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SYMPOSIUM ON MILEAGE-BASED USER FEES: TECHNOLOGY WORKSHOP

Session 3: Nexus of Road User Fees and In-Vehicle Technologies

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[“EROAD: The Future of Transport Technology”](#)

Slide 2 – Background

In 2009, EROAD introduced the world’s first network-wide GPS/cellular-based MBUF system for heavy and light vehicles in New Zealand. New Zealand has had road user charges since 1978, and the pay-by-mile concept is not controversial at all there.

New Zealand currently has a paper-based RUC system, and carriers and light vehicles can choose to opt-in to the EROAD electronic system. There is no mandate to use technology, consistent with the Oregon pilot. The EROAD model also adopts the West Coast or Google model in that it is free to the government. Private shareholders absorbed all of the financial and technology risk and the system was built with no government funding.

EROAD just concluded the first commercial pilot of an electronic weight-mileage tax service for heavy vehicles in Oregon. That pilot used the same model that EROAD currently has in New Zealand. The pilot was conducted with the full support of the Oregon Department of Transportation (ODOT) and the Oregon Trucking Association. Involving such stakeholders is one of the major lessons learned from EROAD’s experience in New Zealand.

Slide 3 – Solution

EROAD’s system utilizes cloud-based infrastructure with a global geo-sim platform for the data. The company uses one back-end system to provide commercial, regulatory and road charging services.

Slide 4 – New Zealand MBUF Collections

EROAD is now the largest private tax agency in New Zealand, approaching nearly \$200 million in annual collections from voluntary opt-in customers and more than 1 billion kilometers traveled with no known errors.

Slide 5 – Technology

Plenty of demonstrations are proving that the EROAD technology works and can be cost effective for commercial vehicles. The architecture can support a variety of tariffs. Furthermore, because it is a cellular, cloud-based architecture, deployment and expansion of the system can be readily achieved. EROAD currently has no roadside infrastructure in New Zealand.

The multi-vendor certification model has worked well in NZ. There are currently two technology providers in New Zealand that support the heavy-vehicle RUC system at no cost to the government.

Commercial vehicle implementation provides an opportunity for vendors to develop and validate their technologies which will assist in the emergence of a viable light-vehicle platform.

Slide 6 – Business

EROAD's regulatory and commercial services can be delivered with the same platform to lower agency and client costs.

Hybrid systems, such as New Zealand's paper and technology-based system, help minimize implementation risks.

There are myriad opportunities to extend EROAD's platform. The company currently logs hours of service, provides logistics services, and tracks fuel. EROAD has been asked to implement an interoperable tolling solution for New Zealand toll gateways and the company is working on an insurance system for heavy vehicles in NZ and Australia.

Ensuring privacy is a major concern but it is easily addressed with a standard IT privacy framework. EROAD never provides data to law enforcement or government without a court order.

There is a shift towards acceptance of technology in the transportation industry. The world is changing.