

Remote diagnostics for connected cars



Elektrobit

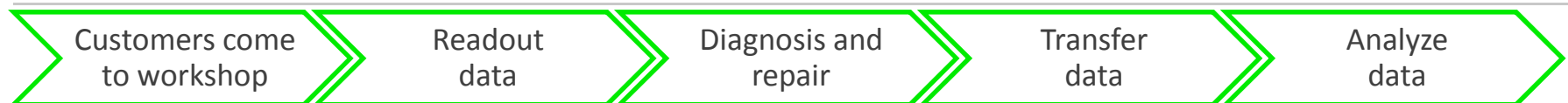
Sebastian Fräßdorf
Jun 07, 2016



Agenda

- Motivation
- Technical demands
- System architecture
- Process of outlier detection
- Demo of
 - Data collection
 - Analytics
- Integration scenarios
- Summary
- Q&A

Diagnostics today

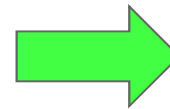


Greatest challenges

- Customers have to go into contract workshops.
- Physical access to vehicle is needed.
- Diagnostics data is only limited.
- No access on live data.



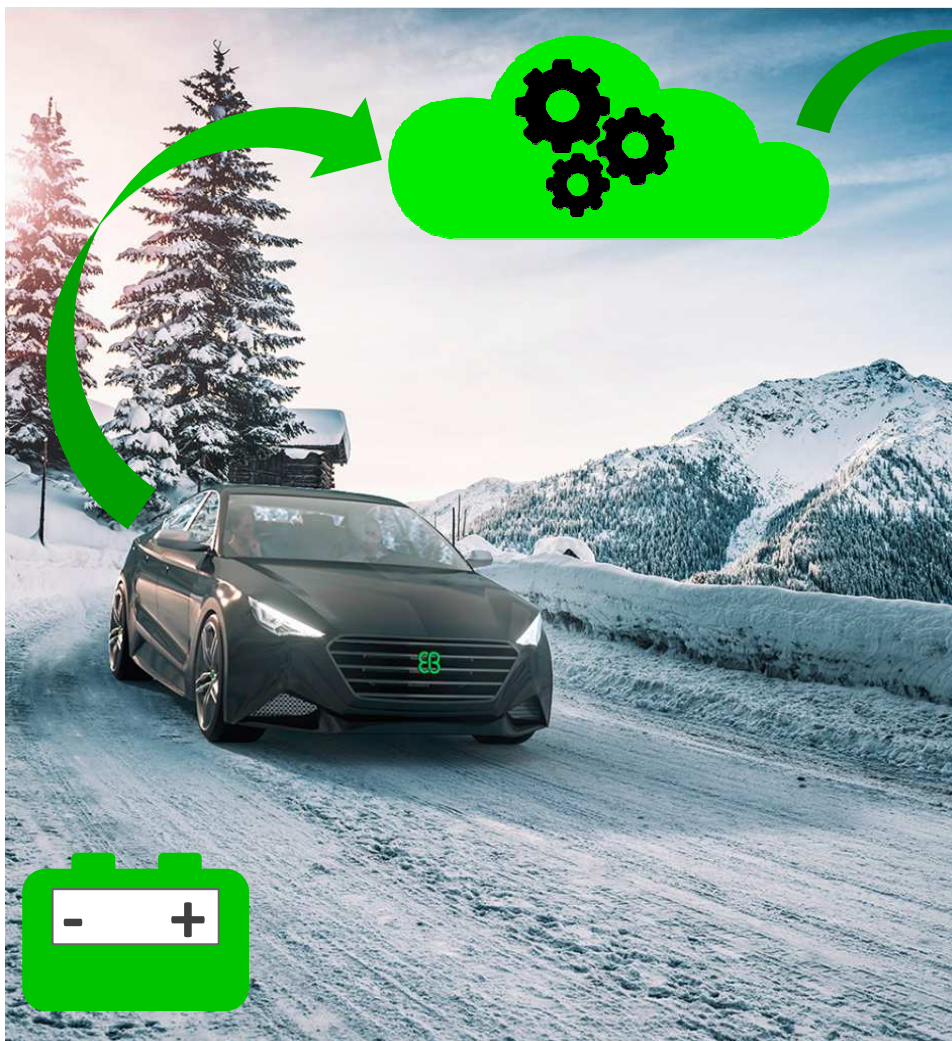
Battery failure



Further potential for optimization

- Temporary Diagnostic trouble codes
- Frequency of functionality usage
- Validation of active systems

