
RIM Industry-Led Data-Sharing Schemes (AUS)



Schemes using the Road Infrastructure Management (RIM) application across Australia

March 2024

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About Us

Transport Certification Australia (TCA) is a national organisation that provides assurance services relating to transport technologies and data to enable improved public purpose outcomes from road transport.

Priority outcome areas enabled by TCA services include improved road safety, transport efficiency, freight productivity, asset management and sustainability.

Key aspects of TCA include:

- An independent not-for-profit entity, with government oversight
- Administration of the National Telematics Framework, including its rules, specifications, agreements, digital infrastructure and other supporting services
- Assurance services that support but are appropriately separated from regulators, policy makers and enforcement activities, and underpin telematics applications and associated information and data services
- Advice that is based on evidence and a deep subject matter knowledge
- Trusted partner to both government and industry stakeholders, enabling a nationally consistent open market, with services covering all road vehicle types and associated digital infrastructure.

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1 Introduction

1.1 Purpose

This document describes the RIM Industry-Led Data-Sharing Schemes (AUS), which are being made available for use across Australia. The following schemes are associated with the Road Infrastructure Management (RIM) application:

- RIM Industry-Led Data-Sharing Scheme – Dangerous Goods (AUS)
- RIM Industry-Led Data-Sharing Scheme – Construction (AUS)

RIM Industry-Led Data-Sharing Schemes (AUS) enable Authorised Data Users to view road utilisation data of enrolled vehicles travelling on road networks across Australia.

1.2 Scope

This document describes the RIM Industry-Led Data-Sharing Schemes (AUS) and how they will be used with the RIM application.

The following information is included:

- Scheme parameters
- Key scheme processes
- Roles and responsibilities of scheme participants.

1.3 Background

RIM Industry-Led Data-Sharing Schemes (AUS) allow industry associations to collect vehicle movement data and as required, other related types of data, from participating transport operators ('Operator') for aggregated and de-identified reporting and analysis through the Telematics Analytics Platform (TAP).

A unique feature of this scheme group is that aggregated and de-identified reporting and analysis provided through TAP is tailored specifically, and is restricted to, Authorised Data Users.

An Authorised Data User can only be created within TAP after being endorsed by the Industry-Led Data-Sharing Consultative Body (AUS). The Industry-Led Data-Sharing Body (AUS) is a body consisting of representatives of Australian industries relevant to RIM Industry-Led Data-Sharing Schemes (AUS).

Once an Authorised Data User has been granted access to reports and visualisations for this scheme group, they may view data of any scheme of this scheme group, anywhere in Australia.

An additional feature of this scheme group is that an Operator may request TCA to provide it access to its enrolled vehicles' data, and reports and analysis derived from it.

To participate in a RIM Industry-Led Data-Sharing Scheme (AUS), an Operator must conform with the scheme rules and entry conditions available on the TCA website. Enrolment in the RIM application is performed by the registered or certified Application Service Provider (ASP) selected by the Operator¹.

The ASP is responsible for:

- The installation of a telematics device or similar in the vehicle (if the vehicle is not already fitted with a telematics device)
- The collection of data from vehicles enrolled in accordance with the requirements of the RIM application for the scheme.

The ASP provides data to TCA. TCA will process the data to enable the generation of reporting through TAP that is restricted to Authorised Data Users.

The RIM application² is offered at Level 1 Assurance (see Appendix A for a definition of Level 1 Assurance).

¹ If an entity is both an ASP and an Operator, any responsibilities described in this document for either an ASP or an Operator will apply to the combined entity.

² The RIM application can be used for a variety of purposes. In this document, RIM is described in the context of the schemes.

