

Smart Traffic Management Systems and Their Architectures

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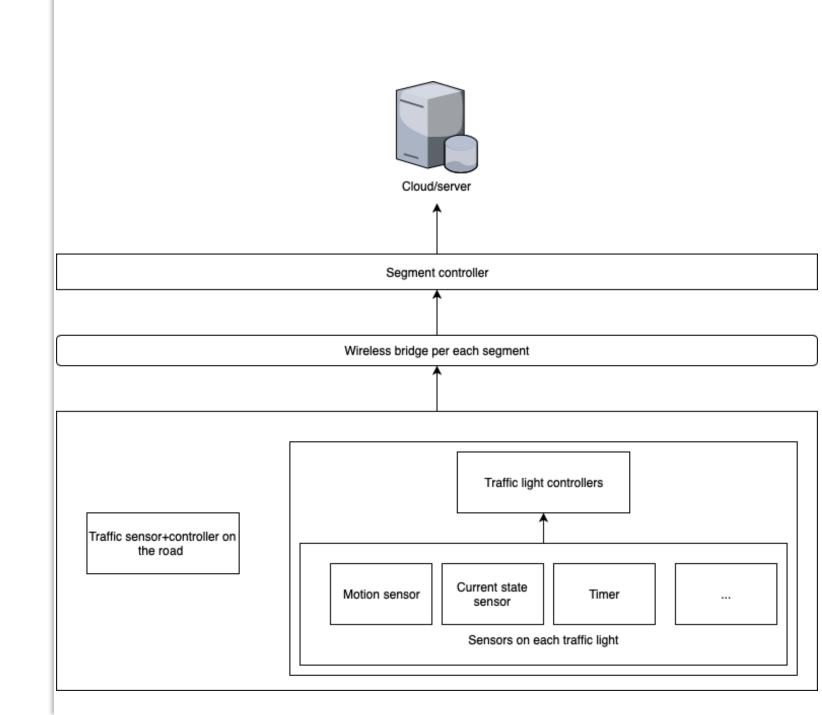
Smart City



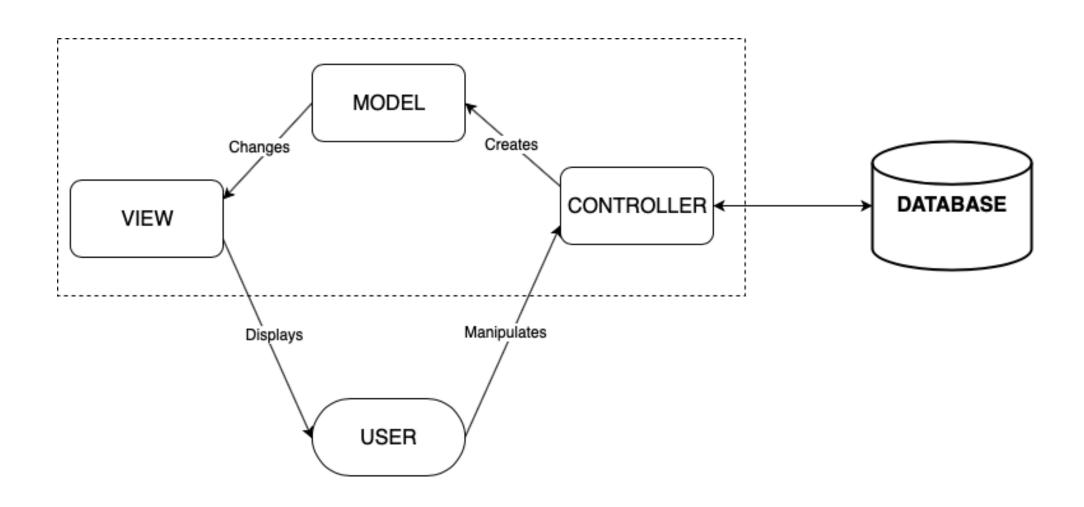
Smart city collects data from citizens, devices, and assets and processes and analyzes it to:

- monitor and manage traffic and transportation systems
- power plants
- water supply networks
- waste management
- crime detection
- information systems, schools, libraries, hospitals, and other community services.

