kapsch >>>
challenging limits

Kapsch TrafficCom

Satellite Tolling.

Tolling is gaining importance as a means of financing road network infrastructure globally while drivers demand free flow of traffic throughout their journey. Kapsch's Satellite Tolling solution achieves both aims along with reduced roadside infrastructure, very low visual impact, low maintenance costs and high flexibility.

Tolling systems by Kapsch offer a viable solution.

Satellite Tolling.

Mounting mobility, ever rising transportation as well as increasing urbanization demand a state-of-the-art road infrastructure. Yet in times of tight state budgets road user charging is gaining importance as a means for financing construction and maintenance of efficient traffic routes.

Establishing a toll road network does not need to add extra to the costs. Satellite Tolling by Kapsch comes along with reduced roadside infrastructure, a very low visual impact, low maintenance costs and it allows free flow tolling – thereby reducing congestion. Even more this solution provides road operators with the highest possible degree in flexibility.

Once the tolling solutions are in place, operators can safely rely on the ability to extend it flexibly. Scalability and modularity of the system enjoy absolute priority. Based on longstanding experience Kapsch knows that road networks and the number of users vary over time. As the number of users changes the system scales accordingly. If the road network needs to be modified temporarily (e.g. due to construction works) or permanently the solutions can be adapted easily in accordance with altering requirements.
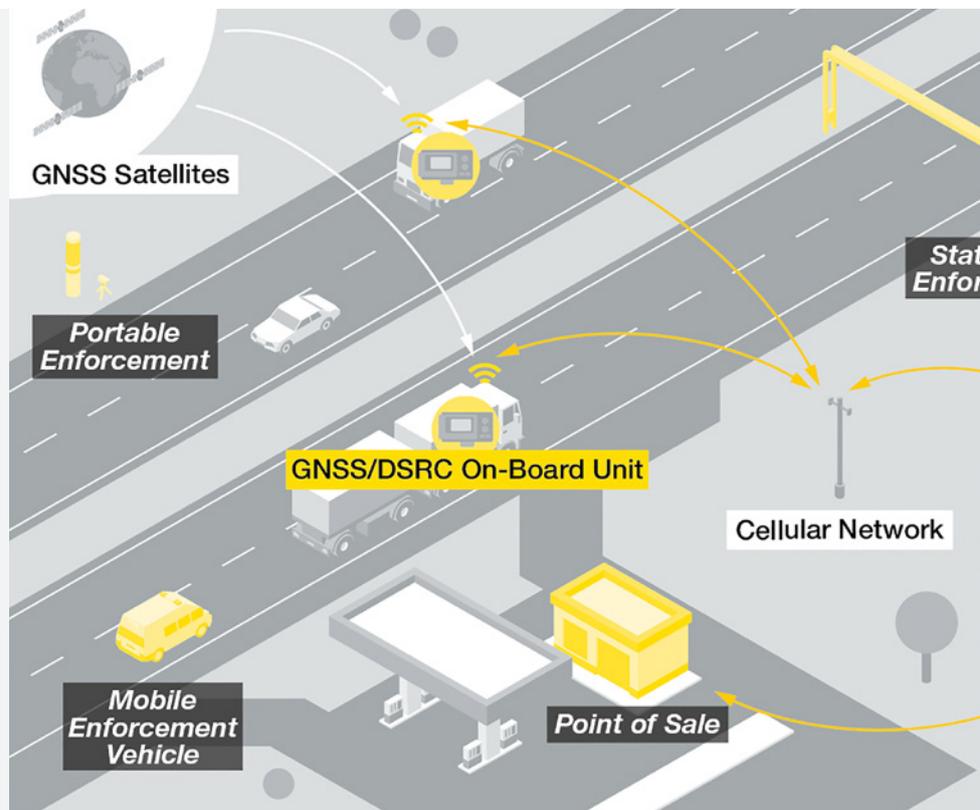
While using the toll road network, the on-board unit (OBU) autonomously determines the GNSS (global navigation satellite system) position of the vehicle and initiates a full automated tolling process when passed toll sections are identified. Depending on the chosen charging concept the identification can be done directly by the OBU or after transmitting the data via mobile communication technologies (GSM/GPRS), in the corresponding back office part of the solution. The charging process can be based on distance driven, vehicle class, vehicle weight, class of road, time of day, traffic situation, number of passengers or any combination of these factors.

At Kapsch we focus on technology safe solutions based on the needs of the actual business case. We are at the forefront using and implementing new technologies and methods. In that way we ensure to meet the requirements and needs of our clients.

GNSS on-board unit (OBU).