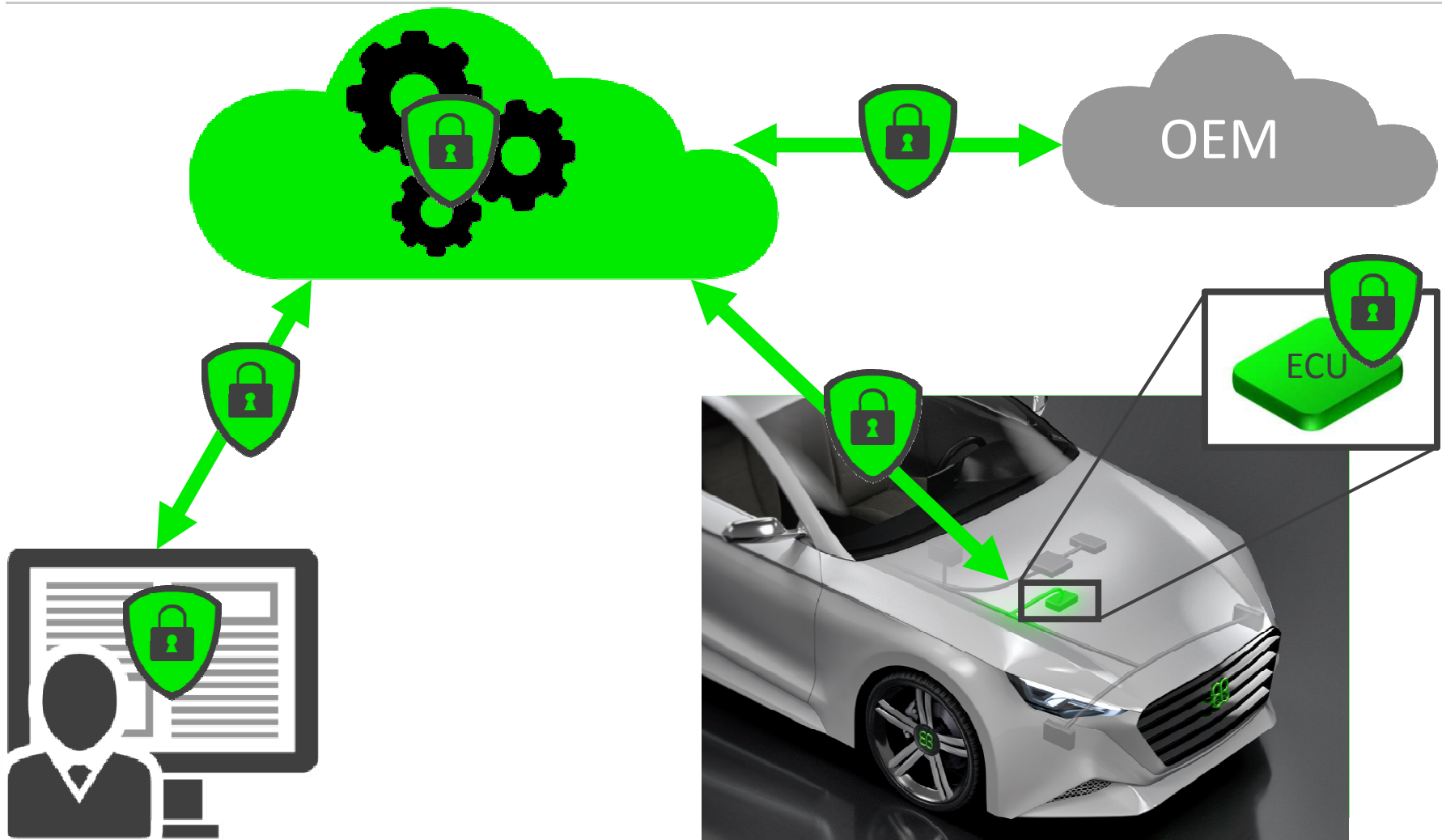
EB's Remote diagnostics solution



Improved service



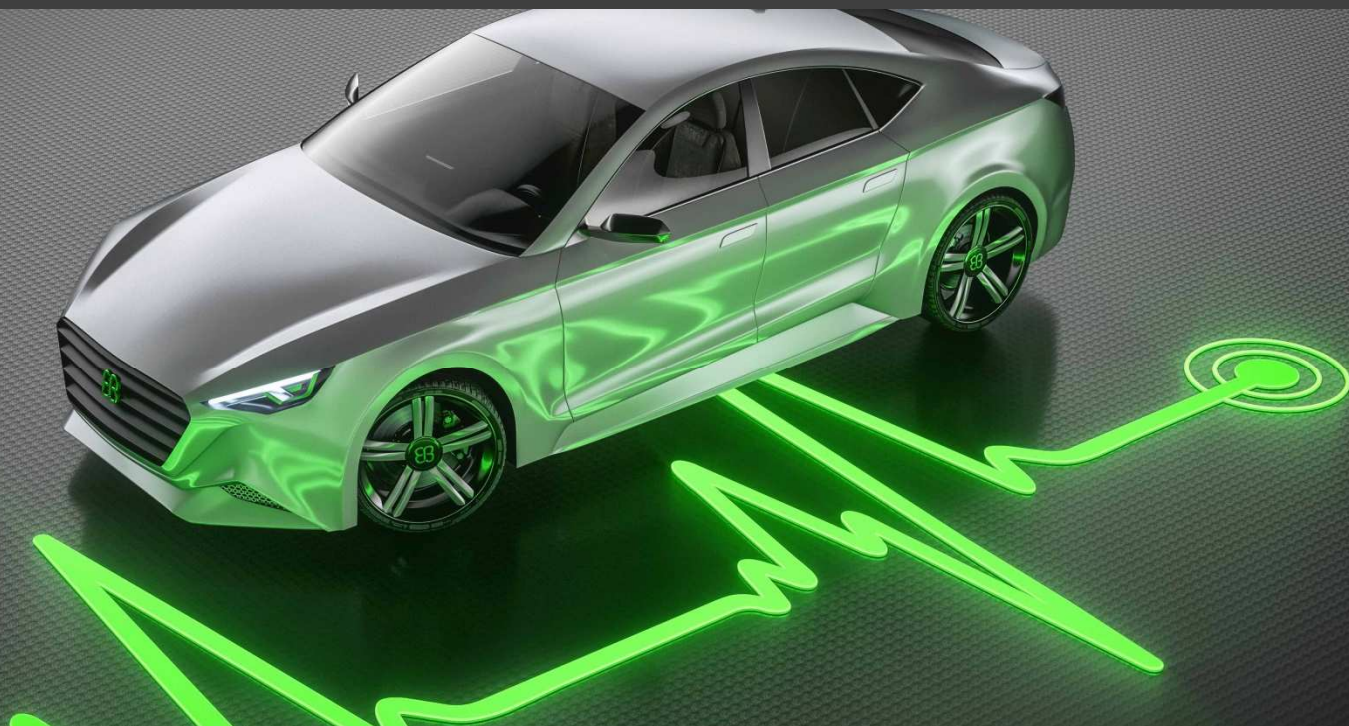
Technical demands of remote diagnostics



EB cadian
Connect. Learn. Improve.

