

INTELLIGENT TRANSPORT SYSTEM



IF YOU ARE LOOKING FOR:

- a) Equip a section of the road with traffic management system providing drivers with driving conditions warning, manage speed limits, provide travelers with appropriate travel time and road selection information, automate responses to weather conditions, traffic density, incident, special occasion or maintenance work based disturbances, Starview can provide you with complete solutions from design to the system delivery and commissioning of the system.
- b) Equip new or upgrade an existing highway with a complete system including all of the above but also solving traffic harmonization, incident management, tolling, operations and maintenance, transit and fleet, information and asset management.
- c) Provide advanced management of your tunnel system which includes all traffic surveillance, life support (ventilation, air quality management), fire and hazard management systems including sophisticated automated systems where all subsystems work in unison to prevent or in a best way manage even the most complex emergency, special or scheduled operational situations.
- d) Interface freeway management, traffic harmonization, ramp metering and other arterials system components with urban traffic management systems.
- e) Interface and integrate urban traffic management systems and unify system operations between interurban and urban traffic management systems.
- f) Integrate tolling and ATMS operations and organize clearing of the toll payments on the centralized level allowing various operators to use unified methods of payment and provide travelers with single service transparent to the fact that service is provided by various operators and organizations.
- g) Organize many assets with their own operations centers into single regional, organizational or national level center with unification of the information supporting all various services and detailed general information management system.

Starview is here to help you !

SOLUTION PROPOSAL

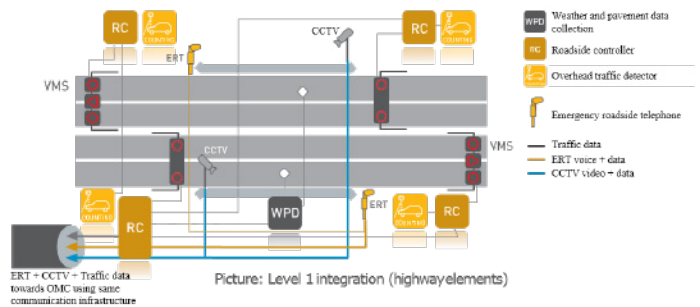
COMPLETE ITS PLATFORM: THE TOTAL SOLUTION PROVISION

- LEVEL 1: Field integration of subsystem elements
- LEVEL 2: Integration of different intelligent traffic management subsystems (e.g. highway & tunnel)
- LEVEL 3: Integration of systems from diverse ITS branches (e.g. interurban, urban, tolling)
- LEVEL 4: Design and implementation of regional/national ITS systems by implementing 2 core concepts:
 - Single System Response Concept: all systems behave and respond like there is only one system
 - Single Workplace (Operator) Concept: all systems are monitored and managed from a single workplace

LEVEL 1: FIELD INTEGRATION OF SUBSYSTEM ELEMENTS: FIELD INTEGRATION OF HIGHWAY AND TUNNEL ELEMENT

Field integration of highway elements

- Displays & variable message signs
- Roadside controllers (and their cabinets)
- CCTV & AID
- Traffic counting & classification (loop, piezo and non intrusive)
- Weather and pavement data collection stations
- Emergency roadside telephones
- Infrastructure & network (transmission equipment)

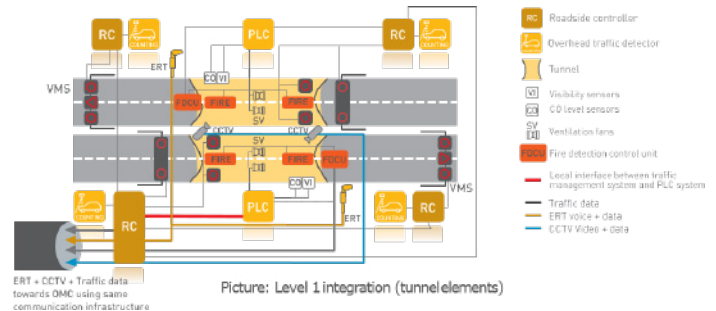


Picture: Level 1 integration (highwayelements)