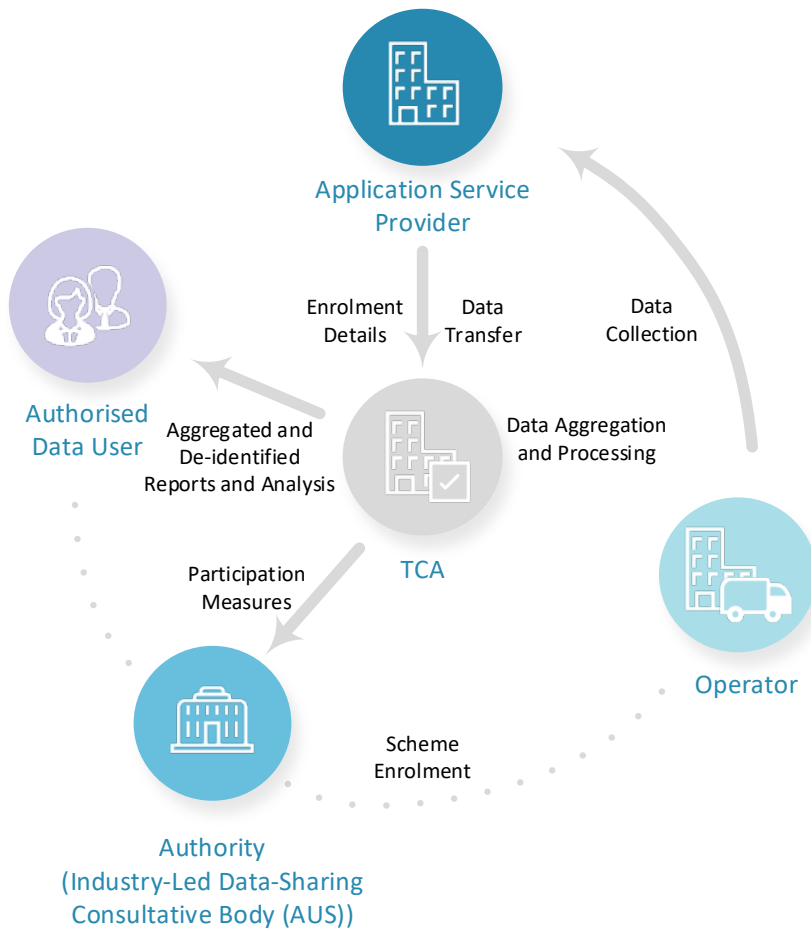
2 RIM Industry-Led Data-Sharing Schemes (AUS)

2.1 Participants

Figure 1 outlines the key interactions between participants for the use of the RIM application for a RIM Industry-Led Data-Sharing Scheme (AUS):

- The Industry-Led Data-Sharing Consultative Body (AUS), as the Authority of the scheme, is a body consisting of Australian industry representatives relevant to RIM Industry-Led Data-Sharing Schemes (AUS). Endorsement by the Industry-Led Data-Sharing Consultative Body (AUS) is required before a user can be set up as an Authorised Data User and be granted access to aggregated and de-identified reports and analysis of RIM Industry-Led Data-Sharing Schemes (AUS).
- Authorised Data Users are, for the purposes of RIM Industry-Led Data-Sharing Schemes (AUS), data users authorised by TCA to access the aggregated and de-identified reports and analysis of RIM Industry-Led Data-Sharing Schemes (AUS). TCA authorises an Authorised Data User after the endorsement of the Industry-Led Data-Sharing Consultative Body (AUS).
- Operators are vehicle operators that agree to enrol vehicles into the scheme, and consent to their data collected through the RIM application to be used for the intended purpose (as defined by the Authority and agreed to by the Operator in the ASP–Operator Agreement).
- ASPs, registered by TCA, offer telematics services (hardware, software and associated processes) to enable enrolment of eligible vehicles in the RIM application (as well as other applications available within the National Telematics Framework [NTF]), collection of data from installed telematics devices and reporting of data to TCA.
- TCA administers the RIM application and its schemes within the NTF, ensuring that data security and privacy concerns are managed. TCA receives vehicle enrolment details from Operators via ASPs, and makes ASP–Operator Agreements available to participants. TCA also receives telematics data from ASPs, performs data processing; and makes standard and specialised reporting available to Authorised Data Users via restricted access to TAP reporting and analysis as agreed between the Authority and TCA, and in accordance with the intended purpose as agreed by the Operator in the ASP–Operator Agreement.

Figure 1: Scheme Participants and Key Interactions



Note: The ASP may also be the Operator.

Interactions between scheme participants are consistent with interactions between RIM application participants, and are not specific to the scheme.

2.2 Common Scheme Features

This section describes the common scheme features of a RIM Industry-Led Data-Sharing Scheme (AUS). For information on features that are specific to a RIM Industry-Led Data-Sharing Scheme (AUS), refer to the scheme descriptions in the appendices of this document.

a. ASP Registration

TCA will register ASPs to provide services for the RIM application.

b. Enrolment

ASPs will enrol vehicles in the RIM application and a RIM Industry-Led Data-Sharing Scheme (AUS) at the request of the Operator.

