

The Intelligent Access Program (IAP): Maximising Transport Safety, Efficiency and Productivity.

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Executive Summary

Australia has experienced significant investment by the private sector in vehicle telematic services along with a growing awareness of its potential applications and benefits. Transport operators continue to lobby governments for improved access conditions and concessions in the use of the road network. With the introduction of alternative and differing freight vehicle types and the freight task set to double over the next 15 to 20 years, governments around Australia are faced with significant challenges in providing smarter and improved compliance systems to cater for this growth in vehicle numbers.

Access to the Australian road network is at present by general access and restricted access. Through the use of technology a third generation of access, Intelligent Access, is being developed. The Intelligent Access Program (IAP) provides an innovative solution for governments to better manage the road network asset. The objective of IAP is the implementation of a national system that will remotely monitor freight vehicles to ensure compliance with set operating conditions. That is, ensuring restricted access vehicles operate how, where and when they should.

Private sector service providers would be responsible for providing the necessary GPS monitoring services to underpin the IAP. These service providers would ideally combine IAP services (i.e. compliance monitoring) with commercial fleet monitoring and management services, some of which are currently being provided. It is expected that private sector service providers will be required to obtain certification and will be audited to ensure they meet performance standards set for the IAP.

In NSW, the Mobile Crane Concessional Benefit Scheme (MCCBS) is a practical example of a transitional IAP type application that has been successfully implemented. The MCCBS provides a useful case study within the Australian context that adopts some of the principles of IAP. Some of the key features and important lessons that have arisen from the MCCBS in NSW provides both government and industry with an important insight into some of the practical applications for IAP and demonstrates how some of the benefits associated with the use of IAP can be maximised well into the future.

1 Introduction

One of the major challenges facing road authorities throughout Australia is managing the demands being placed on the road infrastructure by the nation's rapidly increasing freight task.

Historically, an increase in capacity of the road network could be readily overcome by a physical increase in the size of the road network infrastructure. However, factors such as lack of available real estate, environmental and aesthetic considerations, and perhaps most importantly, budgetary constraints deem any type of physical infrastructure expansion impractical and uneconomical. Keeping these key factors in mind it is clear that road authorities need to work with the heavy vehicle industry to get "smarter" in finding ways to increase the 'carrying capacity' of the road network so as to maximise the efficiency of existing roads, without compromising road safety or causing further damage to the road network.

Road transport laws seek to manage these conflicts by defining the rights and responsibilities of road users and legislating penalties for non-compliance. For many road users compliance is motivated by goodwill and it is important that the motivation be encouraged. However, the probability that the non-compliant behaviour of other operators will be intercepted by jurisdictions is very low using current on-road enforcement practices, which are predominately based around physical observation and detection. With 598 on-road enforcement operators working in Australia, overseeing 810,000 km of road, the probability that a breach by an articulated vehicle will be detected by an enforcement officer is only 1-2 percent (National Transport Commission (2004) Road Transport Reform (Compliance and Enforcement Bill - Draft Regulatory Impact Statement. NTC Report Feb 2004. IR-IAP 23, pg 1). This suggests that the current approach is largely reactive and is widely recognised as often failing in its quest to achieve high compliance with road transport laws. Jurisdictions are therefore constrained in encouraging, facilitating or permitting innovative approaches to road use, which might include larger, heavier and more efficient vehicles, knowing that on-road enforcement might not be capable of managing the inherently greater risk that each of these innovative vehicles potentially poses.

2 Improving Heavy Transport Efficiency

Australia's state and territory road transport agencies set access conditions for heavy vehicles taking into account a range of issues including vehicle safety features, vehicle type, dimension and mass. The ability to accurately monitor compliance against the restrictions imposed on vehicles would take place through a partnership agreement with service providers provides a new set of opportunities for agencies to optimise performance of the road freight task in terms of both its efficiency and safety, and also maximise the performance of their road infrastructure through the improved compliance with operating conditions.

When it comes to efficiency of heavy vehicle use of the road network, the key areas of concern for government and the community are traffic utilization, safety, environment and congestion. In addition, there are obvious impacts of lost time, reduced productivity and severe environmental impacts, some of which can also have a significant negative impact on road safety. As such, significant effort has been put into controlling the mix of vehicles across certain sections of the road network and improving traffic/transport efficiency by establishing a 'heavy vehicular hierarchy' that restricts access of certain types of heavy vehicles to specified areas.

