

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 underserved areas, distance to the nearest point of presence (PoP) brings challenges that make these technologies impractical.

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, putting it under great strain to meet new throughput demands. Closing these gaps requires a new generation of mobile backhaul services; in the next decade, Northern Sky Research (NSR) expects the market for aggregated data transfer will reach 22 terabits per second, but GEO-based solutions can only serve a fraction of this demand. More robust, low-latency and high-throughput services will be crucial to supplying this fast-growing market.



SERVICE DESCRIPTION

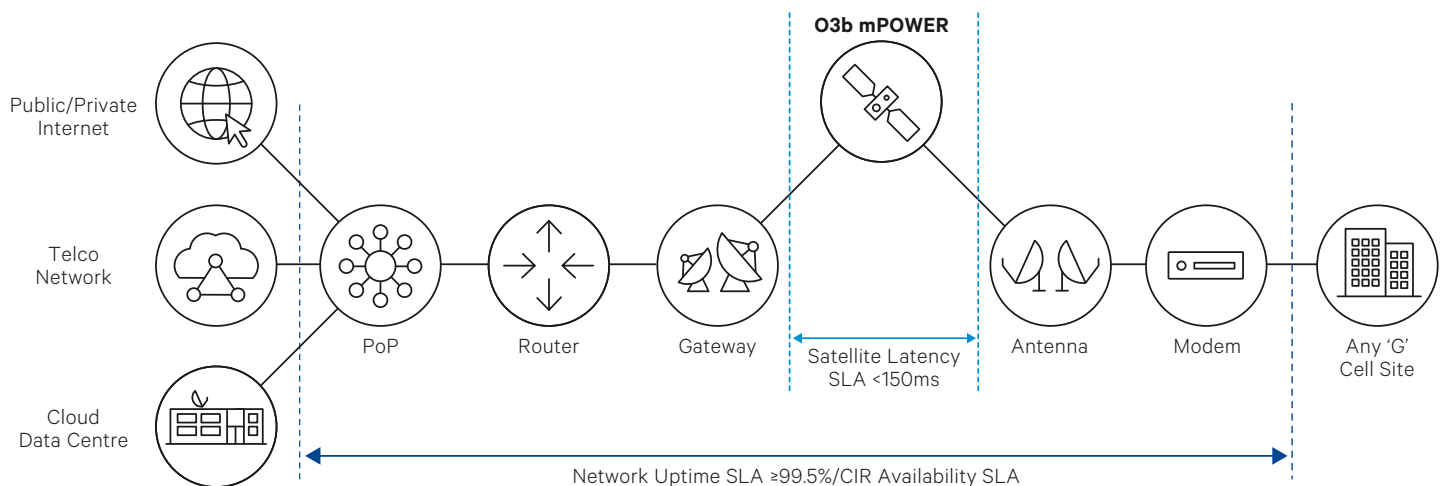
The Mobile Backhaul mPOWERED service enabled by O3b mPOWER – our next-generation medium Earth orbit (MEO) communications system – delivers an unmatched satellite-network performance that enables any mobile network operator, telco or towerco to extend their core network coverage and performance, anywhere they operate. From unrivaled 1.5Gbps of uncontended throughput per ground terminal and the industry's highest return links – up to 500Mbps – to consistent latency as low as 150ms, Mobile Backhaul mPOWERED can help you cost efficiently reach new markets or upgrade underserved towers.

Whether it's flexible contention ratios, modifiable link symmetries or uncontended, dedicated capacity, Mobile Backhaul mPOWERED grants an unrivaled performance. Without unexpected service degradations or

bottlenecks, our service guarantees a jitter-free 4G or 5G mobile backhaul network performance – with the scalability to support early launch phases in new markets or high-data-volume towers that demand Gbps.

Mobile Backhaul mPOWERED's high throughput and consistent low latency secures excellent performance for any voice, video, streaming, gaming or cloud application. Whether you want to extend your network either with a single mobile tower site or an edge aggregation point, take traffic to in-country gateways or directly to the cloud, increase capacity at a single celltower or upgrade it to 5G, Mobile Backhaul mPOWERED is the only satellite-based mobile backhaul service that can support the highest performance today and for the foreseeable future, without compromises.