The ASP will manage key steps of enrolment including approval, and as necessary, cancellation and replacement.

Figure 2 shows the pre-enrolment steps for a RIM Industry-Led Data-Sharing Scheme (AUS).

Figure 3 shows the reporting processes for a RIM Industry-Led Data-Sharing Scheme (AUS).

Figure 4 shows the enrolment cancellation and reporting processes for a RIM Industry-Led Data-Sharing Scheme (AUS).

Note: See Appendices B and C for values that must be entered into the Scheme and Authority Code data elements of an enrolment form or enrolment report.

c. Devices and Data Collection

The device used in the RIM application is a telematics device or similar.

The telematics device or similar will collect:

- Position data at intervals of no greater than 1 minute and no less than 1 second (as determined by the ASP)
- Date and time data.

d. Data Reporting

The ASP shall transfer data records collected through the RIM application to TCA no less frequently than each calendar month, and as described in *Road Infrastructure Management Functional and Technical Specification*.

e. Data Analysis and Reporting

TCA will perform data transformation, data aggregation, de-identification and processing functions on data obtained from position records. TCA will make data reporting for the scheme available to Authorised Data Users through restricted-access TAP analysis and reporting.

TCA will perform basic data cleaning, which includes:

- Removal of duplicates
- Removal of anything that is not in the prescribed format
- Removal of alarm data
- If necessary, changing column names.

Incomplete or unacceptable data records will not be included in data processing.

Note: The type, number and frequency of road usage reporting will be subject to agreed terms reached between TCA and the Authority.

A Road Usage Report will be made available to Authorised Data Users via TAP.

Scheme participation measures will be made available to the Industry-Led Data-Sharing Consultative Body (AUS) on a monthly basis via TAP. These measures may include the following as shown in Table 1.

Table 1: Scheme Participation Measures

Examples
<ul style="list-style-type: none">• Count of all vehicles enrolled in a RIM Industry-Led Data-Sharing Scheme (AUS)• Count of vehicles enrolled in a RIM Industry-Led Data-Sharing Scheme (AUS) that TCA received data from• Count of Operators with vehicles enrolled in a RIM Industry-Led Data-Sharing Scheme (AUS)• Count of ASPs reporting data for vehicles enrolled in a RIM Industry-Led Data-Sharing Scheme (AUS).

On Operator request, TCA will provide to the Operator access to its enrolled vehicles' data for a specified time period (see Figure 3).

2.3 Key Scheme Processes

Figure 2 outlines the key actions taken by each participant during the pre-enrolment stage of the operation of a RIM Industry-Led Data-Sharing Scheme (AUS).

Note: This process assumes that TCA has already registered the ASP to provide RIM application services.

