

# Reliable Wireless Connectivity For Railways Is No Longer Optional

Next-Level  
Passenger  
Experience



Optimizing  
Operations  
& Compliance



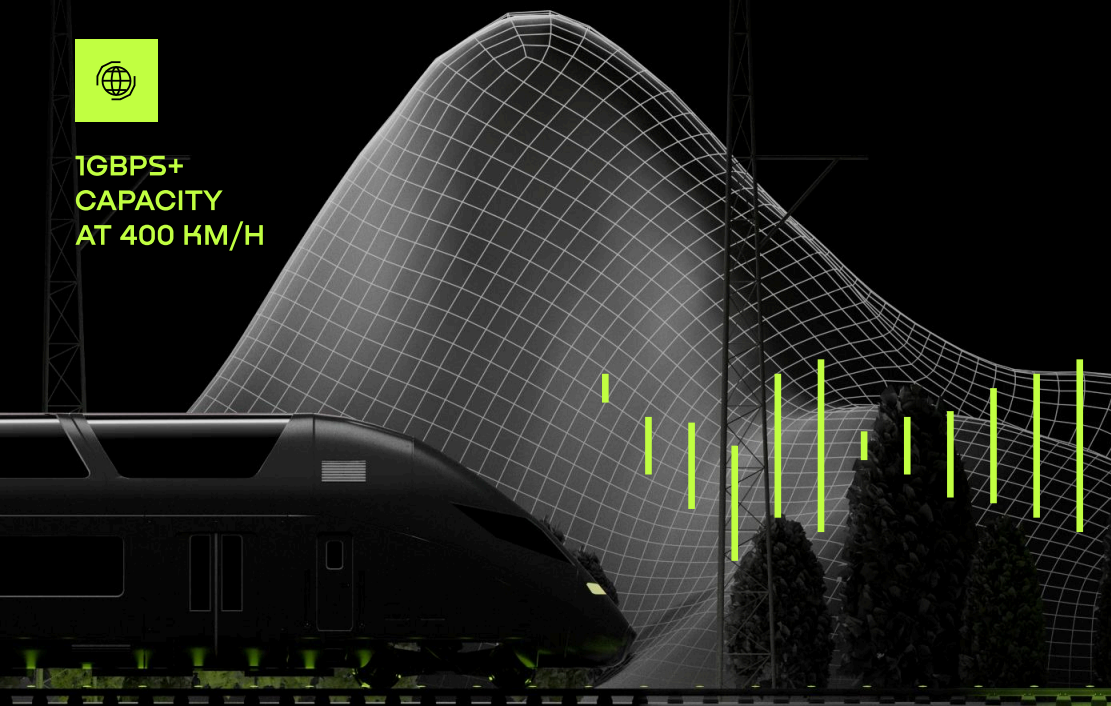
Enabling Smart  
Onboard  
Services



Enhancing  
Passenger  
Safety



**1GBPS+  
CAPACITY  
AT 400 KM/H**



# ASTRADRIVE

## Cuts Operational Costs While Ensuring Full Coverage

Achieves wide-  
area connectivity  
with 10 km per  
base station

## Self-Optimizing, Fail-Safe Network

ASTRADRIVE technology  
maintains performance  
even with multiple  
trackside equipment  
failures

