Transport Certification Australia Ltd

Submission to

Parliament of Australia

The House of Representatives Standing Committee on Infrastructure, Transport, Regional Development and Local Government

Inquiry into Train Visibility and Level Crossing Safety

Monday, 19 January 2009

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Introduction

Transport Certification Australia (TCA) is pleased to make this submission to the House of Representatives Standing Committee on Infrastructure, Transport, Regional Development and Local Government (Committee). A new regulatory access application providing continuous monitoring of certain types of heavy vehicles has been implemented nationally. TCA administers this program on behalf of the Commonwealth, State and Territory Governments by type-approving devices and certifying systems that are utilised.

TCA believes that the same device and system can be utilised to improve safety at level crossings. Submissions have recently been made to a Victorian Parliamentary Inquiry on Railway Level Crossing Safety in 2008 and these have received a positive response.

It is the intention of this submission to inform the Committee of the potential of this, TCA administered application, known as the Intelligent Access Program (IAP).

How the Intelligent Access Program fits in

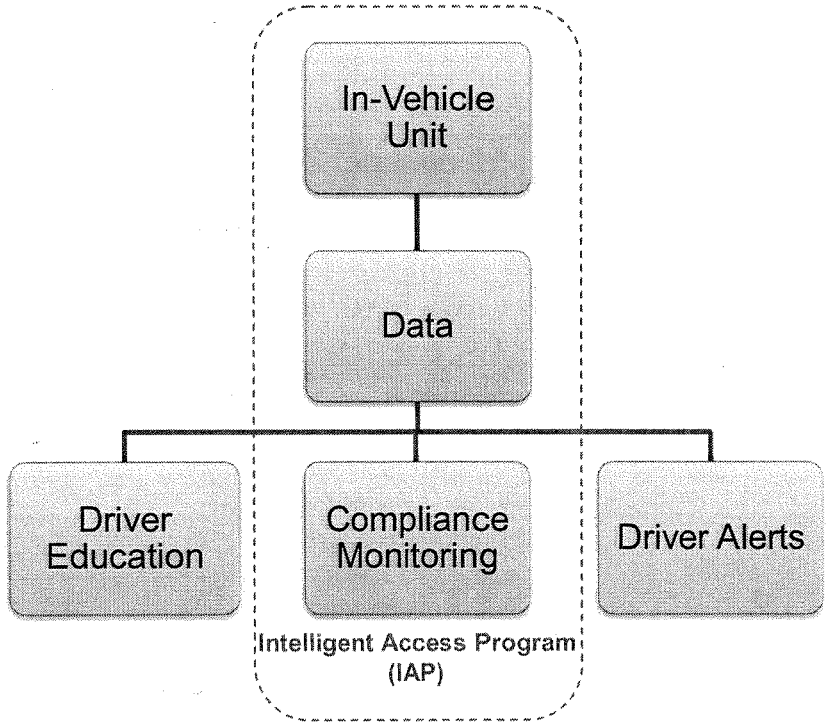
In 2004, the Committee's *Train Illumination* report contained the following recommendations:

Recommendation 1. Increase train visibility by using reflective strips and rotating beacon lights fitted on all locomotives and rolling stocks.

Recommendation 2. Use rumble strips at high accident risk level crossings and a national scoring system based on the Queensland model, adapted to local conditions.

Recommendation 3. An Intelligent Transport System (ITS) solution (such as EV-Alert) to alert drivers of approaching trains.

Recommendation 4. An education-based model for level crossing similar to the Canada's 'Operation Lifesaver', to be adopted into Australian state road safety programs.



TCA recommends that an Intelligent Access Program (IAP) type solution can be developed in support of recommendation # 3 and # 4.

The Intelligent Access Program is the Australian Transport Council's preferred vehicle compliance management solution. The Council of Australian Governments has also recognised the IAP vehicle telematics approach.

The IAP provides an existing platform to monitor heavy vehicles. The In-Vehicle Unit (IVU), installed on-board as a condition of IAP, continuously collects data related to the vehicle's position and speed. Currently, the collected data is used for compliance monitoring purposes by regulators and for commercial track and trace purposes by operators. The IAP is not 'a one trick pony'- it provides a sustainable vehicle telematics platform for accommodating government needs and policies going forward.

By combining the vehicle's location with data from in-locomotive devices or roadside devices at level crossings, the same IVU that is already certified under the IAP could generate alerts for drivers, as suggested in Recommendation 3.

The collected data could also be used in studying drivers' behaviours at level crossings for the purpose of developing an effective driver education program, as suggested in Recommendation 4.

In a recent Victorian Parliamentary Inquiry on improving safety at level crossings, it has been recommended that the Victorian Department of Transport *investigate the feasibility of incorporating the monitoring, and later enforcement of, driver behaviour at level crossings into the Intelligent Access Program*[1].

Regulatory Telematics

Requirement for uniformity of application

TCA considers that it is important that any technical solution should be able, subject to policy agreement to be applicable to any or all Australian level crossings. Research conducted with the transport industry during the early stages of the development of the IAP indicated clearly that a single system operating nationally, rather than multiple systems for each State and Territory, was strongly preferred by the industry and also delivered optimum outcomes.

For this to be achieved for a railway level crossing application, it is recommended that an agreed performance based specification be developed that would permit a number of different suppliers and systems to be selected by jurisdictions, transport operators and drivers whilst maintaining uniformity in system operation.

Reliability/quality assurance

The system will comprise of IVUs to be fitted in vehicles and other devices that may be required within locomotives and at level crossings. In addition, the system provider will need to support the system while it is in operation. Reliability of systems are typically assured and verified in three ways:

i. Assessment and certification of equipment and systems.