Smart Traffic Management System



1. Logical View



1. Logical View

View classes

Signal

- red: bool - yellow: bool - green: bool

+ setColor(int color): bool + makeFlashing(int color): bool

1. Logical View

Model classes

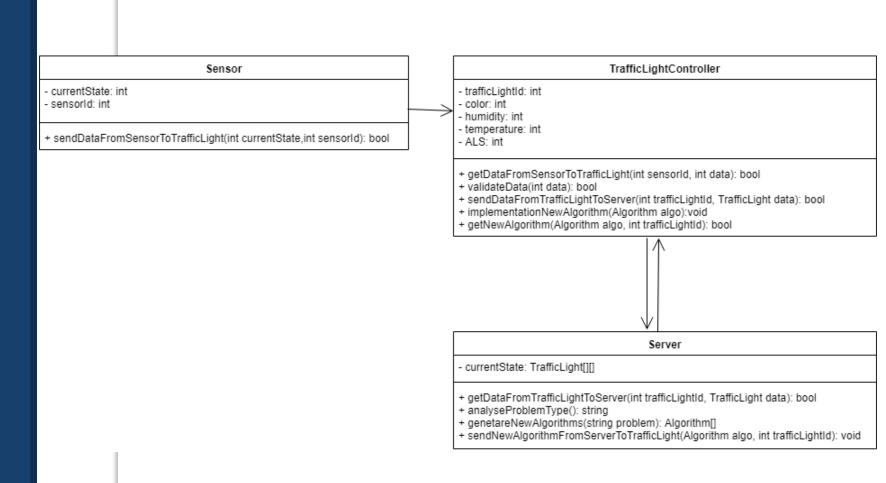
Algorithm

