SES▲

CLOUD DIRECT

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Enabling digital transformation in any location with secure, dedicated connectivity to the cloud.

63%

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INDUSTRY PERSPECTIVE

Cloud is accelerating digital transformations for enterprises and government agencies of all sizes, providing access to the tools needed to improve operational efficiencies and profitability. In its recent State of the Cloud survey of cloud decision-makers, cloud management company Flexera found that 63% of respondents run more than a quarter of their workloads in the cloud, with cost savings and time to market cited as the top drivers behind their cloud adoption.

SES has partnered with the leading cloud service providers (CSPs) to ensure that the power of the cloud can be extended to any location. SES Cloud Direct provides dedicated, private connectivity that bypasses the public internet, peering directly with CSPs to ensure high-value, mission-critical workloads receive the performance, availability, and security they need. With Cloud Direct, businesses and government end users everywhere can be just one hop away from their essential cloud applications – and one step closer to executing on their digital transformations.

Direct connectivity between any global end point and the cloud provides enterprises and governments with the performance, reliability and scale they need to achieve their digitalisation goals.

SERVICE DESCRIPTION

SES Cloud Direct is a managed network service delivering private, dedicated connectivity from SES geostationary Earth orbit (GEO) and medium Earth orbit (MEO) gateways to a growing number of top-tier CSPs. The service extends an IP- or Ethernet-based satellite link from any remote site to the cloud, effectively creating an end-to-end, dedicated connection from an enterprise or government remote site or edge compute node to the cloud. At the gateway, SES separates traffic destined for the public internet from traffic routed over the SES Cloud Direct on-ramp.

SES Cloud Direct supports eight levels of throughput offered as committed information rates (CIR) between the SES gateway and the cloud service provider: 50, 100, 200, or 500Mbps, and 1, 2, 5, or 10Gbps. These rates match the bandwidth levels supported by our cloud service provider partners, and are part of a broader, cloud-grade service level agreement (SLA) covering service availability and latency performance.

We are partnering with the industry's largest CSPs, using our global network of satellite gateways— interconnected via the SES worldwide terrestrial IP backbone—to connect end users to their chosen cloud data centres via SES Cloud Direct. End users simply select SES as a connectivity provider from their CSP portal, which then activates the provisioning of a dedicated circuit from an SES gateway to the appropriate CSP peering location.

Space-Enabled Digital Transformations
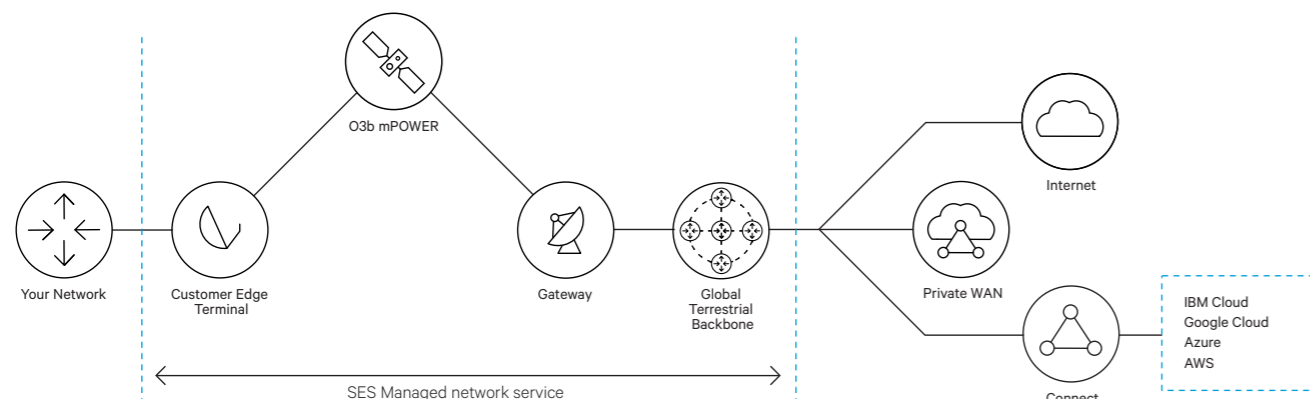
OFFSHORE ENERGY

By leveraging Industrial Internet of Things (IIoT) and Artificial Intelligence (AI) applications, oil and gas companies can reach new thresholds of operational efficiency. Inferences gained at edge compute nodes on offshore rigs can be aggregated at cloud data centres, where advanced analytics and machine learning algorithms generate actionable insights to support more efficient, cost-effective exploration and production. To ensure real-time processes and workloads run smoothly, energy companies need the scale, low-latency performance, and secure environment afforded by dedicated cloud-connect services.

