
AWS
re:Invent
NOV. 28 – DEC. 2, 2022 | LAS VEGAS, NV

AUT302-R

Connected vehicle migration with AWS IoT Core

Amit Kumar (he/his)

Principal Solutions Architect
AWS

Sushant Dhamnekar (he/his)

Senior Solutions Architect
AWS

© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Agenda

Legacy architecture of a connected vehicle

Why migrate?

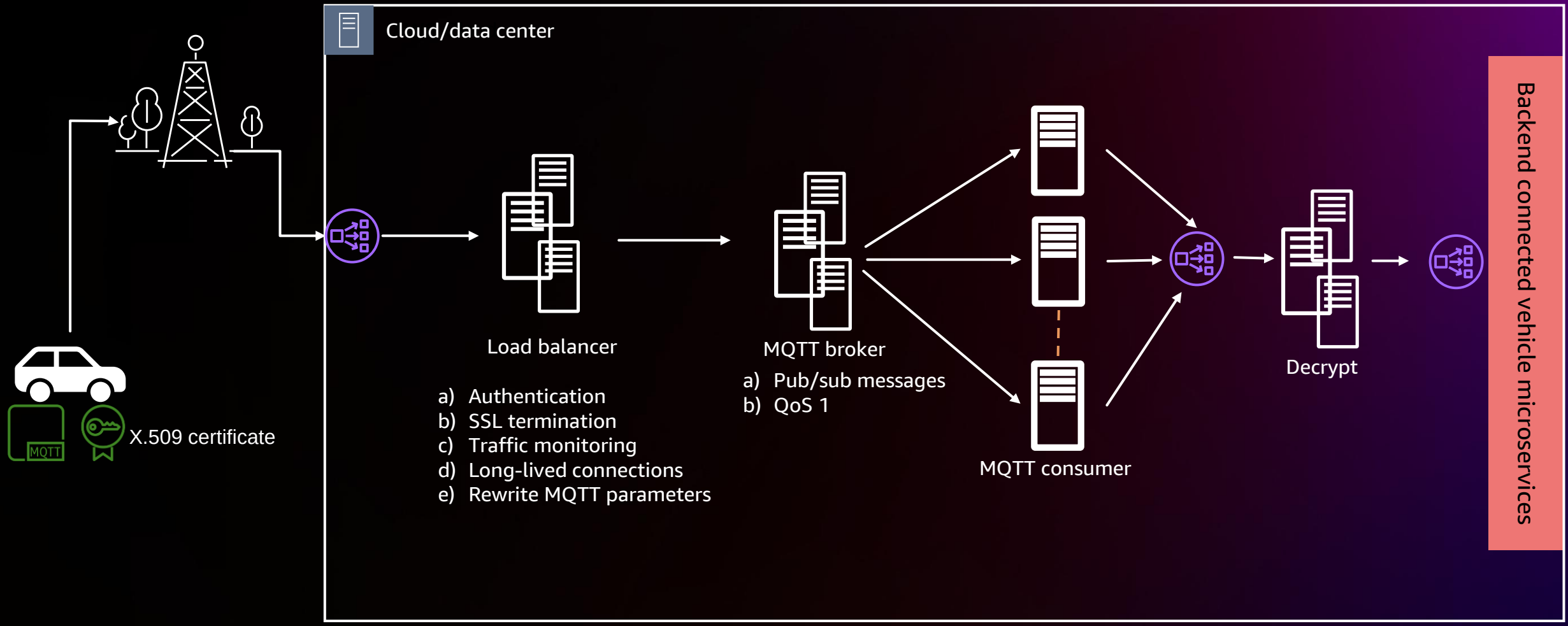
Architecture with AWS IoT Core

Migration challenges

Lessons learned

© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Legacy architecture of a connected vehicle



