



### Kapsch TrafficCom

## **EcoTrafIX™ Suite.**

EcoTrafIX™ boosts the efficiency of city operators in their day-to-day activities, providing a fully map-based situational awareness of the entire intersections & arterials network, accelerating collaboration between multiple stakeholders, optimizing safety & response plans thanks to automatic detection of incidents, forecast of future traffic conditions and decision support tools.

*Making mobility more efficient, safe & sustainable.*

### **EcoTrafIX™. At a glance.**

- > Pioneer in using the most advanced communication technology and available information for easy deployment and support.
- > Monitor and control a wide range of field devices. Extensive list of compatible, tested devices using NTCIP, UNE, UTMC & proprietary protocols.
- > Advanced incident management tools boosting coordination, decision and response time.
- > Situational awareness and a common operational view supporting collaborative decisions.
- > Data Analysis and Data Mart allowing trend analysis, data processing and dissemination.
- > Decision support system to automatically assist response actions.

EcoTrafIX™ is a web based integrated mobility solution supporting the coordination of managed strategies to optimize mobility by improving travel times, ecosystem reliability, safety and efficiently reducing GHG emissions and fuel consumption.

The EcoTrafIX™ Suite can be tailored to meet agencies needs. There are three basic products which can be configured for City and for Highway applications:

- > **EcoTrafIX™ Command** – entry level traffic signal control system and for ITS device control.
- > **EcoTrafIX™ Expert** – including adaptive traffic control, decision support system, weather alerts, event management and traffic prediction.
- > **EcoTrafIX™ Mobility** – multi-agency collaboration multimodal event management and coordination, travel information and data fusion.

Select the product and add the modules as you need.

### Easy deployment and maintenance.

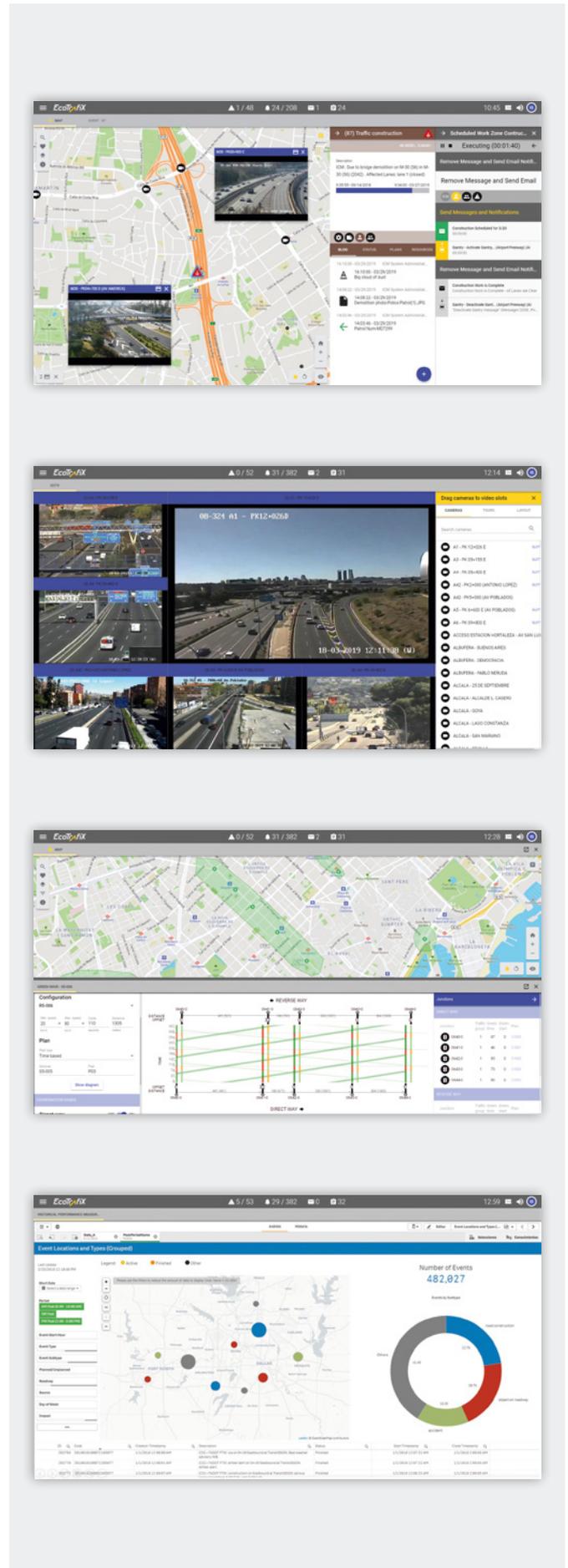
Easy integration is a key aspect of the EcoTrafIX™ solution. EcoTrafIX™ is built using a web services oriented architecture (SOA), including an enterprise service bus (ESB), combined with modern database design and data interface techniques such as Extract Transform-Load (ETL). The information and communication technology (ICT) infrastructure upon which EcoTrafIX™ is built allows cost effective and easy application maintenance. EcoTrafIX™ can be deployed on customer premises or as hosted application (cloud).

