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VerkehrsA^Automatisierung Berlin

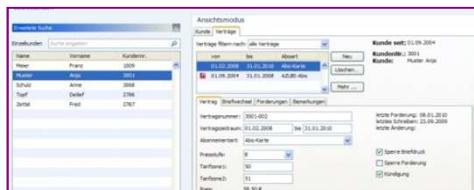




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overview- products



VABdepot

Core products: *Depot management system (BMS), Operate & observe (B&B), Vehicle localisation technologies.*

VABnet

Core products: *control and information system with satellite link, management systems for Bus-stations.*

VABtrack

Core products: *Surveillance and diagnosis systems for light rail infrastructures and infrastructure data management (TuneQ)*

VABcon

Core products: *Abonnements mangement system*





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VAB depots

BMS

- Vab Depots (BMS) is a system for optimisation of the management of Tram and Bus depots. Some core functionalities:
 - **Planning of vehicles usage and routes within one or several depots**
 - Real time visualisation of vehicles in the Depot, including position and specification of the vehicles (technical and business info).
 - Automated parking organisation of the vehicle in regards to technical and business specifications.
 - **Management of vehicles during service**
 - Overview of vehicles in the network
 - Planning of entrance and exit of vehicle in the network
 - Management of information to the personnel
 - **Analysis of performance of vehicle in the network**
 - Listing of issues
 - analysis of route timing
 - real time analysis and optimisation of amount of vehicles in the network





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VAB depots

BMS

Some other interesting functionalities

- Optimisation of vehicles usage in regard to routes planning in the network
- Automated parking of vehicles
- Realtime overview of information on vehicles in depot and in the network
- Automated calculation of arrival times and automated movement of vehicles.
- Planning of maintenance (reactive and pro-active)
- Information to personnel
- Coordination of information with other IT-systems
- Statistical analysis of data





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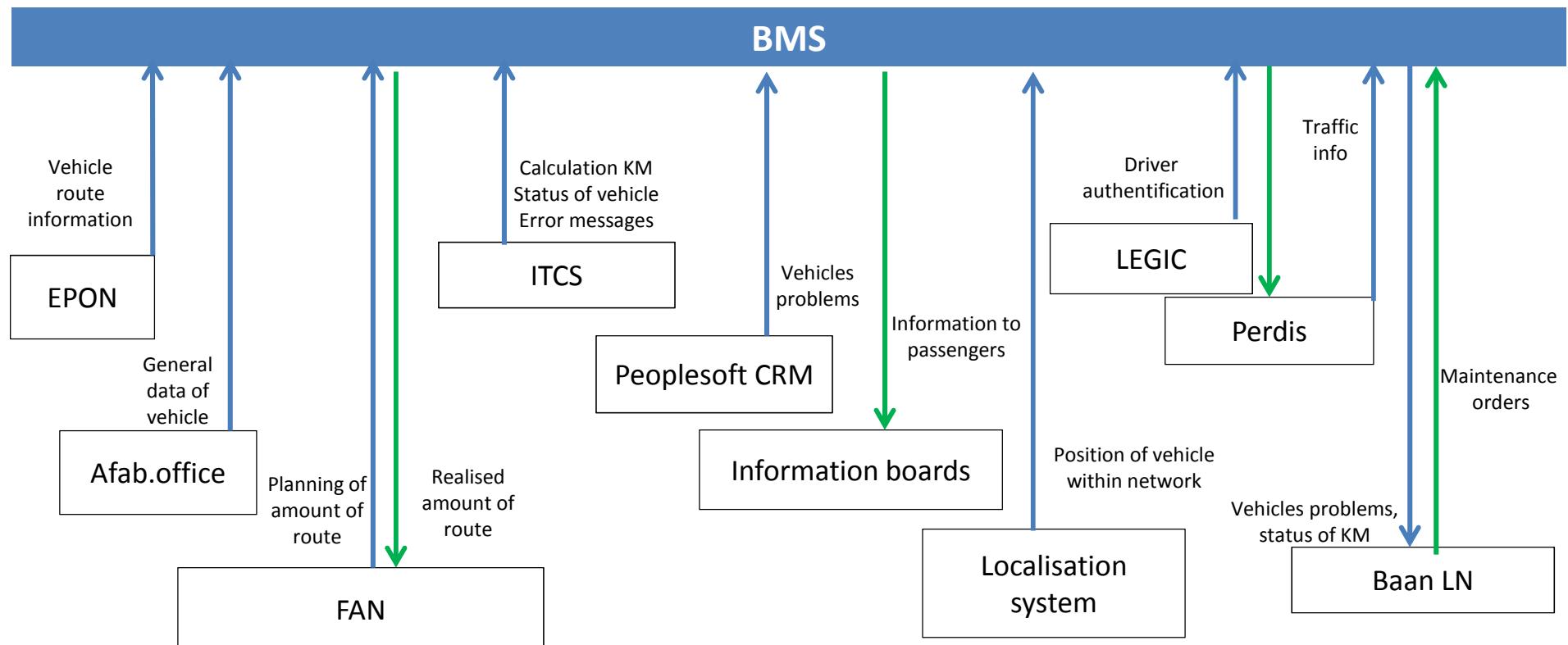
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VABdepots- exemple Hannover