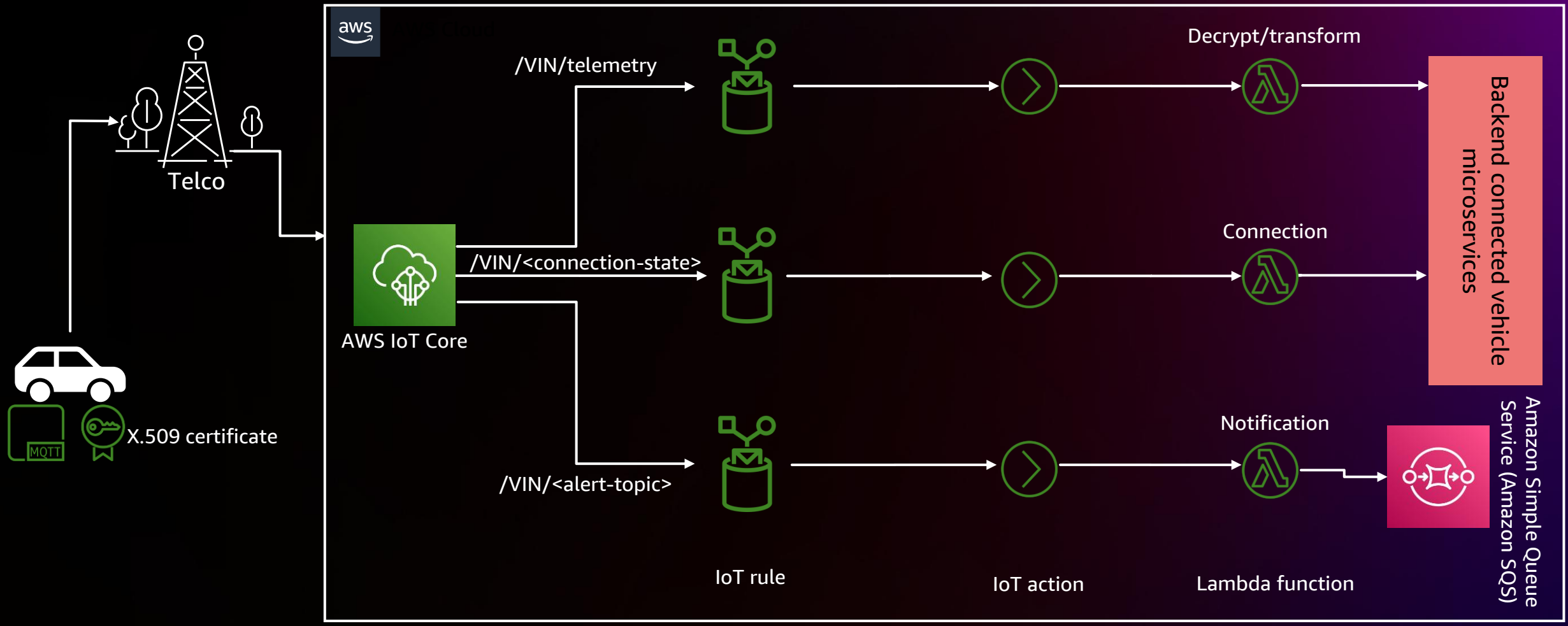
© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Why migrate?

- Scalability challenges (~100K–1M , ~1M–10M, and ~10M–100M)
- Operational overhead
- High costs
- Lack of innovation

© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Architecture with AWS IoT Core



© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Migration challenges

- Connect test bench with IoT Core
- Connect to IoT Core without any change at the vehicle side
- Communicate with backend microservices without disruption
- Define the right KPIs to measure the migration success
- Production cutover strategy without impacting any customer
- Run parallel setup
- Rollback

aws

© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Lessons learned

- Close coordination is required between the onboard/in-vehicle and cloud teams
- AWS service limits and throttling calculation based on the peak load
- Incorporate future changes into the migration plan
- Have a well-defined testing strategy

© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Q&A

© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Thank you!

Amit Kumar
amitji@amazon.com

Sushant Dhamnekar
sdhamnek@amazon.com



Please complete the session survey in the **mobile app**

© 2022, Amazon Web Services, Inc. or its affiliates. All rights reserved.