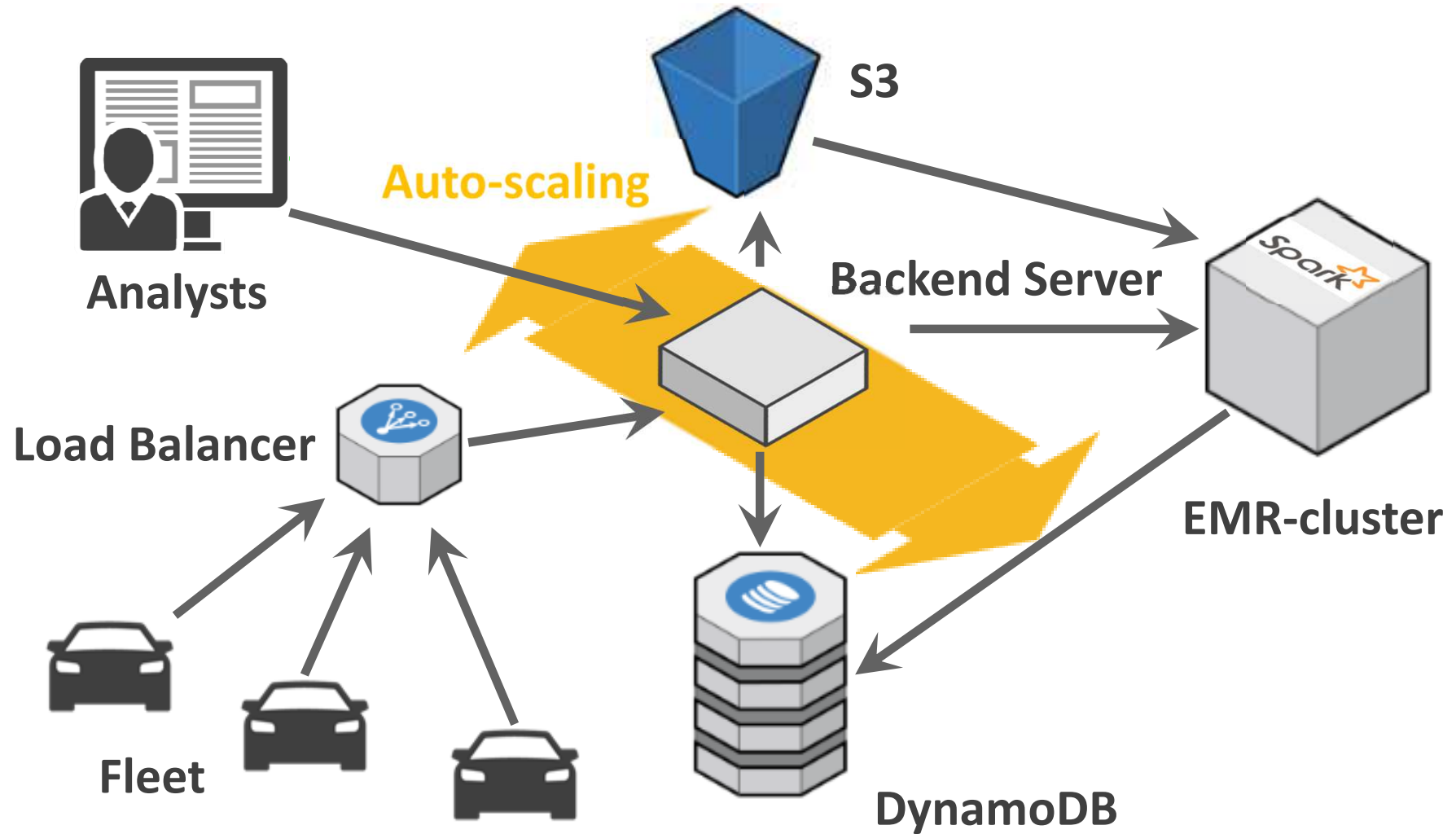


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