National Motor Vehicle Theft Reduction Council

Improving Written-off Vehicle Reporting by Recyclers

March 2012

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Report outline

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Title	Improving Written-off Vehicle Reporting by Recyclers
Address	National Motor Vehicle Theft Reduction Council Suite 1, 50-52 Howard Street North Melbourne Victoria 3051
Email	info@carsafe.com.au
Type of report	Technical Working Paper
Program	Disrupt Separated Parts Market
Objectives	To review the functionality of a Canadian software system as the possible basis for establishing an Australian data consolidation service for auto recyclers and report on likely costs and other impacts on Australian state and territory systems and NEVDIS.
Key milestones	Final Report
Abstract	The current reporting of written-off vehicle information by auto recyclers nationally is accepted as poor despite a legal obligation to do so. An oft cited reason for poor reporting levels is the reliance on paper based, manual systems. In northern America, third party data consolidators act as intermediaries enabling recyclers to enter data direct to the consolidations systems, who in turn provides 'cleaned data' to the relevant agencies. This report concludes that there would be merit in implementing a pilot using a modified version of the Canadian software and a central hosting agency in an appropriate jurisdiction. The pilot would be based on a hybrid model of electronic data collection and transfer (recycler to consolidator to transport agency processing bureau) and manual processing to post data to state and territory systems.
Purpose	To promote discussion with stakeholders on options to facilitate improved written-off vehicle reporting by auto recyclers.
Key words	Auto recyclers, written-off vehicles, repairable write-off, statutory write-off.

Summary

Background

Fivenines Consulting was engaged by the National Motor Vehicle Theft Reduction Council to evaluate a written-off vehicle reporting model in place in the United States (US). The model incorporates third party 'data consolidators' who collect electronic written off vehicle data from auto recyclers and transmit it to a central national repository. The study was required to review its suitability for adoption in Australia along with reporting software developed by a Canadian software development company, Parachute Software whose particular expertise is in developing software products for use by the automotive industry.

Costs of modifying the software along with the impact on Australian jurisdictional systems and NEVDIS[1] were also to be determined.

Results

The evaluation of the Parachute Software product determined that it could be readily adapted to meet Australian reporting requirements. It is a web-based system that is agile and flexible and easily able to be customised. It can be accessed by any standard personal computer or internet connected mobile phone.

The system could be hosted by a peak industry association or other suitable body including the NEVDIS Administration Unit or a commercial hosting service. In this model the hosting service would become the repository of data from individual recyclers akin to a data consolidator as exists in the US.

Based on the modification and adoption of the Parachute Software application, set up costs would be in the order of $30,000 to $40,000 and ongoing costs would be around $10,000 per annum. User fees could be charged to recover these costs. There is a range of feasible ways that the software could be supported.

However, back end integration costs could be as high as $200,000 per jurisdiction depending on the status of existing reporting arrangements. Costs would be significantly less if it were possible to modify existing links such as batch file reporting systems or on-line links built for other purposes. It may be more appropriate to provide for electronic reports to be lodged with a data entry contractor for manual input to backend systems.

Although the technical issues are not complex and the introduction of a data consolidator model is feasible there are a number of issues that would need to be addressed for it to be successful.

- There is no national body similar to that which exists in the US that would be responsible for engaging data consolidators and managing their contracts. While it is possible that Austroads, through the NEVDIS Administration Unit, could accept this role and in fact become a consolidator in its own right by hosting a web-based service, it is an operational role that is outside the current charter of the organisation.

- There would be no basis for mandating the use of consolidators.

- If left to the market, the commercial viability of consolidators, even with the ability to charge user fees, would be doubtful without increased enforcement of legal reporting obligations, government funding or the provision of other services such as those that might be required by broad end of life reporting if it was introduced. This reporting would include, for instance, certifying that vehicles had been decontaminated before they were crushed or dismantled.

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[1] NEVDIS is the acronym for the National Exchange of Vehicle and Driver Information System that links Australia's state and territory databases

Opportunities which would assist with the overall concept of data consolidation and reporting include:

- the introduction of continuous vehicle registration which would strengthen the need for end of life reporting, and

- the addition of functionality to data consolidator reporting systems such as that required for good recycler inventory management which would provide additional value.

As far as NEVDIS is concerned, it is unlikely that any changes would be required in the short term unless the Administration Unit took on the role of a hosting service. It is a current requirement that all data input is to occur directly to jurisdictional databases. This would still be necessary if the Administration Unit was a data consolidator. Once written-off data was matched with registration records it would be transmitted from jurisdictions to the national WOVR in the same way as it occurs at present.

Acknowledgements

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Keith Watts, Manager, Vehicle Identification Unit, Department of Transport and Main Roads, Queensland

David Linton, Principal, Parachute Software

Contents

1. Background

The National Motor Vehicle Theft Reduction Council (NMVTRC) engaged Fivenines Consulting to examine a national electronic written-off vehicle reporting system in place in North America to determine the feasibility of it being modified to meet the Australian reporting requirements of auto recyclers.

