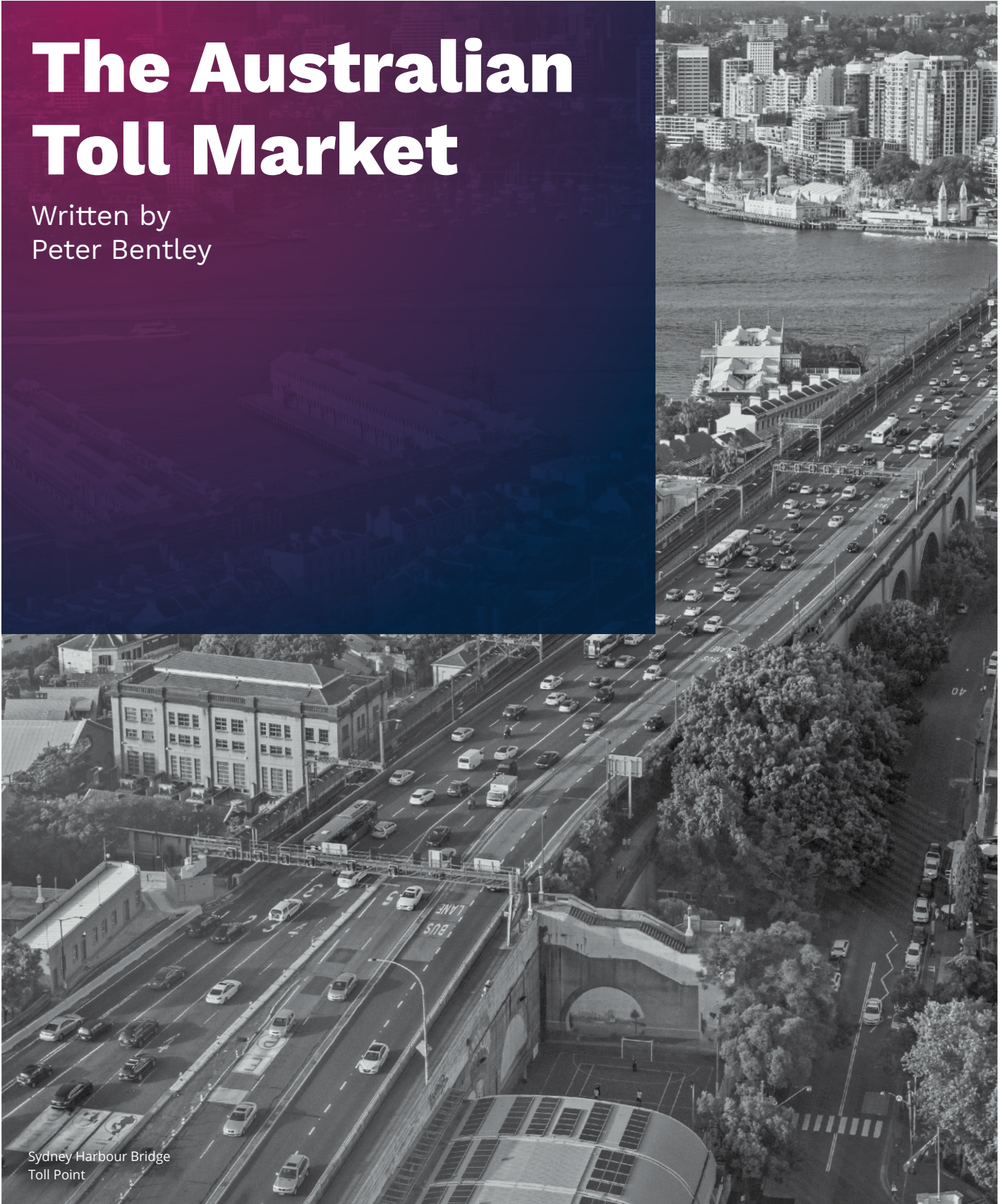




The Australian Toll Market

Written by
Peter Bentley



Sydney Harbour Bridge
Toll Point

Australia has a long history of toll roads. The first main roads in NSW were built in the early 1800s and were financed by toll booths. Since 2013 all toll roads have operated using Intelligent Transport Systems (ITS) to detect and collect fees from drivers.

In 2016 there were 16 different toll roads operating across three states of Australia in Victoria, New South Wales and Queensland. Eight tag issuers service these roads, providing customers with Dedicated Short Range Communication (DSRC) tags. DSRC tags are fitted to vehicles and provide access to travel on toll roads within Australia.

