OUTBOUND LOGISTICS

At FORD Motor Company

7iD

SITUATION

FORD produces up to 2,000 cars per day at its headquarters in Cologne. The dispatching process after a vehicle leaves the production is outsourced to a logistic service provider named Transport Service (TS). In addition to route planning and coordination of the various forwarders, they manage parking spaces to avoid capacity bottlenecks at peak times. TS is also responsible for ensuring that delivery dates are met and that vehicles are shipped correctly. Time-consuming manual process steps such as truck registration and loading control through to shipment release pose a major challenge for correct delivery. This is why FORD opted for 7iD's IoT-based outbound logistics solution, which enables end-to-end automation in vehicle distribution. Important for any solution in the automotive industry is compliance with international standards and a recognition rate of at least 99.99 percent, even in metallic environments and for mass reading at a distance of several meters.

SOLUTION

Together with FORD, 7iD Technologies installed a fully automated solution consisting of well-chosen reading points

KEY BENEFITS

- 30 % more throughput

- 100 % correct truck, ship and vessel loading

- Increase in employee satisfaction

- High process transparency

that meet environmental requirements and marked vehicles to ensure the highest possible reading rates. Each process step within the distribution process is automated. At the end of the production line, each new vehicle is equipped with a transponder containing the unique identification number of the vehicle.

In order to ensure a continuous identification process, gates were installed in three different distribution stages: truck entry station, vehicle control station, compound exit. By identifying the vehicle at the truck entry station, the corresponding loading list is automatically printed and the barrier system is opened. The truck can now enter the compund. This process stage ensures that only authorised trucks are allowed to enter the area. After loading the cars according to the printed loading list, the truck passes the truck gate, where all loaded trucks and the truck itself are electronically compared with the relevant loading data stored in the backend system. This happens during the truck is moving - even at a speed of up to 20 km/h. The result of the control process is visualised on a display. When loading is complete and correct, the driver can drive directly to the exit. Incorrect loading leads to manual control by TS.

The electronic loading list contains not only cars, but also objects (e.g. special documents, navigation systems, etc.) which are also taken into account in the data comparison. Only in the case of a correct and complete transport, the driver receives the release information, which is shown on the overhead display, and can drive to the exit. The driver confirms the acceptance and correctness of the loaded vehicles with an electronic signature. The signature is transmitted to the back-end system and the barrier is opened.

All information about the shipping process is available in real time and is forwarded. This is essential to avoid delays and unnecessary waiting times. The TS team and truck drivers are informed of the current status via displays and lights.

COMPONENTS

- 7iD's IoT DIP Platform™

- tags on every car window

- gates with direction detection at FORD's production line

- Tailor-made business processes

- Integration with FORD's existing IT infrastructure

tagged for success.

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