TRANSFORMING GOVERNMENT CONNECTIVITY

Boost resilience and meet the growing demand for low-latency, high-throughput connectivity —with O3b mPOWER.

Executive Guide

SES

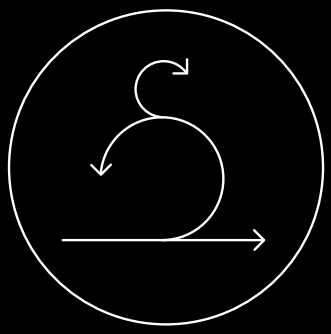
REVOLUTIONISING GOVERNMENT OPERATIONS WORLDWIDE

Civilian and military government entities are embracing digitalisation.

As government entities transition their operations to adopt the latest technological developments—including edge computing and cloud-based applications—they need to augment their existing networks with additional terminals and bandwidth, and add redundant communications paths to achieve the necessary flexibility, resilience, and redundancy.

With the industry's only multi-orbit and multi-band satellite network, we have the expertise to address the entire range of government communications requirements. Building on our market-leading O3b Medium Earth Orbit (MEO) constellation—the industry's first proven non-geostationary satellite orbit (NGSO) system—O3b mPOWER provides terabit-level scale, delivering multi-gigabit links virtually anywhere on Earth. The system offers a broad range of innovative capabilities that facilitate the deployment of critical communications applications, including those that have not been permitted to operate via commercial satellite networks.

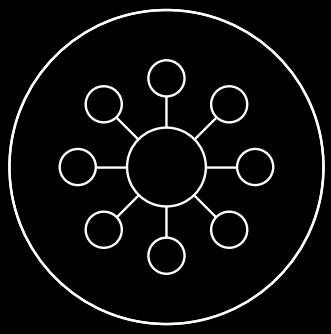
O3b mPOWER provides terabit-level scale, delivering multi-gigabit links virtually anywhere on Earth.



FREEDOM TO CREATE AND DIFFERENTIATE

The O3b mPOWER system enables the provisioning of unprecedented low-latency, high-throughput connectivity around the world. Its cutting-edge software innovations enable the flexible, dynamic allocation of bandwidth with superior quality of service—while avoiding stranded capacity. With a software-defined global network infrastructure, and an industry-leading Adaptive Resource Control (ARC) software system that manages both space and ground segments, O3b mPOWER provides exceptional flexibility and resilience. Each of the constellation's seven satellites delivers thousands of beams, offering system-wide terabit-level capacity, which can be flexibly provisioned from 10Mbps to 10Gbps with any ratio of forward-to-return speeds. The ability to selectively target both individual endpoints and combined areas with multiple endpoints, together with greatly increased data rates, gives government entities the freedom to augment their existing networks and deploy new classes of applications and services. In particular, O3b mPOWER makes it possible to seamlessly run cloud-enabled applications at the edge of the network. This brings the benefits of enterprise-level government operations, large-scale networking, and the availability of big-data analytics to remote deployments in the same way they are currently available at central facilities.

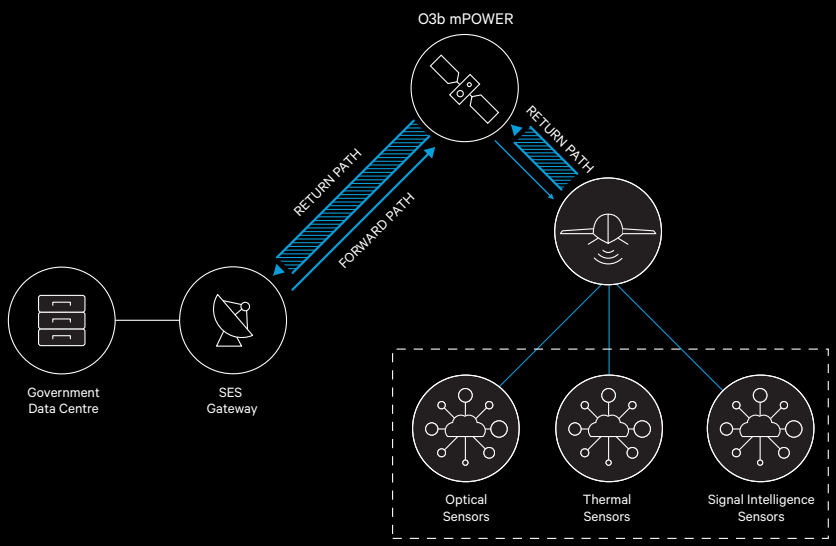
The Adaptive Resource Control (ARC) system synchronises spacecraft and ground system resources to reliably meet the industry's most robust service level agreements.



