

# TMA High Productivity Freight Vehicle Monitoring Schemes

Schemes using the Telematics Monitoring Application (TMA) for the Department of Transport, Victoria

**July 2022** 

Title TMA High Productivity Freight Vehicle Monitoring Schemes

Document No. TCA-SR17

Version 2.1

Date July 2022 Status Published

#### © Transport Certification Australia Limited 2022.

This document has been published by Transport Certification Australia Limited.

This document is copyright. Apart from any use as permitted under the Copyright Act 1968, no part may be reproduced by any person or process without the prior written permission of Transport Certification Australia Limited.

Transport Certification Australia Limited believes this publication to be correct at time of printing and does not accept responsibility for any consequences arising from the use of information herein. Readers should rely on their own skills and judgment to apply information to particular issues.

 $\mathsf{TCA}^\mathsf{TM}$ , Transport Certification Australia $^\mathsf{TM}$ , National Telematics Framework $^\mathsf{TM}$ , TCA Certified $^\mathsf{TM}$ , TCA Type-Approved $^\mathsf{TM}$ , Intelligent Access Program $^\mathsf{TM}$ , IAP®, IAP Service Provider $^\mathsf{TM}$ , IAP-SP $^\mathsf{TM}$ , In-Vehicle Unit $^\mathsf{TM}$ , IVU $^\mathsf{TM}$ , On-Board Mass $^\mathsf{TM}$ , OBM $^\mathsf{TM}$ , Telematics Monitoring Application $^\mathsf{TM}$ , TMA $^\mathsf{TM}$ , Road Infrastructure Management $^\mathsf{TM}$ , RIM $^\mathsf{TM}$ , Intelligent Mass Monitoring $^\mathsf{TM}$ , Intelligent Location Monitoring $^\mathsf{TM}$  and ILM $^\mathsf{TM}$  are trademarks of Transport Certification Australia Limited.

Transport Certification Australia Ltd

T: +61 3 8601 4600 E: tca@tca.gov.au W: www.tca.gov.au ABN 83 113 379 936

#### **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.

### **Contents**

1	Introduction		5
	1.1	Purpose	5
	1.2	Scope	5
	1.3	Background	5
2	TMA	A High Productivity Freight Vehicle Monitoring Schemes	8
	2.1	Participants	8
	2.2	Scheme Parameters	9
	2.3	Key Scheme Processes	11
	2.4	Roles and Responsibilities	14
Ар	pen	dices	
Α	Acr	onyms and Definitions	16
В	Data	a Element Reference Values	19

Important: This document describes the Telematics Monitoring Application (TMA) High Productivity Freight Vehicle (HPFV) Monitoring schemes only. Eligible vehicles may be enrolled in a TMA HPFV Monitoring scheme and/or the Intelligent Access Program (IAP) HPFV Monitoring Scheme. This document does not provide information on the IAP HPFV Monitoring Scheme other than the details shown in Appendix B.

Regarding scheme enrolment:

- Location is monitored through enrolment in a TMA or IAP HPFV Monitoring scheme, as selected by the Operator.
- Mass is monitored only through enrolment in a TMA HPFV Monitoring scheme.

#### 1 Introduction

#### 1.1 Purpose

TMA High Productivity Freight Vehicle Monitoring schemes are schemes, administered by the Department of Transport (DOT), Victoria, to permit access of eligible high productivity freight vehicles (HPFV) on approved routes on the Victorian road network.

#### 1.2 Scope

This document describes TMA HPFV Monitoring schemes and how they will be used with the Telematics Monitoring Application (TMA).

The following information is included:

- Parameters of TMA HPFV Monitoring schemes;
- · Key processes of TMA HPFV Monitoring schemes; and
- Roles and responsibilities of TMA HPFV Monitoring scheme participants.

Note: This document does not provide information on the Intelligent Access Program (IAP) HPFV Monitoring Scheme other than the details shown in Appendix B.

