

**INTERVIEW WITH KAPSCH TRAFFICCOM**



**PETER UMMENHOFER**

**VP, SOLUTION MANAGEMENT DIVISION**



**MARCUS HANDL**

**INVESTOR RELATIONS & STRATEGY OFFICER**

*Interview with Peter Ummenhoffer and Marcus Handl on 8<sup>th</sup> April 2015 conducted by Frederic Bruneteau*

**Dear Sirs, most of our readers know Kapsch but could you please sum up what is Kapsch' value proposition to the electronic tolling market?**

I would sum it up in 4 points. First, we provide solutions that work. While some projects have failed or been delayed, we have considerable experience deploying large scale ETC projects on time, which guarantees our customers to generate their income from the beginning.

Second, our solutions are 100% fit for purpose. We are technology-agnostic. Historically, we come from the microwave 5.8 GHz CEN DSRC world but today we support all the major tolling technologies around the world. Already 7-8 years ago, we started to develop a solution for GNSS, which is in operation, e.g. in France.

We also have a video tolling solution, and the 915 MHz RFID standard and technology we support since the acquisition of Mark IV in North America.

And finally **we have started to invest in future technologies** such as 5.9 GHz DSRC (WAVE and ITS G5). Thus we can choose the

appropriate future-oriented technology that has the best business case. I believe that there is no other company in the world with a broader technology spectrum than we have today.

Third, we are not only a vendor of solution but also an operator of toll systems, for example in the Czech Republic, South Africa, Poland and Belarus. So one could say that we are our own customers. This experience gained in operations provides insight that we incorporate in our solutions.



Finally we are one of the few truly global ETC vendors. As a result, our customers benefit from solutions which reflect ideas and best practices from all over the world.

In addition, we have started expanding our activities towards Intelligent Transport Systems (ITS). We recently acquired Transdyn, an ATMS (Advanced Traffic Management Software) system vendor. We have developed multi-purpose solutions combining ITS and ETC that are in line with the trend we see in some markets e.g. North America. Here they use so called HOT lanes solutions that integrate traffic management and tolling functionalities.

Thus we can broaden step-by-step our portfolio and offer an out-of-the-box packaged solution.

**What is Kapsch' Unique Selling Point?**

Our track record with some impressive references is one. We are also **a true end-to-end provider of solutions.**

We offer our own products, from the OBU to the transceivers / readers, ANPR cameras to the roadside software, the back-office systems and add-on products like the mobile enforcement units. Sometimes we even operate and pre-finance our solutions.

**Kapsch has chosen to position itself both as a system integrator and as a road operator, for example in Poland. Aren't there risks for Kapsch to compete against its toll charger customers?**

It is important to understand that **we are not a road operator** but we operate toll systems on behalf of road operators. We provide to them both technical operations support (i.e. the monitoring, maintenance and the ongoing optimisation of tolling infrastructure) and commercial operations support (the planning implementation and operation of Point of Sales, call centre services, web portals, payment services including the invoice).

We provide these services to road operators who can be either public (road authorities or toll authorities), or private, for example concessionaires.

So we are not competing against them, we serve them.

Thus it is true that we sometimes compete with 4 private companies, namely Abertis / Sanef, Autostrade, Strabag and Vinci. For example, we are one of the largest suppliers to Vinci in France.

They may be competitors but only in those cases when they leave their core business and on a case-by-case basis.

But this is not the case with most road operators.

**Kapsch acquired Mark IV Industries a few years ago. What advantage did it give to Kapsch in North America? How strong is Kapsch there now?**

We acquired Mark IV AVHS in November 2010, which was our entry ticket to the US market. Before we had a small operation but with hardly any commercial success. Thanks to the acquisition, we obtained a customer base, a large local presence and the

qualifications to migrate their business from a pure component provider to a systems solutions provider. Mark IV was concentrated on manufacturing tags and the corresponding roadside equipment (RSE), actually the largest seller of transponders in the US. Our objective from the beginning was to develop them from a component provider to become a systems provider and increasingly an end-to-end solutions provider including the operation.

Meanwhile we have delivered our first end-to-end system in Texas for Cintra, a subsidiary of the Spanish construction company Ferrovial.

We have also been awarded an end-to-end electronic tolling and customer operations contract in Ohio (River Bridge).

It means that we have successfully developed Mark IV to a comparable position in the US to the position we have in the rest of the world.