Figure 2: Pre-Enrolment Process

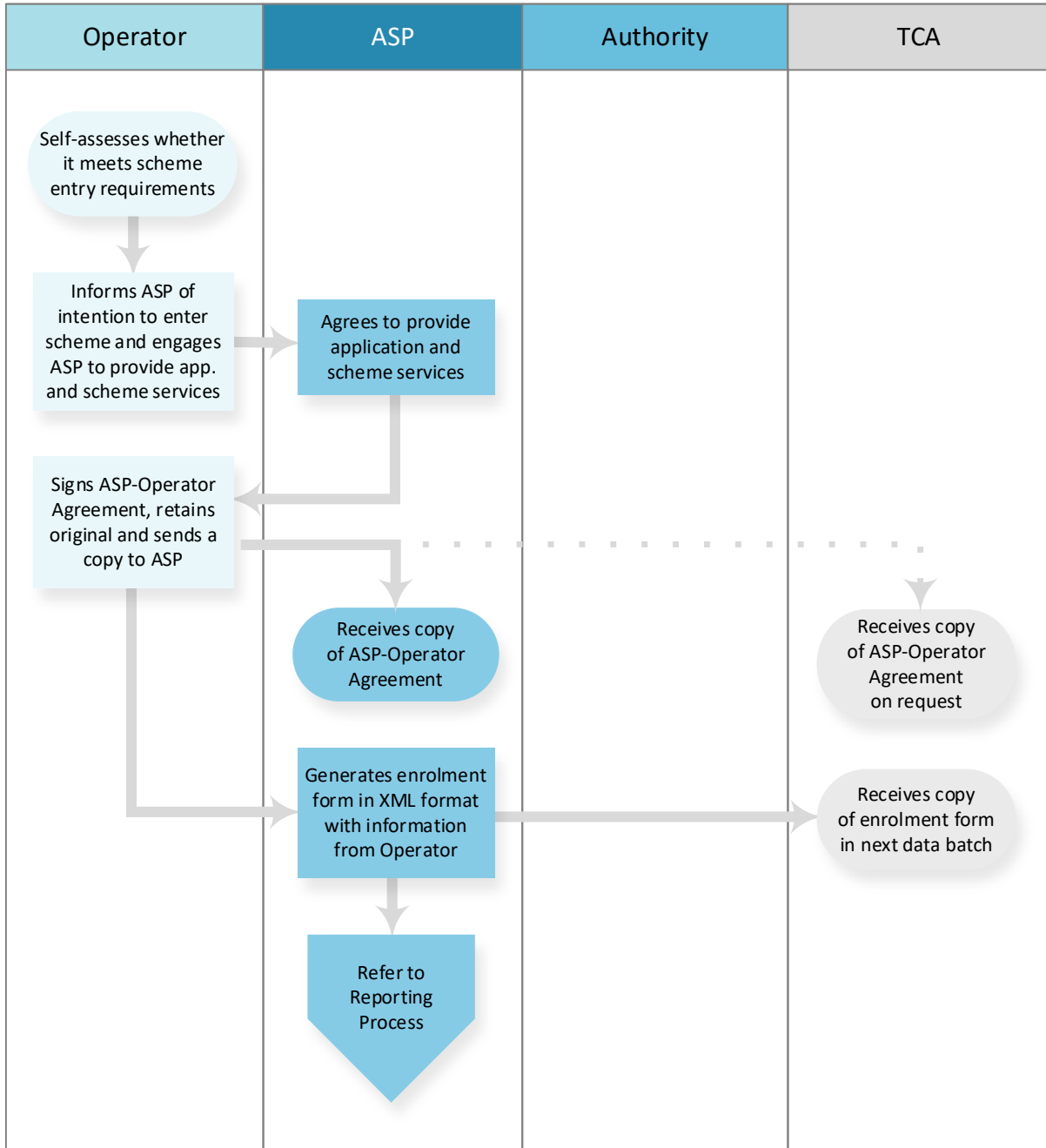
