

Intelligent Traffic System

Stakeholder Problem Analysis:

More than 20 percent of patients needing emergency treatment have died on their way to the hospital because of delays due to traffic jams. These traffic jams are caused by the overcrowded streets of our country. Making the route fast and obstacle free for ambulances, and doing so manually, is not an easy task, not even for the traffic police force. Thousands of patients lose their lives daily because they do not receive proper medical attention on time due to being stuck in traffic. The traffic management system is not flexible enough to give priority according to the priority of the patient's condition.

Expectation:

In emergencies, traffic would be managed in an efficient way to provide the ambulances with clear routes to minimize commute times.

Assumption:

In emergencies, the traffic signal will be updated accordingly with respect to the nearest ambulance requirements to synchronize it with the ambulance and minimize the ambulance delay caused by traffic.

Reality:

In such emergencies, the traffic police have to come forward and manually clear the traffic to make way available for the ambulance, which isn't always the optimal way.

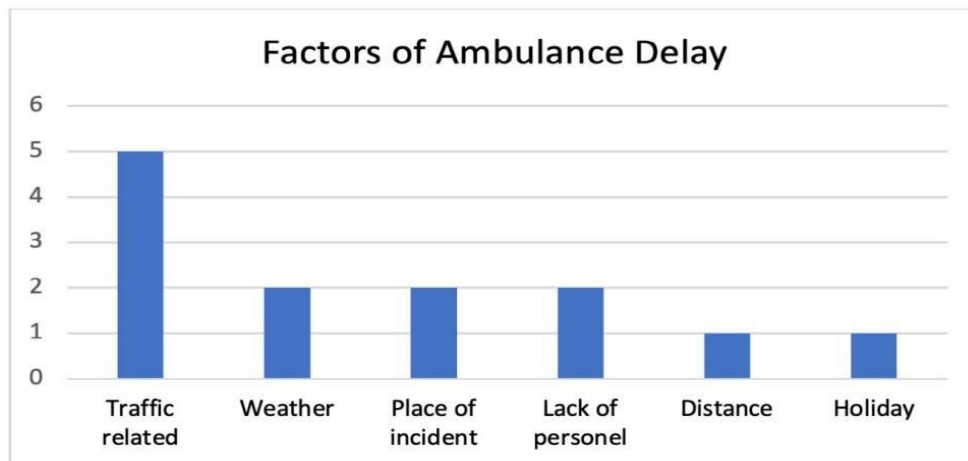
What is needed:

Traffic signals should automatically update according to the ambulance routes and the emergency, thus minimizing the delay caused to the ambulance's commute to its destination.

Reasons for facing a problem:

Traffic signals are fixedly programmed so they cannot adapt to changing things. This causes delays to important work. The Police Staff needs time to manually make the way clear for an ambulance. Time taken to clear the traffic jams cost the patient to lose their life.

Process Analysis:



This review suggests that traffic conditions are the main factor causing ambulance delays. Therefore, there is a demand for a strategic solution to reduce the ambulance delay because of Traffic Jams.

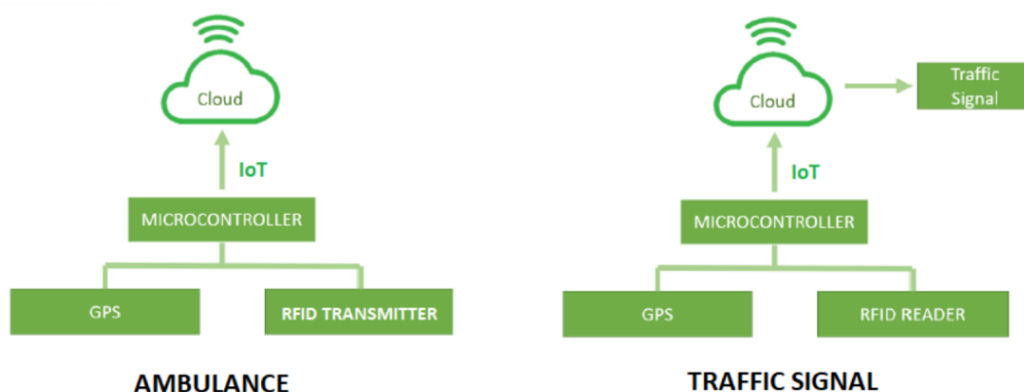
Solution:

- Live Tracking of the ambulance.
- Prioritize the route.
- Create an obstacle-free way for the ambulance.

Solution Impact:

- Effective management of Emergency Medical Services.
- Minimizes the number of fatalities.
- Ensures timely delivery of medical services.

Process Design (Technical):



Future:

This will reduce the percentage of patients dying because of delays in reaching the hospital. The Intelligent Traffic Signal will open many other options for innovation and creativity. It also will give a financial boost to the IoT and Cloud Computing sectors.