#### 1.3 Background

In Victoria, an HPFV is a heavy vehicle combination that exceeds 26 metres and/or has a gross combination mass (GCM) of more than 68.5 tonnes. A quad-axle semi-trailer that exceeds 46 tonnes GCM up to a maximum mass of 50.5 tonnes GCM is also classified as an HPFV.

Being larger allows more freight to be transported with less vehicles, reducing transportation costs and improving productivity.

Not all roads and road infrastructure can safely provide access to HPFVs. This can be as a result of bridges that have not been built to cater for the heavier HPFVs or the road geometry is not suitable for vehicles longer than 26 metres. As a result, eligible HPFVs are monitored on approved routes for parameters such as identity, date and time, location, derived speed, and if applicable, vehicle configuration and mass. The approved route network is available on the DOT website.

Eligible HPFV vehicle categories are outlined in the information sheet *Victoria's High Productivity Freight Vehicle (HPFV) Networks*, available from the DOT website.

Eligible vehicles may enrol in a TMA HPFV Monitoring scheme and/or the related IAP HPFV Monitoring Scheme (see Figure 1 and Appendix B, Tables B.1 and B.2).

If eligible vehicles are already enrolled in the related IAP scheme:

- Enrolment may be cancelled in the IAP scheme and commenced in a TMA HPFV Monitoring scheme; or
- Enrolment may be retained in the IAP scheme and commenced in a TMA HPFV Monitoring scheme (i.e. enrolment may be in both schemes).

If eligible vehicles are not enrolled in the related IAP scheme, they may be enrolled in a TMA HPFV Monitoring scheme or the IAP scheme.

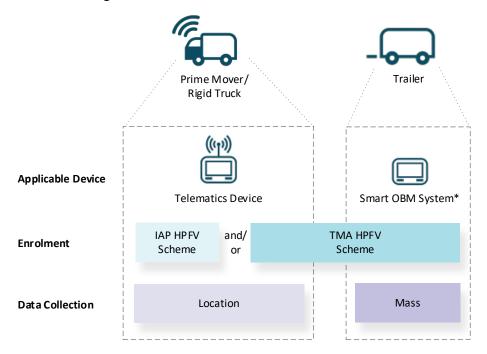


Figure 1: Enrolment in TMA and/or IAP HPFV Schemes

\* Smart OBM system is an OBM system approved by TCA to Category B or C. It is not required for HPFV combinations operating on the PBS Level 2B network at up to 68.5 t GCM or quad-axle semi-trailers operating at up to 46 t GCM.

To participate in a TMA HPFV Monitoring scheme, an Operator (e.g. a transport operator) must conform with the requirements specified within a Class 2 permit issued by the National Heavy Vehicle Regulator ('the permit'). Enrolment in the TMA application is one of these requirements.

Data is collected from vehicles fitted with TCA-approved telematics devices. Where applicable, and in accordance with the vehicle's dimensions and GCM (see Note below), vehicle configuration and mass data is collected by on-board mass (OBM) systems approved by TCA to Category B or C (i.e. Smart OBM systems), and sent to the certified Application Service Provider (ASP).

#### Note:

- (i) Approval may be in the form of type-approval or an equivalent approval mechanism acceptable to TCA. The ASPs must meet applicable requirements in the functional and technical specification, irrespective of the approval mechanism.
- (ii) By 1 November 2021, HPFVs operating above 68.5 tonnes GCM (or above 46 tonnes GCM for quadaxle semi-trailers) must be fitted with a Smart OBM system approved by TCA and paired with a certified ASP. HPFVs that cannot meet the Smart OBM requirement by 1 November 2021 can apply for an extension to this deadline by contacting heavyvehicles@transport.vic.gov.au.

Extensions are granted to allow HPFV operators to continue operating whilst in the process of arranging fitment of Smart OBM to their HPFV fleet. Vehicles that are operating under an extension to this deadline are still considered to be operating under permit as they do not meet the requirements of the gazette.