Field integration of tunnel elements

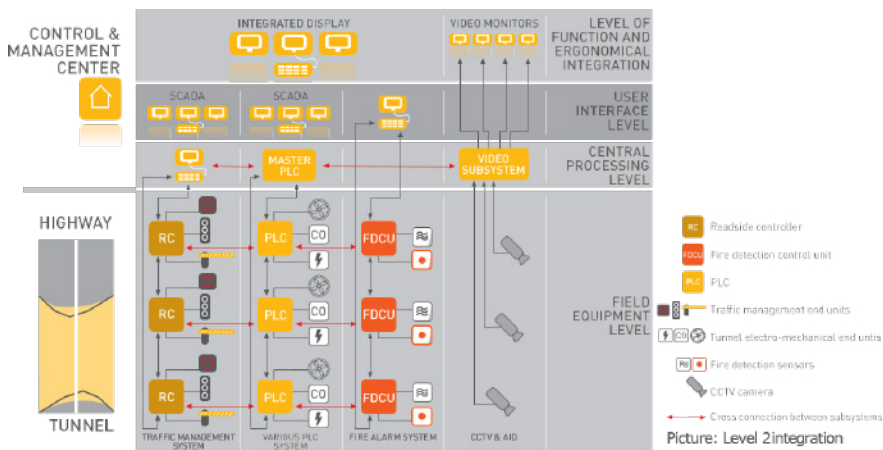
Roadside like systems:

- Displays & variable message signs
- Roadside controllers (and their cabinets)
- CCTV & AID (see page 74 - 77 for details)
- Traffic counting & classification (loop, piezo and non intrusive)
- Weather and pavement data collection stations
- Emergency roadside telephones
- Infrastructure & network (transmission equipment)



Picture: Level 1 integration (tunnelements)

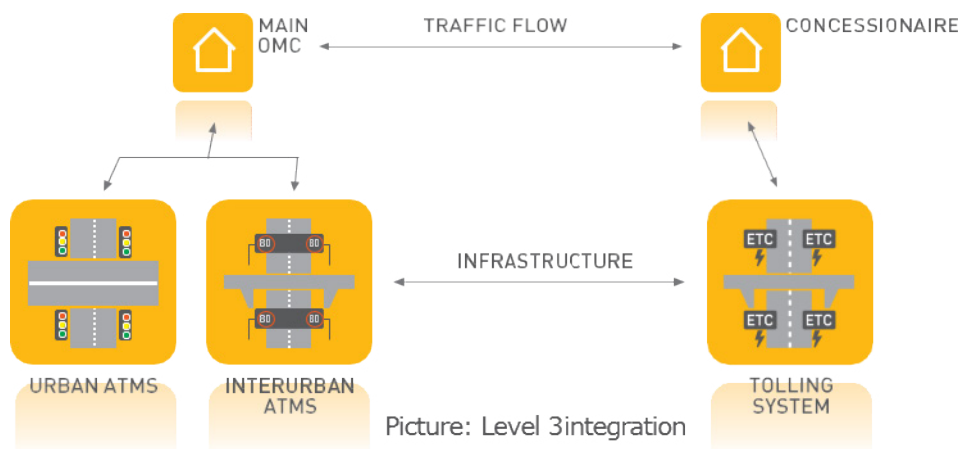
LEVEL 2: INTEGRATION OF DIFFERENT INTELLIGENT TRAFFIC MANAGEMENT SUBSYSTEMS: INTEGRATION OF HIGHWAY AND TUNNEL SUBSYSTEMS.



On a typical highway stretch, there are often open road segments as well as numerous objects like tunnels and bridges. In a typical solution, systems that manage traffic and systems deployed in the tunnels and on the bridges are separated from the traffic management system that manages open road stretches, and exchange only very limited information like road and tunnel closures, maintenance works etc. Starview offers the opposite approach - both tunnel and open road stretches are managed from a single point, which offers numerous benefits to operators:

- Avoidance of unmanageable separation of traffic into small segments, thus enabling synchronicity between road segments and traffic harmonisation/efficient congestion prevention
- Preventing different operators from making decisions and actions (contradicting one to another and leading to dangerous situation, especially in incident situations)
- Cost effectiveness of integrated system solutions

LEVEL3 INTEGRATION OF SYSTEMS FROM DIVERSE ITS BRANCHES: INTEGRATION OF ADVANCES TRAFFIC MANAGEMENT AND TOLLING INTO UNIFIED SYSTEM



Tolling and advanced traffic management were traditionally separate systems. Starview's integrated approach through software is here again exploiting the synergy from connecting those systems into one integrated system. Full utilization of tolling equipment as an input for advanced traffic management and in the same manner reusing traffic management data for optimization of tolling activities cuts down costs, intelligently predicts queue forming, exploits the same communication infrastructure better and gives highway operator efficient tool for supervising all subsystems deployed again from one spot.

LEVEL 4: DESIGN AND IMPLEMENTATION OF REGIONAL/NATIONAL ITS SYSTEMS: A SETUP OF TOTALLY INTEGRATED ITS

Complete integration of all segments of ITS leads to creation of ITS serving to international /national /regional structures and providing, among others, full utilization of all installed subsystems, national traffic flow data collection /processing and wide-base traffic harmonization.