### Flexible and modular.

EcoTrafIX™ is agnostic to hardware or devices such as traffic controllers, meaning there are no dependencies on a particular brand or model; a wide range of devices can be integrated for monitoring command and control using NTCIP, UNE, UTM and proprietary protocols. EcoTrafIX™ device integration capabilities allow highly flexible and modular evolution of installed systems to support legacy infrastructure, while adding newer features, devices and subsystems.

### Operational efficiency.

EcoTrafIX™ software is the result of 45 years of experience in providing engineering services, consulting, field and operation services to the city. We have combined our trusted expertise with the best of new technology to maximize the functionality and usability of the software suite to support mobility management and operational efficiency.



### **Advanced event management tools.**

EcoTrafIX™ includes advanced features for event management and response. The solution combines data fusion and analytics with alarm management and incident detection. Proactive mobility management is now possible, allowing faster event detection, response, clearance and recovery. Weather responsive transportation management strategies are enabled by built-in interfaces for real-time and predictive weather data. EcoTrafIX™ leverages the geo-spatial map-centric operations to locate and associate incident response resources, such as CCTV, DMS and service patrol trucks improving incident response and clearance activities.

### **Situational awareness.**

EcoTrafIX™ is designed to capture, aggregate, and archive all data, status and alarms presenting a common operational view which each operator and stakeholder can tailor to its need and area of responsibility. Traffic conditions are monitored continually, feeding dynamic map displays and visualizations. Monitoring of field devices and equipment provide live status and real-time data.

### **Decision support system.**

EcoTrafIX™ includes a Decision Support System (DSS) to help make quick decisions about alternative responses and find the best fit for the situation. DSS functions include selection rules based on your agency's standard operating policies & procedures (SOPs). The DSS and response plan selection is user-configurable to allow for full automation of some or all functions or require manual confirmation of all system responses.

### **Reporting and dashboards.**

EcoTrafIX™ uses real-time and historical content for dashboard displays and generation of performance measurement reports. A predetermined set of dashboards and canned reports are available as well as the tools and templates required for user customizable reports. Creating your own reports has never been so easy, and publishing them in PDF, XLS or web formats opens wide options for dissemination within the agency or even to external users.

- > **EcoTrafIX™ is designed** to monitor, command and control all your ITS and traffic control devices & systems.
- > **EcoTrafIX™ enables** the optimization of traffic flow for higher efficiency, safety sustainability. The flexibility of the EcoTrafIX™ solution will support your operations today and adapt to future technology changes.

## **Technical features.**

### **Standards compliance.**

- > NTCIP, UNE and UTMC base protocols & standards including device & object protocols
- > C2C data exchange standards (1-way or 2-way; TMDD conformant), XML/SOAP; REST

### **Device compatibility.**

- Extensive list of compatible devices using NTCIP, UNE, UTMC & proprietary protocols including:
- > Traffic signal controllers – NEMA, Type 170, 2070 and ATC versions
  - > Dynamic message signs
  - > Changeable speed limit signs
  - > CCTV cameras and video management subsystems
  - > Traffic sensor systems (in-pavement, non-intrusive, video)
  - > Parking sensors
  - > Environmental sensor systems(RWIS)
  - > Ramp metering controllers
  - > Air quality stations
  - > Machine vision incident detection

### **Center to Field Communications.**

All communications media supported, configurable to meet device requirements:

- > Configurable polling rates
- > Direct wire-line
- > POTS dial-up
- > Wireless: cellular dial-up, IP via GPRS/UMTS, CDMA
- > IP TSP or UDP protocols
- > RS232/RS422 asynchronous

### **Software architecture.**

- > Web Services Oriented Architecture (SOA)
- > HTML5 based GUI
- > Enterprise Service Bus (ESB)
- > Java programming
- > Extract-Transform-Load data interfaces

### **Computer/Operating System architecture.**

- > Windows and/or Linux servers (physical or virtual)
- > Virtual Environments (VMware, Docker and Cloud)
- > ICT system health monitoring & notification (ZABBIX)
- > BI Reporting/Dashboards

## **Kapsch TrafficCom**

**Kapsch TrafficCom** is a provider of intelligent transportation systems in the fields of tolling, traffic management, smart urban mobility, traffic safety and security, and connected vehicles. As a one-stop solutions provider, Kapsch TrafficCom offers end-to-end solutions covering the entire value creation chain of its customers, from components and design to the implementation and operation of systems. The mobility solutions supplied by Kapsch TrafficCom help make road traffic safer and more reliable, efficient, and comfortable in urban areas and on highways alike while helping to reduce pollution.

Kapsch TrafficCom is an internationally renowned provider of intelligent transportation systems thanks to the many projects it has brought to successful fruition in more than 50 countries around the globe. As part of the Kapsch Group, Kapsch TrafficCom has subsidiaries and branches in more than 30 countries. It has been listed in the Prime Market of the Vienna Stock Exchange since 2007 (ticker symbol: KTCG). Kapsch TrafficCom currently has more than 5,200 employees, and generated revenue of approximately EUR 693.3 million in fiscal year 2017/18.

**>>> [www.kapsch.net](http://www.kapsch.net)**