

Depot Management

PSItraffic/DMS The Digital Depot For Your Buses



PSI 



Best Possible Availability For Your Vehicle Fleet

As a transport company, you face the challenge of providing your passengers with a reliable and punctual transportation service around the clock. At the same time, you must ensure that the agreed-upon transportation services are consistently met. In short: your vehicle fleet must always be optimally available.

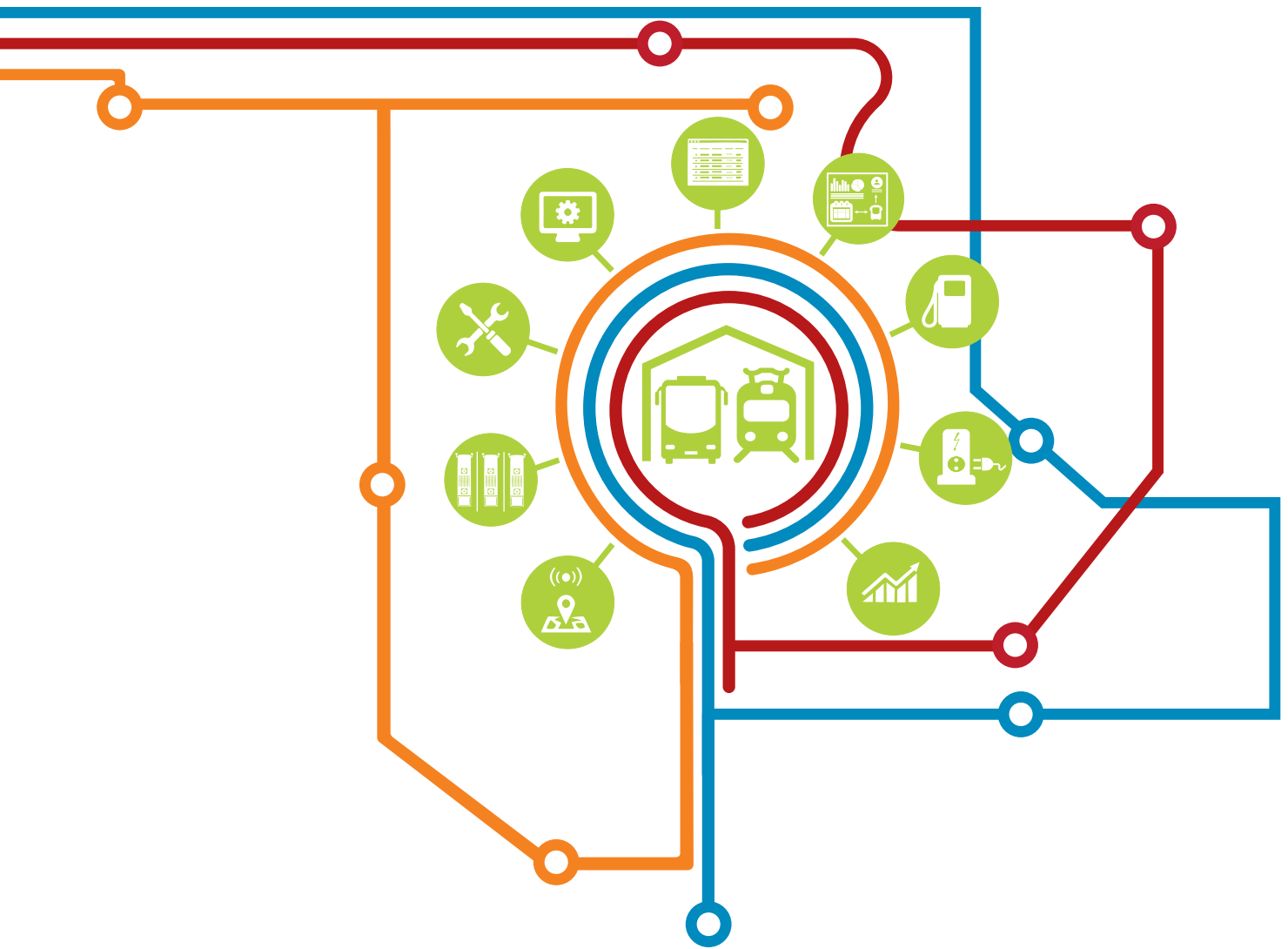
The challenges are diverse – from planning and monitoring maintenance processes to fueling or charging buses as needed, to ensuring the timely provision of vehicles. This is where our PSITraffic Depot Management System (DMS) comes into play, supporting you in these tasks. The system digitizes all depot processes and creates a seamless digital workflow – the ideal foundation for efficiently managing the complex requirements within the depot.

PSITraffic/DMS ensures that your vehicles are optimally prepared for daily operations. It monitors and controls all processes in the depot – from entry to servicing and repairs, all the way to parking – in a resource-saving and cost-efficient manner. Thanks to intelligent, integrated optimization, the best decisions are made in seconds, supporting your dispatchers even in unforeseen circumstances.

With PSITraffic/DMS, you ensure smooth operations and maximum availability of your vehicle fleet.