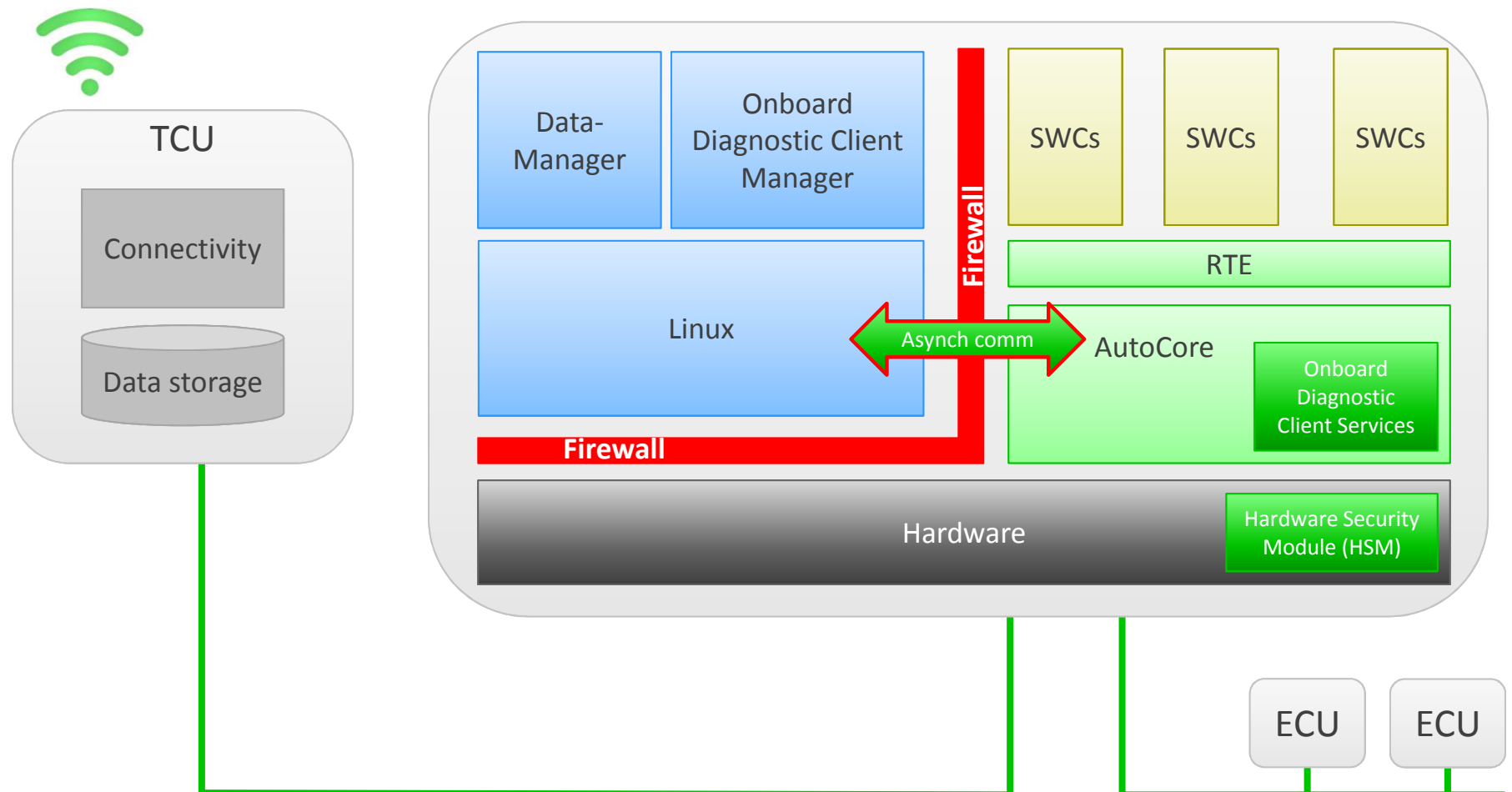


