Australian Government
Cloud Computing Policy

Maximising the Value of Cloud

Contents

Foreword

In mid 2010, as part of its remit to ensure the efficient and effective use of ICT across the Federal Government, Finance began investigating the requirement for policy on the use of cloud computing and in April 2011, after extensive consultation with industry and agencies, released the *Australian Government Cloud Computing Strategic Direction[1]* paper.

The *Strategic Direction* paper explored the opportunities and impacts to Federal Government agencies and provided agencies and industry with a whole-of-government policy for cloud computing, stating, *"agencies may choose cloud-based services where they demonstrate value for money and adequate security"*.

Three concurrent streams of activities, spread over the past two years, identifying the strategic and tactical activities supported agencies in the adoption of cloud computing and have now been largely completed.

In line with the maturation of cloud service offerings, the cloud computing market, the forthcoming release of the Government's 2011 National Digital Economy Strategy, and the release of a *National Cloud Computing Strategy[2]* it is timely to refresh the whole-of-government policy on agency use of cloud computing.

Following the Government's endorsement of the *National Cloud Computing Strategy* vision and goals, to help agencies adopt cloud computing to boost productivity and innovation, agencies have an explicit obligation to consider cloud services when procuring their new ICT requirements; to procure cloud services for their test and development needs and to migrate public facing websites to public cloud services.

Governance of this policy will be under the Secretaries ICT Governance Board, supported by the Chief Information Officers Committee and will be regularly reviewed, and where necessary, updated to ensure it remains strongly aligned with Government priorities and legislative requirements, reflects the maturation of the market and the advances in technology and technical standards.

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[1] http://agimo.gov.au/files/2013/04/final-_cloud_computing_strategy_version_1.1.pdf

[2] http;//www.dbcde.gov.au/cloud

Introduction

In April 2011, AGIMO published the *Australian Government Cloud Computing Strategic Direction* paper outlining the risks and benefits of cloud computing and set out a roadmap for the development of a suite of initiatives to assist Australian Federal Government agencies in their adoption of cloud services.

This *Australian Government Cloud Computing Policy* supersedes the *Australian Government Cloud Computing Strategic Direction* paper, April 2011, updates the progress on the deliverables of the 2011 strategic paper and provides whole-of-government direction to Australian Federal Government agencies on their use of cloud computing services.

The table at Attachment A describes the tasks and status of the initiatives undertaken in the 2011 *Australian Government Cloud Computing Strategic Direction* paper. Those tasks have largely been completed.

In October 2012 the Prime Minister announced, in parallel with an update to the *National Digital Economy Strategy*, the development of a *National Cloud Computing Strategy* to explore the various opportunities and potential for cloud computing to contribute to the national economy.

The *National Cloud Computing Strategy* identifies that the Australian Government, with an annual procurement of over $5 billion in ICT and associated services, has a role in providing leadership on the appropriate adoption of cloud computing and in the flow on effect from terms and products procured by the government to other organisations in the economy. There is also tangible benefit to agencies, taxpayers and citizens in the informed adoption of cloud services by government.

This policy articulates to agencies the Government's vision, goals and actions in the use of cloud computing in government as outlined in the *National Cloud Computing Strategy*.

Implementation of the policy, and the actions outlined in it, will be oversighted by the *Secretaries ICT Governance Board*, supported by the *Chief Information Officers Committee* and supports the Government's broader ICT strategic objectives and major programs of work, including the *National Digital Economy Strategy*[3] and the *Australian Public Service ICT Strategy 2012-2015*[4].

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[3] http://www.nbn.gov.au/nbn-benefits/national-digital-economy-strategy/

[4] http://agimo.gov.au/policy-guides-procurement/ict_strategy_2012_2015/

Policy

Goal

The Australian Government will be a leader in the use of cloud services to achieve greater efficiency, generate greater value from ICT investment, deliver better services and support a more flexible workforce.

Statement

Australian Government agencies will:

- consider cloud services for new ICT procurements. Agencies will choose cloud services where the cloud service represents the best value for money and adequate management of risk compared to other available options;
- commence procurement of public cloud services for their testing and development needs, as appropriate where the service represents the best value for money and is fit for purpose;
- transition public facing websites to public cloud hosting at natural ICT refreshment points, where those cloud services demonstrate best value for money and is fit for purpose; and
- establish information sharing initiatives to facilitate continual improvement based on a repository of case studies, better practices risk approaches and practical lessons to enable agencies to learn from each other.

Practical Considerations

In becoming a leader in the use of cloud services, Australian Government agencies will consider the following factors when procuring cloud services:

- value for money – including that the service is fit for purpose - as defined in the *Commonwealth Procurement Rules*[5];
- adequate security - as defined in the *Protective Security Policy Framework*[6];
- delivering better services - as detailed in the *APS ICT Strategy 2012-2015*;
- improving productivity - as detailed in the *APS ICT Strategy 2012-2015*;
- achieving greater efficiency - as detailed in the *APS ICT Strategy 2012-2015*; and
- developing a more flexible workforce.

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[5] http://www.finance.gov.au/procurement/procurement-policy-and-guidance/commonwealth-procurement-rules/

[6] http://www.protectivesecurity.gov.au/pspf/Pages/default.aspx

Deliverables

As described in the *National Cloud Computing Strategy*, the government's vision and goal for the use of cloud computing by Australian Government agencies is to be achieved by the following actions:

Key actions:

- The Australian Government Information Management Office (AGIMO) will enhance the guidance available to government decision makers on how to evaluate the benefits of cloud services and how to procure and manage them.
- AGIMO and the Department of Broadband, Communications and the Digital Economy (DBCDE) will establish information sharing initiatives to facilitate continual improvement based on a repository of case studies, better practice risk approaches and practical lessons to enable agencies to learn from each other.
- The Department of Finance and Deregulation (DOFD) will enhance procurement practices to ensure that government agencies are required to consider public cloud services for new ICT procurements.
- Government agencies will transition public-facing websites to public cloud services as their refresh cycle allows, where those services represent the best value for money.
- The government will develop a business case by the end of 2013 to analyse the benefits and drawbacks of a more centralised approach to the provision of cloud services to Australian Government agencies.

