1. Police Traffic Cameras: These cameras capture images of speeding vehicles and their speed.
2. AWS IoT Core: The images and speed data are sent to AWS IoT Core, which acts as a message broker for IoT devices.
3. AWS Lambda: A Lambda function is triggered by messages received in AWS IoT Core. This function processes the image using computer vision techniques to detect the license plate number.
4. Amazon Rekognition: The detected license plate number is sent to Amazon Rekognition, a service that can perform image analysis tasks, including optical character recognition (OCR) to extract text from images.
5. AWS DynamoDB: The extracted license plate number is stored in DynamoDB, a NoSQL database service provided by AWS.
6. AWS Lambda (Again): Another Lambda function is triggered upon the successful extraction of the license plate number. This function queries a separate vehicle database stored in DynamoDB to retrieve information about the vehicle owner based on the license plate number.
7. Human Approval Service: This service, which could be implemented using AWS API Gateway and AWS Lambda, presents the information to a human operator who decides whether to issue a fine.
8. Amazon Simple Notification Service (SNS) to send notifications to the vehicle owner if a fine is issued.