Solution Sheet

Hughes LEO for Rail

Resilient Rail Connectivity—Every Mile, Everywhere

Passenger and freight rail networks increasingly rely on continuous, high-performance connectivity to support onboard Wi-Fi, safety-critical operations, and digital rail initiatives. Yet cellular networks alone cannot deliver the availability, coverage, consistency, or future scalability rail operators require—particularly across long routes, rural corridors, high-speed lines, and international boundaries.

Hughes LEO for Rail delivers resilient, high-availability connectivity by integrating Low Earth Orbit (LEO) satellite service alongside cellular—closing coverage gaps and strengthening rail networks everywhere they run.

The Hughes LEO for Rail Solution

Hughes LEO for Rail is a managed connectivity service designed specifically for passenger and freight rail environments. By combining rail-certified user terminals, global Eutelsat OneWeb LEO satellite service, and the Hughes worldwide managed network infrastructure, the solution complements cellular networks to improve availability, coverage, and performance—without adding operational complexity.

Designed to integrate seamlessly into existing rail network architectures, Hughes Managed LEO for Rail functions like another mobile network bearer, enabling rail integrators and operators to deliver consistent connectivity across every mile of the network.

Built for Rail Environments

Rail connectivity demands purpose-built solutions engineered for speed, shocks, vibrations, pressure, harsh conditions, electrical safety, and long lifecycle requirements.

- Low-profile antenna custom-designed to accommodate the tightest tunnels
- Rail-certified user terminals designed for onboard deployment
- Supports both passenger and freight rail operations
- Engineered to align with long rail refresh cycles and regulated deployments
- Seamless integration into existing multi-bearer rail networks

This is not a retrofit. It is connectivity designed for rail from the start.

Key Benefits

Higher Network Availability

LEO “smooths” cellular gaps, improving connectivity in rural, remote, and high-latitude regions.

Consistent Passenger Experience

Deliver reliable onboard Wi-Fi across long-distance and high-speed routes.

Operational Resilience

Enable mission-critical applications with multi-path connectivity and redundancy.

Global Scalability

Leverages Hughes global LEO infrastructure to deliver Eutelsat OneWeb service anywhere.

Reduced Risk

Avoid over-reliance on single providers or geographies through a multi-path, managed approach.

The Hughes Advantage

Only Hughes delivers the combination of rail-certified hardware, global LEO service, and enterprise-grade managed network delivery required for large-scale rail deployments.

With Hughes, rail operators and integrators benefit from:

- A managed LEO service that does not compete with consumer traffic
- Enterprise-grade service delivery, monitoring, and support
- Global infrastructure already in place—not built region by region
- Deep expertise in designing, integrating, and managing complex mobility networks
- A trusted partner that works with rail integrators, not around them

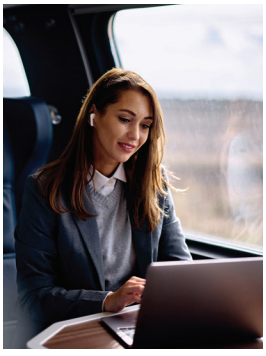
Hughes supplies and supports the technology behind Eutelsat OneWeb's global gateway electronics and rail-certified terminals—giving Hughes and its customers a unique advantage in engineering, deploying, and operating LEO connectivity for rail.

EUTELSAT

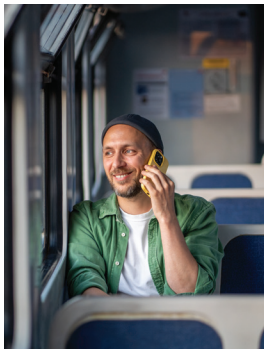
A Stronger Foundation for the Future of Rail

As passenger expectations rise and rail operations become more digital, connectivity must be resilient by design. Hughes LEO for Rail strengthens existing networks today while enabling the scale, availability, and performance rail networks will require tomorrow.

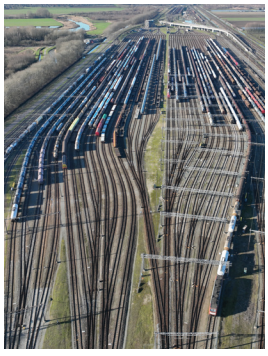
Resilient Connectivity for Every Journey



Passenger onboard Wi-Fi

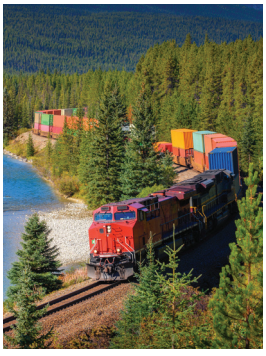


Cellular gap coverage along rail corridors



Train automation, telematics, and fleet management

CCTV, security, and operational monitoring



Freight rail connectivity across sparsely covered regions

Learn more about Hughes LEO for Rail.

For more information, visit
www.hughes.com