

Toll Group submission on “*A national in-service safety law for automated vehicles*”
National Transport Commission, published October 2020

Adam Ritzinger
Accreditation Systems Manager
Road Transport Safety and Compliance
Toll Group

December 2020

Purpose

To articulate Toll’s position on the NTC’s discussion paper.

Introduction

With over 125 years' experience, Toll Group, proudly part of Japan Post, operates an extensive global logistics network across 1,200 locations in more than 50 countries. Toll's 40,000 employees provide a diverse range of transport and logistics solutions covering road, air, sea and rail to help Toll's customers best meet their global supply chain needs.

Toll Group welcomes the opportunity to provide feedback on the discussion paper released by the National Transport Commission (NTC).

Feedback sought by the NTC is as follows:

- response to the consultation questions in the discussion paper
- any other relevant views on the national approach to the in-service safety of automated vehicles.

Summary of Toll's position and recommendations to the NTC

Toll is an active supporter of safety technologies and innovation in the transport industry. Consistent with Heavy Vehicle National Law (HVNL) primary duty obligations, Toll specifies the highest level of safety equipment available for all new vehicles and equipment purchased, which currently includes vehicles with advanced driver assistance functions, and may extend to autonomous vehicles when available in the future.

Many Toll vehicles are already fitted with technologies that represent the foundations of eventual autonomous driving capabilities, such as cruise control, advanced electronic braking systems, telematics, and Driver State Sensing (DSS) technology.

Toll understands the critical importance of the safe and successful management of automated vehicles and the parties that will be deemed responsible for ensuring their continuing safe operation. Accordingly, Toll is broadly supportive of the proposed Autonomous Vehicle Safety Law (AVSL), but is wary of:

- adding another independent regulator to the road transport landscape
- specific aspects of the NTC's proposals that may inadvertently negatively impact road safety, data privacy, and create additional administrative burden on operators.

Further detail on Toll's position is provided below.

Toll's response to the items raised in the discussion paper

The first substantive chapters of the NTC's discussion paper (Chapters 2, 3, and 4) principally focus on the safety duties and due diligence obligations on Automated Driving Systems Entities (ADSEs), which are the parties deemed legally responsible for being in control of vehicles when operating under autonomous function.

It is Toll's understanding that the NTC **does not** intend for transport operators to be considered ADSEs outside of specific circumstances where an operator develops its own, or is involved in the development of, unique Automated Driving System (ADS) capabilities (i.e. hardware and/or software).

As Toll will simply be an operator of ADS vehicles and technologies supplied to the market by other suppliers, and will likely purchase vehicles already fitted with ADSs, Toll does not have plans to become an ADSE. Accordingly, many items raised in those chapters of the discussion paper relating to the duties and obligations of ADSEs will not apply to Toll.

Notwithstanding, Toll provides the following responses to some of the specific questions raised in Chapters 2, 3 and 4:

- a general safety duty underpinned by a set of minimum prescriptive requirements applicable to all Australian ADSEs should feature in the proposed AVSL
- if the risk of third-party interference with an ADS is not able to be addressed by existing legislation, it should be captured in the AVSL, and enforced by either the proposed new regulator or existing enforcement agencies
- the AVSL should only allow ADSEs to defer their AVSL responsibilities to an overseas 'parent' entity if that entity can be prosecuted in the Australian judiciary system
- transfer of ADSE responsibilities while vehicles are in-service must be avoided, because:

- it is likely to 'dilute' ownership of safety responsibilities, as the new ADSE would not have been involved in the development of the ADS
- the operation of the ADS may not be comprehensively understood by the new ADSE
- accreditation (as an option to provide safety assurance, and the option recommended in the paper) is unlikely to deliver the required level of assurance relating to the ADSE that responsibilities are being transferred to
- in the event that a set of in-service ADS vehicles are left without an ADSE (e.g. following market exit of the original ADSE), the safest outcome may be that the ADS features of those vehicles are disengaged, and that process overseen and assured by the appropriate regulatory body.

