HIGH SPEED TRACKING

at Saudi Arabian Railways

SITUATION

The Saudi Railway Company (SAR), a new name in the domestic transport market, is responsible to manage the Saudi Arabian railway project form north to south of the Kingdom by providing the best advanced railway services including the transport of passengers, freight, minerals and transit services between the neighbouring countries. This will link several cities with neighbouring areas and villages and lead to social, economic, industrial, agricultural and commercial development. With the highest speed, the train is about 250 km/h fast and carries passengers and tons of minerals. To ensure safety, a solution is required to check critical parameters such as axle rotation and brake temperature for hundreds of trailers and while the train is running. The important thing for any solution in the railway industry is compliance with international standards and minimum maintenance, even in harsh environments.

SOLUTION

Integrated and installed by Thales, 7iD Technologies' IoT platform is used to track and monitor the major technical

KEY BENEFITS

- Safety guarantee during movement of the railway

- High availability of hardware also in harsh environment

- Low Maintenance effort

parameters of the drivers cab and all wagons at 65 stations along the track between Riyadh and Al Haditha. Every checkpoint system consists of two fixed readers with special 7iD firmware for high speed trailer tracking and a powerful software with special high-speed data filtering software.

Sensor data from temperature and weight sensors are combined with read events, thus providing complete train lists with trailer numbers for safety checking. The solution is especially built for the hot and dry climate of the Saudi Arabian dessert with temperatures up to 50° Celsius and resist winds with up to 200 km/h.

Any error or system message can so be assigned to the unique trailer number, which could later easily be found by the maintenance staff.

COMPONENTS

- 7iD's IoT DIP Platform™

- tags on every axle of the train and wagons

- 65 stations between Al-Haditha and Riyadh

- Temperature and weight sensors on every axle

- Tailor-made business processes to alert and inform maintenance staff

- Combination of RFID and other sensors

tagged for success.

Gerhard Gangl
Managing Director
+43 316 716 720
gerhard.gangl@7iD.com

www.7iD.com