Industry snapshot

Source: Toll Road Operators in Australia Industry Report (April 2016) IBIS World Pty Ltd

Revenue

\$2.2bn

Annual Growth 2011-16

5.4%

Annual Growth 2016-21

3.2%

Profit

\$893.7 million

Wages

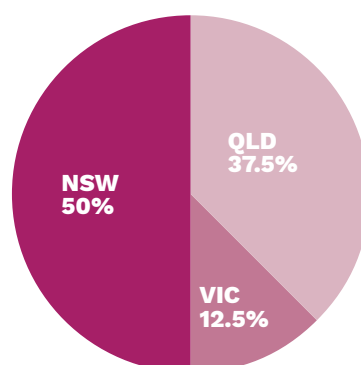
\$62.5 million

Employment

896

Players

6



Split between
States



Major Market segmentation
(2015-16)

Concession agreements

In each state, the State Government is the entity that grants a tolling concession to a concessionaire with the exception that in Queensland the Brisbane City Council granted the concessions for Legacy Way, Clem 7 and the Gateway Bridge. Usually the concessionaire is a private company, although in NSW, Roads and Maritime Services have separate divisions of the State acting as both regulator and concessionaire.

Each arrangement is covered in either a Project or Concession Deed, Road Franchise Agreement or Project Agreement. These deeds or agreements set out the conditions of the arrangement and most commonly include the toll calculation schedule, the length of the concession, the obligations of the operator and the hand back provisions at the end of the concession period.

The State (usually through a specific entity set up for a Concession) or in some cases a Local Government body, perform the role of the regulator. The regulator usually imposes obligations on the toll road owner (and operator) to operate and maintain the road and retail operations within certain conditions. Performance is monitored at regular intervals by formal reports and audits. Some arrangements include formal Key Performance Indicators (KPI's) that impose financial penalties for failure to meet the specified performance benchmarks.

At the end of the concession period it is normal for the operator to be required to hand back both the road and the tolling system to the State. The State may then continue to operate the toll road itself, grant a new concession or cease tolling; returning the road to a free public road. Conditions for hand back vary between each project and are often very complex in relation to Intellectual Property (IP) rights, licensing of software and asset conditions.

Major Operators

Transurban Group (73% market share)

An Australian publicly listed company involved in the development and management of toll roads in Australia and the United States. The CityLink toll road in Victoria (operated since 1999) accounts for 35 percent of toll revenue and is the company's largest source of revenue. Transurban is also leading a market led proposal to build, own and operate a new toll road called the Western Distributor which will provide Melbourne with a much needed second river crossing to the Westgate Bridge.

In Queensland, Transurban is part of a consortium that purchased Queensland Motorways Limited (QML) from the Queensland Investment Corporation (QIC) in April 2014. It also owns the CLEM 7, Airport Link, Go Between Bridge and Legacy Way toll roads.

In NSW Transurban owns and operates Sydney's Cross City Tunnel, Lane Cove Tunnel and M2 motorways. Transurban also owns a 50 percent share in each of the M5 and M7 motorways and a 75.1 percent share in the Eastern Distributor. In 2016 Transurban announced financial close on the \$2.9 billion NorthConnex project with its consortium partners, providing Transurban with a 50 percent share of the tolling concession.

Horizon Roads (13.8% market share)

Established in 2011 to acquire ConnectEast, Horizon Roads operates the EastLink tollway in Melbourne's eastern suburbs.

Tunnel Holdings (6.1% market share)

Tunnel Holdings operates and maintains the Sydney Harbour Tunnel on concession until 2023. The company was established in 1987 to oversee the construction of the tunnel, which opened for tolling in 1992.

Table 01: Australian Toll roads and Tag Issuers

TOLL ROAD NAME	RETAILER (TAG ISSUER)	STATE	OWNER SHIP	CONCESSION END DATE	LENGTH SURFACE (KM)	LENGTH TUNNEL (KM)	LANES	TRUCK MULTIPLIER
Melbourne CityLink	CityLink	VIC	Transurban	Jan 2035	16.8	5.2	2x4	LCV 1.50x HCV 2.65x ^[4]
EastLink	Breeze	VIC	Horizon Roads	Nov 2043	37.4	1.6	2x3	LCV 1.60x HCV 2.65x
Sydney Harbour Bridge/Tunnel ^[1]	RMS	NSW	State of NSW or TKGO Joint Venture ^[2]	SHT 2023	1.1	2.8	3x3 2x2	none
Cross City Tunnel	Roam Express	NSW	Transurban	Dec 2035	0.0	2.1	2x2	2x
M2	Roam Express	NSW	Transurban	Jun 2048	20.4	0.6	2x3	3x
Lane Cove Tunnel	Roam Express	NSW	Transurban	Jun 2048	0.3	3.5	2x2	3x
M5	Eway	NSW	Interlink Roads ^[3]	Dec 2026	22.0	0.0	2x3	3x
M7	Roam	NSW	50% Sydney Western Roads Group and 50% Transurban	Jun 2048	40.0	0.0	2x2	3x
Eastern Distributor	Eway/ Roam Express	NSW	75.1% Transurban 24.9% IFM	Jun 2048	4.3	1.7	2x3	2x
Queensland Motorways • Gateway Motorway • Logan Motorway	Go Via	QLD	Transurban	Dec 2051	23.1 38.7	0.0 0.0	2x6 2x2	LCV 1.50x HCV 2.65x
Airportlink M7	Airportlink M7	QLD	Transurban (from April 2016)	2053	4.3	6.7	2x2	LCV 1.50x HCV 2.65x
Go Between Bridge	Go Via	QLD	Transurban	Dec 2063	0.3	0.0	2x2	LCV 1.5x HCV 2.65x
Clem 7	Go Via	QLD	Transurban	Aug 2051	3.0	4.8	2x2	LCV 1.50x HCV 2.65x
Legacy Way	Go Via	QLD	Transurban	Jun 2065	1.1	4.6	2x2	LCV 1.50x HCV 2.65x