The brief for this project provided the following background information:

"The national framework for the management of written-off vehicles provides that any vehicle under 15 years of age which has been declared to be a total loss must be classified as a repairable write-off (RWO) or statutory write-off (SWO) and reported to the jurisdiction in which it is (or was last) registered.

The reporting regime adopts a 'chain of responsibility' model but provides that a vehicle need only be notified once. In effect therefore—

- an insurer (or its agent) must report any vehicle it declares to be a write-off;
- an auction house must report all written-off vehicles acquired from a source other than an insurer; and
- auto recyclers must report all written-off vehicles acquired from a source other than an insurer or auction house, and update the status of any RWO it subsequently dismantles.

A 2010 study commissioned by the NMVTRC into options for extending the written-off regime to include all end-of-life vehicles observed that[2]—

- in most jurisdictions only insurers and auction houses are complying with reporting requirements; and
- most transport authorities either do not monitor or are unable to monitor SWO notifications made by dismantlers and are therefore unsure as to compliance levels.

Major parts dismantlers in Victoria and NSW openly admit their non-compliance with reporting requirements and cite the administrative difficulty at an auto recycler level in notifying and at a road authority level in processing such notifications, as the major reason for the failure of the system.

The NMVTRC appreciates the administrative challenge but remains concerned that the failure of the system on such a wide scale provides a pool of 'clean' RWO identities that may be exploited by criminal networks as Trojan for the use of stolen parts. The need for action was also separately identified by an NMVTRC funded inter-agency task force into the separated parts market in NSW in 2010.

In the NMVTRC's evaluation, the critical path to improving reporting levels lays in automating key elements making it easier for recyclers to collect vehicle information without burying them (or transport agencies) in paper. Equally, however, it is clearly not feasible to have some 1,300 small businesses each interfacing with up to eight transport agency systems.

Similar issues in the United States (US), lead justice and transport to authorise a range of third party *data consolidators* who act as intermediaries between individual businesses and the agencies to manage the reporting process. In the NMVTRC's preliminary assessment, an industry-based, electronic national reporting system—similar to that which operates in the United

[2] Feasibility of including End of Life Vehicles in the Written-off Regime, SJ Wright & Associates, 2010.

States (US)—could dramatically improve compliance and reduce exposure to related criminal activity.

The objectives outlined in the NMVTRC's project brief were:

"to review the functionality of the system used by US data consolidators in order to confirm—

- its capacity to be modified to meet Australian requirements;
- the extent and likely cost of those modifications; and
- the likely impacts on Australian state and territory systems and NEVDIS."

Fivenines met with the NMVTRC in November 2011 to confirm the scope of the project. At that meeting the option of reviewing a software product developed in Canada by Parachute Software for use in conjunction with the Canadian 'Cash for Clunkers' scheme was added to the scope.

While the data consolidator model does not operate in Canada, there were sufficient similarities between the Canadian product and those used in the US which suggested that it may be able to be successfully modified to meet Australian requirements. It was also noted that the software developers had experience in developing other products for the automotive industry.

It was therefore agreed that the project should consider the data consolidator model used in the US but examine the feasibility of the Canadian software being modified for use in conjunction with it in the Australian context.

2. The North American Models

2.1 US National Motor Vehicle Title Information System (NMVTIS)[3]

2.1.1 History

The US Anti-Car Theft Act of 1992 was enacted to introduce a range of measures aimed at combating the growing stolen vehicle problem in America. One of the key initiatives was the establishment of a national information system enabling states and others to access vehicle title information. Responsibility for administering the system was initially given to the US Department of Transportation. However, in 1996, responsibility for the oversight and development of the system was transferred to the Department of Justice (DOJ).

Although DOJ is fully responsible for NMVTIS policy and operations, the Act authorises the involvement of a third-party operator of the system. The American Association of Motor Vehicle Administrators (AAMVA) has acted in this capacity since 1992.

2.1.2 Funding

The US legislation provides for NMVTIS to be supported through user fees and stipulates that it not be dependent on federal funding. AAMVA as the system operator is authorised to assess and collect user fees but they must not exceed the cost of operating the system.

Notwithstanding this, nearly $22 million in federal funding has been provided to states and AAMVA since 1997.

2.1.3 Reporting Requirements

The legislation requires that recyclers regularly report specific information to NMVTIS.

The required information is:

- The vehicle identification number of each vehicle acquired;

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[3] Details from National Motor Vehicle Title Information System web-site http://www.vehiclehistory.gov

- The date on which the vehicle was acquired;
- The name of the individual or entity from whom the vehicle was acquired; and
- A statement of whether the vehicle was crushed or disposed of for sale, export or other purposes.

2.1.4 Data Consolidators

The law allows the NMVTIS operator to restrict access to its database by requiring recyclers to submit the required information electronically to a select few third-party data consolidators, who will then transmit the data to NMVTIS in an acceptable format.