- red_time: int - green_time: int

+ Algorithm(string problem): Algorithm

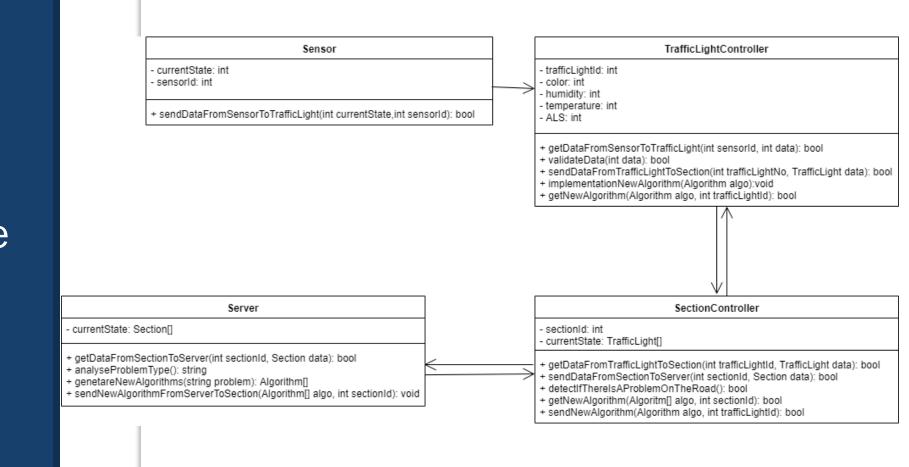
1. Logical View. The 1st architecture

Controller classes

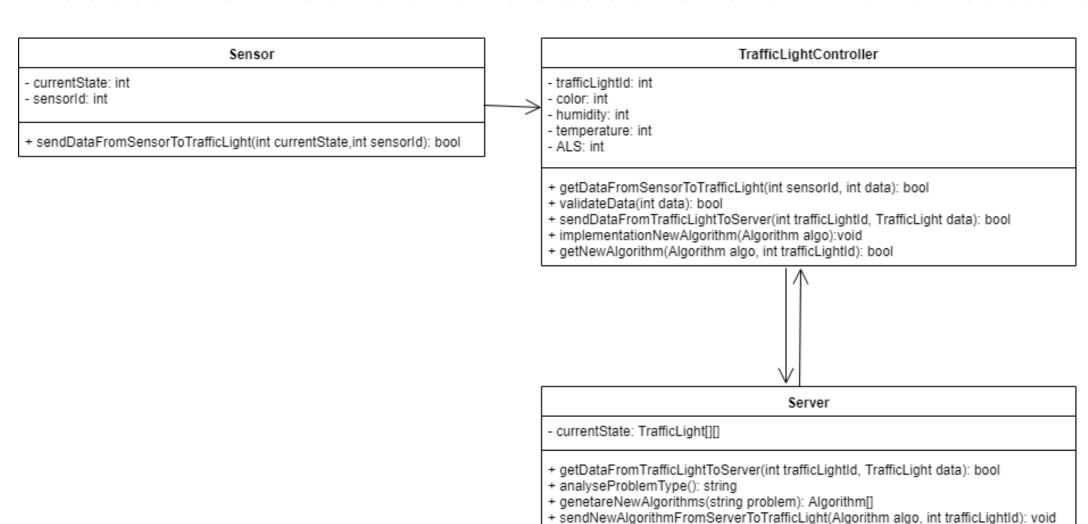


Logical View. The 2nd architecture

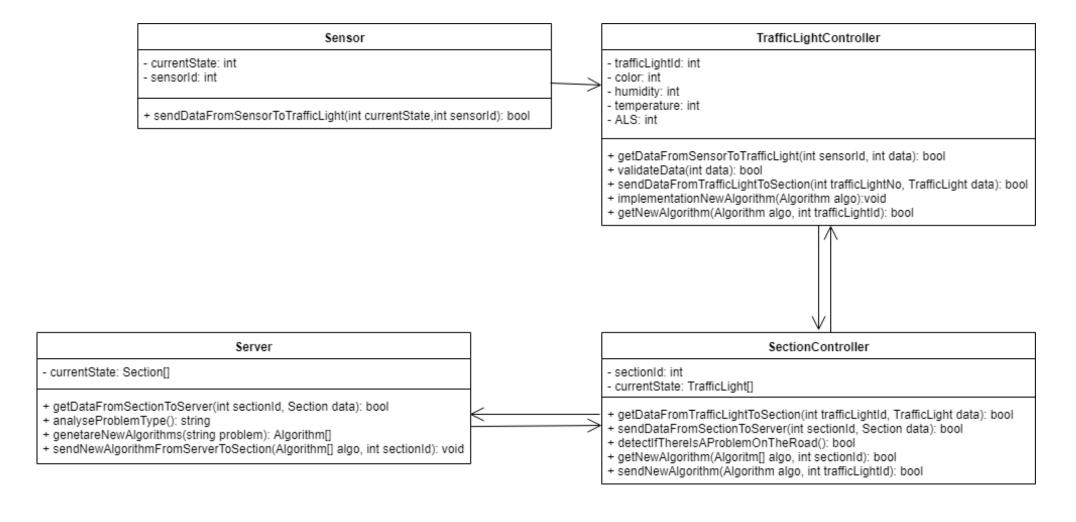
