



Australian Government
Attorney-General's Department

Report 1 of the Data Retention Implementation Working Group

A joint government-industry working group consulting on the
Telecommunications (Interception and Access) Amendment (Data Retention) Bill 2014

Contents

Glossary	ii
Executive Summary	iii
Summary of IWG Recommendations	iv
Introduction	1
Progress	2
Report	2
Data Set	3
Scope and operation of the data retention obligations	3
Proposed data set	5
Recommended amendments to the data set	6
Other IWG outcomes	9
Discussion of costs	12
Implementation Plans	12
Exemptions	12
Assessment of the costs of data retention	15
Summary of PwC's costings	16
Implementation	18

Tables

Table 1	Summary of IWG recommendations
----------------	--------------------------------

Attachments

Attachment A	Data set – amended to reflect IWG suggested amendments
Attachment B	Data Retention Implementation Working Group Terms of Reference

Glossary

AGD	Attorney-General's Department
Bill	Telecommunications (Interception and Access) Amendment (Data Retention) Bill 2014
CAC	Communications Access Co-ordinator
CSP	Carriage Service Provider
EU DRD	European Union Data Retention Directive (Directive 2006/24/EC of the European Parliament and of the Council of 15 March 2006 on the retention of data generated or processed in connection with the provision of publicly available electronic communications services or of public communications networks and amending Directive 2002/58/EC)
Experts' Group	A sub-group of the IWG, comprised of technical experts from each of the IWG's constituents
IGIS	Inspector-General of Intelligence and Security
IWG	Implementation Working Group
IP	Internet Protocol
IPTV	Internet Protocol television
OTT	Over-the-top
PJCIS	Parliamentary Joint Committee on Intelligence and Security
PwC	PricewaterhouseCoopers
Report	The report of the Data Retention Implementation Working Group
VoIP	Voice over IP
Wi-Fi	Local area wireless technology

Executive Summary

The Data Retention Implementation Working Group (IWG) constituents agree that discussions and tasks undertaken by the group have been useful in promoting understanding of the proposed data retention obligations and providing context to support implementation of the measure. The IWG has moreover, through its deliberations and the advice of an IWG Experts' Group, resulted in constructive outcomes, including a number of recommended actions.

The IWG discussions on the proposed data set illustrated a common understanding of how the data retention obligations would apply in many cases, as well as highlighting some areas in which there is potential ambiguity. As a result of these discussions, the IWG recommends a number of amendments to the data set and its associated explanatory material.

The IWG notes that the Government continues to engage with industry on the costs of compliance with the data retention obligations, and that further industry advice has been sought to support those discussions. AGD has engaged PwC to assist with this engagement, including by refining early cost estimates and developing a funding model for making a reasonable contribution to the capital expense of implementing the proposed data retention obligation for existing communication services. Initial observations are that the release of the Bill and its supporting material has increased industry certainty and facilitated the refinement of the estimated capital cost. Both AGD and PwC will continue to work with industry over the coming months to undertake a more detailed consultation and further refinement of the capital cost estimates.

The IWG will now focus on stage two of its remit, continuing the Experts' Group's discussion of costs and implementation of the data retention obligations.

Summary of IWG Recommendations

The IWG, following its discussions and support provided by industry experts, recommends that the Government consider a number of amendments to the proposed data set to support further clarity and assist implementation of the data retention scheme. The IWG recommendations relate to potential changes to both the data set itself, as well as changes to the explanatory material accompanying the data set. The matters that Government may wish to consider are summarised in the **Table 1** below, and are overlaid on the proposed data set and highlighted at **Attachment A** for ease of consideration.

Table 1: Summary of IWG recommendations

Recommendation	Details
IWG's proposed amendments to the data set	
1	Amend text to provide additional clarity on the distinction between actual usage or consumption and contractual terms regarding allowances or caps.
2	Amend text to replace the reference to “bandwidth” with “data volume usage” to improve clarity and distinguish from data allowances.
3	Remove the proposed requirement for service providers to retain metric information relating to plans and contracts (data set element 1(f)).
4	Change the phrase “any identifiers” in items 2 and 3 of the data set to “identifiers”.
IWG's proposed amendments to policy and process	
5	Any proposed change to the regulations should only come into effect after Parliament has had an opportunity to review the proposal and the disallowance period has expired.
IWG's proposed amendments to the data set's explanatory material	
6	Include additional explanatory material providing specific examples of the application of data set elements in relation to identifiers across a selection of current service types to support clarity for industry while retaining technological neutrality

7	Include additional service-level examples illustrating how data retention applies, with particular reference to the application to access layer services (including where particular data points do not apply).
8	Include additional explanation, consistent with paragraph 187A(4)(b) of the Bill, highlighting the application of data retention obligations to wholesale and retail providers, including that a wholesale provider is not required to retain “downstream” information in relation to a service provided by a retail provider.
9	Include additional explanation stating, for the avoidance of doubt, that the data retention obligations do not require providers of free services that do not generate any billing information, to create or retain such data.
10	Include additional explanation, consistent with subsection 187A(7) of the Bill, illustrating the application of the concept of a “communication session”, including more examples and noting that a communication session can last for an extended period (e.g. months in the case of some internet access sessions).
11	Include additional text, consistent with paragraph 187A(4)(b) of the Bill, clarifying that data set item 3, the destination of a communication, is not required in relation to internet access services.
12	Include an explanation of the difference between data usage and data allowance, including that these data points may be retained in a way that is consistent with a provider's existing records management, (e.g. aligned with that provider's billing cycle).
13	Replace any reference to a “person” with “subscriber”.
14	Include, in relation to data set item 5 (type of communication) additional examples highlighting the meaning of “type” of communication in particular contexts.
15	Include additional explanatory material illustrating the operation of location information requirements in relation to non-mobile services.
16	Insert additional text to clarify that the data retention obligations do not preclude service providers from retaining items in the data set for longer than the required two year period for their own business purposes.