FREEDOM TO INTEGRATE AND OPTIMISE

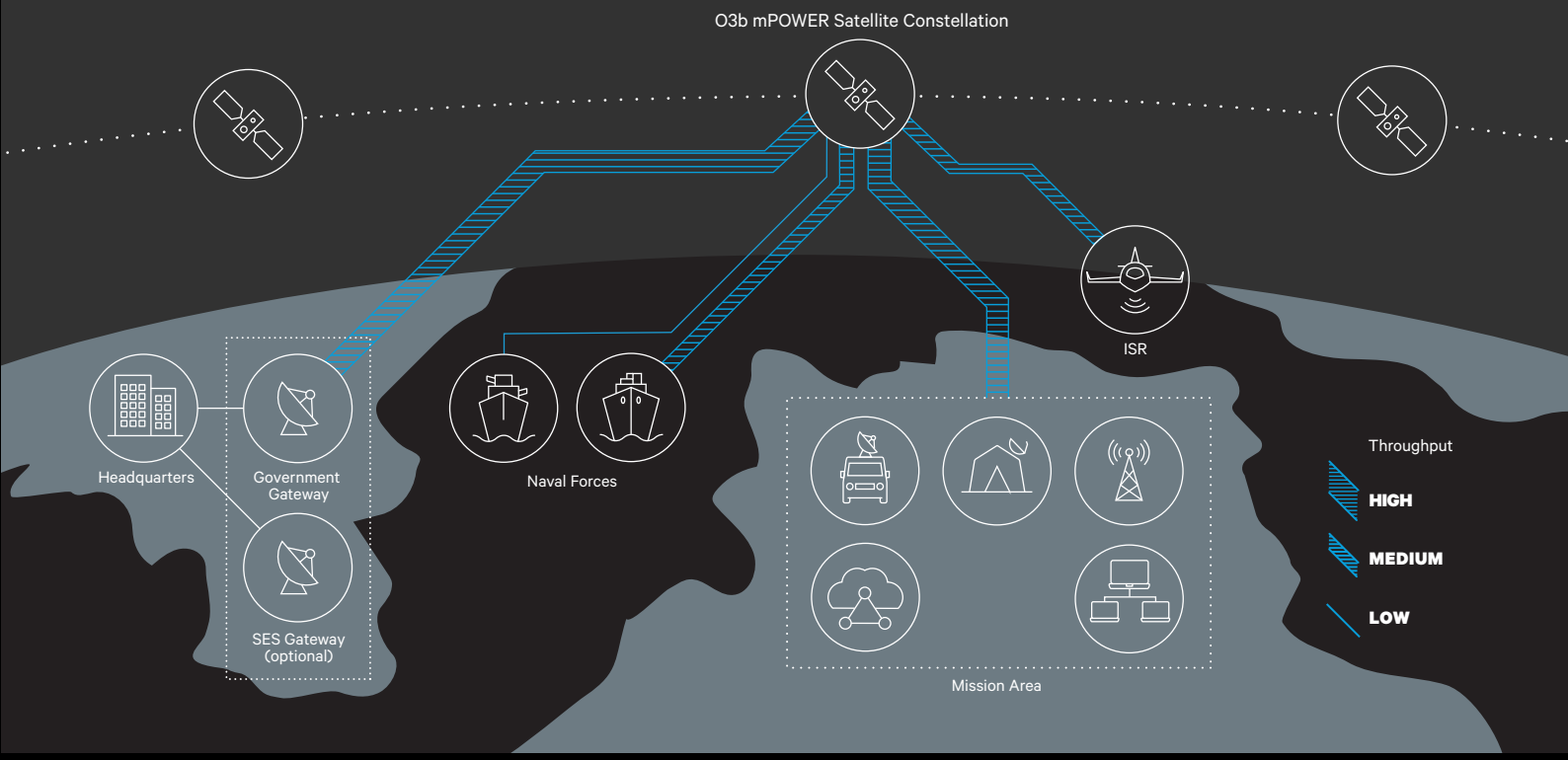
O3b mPOWER's integration and optimisation capabilities facilitate interconnections with existing networks, and improved network performance. The use of standards-based, software-defined networks, and network functions virtualisation employing open APIs, allows seamless integration of the O3b mPOWER system into the rest of the SES fleet, and our customers' operational environments. The system's digital beam forming and steering capabilities enable the creation of networks that are inherently resistant to interception and jamming. These can incorporate government-operated gateways and government-defined ground networks, providing secure access to capabilities not usually permitted on public networks.