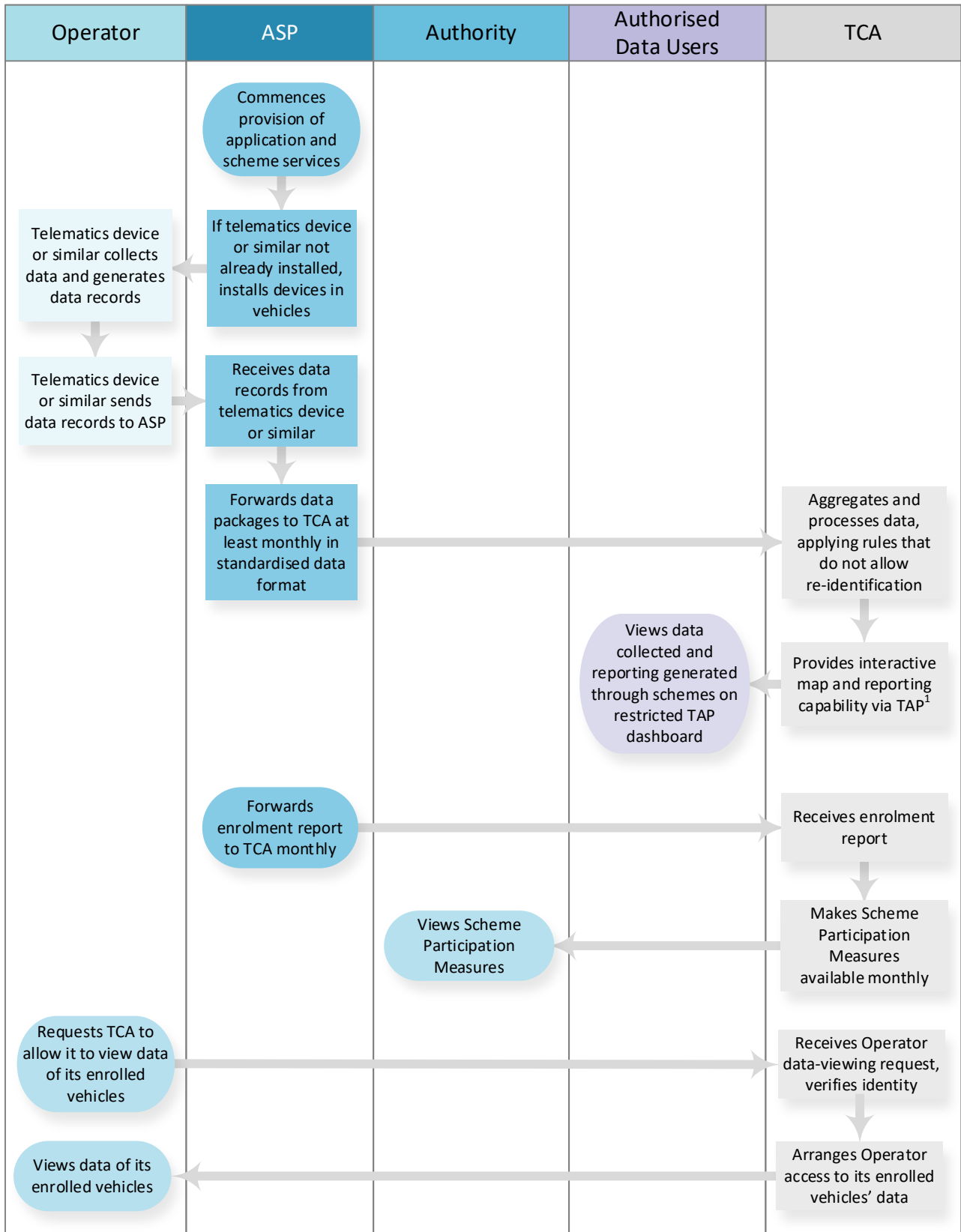