Introduction

On 30 October 2014 the Government introduced the Telecommunications (Interception and Access) Amendment (Data Retention) Bill 2014 (the Bill). When introducing the Bill, the Government announced the formation of a joint government-industry Implementation Working Group to continue consultation with industry to support implementation of the proposed data retention obligations.

The IWG is chaired by the Secretary of the AGD, with the Director-General of the Australian Security Intelligence Organisation and the Commissioner of the Australian Federal Police as co-deputy chairs. IWG membership also includes the Secretary of the Department of Communications, the Chief Executive Officer of the Australian Crime Commission, senior executives of Telstra and Optus and the Chief Executive Officer of Communications Alliance, an industry body representing more than 150 Australian telecommunications companies. The IWG's Terms of Reference (**Attachment B**) sets out the group's five key functions to be addressed over its three stages of operation.

The IWG is tasked with supporting the effective implementation of the data retention obligations. This includes reporting to Government on key outcomes relating to technical aspects of the proposed dataset and initial discussions on the costs of meeting the obligations by 14 December 2014. The Terms of Reference reflect the Government's intention that this report will help inform the Parliamentary Joint Committee on Intelligence and Security's (PJCIS's) consideration of the Bill.

Ongoing work for the IWG includes continuing the Experts' Group's discussion of costs and implementation of the data retention obligations. The IWG's focus will then transition to considering a framework to assist industry with implementation of the data retention obligations, focusing on guidance around implementation plans and exemption applications.

Progress

The IWG met for the first time on 19 November 2014. The IWG discussed each of its five functions, including the need to report to Government on the proposed data set and outcomes of an initial discussion of costs by 14 December 2014. At the meeting the IWG agreed to convene a group of technical experts from each of the IWG's constituents (the Experts' Group). The IWG noted that ongoing discussion of costs would be supported by work to be conducted by consultants engaged by the AGD to quantify and evaluate implementation costs.

The IWG tasked the Experts' Group to report back to it with:

1. Advice on the data set, and any refinements that may be appropriate with a particular focus on technical issues, to inform the IWG's report, and
2. Key outcomes of discussions around the types of services that may be appropriate for case-by-case exemptions from the data retention obligations, to inform costings work and future discussions on implementation.

The Experts' Group met on 1 and 8 December 2014 and discussed in detail the technical aspects of the data set and the framework for exempt services. The Experts' Group was attended by representatives from the members of the IWG including technical representatives from a number of Communications Alliance members including NBN Co Limited, Layer 10, iiNet, Aarnet, Verizon, Optus, Telstra and Vodafone. The Experts' Group's findings form the basis of the IWG's recommended amendments to the data set and its explanatory material.

Report

This Report outlines the IWG's key findings arising from discussions on the proposed data set and initial further inquiry into the implementation costs of the data retention obligations. The IWG recommends a number of amendments to the data set and its explanatory material, these are marked at **Attachment A** and summarised at pages 4-5. The IWG also recommends that the Government prepare further explanatory material to support application of the data set to specific telecommunications services.

Data Set

Scope and operation of the data retention obligations

To facilitate discussion on the technical aspects of the proposed data set, industry IWG constituents requested clarification on some matters relating to the scope and operation of the proposed data retention scheme. The IWG notes that meetings have been useful in dispelling some residual industry concerns since introduction of the Bill and publication of the proposed data set, with some industry constituents noting that the data retention obligations did not appear as onerous as they initially anticipated.

The IWG consider that there is benefit in this Report succinctly articulating the effect of the Bill and proposed data set, in particular to address some industry questions. In particular, the Experts' Group noted that:

- The proposed data set must be read in the context of the Bill, which limits the scope and application of the data retention obligations and through that the extent to which data elements identified in the data set must be retained.
- The obligation to retain data about a service only applies to the operator of that service. Providers are not required to retain data about the services offered by other providers. For example, if a service provider offers a wholesale service only, that provider will only be required to retain the data points in the prescribed data set that are relevant to the provision of that wholesale service. If the wholesale access service is on-sold by another provider to a retail customer, the wholesale provider would be obliged to retain data in respect of the provision to the retail provider, and the retail provider, rather than the wholesaler, would be obliged to provide data in respect of its subscribers. Data points relating to services provided on top of that wholesale service need to be retained by the relevant over-the-top (OTT) provider. Put another way, the data retention obligations do not require a service provider to inspect another service provider's packets to determine what service may be running over the top.
- Internet access service providers are not required to retain a subscriber's web browsing history. Subparagraph 187A(4)(b)(i) ensures that internet access service providers are not required to keep destination information associated with web browsing history and other communication protocols for those services.