To maintain a reasonably competitive service, the NMVTIS operator is required to approve a minimum of three data consolidators for the industry to use to submit its data. Individual data consolidators are free to establish their own individualised reporting mechanisms and contractual requirements, including charging a fee for the service.

Currently, there are three private sector data consolidators that have been approved and one service is available directly through AAMVA. The private companies offer a fee-for-service arrangement that involves transmission (via single or batch uploads) through an Internet portal or a direct computer-to-computer link. However, they have different pricing structures and technical specifications for submitting data.

AAMVA offers a free direct reporting option but this service is limited to reporting one VIN at a time through an Internet portal.

2.2 Canadian Cash for Clunkers Scheme[4]

In 2007, the Canadian Government agreed to a significant investment of $92m to run a National Vehicle Scrappage Program to provide incentives for the early retirement of older, high polluting vehicles. The program was launched in 2009 and offered the ability for participants to sign up online and receive incentives such as transit passes, car sharing memberships and discounts off the purchase of a bicycle.

Known as the ‘Retire Your Ride’ scheme, it was designed to reward people who took their old high-polluting cars off the road and to ensure that these vehicles were responsibly recycled. The scheme ended in March 2011. Over the length of the scheme, 130,000 pre-1995 vehicles had been removed from the road.

Subsequently, a number of vehicle manufacturers have introduced their own schemes offering incentives on top of any Government rebates which might be available.

Parachute Software, a Canadian software development company, developed the software used by recyclers involved with the program. The requirements had similarities with those of the US NMVITS scheme in that basic vehicle details were entered into the system by recyclers and sent to a central repository managed by a central administrator. Data was then distributed to incentive providers according to selections made by participants in the scheme. A total of 347 recyclers were involved in the program.

[4] Information from the official web-site of ‘Retire Your Ride’ http://www.retireyourride.ca

3. The Australian Context

3.1 Legal Obligations

As indicated in Section 1 of this report, most recyclers do not meet their legal written-off vehicle reporting obligations. Although legislation is different in each jurisdiction, the reporting requirements are the same. As an example, the Victorian Road Safety (Vehicles) Regulations 2009. Regulation 88 states:

> *(1) A motor wrecker must give the Corporation the usual information for any late model vehicle that is demolished or dismantled in the course of the business carried on by a motor wrecker.*
>
> *Penalty: 20 penalty units.*
>
> *(2) A motor wrecker must give the Corporation the usual information-*
>
> *(a) before the motor wrecker disposes of the part or part of the vehicle on which the vehicle identifier is located and within 7 days after the relevant date; or*
>
> *(b) the later time approved by the Corporation, either in a particular case or generally.*
>
> *Penalty: 20 penalty units.*
>
> *(3) Despite subregulation (1), a motor wrecker is not required to give information to the Corporation under this subregulation if-*
>
> *(a) information about the vehicle has been given to the Corporation by an insurer or self-insurer under regulation 87; or*
>
> *(b) the registered operator of the vehicle has given the Corporation written notice that the registered operator has written off the vehicle.*

In the above, usual information means-

> *(a) the relevant identification information for the vehicle; and*
> *(b) the relevant date for the vehicle; and*
> *(c) any other information required by the Corporation by notice in writing; and*
> *(d) the date on which the information in paragraphs (a) to (c) is given to the Corporation*;

In this definition:

- relevant identification information means:

  (a) the registration number of the vehicle (if any); and
  (b) the vehicle identifier of the vehicle; and
  (c) the make and model of the vehicle; and
  (d) whether the vehicle is-
  (i) a light motor vehicle other than a motor cycle; or
  (ii) a motor cycle

- Relevant date means:

  for a vehicle that is being demolished or dismantled by a motor wrecker, the date on which the motor wrecker began to demolish or dismantle the vehicle.

In summary it means that the only information that needs to be reported by dismantlers to the registration authorities is:

- Registration number (if known)
- Vehicle Identification Number (VIN)
- Make and model (although this can be obtained by de-coding the VIN)

- Whether the vehicle is a motorcycle or a light vehicle other than a motorcycle
- The date when dismantling commenced.

3.2 Compliance with Legal Obligations

In its study into the feasibility of including end-of-life vehicles in the written-off vehicle regime, S J Wright and Associates reported that there are very few written-off vehicle notifications made in NSW and Victoria—mainly because there is no effective enforcement of the law. Most transport authorities do not monitor notification compliance of parts dismantlers nor metal recyclers[5].

This absence of reporting was confirmed during the current study in discussions with two recyclers from Victoria and one from South Australia. However, lack of enforcement was not the only reason for non-compliance. The outdated reliance on paper-based systems was a critical factor particularly in organisations with highly sophisticated computerised management systems. It was suggested that there are many myths related to the lack of sophistication of dismantler and recycler businesses. While it cannot be denied that there are many small cottage type businesses in the industry, it is also the case that there are a substantial number of large businesses with state of the art computer systems who undertake almost all of their external communication electronically. Having to resort to paper-based interaction with government agencies is a significant impediment to their otherwise efficient way of doing business.

