



Infrastructure and Driveline Monitoring

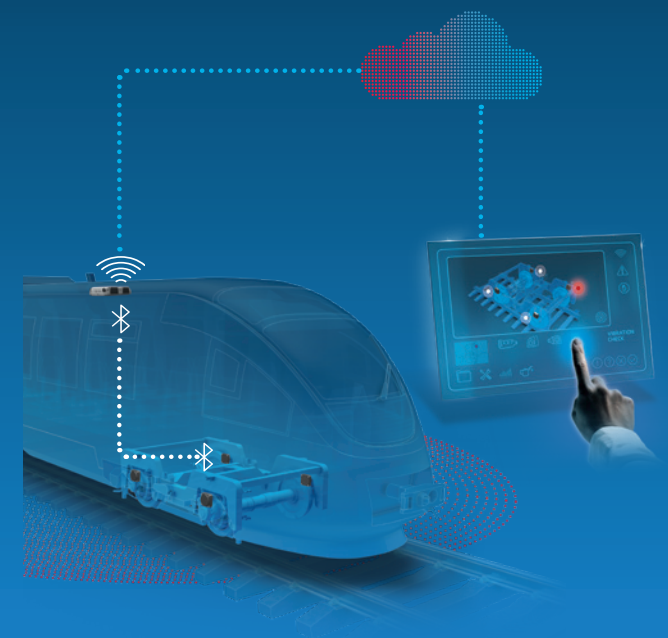
ZF VCU Pro Onboard Unit and Heavy Duty TAG

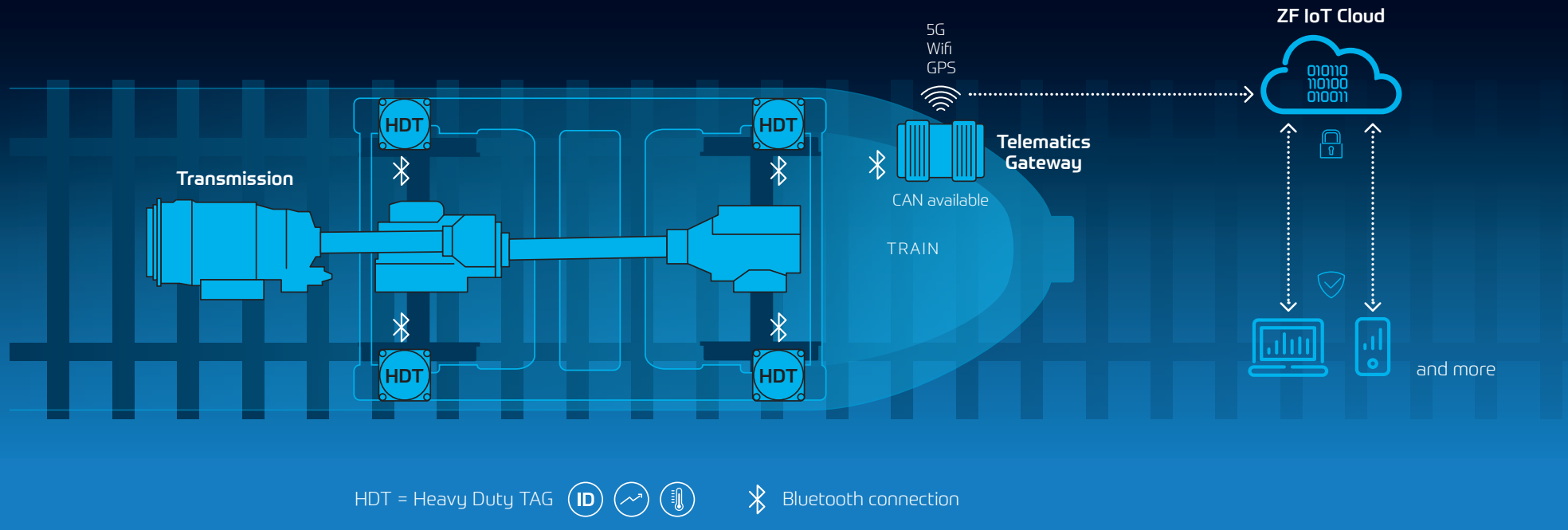
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Predictive Maintenance Planning

The infrastructure and driveline monitoring system enables a status monitoring of the wheel tires and rail infrastructure. Wireless Bluetooth sensors are mounted to the unsprung axle drive or the bogie. Acceleration, temperature and tilt can be recorded. This enables the sensors to recognize anomalies in wheel-rail contact during operation, as well as the condition of the track system. Wear (such as wheel flats), damage and potential danger spots can thus be identified at an early stage. The measurement and route data is analyzed, evaluated and visualized in the ZF IoT Cloud. Operators obtain up-to-date analyses that help them schedule maintenance cycles based on actual conditions, thus increasing efficiency and avoiding unscheduled service interruptions.

Keep an Eye on Everything. At any Time.

- Easy integration into rail vehicles in line operation
- Monitoring wheel tires to detect wheel flats and wheel-tread wear
- Monitoring changes in track conditions
- Latest algorithms to analyze the characteristics of the wheel tires and rail tracks
- Automated notification in case of detected damage and recommendations on necessary maintenance work
- Presentation in customer-specific user interface

Smart and Easy

Flexible and integrated solutions for intelligent connectivity systems.



VCU Pro Onboard Unit
Telematics gateway



Heavy Duty TAG
Bluetooth sensor