For more information, see Victoria's High Productivity Freight Vehicle Network Information Sheet.

Important: Combinations operating on the PBS Level 2B network at up to 68.5 tonnes GCM or quadaxle semi-trailers operating at up to 46 tonnes GCM are **not** required to be fitted with a Smart OBM system approved by TCA.

ASPs provide data to TCA. TCA analyses the data and makes reporting available to DOT and participating local governments in Victoria via the Telematics Analytics Platform (TAP).

The TMA application is offered at Level 2 Assurance appropriate to these vehicles (see Appendix A for a definition of Level 2 Assurance).

Note: The TMA application can be used for a variety of purposes. In this document, TMA is described in the context of the scheme, which has specific business requirements associated with the standard operation of the TMA application.

# 2 TMA High Productivity Freight Vehicle Monitoring Schemes

#### 2.1 Participants

Figure 2 outlines the key interactions between participants for the use of the TMA application for a TMA HPFV Monitoring scheme:

- DOT, as the Authority of the scheme, requires the monitoring, with reporting, of the Operator's vehicle(s) as a condition of the Authority allowing the Operator and its vehicle(s) to participate in the scheme. The Authority may conduct compliance activities as necessary;
- Operators are vehicle operators that agree to enrol vehicles into the scheme, and consent to their data collected through the TMA application to be used for the intended purpose (as defined by the Authority and agreed to by the Operator in the ASP-Transport Operator Agreement);
- ASPs, certified by TCA, offer telematics services (hardware, software and associated processes) to
  enable enrolment of eligible vehicles in the TMA 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; and
- TCA administers the TMA 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-Transport Operator Agreements available to participants. TCA also receives telematics data from ASPs, performs data analysis, and makes standard and specialised reporting available to the Authority (and other bodies authorised by the Authority) via TAP as agreed between the Authority and TCA, and in accordance with the intended purpose as agreed by the Operator in the ASP-Transport Operator Agreement.

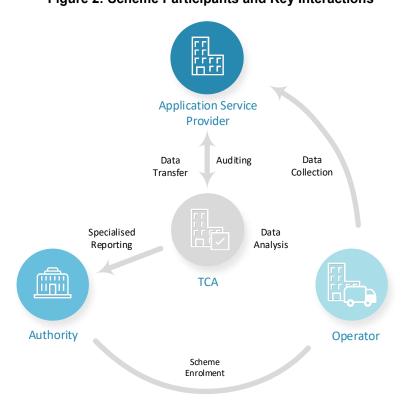


Figure 2: Scheme Participants and Key Interactions

Note: Interactions between scheme participants are consistent with interactions between TMA application participants and are not specific to the scheme.

#### 2.2 Scheme Parameters

This section describes the common features of a TMA HPFV Monitoring scheme. For information on features that are specific to a TMA HPFV Monitoring scheme, refer to Appendix B.

Note: The following information is for TMA HPFV Monitoring schemes only. This document does not provide information on the IAP HPFV Monitoring Scheme other than the details shown in Appendix B.

#### a. ASP Certification

TCA will certify ASPs to provide services for the TMA application.

#### b. Enrolment

ASPs will enrol vehicles in the TMA application and a TMA HPFV Monitoring scheme at the request of the Operator.

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

Note: Operators are expected to be more inclined to have their vehicles monitored through the TMA application based on the Authority transparently communicating the intended use of the TMA application, and obtaining assurance and safeguards from TCA that data collected through the TMA application will not be used for other, undisclosed purposes (such as compliance and enforcement).

Figure 3 shows the pre-enrolment steps for a TMA HPFV Monitoring scheme.

Figure 4 shows the reporting processes for a TMA HPFV Monitoring scheme.

Figure 5 shows the enrolment cancellation and reporting processes for a TMA HPFV Monitoring scheme.

Note: See Appendix B, Tables B.1 and B.2, for values that must be entered into the Scheme and Authority Code data elements of an enrolment form or enrolment report.