Backend-AWS-architecture

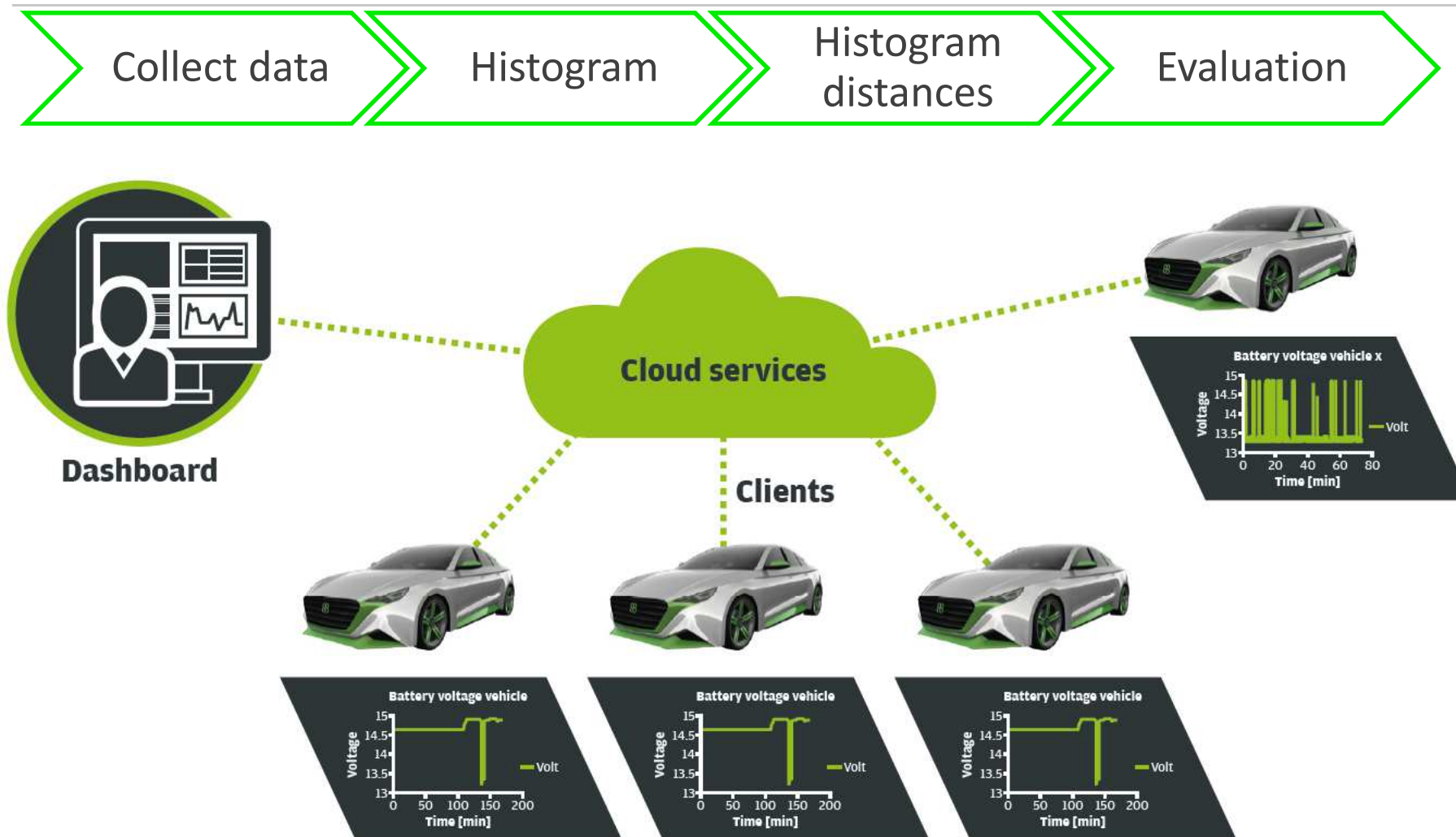




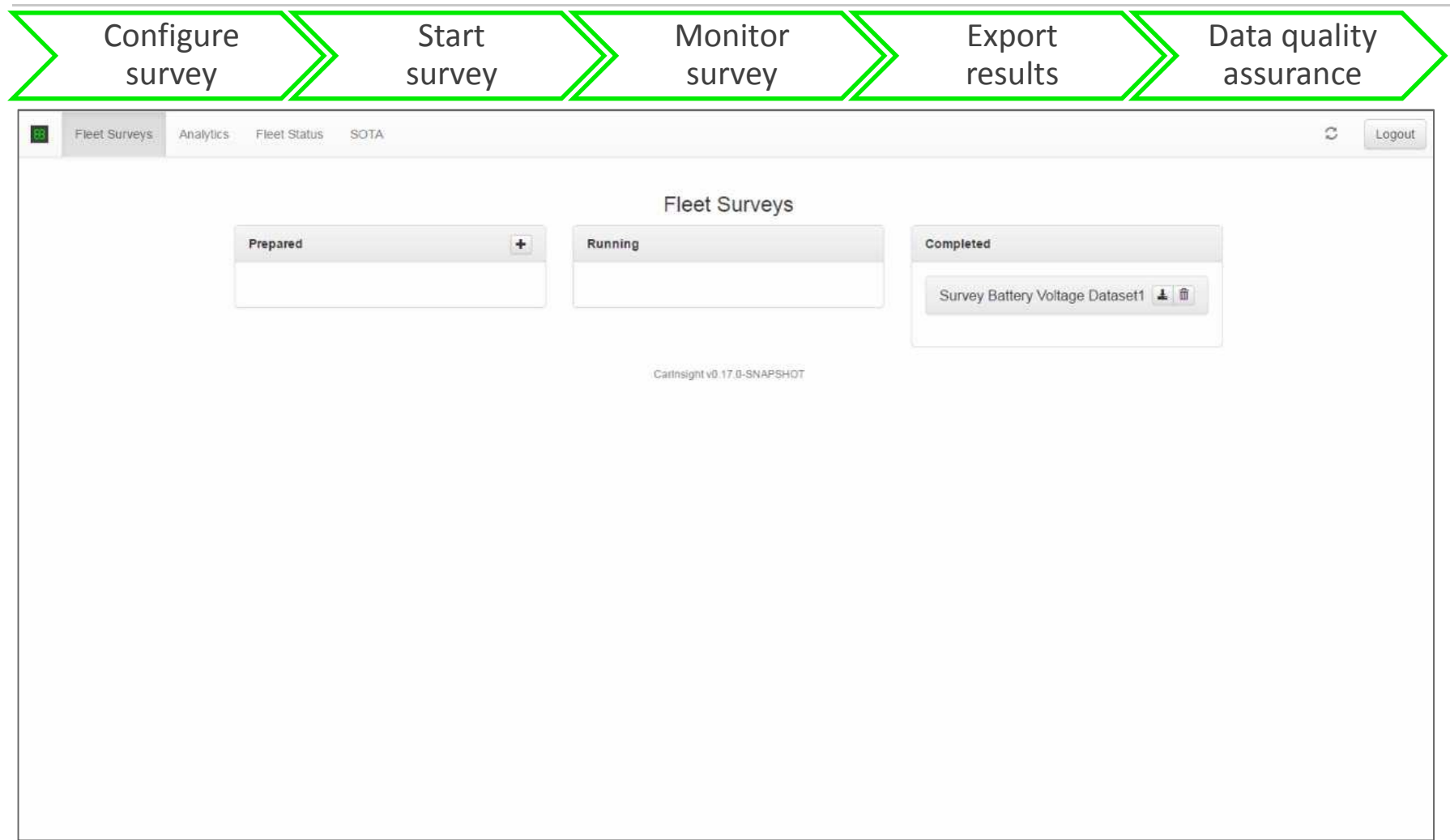
Client architecture