While this relatively prescriptive program of categorising heavy vehicles as either 'General Access' or 'Restricted Access' has no doubt delivered benefits and improvements in a number of key areas, such as reducing the complexities involved with licensing, permits, monitoring for compliance and enforcement of access restrictions, it

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has also raised a number of significant challenges in terms of efficiency and productivity. This is particularly true for certain restricted vehicles which in many instances, must attain access permits from one or more State Government authorities, as well as numerous Local Government authorities prior to the commencement of a single trip due. Additionally, this prescriptive solution to road network access will simply not be able to provide a practical and workable solution as the freight task continues to grow over the next 20 years.

3 The Intelligent Access Program (IAP)

3.1 Third Generation Road Access – ‘Intelligent Access’

IAP offers a 'third generation' of access to the road network, complementing General Access (first generation) and Restricted Access (second generation) with 'Intelligent Access'. 'Intelligent Access' requires 'telematics services' through in-vehicle systems that utilise GPS (Global Positioning System) and a range of other monitoring devices and sensors to monitor and record a range of operating parameters (such as location, speed and time). The IAP is expected to play a major role in improving transport efficiency, road safety, and permit compliance across the Australian road network. With the Australian freight task set to double in the next 15 to 20 years, the IAP is expected to provide a range of valuable benefits to both government and the transport industry. One of the key benefits of the IAP is that it will significantly reduce the complexities involved with monitoring for compliance and enforcement of access restrictions, resulting in substantial efficiency and productivity improvements.

3.2 Existing Applications for Satellite Based Telematic Services

The IAP is a system that monitors freight vehicles using technology known as 'satellite based telematic services' to better demonstrate compliance to road transport law. Telematics already has successful applications in navigation and security and many commercial vehicle operators are now using telematics to better manage their fleets and consignments.

Australia has seen significant investment by the private sector in telematics services over the past several years. This has been more than matched by advances internationally.

3.3 Benefits of IAP

It is envisaged that IAP will deliver a significant boost in productivity for transport operators. IAP is also expected to enhance the efficiency within jurisdictions, by improving the process and ease with which heavy vehicle access can be granted, monitored, and ultimately complied with.

In total, 72% of benefits accrue to operators and the remainder to the regulators or the community in general. The largest benefit categories are productivity (48.1%), which includes increased network access either additional roads or increased time of day access and crash cost savings which accounts for 20.7% of benefits (National Transport Commission (2004) Road Transport Reform (Compliance and Enforcement) Bill - Draft Regulatory Impact Statement. NTC Report Feb 2004. IR-IAP 23, pg 30). The remaining benefits include, compliance costs savings, emission savings and pavement savings.

The IAP is expected to deliver a range of benefits to government, community as well as industry, including:

- improved road safety;
- reduced wear and tear on road network infrastructure;
- a significant reduction in the environmental impacts associated with heavy transport operations;

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- the ability to better manage public perceptions and expectations in relation to heavy vehicle movements; and
- optimisation of road freight policy and operational tasks, including optimisation of on-road enforcement activities.

3.4 Performance Based Approach to Technology

The IAP is built around vehicle telematics technology that can remotely monitor heavy vehicle use. In broad terms, vehicle telematics comprises a combination of GPS, in-vehicle sensors and transmitters, and communications technology (such as mobile phone links) for transmitting vehicle performance data to a base station for downloading and analysis. In commercial applications, telematics technology is used to monitor, for example, vehicle position, engine speed, engine temperature, load temperature and load security. In the IAP the technology would be used to monitor (Stage 1 Implementation):

- spatial descriptors of vehicle activity – demonstrating route compliance;
- temporal descriptors – demonstrating compliance with travel time restrictions; and
- speed compliance performance – demonstrating compliance with maximum speeds.

The availability of this technology opens up to road agencies the possibility of higher levels of monitoring of restricted access vehicles, leading to increased compliance with road transport laws, hence, higher levels of safety and road use efficiency with lower enforcement costs.

The IAP adopts a predominately functionally based specification. For example, the vehicle data system must record the vehicle's GPS position (in terms of latitude and longitude), together with the time data. While the actual data format may be subject to a standardised format, the IAP specifications do not stipulate how the data is transmitted from the truck to the service providers' "back-office". The only concern is for a 'standardised reporting format', not a standardised collection system and it is on this basis that IAP service providers are being certified for IAP. Understandably, due to the fact that the on-board monitoring systems will be collecting and processing what is effectively 'evidentiary data', the development of IAP has placed a significant emphasis on the establishment of strict auditing procedures.