[1] Recommendation 43, *Inquiry into improving safety at level crossings*. Road Safety Committee, Parliament of Victoria, December 2008)

ii. Ongoing performance audits (including random checks of equipment).
iii. Remote monitoring via telematics of the operation of equipment and systems.

The regulatory framework for the IAP and the prescribed standards and processes for equipment and systems, incorporate all three of these criteria.

In essence, Transport Certification Australia provides the certification and auditing services that assures the on-going operation of the solution selected by jurisdictions.

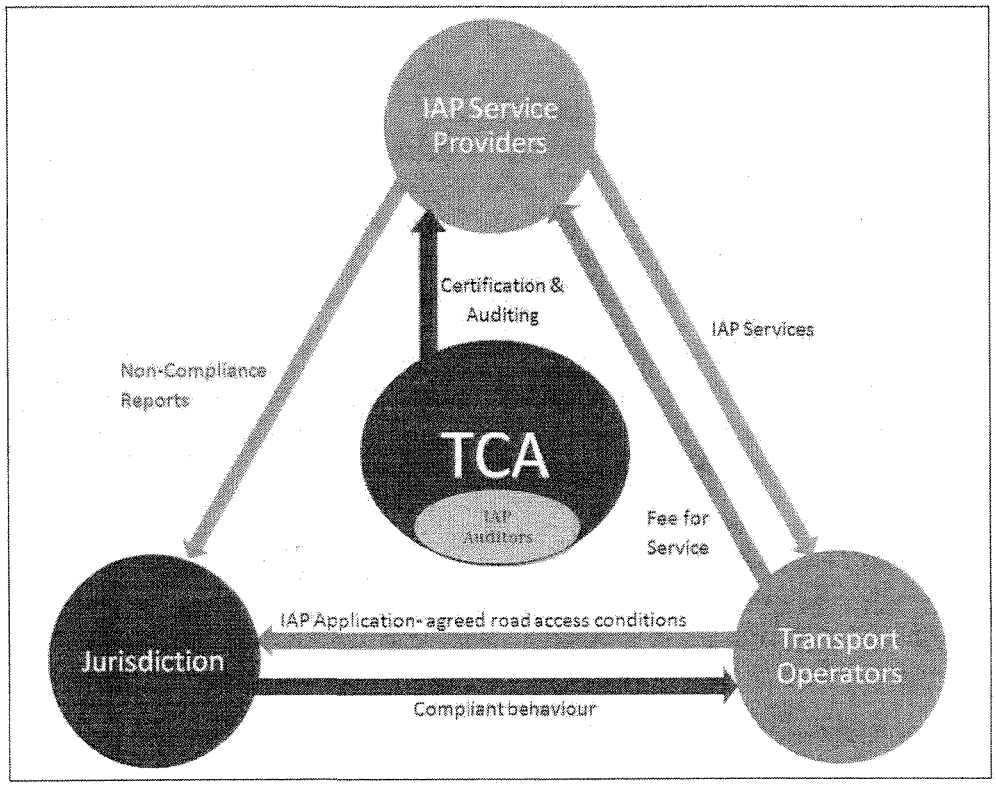
Transport Certification Australia and IAP

Background of TCA

TCA was established by the Commonwealth and State and Territory Governments to manage the implementation of Australia's Intelligent Access Program, including the certification and auditing of private sector service providers providing telematics services under the IAP.

Intelligent Access Program

The IAP represents a new innovative way for managing heavy vehicle access to the Australian road network, offering to transport operators improved access arrangements and providing road authorities and local governments with assurance that the operators are adhering to these arrangements. The IAP provides a unique national framework comprising regulatory, contractual and operational elements for monitoring heavy vehicle activity and generating evidentiary level reports in relation to non-compliant activity. The IAP operating model is summarised below:



National Program

The IAP is a national program. Once certified, an IAP Service Provider is recognised by, and can provide vehicle monitoring services in, all States and Territories. As a result, participating vehicles can be monitored Australia-wide by a single IAP Service Provider.

The IAP is governed by a national legal and policy framework, set out in the Model IAP Legislation, and implemented by State and Territory governments through local legislation.

Technical requirements are 'performance based'

The technical requirements for participation in the IAP as a service provider are performance based. That is, the IAP defines required outputs and it is up to each company wishing to be certified as an IAP Service Provider to establish, to the satisfaction of TCA, that its equipment and related back-office systems deliver the required outputs. The IAP does not specify the particular equipment and systems required. Thus, competing companies whose equipment and systems differ significantly may be certified, as long as they deliver the required outputs.

This gives IAP Service Providers the flexibility to take full advantage of innovative, cutting edge telematics technologies when designing and developing their equipment and systems. Coupled with market competition between IAP Service Providers, this flexibility will ensure that 'IAP technology' keeps pace with world-wide advances in broader telematics technologies.

Quality Assurance

Through its certification and audit processes, TCA provides expert, nationally consistent, and cost effective quality assurance in relation to the standard of monitoring provided by IAP Service Providers. This avoids the need for road authorities to establish and manage their own, potentially different, processes, and means that IAP Services Providers are not required to undergo separate audits for each of the eight Australian road authorities.

TCA has developed a series of test and audit systems in order to perform its certification, audit and review functions.

Future applications under development

Transport Certification Australia is currently developing for the Australian Transport Council, as part of an Austroads project, specifications and test protocols for a fatigue management system for drivers of heavy vehicles and a speed monitoring system. TCA is also investigating, as part of an Auslink arrangement, the feasibility of an on-board mass monitoring application for heavy vehicles.