Üstra Hannoversche
Verkehrsbetriebe AG

BMS

Example of BMS interface in Hannover transport company

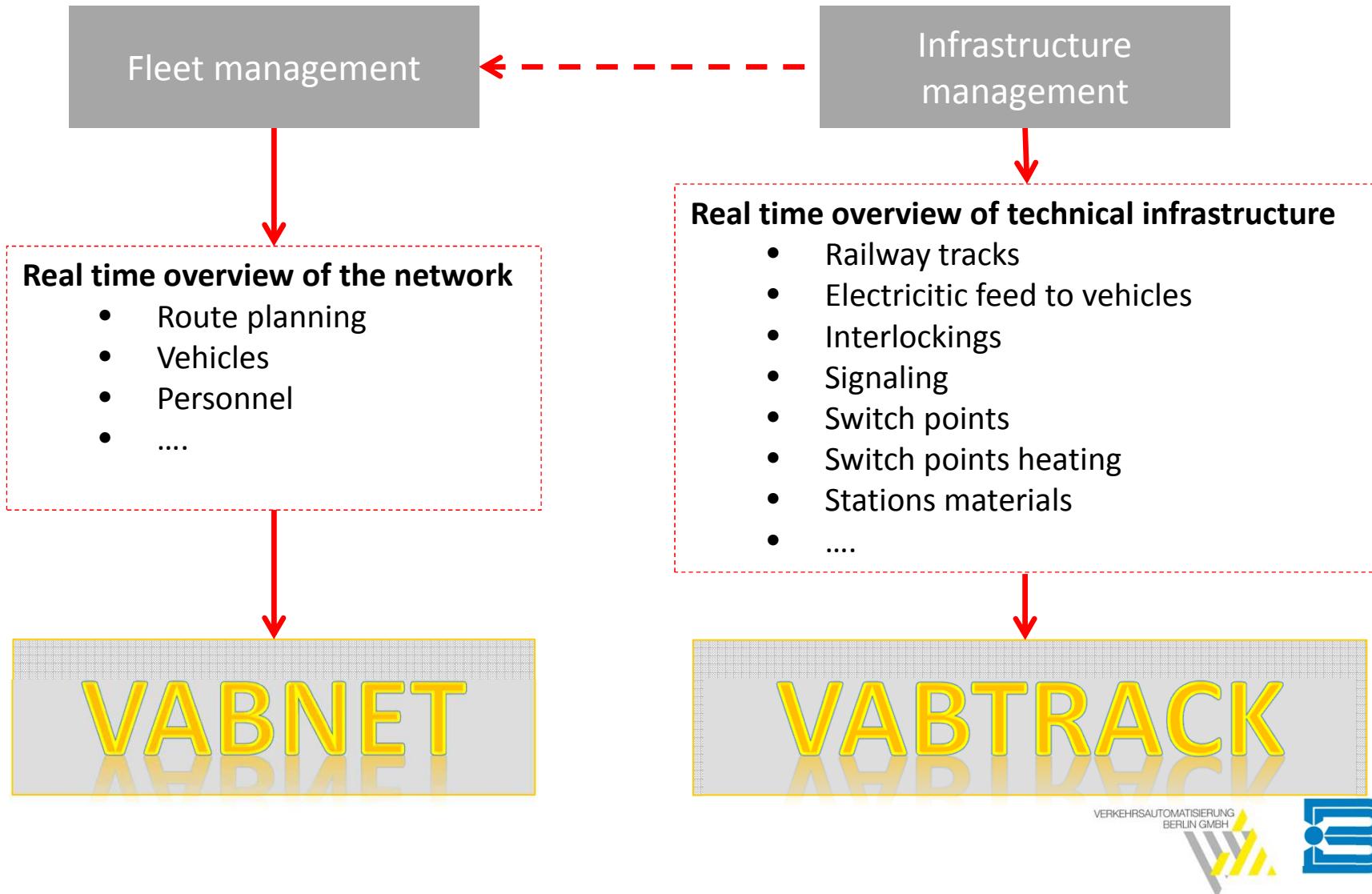




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VAB net and VAB track



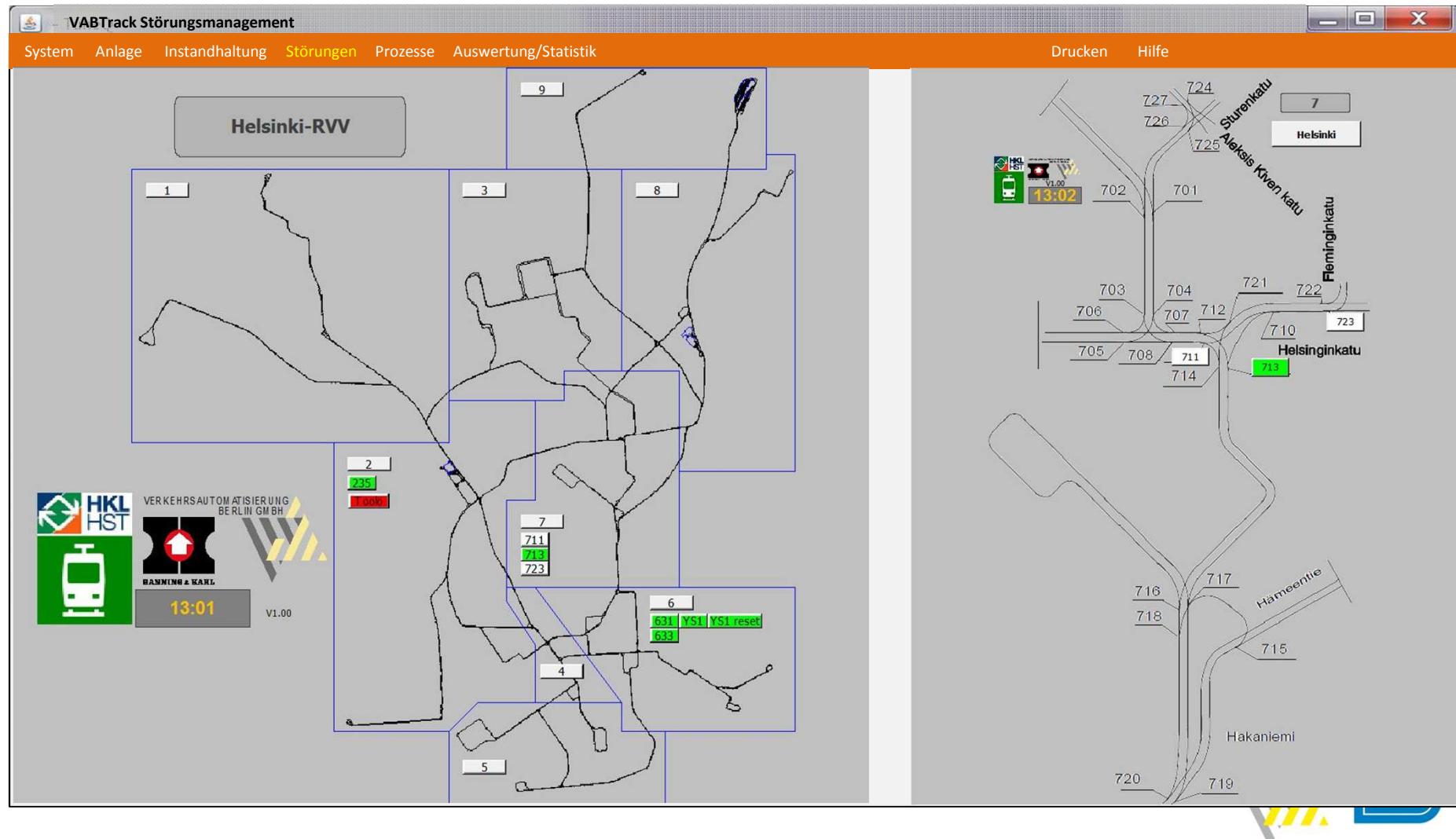


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VAB Track

□ **VAB TRACK-** infrastructure overview





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VAB Track

□ VAB TRACK- Disorder management

The screenshot displays two main windows of the VAB Track software:

Left Window: Fahrsignalanlage 15

- Top Bar:** Fahrsignalanlage 15, Status: Regelsignaleinstellung.
- Left Panel:** Hierarchische Struktur der Anlage mit Knoten wie S1, S2, S3, S4, S5, E1, E2 und PFA 15.