- The data retention obligations relating to an internet access communication session are limited to the relevant provider retaining the time, date and location of a subscriber when the service was accessed and the time, date and location of that subscriber when the service was disconnected, as well as all internet protocol (IP) addresses and, where applicable, port numbers allocated to the subscriber during the session (and the associated dates and times). The operation of subsection 187A(7), which provides that a series of communications constituting a session are to be taken as a single communication, means that data retention obligations do not require packet-level retention.
- The data retention obligation would not require service providers to keep records they are prevented from keeping under the Telecommunications (Service Provider — Identity Checks for Prepaid Mobile Carriage Services) Determination 2013 (prepaid determination).
- No data retention obligations accrue for providers of services that are exempted on the face of the legislation—including “immediate circles” and “single premises”—and these providers are entirely excluded, including for communications leaving the circle or premises. However, wholesale providers offering a service to an “immediate circle” or “single premises” have an obligation relating to that wholesale service. This includes subscriber information about the customer of the wholesale service in addition to information such as IP allocation blocks and billing.
- The accuracy required for retained time information needs to be of sufficient resolution relative to that service and may vary based on each provider’s implementation of each particular service. Service providers are best placed to know the granularity required to make the time stamp meaningful.

Data points relating to a subscriber's data usage or consumption can be retained in a way that is consistent with a provider's existing records management. For example, some providers may keep consumption information on the basis of each session, or the information may be aligned with that provider's billing cycle (for example per day or per month).

- The data retention obligations do not require a provider to retain data relating to allowances that are rolled over from previous billing cycles.
- For services that use a number of different technology platforms during a communications session, for example a call that uses 2G, 3G and WiFi at different times during the voice call, item 5 of the data set does not require the provider to retain 'type of service' data relating to every interim component. The provider could meet the requirement in item 5 by providing the name of the service used to facilitate the seamless transfer over the different technology platforms. This does not alter the requirement to keep source and destination information under items 2 and 3.
- The data retention obligations do not require centralisation of retained data within a provider's network.

Proposed data set

The Bill requires service providers to retain data, the details of which are to be prescribed by regulation. The Bill identifies six categories of data that may be prescribed for the purposes of the data retention scheme. The Government has proposed a draft set of data to be prescribed, which is available on the AGD website and is currently the subject of consideration by the PJCIS. The use of regulations facilitates the inclusion of technical detail necessary to provide clarity to telecommunications service providers about their data retention obligations while remaining sufficiently flexible to adapt to significant future changes in communications technology.

The Bill limits the types of data that may be prescribed to the specified classes, circumscribing the scope of the potential data set to those defined categories.

The data set adopts a technologically neutral approach. The IWG notes advice that some European nations encountered challenges with the European Union Data Retention Directive (EU DRD) technically specific approach, which has inhibited its application to new technologies. The IWG's industry constituents note that significant technological change is likely to occur within the Australian telecommunications industry, with potential for significant technological evolution even in the short term.

The IWG notes agency advice that each data point included in the proposed data set provides valuable assistance to law enforcement and security investigations. The IWG further notes that the data set has previously been the subject of, and benefited from, refinements and additional explanations arising from extensive previous consultations with industry.

Recommended amendments to the data set

The IWG tasked the Experts' Group to advise on the data set, and any refinements that may be appropriate, with a particular focus on technical issues.

The IWG notes that a key outcome from the Experts' Group meetings was the development of an enhanced understanding of the operation of the proposed data retention scheme, and in particular its limitations. The Experts' Group agreed to recommend that the IWG consider the merits of a small number of amendments to the data set itself, and additional explanatory material to complement the data set. In particular, the Experts' Group noted that industry feedback predominantly sought additional guidance on the application of the data set to specific technologies rather than substantive changes to the data set. These proposed amendments are set out in **Attachment A** and include:

IWG's recommended amendments to the data set

Industry representatives drew the IWG's attention to potential confusion within both the data set and the explanatory material regarding the distinction between contractual elements related to allowances (such as how many minutes a subscriber was allocated within a capped contract) and subscriber behaviour relating to consumption or usage (such as how many minutes were actually used). Agencies agreed that this distinction may be unclear within both the data set and its supporting material.

Recommendation 1: The IWG therefore recommends that the data set be amended to provide additional clarity on the distinction between actual usage or consumption and contractual terms regarding allowances or caps.

Industry representatives drew the IWG's attention to potential ambiguity within the data set and the explanatory material regarding the distinction between "bandwidth" and "data volume". "Bandwidth" refers to the amount of electromagnetic spectrum occupied by a channel, transponder or service, whereas "data volume" refers to the total amount of data that is uploaded and/or downloaded via a service during a billing cycle.

Recommendation 2: The IWG therefore recommends that the data set be amended to replace the reference to "bandwidth" with "data volume usage" to improve clarity and distinguish from data allowances.

Industry representatives raised concerns about data set element 1(f)—*any information about metrics of the relevant service or a related account, service or device being information which must relate to the subscriber of, and accounts, services, telecommunications devices and other relevant services relating to, the relevant service.* Industry representatives explained that historical data of this kind is often not available and often only created because of numerous short-term marketing-based variations to allowances. Industry went on to explain that the marketing-based variations make the data difficult to collect and aggregate for storage on an ongoing basis.

Agencies, noting the advice of industry, expressed the view that element 1(f) extends to metrics beyond allowances, such as bandwidth allocation. Agencies also explained that new and emerging technologies are likely to contain new metrics which should be captured in a technologically neutral fashion.

Recommendation 3: Taking into account the views of both industry and agencies, the IWG recommends the removal of the proposed requirement for service providers to retain metric information relating to plans and contracts (data set element 1(f)). In making this recommendation the IWG acknowledges that the availability of this information is useful and desirable for agencies and that, where the information is currently retained for business purposes, agencies would continue to be assisted by the availability of such information to the extent it is otherwise retained.