Chapter 5 of the discussion paper focuses on in-service modifications and after-market installations of ADS systems. Broadly, Toll considers that modifications to high-level safety systems such as ADS represents an elevated risk due to their inherent complexity. The industry itself recognises this risk, as evidenced by the fact that of the principle sensor-based safety systems that have come to market over the preceding decades (e.g. airbags, anti-lock brakes, electronic stability control, autonomous emergency braking):

- none are offered as aftermarket fitment to vehicles that were not supplied with them at point of market entry
- none are able to be 'upgraded' while in-service.

Further, Toll urges the NTC to consider the average age of the Australian truck fleet, which was 14.8 years in 2016, and recent trends indicate that it may increase. According to the Australian Bureau of Statistics January 2016 Motor Vehicle Census, almost 45% of the nation's truck fleet was manufactured before 2003. Creating a regulatory framework that allows third parties to modify such vehicles to become partially or fully autonomous cannot be expected to deliver positive road safety outcomes.

Accordingly, Toll considers that modifications to in-service ADS must be stringently controlled by legislation, as follows:

- only the approved ADSE be permitted to perform in-service modifications to ADSs
- any in-service modification (e.g. upgrades) made by an ADSE to their ADS while vehicles are in-service should be approved by the regulator in the same manner that products are reviewed and approved by the Department of Infrastructure, Transport, Regional Development and Communications (DITRDC) at point of market entry
- no vehicle should be permitted to be modified to feature an ADS (of any capability level) if that vehicle did not feature one at point of market entry (i.e. aftermarket ADS upgrade 'kits' for non-ADS vehicles should be prohibited by legislation).

More broadly, Toll supports policy settings that incentivise greater take-up of new technologies to help progressively reduce the median age of the truck fleet over time. This enables better safety and environmental outcomes as a greater proportion of antiquated technology departs the national fleet. Preventing aftermarket fitment of ADS would undoubtedly assist in that regard.

Chapter 6 focuses on the proposed in-service safety regulator. Toll supports that proposal, and the suggestions regarding possible roles for the regulator (i.e. monitoring, education, enforcement, engagement, research, reporting, crash investigation, and accreditation), but is wary of adding yet another independent regulator to the road freight transport landscape.

At present, aspects of Toll's operations are overseen by the National Heavy Vehicle Regulator (NHVR), WorkSafe, the Environmental Protection Agency, as well as the various state and territory registering authorities, and may soon be subject to an independent pricing regulator, and independent safety regulator. Each new regulator increases administrative burden and operational complexity for freight transporters, and adds the risk of introducing multiple, overlapping and inconsistent laws. Toll urges the NTC to consider building the regulator capability into an existing independent body.

Notwithstanding, Toll notes that it may be expected to interact with a future autonomous vehicle regulator in the following circumstances:

- participation in education activities organised by the regulator (e.g. conferences, forums); and
- provision of data and information to support enforcement and investigations.

In principle, Toll is comfortable with the above as it currently enjoys such similar working arrangements with other regulatory bodies (e.g. the NHVR), but has concerns with data access and privacy, which are discussed later.

Toll notes that it is crucial for the industry that a true, nationally consistent approach to in-service safety for autonomous vehicles be achieved, supported by a nationally recognised regulator. Any outcome other than national harmonisation of regulations and enforcement powers across all states and territories can only be regarded as a failure. As a guide, national policy could follow the model of the current Motor Vehicle Standards Act, for which the Australian Design Rule process is administered nationally by the DITRDC.

Toll supports the role of the proposed in-service regulator as an accreditor of ADSEs but notes that accreditation should not be automatically regarded as a robust means of delivering the required level of safety assurance, as mentioned earlier. This position is evidenced by the fact that transport companies involved in on-road safety incidents are often found to hold safety accreditations such as Maintenance Management (under either the National Heavy Vehicle Accreditation Scheme, or Western Australia Heavy Vehicle Accreditation Scheme). If accreditation of ADSEs is to feature as a safety assurance mechanism, critical thought must be given to how it can be improved to deliver the level of assurance required, or appropriate limits placed on what it can realistically deliver.

Toll strongly recommends that the national in-service regulator be set up to recover all of its operational costs, without imposing any additional financial burden on the industry. The Australian transport industry is already subject to high operating costs and low margins.