Figure 3 outlines the key actions related to data collection, record generation and reporting.

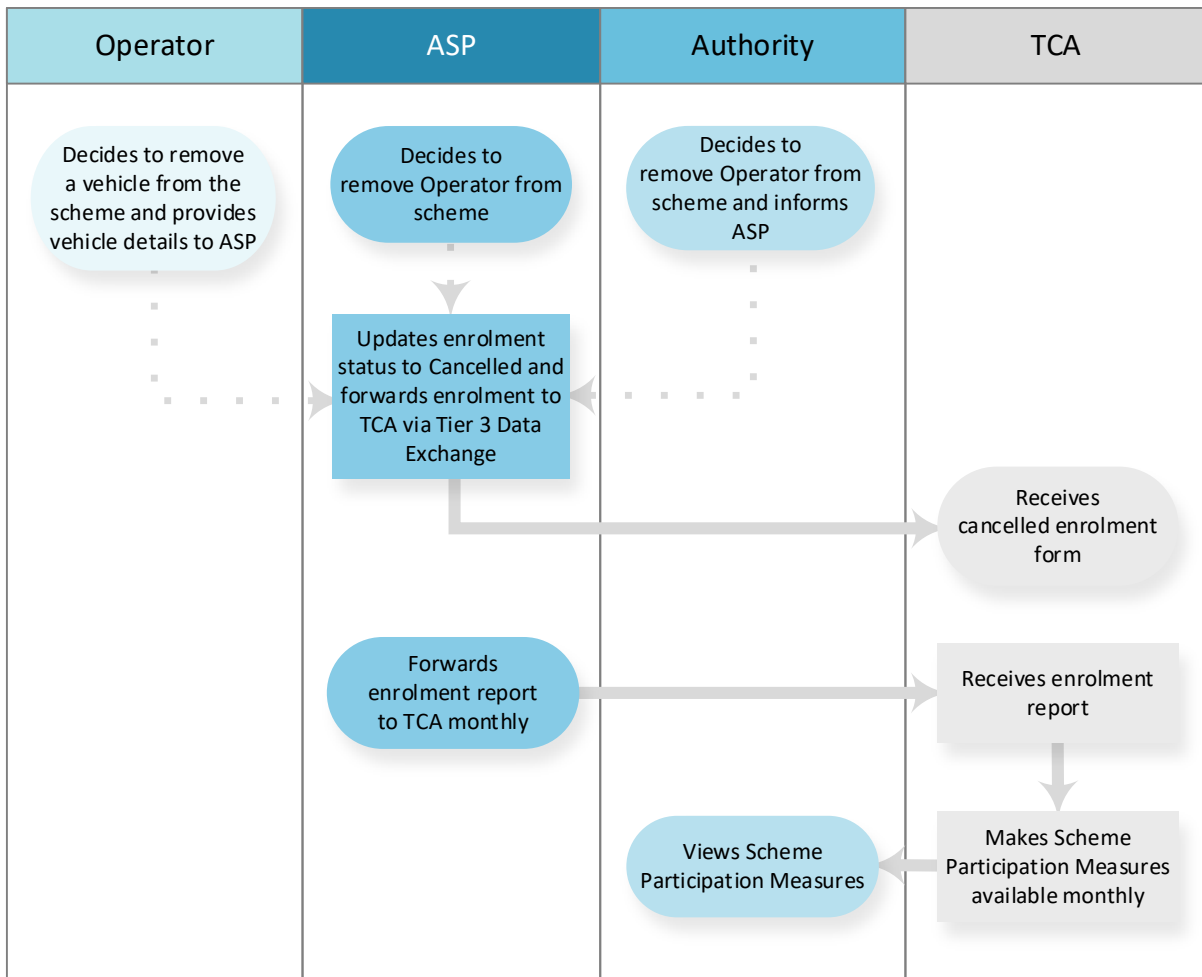
Figure 3: Reporting Processes



1. Data will be updated at least monthly.

Cancellation of scheme enrolment may be initiated by the Operator, the Authority or the ASP. Figure 4 outlines the key actions to cancel enrolment of a vehicle.

Figure 4: Enrolment Cancellation and Reporting Processes



2.4 Roles and Responsibilities

In delivering the objectives of a RIM Industry-Led Data-Sharing Scheme (AUS), **TCA** will:

- Provide a document (this document) describing the use of the scheme as part of the RIM application
- Produce or maintain collateral, as necessary, to support the scheme. Examples include the provision of current versions of:
 - *Road Infrastructure Management Functional and Technical Specification*
 - *Telematics Business-to-Business Data Exchange Functional and Technical Specification*
- Support the reporting of data records via Tier 3 Data Exchange using a RESTful API, with these records formatted using a JSON format
- Support the reporting of enrolment forms and enrolment reports using a RESTful API, with these documents formatted using an XML format
- Inform ASPs of scheme details and entry conditions
- Produce an ASP–Operator Agreement for use with the scheme and make it available to ASPs
- Ensure that TAP is set up to enable Authorised Data Users to access reporting generated by the scheme (in accordance with the intended purpose as agreed by the Operator in the ASP–Operator Agreement;
- Maintain the cloud environment and databases to support the ingestion of data from the RIM application
- Verify that an ASP meets requirements to provide RIM application services
- Forward applications of prospective Authorised Data Users to the Industry-Led Data-Sharing Consultative Body (AUS) and request each member’s endorsement response
- Upon endorsement of the Industry-Led Data-Sharing Consultative Body (AUS), create the user as an Authorised Data User who can access the data of all schemes of the RIM Industry-Led Data-Sharing Schemes (AUS)
- Provide the Authorised Data Users with reporting outlined in 2.2e.
- Provide the Industry-Led Data-Sharing Consultative Body (AUS) with Scheme Participation Measures outlined in 2.2e.
- Ensure the confidentiality of ASP data is maintained.

Authorised Data Users will:

- Access reporting outlined in 2.2e via TAP.

The Authority (Industry-Led Data-Sharing Consultative Body (AUS)) will:

- Receive applications from TCA of prospective users requesting endorsement to become an Authorised Data User
- Notify TCA of their endorsement decision to endorse or reject Authorised Data User requests
- Review Scheme Participation Measures as described in Figure 3 and Figure 4
- Agree to Terms of Reference for the operation of the Industry-Led Data-Sharing Consultative Body (AUS), including criteria for endorsing Authorised Data Users.

