VEHICLE CORE CONTROLLER

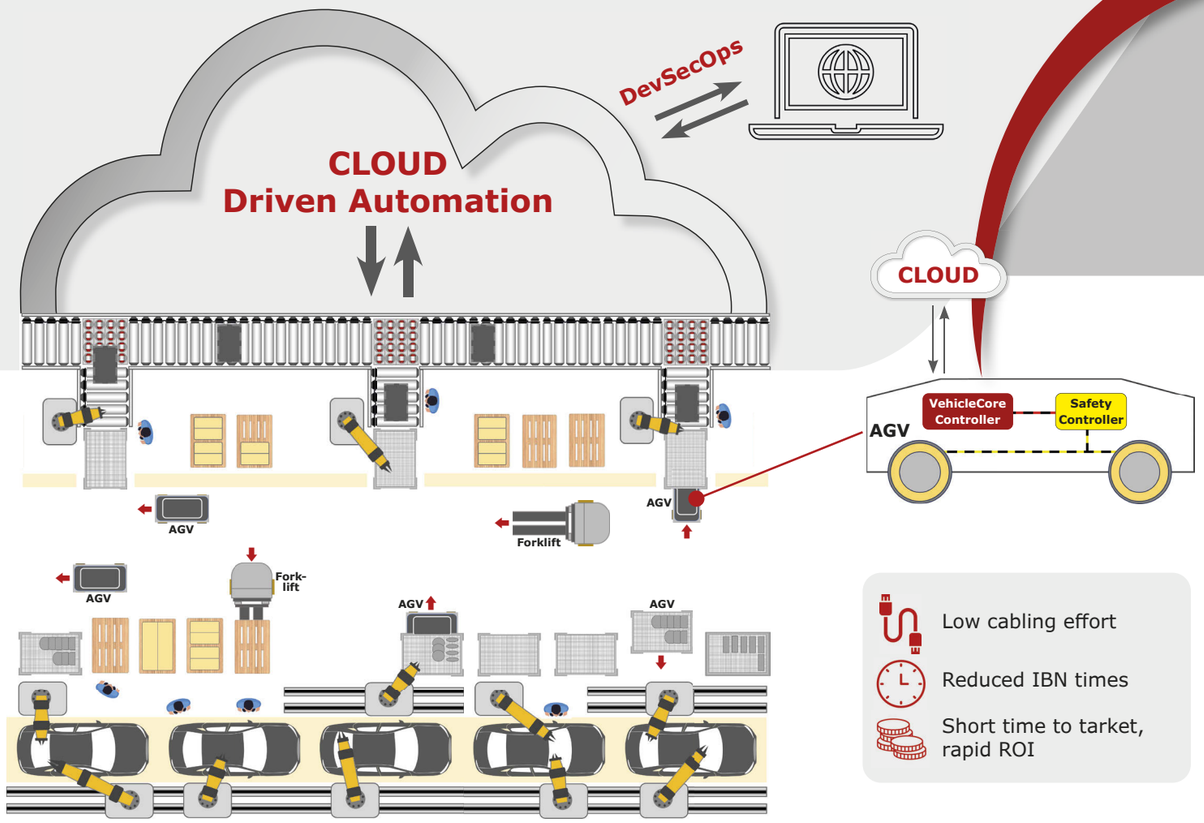
MTA
innovation is our drive

Vehicle control for next generation driverless transport systems

IT meets AUTOMATION

The MTA-VehicleCoreController is the next big evolutionary step towards the complete digitalization of drive systems for AMRs and AGVs.

The underlying automation system supports all phases of the automation process - from hardware configuration and **diagnostics** to **monitoring, maintenance** and **software updates** for the entire machine fleet. Thanks to the openness of the system and the latest technologies, users can flexibly combine programming languages and access numerous open source projects worldwide. The automation system **decouples software from hardware** so that controllers and drive controllers from different manufacturers can be used with the same software. It enables flexible, scalable solutions according to the **IEC 62443 IT safety standard**. Central functions include **prefabricated MTA drive modules, integrated Safe Motion technology** and standardized dashboards for fleet management. The innovative and powerful VehicleCoreController enables the perfect connection between vehicle navigation and MTA drive technology in mobile robotics.

