

We make your **traffic flow.**



always one step ahead

“Our ambition today, tomorrow and always: to enable drivers around the world to reach their destination safely and efficiently, while protecting valuable resources.”



Erwin Toplak Georg Kapsch André Laux

Mobility and networks are making our world smaller, faster, and more transparent than ever – with both positive and negative effects on society. Products and services from Kapsch TrafficCom help customers to master the many challenges associated with today's communications and traffic. As an innovative and experienced partner our goal is to attain global quality and innovation leadership in the fast-paced market for Intelligent Transportation Systems (ITS). Founded on a synthesis of technological excellence, commercial expertise as well as corporate responsibility, we secure a competitive edge for our customers and partners.

As a globally active corporate group, Kapsch TrafficCom develops, integrates, implements, operates and maintains pioneering telematics and traffic management solutions that have become indispensable for maintaining safe, modern, and high-performance road networks. We are making our contribution to enable road users around the world reach their destinations quickly and efficiently, while protecting resources.

In accordance with our corporate philosophy, we pursue our business goals in a consistently innovative, responsible, and customer-oriented manner. We have adhered to these principles since the company was established, and we will continue to follow them with dedication and professionalism, to the benefit of our customers. Today and in the future. Always one step ahead.

Georg Kapsch, Chief Executive Officer
Erwin Toplak, Chief Operating Officer
André Laux, Executive Board Member

Kapsch TrafficCom.

Always one step ahead.



Always looking to the future.

At Kapsch we pursue excellence in technology and commercial viability and remain dedicated to providing the best possible value for our customers. We are a global player with a strong customer focus, fully committed to fulfilling our obligations to society and the environment. As an international provider of ITS solutions with a broad portfolio of products and services, our core competencies include the design, development, implementation and operation of toll collection systems, urban traffic solutions, telematic applications and intelligent traffic management solutions. To optimize the traffic flow, today and tomorrow.

Always innovative.

We aim to become the global leader in the fast-growing ITS market. Our goal is to create intelligent products and solutions that support our customers' end-to-end value chain. To this end, we focus on innovative telematics applications that deliver commercial benefits and enduring advantages for our customers. We continuously evaluate key current and future technologies as an integral and indispensable part of our business strategy. We operate a global network of six R&E facilities that pursue research, development and design activities and act as innovation centers for the entire Kapsch TrafficCom Group.



Always striving for excellence.

Our mission is to help our customers and partners worldwide achieve and sustain a competitive edge. We are committed to create value that generates value and show responsibility in our business dealings. All of our products and services are developed, implemented, maintained and operated with a view to delivering sustained and sustainable benefits. Continuous improvements through ongoing development activities, and our commitment to reduce production, installation, operation and maintenance costs, are a clear indication that we aim for excellence in every aspect of our business.



Always aware of our responsibilities.

With our entrepreneurial mindset and proven willingness to make what is good even better, we are faithful to the principles of our founders, the Kapsch family. We make an important contribution to shaping the future by promoting a mobile, networked and responsible world. Telematics and traffic management solutions from Kapsch TrafficCom play their part to improve traffic safety and reduce traffic congestion, which decreases both the economic impact and harmful emissions. We are dedicated to the responsible stewardship of natural resources, and follow an integrated quality management system.



Always where you need us.

With an extensive network of subsidiaries and branch offices, we are always where our customers and partners need us. Our corporate strategy is based on a synthesis of local customer support, genuine customer-centricity, and a global presence. Over 200 references demonstrate our experience as a world-leading provider of electronic toll collection systems. This fosters trust on the part of our customers. As a one-stop provider of systems and components, Kapsch TrafficCom supports the entire value chain from consulting to the development and implementation of systems and solutions, and managing the operations – as a turnkey system supplier, general contractor, system integrator or product supplier. Wherever you are, we are always close by.

Kapsch TrafficCom. End-to-end solutions from A to Z.

Kapsch TrafficCom offers a comprehensive portfolio of telematics and traffic management systems, products and services with a focus on the following strategic business lines:

- Toll Collection Systems
- Urban Traffic Solutions
- Operations
- ITS and Telematics Solutions
- Products and components for the ITS market

Our systems follow international technical standards and offer outstanding transaction performance, solid data security and system reliability and a high rate of return, while minimising risks. Our products and solutions have an open, modular and flexible design, ensuring long-term protection of investment.





Manage traffic intelligently.
Create added value.