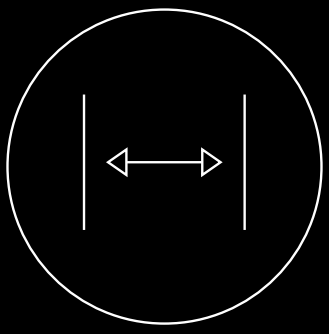
O3b mPOWER's open architecture offers numerous advantages. The satellites can transparently support all current and future modulation and encryption schemes, as well as any waveform. The entire system—satellites, terminals, and terrestrial networks—can support multiple vendor platforms and networks, giving governments far more choice when addressing mission requirements compared to any previous system. In some cases, existing ground equipment can be used with only minor modifications. This combination of capabilities makes O3b mPOWER the ideal choice for enhancing and augmenting existing government systems, and for adding redundancy and resilience.



Optimise your capacity for your needs—with any ratio of forward-to-return speeds.

Provision bandwidth flexibly—
from 10Mbps to 10Gbps.



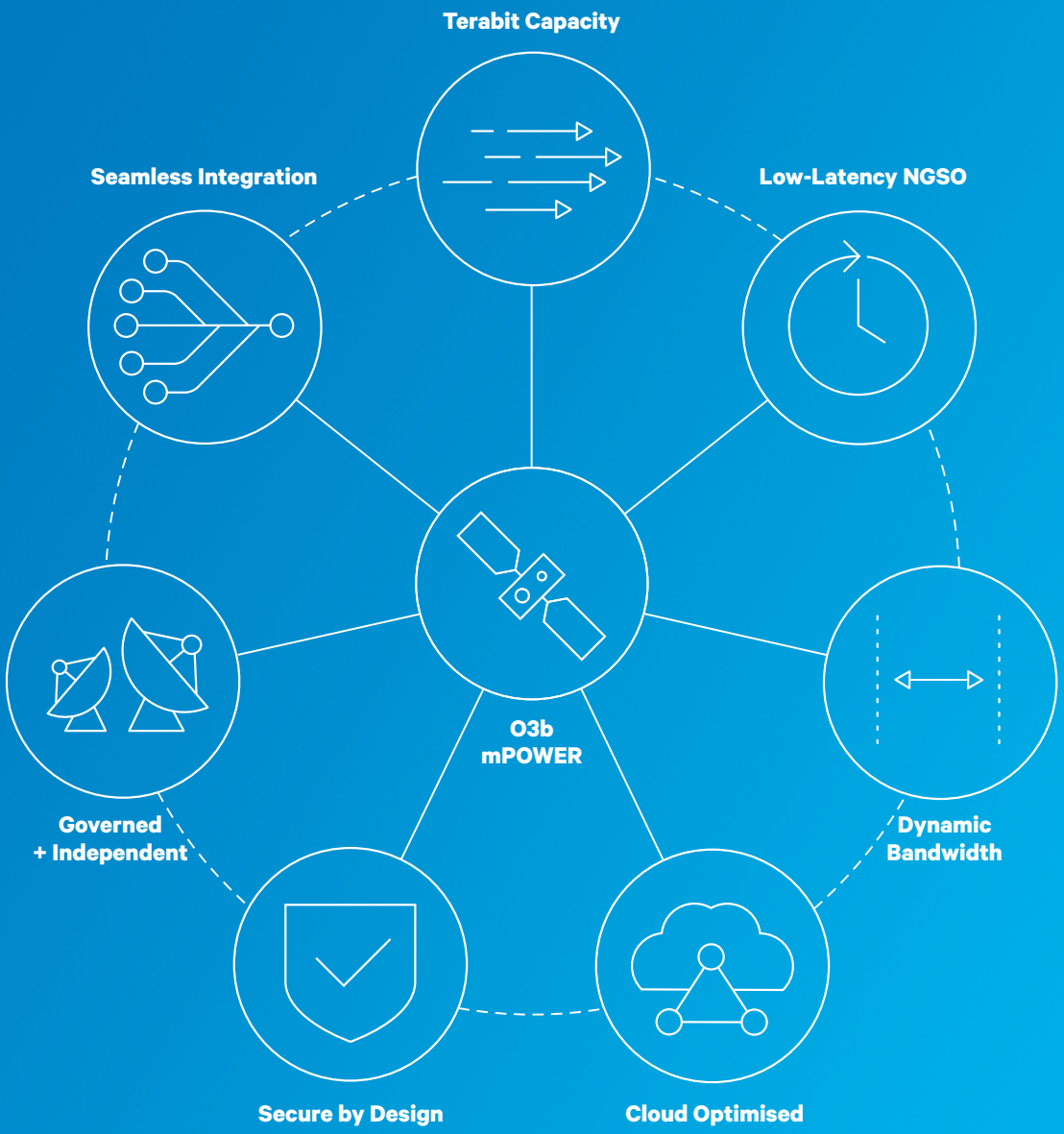


FREEDOM TO ECONOMISE AND SCALE

The innovations incorporated into O3b mPOWER—including intelligent, integrated edge terminals, and more scalable space and ground systems—enable it to deliver enhanced connectivity with a cost structure scaled for performance in the multi-gigabit per second range. The system can provide sufficient throughput to accommodate all current and foreseeable requirements for bandwidth-intensive applications, including airborne surveillance. Its ability to activate capacity when and where needed provides the flexibility to adapt bandwidth on demand to meet changing requirements, rather than over-provisioning based on predicted peak demand. As additional satellites are added to the O3b mPOWER constellation, the system's capacity will scale to keep pace with growing demand.

Flexible, high-throughput, low-latency connectivity, combined with increased redundancy and resilience, will play a key role in government network operators' digital transformation, as government entities embrace cloud-based computing, and expand their operations in remote locations. O3b mPOWER builds on the proven success of our first-generation MEO constellation, our extensive expertise and dedicated resources, and our thorough understanding of the rapidly changing needs of the government communications sector. The system's wide range of new options let you decide how best to augment or scale your current operations, and address future missions.

INNOVATING WITH O3b mPOWER



- Terabit-level capacity (individual links of 10Mbps to 10Gbps)
- Low-latency non-geostationary satellite orbit (NGSO)
- Dynamic allocation of bandwidth and power in real time
- Cloud-optimised at the core and edge of the network
- Mission assurance by design—employing resilience concepts such as diversification, proliferation, and deception
- Incorporates government-operated gateways and independent subnetworks
- Seamlessly integrates with the rest of the SES fleet

AUGMENT EXISTING SYSTEMS, DEPLOY NEW APPLICATIONS, AND ADD REDUNDANCY

Ready to scale your network connectivity, transform your operations, and prepare for the future?

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