3.3 The Industry

The Australian recycling market is made up of a wide range of businesses from small almost backyard operations through to large highly sophisticated parts dismantlers and metal recyclers - around 7000 businesses in total. It is estimated that in the order of 560,000 light vehicles are demolished annually[6]. However, not all of these need to be reported to the WOVR.

Written-off vehicle notifications are only required if the vehicle is less than 15 years old. Under chain of responsibility obligations, the dismantler and metal recycler are at the end of the chain. They only need to notify registration authorities if those higher up the chain such as insurers and auction houses have not already done so. Many dismantling businesses have no or little need to report as they purchase all or most of their stock from insurers or auction houses. However others, such as the large parts dismantling business examined in this study, purchase virtually all their vehicles from private individuals or local councils who have collected abandoned vehicles in their municipalities. This particular business is required to report 300 vehicles per month but has not done so for a number of years “in protest over the cumbersome and antiquated notification procedures”. This study has not attempted to estimate the total number of vehicles that are not being notified when they should be.

According to the national framework for the management of written-off vehicles, these vehicles are required to be reported to the registration authority in the jurisdiction where they were last registered. However, our review has determined that in almost all cases, written off vehicles that have not already been reported prior to being acquired by a dismantler or recycler will have been previously registered in the jurisdiction from where they were acquired. This is a relevant issue as far as the potential role of data consolidators in the Australian context is concerned. One of the key issues has been whether data consolidators need to distribute data to the full range of jurisdictions irrespective of where the notification originated. In an ideal world, this should be the case. However, this may not be necessary if it makes the system overly complicated. This issue will be examined in more detail in Section 4.

One of the issues that was identified during the study which also has an impact on the reporting process is the need for dismantlers to be sure that there are no ownership and financial

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[5] Feasibility of including End of Life Vehicles in the Written-off Regime, SJ Wright & Associates, 2010

[6] ibid

encumbrance issues associated with vehicles that they have received, particularly from local Councils. Many of these vehicles have been abandoned and towed away after attempts to locate owners have failed. It is necessary for the dismantler to undertake a financial encumbrance check. In the past the costs have been significant for those businesses that handle large numbers of vehicles. However, the implementation of the Australian Government's Personal Property Securities Register (PPSR) in late January 2012, which subsumes the State and Territory REVS, should simplify this process significantly.

3.4 The Australian Information Systems

All States and Territories have established Written-off Vehicle Registers (WOVR) in their vehicle registration databases for vehicles previously registered in their jurisdictions. Information from the eight jurisdictional databases is merged to form the national WOVR which is stored in NEVDIS.

Vehicle information is transferred to the jurisdictional databases by insurers and the other specified *notifiers* in different ways. Victoria has had an internet based reporting system in place for the insurance industry since 1998. However, the system is not integrated with the back end database requiring manual data entry once an internet file is transmitted to VicRoads. Funding has been provided to develop a batch file reporting system for the insurance industry which could easily be modified to incorporate the needs of recyclers (and no doubt those of auction houses as well). However, the status of that project is under review pending recent confirmation of a major redevelopment of VicRoads' registration and licensing databases which is likely to put a freeze on other system development projects. The redeveloped system might also result in an alternative approach to accepting industry written-off vehicle information.

Queensland has developed a real-time link for the insurers to transmit written-off vehicle information. It is based on an on-line system for registering new vehicles by motor car dealers. Again it is likely that this system could be modified to accept data from recyclers. Most of the large jurisdictions have on-line registration systems for new car dealers. Although this study did not investigate systems in place in jurisdictions other than Victoria and Queensland, it is possible that the basis for fully integrated reporting systems for written-off vehicles already exists in many of them.

Smaller jurisdictions rely on manual reporting and manual data entry.

NEVDIS was introduced as an initiative of the Australian Transport Council in the late 1990s and has not materially changed since 2002. However, the rapid advances in information technology since then mean that when it is next subject to a major redevelopment, which is expected in around 2015-17, the whole approach to storing and managing national data, including written-off data is likely to be different.

Technical Review of the Canadian Parachute Software Product

3.5 Application of the Product within Canada

The system reviewed is a commercially available application currently used by vehicle recyclers, environmental groups and the car industry to service several different needs associated with the removal of vehicles and components of vehicles from registers across Canada.

Apart from the Retire your Ride scheme mentioned in Section 2.2, the system has been used to record and report on initiatives including:

- Car Heaven – a process equivalent to “Cash for Clunkers”. Approximately 120,000 vehicles have been recycled since its inception.

- Switch the Stat – a process for the safe removal of 320,000 mercury switches from vehicles.

- A marketing and sales campaign by Ford Motor Company to replace 50,000 older vehicles.

3.6 The Company

Parachute Software is a small privately owned software development company. The product provided for review has been developed to suit a niche market in Canada oriented around processes associated with the recycling of vehicles and environmentally sensitive components within these vehicles.