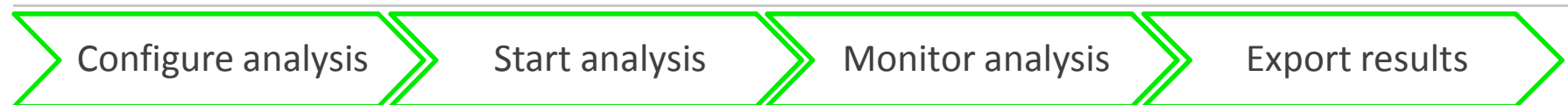
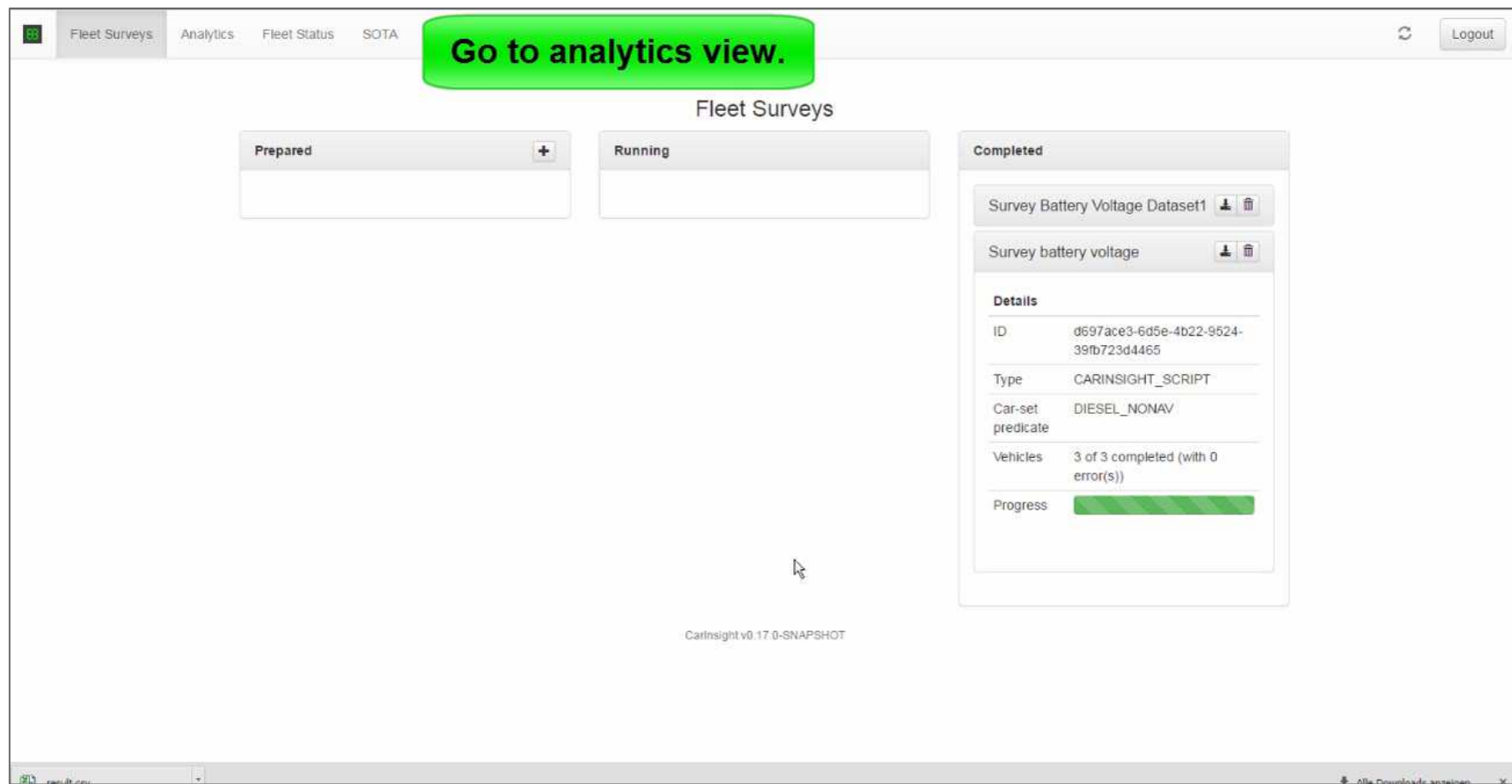
Process of outlier detection