Extending your MNO core network with Mobile Backhaul mPOWERED





TECHNICAL SPECIFICATIONS

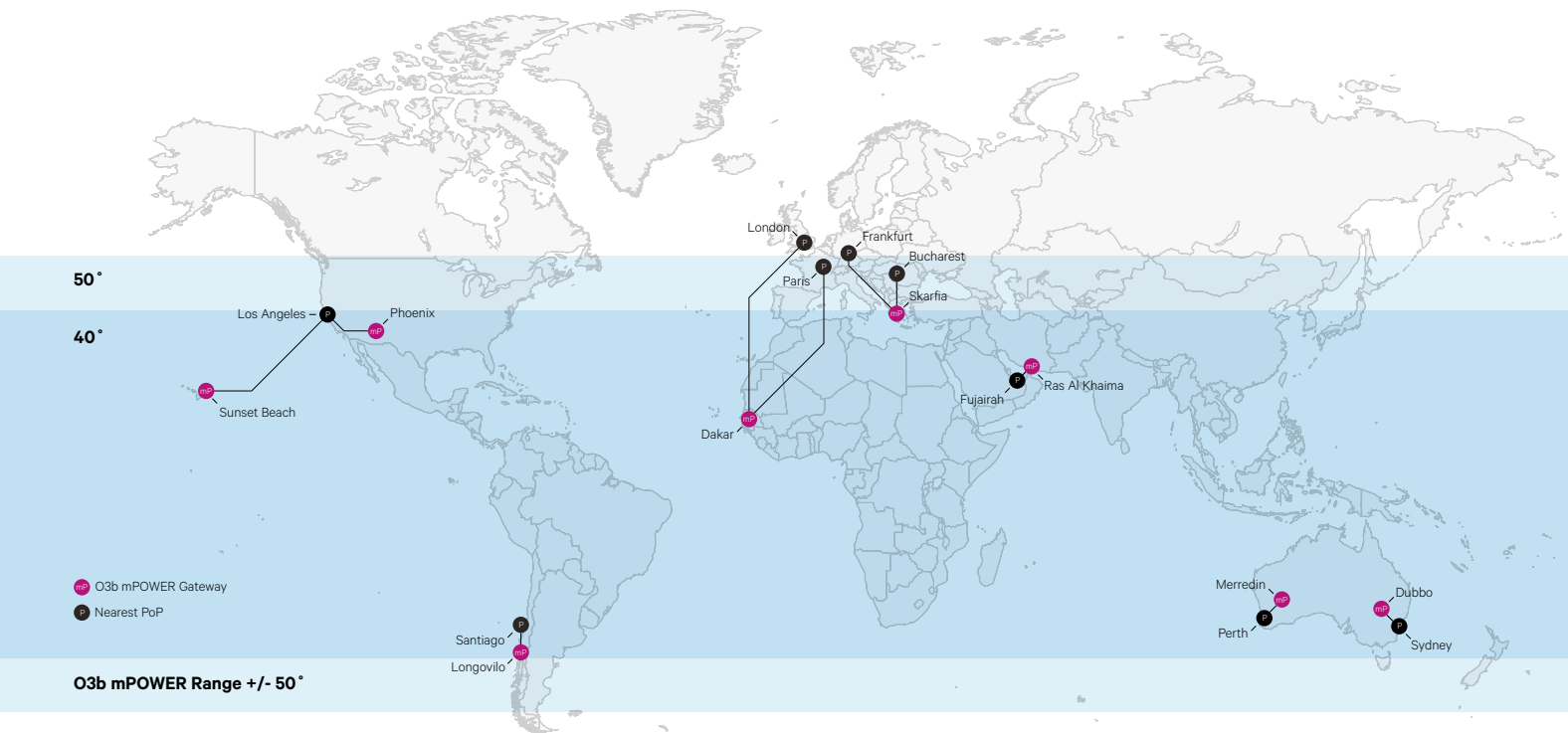
Mobile Backhaul mPOWERED offers flexible bandwidth rates, from 50Mbps up to 1500Mbps on forward and return for single towers or where multiple towers are served by a single O3b mPOWER link.

Constellation	O3b mPOWER		
Coverage (countries/regions)	Global coverage		
Gateway locations	SES or customer gateways for in-country traffic handoff		
Capacity packages (Mbps)	Service Data Rate (SDR) per site:		
		Min.	Max.
	FWD (Downlink)	35Mbps	1000Mbps
	RTN (Uplink)	15Mbps	500Mbps
FWD:RTN ratios	2:1, 3:1, 4:1		
	Pro	Premium	
Network uptime SLA	≥ 99.5%	≥ 99.5%	
CIR availability SLA	≥ 95%	≥ 99.5%	
Satellite latency SLA	≤ 150ms	≤ 150ms	
Customer portal includes	Service availability, network uptime, throughput, latency, jitter, and packet loss	Service availability, network uptime, throughput, latency, jitter, and packet loss	
Link agility	Choose symmetric or asymmetric links, with available higher service data rate requests for a limited time, up to twice per year.	Choose symmetric or asymmetric links, with available higher service data rate requests for a limited time, up to once per month.	
Flex handoff	Standard - Connect to the default SES On-net PoP	Advance - Connect to On-net, Off-net, on- premises, or direct-to-cloud PoP	
Volume (on roadmap)	Ability to define whether any limit applies to the total consumed volume (TBytes).	Ability to define whether any limit applies to the total consumed volume (TBytes).	
Available terminal bundles	2 x 1.3m 20W	2 x 1.3m 20W	
	2 x 2.4m 40W	2 x 2.4m 40W	

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

- **Performance monitoring:** Customers can monitor network uptime (%), service data rate (Mbps), latency (ms), jitter (ms) and frame loss ratio (%) for a window of up to 90 days.
- **Encryption:** Over-the-air encryption for highly secured links.
- **QoS Aware:** Dedicated bandwidth with four classes of service, allowing customers to differentiate multiple traffic types like control plan traffic, real time traffic and non-real time traffic.

GLOBAL COVERAGE MAP



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, or even providing resiliency services to critical sites across your network.

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.

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