HYPERMOTION
TELEMATIC DATA COLLECTOR –
DER NUTZEN VON BIG DATA
AM BEISPIEL FLOTTENMANAGEMENT UND V2I

Thomas Seitel
SICK System Engineering AG
22.11.2017 v1
TELEMATIC DATA COLLECTOR SYSTEM – TDC
SMART SERVICES AT A GLANCE

- Location?
- Sensor information?
- Total engine hours?
- Mobile connectivity?
- Working area control?
- Cloud?
- Fuel consumption?
- Fuel stealing?
- Vehicle utilization?
- Integrations (API)?
- Collision information; when it occur?
TELEMATIC DATA COLLECTOR SYSTEM– TDC
DATA – INFORMATION - KNOWLEDGE WITH CLOUD

SICK

GPS

Interfaces

SICK sensors

3rd party sensors

OEM SENSORS

GPS

Broker

Customer server / cloud

Publish

Subscrib e

3rd party sensors

SICK sensors

Systems & Applications

Systems & Applications

3rd party sensors

SICK sensors

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TELEMATIC DATA COLLECTOR SYSTEM – TDC SYSTEM ARCHITECTURE

- **SYSTEM ARCHITECTURE**
  - **TELEMATIC DATA COLLECTOR SYSTEM (TDC)**
    - **Linux & SOPAS SRT++**
    - **Parametrization and configuration**
    - **Collection of sensor data**
    - **GPS, UWB, WiFi, 3G, BT, OPC UA, MQTT, HTTP/REST (JSON)**
    - **Connectivity: STRATUS, NODE-RED, CUSTOM APP, TDC FIRMWARE**
    - **DATA AVAILABILITY, EFFICIENCY, SERVICE, ACT.**
      - **I/O, CAN, RS232, RS485, RS422, Ethernet, SSI, 6x, 2x**
    - **SERVICES**
      - **HMI dashboard & analytics**
      - **Public cloud, private cloud or on-site solution**
    
- **CUSTOMER CLOUD / server OR SICK Sensor Intelligence.**
CUSTOMIZATION OF DASHBOARD

TELEMATIC DATA COLLECTOR SYSTEM– TDC

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TELEMATIC DATA COLLECTOR SYSTEM – TDC
PRODUCT OVERVIEW

Product description
The TDC (Telematic Data Collector) gateway system collects and saves data from sensors using various interfaces. The 3G mobile communication present in the system transmits the data to a customer server or a SICK cloud. Evaluations can also be made in the TDC system based on the incoming data; these evaluations can result in real-time outputs (reactions) via I/Os or SMS messages (alarms). The incoming and outgoing data can be used for downstream process optimization and increased transparency and can therefore increase productivity. SICK offers optional customer-specific cloud solutions (SaaS) for this purpose.

Target application
- Process optimization and visualization
- Big Data applications
- Outdoor localization
- Fleet Management
- Data acquisition of autonomous systems and sensors on commercial vehicles

Target customer
- Port authorities
- Machinery manufacture
- Logistics
- Big Data application

Customer benefits
- Easy configuration
- Connection of autonomous systems and sensors
- Event and sensor status logging
- Access to process and sensor data for process optimization
- Basis for increased transparency and increase in productivity
- Basis for predictive maintenance
- Alarms in real time

Product features
- Acquisition of process and sensor data
- Processing, analysis and plausibility checks of incoming data
- Communication of all data via a mobile telecommunications interface to a superior system
- Configuration of scenarios when exceeding threshold values and output via SMS, e-mail or I/Os
- Localization via GPS

Product image
Analysis of driver behavior
Available space at parcel trucks
Trolley, trailer monitoring
Fuel theft

V2I
Status and data of remote sites
Localization of dangerous goods trucks in tunnel
Current position of road closure trucks

TELEMATIC DATA COLLECTOR SYSTEM– TDC
BENEFIT OUT OF SOME USE CASES
TELEMATIC DATA COLLECTOR SYSTEM— TDC
DON’T THINK ABOUT YOUR DATA – ANALYZE AND ACT

Small gateway

... your benefit out of smart service
DON'T THINK ABOUT YOUR DATA – ANALYZE AND ACT

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