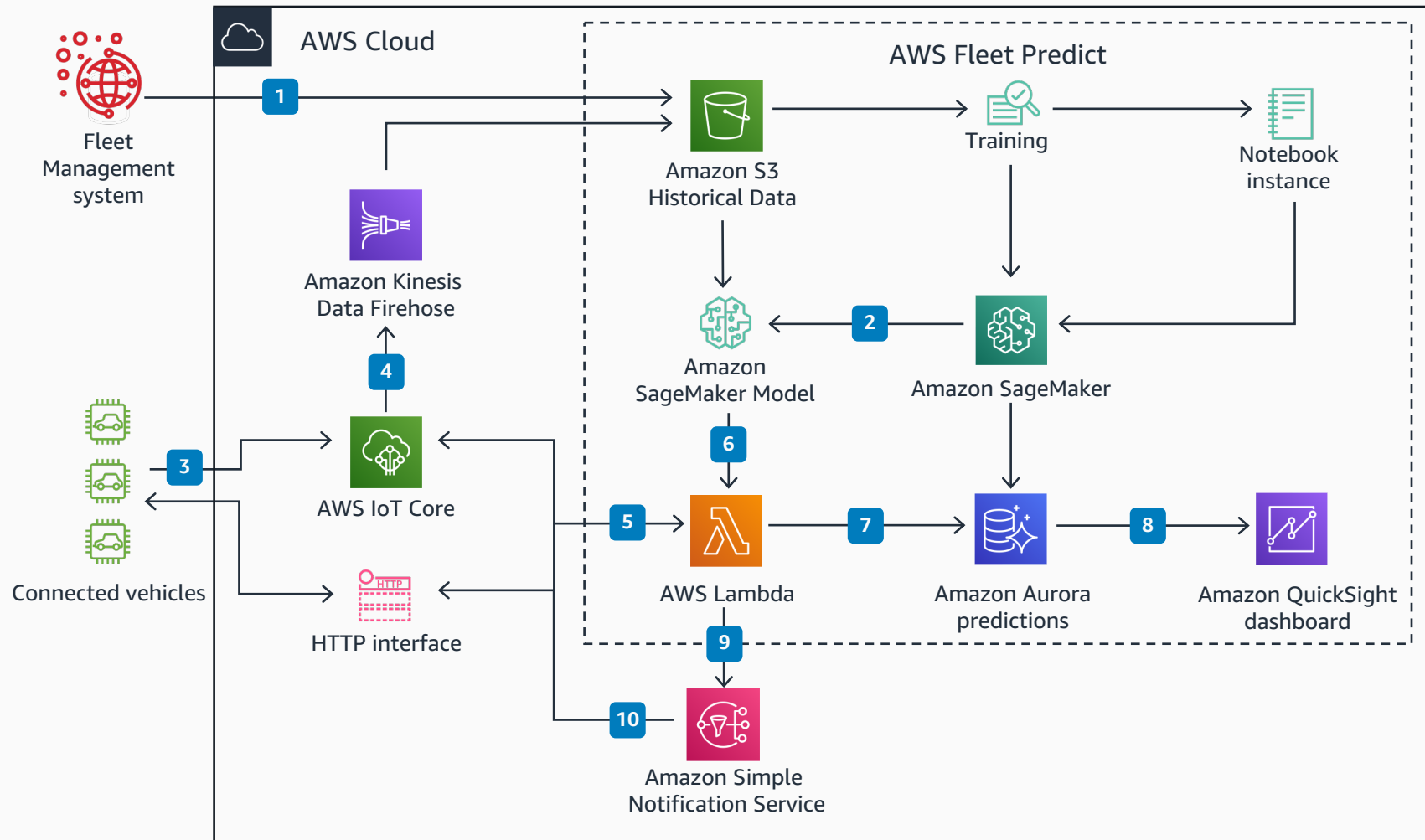


AWS Predictive Maintenance for Fleets

This reference architecture shows you how to develop a predictive model using historical telemetry data from your vehicle fleet and then run that model against live telemetry to predict battery failures in your vehicles.



- 1** An extract is created from the Fleet Management system containing vehicle data and sensor logs.
- 2** **Amazon SageMaker** model is deployed after the model is trained to predict battery failures.
- 3** Connected vehicle sends sensor logs to **AWS IoT Core**. Logs can also be sent using HTTP interface.
- 4** Telemetry messages are sent to **AWS Lambda** from IOT Core for analysis by the model.
- 5** Then, the sensor logs are sent to **AWS Lambda** for analysis (running the model against the data).
- 6** **AWS Lambda** uses the previously-trained predictions model on the sensor logs to make predictions.
- 7** Once completed, predictions are stored in **Amazon Aurora** for record-keeping and future improvements.
- 8** Predictions are displayed on the **Amazon QuickSight** dashboard.
- 9** Next, real-time failure warning notifications are sent to **Amazon SNS**.
- 10** **Amazon SNS** sends notifications to connected vehicles to notify drivers/fleet managers that a failure will occur in the near future, so a controlled maintenance event can be scheduled.