Chapter 7 deals specifically with the compliance and enforcement powers of the proposed regulator, and how it will exercise those powers with regulated parties under the AVSL. Toll understands that transport operators **will not** be a regulated party under the proposed AVSL, and accordingly, the exercise of such powers are mostly relevant to the ADSEs. Notwithstanding, Toll supports the list of proposed compliance and enforcement powers of the regulator, including:

- recall powers;
- power to suspend ADS operation pending resolution of a safety issue; and
- power to permanently suspend an ADS, if an identified safety issue could not be rectified or otherwise overcome.

Chapter 8 deals with roadside interaction and enforcement. For context, Toll understands and agrees with the two key premises of the NTC's automated vehicle reforms:

- there must always be a legal entity responsible for a vehicle operating on a public road or public access area where road traffic laws apply; and
- there can only be one legal entity responsible at one time, but responsibility could shift between parties.

Toll envisages future scenarios involving transport operations that are either completely controlled by a human driver, completely controlled by a remote driver, completely controlled by autonomous technology, or combinations of the three (e.g. a human driver assisted by technology). Accordingly, the ability to conclusively determine the party responsible for the vehicle at any point in time is of primary importance to Toll, but in the case of ADS vehicles, ultimately falls to the ADSE as designer of the ADS and its reporting functions.

Toll understands that if this information is not readily available during roadside stops, enforcement officers may have to default to issuing infringements to either the human driver, or registered vehicle owner. This would create an additional administrative burden for the vehicle operator in investigating incidents it ultimately was not responsible for, and as such, a better outcome would be if ADS were optimised, or enforcement officers suitably trained and equipped, such that the responsible party could be determined during the roadside stop.

In relation to other specific questions raised in that chapter, Toll considers that:

- a road traffic law breach that occurs when an ADS is engaged (or when an enforcement officer believes it was engaged) should either be treated as a general safety duty breach by the ADSE under the AVSL, or a breach via a separate new law, as it cannot be reasonably handled through any other existing punitive legislative mechanism; and
- a road traffic law breach that occurs when a remote driver was in control of a vehicle should be managed via a regular infringement, under existing road traffic laws.

Chapter 10 deals with access to information. Toll understands that the in-service regulator may seek to collect a range of information held by an ADSE, some of which may be considered by Toll to be commercially sensitive or subject to privacy laws, including:

- information that identifies the driver, fall-back ready user, vehicle owner, remote driver, or any other occupant of an automated vehicle;
- in-cabin video and audio, and biological health/health sensor data;
- information on who was in control at a point in time, including the level of automation engaged, and any transition requests to the driver or fallback-ready user;
- information on the vehicle's location, speed, brake activation and acceleration; or
- information on circumstances that may have caused or contributed to an incident.

In-principle, Toll accepts that sharing of operational data with regulators is necessary, provided that existing regulatory obligations on data and privacy are not breached. It is not clear how this will be ensured, as the full list of data likely to be requested is not available (and at present remains unknown, as ADS are still in development), and transport operators are not identified in the discussion paper as a party from which the regulator may seek information. As such, Toll supports the NTC's recommendation to conduct a privacy impact assessment on all proposals.

Chapter 11 focuses on options for implementing the national in-service safety laws. Toll reinforces previous statements that any outcome other than national harmonisation of regulations and enforcement powers across all states and territories can only be regarded as a failure. Further, a regulatory approach that allows (or may increase the chance of) individual states or territories to derogate from the national law must be expressly avoided.

Toll's recommendations

Toll is broadly supportive of the proposed Autonomous Vehicle Safety Law (AVSL), and in-service safety regulator, but recommends that the proposed AVSL:

- prohibits transfer of ADSE responsibilities while vehicles are in-service;
- restricts parties other than the ADSE from modifying in-service ADSs; and
- prohibits vehicles that did not feature an ADS at point of market entry from being modified or upgraded while in-service

Further, Toll urges the NTC to:

- consider building the in-service regulator capability into an existing independent body
- reconsider the level of assurance that an ADSE accreditation system can provide
- avoid placing the administrative burden of determining who was in control of a vehicle when a breach occurred on the driver or registered owner of the vehicle
- ensure that the AVSL will deliver a true, nationally consistent approach to in-service safety for autonomous vehicles, supported by a nationally recognised regulator.

Finally, Toll strongly recommends that any national in-service regulator be set up to recover all of its operational costs, without imposing any additional financial burden on the industry.