The IAP is a unique initiative because of its performance based approach, which effectively makes it technology neutral. For example, it is possible for IAP to use radio-based communication in urban locations, CDMA rurally and satellite in remote Australia. IAP does not specify the type of technology to be used to get the GPS data so long as the technology employed is secure and has a high level of integrity.

3.5 Co-operative Approach to Development

An important element is that IAP presents a significant partnership between the public and private sectors. From the outset it was realised that for IAP to succeed, it would need to be developed in a co-operative manner with the involvement of all stakeholders, from all levels of government, industry and importantly, the transport operators themselves.

One of the major challenges is delivering a cross-jurisdictional initiative, which will permit the operation of the IAP across state and territory boundaries. The IAP effectively represents a major paradigm shift in the business of managing the road transport compliance task. Introducing a nationwide scheme affecting so many businesses and industries requires close co-operation. One of the unique characteristics of the IAP is that it allows multiple service providers to gain IAP certification. This aspect of IAP is an important element because having multiple service providers compete in the market for IAP services would promote competition and enable the telematics industry here in Australia to further develop its capability and capacity.

Importantly, rather than being developed as a 'prescriptive' legislative program, the IAP is being developed in a truly co-operative manner, with many of the developments being directly driven by the industry rather than the jurisdictions.

4 Case Study: Mobile Crane Concessional Benefit Scheme (MCCBS)

In September 2001, the Roads & Traffic Authority (RTA) of NSW provided a regulatory concession to over-dimensional mobile cranes fitted with, and monitored by GPS tracking systems. The concession allowed vehicles up to 2.9m wide to operate during peak and clearway hours (normally restricted to over-dimensional vehicles), providing increased road network access to these mobile cranes, in exchange for greater assurance of compliance with restricted access zones. The GPS tracking system provides the RTA with a level of confidence that these vehicles are not travelling on any of the restricted routes in NSW.

4.1 The NSW Crane Industry

In NSW cranes wider than 2.5m are excluded from certain roads and certain zones without a specific permit from the RTA, or permit to stand and operate from a local council (e.g. the Sydney CBD and the Sydney Harbour Bridge). Further, these cranes are restricted from traveling during morning and evening peak and clearway/transit way hours. Specifically the relevant time restrictions are:

- During the standard peak hour times of 7 am to 9 am, or 4 pm to 6 pm Monday to Friday:
 - Within the Sydney, Newcastle, Gosford and Wollongong zones; and
 - On the Sydney to Newcastle Freeway (F3) between the Hawkesbury River and the Pacific Highway (SH10) interchange at Kariong;
- During standard clearway and transit way hours in the Sydney Zone between 6 am and 10 am, and between 3 pm and 7 pm when clearway and transit way restrictions apply.

For some time the mobile crane industry sought an exemption from the peak/clearway hour travel restrictions, which amounts to a loss of 8 hours daylight travel time per day. For its part the RTA wanted to improve compliance particularly with respect to mobile cranes traveling on routes that have been deemed unsuitable for over-dimension vehicles and cranes entering the Sydney CBD without a permit to perform work.

After negotiations between the mobile crane industry and the RTA it was agreed that oversize mobile cranes, up to 2.9m wide, would be issued permits exempting them from the travel time restriction under the oversize and over mass regulations. In return crane operators would have to fit their vehicles with GPS tracking equipment. The vehicle tracking system would have to be operated by a third party service provider meeting RTA system performance requirements, including the provision of non-compliance reports directly to the RTA.

Under the agreed Mobile Crane Concessional Benefit Scheme (MCCBS) the NSW Crane Industry Association was responsible for selecting a third party service provider meeting the RTA's performance requirements. Crane operators in the MCCBS are responsible for paying for the installation of the tracking equipment and paying for the tracking service.

