

ENABLING connected railways

Rail Telemetry and Communications Solution

Enabling rail companies to transfer mission critical data and provide voice communications wherever locomotives and crew are located

Your challenge

Heavy haul freight operators need to ensure visibility of their locomotives at all times in order to optimise network capacity, maintenance and safe operations. Engine and equipment failure can incur delays, unplanned costs and reduce operational efficiency.

The technology to optimise operations is widely available, but it is dependent on reliable connectivity to work. With many operators having a proportion of their track in remote areas, white spots in coverage across the network are common.

White spots result in data gaps which prevent effective maintenance regimes and network optimisation, and can lead to accidents. Additionally, a widespread lack of voice coverage is a health and safety concern, with operators unable to easily communicate in an emergency.

Even when there is connectivity, outages can cause huge disruption, so having a back-up connectivity option is vital.

Our solution



Inmarsat's Rail Telemetry and Communications Solution enables the real-time transfer of telemetry data from locomotives to the control centre, as well as the ability to extend voice coverage for drivers and staff beyond the range of your existing radio networks.

Utilising our satellite enabled Broadband Global Area Network (BGAN), the solution provides highly reliable connectivity across the network, covering white spots in terrestrial coverage as well as providing a back-up if existing networks fail. This ensures telemetry data such as location, speed, heading and engine diagnostics is always available to the control centre operator.

The solution utilises low form factor terminals like the Explorer 323, which are perfect for mounting on a locomotive.

This is combined with the PRISM Push-to-Talk (PTT) radio communications system that links to the terminal to provide voice communication. PRISM PTT is a smart system that is fully integratable with existing radio solutions, extending coverage beyond the line of sight and able to choose the most cost-effective connectivity channel to communicate through.

Connectivity services

-  Broadband Global Area Network (BGAN)
-  Push-to-Talk (PTT)

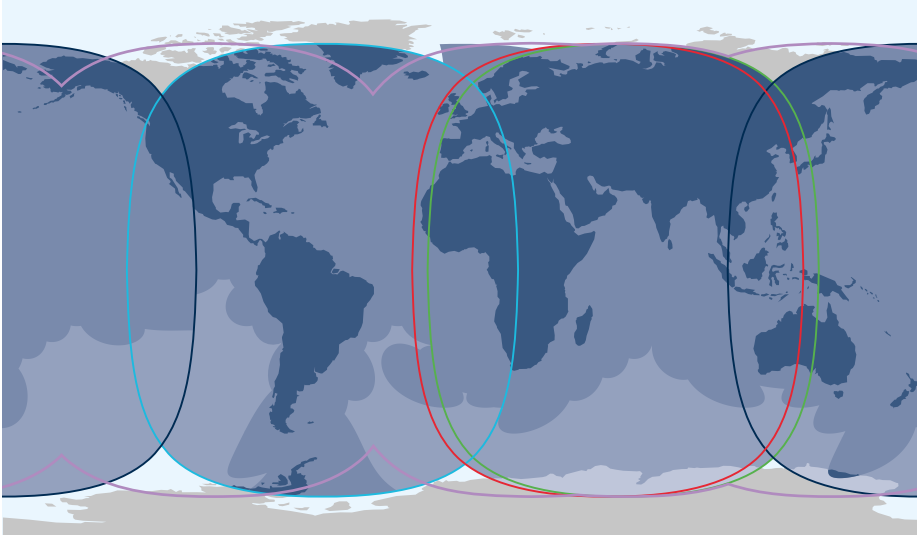
Rail Telemetry and Communications Solution is for you if...

- > Your business needs to monitor and control your trains in remote areas
- > You want to increase the efficiency of your network by adding more rolling stock
- > You need a resilient communications network that will not fail

Where we deliver

Due to the unique nature of Inmarsat's geostationary satellite network we can deliver highly resilient, mobile communications services across the world. Global Xpress (GX), our Ka-band service is delivered through our Inmarsat-5 (I-5) satellites, while Broadband Global Area Network (BGAN) is delivered, through our Inmarsat-4 (I-4) satellites.

Where required, our ecosystem of local partners will deliver onsite warranty, support and repairs, and Inmarsat will ensure that all license and regulatory compliance will be in place.



■ I-5 F1 ■ I-5 F2 ■ I-5 F3 ■ I-5 F4 ■ I-4 Coverage

■ Global Xpress network available over at least 99% of this area ■ Extendable Global Xpress coverage via steerable beams

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About Inmarsat

Inmarsat is the leading provider of global mobile satellite communications services. Since 1979, Inmarsat has been providing reliable voice and high-speed data communications to governments, enterprises and other organisations, with a range of services that can be used on land, at sea or in the air. Inmarsat operates around the world, with a presence in the major ports and centres of commerce on every continent. Inmarsat is listed on the London Stock Exchange (ISAT.L). For more information, please visit www.inmarsat.com.

About Inmarsat Enterprise

Inmarsat Enterprise is the leading global provider of satellite-enabled connectivity and managed connectivity services for land-based organisations. We are enabling the Industrial Internet of Things (IIoT) and helping transform business outcomes across a diverse set of sectors, including agriculture, aid and NGO, media, mining, oil and gas, renewable energy, transport and utilities.

Benefits

- **Real-time telemetry data** from your locomotives to give you visibility wherever they are located
- **Improve safety** and operational efficiency by expanding your existing radio network to provide coverage - anywhere
- **Highly reliable**, secure communications with 99.9% uptime
- **Provides a fail-safe communications backup** if terrestrial networks fail
- **Simple to operate**
- **Expand the coverage** of your existing equipment

Features

- **Global coverage** – connecting your locomotives and operatives anywhere
- **Fully integrable** with existing radio and telemetry systems
- **PTT solution** provides least cost routing, utilizing up to three different networks simultaneously
- **Full training provided** and a complete service package to give you peace of mind
- **24/7 support** whenever you need it

For more information

Web: inmarsat.com/enterprise

Email: EnterpriseMarketing@inmarsat.com

inmarsat.com/enterprise

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