

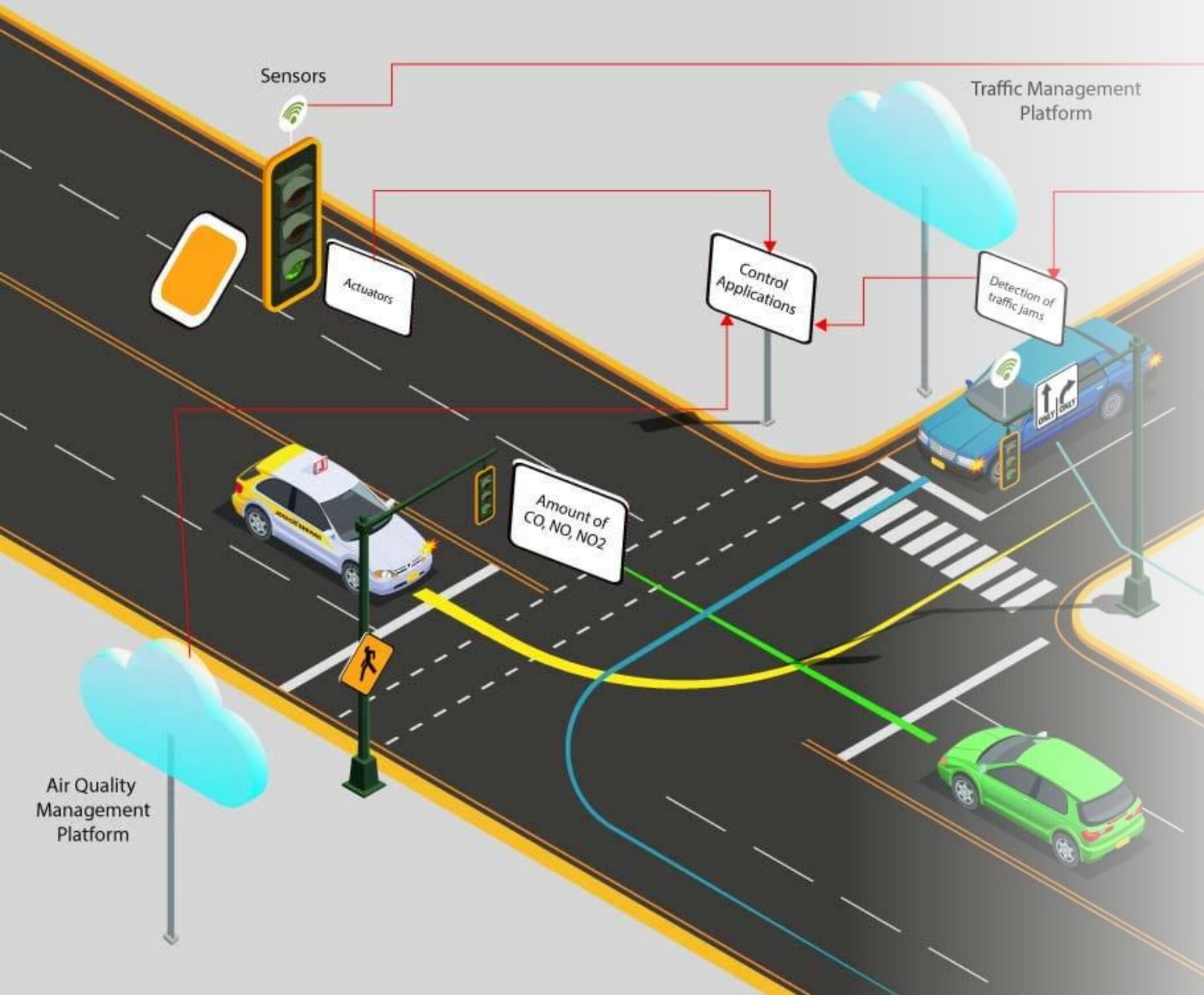
TRAFFIC MANAGEMENT SYSTEM



Project definition

- An Internet of Things (IoT)-enabled intelligent traffic management system can solve pertinent issues by leveraging technologies like wireless connectivity & intelligent sensors.
- The system uses cameras for detecting traffic congestion and controlling signals. There is one camera for each direction fixed alongside the traffic light. The camera takes sequence of images and analyze the image to calculate the number of vehicles and control the traffic light.

ELEMENTS OF SMART TRAFFIC MANAGEMENT SYSTEM



- An Internet of Things (IoT)-enabled intelligent traffic management system can solve pertinent issues by leveraging technologies like wireless connectivity & intelligent sensors. Considered a cornerstone of a smart city, they help improve the comfort and safety of drivers, passengers & pedestrians.

common traffic control devices:

Types:

Signs.

High-level warnings.

Channelizing devices.

Road surface markings.

Rumble strips.

Lights.

DESIGN THINKING

1. Project Objective

Empathize:

- Begin by understanding the needs and pain points of the end-users. Conduct interviews and observations to gather insights into what problems the IoT system should address.

Define:

- Clearly articulate the project objectives based on the insights gathered. For example, if it's for a smart home, the objective might be to enhance energy efficiency and security.

2.IOT SENSOR DESIGN

Empathize:

Understand the context in which the IoT sensors will be used. Consider factors like location, environmental conditions, and user preferences.

Define:

Define the specific requirements for the IoT sensors, including their purpose, data collection frequency, and connectivity (e.g., Wi-Fi, Bluetooth, cellular).

3. IOT SYSTEM MANAGEMENT

Empathize:

- Understand the needs of the system administrators and maintenance personnel who will manage the IoT system

Define:

- Define the requirements for IoT system management, including remote monitoring, software updates, and security protocols.