

Mining | Energy & Exploration

Space solutions built for the operational
realities of modern mining



83% of mining companies have delayed or canceled technology investments due to connectivity limitations.

Mining operations are complex digital environments that depend on continuous connectivity for the IT and OT platforms that support production systems, workforce safety, and centralized decision-making. Automation, monitoring, and analytics platforms now operate across fixed sites, mobile equipment, and temporary locations throughout the life of a mine.

And while satellite connectivity is already a standard part of mining network design, the challenge now is ensuring that connectivity behaves consistently under operational conditions, supporting real-time systems, delivering sustained cloud connectivity, and scaling in line with long-term operational planning, not just ease of initial deployment.

Coordinating connectivity across the mining operations lifecycle

Here's how SES's medium-Earth orbit (MEO) and land mobile solutions deliver production-grade connectivity

for fixed operations and flexible options where mobility and temporary connectivity is required.

1. Real-time operations control

Operational need

Centralized control of production systems is critical to improve safety, staffing efficiency, and oversight. These systems depend on constant interaction between people, software, and equipment at remote sites. Any delay or inconsistency in system response can directly affect production flow and operational confidence.

Connectivity requirement

Stable, predictable latency with low variation over time.

SES MEO solution

Provides consistent round-trip latency designed to remain stable as traffic levels change.

Customer outcome

Production systems remain responsive and manageable during continuous operations.





2. Upload-intensive mine environments

Operational need

Modern mines continuously generate large volumes of data from sensors, equipment, and video systems. This data must be transferred to the cloud or offsite in near real time to support monitoring, optimization, and analysis. When data transfer becomes inconsistent, visibility into operations is reduced and decisions are delayed.

Connectivity requirement

Sustained upload capacity that does not degrade during peak usage periods.

SES MEO solution

Supports high and configurable return path throughput—up to 10x other satellite solutions—with SLAs to ensure consistent data delivery that doesn't have to be managed around contention.

Customer outcome

Monitoring, analytics, and centralized systems remain available without interruption.

3. Safety monitoring across fixed and mobile assets

Operational need

Safety systems extend beyond fixed facilities to include vehicles, mobile equipment, and personnel across large operating areas. Operators need continuous awareness of conditions and worker location to manage risk and respond quickly to incidents. Gaps in connectivity can create blind spots that increase operational and safety exposure.

Connectivity requirement

Continuous connectivity, including for vehicles and exploration.

SES MEO solution

- MEO supports fixed sites and control systems
- Land mobile supports vehicles and mobile teams

Customer outcome

Safety and monitoring systems operate across the full operating area without reliance on best-effort connectivity.

4. Exploration and early-stage development

Operational need

Mining activities involve temporary camps, mobile teams, and rapidly changing site layouts. Connectivity is needed to support communications, data collection, and coordination, often before permanent infrastructure is justified. The challenge is delivering access with the flexibility to address changing requirements before long-term production even begins.

Connectivity requirement

Rapid deployment with support for mobility and short-term use.

SES MEO solution

Supports portable and vehicle-mounted deployments during early-stage activities.

Customer outcome

Exploration teams remain connected while long-term production connectivity decisions can be made separately.



40% of mining companies report experiencing losses of \$500k or more per incident, primarily driven by safety monitoring failures and halted production.

5. Operational continuity during site changes

Operational need

Mining operations frequently undergo changes, including site expansion, relocation of systems, or maintenance windows. During these transitions, communication and monitoring systems still need to function. Temporary connectivity gaps can disrupt coordination and increase operational risk.

Connectivity requirement

Alternate access path to support continuity.

SES MEO solution

- MEO as the primary operational connection, alone or complementing terrestrial connectivity
- Land mobile services used intentionally for temporary or transitional connectivity

Customer outcome

Operations continue with reduced exposure to disruption.

6. Scaling connectivity over long mine lifecycles

Operational need

Mines are designed to operate for many years, with digital requirements evolving as operations mature. Connectivity must support growing data volumes, additional systems, and more users over time. Solutions that work at one stage of the mine lifecycle may become limiting as operational demands increase.

Connectivity requirement

Capacity that scales predictably as operational demands increase.

SES MEO solution

- MEO provides scalable capacity for long-term operations
- Land mobile supports temporary or transitional requirements

Customer outcome

Digital systems expand without changing connectivity models or introducing performance uncertainty.



SES Benefits for Mining Operations



Predictable network behavior suitable for real-time mining operations



High bi-directional throughput for sustained cloud workloads



Defined service levels for operational planning



Support for fixed, mobile, and temporary connectivity needs



A coordinated approach across the mining lifecycle

Connectivity Aligned to Modern Mining Operations

Successful mining connectivity initiatives increasingly favor solutions designed around both IT and OT lifecycle needs rather than services selected solely for ease of initial deployment. By combining SES MEO solutions for fixed production environments

with land mobile solutions where movement or temporary access is required, SES provides a connectivity foundation for mining operations that require consistency, scalability, and operational control across remote locations.

Solve.
Empower.
Soar.



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

Published in June 2026.

This brochure is for informational
purposes only and it does not constitute
an offer by SES.

SES reserves the right to change the
information at any time, and assumes
no responsibility for any errors,
omissions, or changes. All brands
and product names used may be
registered trademarks and are hereby
acknowledged.

©2026 SES.