4.2 Service Provider Requirements

The RTA has not implemented a system of third-party provider accreditation. Instead crane operators must choose a provider that meets the requirements of the MCCBS “Eligibility Handbook”. The key RTA requirements for service providers (and the equipment and operating systems) chosen by the Crane Operators are summarized below:

- The Third Party Service Provider is equipped and able to retrieve GPS data;
- The Third Party Service Provider must ensure that all information gathered is used only for the purpose required and must not breach any privacy laws;
- That the Third Party Service Provider must be able to provide accurate data (within 30 metres) regarding the movements of the crane to which the GPS transponder is attached;
- That the Third Party Service Provider uses only those maps that are accurate;
- That the GPS transponder is tamper proof;
- That the GPS transponder must be vehicle specific to the nominated crane and not able to be moved between vehicles;
- That the GPS transponder use SMS across the GSM network, or other suitable and protected means for sending and receiving information;
- That the GPS transponder be able to record and store data even in times of no GSM coverage and can be downloaded as soon as reception is restored;
- That the information gathered can be stored in electronic form for a period of three years, and not able to be altered or accessed by an unauthorised person at any time;
- That the Third Party Service Provider has the capacity to accurately track vehicles across all of NSW;
- The Third Party Service Provider must be able to identify when a crane has entered a restricted access zone instantly and generate an exception report for the RTA;
- The vehicle is to be polled and positioned no less than every two (2) minutes. The information for each day must be stored and downloaded to the RTA server no later than 8 a.m. the following day. If it suits the Third Party Service Provider the information may be downloaded to the RTA server more frequently (eg. every 20 minutes);
- The Crane Operator is to have “read only” access to the information and must not be able to alter the data or affect its integrity in any way;
- The restricted access zones are to be added by the Third Party Service Provider and are not able to be edited in any way by any related party, unless previously authorised by the RTA. Any attempts to edit or alter the restricted access zones must generate an immediate exception report. If it is substantiated that any party

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has edited or altered the restricted access zones, they may be automatically expelled from the pilot scheme;

- The system must be able to be audited by the RTA remotely;
- The RTA is to be provided with a remote access by the Crane Operator that allows any of the cranes operating in this pilot scheme to be tracked at any time. (This terminal is located at the RTA's head office, it is made available by the service provider); and
- The provided remote access must allow the RTA to poll any participating crane when required. (The RTA bears the costs of any 'polls' it conducts)

Third Party Service Providers must lodge an Application for Registration, with the RTA, to verify that they do in fact meet these requirements.

4.3 MCCBS Operational Processes and Business Rules

The service provider tracks the location (by date and time) of cranes operating under the MCCBS. The in-vehicle GPS data recorder stores the information regarding the vehicle's location, time, speed ect. Each day the service provider sends a data call to each crane via the Global System for Mobiles (GSM) network and the in-vehicle data record relays the stored data back to the service provider via the GSM. The service provider then converts the GPS coordinates to a map and filters the data, and relays any breaches to the RTA via email.

Cranes are tracked while operating in both urban and rural environments but most of the cranes are operating in the Sydney Metropolitan area. Although the required performance standard for accuracy is ± 30 metres, the service provider's system has achieved accuracy to within ± 10 metres. There has been more significant variance in the Sydney CBD due to the number and density of tall buildings. The GPS does not work in tunnels but the position of the crane is recorded at the beginning and end of the tunnel so it has been possible to determine if a crane has passed through a tunnel.

The 'map' on which vehicles are tracked is provided and maintained by the service provider. The RTA advises the service provider of the restricted routes and zones and the service provider would then be responsible for updating this information to the electronic map.

While the requirement is to 'poll' vehicles at least every 2 minutes, the service provider system polls a crane's location every minute. To-date, no system down time has been reported.

Cranes in the scheme are not identified electronically from the roadside. Vehicles in the scheme are required to carry a sticker on the rear of the vehicle, similar to the style of the National Heavy Vehicle Accreditation Scheme (NHVAS).

4.4 Non-Compliance Reports

On average, approximately 20-25 non-compliance reports are received each month. The majority of these reports are for travel into the central business districts ("CBD") of Sydney, Wollongong and Parramatta.

When a participating crane is required to travel into a restricted area, the operator is able to obtain written permission from the relevant road authority. Once this is obtained, a

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copy is faxed to the RTA, and coupled with the exception report when it is received. If approval is received, the travel is listed in the database as approved. If it is not approved, further action may be taken. The vast majority of travel into these zones is approved, either by the RTA or the Police and local council. In the past 12 months, 7 infringement notices have been issued against operators for travel on restricted areas.

GPS error has not been an area that has raised much concern. However, there have been a number of instances where non-compliance reports have been generated for travel into restricted zones that are false. This problem is being resolved through the on-going improvement and refinement of the technology.