ASPs will:

- Interact with TCA to establish the delivery mechanism for provision of data packages to TCA (noting that a data package includes data records, enrolment forms and enrolment reports)
- Receive notification from Operators regarding the enrolment status of vehicles in the scheme, and forward this information to TCA using an agreed mechanism on a monthly basis
- Provide the ASP–Operator Agreement to an Operator once an agreement to provide application services for the scheme has been made
- Be responsible for the installation (if not already installed), operation and maintenance of telematics devices (or similar) and the reporting of data received from those devices
- In the event of a device malfunction: liaise with the Operator and/or device supplier to resolve the issue
- Provide back-office capability to process collected data records as required by the scheme
- Deliver data records to TCA, using agreed data delivery mechanism, required data formats and meeting data reporting requirements.

Operators will:

- Access scheme rules and entry conditions on the TCA website and determine whether they meet those conditions
- Upon self-assessment that scheme entry conditions are met, notify the ASP of its intention to enrol in the scheme
- Agree to share data collected by its ASP with TCA for the scheme using a signed ASP–Operator Agreement
- Follow rules for enrolment in the scheme
- Store original signed ASP–Operator Agreement and forward copies to the ASP and TCA (on request)
- Install telematics devices and engage an ASP to provide application services for the scheme
- Notify the ASP of the date that a vehicle or the Operator will no longer participate in the scheme.

A Acronyms and Definitions

Acronyms

Acronym	Definition
API	application programming interface
ASP	Application Service Provider
NTF	National Telematics Framework
RIM	Road Infrastructure Management
TAP	Telematics Analytics Platform
UTC	Coordinated Universal Time

Definitions

Term	Definition
application	A capability of the NTF that provides business value to stakeholders, delivered as an assembly of policy, business components and technical components, within in the context of an identified level of assurance.
Application Service Provider (ASP)	A service provider that has been registered or certified by TCA as meeting the requirements of one of more telematics applications. This may also be the Operator.
ASP–Operator Agreement	A written agreement between an ASP, an Operator and TCA which sets out the terms on which the ASP will provide application services to the Operator, and the intended purpose for collecting data from the Operator’s vehicle(s) enrolled in the scheme.
Authorised Data User	For the purposes of RIM Industry-Led Data-Sharing Schemes (AUS), data users authorised by TCA to access the data of RIM Industry-Led Data-Sharing Schemes (AUS). TCA authorises an Authorised Data User after consultation with relevant industry representatives in Australia, and their endorsement.
Authority	For the purposes of the <i>RIM Industry-Led Data-Sharing Schemes (AUS)</i> , an entity responsible for the administration of <i>RIM Industry-Led Data-Sharing Schemes (AUS)</i> . An Authority may appoint an administrator to perform its functions.
data collection period	A whole number of days in the UTC time zone for which all application data is provided. Successive data collection periods are contiguous.
data package	A package of information sent via Tier 3 Data Exchange for a data collection period.
data record	A discrete and defined set of data elements generated by a device.
enrolment	Both the process and outcome by which an Operator enters a scheme. Each vehicle must be enrolled for each scheme it participates in. Enrolment also confirms the application and conditions (if applicable) that the vehicle is monitored under.
enrolment form	An electronic document that formally and simultaneously records the enrolment of a vehicle within a scheme, and within the application required by that scheme.

Term	Definition
enrolment report	A summary of enrolments relevant to a given Authority for a specified reporting period, including any aggregated data required by specific applications.
level of assurance	An assurance level that supports telematics applications, structured around the intended use of a telematics application, risks being managed, and the needs and expectations of consumers and other stakeholders.
Level 1 Assurance	Self-assessment of data and no independent oversight of a telematics application.
Operator	An entity that operates one or more vehicles eligible to enter a scheme.
scheme	The generic term for a specific use of an application linked to delivering a policy objective.
telematics device	The primary telematics unit which monitors vehicle parameters.
Tier 1 Data Exchange	A web services solution where structured information is exchanged that complies with requirements such as authentication, security, privacy and certainty of delivery. It includes exchanges of information related to a vehicle's enrolment in telematics applications, conditions and adherence to those conditions.
Tier 2 Data Exchange	The human-initiated (rather than automated) exchange of business-related information and advice. Typical exchanges via this tier include reporting of issues and resolutions, correspondence regarding certification and re-certification, advice regarding information and communications technology (ICT), data assurance and other reporting.
Tier 3 Data Exchange	The packaging and delivery of data packages, comprising data records and enrolment-related artefacts. Data packages have several uses which include data analysis by the recipient, data assurance, and for research purposes.
Industry-Led Data-Sharing Consultative Body (AUS)	A body consisting of industry representatives relevant to RIM Industry-Led Data-Sharing Schemes (AUS). Endorsement of the Industry-Led Data-Sharing Consultative Body (AUS) is required before a user can be set up as an Authorised Data User and be granted access to aggregated and de-identified reports and analysis of RIM Industry-Led Data-Sharing Schemes (AUS).