Controller classes

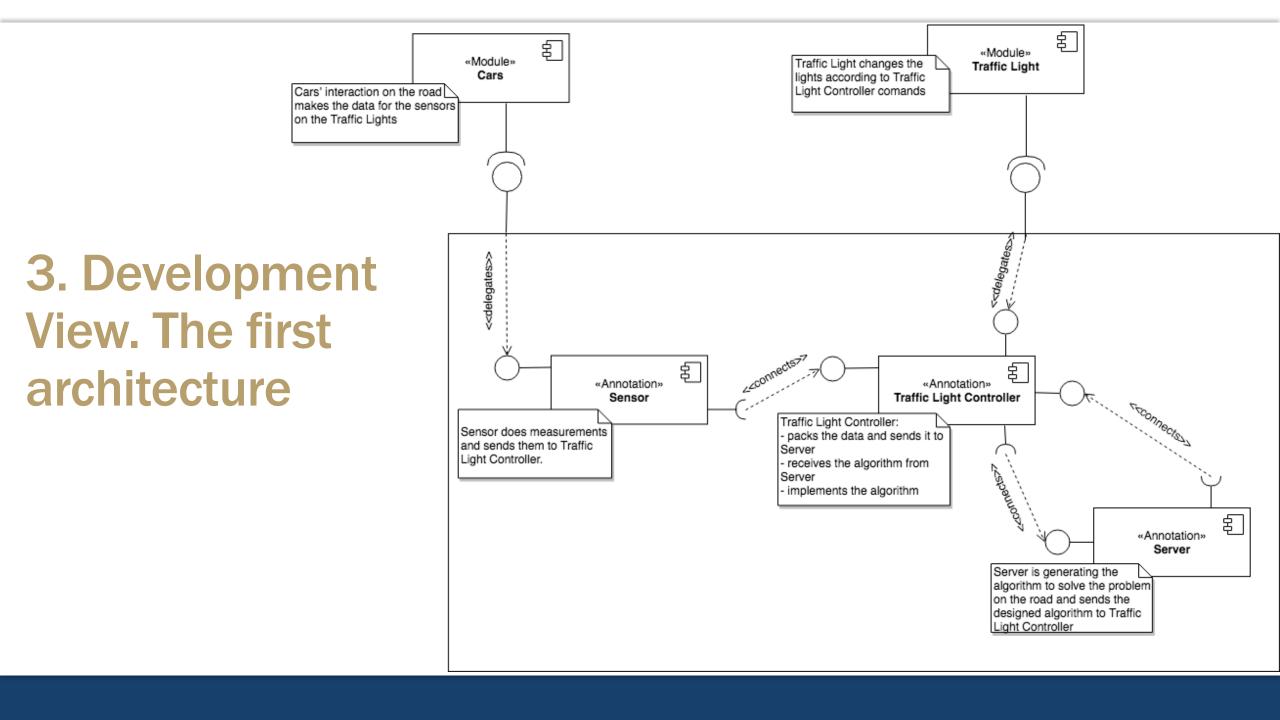


2. Process View. Controller classes for the 1st architecture

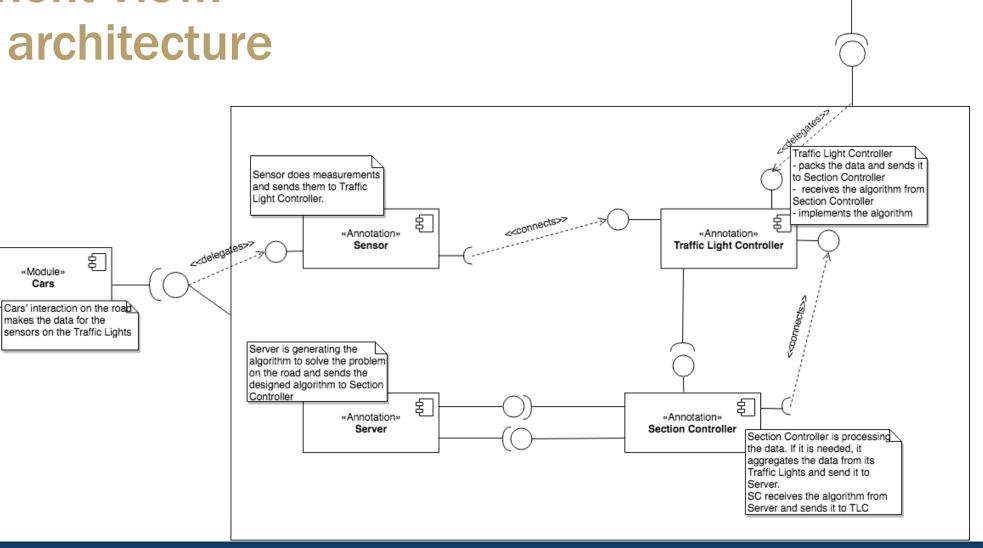


2. Process View. Controller classes for the 2nd architecture





3. Development View. The second architecture