- Diagram:** Planansicht der Anlage mit Signalen S1 bis S6, Einstellern A, B, C, D, E1, E2 und einer Hinweistafel "Zur neuen Brücke".
- Right Panel:** Statusanzeige für Regelbetrieb, Betriebsart, Fernbedienung und Fehleranzeige.
- Bottom Panel:** Historie mit Zeitstempel 18.11.2005 09:55:27.

Right Window: HAP (Vehicle Analysis)

- Top Bar:** Beobachten, Weite, Stammdaten Anlage, Stammdaten Komponenten, 100%, 25%, 25% Zoom.
- Left Panel:** Fahrzeug-Daten mit einem grünen Balken.
- Middle Panel:** Anzahl der gemessenen Achsen mit Werten 3 und 8.
- Right Panel:** Messergebnisse der Achsen mit Werten 1, 4, 5, 8, 9, 12, jeweils als grüne Quadrate.
- Legend:** Messung aktiv (grau), Prüffahrt aktiv (hellgrau), Folgefahrt erkannt (hellblau), Rückwärtsfahrt erkannt (hellgrün).
- Bottom Panel:** Zeitraumauswahl (Start, End, Rückwärts, Vorwärts, Abspielen), Suchfeld "Suche 'Regelbetrieb auf'", Zeitangabe 27.01.2011 11:22:57, und Häufigkeit/Autoloade-Schalter.





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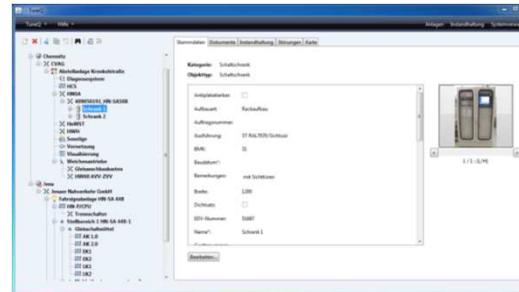
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TuneQ

- TuneQ is a system to manage infrastructure technical data

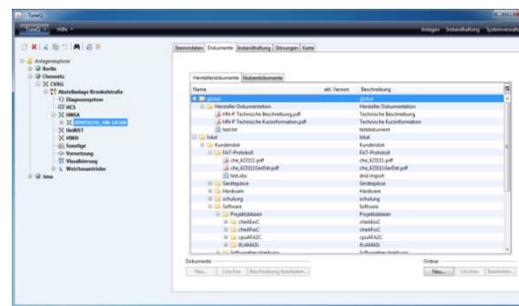
- **Infrastructuremanagement**

- List of infrastructure of various suppliers
- Data acquisition on the listed infrastructures



- **Document manager**

- Creation and archiving of documents and images related to the infrastructures



- **Maintenance manager**

- Administration of maintenance assignment
- Various representation possibilities
 - **Calendar**
 - **Geographical map**