[1] The Sydney Harbour Tunnel and Sydney Harbour bridge are physically separate concessions both operated by RMS under one Concession ID under the MOU.

[2] Sydney Harbour Tunnel is not owned by the NSW State but rather a joint venture between Transfield Holdings, Kumagai Gumi and Olbia

[3] Interlink Roads is 50% owned by Transurban

[4] When the CityLink Tulla Widening Project is completed this will change to LCV 1.6 and HCV 3x.

Future road projects include:

- Toowoomba Second Range Crossing, anticipated to open in 2018.
- NorthConnex in Sydney, anticipated to open in 2019.
- M4 Widening anticipated to open in early 2017 and M4 East anticipated to open in mid 2019;
- New M5 anticipated to open in late 2019; and
- A M4 East to M5 Link anticipated to open in 2022

Tag Issuers

Tag Issuers are tolling operators who operate a retail system offering a range of different tag-based account products to customers. Each tag account product can differ in its account setup and maintenance fees. However, all tag issuers must conform to the same single standard AS4962.

All Australian tag issuers have established interoperability arrangements allowing every tag to be fully interoperable on all toll roads within Australia.

Each tag issuer enters into a commercial roaming agreement with each road owner to allow its customers to travel on any road and have the toll and fee charges automatically applied to their customer account. Such agreements may include discount amounts (or sometimes referred to as roaming fees) being paid by the road operator to the tag issuer for each transaction recorded.

The “discount amount” varies greatly between tag issuers and road operators. Discount amounts are netted off the toll amount that the tag issuers pay to the road operator and become a source of revenue to offset the additional customer service costs incurred in processing for the tag issuer.

There are exception processes in place to exclude specific tags from being treated as valid by including them on a blacklist where the customer’s account is delinquent or suspended. In these cases when the blacklisted tag is detected by the roadside equipment it is ignored for charging purposes and instead the vehicle is tolled by its Licence Plate Number (LPN) - usually as a casual road user by issuing a toll notice that contains administration fees in addition to the toll amount.

Each tag issuer sends a blacklist file to each other road operator on a daily basis advising them of the tag serial numbers that are NOT to be treated as valid.

In general approximately 85 percent of all transactions detected on any road in Australia are tag transactions.

Pass Issuers

Pass Issuers are tolling operators that provide short-term interoperable arrangements to customers via registration of the vehicle’s LPN rather than issuing the customer with a tag. The Pass Issuer communicates a list of valid passes to the road operators and each road operator attempts to match transactions for vehicle LPNs detected on their roads with the lists provided by Pass Issuers. Where a match is found the road operator bills the pass issuer who then charges the customer.

With the exception of a special use pass product offered for some rental vehicle companies such as, Avis, Hertz and Budget, the overall volumes of traffic covered by pass arrangements is relatively low - generally making up less than one percent of the total traffic.

The table below lists the current interoperable Pass Issuers in the Australian market. Passes are generally only interoperable within the same State, although some rental-based products use passes to be interoperable over multiple States.

Table 02: Pass Issuers

NAME	STATE
CityLink (Transurban)**	VIC
Roads & Maritime Services	NSW
Roam (Transurban)	NSW
TollAust (Transurban)	NSW
Queensland Motorways (Transurban)	QLD

** Bracketed entries indicate that Transurban has an interest in the retail operations of the company as either complete owner or partial ownership.

No Arrangement Travel (NAT)

Where no existing arrangement can be established for a vehicle the toll road operator will wait a defined period of time (generally up to seven days) before commencing the process of issuing a toll notice to an “unregistered user” (also referred to as a No Arrangement Travel (NAT) process). NAT accounts for around four to five percent of total traffic on each road network.

