

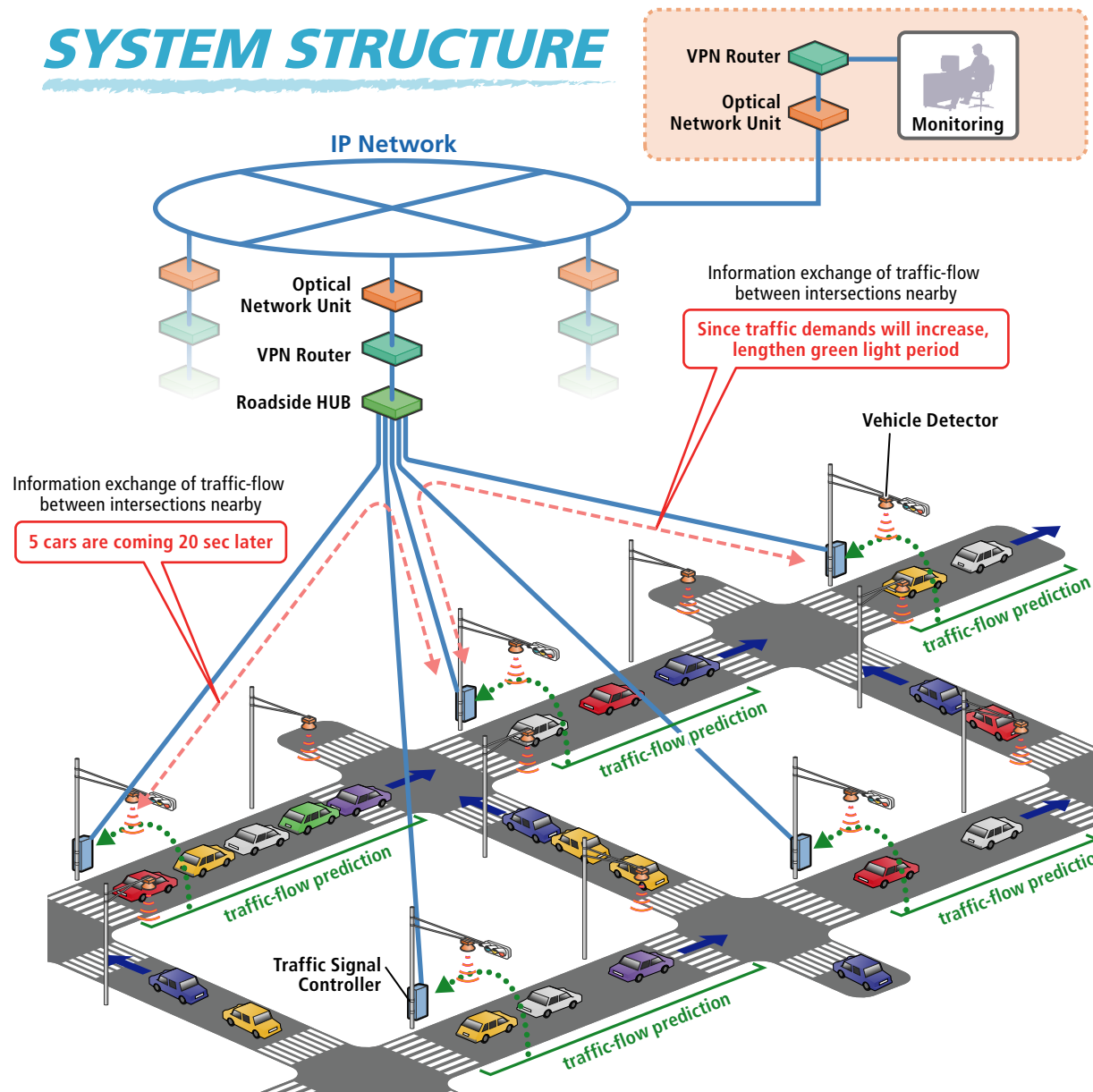
Signal Control System "ARTEMIS"

Autonomous and Real-Time signal control based on Estimation traffic demand for Minimization of Signal waiting time

Traffic Management Systems

"ARTEMIS" is a new signal control system which makes optimized signalling by predicting the traffic flow from upstream intersections. The system contributes to reduce the traffic congestion as well as CO₂ or NO_x as an environmental friendly solution.

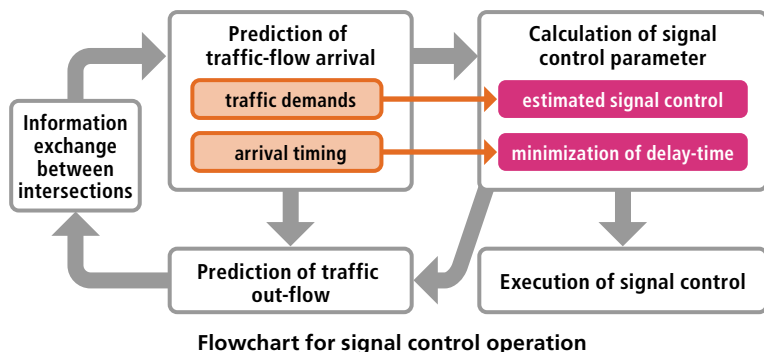
SYSTEM STRUCTURE



Outline of "ARTEMIS" Signal Control System

"ARTEMIS" signal control system consists of the following three functions:

- ① Prediction of arriving traffic-flow by information exchange between intersections.
- ② Calculation of signal control parameter based on estimated traffic demands.
- ③ Optimization by using an evaluation factor as vehicle delay-time.



Effectiveness of "ARTEMIS" Signal Control

Introduction of the system into Iwata-city, Shizuoka pref. in 2010 achieved the reduction on the traffic cues by 35%. The travelling time for 6.2 km on National Route 1 in Iwata control area has been achieved shortening by 6 minutes. (Published at 18th ITS World Congress In Orlando, Florida 2011)