4.5 Data Security and Privacy

Under the current arrangements, data security measures for ensuring privacy is the responsibility of the service provider. So far privacy has not emerged as an issue for either the operators or their drivers. The scheme only monitors the movements of the cranes and does not identify the drivers or monitor their activities. The RTA only receives information pertaining to breaches of permit conditions and does not collect travel information on participating cranes.

The service provider transmits non-compliance reports directly to the RTA, via email. The data security measures in place are:

- The remote terminal at the RTA is locked by password;
- Breach reports are e-mailed and routed directly to a separate folder — they never appear in the MS Outlook “Inbox”; and
- Authorisation codes appear on each report for validation purposes.

The service provider and the RTA have yet to report a breach of the existing data security systems put in place.

4.6 Benefits to the Regulators

The benefits to the RTA from the scheme include:

- Greater confidence in compliance from cranes affected by the scheme (although the behaviour of non-scheme operators remains an issue for the RTA and NSW Crane Industry Association);
- Better enforcement of the ‘stand and operate’ access permits required for operation in the Sydney CBD; and
- Significant compliance benefits. A total of 7 infringement notices and 15 warning letters have been issued to crane operators for unapproved travel in the past 12 months. This demonstrates a high level of overall compliance with route restrictions, which ensures greater road safety and infrastructure protection.

The resourcing (including staff training) required for the management and administration of the MCCBS is minimal. With the 45 cranes currently in the MCCBS, only one staff member is required to handle to the receipt and review of the exception reports. The average time spent per day on the management of the MCCBS is less than half an hour. As the exemption permits for the cranes are issued under the existing oversize and over

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mass permit arrangements no additional training or administrative arrangements were required to issue permits. The development and on-going management of the MCCBS has had no direct cost for the RTA.

With respect to the impact on the RTA's on-road enforcement activities an independent cost-benefit study undertaken for the RTA noted, "... only one in every 50,000 vehicles or one in every 2,200 heavy vehicles operating in Sydney is an eligible mobile crane." In addition, "... any normal interception activity would utilise only a small proportion of RTA's enforcement resources, and any savings in those resources attributable to the trial would also be small." The report also noted that savings from GPS tracking might come from the reduced need for 'blitzes' on mobile cranes. It concluded on this matter by suggesting that the benefits would be maximised if all eligible cranes were part of the scheme.

4.7 Benefits to the Crane Industry

The economic benefit received by crane operators from the MCCBS is reported to be in excess of \$250 000 annually¹ arising from increase productivity and efficiency.

The cost to operators of fitting the required GPS equipment and the on-going service provider costs are much lower than was originally anticipated. The NSW Crane Association successfully negotiated with service providers on behalf of their members to ensure that the capital and operating costs were kept to a minimum. The average costs for operators in the scheme are around \$950 per in-vehicle transponder and \$1,450 per crane per year for on-going system operating costs.

The cost benefit analysis shows that the financial benefits of the scheme to the crane operators far outweigh the costs of having their vehicles fitted with GPS tracking equipment. The benefits to operators are estimated at:

- \$226,000 per year in crew savings (e.g. overtime waiting with crane until travel restriction times pass); and
- Between \$450,000 and \$970,000 per year in crane utilisation efficiencies.

4.8 Regulatory Implications

The development of the MCCBS did not require any regulatory amendments. The policies and procedures were developed by the RTA and agreed to by the Crane Industry Association of NSW. The technological requirements were developed by the RTA in conjunction with 3 potential GPS service providers.

Potential GPS providers are required to meet the requirements outlined in the MCCBS "Eligibility Handbook" in order to be accredited for the MCCBS by the RTA. The selection of a GPS service provider was the responsibility of each crane operator.

Initially, there were two service providers accredited by the RTA. A collective decision was made by the Crane Industry Association to support one single service provider. Since that time, all operators have continued to use one single service provider.

The simplicity of the model allowed for the speedy development and implementation of the MCCBS. As the scheme continues to be a trial, changes and amendments have been able to be introduced as understanding and the technology has evolved.

¹ MCCBS Cost Benefit Analysis pp v.

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Under the schemes membership conditions crane operators are required to be monitored by a GPS service provider who complies with the requirements of the MCCBS eligibility handbook. If an operator challenges an exception report on the basis that report generated by the tracking system was inaccurate the operator is admitting that they have failed in their obligation to ensure they are being monitored by an accurate service provider.