B RIM Industry-Led Data-Sharing Scheme – Dangerous Goods (AUS)

Purpose

The RIM Industry-Led Data-Sharing Scheme – Dangerous Goods (AUS) is a scheme requested by the National Bulk Tanker Association (NBTA) to monitor road utilisation of vehicles carrying dangerous goods operating on the Australian road network.

Background

The NBTA will use this scheme to view road utilisation of vehicles carrying dangerous goods in Australia. Dangerous goods are classified in accordance with *The Australian Code for the Transport of Dangerous Goods by Road & Rail*, which is available from <https://www.ntc.gov.au/codes-and-guidelines/australian-dangerous-goods-code>.

To participate in the scheme, Operators must conform with the scheme rules and entry conditions available on the TCA website. Eligible vehicles enrolled in the scheme may carry dangerous goods or non-dangerous goods, or be unladen.

Eligible vehicles enrolled in the scheme must be fitted with a telematics device or similar for use at Level 1 Assurance or higher.

Scheme Features

Through TAP, Authorised Data Users will have access to specific reporting as described in 2.2e that includes road utilisation of eligible vehicles enrolled in the scheme on routes of the Australian road network.

Other aspects of this scheme operate in accordance with generic RIM Industry-Led Data-Sharing Scheme (AUS) processes, such as ASP Registration, Enrolment, Data Reporting, and Data Analysis and Reports. For more information, see 2.2e.

Refer to the following when entering values into data elements for Scheme or Authority Code – for example, in an enrolment form or enrolment report.

Table B.1: Scheme Name and Authority Code

Scheme Name (full)	Scheme Data Element Value (e.g. for enrolment form or report)	Authority Code Data Element Value
RIM Industry-Led Data-Sharing Scheme – Dangerous Goods (AUS)	RIMILDSDNG	VAU

C RIM Industry-Led Data-Sharing Scheme – Construction (AUS)

Purpose

The RIM Industry-Led Data-Sharing Scheme – Construction (AUS) is a scheme requested by Cement Concrete & Aggregates Australia (CCAA) to monitor road utilisation of vehicles associated with the construction industry operating on the Australian road network.

Background

The CCAA will use this scheme to view road utilisation of vehicles associated with the construction industry in Australia. The following vehicle types are eligible to enrol in the scheme:

- Tipper Truck
- Tanker Truck
- Agitator Truck.

To participate in the scheme, Operators must conform with the scheme rules and entry conditions available on the TCA website. Eligible vehicles enrolled in the scheme may be laden or unladen.

Eligible vehicles enrolled in the scheme must be fitted with a telematics device or similar for use at Level 1 Assurance or higher.

Scheme Features

Through TAP, Authorised Data Users will have access to specific reporting as described in 2.2e that includes road utilisation of eligible vehicles enrolled in the scheme on routes of the Australian road network.

Other aspects of this scheme operate in accordance with generic RIM Industry-Led Data-Sharing Scheme (AUS) processes, such as ASP Registration, Enrolment, Data Reporting, and Data Analysis and Reports. For more information, see 2.2e.

Refer to the following when entering values into data elements for Scheme or Authority Code – for example, in an enrolment form or enrolment report.

Table C.1: Scheme Name and Authority Code

Scheme Name (full)	Scheme Data Element Value (e.g. for enrolment form or report)	Authority Code Data Element Value
RIM Industry-Led Data-Sharing Scheme – Construction (AUS)	RIMILDSCON	VAU



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