> The OBU combines GNSS, GSM and CEN/ETSI DSRC into one compact unit
> The OBU collects localization data and report it to the central ETC and ITS services Proxy
> The CEN/ETSI DSRC is used for enforcement
> Reliability, security and data privacy are guaranteed
> Kapsch offers the complete lifecycle management from production to disposal
> Manufactured in Austria

GNSS Satellites

Portable Enforcement

GNSS/DSRC On-Board Unit

Stat Enfor

Cellular Network

Mobile Enforcement Vehicle

Point of Sale

Enforcement.

> Highly frequented road sections are controlled by Kapsch enforcement roadside station
> With Mobile Enforcement vehicles can be checked on selected spots
> The portable enforcement solution completes the enforcement portfolio and allows to utilize the moment of surprise
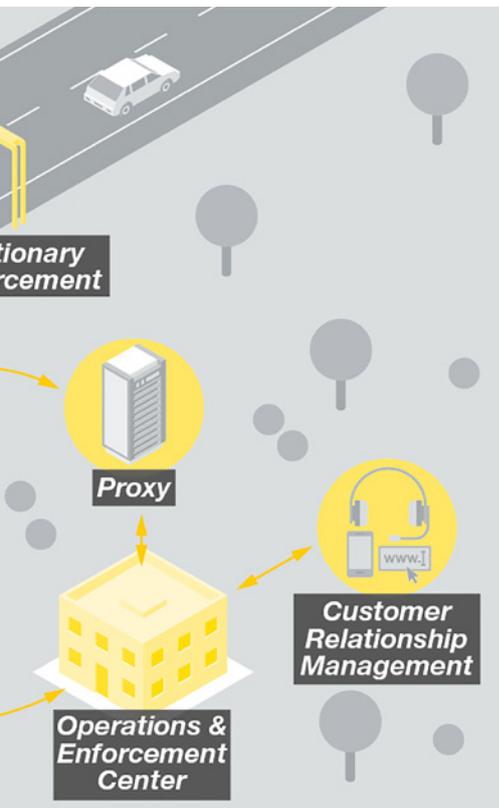
Back office.

> The Operational Back Office verifies toll and enforcement transactions. The rating module unifies and charges the toll transaction according to the toll chargers rules
> The Enforcement Back Office manages all toll enforcement incidents. Data is stored and reported according to the respective legislation
> The Commercial Back Office covers all customer relationship management functionalities. It includes online and mobile channels, call centers and does all payment handling (PCI-DSS)

ETC and ITS services Proxy.

> Creates rated charge reports
> Enables ITS serives and Value Added services
> Connects to Device-, Application- and Toll Context Management
> Persists all processed data (often a legal requirement by our customers)
> Offers Microservice based architecture for high configurability
> Scales according to user needs maximizing performance while reducing OPEX at the same time

Reference Facts.

> 250.000 OBUs operational in the field
> Kapsch is the first provider of a certified interoperable Satellite Tolling solution used by a Toll Service Provider

Highlights.

> End-to-end solution design together with customers
> Nationwide truck tolling systems usually accomplish ROI within the first year of operation
> Mature and proven solution with top-of-the market performance
> Satellite Tolling advanced analytics and statistics data that is highly appreciated by a wide range of industry
> ITS applications as additional assets
> High scalability to handle increasing numbers of users or road network extensions
> Technical and/or commercial operations of the system by Kapsch – the only turnkey provider who operates nationwide tolling systems as well
> Back office with monitoring & auditing solutions to forster performance tweaking
> Training of local staff in the operations centers if needed
> Easy integration of users from other countries for maximizing user convenience
> Kapsch's Experience as a global provider of various intelligent mobility solutions offering the broadest portfolio to design, build and operate tailor-made solutions

Kapsch TrafficCom

Kapsch TrafficCom is a provider of intelligent transportation systems (ITS) in the segments of toll collection, city access control and parking space management, traffic management, traffic monitoring, utility vehicle monitoring, electronic vehicle registration and V2X cooperative systems. The end-to-end solutions of Kapsch TrafficCom cover the entire value creation chain of its customers, from components and design to the installation and operation of systems, all from a single source. The core business comprises the development, installation and operation of electronic toll collection and traffic management systems. Reference projects in more than 50 countries on all continents have made Kapsch TrafficCom a globally recognized ITS provider. As part of the Kapsch Group, an Austrian family-owned technology group founded in 1892, Kapsch TrafficCom is headquartered in Vienna, Austria, and has subsidiaries and branches in 33 countries. It has also been listed since 2007 on the Vienna Stock Exchange (KTCG) and earned revenues of EUR 526 million in the 2015/16 fiscal year. The company employs over 4,600 employees worldwide.

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