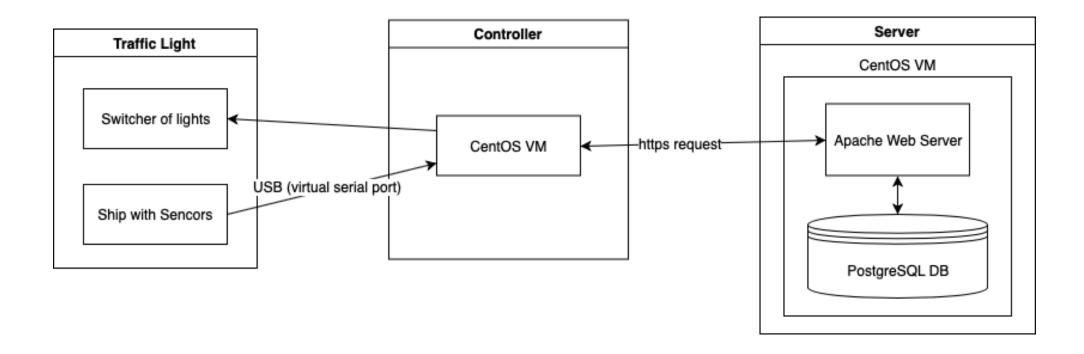


«Module»
Traffic Light

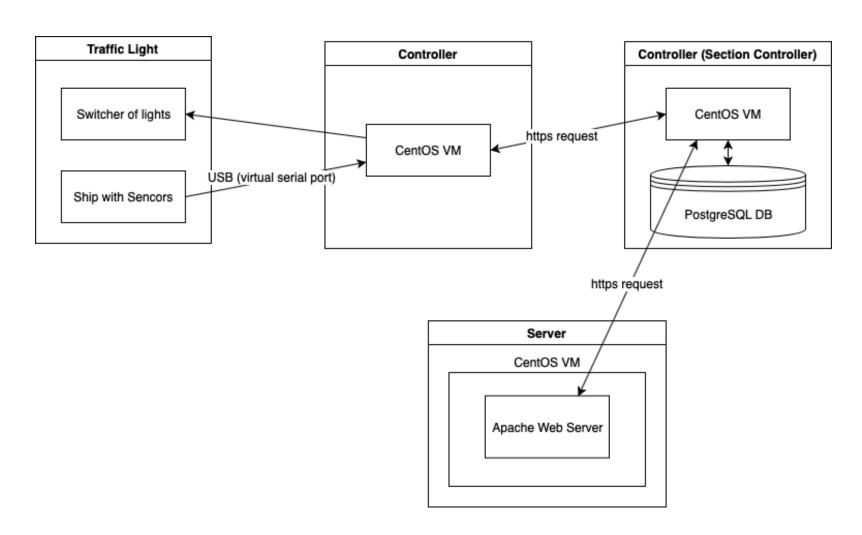
Traffic Light changes the lights according to Traffic

Light Controller comands

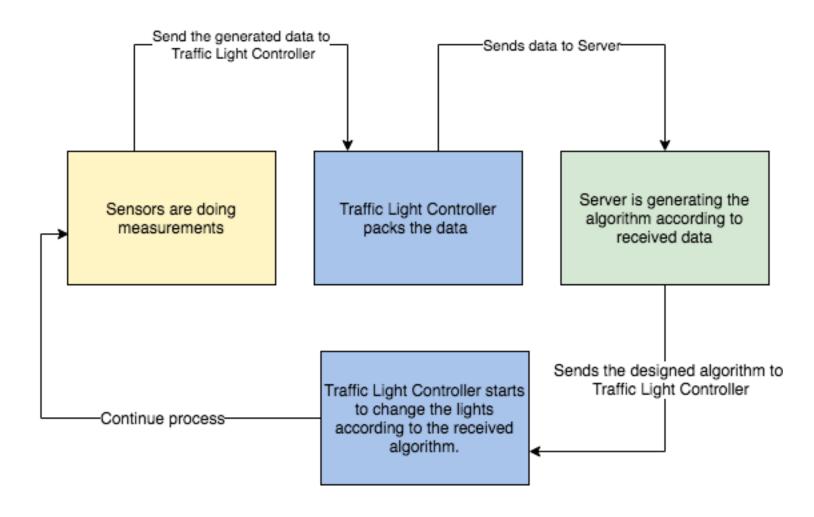
4. Deployment View. The 1st architecture



