aws

Connected Mobility Platform

Connected Mobility Platform: Architecture Diagrams

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This architecture addresses three elements of the connected platform: in-vehicle, external infrastructure, and backend services on the cloud. The adoption of serverless architecture will help to reduce the operational overhead for the connected mobility platform.

Connected Mobility Platform Diagram
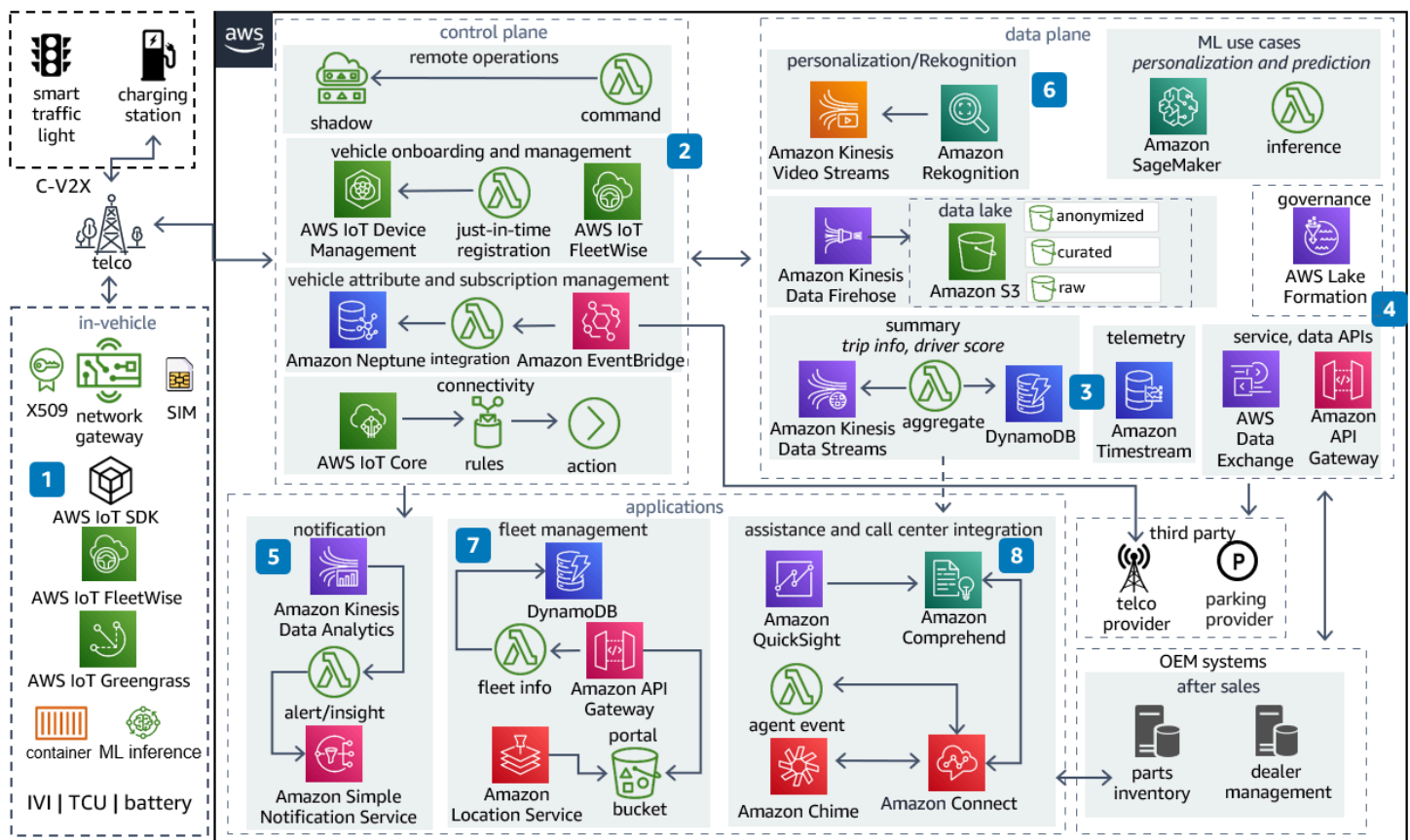
1. Use an **AWS IoT FleetWise** edge agent and **AWS IoT Core** to send and receive data from the cloud. **AWS IoT Greengrass** can host the edge components and is used for machine learning (ML) at the edge.

2. Use **AWS IoT Device Management** to onboard vehicles and manage lifecycles. Perform remote operations with **AWS IoT Device Shadow service**.

3. An **Amazon Simple Storage Service** (Amazon S3) bucket stores raw telemetry data and meaningful values from **Amazon Timestream**. **Amazon DynamoDB** stores aggregated data and **AWS Lake Formation** governs the data lake.

4. **AWS Data Exchange** and **Amazon API Gateway** expose service and data APIs for internal and external use.

5. **Amazon Managed Service for Apache Flink** generates alerts and insight in near real time.

6. Personalize use cases with **Amazon Rekognition** and develop custom models with **Amazon SageMaker AI** for preventive or predictive use cases.

7. Create a fleet management portal for fleet operators to monitor vehicles in near real time using **Amazon Location Service**.

8. **Amazon Connect** and **Amazon Chime** enable the call center. You can visualize call insights through **Amazon QuickSight**.

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Further reading

For additional information, refer to

- AWS Architecture Icons
- AWS Architecture Center
- AWS Well-Architected

Diagram history

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Change	Description	Date

Initial publication   Reference architecture   December 13, 2022
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>
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