Demo – Data collection



Demo – Analysis

Go to analytics view.

Fleet Surveys

Prepared +

Running

Completed

Survey Battery Voltage Dataset1

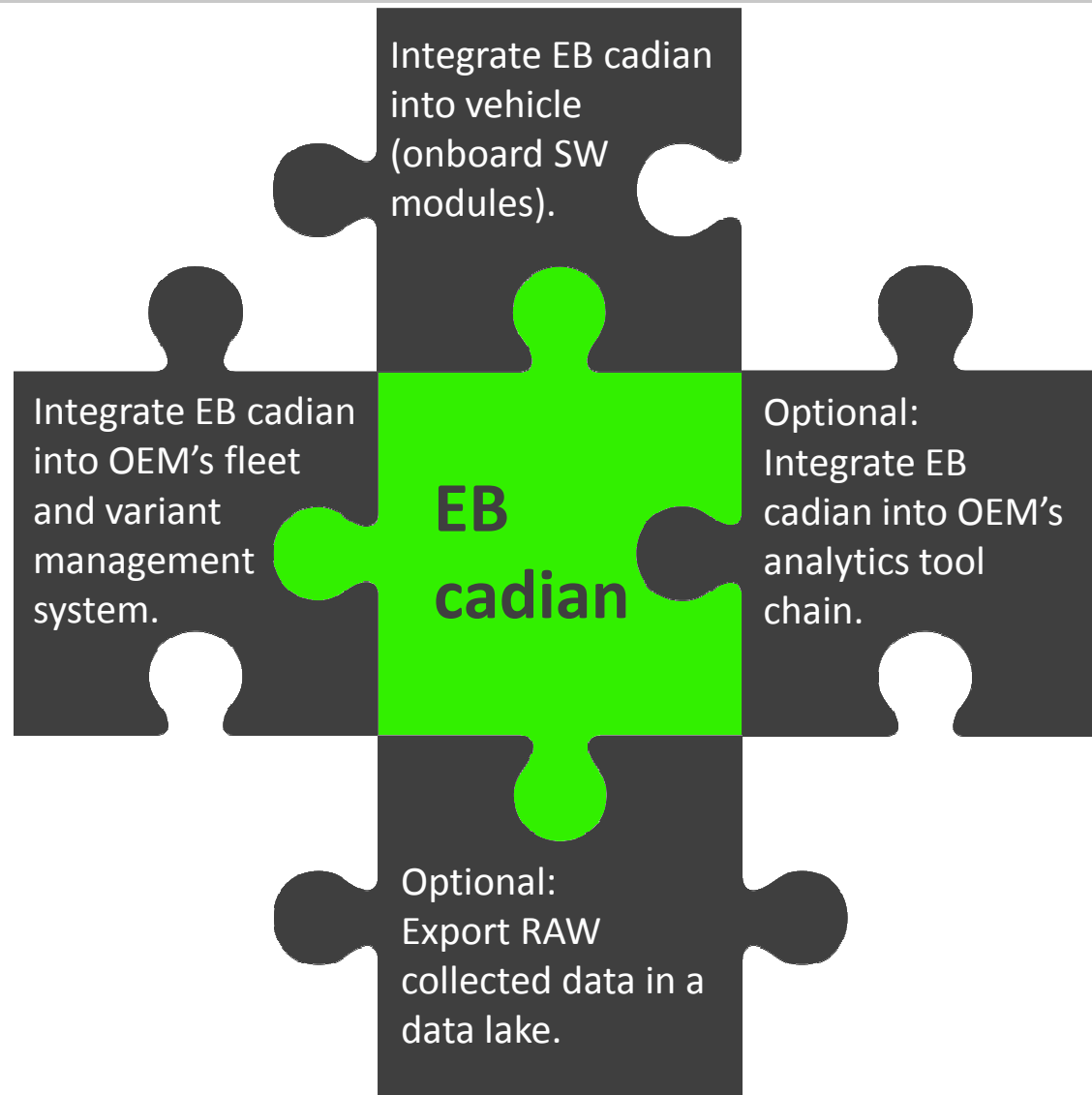
Survey battery voltage

Details

ID	d697ace3-6d5e-4b22-9524-39fb723d4465
Type	CARINSIGHT_SCRIPT
Car-set predicate	DIESEL_NONAV
Vehicles	3 of 3 completed (with 0 error(s))
Progress	<div style="width: 100%; background-color: green;"></div>

CarInsight v0.17.0-SNAPSHOT

Integration scenarios



Remote diagnostics solution by EB

One step closer to predictive maintenance on the basis of statistical analysis.