As part of this study, Fivenines interviewed the Principal of the company, David Linton, who demonstrated the product and its capabilities. Subsequently, he provided Fivenines with on-line access which provided further time for closer examination and assessment. While the Parachute appears to be quite small, it was able to clearly demonstrate it had both the agility and competency to provide a solution partially tailored to Australian needs.

Parachute is keen and willing to explore a number of alternative options which would enable an appropriate version of the product to be operated within Australia. These included Parachute Software licensing the software to a company within Australia while they retained an ongoing maintenance and support role serviced from their Canadian base.

3.7 The System

The system has been designed and developed around the core functions and processes that are required to enable the capture, recording and reporting of client (auto recycler) and vehicle status details in a secure environment. This environment can be accessed in multiple ways across the internet by means of a standard personal computer or a mobile phone.

The system is clearly able to be customised and tailored to meet a range of needs. The company claims that this customisation is able to be done quite quickly and reasonably cheaply. As indicated before, the product presented for evaluation had already been modified to reflect the Australian situation with a “cut down” version of input data fields, local post codes and jurisdictions presented in pull down menus within the construct of the system.

The system is comprised of the following modules and functions:-

- A registration module that enables a user (auto recycler and/or shredder) to establish an identity within the system in much the same way as an identity is established within a range of commonly used online systems across the web, such as online purchasing (Ebay), online subscription services (Magshop) and online booking (Webjet).

  This activity is undertaken once and results in the establishment of a unique identity within the system supported by a user-id and password. This function allows for the normal activities associated with the ongoing maintenance of the unique identity.

- A vehicle detail recording module that is designed to capture and record relevant details of vehicles or sub components of vehicles. The screen used here is able to be tailored readily to include additional relevant fields of information (eg mercury switches).

- An ability to interface with one or several reference sources using accepted interface standards. The evaluation system had been set up to reference the equivalent of a national VIN database.

- A decoder built into the system to extract relevant vehicle details from the analysis of the VIN number and to use this data to populate additional fields relating to vehicle make, model and type.

- A reporting module populated with a range of standard reports as well as the ability to allow customisation to meet possible additional requirements.

- Security layers to manage a range of access levels to the data recorded. This includes allowing a single auto recycler to see all relevant data input from that company only, while allowing a central administration function to access all recorded data.

- An ability to easily generate a number of output data files in a range of standard formats (FTP or File Transfer Protocol). This function could be used to provide update files in either real time or batch for transfer of relevant data to jurisdictions across Australia.

It is assumed that existing recycler computer systems will produce output data in a way which allow it to be fed into the Parachute software front end.

The system is inherently intuitive, easy to use and relatively uncomplicated. It has been purpose built to meet needs similar to those of the Australian WOVR. The system schematics are best illustrated in Diagram 1 below.