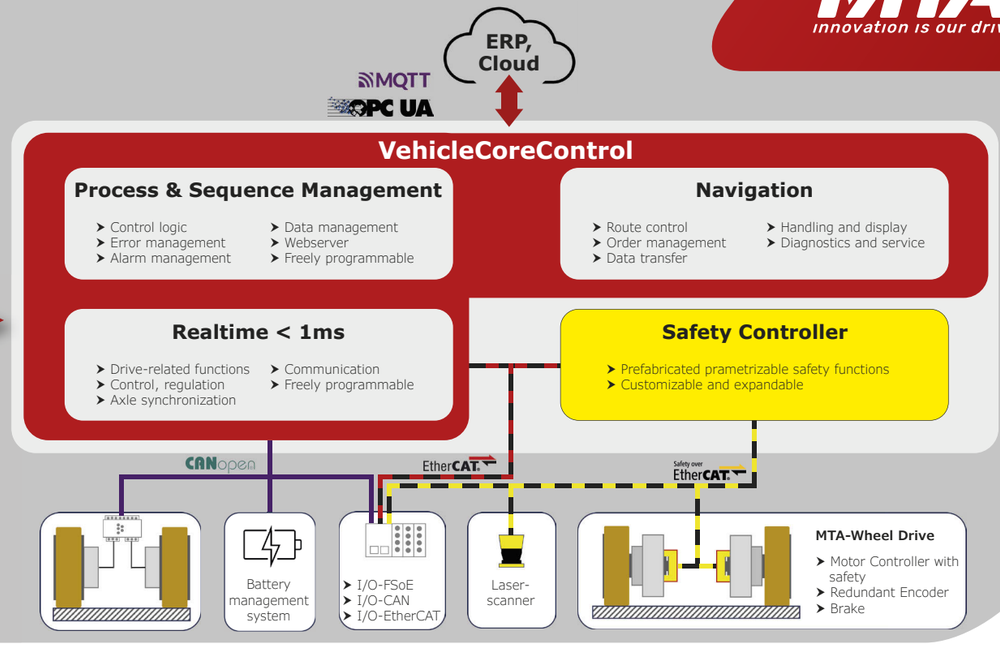


- Low cabling effort
- Reduced IBN times
- Short time to tarket, rapid ROI

The new approach to AGV automation → Cloud Driven Engineering

- No local installation required, **browser-based development environment**
- **Open ecosystem** - multi-language support (Python, C, C++,...)
- **Web-based diagnostics** (watch, trace, force)
- Role-based toolset (e.g. für developers, service, observers)
- Fully integrated **DevSecOps** pipeline
- **Secure communication** between AGV and cloud according to **IEC 62443**
- **Automatic version management** of software projects

VehicleCoreController



Open Hardware

- AGV-Control platform **hardware-independent**
- **Realtime** and **Non-Realtime** on one Hardware
- Easily scalable
- Multi-fieldbus protocols including **safety bus**
- Integrated **safe motion** solution
- Libraries for **drive-related functions** (e.g. torque synchronization)

Key-Features VehicleCoreController

- **Quick and easy comissioning** of the hardware components, simple control of the AGVs
- Reduced programming and implementation effort thanks to **ready-made drive functions**
- Simple **diagnostics** and **monitoring**
- Basis for **remote support**
- Prefabricated dashboards for **fleet management**
- **FW update** over the air

USE CASES

Diagnosis and monitoring

AGV status on site
readable via mobile phone

Remote support

Fleet management
Managing, planning, controlling and monitoring the AGV fleet

FW update via WLAN
during the charging process

Secure communication
from the device to the cloud according to IEC 62443

This folder contains information about our products. Further details about properties and currently valid technical data are given in our off ers and order confi rmations. Subject to typographical and printing errors. Images and texts from this folder may not be used without our express written consent. Illustrations: MTA. Owner, editor and publisher: MTA GmbH, Westbahnstrasse 32, A-4482 Ennsdorf. Printed October 2024.

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