Each State has a slightly different process for processing Toll Invoices to NAT customers. All states have some version of a three-stage process with escalating steps from first notice to second (final) notice and then enforcement action.

Recovery rates from NAT customers are generally between 55 and 75 percent - the industry average is approximately 65 percent. Each toll road operator applies different business rules and processes to assist in increasing the recovery rates such as the use of civil debt collection agencies.

In NSW privacy issues prevent the vehicle registration body from supplying vehicle ownership details to the toll road operators and toll notices are issued centrally by a service department of the State (Toll Compliance Services). Each toll notice contains only a single trip on a single concession. There is a two-stage process prior to escalating to enforcement.

In Victoria the toll road operator issues the toll notices directly to the customer based on the ownership details provided to it by the vehicle registration body. The process involves two toll notices prior to escalation to enforcement. Each toll notice can contain multiple trips on a single concession for a defined period (usually up to one week). Failure to pay the toll notice within the defined terms results in a second notice with an escalated fee amount being issued to the customer. Failure to pay the second notice leads to enforcement action.

In Queensland the toll road operators' issue notices directly to Queensland registered vehicles (subject to strict privacy obligations) however vehicles registered in other states are processed through a State department. Similar to NSW and Victoria the process involves a two-stage notice process. The first notice can contain multiple trips for the same vehicle, however the second notice reverts to one Notice of Demand per individual trip on a road. Failure to comply with the Notice of Demand results in enforcement action being initiated.

Product Selection and Payment Methods

The available payment options vary by tag/pass issuer and product type. Each retailer offers a range of products with different payment options which are marketed to users predominantly on the basis of expected usage.

Tag based account products are generally the cheapest option for customers and are therefore the predominant product in the market. Tag accounts usually account for approximately 85 percent of the traffic detected on a tollroad.

Some retailers also offer video based account products to users where the customer registers their LPN to an account and is charged a video matching fee (in addition to the toll) for each trip they make. The video matching fee is set by each road operator and varies in value from around \$0.30 to \$0.75 per trip. Video based trips make up around 15 percent of the total traffic with approximately 10 percent linked to an account and four to five percent being casual users without any arrangement.

Products for casual or infrequent users are usually covered by passes which allow travel for a specific vehicle for a specified period of time - usually covering between one day and one month. These products can generally be bought prior to travel or within three days after travel. Additional fees such as set up fees and administration charges may apply to this product type with some products having a set value and others being based on automatic post-paid arrangements for the value of tolls and fees accrued at the end of the selected travel period.

Customers can choose to make no arrangement at all and they will receive a toll notice issued by the relevant motorway. Toll notices are the most expensive way to pay for tolls and include administration charges in addition to the toll amount. The administration charges vary for each road operator and escalate as the unpaid toll ages with fee amounts in the range of \$8 to \$20 per toll notice. Failure to pay a toll notice within terms may result in an infringement notice being issued. The industry average benchmark for NAT as a percentage of total traffic is around four percent.

Lost Revenue

The enforcement process is a necessary regime underpinning the compliance of customers to pay tolls. In each State there is different parliamentary legislation, which establishes the offence not to pay the toll amount.

The offence in Victoria is to travel on a toll road without making an arrangement to pay. In NSW the offence relates to the non- payment of the toll within the time and the manner required by the toll road operator. In Queensland the offence is failure to comply with the Notice of Demand.

On any free-flow electronic toll road there is always a percentage of transactions that are unable to be collected from the customer. In total the revenue leakage for an Australian toll road is approximately 2.5 to 3 percent of traffic - broken down as 1.5 percent of the NAT customers who fail to pay, 0.5 percent exempt vehicles, 0.4 percent unidentified vehicles and up to 0.1 percent failure of detection of the vehicle at the roadside.

Conclusion

This report is prepared by Cica Group to provide an overview of the electronic tolling market in Australia. The report has been based on Cica Group's understanding of the Australian market and reflects general practice and averages across the Australian toll roads.

Cica Group has direct experience in every operational toll road in Australia and has gained a wealth of information in respect to toll road operations.

For more information visit our website cicagroup.com.au

About the Cica Group

Cica Group is a collective of highly experienced project advisors with a proven record in guiding enterprises to successfully deliver complex technology projects. Formed in 2012, Cica Group combines client-focused strategists, advisors, technologists and commercial contractual managers. Each has a proven record in guiding enterprises through analysis, planning, management, realisation and the ongoing support of complex technology projects.

About Peter Bentley

Peter is a high-energy motivational leader who is passionate about delivering results in complex environments under challenging circumstances. He is a Principal and the Managing Director of the Cica Group.

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counts**

T +61 3 9867 6289
info@cicagroup.com.au

Suite 205,
492 St Kilda Road
Melbourne 3004
VIC Australia

cicagroup.com.au