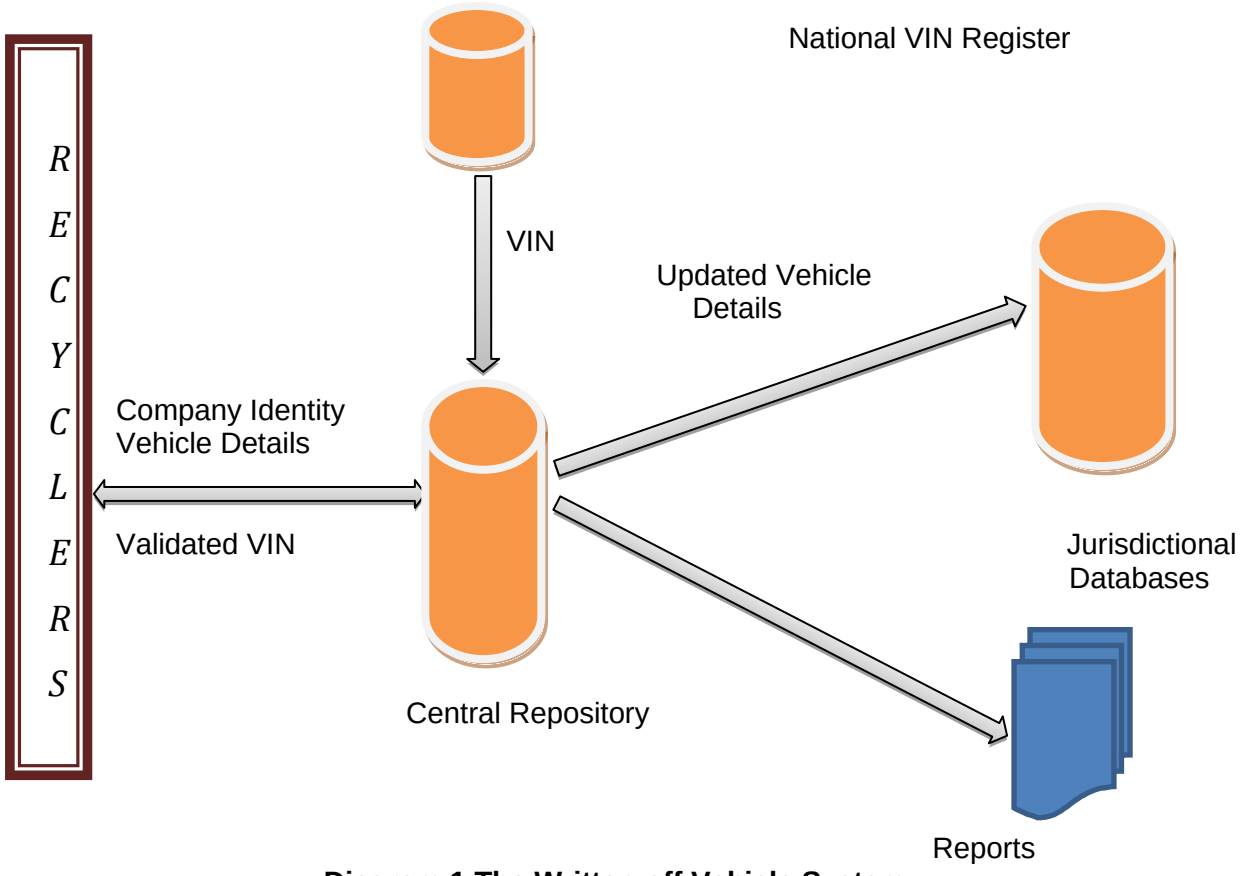

Diagram 1 The Written-off Vehicle System

3.8 Underpinning Technology

The system has been constructed to operate in what is considered to be a contemporary Microsoft software platform. This includes:-

- Windows server
- Windows SQL server
- .Net
- SSL or secure sockets layer for security

These products are current generation software tools and are readily available and commonly used within Australia.

The hardware requirements to host this system and operating environment are fairly straightforward. A standard Intel server with sufficient storage capacity could be readily sourced from most computer retail outlets.

3.9 Ongoing Support

Parachute Software has indicated its preparedness to enter into an agreement for an annual fee to provide ongoing software support including provision of software updates and remedial activities should the software fail for any reason. He indicated that a copy of the software would be made available for safe keeping on the signing of a contract. This could be placed in escrow in Australia (for a fee) or kept by whoever runs the application. Parachute has also indicated it could support the product from its base in Canada or enter into an agreement with a local company.

In the context of software provisioning today across the globe this is considered to be quite realistic.

3.10 Running the System to Meet Australian Conditions

We have investigated the option of running the application locally and have been advised that the relatively uncomplicated nature of the software, the readily available operating environment and the low volume of storage make this a fairly straightforward hosting proposition.

The most logical option would be to engage a local web hosting service provider. We have explored this option and obtained prices as part of the overall study.

Alternatively, the system could be hosted out of an entity such as a peak industry association.

The system could also be hosted out of Canada and supported directly by the developer, Parachute Software. While this option is technically feasible the issue of Australian data residing off shore may prove to be a key impediment to this approach.

3.11 Backend Changes within Australian Road Authorities

The current approach to inputting written off vehicle data into state road authority systems varies from manual input to batch file processing as well as real time data capture as was discussed in Section 3.4.

The Parachute Software system can easily be configured to deliver relevant data in a number of standard formats.

The ability to input this data automatically into jurisdictional systems, while on the surface appearing to be relatively straightforward, may in practice turn out to be something of a challenge. Conceptually, the data provided from this system is not too dissimilar to on line data systems such as those used by motorcar dealers to register new vehicles. Therefore modification to these

systems should not prove to be unrealistic. Alternatively, modifying batch interfaces such as that proposed for the insurance industry in Victoria, to accommodate data from recyclers should not prove to be a significant task either.

It needs to be realised that the key objective in providing an electronic system is to improve the compliance of recyclers in meeting their reporting obligations. It is clearly important to provide a system that eases their administrative burden. An ability to report the relatively simple data elements electronically would go a long way to achieving that objective. However, this does not necessarily mean that the full process of updating jurisdictional backend systems needs to be automated.

Although actual volumes have not been estimated in this study, total numbers of written-off vehicles required to be reported by recyclers is not likely to be high. As indicated in Section 3.3 it is estimated that 560,000 light vehicles are dismantled annually. Given that many of these would have been reported as written-off by insurers and auction houses and large numbers would have been greater than 15 years old, the residual number required to be reported nationally would be relatively low, possibly less than 100,000 per year. Numbers in the small jurisdictions would be very low.

Consequently, unless existing reporting systems can be modified to accept reports from recyclers or systems can be built to accommodate all written-off vehicle reports irrespective of their source, it is likely to more cost effective to continue the practice of manually entering data into back end systems even if it arrives electronically. An outsourced data entry contractor would provide such a service at a fraction of the cost of modifying systems specifically to accept reports from recyclers.