The IWG notes concerns expressed by industry representatives that the data set contains numerous examples of open-ended language, for example the phrase “any identifiers” in items 2 and 3 of the data set, and that these provide limited clarity in relation to specific identifiers to support implementation. Industry voiced its concern that descriptors such as “any” may be interpreted literally by agencies in the future and used to require the industry to generate a broad range of information. Industry representatives suggested that the data set be amended to replace the reference to “any information” and “any identifiers” to words to the effect of “at least one available identifier sufficient to enable the identification of...”.

The IWG notes that the purpose of the word ‘any’ in item 1 is to ensure that industry is not required to collect information where it does not do so for business purposes. The IWG has separately recommended the inclusion of additional explanatory material to explain the phrases ‘any information’ and ‘any identifiers’ in this context. If the word ‘any’ was removed from item 1, providers would be required to, for instance, collect name and address information for all services they offer.

The IWG notes the views of agencies that the relevant identifiers for items 2 and 3 vary widely across services, as well as particular provider-implementations of those services, and also need to be technologically neutral to meet future needs. Agencies particularly note that the value of telecommunications data lies in its capacity to reconcile communications across widely varying technologies at different service levels delivered by different providers. Retention of relevant identifiers, rather than an isolated identifier, supports attribution of historical communications across relevant services provided by the abundance of industry players.

Recommendation 4: Against the background of the desirability of certainty to support industry implementation and the necessity of retention of all relevant identifiers to support communications attribution, the IWG recommends that the Government change the phrase “any identifiers” in items 2 and 3 of the data set to “identifiers”. Additionally the IWG saw merit in developing additional explanatory material providing specific examples of the application of data set elements in relation to identifiers across a selection of current service types.

IWG’s recommended amendments to the explanatory material

In addition to modest refinements to the data set, the IWG recommends that the Government considers a number of additions to the proposed explanatory material to:

- Include additional service-level examples illustrating how data retention applies, with particular reference to the application to access layer services - including where particular data points do not apply. For example, that wholesale providers are not required to retain “downstream” information available only to the retail provider.
- Include additional explanation stating, for the avoidance of doubt, that the data retention obligations do not require providers of free services that do not generate any billing information, to create or retain such data.
- Include additional explanation, consistent with subsection 187A(7) of the Bill, illustrating the application of the concept of a “communication session”, including a note that a communication session can last for an extended period (e.g. months in the case of some internet access sessions).
- Include additional text, consistent with paragraph 187A(4)(b) of the Bill, clarifying that data set item 3, the destination of a communication, is not required in relation to internet access services.

- Include an explanation of the difference between data usage and data allowance, including that these data points may be retained in a way that is consistent with a provider's existing records management, (e.g. aligned with that provider's billing cycle).
- Replace the phrase "bandwidth allowance" in data set item 5 with "data volume usage".
- Replace any reference to a "person" with "subscriber" to acknowledge that not all subscribers are natural persons, particularly in the context of corporate and wholesale services.
- Include, in relation to data set item 5 (type of communication) additional examples highlighting the meaning of "type" of communication, particularly in the context of integrated services that can transition seamlessly between multiple underlying technologies.
- Include additional explanatory material illustrating the operation of location information requirements in relation to non-mobile services, for example, that for fixed-line services relevant location information will be the address of the subscriber (typically already retained under item 1).
- Include additional text to clarify that the data retention obligations do not preclude service providers from retaining items in the data set for longer than the required two year period for their own business purposes. This principle extends to the use of retained data for a provider's business purposes.

The IWG agrees that these alterations to the data set and additions to the supporting material, read in combination with of the Bill and its Explanatory Memorandum, give the industry sufficient information to begin preparing data retention implementation plans. The IWG notes that the Technical Experts' Group provides a continuing vehicle for engagement between agencies and industry.

Other IWG outcomes

The IWG agrees that the group provides a useful opportunity to discuss the practical application of data retention obligations across a range of services. Industry members in particular agreed that the forum provided useful and reassuring clarification of the operation of the obligations.

The IWG acknowledges that there is a natural tension between industry's desire to understand the utility of some of the items within the data set, to assist in designing and building systems that will achieve the intention of the Bill, and the appropriate protection of agencies' capabilities and investigative methodologies.

IWG acknowledges industry reservations that retained telecommunications data may be viewed by agencies as a single authoritative investigative resource. The IWG notes agency acknowledgement of both the benefits and limitations of telecommunications data and that data requests represent one of a number of investigative tools. Agencies highlighted that data is subject to interrogation and analysis and is a valuable building block in support of investigations.

The IWG understands that some industry constituents would prefer the data set to be set out in more technical terms, to aid implementation. IWG also understands that a technology-neutral approach is favoured by agencies as it can be applied to the current variety of communications services and also allows it to be applied to future communications services as they are introduced to the market. The IWG acknowledges the tension between taking an overly prescriptive approach to the data set (allowing flexibility for a service provider to tailor retained data points to its own services and systems) and not being prescriptive enough (creating some compliance concerns within industry).

The IWG notes the structured implementation strategy set out in the Bill and its responsiveness to industry concerns about implementation timeframes being sufficient to support cost-effective and progressive implementation.

The IWG acknowledges that changes to the data set could create significant cost to industry. The IWG notes that if the data set regulations are changed in the future, this would be subject to Parliamentary processes.

Recommendation 5 - The IWG recommends that any proposed change to the regulations should not enter into force immediately, but rather come into effect only after Parliament has had an opportunity to review the proposed change and the disallowance period has expired.