## End-To-End Integrated Solution

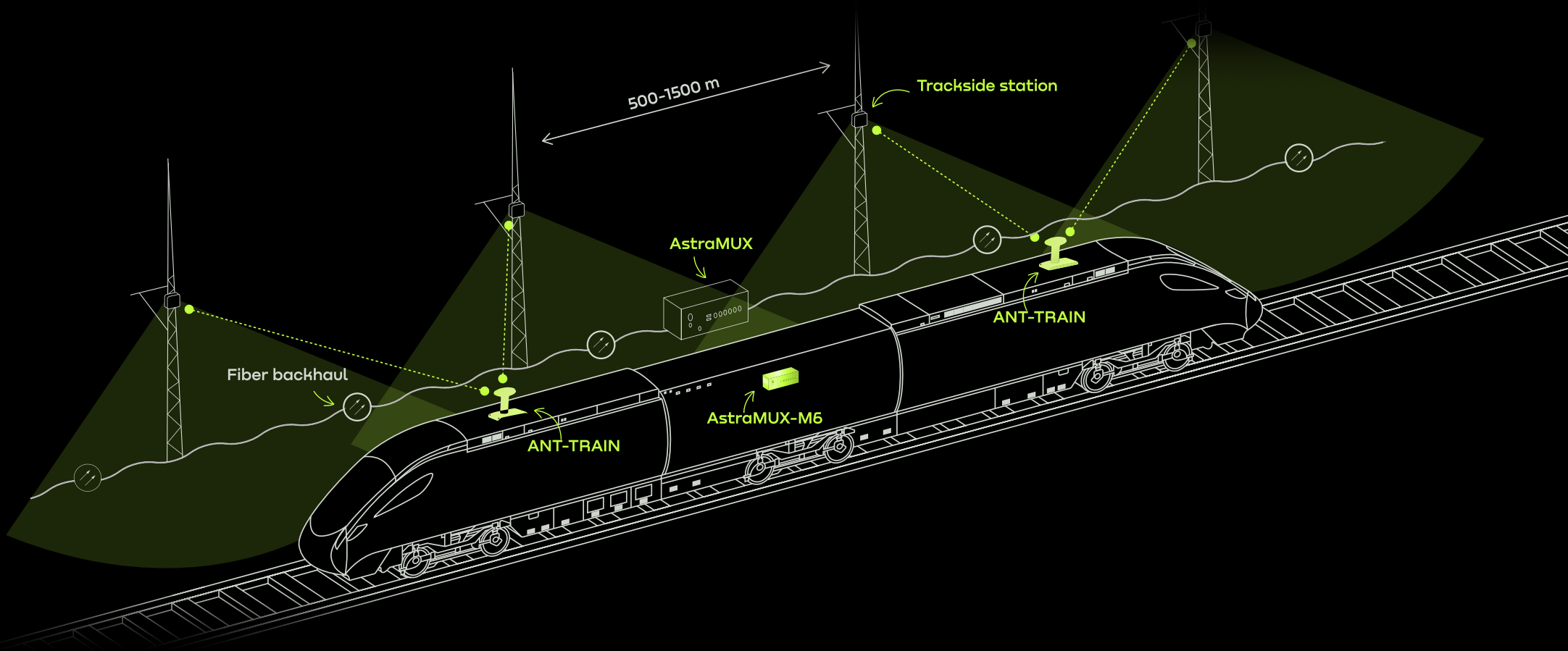
With perfectly  
integrated components  
designed to work in  
harmony

# Multi-Channel Connectivity To Reach 1 Gbps Throughput

Each train establishes 10+ parallel communication channels, ensuring high-speed, fail-safe, and resilient connectivity throughout the journey

# Precision-Engineered For High-Speed Rail

We design specialized antennas and radio systems to counteract challenges at high speeds, effectively managing Doppler effect, roaming complexities, and signal reflections



# Intelligent Network Oversight & Optimization

AstraMUX switch continuously monitors the entire network, ensuring intelligent traffic balancing, proactive issue detection, and real-time resolution

# End-To-End Vendor Support

Astrawireless provides comprehensive network design and optimization, ensuring seamless integration of components, efficient resource utilization, and cost-effective scalability

## ANT-TRAIN

Antenna system providing continuous wireless connectivity between trains and trackside infrastructure. designed to maintain a stable signal on both straight and curved tracks



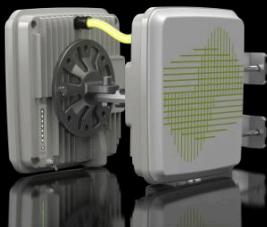
## AstraMUX-M6

Traffic management switch balancing communication between train-mounted units and ensuring smooth transitions between base stations



## Trackside Station

Dedicated railway communication unit, ensuring seamless train-to-ground connectivity, reliable coverage across various track layouts, and simplified installation



## AstraMUX-GE4-S2

Industrial switch optimizing mobile network performance, enabling traffic balancing and seamless switching between moving and fixed infrastructure



## Terminal Unit

Onboard communication module enabling high-speed, carrier-grade data transmission between moving trains and ground infrastructure, ensuring seamless traffic switching and aggregation



## AstraMUX-GE8

High-capacity rack-mount switch for network aggregation and centralized traffic management, supporting multiple switches and base stations to ensure a stable, scalable backhaul infrastructure for rail and mobile networks



Develops high-capacity wireless systems for backhauls and access networks, designed for complex, high-performance environments