Toll Collection Systems. Working 24/7 around the world.

Kapsch TrafficCom's single-lane and multi-lane free-flow toll collection systems – based on DSRC, GPS/GNSS or GSM/GPRS technology – are successfully deployed around the world.

Improving traffic safety by ensuring the unimpeded flow of traffic or reducing negative environmental impacts through emissions-based charges are among the key goals of our customers. Kapsch TrafficCom develops, integrates, implements, maintains and provides ongoing support for single-lane and multi-lane free-flow toll collection systems. Our versatile products and systems support the road user charging process in many ways: as part of networks; for individual highway sections or areas; in urban environments or as nationwide systems either for HGVs or for all vehicles. Both pre-paid and post-paid charging models are supported.





Multi-lane free-flow ETC Systems.

Kapsch TrafficCom is specialized in multi-lane free-flow electronic toll collection (ETC) systems, and with the experience of implementing about 20 such systems is a world leader in this field. Multi-lane free-flow ETC systems work without impeding the traffic flow, ensuring maximum throughput and optimal utilization of existing road infrastructure. Kapsch TrafficCom multi-lane free-flow systems leverage a variety of technologies in accordance with each toll project's specific requirements, offering a secure, flexible combination of the benefits delivered by microwave technology (DSRC), satellite positioning (GPS/GNSS, GSM/GPRS) and video technology.

Single-lane ETC Systems.

Kapsch TrafficCom DSRC single-lane ETC systems utilize modern, high-performance traffic sensors based on a variety of technology platforms (video, laser, etc.), and integrate easily and cost-effectively into existing toll collection infrastructure. Due to higher vehicle throughput compared to manual toll collection, the systems alleviate toll plaza congestion, reduce emissions, and improve quality of life for road users and local residents.

Enforcement Systems.

Enforcement systems from Kapsch TrafficCom provide an effective, visible deterrent against systematic toll evasion. This safeguards the road operator's income, enables fairness to all road users, and preserves the integrity of the system as a whole. Kapsch TrafficCom offers efficient, effective solutions for stationary, portable and mobile enforcement or a combination of these based on video or laser-scanner technologies.

The Kapsch Video Detection and Classification (VDC) System is a high-performance, video-based system for identifying and measuring vehicles. Data generated by the VDC system can be used for in-depth traffic analysis in real time e.g. for measuring vehicle throughput.

Kapsch Vehicle Registration systems are used for automatic number/license plate recognition (ANPR/ALPR). Employed in

single-lane and multi-lane toll collection applications, they enable vehicles to be unambiguously identified by means of digital image processing and OCR technology.

Central System.

Kapsch TrafficCom's central back-office transaction system has a highly flexible design and is easily customized to accommodate customer-specific toll collection and charging requirements. It supports comprehensive tolling and enforcement processes. These range from the automatic validation of images and the secure handling of payment processes, to fully automatic invoicing and generation of reminders. The system also includes the

timely forwarding of event data to mobile enforcement vehicles or government agencies to enable effective management of toll violation.

The CRM module forwards data to a variety of sales, information and advisory services (such as call centers and customer contact points) for analysis, notification or evaluation. A user-friendly web portal provides information on all aspects of the toll

network (e.g. the toll costs of a proposed road trip via a toll calculation application) and offers road users a wide range of interactive services such as online user account management.

Manual and automatic Toll Collection Systems.

Kapsch TrafficCom offers systems for conventional toll management and for manual and automatic toll collection. Electronic single-lane toll collection

capabilities can be added later. The solution consists of an integrated tool set for the efficient, cost-effective collection of tolls. The multi-tier system supports

operations at host level, plaza level and lane level.



Urban Traffic Solutions.

Managing traffic in the city.

Road user charging and access control are today regarded worldwide as highly effective tools for urban traffic management, contributing to lower congestion and improving quality of life by reducing harmful emissions and noise pollution. The result is improved mobility and better conditions for local residents, private and business road users, and for the operators of public transport systems. Moreover, these systems help prevent excessive traffic in historical city centers. Urban traffic solutions from Kapsch TrafficCom can be employed flexibly, for example for selected geographical areas or defined zones, or for entire cities. Moreover, they can be seamlessly and inconspicuously integrated into the existing cityscape.