The RTA has managed the MCCBS administratively, utilizing existing permit systems to impose permit conditions and travel restriction exemptions. Regulations were not amended to recognise Intelligent Transport Systems (ITS) as a source of information for enforcement purposes.

4.9 Key Implementation Issues

The single largest complaint from the heavy vehicle industry is the lack of enforcement of non-participating cranes that illegally take advantage of the concession. Due to the significant productivity benefits from operating in restricted hours and the low probability of being detected and/or intercepted by RTA enforcement officers or by the Police, a number of operators have not joined the voluntary scheme and continue to travel during restricted hours. This causes major concern to participating operators who are contracted to a service provider to be entitled to the concession.

Although there is no report of actual "GPS down time" there have been cases when the service providers systems have been down and non compliance reports have not been received for several days, and in one case, weeks due to problems transmitting the reports.

As traffic infringement notices must be issued within 6 weeks of the offence occurring, this down time can have a significant impact, not only on workload, but also the ability to take immediate action. If the 6-week deadline passes, a breach report must be prepared, which results in a court appearance notice.

Tampering with the GPS unit has been identified twice during the trial period. The first instance involved the disconnection of the main battery and the second involved the cancellation of SIM card used to transmit the recorded GPS information over the mobile GSM network. Both instances were identified immediately and confirmed by the service provider who inspected the crane. Both operators were removed from the scheme.

Finally, because NSW has not adopted a formal system of accreditation of service providers, no formal system of auditing, or training and accreditation of auditors (as is the case with the NHVAS) is in place.

4.10 Significant Learning's from the Implementation of the MCCBS

Overall the operation of the MCCBS has shown that:

- GPS and related technology can be used to monitor route compliance for heavy vehicles and is relatively easy to administer;
- The equipment and systems used for the operation of the MCCBS are not tamper 'proof' but do provide a level of tamper 'evidence'. This further necessitates the need to investigate any potential tampering events through the interrogation of non-compliant activity.

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- Service provider certification and auditing is essential and is a necessary requirement to ensure tampering can be identified and minimised;
- Heavy vehicle operators will participate in regulatory concession schemes when there is an economic benefit to them;
- Companies engaging service providers can negotiate the cost of equipment installation and on-going operation costs down;
- The support of operational (enforcement) staff is still required to achieve maximum effectiveness (this includes the timely issuing of infringement notices under the MCCBS and the reporting of infringements incurred by operators not in the scheme);
- It would have been better if more than one service provider had been used — to allow the establishment of interoperability protocols and generally further develop the standard for service providers;
- Commercial operators will consider the economic and regulatory costs and benefits before participating in similar schemes;
- As the number of vehicles outside the scheme becomes smaller it becomes more difficult to detect breaches by these vehicles by conventional on-road enforcement;
- Some operators will try to tamper with the vehicle tracking equipment in order to avoid detection;

5 Conclusion

The MCCBS case study has proved the overall effectiveness and reliability of telematics for monitoring vehicle identification, location (route/network compliance), time of travel, and speed. Implementation of the MCCBS has shown that the level of resourcing required for the management and administration of the scheme is minimal and is relatively easy to administer. The MCCBS has been a successful application of IAP and the case study offers some useful learning's for IAP. Overall, the financial benefits of the MCCBS derived for both the RTA and the crane industry greatly out weight the costs. In addition, the crane industry in NSW has supported the MCCBS on the basis of it delivering positive financial benefits to all operators involved in the scheme.

With the Australian freight task set to double over the next 15 to 20 years, the IAP not only provides an innovative mechanism for government to better manage the road network asset and its associated use, it also provides the transport industry with a standardised monitoring and reporting system that can deliver a substantial boost to productivity, performance and safety. Additionally, IAP complements the use of in-vehicle systems which are already being used for fleet and commercial management purposes. By taking into account the needs of all stakeholders, the IAP enables stakeholders to work together to determine the best possible use of the new telematics capability. IAP not only provides the jurisdictions with an auditable compliance and enforcement tool, it also provides transport operators with a negotiating tool, that is, a measure of compliance with route controls and access conditions. As such, it is widely acknowledged that IAP has the potential to deliver a true 'win-win' situation for all and this has been confirmed with the MCCBS trial in NSW. Now, in what is being seen by many as one of the most significant developments in heavy vehicle transport in Australia

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in many years, the task of managing and monitoring heavy vehicle access across the road network looks set to become significantly easier and a great deal more efficient once the IAP is implemented across Australia.

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