

Case Study: Cost Effective Kafka Distribution for Critical Applications

BACKGROUND

- Leading Korean automotive OEM
- Connected Vehicle program required a highly available and performant microservices architecture (MSA)
- Software Engineers leveraged to complete task

2 REQUIREMENTS

- Zero latency or downtime
- Minimal Operational overhead costs
- Organizational mandate requires commercially supported software in production environments

3 INITIAL ACTIONS & RESULTS

A commercially supported Kafka version was initially selected & several challenges persisted

- Operational Overhead was too high due to the costs of commercial support combined with resource provisioning inaccuracies
- Kafka complexity required extensive training for the Software Engineers to utilize the commercially supported Kafka version resulting in an unacceptable time to develop of new features & a low level of engineer interest due to Kafka complexity

4 NEW CAPABILITIES

- Kafka self-management & engagement capabilities
- Partition distribution monitoring among brokers
- Standardized Kafka architecture tailored to connected vehicle needs
- Change Data Capture (CDC) database & live migration support

5 FINAL OUTCOMES

50% Lower Total Cost of Ownership

Fully Engaged, More Efficient & Happier Software Engineers

> ZER Downtime During & After Migration