The IWG notes that any change to the data set would also trigger the ability for industry to re-apply for an 18 month implementation plan. In this regard the IWG also notes and acknowledges the role of the Communications Access Co-ordinator (CAC) in supporting industry with the implementation of the data retention obligations—including providing guidance on how compliance might be achieved, reviewing applications for implementation plans and exemptions and seeking to resolve any apparent disparity of views between agencies and industry in relation to the effect of the obligations.

The IWG acknowledges industry’s concern that the increased data holdings created by the data retention obligations may create cost to industry as it may increase requests for access to that data through other channels (e.g. civil proceedings).¹ Industry has suggested that cost recovery mechanisms should be made available to offset this cost. The IWG notes that companies are able to recover the full cost of granting access to personal information under the *Privacy Act 1988*, and considers that any additional cost recovery mechanism in broader civil proceedings is a matter for Government.

¹ As a benchmark, Appendix 10 of *The ACMA Annual Report 2013-14* shows that 11,526 disclosures authorised by or under law (under s280 of the *Telecommunications Act 1997*) occurred in 2013-14

Discussion of costs

To more accurately estimate the cost of the data retention obligations, industry has sought guidance on the period to reach full compliance and services that are likely to be granted full or partial exemptions.

Implementation Plans

The Bill sets out an implementation planning process that allows service providers up to an additional 18 months (from commencement) to reach full compliance with their data retention obligations. Commencement is specified to occur six months after passage, meaning that providers will have up to two years to reach full compliance.

The Bill envisages that implementation plans will detail a pathway to compliance for each relevant service, including agreed milestones that build progressively towards this goal. The CAC will be responsible for receiving, considering and approving implementation plans sought by industry.

Exemptions

The legislative framework sets out that the prescribed data set does not need to be retained for some specified communications services. These include:

- broadcast services (as defined by the *Broadcasting Services Act 1992*);
- services supplied within an “immediate circle” (as defined by section 23 of the *Telecommunications Act 1997*), and
- services provided to places in the “same area” (as defined by section 36 of the *Telecommunications Act 1997*).

The purpose of these exemptions is to ensure that entities such as universities and corporations will not be required to retain telecommunications data in relation to their own internal networks (provided these services are not offered to the general public), and that providers of communications services in a single place, such as free Wi-Fi access in cafes and restaurants, are not required to retain telecommunications data in relation to those services. Although information about the use of such networks and services may be of value in relation to investigations, retention of the information is not mandated by data retention. However, the CAC may declare that data relating to particular services must be retained, should circumstances require.

The proposed legislative framework provides that the CAC may exempt a service provider from all or part of its data retention obligations in relation to a particular service. Given the considerable variation between networks and services, exemptions will generally be considered on a case-by-case basis. Exemptions made under this power will be made on the basis that they will remain confidential; the disclosure of the existence of an exemption would create provider-of-choice concerns by disclosing an absence of capability. This would likely affect the law enforcement and national security interests that the CAC is required to take into account when granting or revoking an exemption.

Exemptions may also reference a class of service providers, for example the CAC may specify that any service provider that provides Internet Protocol television (IPTV) services is not required to retain any data in relation to its IPTV service. Similarly, an exemption or variation may be expressed to apply to a class of obligations. Depending on all of the circumstances, the CAC may publish exemptions, particularly where doing so would have no impact on law enforcement or national security interests.

Key IWG outcomes

- The IWG notes and supports the exclusions from the data retention obligations included in the Bill (broadcast services, immediate circle and single premises).
- The IWG agrees that service providers that offer a “managed service” product to corporations or other entities represent strong candidates for exemption from the data retention obligations. The IWG understands that, based on the Bill’s Explanatory Memorandum, the legislative intent behind “immediate circle” relates to excluding certain types of services. IWG notes that if a service is managed by a third party, the legislation may operate in a different way, and therefore create a risk of regulatory arbitrage that would disadvantage providers of managed services compared to the operation of the same services when offered in-house.
- The IWG considers that the following services also represent possible candidates for full or partial exemptions from data retention obligations:
 - IPTV
 - On-demand video service
 - Internet Radio
 - Music Streaming
 - Dark Fibre
 - Telehealth services
 - Lifelogging services
- The IWG notes that if, or to the extent that, IPTV falls exclusively within the meaning of broadcast services, it would be exempt from the data retention obligations without the need for a case-by-case application to the CAC.
- The IWG notes that a service provider’s internal corporate network is excluded from the data retention obligations.
- The IWG agrees that it is appropriate that the CAC has a role in assessing exemption applications. The IWG notes that the CAC has the ability to tailor exemptions (i.e. a partial or full exemption) and supports this flexibility. A partial exemption includes allowing a reduction in the retention time or data points required for a particular service.

- The IWG notes the views of agencies that, where granted, case-by-case exemptions could exempt providers from retaining transactional data in items 2-6 while still requiring the retention of subscriber data in item 1. This would reduce burden on industry while still ensuring some more limited information remains available to agencies.
- The IWG considers that it would be appropriate that data retention exemptions be confidential, noting that disclosure of an exemption could make that attractive to users seeking to evade detection, making the exemption inappropriate.
- The IWG considers that, in submitting an application for a partial or full exemption from the data retention obligations, service providers should frame their reasons for seeking an exemption from their own perspective, identifying relevant factors in the context of the service that is the subject of the obligations. The IWG further notes applications identifying compliance or cost burdens should provide relevant information to support consideration of the application.
- IWG agrees that, while individual exemptions should remain confidential, industry would benefit from guidance material providing indicators of the services which may be favourably considered for exemption, having regard to the factors outlined in the legislation.
- IWG notes that, due to the sensitivity of exemptions, many individual examples raised by industry are not addressed in this Report. IWG notes, however, that it is satisfied that there are circumstances in which a service would appropriately be exempted from compliance and that the mechanism in the Bill provides an appropriate tool to provide such exemption.

