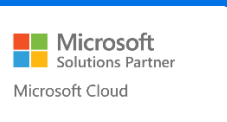
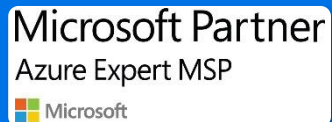


# Connected Vehicles

**Innovative solutions for enhanced efficiency and safety, reduced fleet TCO, new revenue streams, and improved customer satisfaction.**



**Atos**

# Connected Vehicles

Connected Vehicles provides solutions that enhance performance, safety, and efficiency. By leveraging connectivity, manufacturers can develop software-defined vehicles and create new revenue streams through innovative consumer software.

## Customer Challenge

- Consumers favor innovative digital "connected vehicle" services over traditional models, influencing their purchasing decisions.
- Auto OEMs must continuously innovate to improve product quality and sustainability to remain competitive.
- Auto dealers aim to maintain consumer satisfaction throughout the vehicle's lifecycle—from purchase to maintenance to renewal—while optimizing working capital.

## Atos Offering

- **Cutting-edge Solutions:** Offering innovative technologies to boost connected vehicle performance, safety, and efficiency.
- **Connected Vehicle Services:** Providing diverse solutions and accelerators for automotive manufacturers to create software-defined vehicles and generate new revenue streams.
- **Tailored Services Structure:** Our services, organized into Connectivity & In-Vehicle Services, Backend-Platform Services, and Eco-System Services, ensure comprehensive support.

## Outcome

- Increased revenue
- Consumer for life/customer loyalty
- Competitive parity/advantage
- Optimized Working Capital
- Higher NPS
- Develop new revenue streams, recurring service revenues
- Higher Brand recognition

# Benefits of Connected Vehicles

A modular, consumer-focused connected vehicle solution that helps automotive manufacturers and suppliers launch digital services to create new revenue streams, reduce fleet total cost of ownership (TCO), and enhance the driving experience through technology.

## Benefits

- Shift from Product-Centric to Service-Centric
- Develop new business opportunities (new revenue streams, recurring service revenues)
- Optimize fleet TCO & Performance
- Achieve 24/7 digital service availability
- Tailored onboard & offboard services for an enhanced customer experience
- Secured in-vehicle connectivity & communication
- Simplified global roll-outs, project management, and end-to-end service management



# Microsoft Value of Connected Vehicles

## The Power of Microsoft Azure

Connected Vehicles help customers overcome the challenges of scalable & robust platforms, processing and managing large amounts of data securely, optimizing the overall solution cost, and providing reliable services 24x7

### Microsoft Value

#### Scalability with AKS and Event Hub

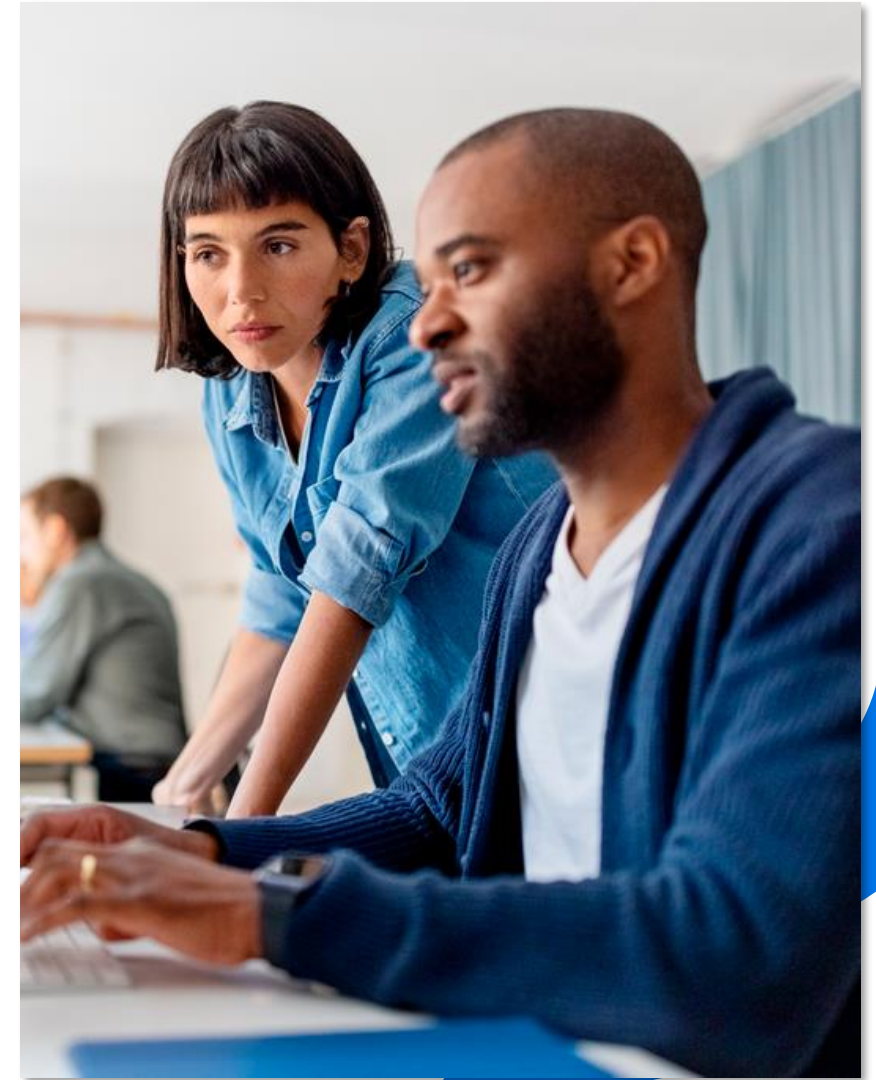
- Solution supports a large fleet of approximately 150K+ Trucks and multiple fleet owner users with its scalable platform based on AKS and Event Hub.
- Managed services provide on-demand scalability and throughput based on demand, enabling scalability.

