



# NATIONAL TELEMATICS FRAMEWORK

A digital business platform

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# NATIONAL TELEMATICS FRAMEWORK

## A DIGITAL BUSINESS PLATFORM

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## DOCUMENT DETAILS

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Version	Date	Description
1.0	2006	Intelligent Access Program (IAP) Operating Model
2.0	2010	National Telematics Framework documentation
3.0	2012	Reference to ISO 15638 (TARV)/international adoption
4.0	2017	Update with focus on four pillars
5.0	2018	Update to complement revised suite of documents

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TCA page numbering convention: for ease of digital readability and referencing the cover is page 1.

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# NATIONAL TELEMATICS FRAMEWORK

The National Telematics Framework is a digital business platform consisting of infrastructure and rules that support an open marketplace of telematics and related intelligent technology providers.

The National Telematics Framework:

- Provides a national platform for the use of telematics and related intelligent technologies
- Supports different applications across regulatory, contractual and commercial needs
- Supports different levels of assurance
- Is outcome focussed and encourages innovation.

*The adoption of the National Telematics Framework for the delivery of offerings and applications both for public policy and private decision making is a world first. It has positioned Australia as the leader in the delivery of such services through the advent of the digital economy.*

The National Telematics Framework was established following a series of decisions made by Responsible Ministers between 2003 and 2008 and was globally recognised as an International Standard (ISO 15638) in 2012.

## WHAT IS TELEMATICS?

Telematics refers to integrated systems of information, communications and sensors to exchange data and information between vehicles and other locations, including:

- Vehicle to vehicle (V2V) applications
- Vehicle to infrastructure (V2I) applications
- Vehicle to elsewhere (V2X) applications.

The use of telematics and related intelligent technologies is increasingly being used across surface-based transport to improve the mobility of people and freight by improving safety, productivity and efficiency outcomes, including:

- Monitoring and reporting of vehicles and infrastructure
- Providing information to and from vehicles
- Connected and cooperative vehicles
- Automated and autonomous vehicles.

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# THE NATIONAL DIGITAL BUSINESS PLATFORM

*For the delivery of telematics and intelligent technology applications*

The National Telematics Framework brings together producers and consumers to create and utilise offerings and applications, which take advantage of the common digital business platform.

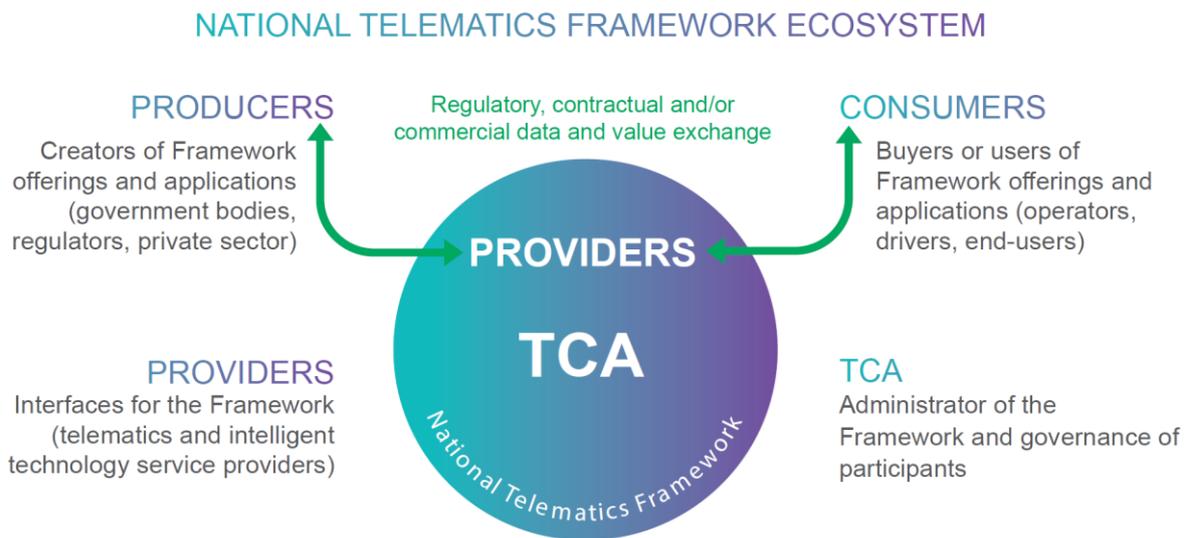
The National Telematics Framework consists of a common set of infrastructure and rules administered by TCA on behalf of Australian Governments.