Kapsch offers electronic fee collection and enforcement systems, primarily based on automatic video recognition of license plates in conjunction with DSRC microwave communication. This solution is geared to the demands of urban environments, accommodating traffic jams, stop and go traffic and undisciplined driving behavior (such as weaving and overtaking). Moreover, it provides versatile support for zone- or time-based pricing models.

Dynamic zones, based on a fully automatic Kapsch TrafficCom system, enable urban traffic to be managed in accordance with changing traffic patterns and/or PM concentrations. This state-of-the-art system makes each individual road user aware of the impact of his behavior on the environment, enables highly responsive management of traffic, and encourages road users to adopt more eco-friendly driving habits.

Dynamic parking solutions from Kapsch TrafficCom enable local governments to introduce fully automatic time-based solutions for road parking. Charges are dependent upon the period a vehicle spends within a defined zone. This makes the entire process of calculating charges and monitoring payment simpler, more transparent and more reliable for both local government agencies and road users.



ITS and Telematic Solutions.

We help increase road safety and protect the environment.

Kapsch TrafficCom ITS and Telematic Solutions improve road safety and support an efficient use of existing infrastructure. Our solution portfolio includes incident detection systems, video-based traffic sensors and a multifunctional telematics platform.

Incident Detection Systems from Kapsch TrafficCom reliably identify key events or exceptional situations, such as congestion, accidents, or dangerous driving within a matter of seconds. As a result, they promote the reliable, safe flow of traffic, especially in critical areas, such as tunnels.

The Kapsch Telematic Platform comprises a modular software system that can be deployed alongside electronic toll collection solutions – providing a multifunctional basis for a variety of telematics applications for urban planning, traffic management, road safety and mobility services.



Operations.

Road User Services, Payment and Enforcement Solutions.

We are committed to supporting our customers' entire value chain, and operate electronic toll collection systems as a professional partner. Our turnkey solutions minimise risk for road operators and investors and create consistent investment security. We are dedicated to maintain quality in processes and results across all project phases and stages of the value chain. To achieve smooth operation of an electronic toll collection system within the startup phase of a project requires different measures and service levels than maintaining and optimising the operation over time. Road User Services creates the best conditions for a simple and effective management of operations considering these various demands. Road User Services include the planning and implementation of point-of-sale systems, the provision of call centers and the design of suitable web portals – to meet the varied information needs of road users in a cost-effective, timely manner.

Payment Solutions provides comprehensive services from invoicing through to reminders and dunning, and supports a variety of payment systems, such as cash, credit card or fleet card. To enable enforcement of the toll collection process, within the scope of an operations project, we also install validation centers and provide specific measures for portable and mobile enforcement.



Products and Components.

We design, develop and manufacture. To the highest standards.

At six Engineering Competence Centers around the globe, Kapsch TrafficCom develops core technologies and components used in road user charging and telematics applications. Products include on-board units (OBUs), roadside infrastructure (such as transceivers), plus video cameras and enforcement technologies.

Our broad portfolio of on-board units includes the TS3203 mini tag for cars, the world's most compact GENTC278-compatible transponder, the TS3209 hybrid DSRC/GPS on-board unit, and the TS3304 WAVE-compliant on-board unit.

State-of-the-art programming stations are available for personalization of on-board units, and mobile readers for the mobile enforcement of on-board units. Kapsch products are designed for ease-of-configuration, using standardized interfaces, compact, maintenance-free operation and user friendliness. For the development of software and hardware, Kapsch TrafficCom deploys an integrated quality management system, in conjunction with defined policies for environmental protection and safety, plus occupational health and safety. All processes are certified to ISO 9001, ISO 14001 and OHSAS 18001. Moreover, information management and service management is certified to ISO 27001 and ISO 20000.



Our references. Because **experience** counts.

Expertize, experience and dependability: customers around the globe rely on our systems, products and services 24/7 – from Austria to the Czech Republic, to Chile, to Australia and South Africa. Our clients include public sector organizations, city governments, private concessionaires and leading system integrators. More than 230 customer references in about 40 countries, over 16 million delivered on-board units and more than 12,000 toll collection lanes – these build our experience portfolio and demonstrate our leadership in electronic toll collection systems worldwide.



Selected projects in detail.

In Europe.

A nationwide electronic multi-lane free-flow (MLFF) system for trucks was launched in Austria on January 1, 2004. Kapsch TrafficCom was responsible for the entire turnkey system: for planning, design, implementation of the roadside infrastructure, the development of application software and the design and production of on-board units, systems integration, implementation and taking into operation of the entire system, coordination of subcontractors and project roll-out.