#### c. <u>Devices and Data Collection</u>

The primary device used in the TMA application is a telematics device, approved by TCA for use at Level 2 Assurance or higher.

The telematics device will collect:

- position data at 30-second intervals (or as approved by TCA); and
- date and time data.

The following applies to HPFVs that are required to collect vehicle configuration and mass data (see Note ii at the bottom of page 6):

- The connected device used in the TMA application is a Smart OBM system (i.e. an OBM system approved by TCA to Category B or Category C) See Appendix A for definitions of OBM system categories.
- The Smart OBM system will collect vehicle configuration and mass data. The Smart OBM system will collect mass data at 5-minute intervals.

Note: Smart OBM systems are unable to provide reliable axle mass readings when a vehicle is in motion. The collection of mass records every 5 minutes is specifically for data analysis and the identification of possible changes to the load of a vehicle category.

#### d. Data Reporting

The ASP shall transfer data records collected through TMA to TCA no less frequently than each calendar month, and as described in *Telematics Monitoring Application Functional and Technical Specification*.

#### e. Data Analysis and Reporting

TCA will make data analysis and reporting available to the Authority and participating local governments in Victoria through TAP.

Through TAP, the Authority and participating local governments in Victoria will have access to:

- interactive maps, which represent data using data elements collected as part of the scheme; and
- specific reporting required for scheme management.

#### Note:

- (i) The type, number, frequency and graphical output of specific reporting will be subject to agreed terms reached between TCA and the Authority.
- (ii) The TMA application relies on changes in vehicle position records over a 30-second period to derive vehicle speed. Average and maximum vehicle speed results are estimates only, and may be influenced by factors such as road geometry and GNSS quality. Authorities should exercise caution when interpreting vehicle speed derived from the TMA application.

The use of TMA for this scheme is intended to provide a basic representation of individual and identifiable vehicle movements based on the data collected and the use of data for the intended purpose of the scheme (as agreed by the Operator in the ASP–Transport Operator Agreement).

The Authority and participating local governments in Victoria will manually review the operation of vehicles (through TAP) against the approved road network. TCA does not offer automated exception reporting to assess whether a vehicle has not met access conditions granted by the Authority.

A Scheme Participation Report will be made available to the Authority on a monthly basis via TAP. This report may include the following standard measures and dimensions as shown in Table 1.

**Table 1: Scheme Participation Report** 

Report Content	Examples
Aggregated	Count of all vehicles enrolled in the scheme
measures	Count of vehicles enrolled in the scheme that TCA received data from
	Vehicles enrolled in the scheme that TCA did not receive data from for at least 30 consecutive days
	Note: Reporting of this measure will include vehicle identities. A participating vehicle will only be included in this measure if, without a satisfactory explanation, it has not provided data for at least 30 consecutive days.
	Count of Operators with enrolled in the scheme
	Count of ASPs reporting data for vehicles enrolled in the scheme
Dimensions	Operator
	• ASP

#### 2.3 Key Scheme Processes

Figure 3 outlines the key actions taken by each participant during the pre-enrolment stage of the operation of a TMA HPFV Monitoring scheme.

#### Note:

- i) This process assumes that TCA has already certified the ASP to provide TMA application services.
- ii) The following information is for TMA HPFV schemes only. This document does not provide information on the IAP HPFV Scheme other than the details shown in Appendix B.

**ASP** Authority **TCA** Operator Issues instrument of access approval (e.g. permit or Notice) Self-assesses whether it meets scheme entry requirements Informs ASP of intention to enter Agrees to provide scheme and engages application and ASP to provide app. scheme services and scheme services Signs ASP-TO Agreement, retains original and sends a copy to ASP Receives copy Receives copy of of ASP-TO Agreement ASP-TO Agreement on request Generates enrolment Receives copy form in XML format of enrolment form with information in next data batch from Operator If required by the Completes template Authority for the and provides scheme, forwards Certificate of Certificate of Enrolment to Operator Enrolment template to ASP Refer to Reporting **Process** 

**Figure 3: Pre-Enrolment Process** 

Figure 4 outlines the key actions related to data collection, record generation and reporting.

