

# HIGH SPEED TRACKING

at Saudi Arabian Railways

7iD



## SITUATION

The Saudi Railway Company (SAR), a new name in the domestic transport market, is responsible to manage the Saudi Arabian railway project from north to south of the Kingdom by providing the best advanced railway services encompassing transport of passengers, freight, minerals and transit services between the neighbouring countries. This will link a number of cities, neighbouring areas and villages which will lead to socially, economically, industrially, agriculturally and commercially development. At the highest speed, the train is about 250km/h fast and carries passengers and tons of minerals. To guarantee safety, a solution to check critical parameters like axles concentricity as well as the break temperature for hundreds of trailers is needed and during movement of the train. Important for every solution within the railway industry is the compliance of international standards as well as a minimum of maintenance effort, even in harsh environments.

## SOLUTION

Integrated and installed by Thales, 7iD Technologies RFID middleware is used to track and monitor the major technical parameters of the drivers cab and all wagons at 65 RFID stations along the track between Riyadh and Al Haditha. Every



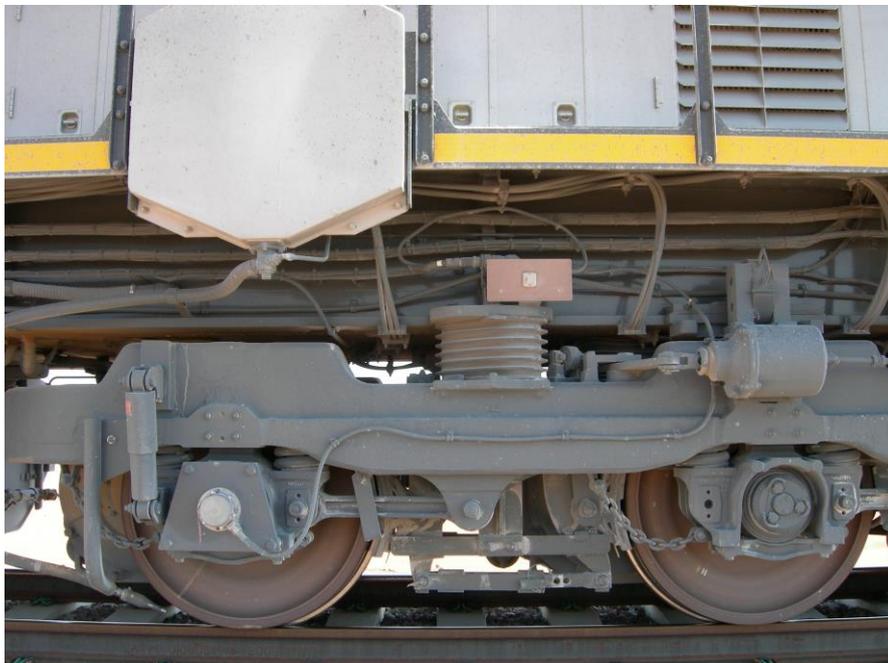
## KEY BENEFITS

- Safety guarantee during movement of the railway
- High availability of hardware also in harsh environment
- Low Maintenance effort

checkpoint system consist of two fixed RFID readers with special 7iD firmware for high speed trailer tracking and a powerful RFID software with special high speed data filtering software.



Sensor data from temperature and weight sensors are combined with RFID read events thus providing complete train lists with trailer numbers for safety checking. The solution is especially build 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

- RFID tags on every axle of the train and wagons
- 65 RFID stations between Al-Haditha and Riyadh
- Temperature and weight sensors on every axle
- 7iD's RFID middleware DIP Platform™
- Tailor-made business processes to alert and inform maintenance staff
- Combination of RFID and other sensors

## CONTACT INFORMATION



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