Your Benefits With PSITraffic/DMS

- + AI based and efficient dispatching**
AI-based dispatching in a matter of seconds, taking into account operational influencing factors
- + Can be used for all drive types**
Monitoring and dispatching of all vehicles according to operational requirements – whether diesel, hydrogen, gasoline or electric operation
- + Integration of all vehicle fleets and fleet sizes**
Can be used for buses, trams and trains, regardless of the size of the fleet
- + Transparency across all areas of the portfolio**
Transparency regarding the condition of the fleet and all areas of the depot - workshop, supplies, personnel
- + Modular and scalable system**
Modularly expandable as required depending on the respective requirements
- + Open interfaces**
Easy connection of surrounding systems, from scheduling and block planning to operations management and load and charge management for e-buses
- + Prozess optimizing**
Integrated dispatching core ensures reliable and optimal decisions within seconds
- + Cloud-capable**
Virtualization of the system and migration to the cloud is possible



Many Tasks. Solved Simply.

The modular structure of PSITraffic/DMS and its extensive functionality, developed over many years, allow it to precisely meet your project-specific requirements. The modules can be configured individually or in combination to flexibly suit your needs, enabling a gradual implementation according to your requirements without any issues.



Vehicle identification, location determination

Modern tracking methods enable the precise location of vehicles using various technologies.



Parking space allocation

Depending on whether the vehicles are to be supplied, serviced, repaired or used for the next block, the DMS assigns parking spaces to the vehicles at the depot entrance, which are transmitted to the bus drivers via radio or digital displays.



Workshop and supply

The DMS manages all workshop, maintenance and supply work as well as unplanned vehicle faults. These can be created in the DMS, taking into account the required resources, or imported from the respective ERP system.



Operation

All system information is displayed in the form of an operating screen or in tabular views. This provides an up-to-date overview of, for example, parking space capacities, vehicle locations and statuses as well as the functionality of the infrastructure.



Dispatching

Dispatching ensures that vehicles are parked in the depot in such a way that all routes can be served. If a vehicle is not ready for use, a rescheduling of the blocks is automatically started in real time. This is based on PSI's own intelligent optimization algorithm. Dispatching can be carried out manually, semi-automatically or fully automatically.



Driver information

In addition to logging on and off duty, the DMS also maps staff attendance, block allocations and the associated verification obligations. The DMS informs drivers via terminals, displays or mobile devices about their services, assigned rotations, vehicle locations and statuses. Dispatchers are informed about punctual departures from the depot.



Tank optimization

PSITraffic/DMS has precise information about when, where, what and how much fuel was refueled. This makes it possible to calculate the remaining range, a key decision criterion for vehicle scheduling. Refuelling can be optimized as required depending on the consumption values of the vehicles.



Quality management

All operational data can be evaluated and prepared in standard reports and statistics. The data can be automatically exported to external systems so that you have an overview or proof of compliance with your company KPIs at all times. Additional reports can be configured independently by the system managers.



Integration Of Your Electric Buses

Electric buses are seamlessly integrated into PSITraffic/DMS. By connecting to PSI's own load and charging management system PSISmartcharging or to an external system, your vehicles are charged as required and your electrical infrastructure is monitored.

Vehicle monitoring during operation

The DMS receives data on the condition of your vehicles from the CAD, AVL system or directly from the bus via data loggers. For example, battery capacity, mileage or energy consumption are monitored online.

Control of charging processes

Depending on the deployment of the vehicles, charging processes are prioritized to ensure a balanced distribution across the entire depot without overloading the transformers and the grid connection. During the charging process, the state of charge is continuously monitored in the DMS and matched with the energy requirements for the next route. Once the vehicles are sufficiently charged, the system switches to maintenance charging. If the required energy level is not reached, the priority is adjusted, or other vehicles are automatically deployed.

Forecasting ranges, energy consumption and demand

The DMS uses the AI-based optimization algorithm Deep Qualicision to forecast range, energy consumption and demand.

Charging station allocation

When entering the depot, the DMS determines the parking space with the correct charging station – depending on the battery charge level and the next round. If no charging is required, the vehicle is assigned a parking space without infrastructure.

Preconditioning

The preconditioning of the vehicles for the next route is carried out automatically and just in time before it begins. This ensures that the trips start punctually and that the batteries are treated gently.

Let's get e-started

The Easy Start

Switch from the analog to the digital world in just a few weeks

For a quick and easy introduction to digital depot management, we offer our PSITraffic/DMS as a basic system. It initially visualizes the areas of vehicle parking, supply and dispatching and can be expanded on a modular basis, right up to a fully automated solution. Driving and duty roster data is transferred from the existing systems via standard interfaces and forms the basis for dispatching.

Your zero-emission vehicles can also be integrated without any problems. The interface for load and charging management is already included in the basic version. With our basic DMS, you introduce a system that is based on the requirements of public transport and maps standard processes. Rollout to other depots or other vehicles is possible without any problems.

Introduction in three steps - it's that simple

1

You procure the interfaces from your standard supplier and configure the master data for your drivers and vehicles – *we* supply the system. The software installation and the connection of databases and interfaces can be carried out independently on the basis of checklists.

2

Master data is imported or entered, interfaces are configured and the operating screen created.

3

Once your team has been trained, the system can be used in daily operations after just eight weeks. We will of course be on hand to advise you during the system introduction and later during operation.

+

After installation and configuration...

- + you have taken the first step towards digitization of your depots.
- + work with fewer interfaces.
- + you can add numerous ready-made modules.

How you benefit!

- ✓ Provision of a tried-and-tested basic function package
- ✓ Modular expandability for growing requirements
- ✓ Higher vehicle availability



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Verkehrsbetriebe
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Verkehrsbetriebe
VST

VST / eBus

Ich fahre mit Strom. Für die Umwelt. Für die Mensch.

VST 657



eTARO



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Emission



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