3.12 Costings

The once off setup costs for this system based on a single provider (data consolidator) are estimated to be:-

- Customisation Fee (Parachute Software) $25,000 – 30,000
- Hosting establishment $2,000
- Local documentation development $3,000
- Testing $5,000

ie In the order of $30,000 to $40,000.

The ongoing fees per annum

- Software licence $3,000
- Hosting service $5,000-10,000

These costs would be replicated if more than one consolidator provided the service.

It should be noted that costs could be recovered by charging user fees. It is understood that Parachute Software has used a payment model for previous products based on $5 for each processed vehicle. The commercial arrangements in the US allow data consolidators to charge their own fees.

The estimates for changes to back end systems within the jurisdictions could be as high as $200,000 per jurisdiction. This figure is based on a quotation provided to VicRoads to enable an automatic interface for the insurance data to be uploaded into the registration system within that jurisdiction. However, if a recycler reporting system is built in conjunction with a reporting system for insurers and auction houses, costs would be significantly less.

A more cost effective solution in the first instance may be one that uses piece contracts for manual input of the data as suggested in Section 4.7.

4. Data Consolidators in the Australian Context

There are a number of issues which need to be considered in determining whether the US model of data consolidators is appropriate for Australia. They include:

- *Distributed nature of registration data.* Unlike the NMVTIS, Australia's written-off vehicle register is comprised of data held in each jurisdiction's database. The jurisdictions 'own' the data. It is referred to a national repository within NEVDIS which has a primary function of exchanging information between jurisdictions. NEVDIS has no other legislated administrative function. It is administered by Austroads, the association of Australian and New Zealand road authorities. However, unlike AAMVA which administers NMVTIS, Austroads has no other operational responsibilities.

  The relevance of this is that written-off data must be reported directly to the relevant jurisdictional registration authority rather than NEVDIS.

  Notwithstanding that, it is conceptually feasible for the NEVDIS Administration Unit to act as data consolidator in its own right as a host of the web-based reporting service. However, such a concept would still suffer from the same operational constraints. Data would still need to be referred to the jurisdictions where vehicles were last registered to be matched with individual registration records before being returned to become part of the national register.

- *Contractual Responsibility.* In the US the services of the data consolidators are procured by AAMVA, the organisation currently engaged by the Department of Justice to administer the NMVTIS. As indicated, no organisation in Australia is set up to accept a similar contractual responsibility. It may be appropriate for Austroads through its Registration and Licensing Task Force to set operational standards for data consolidators but it is unlikely that Austroads would accept responsibility for engaging them and managing any contractual arrangements. It is noted that federal government funding was made available in the US in the early stages of the program to assist with the introduction of the scheme.

  The concept of the NEVDIS Administration Unit acting as a data consolidator would suffer from the same constraints.

  In the absence of these arrangements, it would need to be left to the market to determine whether data consolidators are commercially viable.

  Commercial viability might be increased if there was a requirement for recyclers to report data in addition to that required under written-off vehicle legislation, an issue which will be discussed in Section 6.

5. Other Relevant Issues

In discussions with the recycling stakeholders it became clear that the uptake of electronic reporting needs to be considered in the context of a range of other issues. They include:

- *Enforcement and auditing.* There is no doubt that automation itself will be a significant incentive to improve the level of reporting of many if not most recyclers. This is particularly the case in regard to those recyclers who run highly computerised businesses already. The same applies to smaller recyclers who are constantly investigating ways of reducing administrative overheads.

  However, all three stakeholders interviewed as part of this study, indicated that there is currently virtually no enforcement of failure to submit required reports and no audits of the administrative responsibilities. One of the companies has been openly defying legal obligations for a number of years in protest about the cumbersome administrative arrangements, almost inviting enforcement action but none has been forthcoming. So even if electronic reporting is available, unless there is some attempt to enforce the legal requirements, it is unlikely that compliance levels will improve significantly.

  One of the key issues is that it is unclear who has the prime responsibility for enforcing the law in this area, in particular whether it is the police or the registration authorities.

- *Business Licensing.* The recycler stakeholders all argued that the reporting of written-off vehicles needs to be considered as part of a broader review of the industry. Parts recycling is currently un-regulated and the view was strongly expressed that there is a need to introduce some form of business licensing. Licensing of the industry would enable relevant standards to be introduced, many of which are critical if government objectives, not only those relating to reducing the number of stolen vehicles across the country, are to be met.

  Of particular importance, given the nature of the industry, are those objectives relating to environmental standards. Motor vehicles contain significant quantities of environmentally hazardous material including oils and other fluids, air-conditioning gas and in some older vehicles even asbestos. Decontaminating these vehicles at the end of their lives before they are crushed or baled should be a mandatory requirement, with appropriate reporting.

  It was argued that any reporting model should include licensing, including the meeting of environmental standards. Such reporting is likely to have more force than the current limited reporting obligation, attract a higher level of reporting and consequently significantly lift the level of compliance, not only for written-off vehicles but for all other reporting obligations as well.