COMMERCIAL SHIPPING

Cloud-enabled IIoT is disrupting the commercial shipping industry on a wide scale. Solutions like real-time cargo tracking and monitoring, route management for improved fuel efficiency, and analytics processing for diagnostics and predictive maintenance are paramount to service differentiation and operational efficiency. To gain an edge, shipping companies are re-designing their networks, requiring more secure, reliable, and high-performance connectivity to the cloud via dedicated cloud-connect services.

MINING

According to Accenture, 82% of business leaders in the mining industry expect investment in digital transformation to increase over the next three years, with 81 percent of mining companies planning to increase adoption of cloud technologies. The era of "smart mining" embraces real-time, cloud-driven data visualisation, analytics, and virtual and augmented reality to improve safety, efficiency, and profitability. Reliable, deterministic network performance via dedicated cloud-connect services is a key.

GOVERNMENT: ISR (INTELLIGENCE, SURVEILLANCE AND RECONNAISSANCE)

As expectations grow for cloud technologies to transform operational architectures and military information systems, ISR technology is rapidly improving. Equipped with an increasing number of high-fidelity sensors, modern airborne ISR assets can execute a wider variety of tasks with reduced need for human intervention. As the volume of data generated on ISR missions proliferates, current Processing, Exploration, and Dissemination (PED) capabilities require scalable, reliable, and secure cloud connectivity best served by a dedicated service enabler of this transformation.

O3b mPOWER

O3b mPOWER

THE IMPORTANCE OF A CLOUD-READY PARTNER

Are you ready to connect your end users to their most essential cloud and edge applications?

Supporting your customers' digitalisation initiatives requires a partner that can help you reach any global endpoint, connect to any CSP, differentiate services with exceptional performance and reliability, and scale with your business as more and more workloads move to the cloud.

SES's future -proof network makes us the right partner to meet your customers' needs. Our next-generation O3b mPOWER communications system takes satellite-enabled cloud connectivity to the next level, with multi-gigabit, low-latency services optimised for cloud traffic with specific performance requirements. User traffic can be routed from any remote site or edge node to any O3b mPOWER gateway or cloud data centre, ensuring uninterrupted access to cloud workloads, and gateways co-located with major CSP data centres reduces end-to-end latency.
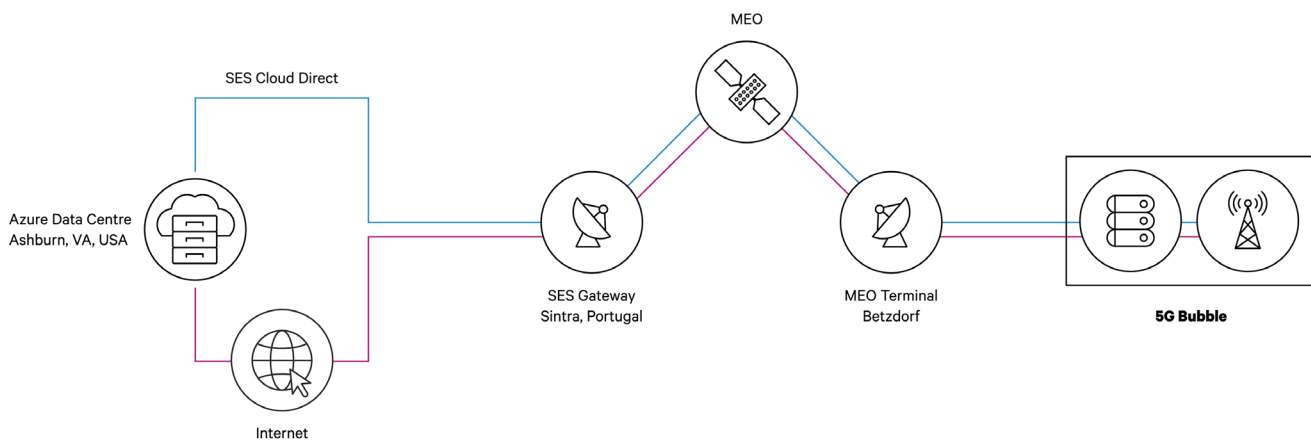
SES Cloud Direct is a key tool to help you accelerate and simplify your customers' digitalisation initiatives by bringing the cloud to any location and any location to the cloud. In a recent evaluation of Cloud Direct compared to a public internet connection, in which both connections leveraged the same satellite link, Cloud Direct demonstrated:

- **96%** improvement in latency
- **121%** less variability in latency
- **35%** fewer TCP request failures
- A speed improvement of **112%** when processing requests.

Cloud Direct vs the internet: Demo Setup

MEO

SES Cloud Direct

Azure Data Centre
Ashburn, VA, USA

SES Gateway
Sintra, Portugal

MEO Terminal
Betzdorf

5G Bubble

Internet

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