This provides an ecosystem to manage relationships and interactions between three key entities:

- Producers
- Providers
- Consumers.

## BRINGING PRODUCERS, PROVIDERS AND CONSUMERS TOGETHER

The National Telematics Framework facilitates the creation and use of offerings and applications by using a common infrastructure rules through a government endorsed digital business platform.



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## **BRINGING PRODUCERS, PROVIDERS AND CONSUMERS TOGETHER**

*A separation of responsibilities distinguishes the role of producers, consumers and providers.*

### **PRODUCERS**

Producers create offerings and applications through the National Telematics Framework by:

- Establishing policies and programs
- Referencing the use of existing programs which utilise telematics applications, or creating new applications (to deliver policies and programs)
- Determining the level of assurance sought

Examples of producers include:

- Government agencies
- Regulators
- Private sector entities.

### **CONSUMERS**

Consumers are the purchasers or users of offerings and applications through the National Telematics Framework.

Examples of consumers include:

- Registered operators
- Fleet managers
- Drivers
- End-users
- Other parties.

### **PROVIDERS**

Providers are the interface between producers and consumers, by making technology offerings and applications available to consumers.

Examples of providers include:

- Suppliers of telematics and related intelligent technologies
- Vehicle manufacturers
- Other technology providers
- Subject to the specifics of an application – individual consumers

### **TCA**

TCA is the government appointed administrator of the Framework and is responsible for the management of:

- Governance arrangements for the platform
- The approval and oversight (subject to level of assurance) of providers
- The infrastructure and common components that aim for an open market.

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## PARRALLELS WITH OTHER OPERATIONAL FRAMEWORKS

The National Telematics Framework is similar to other operational frameworks administered by government agencies where there is a need to:

- Deliver public outcomes in a specific policy area, or legislative objective
- Manage interactions between different stakeholders to achieve outcomes
- Achieve a balance between public and private interests.

Each of these operational Frameworks have similarities such as:

- The instruments used, and activities performed by, administrators of frameworks
- The provision of operational oversight, reporting and corrective mechanisms to manage the functioning of frameworks
- The delineation of roles and responsibilities of different entities within each frameworks: administrators/regulators (producers), Providers of services, and receivers of services (consumers).

These interrelated elements, when administered within an agreed operating framework, deliver consistency and confidence to all stakeholders (including producers, providers and consumers).

The Framework operates in a similar manner to other frameworks in other portfolios, as highlighted in the following table:

PORTFOLIO/POLICY AREA	FRAMEWORK	ADMINISTRATOR
Superannuation	Superannuation Prudential Framework	Australian Prudential Regulation Authority (APRA)
Telecommunications/spectrum management	Spectrum licensing technical framework	Australian Communications and Media Authority (ACMA)
Energy	National Energy Framework	Australian Energy Regulator (AER)
Telematics	National Telematics Framework	Transport Certification Australia (TCA)

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# KEY PRINCIPLES OF THE FRAMEWORK

The Framework enables balanced outcomes to be achieved across four inter-related pillars:

## POLICY

- Producers can design telematics and intelligent technology applications for policy and program delivery
- Producers can choose the appropriate level of assurance, based on policy and program design, and the productivity and safety outcomes being managed
- Avoids the potential for policies and programs being 'hard-wired' into stand-alone, and even proprietary technology solutions
- Ensures that reforms led by producers from multiple policy areas can coexist through the services providers and are not inhibited
- Individual producers retain autonomy over policy and program decisions to deliver public purpose or private decision outcomes through the use of telematics.

