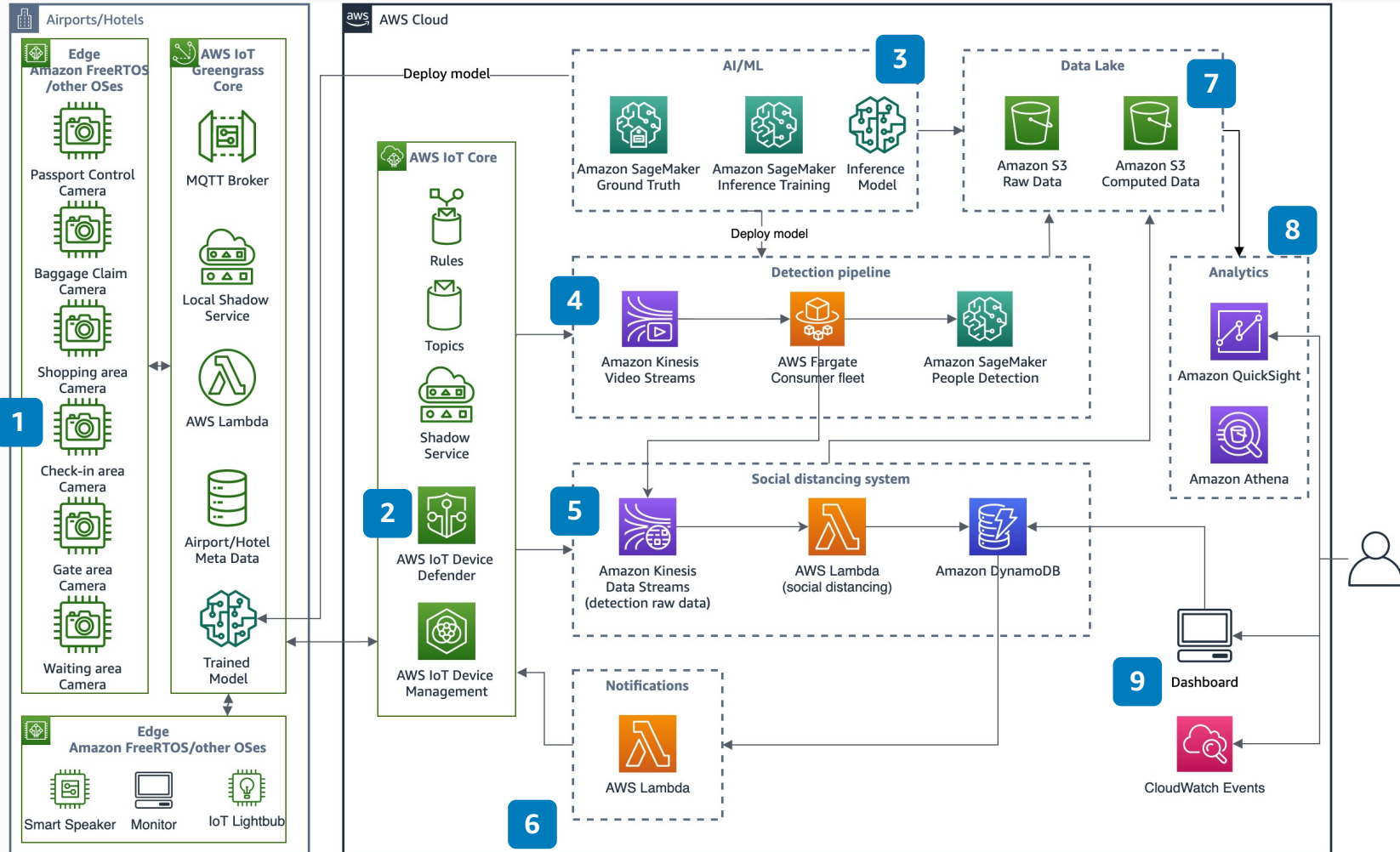


Facilitate Social Distancing using IoT and AI/ML

Build social distancing applications that use cameras to monitor activity, use computer vision to actively measure separation and distancing, and provide visual and audible alerts and feedback to maintain social distance.



- 1 Configure **AWS IoT Greengrass** to communicate with cameras to capture videos from relevant areas.
- 2 **AWS IoT Core** and **AWS IoT Device Management** manage the cameras and events.
- 3 Use videos from the cameras to train a machine learning model to recognize people with **Amazon SageMaker** and **Amazon SageMaker Ground Truth**.
- 4 Build an elastic and scalable detection pipeline with **Amazon Kinesis Video Streams**, **Amazon SageMaker** and **AWS Fargate**; use automatic scaling capabilities to automatically increase or decrease the capacity.
- 5 Build the social distancing system with **Amazon Kinesis Data Streams**, **AWS Lambda**, and **Amazon DynamoDB** to perform calculations and track the compliance status over time.
- 6 Show distancing indicators on a monitor, send notifications to a smart speaker, or update the state of the IoT lightbulb in case of social distancing violations.
- 7 Create a data lake with **Amazon S3** and **Amazon S3 Glacier** to store the data for reporting, visualization, advanced analytics, and machine learning.
- 8 Import the predictions to enrich your **Amazon Redshift** data warehouse. Visualize the reports using **Amazon QuickSight**, **Amazon Athena**, or other reporting tool to discover trends and implement corrective actions.
- 9 Build a dashboard to inspect video streams and configure the cameras. Use **Amazon CloudWatch Events** to monitor application health.