In addition, we acquired in 2014 **Transdyn**, a specialist in traffic management systems, which allows us to propose a broader portfolio of solutions including ITS in North America and globally.

Today, besides North America, we have a high market share in Europe and even a higher market share in Australia and in South Africa. Africa, outside South Africa and some minor activities in North Africa, is still not really an ETC region yet. In South America, we are strong in Chile.

In the US, 3M, Transcore, Xerox / ACS and Schneider Electric (formerly Telvent) are our main competitors. Transcore and Xerox are certainly stronger than we are there.

**What are the chances of the US moving the Interstate Highway System to the tolled model? What**

**are the best reasons for the US Federal Government to make this happen?**

First of all, there are 2900 miles of tolled roads already in the Interstate Highway System. They have been introduced prior to a Federal Government ban on interstate toll.

On the other hand, we know that the Federal gas tax is the main resource to maintain the interstate highway system and the taxes have not been increased since 1993! We see that the tax income is declining due to modern cars with better combustion engines and electric or hybrid vehicles. So the federal Government is searching for alternative funding means.

Tolling is a feasible option to both finance new infrastructure and maintain and renew existing roads. Only to maintain the infrastructure in place, a multi-billion dollar amounts would be required each year and is missing today. Someone has to pay for the roads eventually! It is only the question of whether all should pay for these or only those who use these roads. When you take an airplane, you don't expect it to be free!

Why tolling? Because it is fairer, as it follows the *user pays* principle. Moreover, tolling brings another benefit: it is a powerful traffic policy tool. For example, in Germany, Austria and the Czech Republic, the implementation of an emissions-dependent tariff scheme led to the extinction of old, highly polluting trucks. So tolling has had a very positive impact on the environment.

**In your view, what lessons should the industry bring from the failure of the Ecotaxe project in France?**

The first thing we can learn and actually the same has happened in South Africa: a growing political instability has disturbed an ETC project. We see that the economic

downturn has put political pressure from the users of the roads on governments. Political opinions can change and that situation, the government has to redesign or even stop the project.

Our constant recommendation to governments in that respect is that **excellent communication around the introduction of toll is key**. In France, only these enforcement gantries with their cameras ("Big Brother" watching you") were visible in the media. But these gantries are only used for those who do not pay! Communication should have focused on the fairness of toll to fund road infrastructure. Road enforcement is a key part of the fairness of the system, as not everybody can decide whether they should pay or not, which is not in the interest of the overall community!

**On the other hand, the UK has implemented a very light HGV toll system, a vignette within a few months. Doesn't this play against device/mileage-based schemes?**

**The introduction of the UK road levy went smoothly because it was made free to UK hauliers!** The vehicle tax was diminished in the same proportion as the new revenues generated from the vignette.

Only foreign lorries actually pay. The same discussion exists in Germany for the PkW Maut (the German vignette for passenger cars). It will be interesting to see how these systems that make only foreign vehicles pay will be perceived in front of a European court...

Of course the disadvantages of vignette schemes are obvious: they bring very limited new revenue. In some cases, they tax only foreign vehicles.

As time-based systems, they are unfair to low mileage drivers: you

pay once and then you can drive as much as you want.

And finally they cannot really be used for the traffic policy, contrarily to variable pricing models.

**What are the chances now that EETS will be effectively implemented? Will the REETS project move things forward?**

The chances for EETS to happen are higher than ever.

Based on our own calculations, we can say that today **the business case for EETS providers is weak**, particularly if it is requested from them to offer access to the 28 EU countries from the start. That said, the European Commission is now willing to allow regional schemes - REETS - and we see a clear movement in the market. Toll chargers are now seriously considering a remuneration model for the service providers.

On the other side, some service providers are becoming active. Numerous fleet / fuel card providers are starting to offer a European tolling service. So REETS will happen from our perspective.

That said, it is true that **the business case for EETS providers is not favourable**. They often must cross-subsidise ETC with other services (Stolen vehicle tracking, fleet management, eCall, etc.). However, we also see a number of hauliers being ready to pay a supplementary fee for tolling.

**Would you recommend the European Commission to issue a new Directive on tolling to solve the inefficiencies of the market that are preventing interoperability between different countries?**

It will not work if the European Commission insists that all 28 countries should be covered from the start. They should impose the legal framework but let

commercial providers decide on what markets they should cover.



