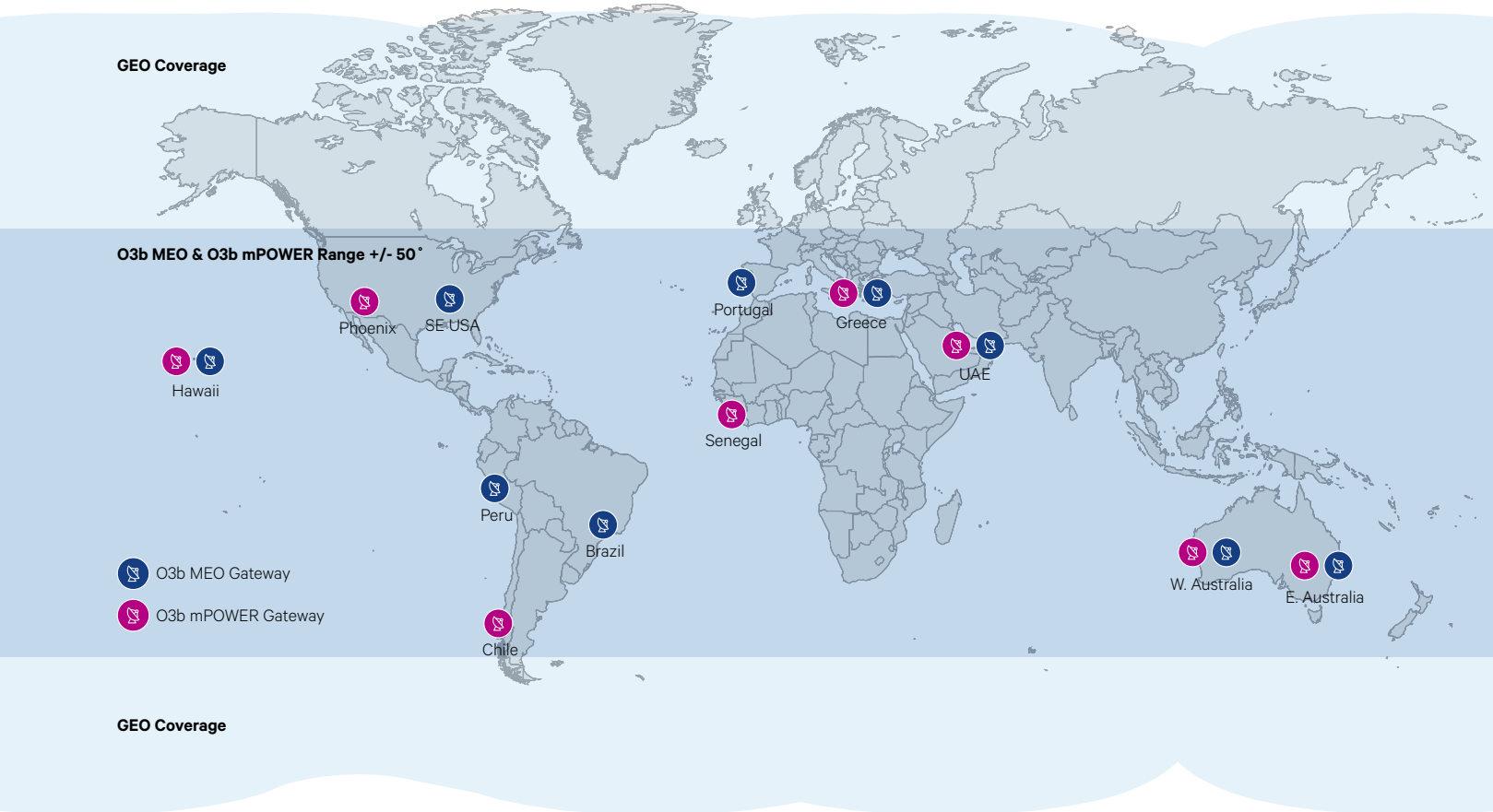
Connectivity transport service	Ethernet Virtual Private Line		
Capacity packages (Mbps)	50Mbps minimum per site (FWD+RTN)		
		Min.	Max.
	FWD	40	1200
	RTN	10	600
Gateway locations	SES or customer gateways for in-country traffic handoff		
Symmetry options	2:1, 3:1, or 4:1		
Network uptime SLA	<99.5%		
Satellite latency SLA	<150ms		
Customer portal	Portal view: Network uptime, usage (Mbps), latency, jitter, and packet loss		
Antenna Size	2 x 1.3m 20W Intellian mP130, or 2 x 2.4m 40W Viasat		
Available service tiers	Pro and Premium		

Each service tier—Pro and Premium—comes with a variety of value-added features.

- **Monitoring:** Network uptime (%), throughput (Mbps), latency (ms), jitter (ms), and frame loss ratio (%) monitoring options available on some service tiers.
- **Link Agility:** Ability to increase or decrease the link symmetry and throughput during contract to better meet your evolving needs.
- **Encryption:** Over-the-air encryption for highly secured links.

- **Flex Handoff:** Flexible service handoff from any global On-Net PoP, to Off-Net directly on-prem, or even directly to the cloud using SES's Cloud Direct.
- **QoS Aware:** Dedicated bandwidth with four classes of service, for better user experience and network performance.
- **Volume:** Ability to define limit for total consumed volume (TBytes).

Value-added features	Pro	Premium
Performance Monitoring	Included	Included
Link Agility	Included	Included
Encryption	Available	Available
Flex Handoff	Included	Included
QoS Aware	Included	Included
Volume	Unlimited	Unlimited

O3b **mPOWER**

GLOBAL COVERAGE MAP

GEO Coverage

O3b MEO & O3b mPOWER Range +/- 50˚

Portugal

Greece

UAE

Phoenix

SE USA

Hawaii

Senegal

Peru

Brazil

🔵 O3b MEO Gateway

🟣 O3b mPOWER Gateway

W. Australia

E. Australia

Chile

GEO Coverage

REDEFINE YOUR NETWORK BOUNDARIES WITH MOBILE BACKHAUL mPOWERED

With unrivalled, multi-gigabit scale, low-latency performance, and unmatched flexibility, Mobile Backhaul mPOWERED is the ideal solution for growing your business in under-served regions, reaching millions of new subscribers who increasingly demand richer experiences.

Learn how Mobile Backhaul mPOWERED can extend your core network to untapped markets—seamlessly and reliably.

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