Operator **ASP** Authority **TCA** Commences provision of application and scheme services If applicable devices<sup>1</sup> Telematics device not already installed, collects data and installs devices in generates data records vehicles Telematics device Receives data records sends data from telematics device records to ASP Forwards data packages to TCA at Receives and analyses least monthly in data; applies rules as standardised data required by scheme format Views data collected, Provides interactive map and reporting and reports<sup>3</sup> generated through the scheme capability via TAP2 Analyses data extracts Provides data extracts generated through the at least monthly scheme Forwards Receives enrolment enrolment report report to TCA monthly Pays invoice within Forwards Operational timeframe printed on Fee Invoice to ASP invoice Makes Scheme Views Scheme Participation Report Participation Report<sup>4</sup> available monthly

Figure 4: Reporting Processes

- 1. Applicable devices include a TCA-approved telematics device, and:
  - If mass and vehicle configuration will be collected, a TCA-approved OBM system at Category B or C; and/or
  - If comments are self-declared, a user interface connected to the TCA-approved telematics device.
- 2. Data will be updated at least monthly.
- 3. The Authority will nominate the locations that will be subject to location-based reports (subject to agreed terms).
- 4. Local governments in Victoria may also view this information.

Cancellation of enrolment may be initiated by the Operator, the Authority or the ASP.

Figure 5 outlines the key actions to discontinue enrolment of a vehicle.

**ASP** Authority TCA Operator Decides to Decides to Decides to remove remove Operator from remove Operator from a vehicle from the scheme and informs scheme and provides scheme ASP vehicle details to ASP Updates enrolment status to Cancelled and forwards enrolment to TCA via Tier 3 Data Exchange Receives cancelled enrolment Forwards Receives enrolment enrolment report report to TCA monthly Makes Scheme Receives Scheme Participation Report Participation Report<sup>1</sup> available monthly

Figure 5: Enrolment Cancellation and Reporting Processes

 ${\bf 1.} \ \ {\bf Local \ governments \ in \ Victoria \ may \ also \ view \ this \ information.}$ 

#### 2.4 Roles and Responsibilities

Note: The following information is for a TMA HPFV Monitoring scheme only. This document does not provide information on the IAP HPFV Monitoring Scheme other than the details shown in Appendix B.

In delivering the objectives of the scheme, TCA will:

- Provide a document (this document) describing the use of the scheme as part of the TMA application
- Produce or maintain collateral, as necessary, to support the scheme. Examples include the provision of current versions of:
  - Telematics Monitoring Application Functional and Technical Specification
  - o Telematics Business-to-Business Data Exchange Functional and Technical Specification
  - o Telematics Device Functional and Technical Specification
  - o (as applicable) On-Board Mass System Functional and Technical Specification
  - o (as applicable) Interconnectivity of Telematics Device with Other Systems Functional and Technical Specification
- Support the reporting of data records via Tier 3 Data Exchange using a RESTful API, with these records formatted using JSON
- Support the reporting of enrolment forms and enrolment reports using a RESTful API, with these
  documents formatted using XML
- Inform ASPs of scheme details and entry conditions
- Produce an ASP–Transport Operator Agreement for use with the scheme and make it available from the TCA website
- Ensure that TAP is set up to enable the Authority and participating local governments in Victoria to
  access reporting generated by the scheme (in accordance with the intended purpose as agreed by
  the Operator in the ASP–Transport Operator Agreement), and any malfunctions associated with
  vehicles enrolled in the scheme
- Maintain the cloud environment and databases, etc. for receipt of data records from the TMA application
- Produce and execute an ASP-TCA Certification Agreement, which formalises the relationship between TCA and the ASP with regard to ASP certification, or update the current Agreement
- Assess and certify whether an ASP meets requirements to provide TMA services
- Approve devices used in the scheme
- Ensure the intellectual property rights of ASPs are protected when assessing whether an ASP can meet operational requirements of the scheme
- If required by the Authority, provide certified ASPs with the Certificate of Enrolment template
- At the end of each month, forward Operational Fee Invoices to ASPs upon receipt of enrolment reports
- With the ASP, monitor via TAP whether a device malfunction has been resolved within agreed timeframes
- Notify the ASP when data from an enrolled vehicle has not been received for one month, followed by the Authority if unresolved
- Provide the Authority with reporting outlined in 2.2e via TAP
- Ensure the confidentiality of ASP data is maintained
- Unless directed by the Authority and consented to by the Operator, de-identify the TMA telematics
  data it has received relating to the Operator's nominated vehicle(s) 12 months from its receipt of the
  data.