- **Management of disorder**

- Disorder archiving
- Diagnosis, solution archiving

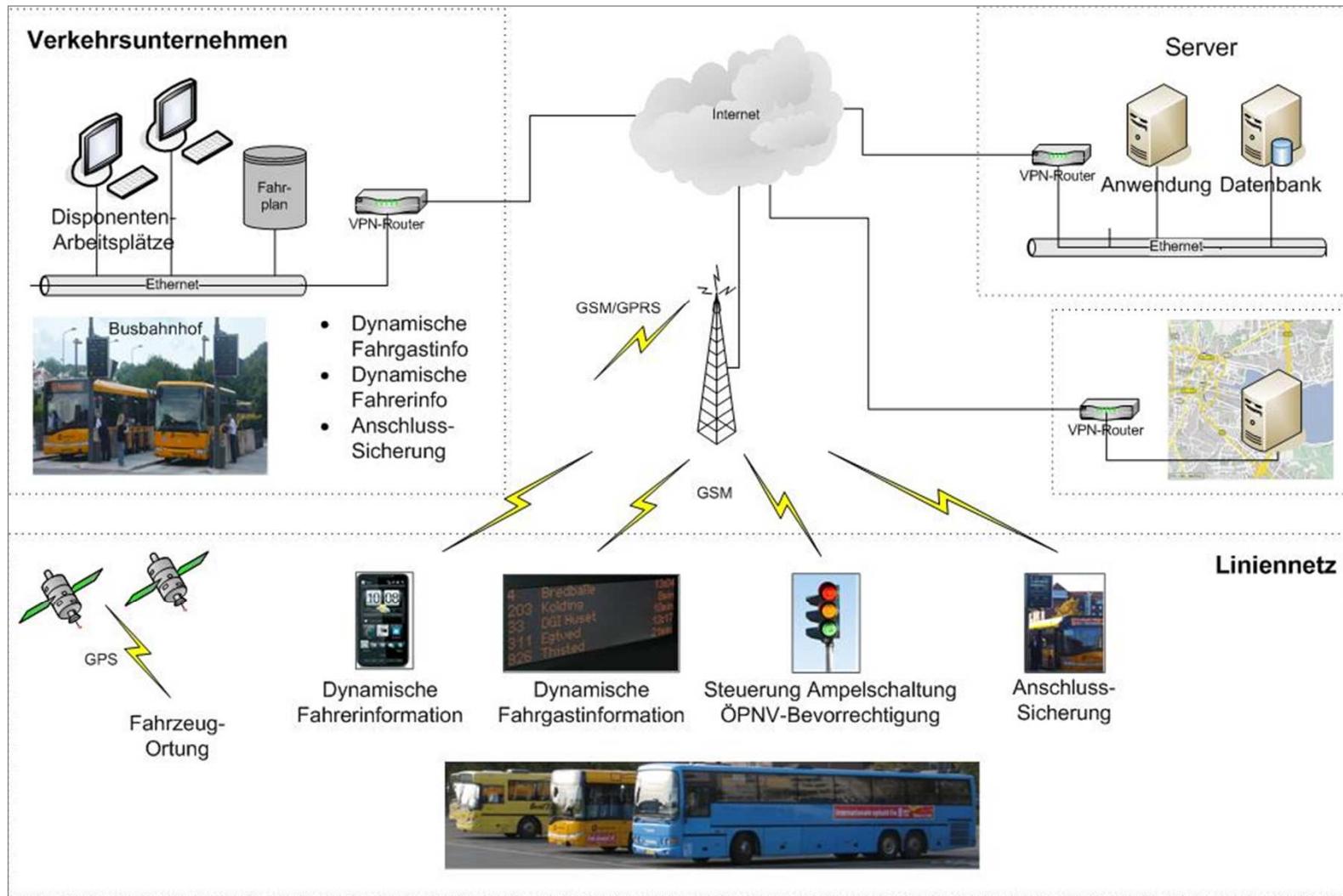


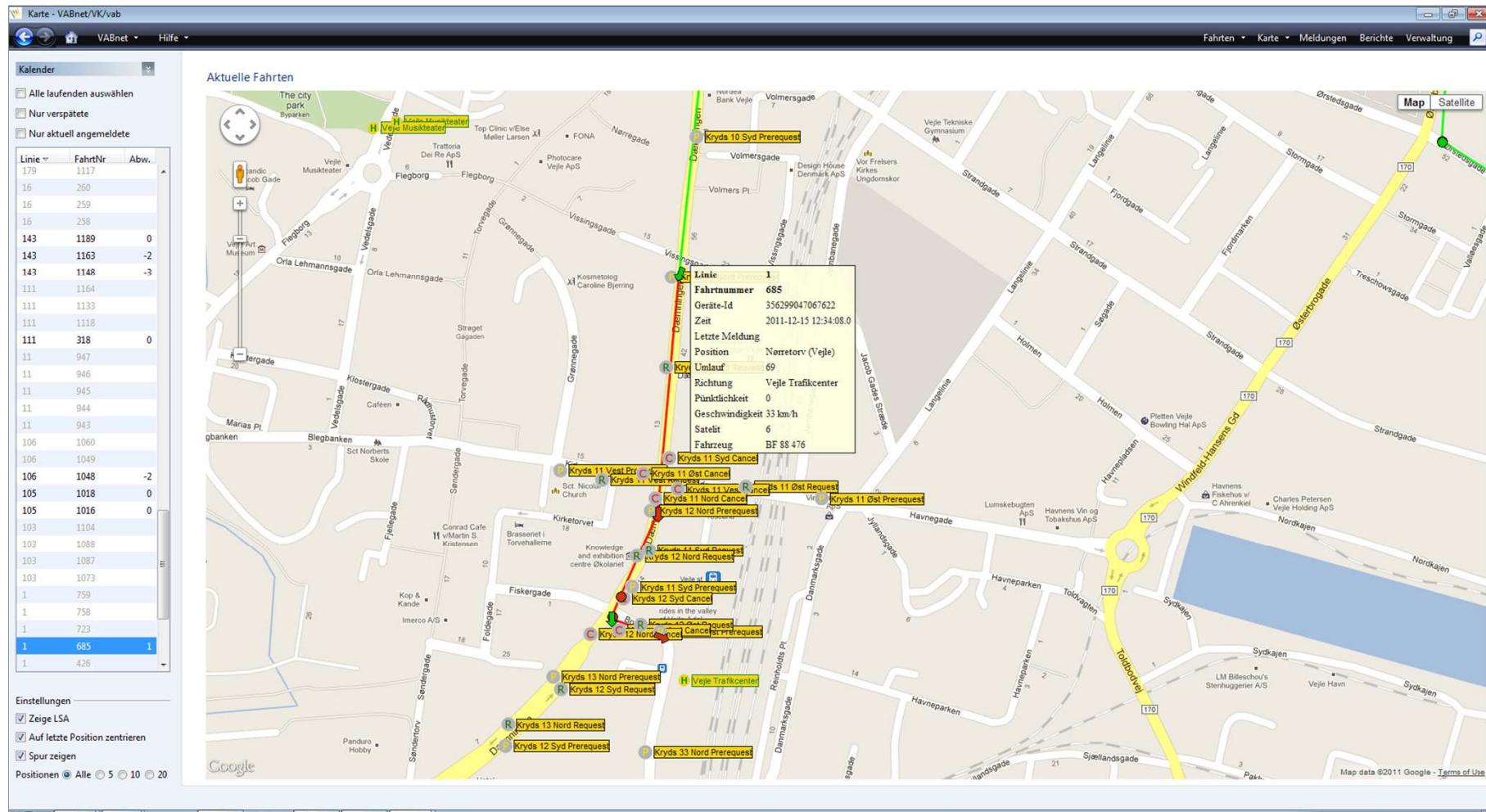


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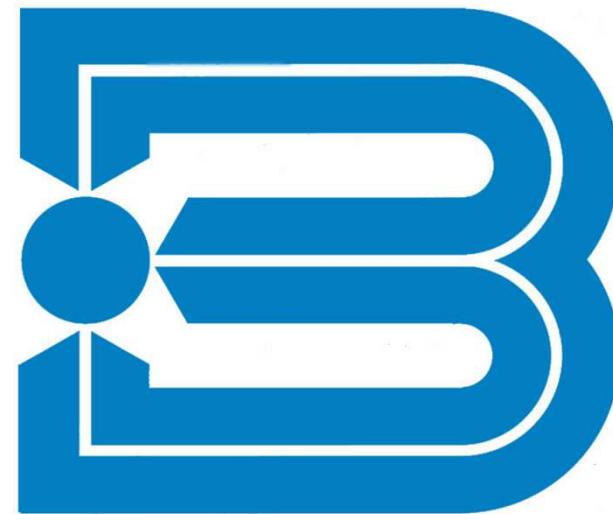
VAB Net







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