## OPERATIONAL

- Provides of a single, nationally agreed, government digital business platform to support an infinite number of producers, providers and consumers
- Promotes an open technology market which overcomes barriers to entry (and exit) for producers, providers and consumers
- Encourages new working partnerships and business arrangements, by leveraging the benefits of a common platform for the digital economy
- Maintains a separation of roles, responsibilities and functions between producers, providers and consumers
- Risks are allocated transparently between producers, providers and consumers
- New applications can be developed easily with marginal costs by leveraging common components.

## TECHNICAL

- Focuses on performance-based outcome-focused offerings and applications (technology agnostic)
- Leverages established standards, technologies and investments - allowing providers to deploy new applications easily, based on the needs of producers and consumers
- Enables providers to offer applications to consumers which co-exist by leveraging common Business Rules, the Telematics Data Dictionary and the Telematics Data Exchange (collect data once, use it for multiple applications)
- Encourages new technologies and technical 'disruptions', to meet the needs of producers and consumers.

## COMMERCIAL

- Producers and consumers benefit from an open technology market offering competition and choice
- Competition and choice drives innovation between providers - improving service offerings and lowering costs
- Adopts the network effect of platforms by allowing for an unlimited number of producers, providers and consumers (including offerings and applications), making it both scalable and sustainable
- Allows consumers to choose from, and move between different providers
- Creates value by facilitating interactions between producers and consumers across multiple offerings and applications.

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# WHAT DOES THE FRAMEWORK CONSIST OF?

The National Telematics Framework consists of the following inter-related components:

## LEGISLATION



Which underpins roles and functions to administer the National Telematics Framework and enables the operation of specific applications within the National Telematics Framework.

## TELEMATICS DATA EXCHANGE



Describes the standard methods and mechanisms for the transfer of telematics data between entities.

## TELEMATICS DATA DICTIONARY



A dictionary of common data elements across all specifications (to ensure inter-connectivity and inter-operability, to support any number of current and future applications).

## ALLOCATION OF RESPONSIBILITIES



Roles, responsibilities and functions are assigned to producers, providers and consumers.

## GOVERNANCE FRAMEWORKS



To grant (and cancel) approvals (managed on behalf of road and transport agencies, regulators and other government agencies).

## PRIVACY



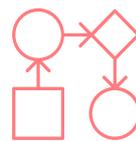
Governance frameworks to manage privacy requirements, to ensure the use of data collected through telematics and related technologies is used only for disclosed purposes.

## LEVELS OF ASSURANCE



Different levels of assurance can be supported based on the needs of providers to deliver intended outcomes, management of risks and balancing costs and benefits.

## APPROVAL, OVERSIGHT AND AUDIT



Fit for purpose approval (for providers of telematics and related intelligent technologies). Fit for purpose audit programs (managed on behalf of government agencies and regulators by TCA).

## FUNCTIONAL AND TECHNICAL SPECIFICATIONS



A library of functional and technical specifications (which translate end-use policy objectives into performance-based outcomes to be met by providers of telematics and related intelligent technologies).

## OPERATIONAL ADMINISTRATION



Operational administration of applications of the National Telematics Framework (managed on behalf of road and transport agencies, regulators and other government agencies as required).

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# HOW TO USE THE SUITE OF NATIONAL TELEMATICS FRAMEWORK DOCUMENTS

The suite of National Telematics Framework documents consists of documents which describe the common components of the Framework, the different Levels of Assurance available and using applications within the Framework.



Information for Producers is contained in the 'Application Builder' document to assist stakeholders involved in the development of policies and programs to make better informed decisions when exploring the use of telematics applications to deliver improved outcomes.

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A graphic banner for the National Telematics Framework. It features a network of interconnected nodes and lines in shades of grey and white, overlaid on a background of teal and blue geometric shapes. The text 'NATIONAL TELEMATICS FRAMEWORK' is positioned on the left side.

NATIONAL  
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