#### The Authority will:

- Maintain documentation required by the Authority for the scheme
- Undertake program coordination activities related to the scheme with TCA
- Monitor whether device malfunctions have been resolved within agreed timeframes
   Note: TCA will notify the ASP when data has not been received for one month, followed by the Authority if unresolved.
- Access reporting outlined in 2.2e via TAP, and review data trends and numbers of enrolled vehicles
- Conduct compliance activities as necessary
- In conjunction with TCA, communicate scheme-related policy changes to industry and stakeholders.

#### 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, and forward this
  information to TCA using an agreed mechanism on a monthly basis
- Provide the ASP—Transport Operator Agreement to an Operator once an agreement to provide services for the scheme has been made
- Be responsible for the installation, operation and maintenance of telematics devices (and any connected devices) and the reporting of data received from those devices
- If required by the Authority, provide Certificates of Enrolment to enrolled Operators, using the template received from TCA, and coordinate their removal from vehicles no longer enrolled in the scheme
- Pay Operational Fee Invoices received from TCA, generated upon receipt of enrolment reports, within the timeframe shown on the invoice
- In the event of a device malfunction: liaise with the Operator and/or device supplier to resolve the
  issue; report the malfunction (unidentifiable) to TCA within the required time period; monitor via TAP
  whether the device malfunction has been resolved within agreed timeframes; and notify TCA when
  the malfunction has been resolved
- 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 Authority website and determine whether they
  meet those conditions
- Access the permit and ensure compliance with its requirements for the scheme
- 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 TMA ASP— Transport Operator Agreement
- Follow rules for enrolment in the scheme
- Store original signed ASP–Transport Operator Agreement and forward copies to the ASP and TCA (on request)
- Install telematics devices (and any connected devices) and engage an ASP to provide 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
FTPS	File Transfer Protocol Secure
GCM	gross combination mass
HPFV	high productivity freight vehicle
IAP	Intelligent Access Program
NTF	National Telematics Framework
ОВМ	on-board mass
TAP	Telematics Analytics Platform
ТМА	Telematics Monitoring Application
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 certified by TCA as meeting the requirements of one of more telematics applications.
approval mechanism	The mechanism by which TCA approves a device, such as a telematics device or connected device, for use in a telematics application. The approval mechanism used may be type-approval, or an equivalent approval mechanism acceptable to TCA.
ASP-TCA Certification Agreement	The written agreement made between an ASP and TCA that recognises the fact that the ASP, having satisfied TCA's requirements for appointment as an ASP, is appointed in that capacity, and sets out the legal obligations of each party with respect to the ongoing role of the ASP.
ASP–Transport 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.
Authority	An entity, associated with a jurisdiction, responsible for the administration of one or more NTF applications. An Authority may appoint an administrator to perform its functions. See also: jurisdiction.
connected device	Any device or technology connected to a telematics device.
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 an Authority's 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.
enrolment report	A summary of enrolments relevant to a given Authority for a specified reporting period, including any aggregated data required by specific applications.
high productivity freight vehicle	In Victoria, a heavy vehicle combination that exceeds 26 metres and/or has a gross combination mass (GCM) of more than 68.5 tonnes. An HPFV also includes a Quad-Axle Semi-Trailer operating at up to 50.5 tonnes.
jurisdiction	A geographical area containing a road network (i.e. typically an Australian state or territory).
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.