  This more comprehensive reporting arrangement would also increase the usefulness of data consolidators who could provide a service of ensuring that reports are distributed to the range of government agencies that would have responsibility for the different aspects of the licence. This would increase the commercial viability of consolidator services.

  Continuous registration. In the UK, Northern Ireland and New Zealand a vehicle remains on the register until it is officially declared to be at the end of its life. Once a vehicle has been struck off the register it can never be registered in that jurisdiction again. Recyclers are the organisations most likely to be in possession of end of life vehicles and consequently have a heightened incentive to report a vehicle as being at the end of its life because if they do not do so, the vehicle remains on the register in their name, possibly attracting registration and other fees.

- *Value added system functionality.* Many smaller recyclers do not have good inventory systems. One of the features that could be considered in the development of an automated reporting system is the opportunity to add value by incorporating the features of a good inventory system into its functionality. Given that vehicle details need to collected at the time that dismantling commences, it would seem to be a relatively simple additional piece of development that could be usefully incorporated.

  Adding value to a reporting system in this way is likely to encourage uptake.

6. Pilot

Fivenines considers a pilot program involving a large recycler would be the best means to *conclu*sively determine the feasibility of both the data consolidator model and the applicability of the Parachute software in the first instance.

However, the issues identified in Sections 5 and 6 would need to be considered. Relevant questions are:

- Who would host the service?
- Would a provider (data consolidator) be contractually engaged? If so, who would engage it?
- Is a pilot of written off vehicle reporting alone a true test in the absence of broader end of life reporting requirements?
- Is jurisdictional backend system change required in the pilot jurisdiction? If so, who would fund this work?

Notwithstanding these issues, Fivenines believes that the possibility of implementing a pilot should be explored.

7. Conclusion

7.1 Parachute Software

The evaluation of the Canadian Parachute Software product has determined that it could be readily adapted to meet Australian reporting requirements and would provide a simple easy to use application that will run on any one of a number of devices. Use of this application would undoubtedly remove one of the main obstacles to industry compliance, that of administrative difficulty.

Set up costs would be in the order of $30,000 to $40,000 and ongoing costs would be around $10,000 per annum. These costs include interfacing with the National VIN database. There is a range of feasible ways that the software could be supported either locally or by using the software developer.

7.2 Data Consolidator Model

The introduction of a data consolidator model as exists in the US would have the benefit of ensuring that recyclers only had to input data into a single system. Information would be transmitted to a third party (the data consolidator) who would be responsible for forwarding it to the jurisdiction where the vehicle was last registered. There is no doubt that introducing electronic reporting would provide a significant incentive for reporting compliance as far as many recyclers are concerned, particularly those that have sophisticated computerised business systems.

However, there are a number of issues which would need to be addressed if this model was to be introduced and be successful.

- There is no national body similar to that which exists in the US that would be responsible for engaging data consolidators and managing their contracts. While it is possible that Austroads, through the NEVDIS Administration Unit, could accept this role and in fact become a consolidator in its own right by hosting a web-based service, it is an operational role that is outside the current charter of the organisation.

- There would be no basis for mandating the use of consolidators.

- If left to the market place, commercial viability of consolidators, even with the ability to charge user fees, would be doubtful without increased enforcement of legal reporting obligations, government funding or the provision of other services such as those that might be required by broad end of life reporting.

Opportunities which would assist with the overall concept of data consolidation and reporting include:

- the introduction of continuous vehicle registration which would strengthen the need for end of life reporting, and

- the addition of functionality to data consolidator reporting systems such as that required for good recycler inventory management which would provide additional value.

7.3 NEVDIS

It is unlikely that any changes would be required in the short term unless the Administration Unit took on the role of a hosting service. It is a current requirement that all data input is to occur directly to jurisdictional databases. This would still be necessary if the Administration Unit was a data consolidator. Once written-off data was matched with registration records it would be transmitted from jurisdictions to the national WOVR in the same way as it occurs at present.

7.4 Jurisdictional systems

Back end integration with jurisdictional registration systems is considered to be the area where the major challenges lay. Costs could be as high as $200,000 per jurisdiction depending on the status of existing reporting arrangements. If it is possible to modify existing links such as batch file

reporting systems or on-line links built for other purposes, these costs could be significantly less. However, continuing the use of manual input may also be an option in the short to medium term as the industry slowly engages this type of solution.

Ensuring that this requirement gains a high priority across all jurisdictions may also prove to be a difficult task.

7.5 A Way Forward

Given the issues identified in this study a possible way forward for the NMVTRC is as follows:

1. Provide funding to implement a pilot using Parachute Software and an agreed central hosting agency in an appropriate jurisdiction. This funding would need to cover all relevant costs including backend system changes or the costs of manual data entry as appropriate.

2. Continue to encourage governments to introduce continuous vehicle registration.

3. Actively support the introduction of end of life reporting for vehicle data other than that relevant to stolen vehicles such as data required to meet environmental objectives.