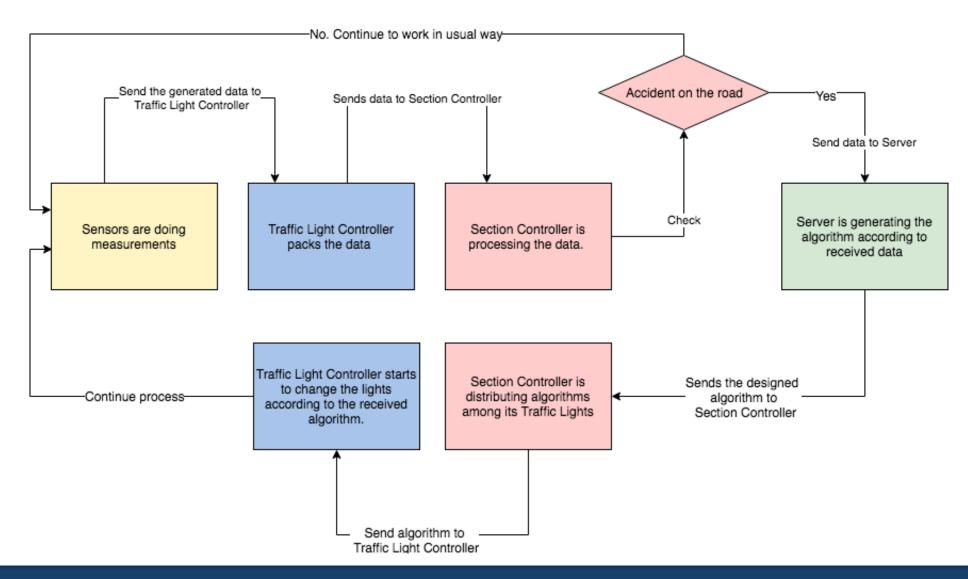
4. Deployment View. The 2nd architecture



5. Scenario for the 1st architecture

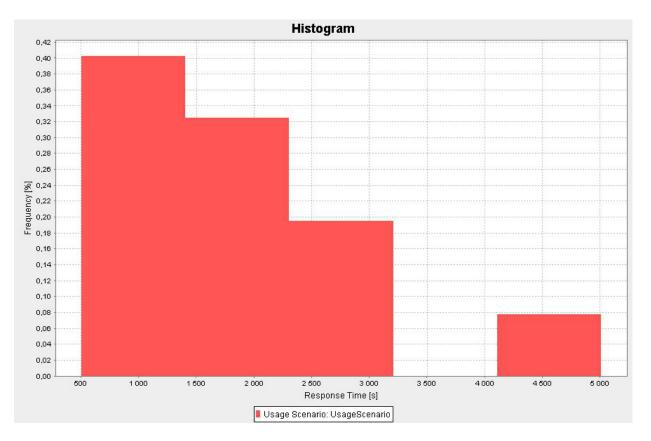


5. Scenario for the 2nd architecture

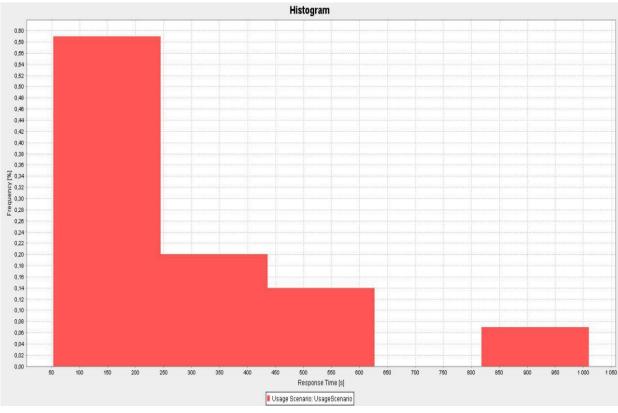


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THE 1ST ARCHITECTURE



THE 2ND ACRHITECTURE



Thank you for your attention