

# Use Case Accelerating Automotive Innovation With Data-Driven Insights



## Data Monitoring Within the Virtual DevOp Environment for Software-Defined Vehicles.

### / Product Demo

### Data-Driven Insights: aicas' and NXP's Collaborative Solution

Automotive OEMs are facing a new era of software-defined vehicles, where data has become the driving force behind innovation and customer value.

At Embedded World 2024 and CES 2024, aicas, NXP, AWS, and MathWorks showcased a joint product demo on the NXP Cloud Studio, the virtual development environment for software-defined vehicles. Above all, it's about speed. The collaborative solution accelerates time-to-market, opens up competitive advantages, and provides the ability to scale embedded systems quickly and easily.

### / Summary

**WHO:** Automotive OEM

**WHAT:** Data monitoring within the virtual DevOp environment for software-defined vehicles.

**HOW:** Easily select, pre-process, and visualize edge data streams in a dashboard in a cloud.

**VALUE:** Valuable insights enable informed decisions and rapid response, resulting in significant operational and cost savings, as well as improved vehicle safety and performance.



*I am truly impressed with the ability to integrate intelligent data monitoring into the DevOps process for software-defined vehicles. The realtime visualization and analysis of edge data unveil a realm of fresh opportunities, fostering both innovation and process optimization within the automotive industry.*



**Attendee at Embedded World 2024**

## / Solution

# Unlocking the Power of Vehicle Data

The solution includes the major DevOp steps to code, build, test, deploy, and monitor automotive software. Within this process, aicas plays a crucial role in the data monitoring aspect, leveraging its technology to select, pre-process, and visualize edge data streams in the cloud. The aicas dashboard enables the monitoring of critical parameters like speed, position, battery status, vehicle fault indications, fuel consumption, distance traveled, and GPS locations with over 100 configurable graphical widgets. The solution can be utilized without specialized programming skills, making it accessible to a wide range of users.

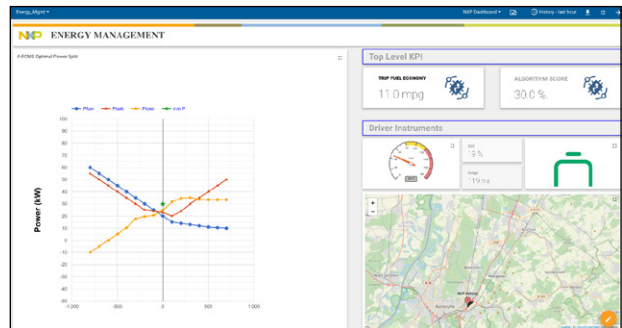
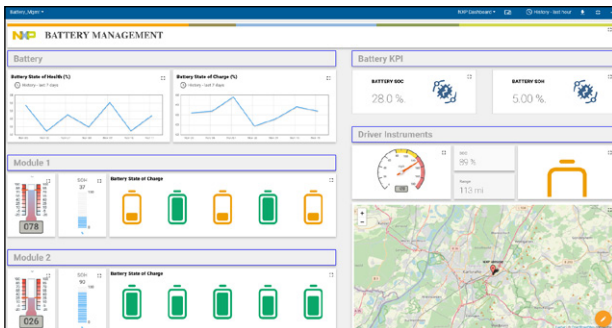
Watch the demo video  
on YouTube!



## / Solution Components

# aicas Edge Data Gateway Simplifies Data Visibility and Access

The product demo video “Valuable Insights Into Vehicle Data” showcases how automotive OEMs can unlock the full potential of their vehicle data and deliver tangible benefits to their customers. The key to this solution is the aicas Edge Data Gateway, which enables seamless access to realtime vehicle system data. And provides the ability to apply rules on the data routing through flow-programming. By integrating this technology with NXP’s cloud-based solutions and AWS services, automotive OEMs can gain deep insights and actionable intelligence.



## / Benefits

# Driving Operational and Cost Efficiencies

The insights provided by the Automotive Data Dashboard empower automotive OEMs to make informed decisions, respond quickly, and take immediate action. This leads to significant operational and cost efficiencies, as well as improved safety and performance for their vehicles. Some of the key benefits include:

### **Real-time Monitoring**

The ability to monitor critical vehicle data in realtime allows for proactive maintenance, early detection of potential issues, and enhanced customer experiences.

### **Improved Safety and Performance**

By leveraging the insights from the dashboard, OEMs can make data-driven decisions to enhance vehicle safety and optimize performance.

### **Cost Savings**

The early detection of potential issues and the ability to take immediate action can help prevent costly warranty repairs and recalls, ultimately reducing operational expenses.

### **Enhanced Customer Experience**

Customers can benefit from improved vehicle reliability, reduced downtime, and personalized services tailored to their driving habits and vehicle condition.

## / Conclusion

# Summary and Outlook

The collaborative solution represents a significant step forward in the automotive industry's transition to software-defined vehicles. By unlocking the power of vehicles, automotive OEMs can drive operational and cost efficiencies, enhance safety and performance, and deliver exceptional customer experiences. This innovative partnership demonstrates the transformative potential of data-driven insights in the automotive landscape. The next steps to expand the collaboration around edge data are in the works. Promising news can be expected soon.

**Get in touch with us to learn more about our solutions!**

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