DEMAND MANAGEMENT

The toll industry asks a lot of its equipment suppliers. Those that can step up and meet the desire to combine accurate, high-performance technology with a small visual footprint and easy installation are the ones that will flourish

Tolling technology has come on leaps and bounds in recent years. Toll operators and systems integrators are among the ITS sector's most demanding customers, which is partly due to the fact that tolling operations involve both invoicing and violations processing. Hence there is no room for error in any of the overall system's components. In license plate recognition-based tolling, for instance, any plates that are not read ultimately cost the toll authority money. And any enforcement activity to request payments from violators has to be legally verifiable; a blurred shot of a barely visible license plate just isn't acceptable. Finally, the toll sector is also demanding when it comes to what equipment is deployed – and where. Today's camera-based toll systems not only have to be highly accurate, they must also be easy to install, with a minimal visual footprint. The less equipment that can be used in one application, the better.

ALPR SOLUTIONS FOR TOLL SECTOR

The Italian ITS specialist Tattile is finding a growing market for its camera-based products in the tolling sector, offering solutions for both traditional stop-and-go tolling and, increasingly, free-flow tolling.

The company's Vega HD/2HD automatic license plate recognition (ALPR)-based devices are proving especially attractive to the free-flow toll sector. The units are able to detect licence plates at speeds of up to 250km/h and the ALPR is performed on the camera unit itself without the need for a separate PC. This self-contained approach removes the need for surplus data-transfer and back-office equipment. The camera transmits only data that has already been processed, meaning that data transmission is far less bandwidth-intense than in older-generation systems. It also goes without saying that less infrastructure means an easier, less expensive installation of the technology.

CONTRACT SUCCESS

Tattile's Massimiliano Cominelli details two recent projects that showcase the company's abilities in the toll sector. "In 2013 we were awarded a contract that will see our Vega Access cameras deployed on French highways for a traditional stop-and-go tolling scheme. In addition to this, we are currently deploying several projects in the field of free-flow tolling. For these projects, we are using the Vega 2HD with autotrigger software to detect the license plates, either for tolling enforcement or for tolling detection. The cameras are installed in a gantry above the road surface, ensuring that coverage of lanes is overlapped so that even vehicles that are changing lanes are still detected. The embedded OCR software does the rest."

This commercial success has prompted Tattile to focus its R&D efforts on delivering new solutions tailored especially for the toll market. Cominelli reveals that the second quarter of 2014 will see the company announce a new solution for toll applications. "The new product will have special features that are able to match incoming legislative requirements and tighter technical rules," he hints. "The aim of our new development is to integrate several standalone devices and functionalities that are present in the most common tolling gantries in one fully integrated system, with embedded technology and plug-and-play installation."

Corrado Franchi is the CEO of Tattile. He is based at the company's headquarters in Italy

(Right) **Tattile's Vega 2HD unit** (Below) **Free-flow tolling applications rely on highly accurate and reliable hardware**

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