Assessment of the costs of data retention

In September 2014, the AGD engaged PricewaterhouseCoopers (PwC) to develop a cost analysis for the introduction of the Government's proposed data retention obligations. PwC consulted selected telecommunications industry participants regarding their current data retention practices, as well as their estimated costs of compliance with the proposed obligations. Notwithstanding consultation on the draft data set, consulted providers observed that they did not consider they could provide accurate costings without draft legislation articulating and evidencing the data retention obligations.

In December 2014 AGD again engaged PwC to provide high level costs for the initial implementation of the data retention scheme. PwC was selected for this task as it had already completed the foundations of the work required and had the requisite expertise to develop costings work further. The primary purpose of this task was to refine the cost to industry to reach full compliance with the Government's proposed data retention regime within the allowed two year implementation period.

To achieve this task, PwC undertook further analysis, supported by additional consultation with industry and informed by the Bill, explanatory memorandum and proposed data set. In addition, AGD provided legal and technical guidance responding to specific industry questions to support this process.

PwC provided additional information regarding data retention costings to AGD on 11 December 2014. The qualitative information from PwC's forms the basis of the findings in this Report.

Summary of PwC's costings

Government has undertaken to make a reasonable contribution to the capital expense of industry implementation of the proposed data retention obligations for existing communication services. Industry notes that the Minister for Communications said during the Bill's Second Reading that the Government would make a "substantial contribution to both the cost of implementation and the operation of this scheme."

PwC and AGD will engage with industry over the course of December 2014 and January 2015 to develop a model for making that contribution. Industry is committed to assisting that process.

The IWG notes that the existing legislative framework allows providers to invoice agencies with the cost incurred in providing the requested data on a no-profit/no-loss basis—as per section 314 of the *Telecommunications Act 1997*. This arrangement will continue under the data retention regime.

The IWG also notes that PwC's work to date has occurred prior to the work of the IWG and the Technical Experts' Group. The IWG considers that the outcomes of the Group's recommendations have the potential to reduce assessments of costs.

PwC's key findings:

- Since the release of the Bill on 30 October 2014, PwC has re-contacted the businesses that were consulted as part of preparing the original costing estimates.
- PwC will also engage with additional providers, including additional smaller providers, to ensure a representative selection.
- PwC will undertake more detailed consultation with industry over the next month to refine the capital cost estimates. This will enable businesses to further consider the detail provided in the Bill.
- PwC found that the publication of the Bill, Explanatory Memorandum, draft data set and other supporting material on the AGD website has allowed the revision of cost estimations.
- Not all consulted industry participants have yet been able to provide updated costs. PwC expects that a substantial amount of additional costing estimates will become available between the preliminary report and the provision of the final cost estimation.
- Providers gave additional information explaining that the exclusion of certain providers in subsection 187B(1) of the Bill has assisted the refinement of cost estimates. This is particularly the case for the exclusion of business services provided to corporates under the 'immediate circle' exemption.
- Further costings work is required and will be undertaken by PwC over the next month. AGD and PwC both appreciate industry's further engagement in the process.

Implementation

The IWG is now focussed on continuing the Experts' Group discussion on the implementation costs of the data retention obligations.

The IWG proposes to convene a meeting following the PJCIS report on its inquiry into the Bill and proposed data set. That meeting would provide an opportunity for agencies and industry to discuss the implications of any recommendations and provide a vehicle to convey views to Government.

Once completed, the IWG will focus on its third and final stage of operation, which involves transitioning to agreement on a framework to assist industry with implementation of the data retention obligations, focusing on structure and guidance around implementation plans and exemption applications. The IWG appreciates that developing and agreeing implementation plans and exemption applications constitutes a substantial body of work for industry, agencies and government and that ongoing engagement will assist all parties in their endeavours in this regard.

Data Retention Bill – Proposed data set

The Australian Government has introduced a Bill to oblige telecommunications providers to retain a limited set of telecommunications data ('metadata') for two years.

It is not the content or substance of a communication and it is not a person's web-browsing history. Agencies will continue to need to obtain a warrant to access the content of a communication.

The categories of data that industry will be asked to retain is set out in the legislation. The categories of data are based closely on the European Union Data Retention Directive. Regulations will provide further details about what is to be collected and greater technical specificity under each of these categories. This will enable flexibility as technology changes and provide more certainty and consistency for industry. The regulations will also limit the mandatory retention of subscriber information described in item 1 (c)-(e) to two years from creation of that data. This does not prohibit industry from keeping such data longer for their own business purposes.

The draft set has been released publicly with the Bill and referred to the Parliamentary Joint Committee on Intelligence and Security for review and public consultation. There will also be ongoing consultation and review with a joint government/industry Implementation Working Group, which has been set up to settle implementation, the data set and funding of the scheme.