**Numerous European trucks carry up to 10 OBUs on their windscreens. Wouldn't interoperability threaten your device business?**

We do not see EETS and interoperability as a threat to our device business. **The move towards EETS will mean that the market will need more complex OBUs, which will also be much more costly than the DSRC tags we typically sell.**

We believe there is a chance for our services business to compensate that decrease in the number of devices per vehicle. In the long run, this fall in our hardware revenues will come anyway, as other telematics devices and smartphones are gradually being used. In addition, cars will in the long run provide these functionalities too. We have to prepare to this situation by working with the automotive industry in that respect.

**Would you expect Russia to eventually implement GNSS-enabled road tolling (maybe using Glonass)?**

The original tender was cancelled last year but they still plan to introduce a system for HGVs beyond 12 tons by November 2015.

The State Highway Agency, Rosavtodor, has introduced a concession holder, RT-Invest

Transport Systems (partly owned by Rostec Corporation) to implement the system. We are of course willing to support them.

The expected income for the Russian government would amount to €800 million per year, for trucks above 12 tons. We understand they are still considering to reduce the weight limit to 3.5 tons, which would dramatically increase revenues. But we have not heard statements related to that yet.



**Our global report highlights the fragmentation of the industry between numerous technologies & standards. Would you expect a number of global standards to emerge?**

We do not expect to see one global tolling standard emerge soon. We do expect to see a co-existence of different technologies that meets diverse customer requirements, namely DSRC (915 MHz, 5.8 and increasingly 5.9 GHz), GNSS, ANPR and RFID.

ANPR is an integral part of both DSRC and GNSS enforcement systems. And RFID will also be used for other applications, for example in the electronic registration space.

**Kapsch has deployed numerous tolling projects worldwide. Based on this experience, what can governments do to make ETC more acceptable among both private and fleet vehicle users?**

In our view, tolling is a fair system: It follows the pay-per-use principle and foreigners must pay as well,

contrarily to vehicle tax. An ETC system can also be used to manage the traffic, for example by running variable or dynamic pricing schemes, high occupancy lanes, congestion charging like Stockholm or Singapore or even by promoting vehicles with low emission rates.

**Tolling systems are in themselves a way to avoid or reduce traffic.** It is also possible to combine tolling with other mobility services such as parking or provisioning of real-time traffic data.

Finally, governments can use tolling income to improve the traffic situation by building road infrastructure or public transport.

**Would you see smartphone-based payment systems such as Apple Pay emerge as a valid toll payment system? If no, what are the real barriers to that happening?**

Absolutely, smartphones will be introduced for tolling in various steps.

Initially - and that is what we are doing in our own operations - it can be used a customer relation management tool. Toll operators are able to contact users more easily.

Secondly, it can be used in a plaza toll context, for example with a NFC/RFID tag attached to the handset or simply by putting your account balance to a certain threshold.

Finally the future is open. It is an efficient tool for payment but less so for enforcement. There are challenges ahead of course. Toll operators / road authorities have to support multiple mobile phones. Of course we could support them in that respect but for them, a dedicated onboard unit represents a lower risk today. Smartphones enable a small reduction of the costs but on the other side, there is a risk of lost

income become something is not working properly. In the long run, we will find solutions to these challenges.

**Do you expect ETC technologies to be embedded in new cars anytime soon, as currently envisaged in Singapore?**

In Singapore, the device is not truly embedded but retro-fitted in the aftermarket. It will be most likely be a very sophisticated OBU equipped with the latest technology such as LTE, GNSS, 5.9 GHz DSRC and offer lots of additional services.

In general, we are closely following what is happening in the connected car world and are talking to automotive suppliers. There will be so-called Telematics Control Units in cars shortly. Some cars have them already. You can't find 5.9 GHz yet but GM has announced V2X in 2017 for a first model (cf. figure below).



We expect an increasing number of vehicles to embed technology, which can be used for various telematics/ITS applications including tolling. Toll operators will see the benefit of getting rid of the OBU. If that happens, these embedded in-vehicle platforms may be a game changer for the tolling industry.

**Autonomous cars are coming, sooner than later. What would it change for the tolling industry?**

Certain governments want to support autonomous driving to push their local car industry. These cars could be subsidised in the short-term. However, in the long run, autonomous cars will not remove the need to build and maintain roads.