#### Data Store

- Managed Data stores like HD Insight and Azure Postgres SQL provide a scalable and performant database to store connected vehicle data.
- Azure Blob store provides scalable and cost-effective long-term storage for IoT data.
- Azure EventHub for data streaming

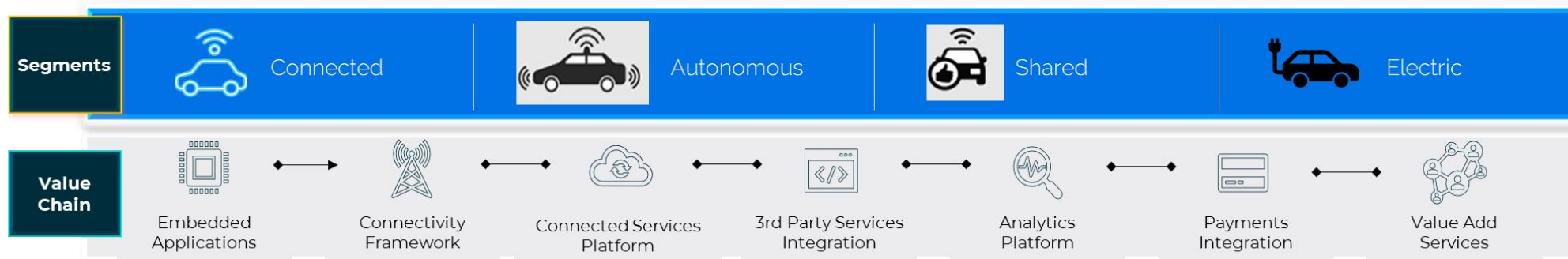
#### DevOps

- Azure DevOps provides a complete toolset to manage development and operations.
- Provides task management, source control, and pipelines to deploy in a cloud environment.



# A complete value chain for Connected Vehicles

Deep understanding of connected vehicle domain based upon collaboration with major Automotive OEMs.



## Connectivity & In-Vehicle Services

### Communication & Connectivity Services

- ▶ Device Management e.g., Authentication, embedded SW, HW rollout & support, OTA
- ▶ Connectivity Management e.g., SIM Management

### Security (IT/OT/Vehicle)

- ▶ Encryption (HW and SW)
- ▶ Authentication, Identity & Access Mgmt.
- ▶ Vulnerability & Testing Services



## Backend-Platform Services

### Digital (Enablement) Platform Services

- ▶ Platform Engineering, build/ operate Platform
- ▶ CV Platform & Fleet Management Services
- ▶ Predictive Maintenance, Device Management, Driver Behavior Insights, Drive decarbonization, Smart Home Integration

### Digital Services Enablement

- ▶ Service Development (fleet, driver, vehicle), Platform scalability and functionality testing
- ▶ In-Vehicle App Development
- ▶ Service Deployment & Management

### Managed Services

- ▶ Platform infrastructure management
- ▶ L1/L2/L3 support across CV stack
- ▶ End to end Service Management, OTA updates

## CV Eco-System Services

### System / Platform Integration

- ▶ Enterprise SI, Dealer Networks, Billing/ Subscription services
- ▶ IIoT/ Automotive/ Mobility Platforms

### Value Add Services & Platform Services

- ▶ AI & Analytics Services
- ▶ Security, Mobile apps

### Global Reach & Scale

- ▶ Compliance to local, global regulations
- ▶ Software factory services

### Business & Go-to-Market Advisory

- ▶ Service prioritization / monetization
- ▶ Business model & strategy



# Customer Success

## A Large US Truck Manufacturer

Atos developed a highly scalable next-generation telematics platform based on the Azure IoT stack. The platform uses a rules engine and complex events processing module to predict future truck breakdowns by leveraging the Azure machine learning module.

Solution-delivered notifications (via mobile app, SMS, and email) to fleet owners, drivers, and nearby dealers/car shops based on failure criticality after doing alert analysis.

### Reduced unplanned vehicle downtime

Predictive analytics helps in preventive maintenance empowering drivers and fleet owners to predict issues, prevent downtime, and minimize maintenance costs.

### Optimized warranty cost

Integrate failure analytics data and use vehicle telematics information to provide insights to the engineering department to strengthen vehicle component quality.

### Reduced emissions

Reducing emissions by identifying vehicle potential issues before they become significant problems as well-maintained vehicles operate more efficiently more fuel-efficiently.





# Customer Success

## A Dutch Truck Manufacturing Company

Atos has developed a robust, scalable, modular connected truck solution on Azure by using its reference architecture. The solution helps clients generate recurring service revenues and increased uptime through remote fleet operation.

The solution supports clients to provide services that help fleet Owners/managers with real-time visualization of the whole fleet, including end-to-end data analytics covering vehicle health status with alerts and notifications, Tracking driver behavior for Fuel efficiency, speed, braking Trip Data analytics for calculating driver eco-scorecard, trip tracking and insights into CO2 emissions.

### Optimized fleet performance

Real-time monitoring of fleets/vehicles, tracking of driver behavior, fuel efficiency, and remote fleet operations help fleet owners/managers increase operation efficiency.

### Recurring revenue

Solution helped fast integration and onboarding of 3rd parties and clients, to create a strong ecosystem of digital partners and enablement of digital services revenue via subscription management.

### Improved customer experience

The solution enabled end customers to upgrade vehicle software over the air without visiting a dealer.



# Contact Us



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