Kinds of information to be kept

Matters to which information must relate	Draft data set	Explanation and examples
<p>1. The subscriber of, and accounts, services, telecommunications devices and other relevant services relating to, the relevant service</p>	<p>The following:</p> <ul style="list-style-type: none"> (a) any information that is one or both of the following: <ul style="list-style-type: none"> (i) any name or address information; (ii) any other information for identification purposes; relating to the relevant service, being information used by the service provider for the purposes of identifying the subscriber of the relevant service; (b) any information relating to any contract, agreement or arrangement relating to the relevant service, or to any related account, service or device; 	<p>This category includes customer identifying details, such as name and address. It also includes contact details, such as phone number and email address. This information allows agencies to confirm a subscriber's identity or link a service or account to a subscriber.</p> <p>This category also includes details about services attached to account, such as the unique identifying number attached to a mobile phone, or the IP address (or addresses) allocated to an internet access account or service.</p> <p>This category further includes billing and payment information.</p> <p>Information about the status of a service can include when an account has been enabled or suspended, a relevant service has been enabled or suspended or is currently roaming, or a telecommunications device has been stolen.</p>

Matters to which information must relate	Draft data set	Explanation and examples
	<p>(c) any information that is one or both of the following:</p> <ul style="list-style-type: none"> (i) billing or payment information; (ii) contact information; <p>relating to the relevant service, being information used by the service provider in relation to the relevant service;</p> <p>(d) any identifiers relating to the relevant service or any related account, service or device, being information used by the service provider in relation to the relevant service or any related account, service or device; or</p> <p>(e) the status of the relevant service, or any related account, service or device.</p>	<p>The phrases ‘any information’ and ‘any identifiers’ should be read to mean the information that the provider obtains or generates that meets the description which follows that phrase. If the provider has no information that meets the description, including because that kind of information does not pertain to the service in question, no information needs to be retained. For instance, if a provider offers a free service and therefore has no billing information, no billing information needs to be retained by that provider with respect to that service the provider will need to retain subscriber and transactional data with respect to that service, but no billing information needs to be retained.</p>
<p>2. The source of a communication</p>	<p>Identifiers of a related account, service or device from which the communication has been sent by means of the relevant service.</p>	<p>Identifiers for the source of a communication may include, but are not limited to:</p> <ul style="list-style-type: none"> • the phone number, IMSI, IMEI from which a call or SMS was made • identifying details (such as username, address, number) of the account, service or device from which a text, voice, or multi-media communication was made (examples include email, Voice over IP (VoIP), instant message or video communication) • the IP address and port number allocated to the subscriber or device connected to the internet at the time of the communication, or • any other service or device identifier known to the provider that uniquely identifies the source of the communication.

Matters to which information must relate	Draft data set	Explanation and examples
		<p>In all instances, the identifiers retained to identify the source of the communication are the ones relevant to, or used in, the operation of the particular service in question.</p>
<p>3. The destination of a communication</p>	<p>Identifiers of the account, telecommunications device or relevant service to which the communication:</p> <ul style="list-style-type: none"> (a) has been sent; or (b) has been forwarded, routed or transferred, or attempted to be forwarded, routed or transferred. 	<p>The destination of a communication is the recipient. Identifiers for the destination of a communication may include, but are not limited to:</p> <ul style="list-style-type: none"> • the phone number that received a call or SMS • identifying details (such as username, address or number) of the account, service or device which receives a text, voice or multi-media communication (examples include email, VoIP, instant message or video communication) • the IP address allocated to a subscriber or device connected to the internet at the time of receipt of the communication, or • any other service or device identifier known to the provider that uniquely identifies the destination of the communication. <p>For internet access services, the Bill explicitly excludes anything that is web-browsing history or could amount to web-browsing history, such as a URL or IP address to which a subscriber has browsed. This extends to other protocols that describe the destination of communications on or via the internet.</p> <p>In all instances, the identifiers retained to identify the destination of the communications are the ones relevant to, or used in, the operation of the particular service in question. If the ultimate destination of a communication is not feasibly available to the provider of the service, the provider must retain only the last destination knowable to the provider.</p>

Matters to which information must relate	Draft data set	Explanation and examples
<p>4. The date, time and duration of a communication, or of its connection to a relevant service</p>	<p>The date and time (including the time zone) of the following relating to the communication (with sufficient accuracy to identify the communication):</p> <ul style="list-style-type: none"> (a) the start of the communication; (b) the end of the communication; (c) the connection to the relevant service; (d) the disconnection from the relevant service. 	<p>For phone calls this is simply the time a call started and ended.</p> <p>For internet sessions this is when a device or account connects to a data network and ends when it disconnected – those events may be a few hours to several days, weeks, or longer apart, depending on the design and operation of the service in question.</p>
<p>5. The type of communication or relevant service used in connection with a communication</p>	<p>The following:</p> <ul style="list-style-type: none"> (a) the type of communication; Examples: Voice, SMS, email, chat, forum, social media. (b) the type of the relevant service; Examples: ADSL, Wi-Fi, VoIP, cable, GPRS, VoLTE, LTE. (c) the features of the relevant service that were, or would have been, used by or enabled for the communication. Examples: call waiting, call forwarding, data volume usage. 	<p>The type of communication means the form of the communication (for example voice call vs. internet usage).</p> <p>The type of the relevant service provides more technical detail about the service. For example, for a mobile messaging service, whether it is an SMS or MMS.</p> <p>Data volume usage, applicable to internet access services, refers to the amount of data uploaded and downloaded by the subscriber. This information can be measured for each session, or in a way applicable to the operation and billing of the service in question, such as per day or per month.</p> <p>Note: This item will only apply to the service provider operating the relevant service: see paragraph 187A(4)(c) of the Act.</p>
<p>6. The location of equipment, or a line, used in connection with a communication</p>	<p>The following in relation to the equipment or line used to send or receive the communication:</p> <ul style="list-style-type: none"> (a) the location of the equipment or line at the start of the communication; (b) the location of the equipment or line at the end of the communication. 	<p>Location records will be limited to the location of a device at the start and end of a communication, such as a phone call or Short Message Service (SMS) message.</p> <p>For services provided to a fixed location, such as an ADSL service, this requirement can be met with the retention of the subscriber's address.</p>