All components (dashboard, backend and client-sw) are **configurable** and **customizable**.

Use of **standardized** formats such as ODX-Data, UDS-protocol and REST-APIs.

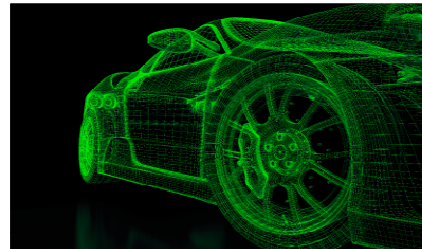
Scalable backend infrastructure. **Flexible** models available.

Encrypted and **authenticated** communication.

EB cadian lets you...



... get insights
from your fleet
on the road.



... improve the
design of your next
vehicle generation.



... improve your
production
processes.

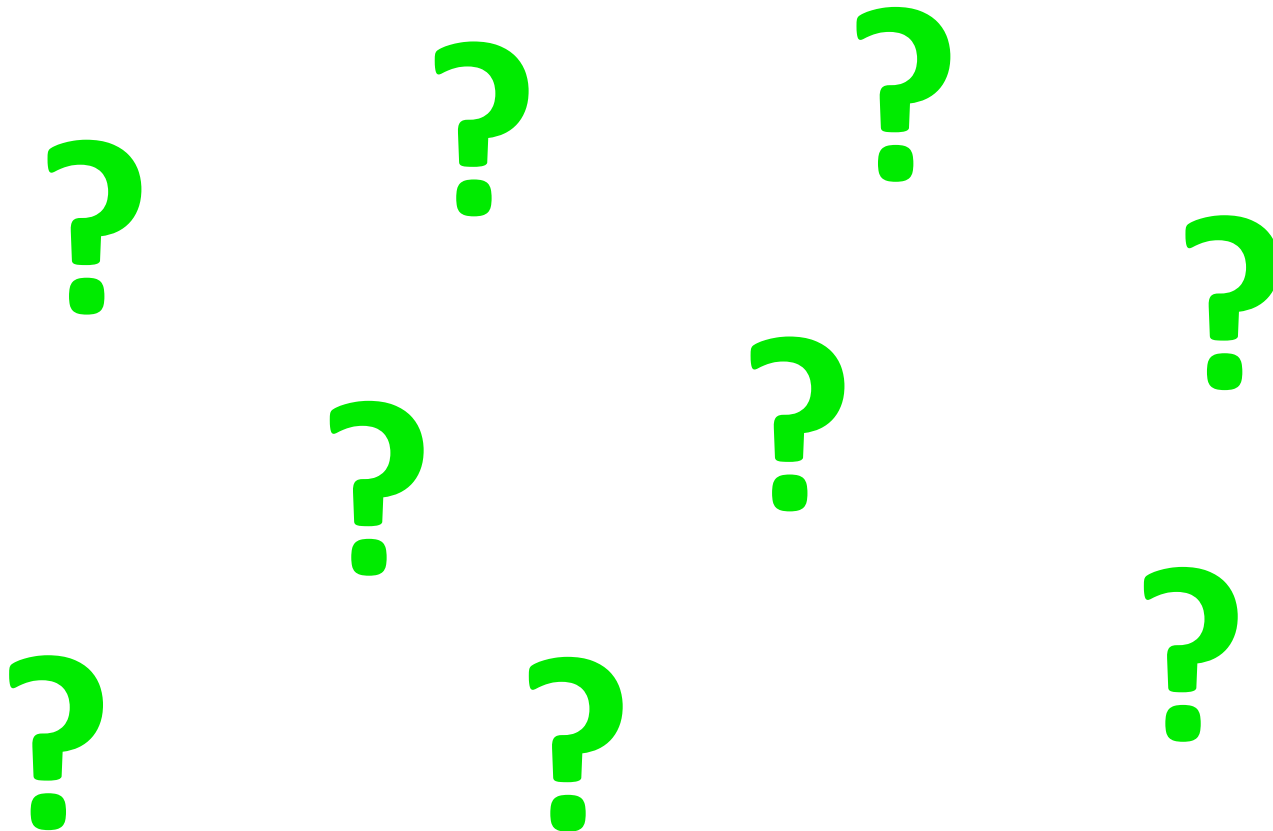


Save money



Increase brand
loyalty

Q&A ...



... Thanks a lot!

Contact us!



www.elektrobit.com

sebastian.fraessdorf@elektrobit.com