Term	Definition
Level 2 Assurance	Independent assessment of specific elements of a telematics application. Telematics data is combined with other data sources.
OBM system	A category of OBM system that is defined as follows:
category	Category A – OBM systems in this category electronically display collected data to drivers and/or loaders.
	Category B – OBM systems in this category also collect data and transfer the collected data to a telematics device using a mechanism agreed and implemented by the ASP and supplier of the OBM system.
	Category C – OBM systems in this category collect data and transfer data records in a standardised way to a telematics device (in accordance with <i>Interconnectivity of Telematics Device with Other Systems Functional and Technical Specification</i> ).
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.
self-declaration	The self-declaration of data by an Operator and/or its nominated representative to the ASP.
Smart OBM system	An OBM system approved by TCA to Category B or C. See also: OBM system category
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.
vehicle configuration	A technical representation of the on-road footprint of the vehicle (that is, the number and configuration of trailers and axle groups), and is determined using data from the OBM system and data supplied by the ASP. It is typically captured with axle group pattern notation, for example '2-44/S444' for the vehicle category of Semi Trailer 6 Axle.

#### **B** Data Element Reference Values

The TMA High Productivity Freight Vehicle Monitoring Scheme is for HPFVs that are required to collect vehicle configuration and mass data using a Smart OBM system approved by TCA in addition to other scheme requirements – that is, one of the following:

- A heavy vehicle combination that exceeds 26 metres and/or has a GCM of more than 68.5 tonnes
- A quad-axle semi-trailer that exceeds 46 tonnes GCM up to a maximum mass of 50.5 tonnes GCM.

For this scheme, refer to the following when entering values into data elements for Scheme or Authority Code – for example, in an enrolment report or enrolment form:

Table B.1: TMA Scheme Name and Authority Code

Scheme Name (full)	Scheme Data Element Value (e.g. for enrolment form or report)	Authority Code Data Element Value
TMA High Productivity Freight Vehicle Monitoring Scheme	TMAHPFV	VIC

The TMA High Productivity Freight Vehicle Monitoring Scheme (No Mass Monitoring), is for HPFVs that are *not* required to collect vehicle configuration and mass data using a Smart OBM system approved by TCA – that is, one of the following:

- A heavy vehicle combination operating on the PBS Level 2B network to a maximum mass of 68.5 tonnes GCM
- A quad-axle semi-trailer operating on the PBS Level 2B network to a maximum mass of 46 tonnes GCM.

For this scheme, refer to the following when entering values into data elements for Scheme or Authority Code – for example, in an enrolment report or enrolment form:

Table B.2: TMA Scheme Name and Authority Code

Scheme Name (full)	Scheme Data Element Value (e.g. for enrolment form or report)	Authority Code Data Element Value
TMA High Productivity Freight Vehicle Monitoring Scheme (No Mass Monitoring)	TMAHPFVNOMASS	VIC

For related the IAP HPFV scheme (which is referred to by the term 'IAP Application'), refer to the following when entering values into business documents such as intelligent access conditions (IACs) and participation reports (PRs).

Table B.3: IAP Scheme Name and Authority Code

Scheme Name	IAP Application Name	Off-the Shelf	Authority Code
(full)	Data Element Value	Conditions ID	Data Element Value
IAP High Productivity Freight Vehicle Monitoring Scheme	Non Standard Freight Vehicle	VIC_HPFV0001	VIC

\_

# Contact Transport Certification Australia Level 6, 333 Queen Street Melbourne VIC 3000 Phone: + 61 3 8601 4600 Email: tca@tca.gov.au Website: www.tca.gov.au