ATTACHMENT A

Matters to which information must relate	Draft data set	Explanation and examples
		<p>Paragraph 187A(7) of the Bill provides that two or more communications that together constitute a single communications session are taken to be a single communication. In relation to internet access sessions, this means that service providers will only be required to keep location records at the start and end of a session, which can last from a few minutes to a several days.</p> <p>Paragraph 187A(4)(e) of the Bill provides that location records are limited to information that is used by a service provider in relation to the relevant service. This would include information such as which cell tower, Wi-Fi hotspot or base station a device was connected to at the start and end of communication.</p> <p>As a result of the above, the location records to be kept by service providers will not allow continuous monitoring or tracking of devices. Precise or real-time location information, such as a GPS location is also not part of data retention.</p>

DATA RETENTION IMPLEMENTATION WORKING GROUP

TERMS OF REFERENCE

November 2014

Role

On 30 October 2014, following consultation with industry on an indicative data set, the Government introduced the Telecommunications (Interception and Access) Amendment (Data Retention) Bill 2014. The Bill establishes a range of parameters for the retention of a limited set of telecommunications data by the telecommunications industry.¹

In bringing forward the proposed legislation, the Government affirmed its continued commitment to engagement with industry to support the implementation of the measure. The Data Retention Implementation Working Group establishes an executive level forum to support continued engagement between the telecommunications industry and the Government on implementation of the data retention obligation.

The Government has simultaneously referred the Bill to the Parliamentary Joint Committee on Intelligence and Security (PJCIS) for inquiry and report by (*date to be confirmed on acceptance of referral*). This Working Group will inform the Committee's consideration of the Bill.

Functions

- Data set.** The data set was the focus of preliminary consultation and the Bill establishes core classes of data that may be prescribed for retention. It is the Government's intention, as prescribed by the Bill, that the data set will be limited to a set of 'metadata' and not the content of the data. The Working Group will be asked to further refine the data set and report back to Government and the PJCIS by 14 December 2014.
The Working Group will discuss the data set and its application to new and emerging services.
- Roadmap to full compliance by early 2017.** The Bill provides two years from passage for full compliance. A six month delayed commencement provides an opportunity to develop and formally agree implementation plans with government. The six month period is followed by 18 months to progressively achieve full compliance consistent with the agreed plan.
The Working Group will develop the roadmap to compliance by 31 March 2017.
- Exempt services.** As a complement to implementation planning, the Bill allows industry to apply for exemptions.
The Working Group will discuss and advise on services that may be appropriate for time-limited or broader exemptions from retention obligations.
- Implementation costs.** Government expects that new services will be designed with retention obligations in mind. Government also notes industry advice that there are likely to be compliance costs for existing services - particularly where data sets may be large² or for some systems that do not generate the required data.³ Government has undertaken to make a reasonable contribution to the capital expense of implementation of the proposed data

¹Key established parameters include that browsing history is excluded from the data set and that related communications must be aggregated to the session level.

²Including Network Address Translation.

³This may be the case for location at the end of a communication on some services.

retention obligation for existing services.⁴ Although some work has been done on the industry costs of implementing a data retention regime, the Working Group will be responsible for providing a more definite and accurate estimate for Government and the PJCIS to consider. *The Working Group will explore how reasonable capital costs associated with the increase in data retention can be reliably and independently established.*

5. **Security, formatting and delivery.** The Bill does not impose specific obligations in relation to the handling and delivery of retained data, including matters that relate to the interface between carrier and agency systems.
The Working Group may discuss issues related to data retention not specifically addressed by the legislation.

Method of operation

The Implementation Working Group will work collectively to support the effective implementation of the data retention obligation. The Working Group will operate on a timeline aligned to the PJCIS' processes and the implementation timelines within the Bill. The Working Group will focus on three stages:

1. **Stage one** – agreement of terms of reference and formal work program to support continuing discussion on implementation of the data retention obligation in parallel with the PJCIS inquiry into the Bill; finalisation of any outstanding technical issues in relation to the proposed data set by 14 December 2014.
2. **Stage two** – experts-level discussion of costs and implementation to conclude prior to passage of the Bill.
3. **Stage three** – transition to frameworks for implementation plans and exemption applications, including to agree and provide consistent guidance after the passage of legislation.

Membership

The Working Group membership:

- **Chair:** Attorney-General's Department
- **Government members:** Department of Communications
- **Agency representation:** Australian Crime Commission (including on behalf of its State and Territory Board Members), Australian Federal Police, Australian Security Intelligence Organisation
- **Industry:** Telstra and Optus
- **Peak Body:** Communications Alliance

The first meeting of the Implementation Working Group will be chaired by the Secretary of the Attorney-General's Department, and government, agency and industry members will be invited to attend at agency head and Chief Executive Officer level respectively. Following the establishment of the Group, attendees at future meetings will draw from appropriate senior specialists from within the respective member agencies and organisations.

⁴ Existing cost allocation principles will apply to ongoing cost