In the Czech Republic, Kapsch TrafficCom was tasked with the design, development, production, integration, installation, implementation, operation and maintenance of the nationwide road user charging system for trucks that started commercial operation on January 1, 2007. The project was completed in just nine months.

In Italy, Kapsch TrafficCom has deployed urban traffic solutions in Rome, Bologna, Piacenza, Genoa, Livorno, Arezzo, Ravenna, Lecce and Salerno.

In South America.

Kapsch TrafficCom has established three electronic MLFF systems on highways in Chile: Costanera Norte, Autopista Central and Vespucio Norte Express. All three systems include technologies for vehicle detection and classification (VDC) and vehicle detection and registration (VDR).

In South Africa.

Kapsch was responsible for the introduction of Africa's first electronic toll collection system on the Platinum Toll Highway in South Africa in 2002. In 2009, Kapsch TrafficCom won the contract for the implementation and operation of an MLFF system in the Gauteng Region. The Gauteng Open Road Tolling (GORT) is among the world's largest toll system projects.

In North America.

In partnership with the New York State Department of Transportation, Volvo and the Southwest Research Institute, Kapsch TrafficCom developed a technology program that enables a variety of applications within the scope of the IntelliDriveSM program to promote the safety and mobility of the U.S. transportation system. The systems employ 5.9 GHz DSRC roadside and on-board units to improve wireless mobile enforcement.





In the Asia-Pacific region.

In 2010, Kapsch TrafficCom was awarded the contract to equip the Bang Na-Bangpakong Expressway in Bangkok, Thailand – the longest girder bridge in the world.

In 2007, Kapsch TrafficCom implemented an ETC system (manual toll collection with electronic DSRC) on highway No. 8 in New Delhi, India, including the largest toll plaza in Asia with 32 lanes.

In 1999, Kapsch TrafficCom implemented the world's first MLFF ETC system for an urban highway in Melbourne in Australia, including systems for vehicle detection and classification and for vehicle registration. Moreover, Kapsch TrafficCom has introduced other MLFF systems down under: on the Western City Orbital and Eastlink in Melbourne, on the Hills Motorway (M2) in Sydney and the Clem 7 tunnel in Brisbane. About six million on-board units have been delivered to Australia.



Kapsch TrafficCom. Our Success story at a glance.

- 1987** The world's first electronic road usage charging system goes into operation on the west coast of Norway.
- 1994** The first commercial multi-lane free-flow toll collection system is installed on the Tauernautobahn in Austria.
- 1998/2000** An electronic single-lane ETC system is installed on the Öresund and Storebaelt bridges connecting Sweden with Denmark. This is the first fully interoperable system to be implemented between two European countries.
- 1999** The Melbourne City Link is the world's first multi-lane free-flow toll collection system for stop-and-go urban traffic.
- 2002** The first single-lane electronic toll collection system in South Africa is established on the Platinum Toll Highway.
- 2004** Austria introduces the national truck road usage charging system: the first nationwide multi-lane free-flow system on major highways anywhere in the world.
- 2007** The nationwide electronic toll collection system for the Czech Republic goes into operation after just nine months. Kapsch TrafficCom is listed on the Viennese stock exchange.
- 2008/2009** New Zealand tasks Kapsch TrafficCom with the establishment of a multi-lane free-flow toll collection system.
- 2009** The South African National Roads Agency Ltd (SANRAL) awards the contract for the implementation and operation of a multi-lane free-flow system in the Gauteng Region to a consortium led by Kapsch TrafficCom. The Gauteng Open Road Tolling (GORT) project is one of the largest of its kind anywhere in the world.



Kapsch Group.

Kapsch Group is one of Austria's leading technology corporations, specialized in ICT and telecommunications as well as future-oriented telematics and traffic management systems. The Kapsch Group is comprised of three key organizations: Kapsch BusinessCom AG, Kapsch CarrierCom AG and Kapsch TrafficCom AG. As a successful family-owned company with its corporate seat in Vienna, Austria, Kapsch Group stands for the consequent development and implementation of new technologies for the benefit of its customers since 1892. With its solutions, products and services, Kapsch makes a valuable contribution towards the responsible and sustainable organization of a mobile and networked world. Kapsch Group companies employ a total global workforce of over 3,000, with subsidiaries, branch offices and representatives around the globe. Kapsch. Always one step ahead.

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