Actions:

Number	Action	Implementation
1.1	The government will: • identify training and skills development opportunities available to agencies on how to evaluate the benefits of cloud services and how to procure and manage them. • clarify obligations on agencies in relation to risk management, data security, privacy and the storage and processing of data offshore.	AGIMO, with input from DBCDE, OAIC and AGD: to complete in 2014
1.2	The government will identify opportunities for cloud services trials in agencies and establish information sharing initiatives to facilitate continual learning and establish a repository of case studies, better practice risk approaches and practical lessons learned. Interested State and Territory government organisations will be invited to participate.	AGIMO: ongoing, with work beginning in 2013 through the Chief Information Officer Committee.
1.3	The government will publish and report on the use of cloud services in the public sector. Using this information, the government will consider whether additional tools are necessary to assist agencies to self-assess their own cloud computing needs, and investigate whether current ICT funding models are suitable to encouraging adoption of cloud services in government.	DBCDE with support from AGIMO: to report annually beginning in early 2014
1.4	The government will explore the feasibility of a community government-Cloud.	AGIMO: to report by early 2014
1.5	The government will review the current cloud strategic directions paper, and issue an updated version shortly after the release of the National Cloud Computing Strategy.	AGIMO: by mid-2013
1.6	Government agencies will be required to consider cloud services (including public cloud services) for new ICT procurements. Government agencies will choose cloud services, where the service represents the best value for money and adequate management of risk, compared to other available options.	DOFD/AGIMO: to release guidance by end of 2013.

Number	Action	Implementation
1.7	The government will: • consider the ways that the early successes of Data-Centre-as-a-Service Multi Use List can be built upon. • refresh the Data Centre Facilities Panel.	DOFD: to refresh The Panel in 2013 and to review the DCaaS MUL in 2014.
1.8	Government agencies will migrate public facing websites to cloud hosting at natural ICT refresh points, where those cloud services demonstrate the best value for money and is fit for purpose. Agencies will also adopt public cloud services for their testing and development needs, as appropriate and where the service represents best value for money and is fit for purpose.	AGIMO: to publish guidance for agencies in 2013. Agencies: to implement at natural ICT refresh points.
3.3	The government will strengthen Australian engagement with regional and international standards institutions and technical committees, and strongly encourage involvement by the private sector.	DBCDE, AGIMO and the Defence Signals Directorate: ongoing.

Outcomes

The following table identifies the outcomes and the estimated completion date for the above actions. The Department of Finance and Deregulation (AGIMO) will issue a Finance Circular in June 2013 to give effect to these new directions for Government.

Stream	Outcomes	Target Completion
Procurement		
Outcome 1: New ICT procurements	Commencing July 2013, agencies have an explicit requirement to consider cloud services, including public cloud services, as an option when considering new ICT procurements. In accordance with the Government's procurement policy, agencies will choose cloud services where the cloud service represents the best value for money and adequate management of risk compared to other available options.	July 2013 onwards
Outcome 2: Test and development needs	Commencing July 2013, agencies have an explicit requirement to procure public cloud services for their test and development environments, where appropriate, and where the service represents best value for money.	July 2013 onwards
Outcome 3: Public facing websites	Commencing July 2013, agencies have an explicit requirement to migrate existing public facing websites to cloud services at natural refresh points and where those cloud services demonstrate best value for money.	July 2013 onwards
Outcome 4: ICT funding models	The Department of Broadband, Communications and the Digital Economy with support from the Department of Finance and Deregulation (AGIMO) will investigate whether current ICT funding models are suitable to encouraging the adoption of cloud services in government.	April 2014
Capability Building		
Outcome 1: Clarify agency obligations	The Department of Finance and Deregulation (AGIMO) will consult with agencies, industry and the Attorney-General's Department, the Office of the Information Commissioner and Defence Signals Directorate to review and update existing better practice guidelines on cloud computing to provide clarity on the issues of: 1. risk management; 2. data security; 3. privacy; and 4. the storage and processing of data offshore.	September 2013

Stream	Outcomes	Target Completion
Outcome2: Identify trials and, establish information sharing.	The Department of Finance and Deregulation (AGIMO) will consult with agencies and industry to identify opportunities for cloud services trials in agencies and establish information sharing initiatives to facilitate continual learning and establish a repository of case studies, better practice risk approaches and practical lessons learned. Interested State and Territory government organisations will be invited to participate.	June 2013 onwards
Outcome 3: Identifying training and skills development opportunities.	The Department of Finance and Deregulation (AGIMO) will develop and publish a guide identify training and skills development opportunities to improve public sector capability in evaluating the benefits of cloud services and knowledge on how to buy and manage them.	April 2014
Outcome 4: Community cloud feasibility	The Department of Finance and Deregulation (AGIMO) will consult with agencies and industry to explore the feasibility of a community government cloud and provide a business case to the Secretaries ICT Governance Board.	April 2014
Outcome 5: Data Centre as a Service development	The Department of Finance and Deregulation will consult with agencies and industry to consider the ways that the early successes of Data Centre as a Service Multi Use List can be built upon and provide a report to the Secretaries ICT Governance Board.	October 2014
Outcome 6: Data Centre Facilities Panel refresh	The Department of Finance and Deregulation will consult with agencies and industry and then refresh the Data Centre Facilities Panel consistent with the objectives of the Data Centre Strategy.	December 2013
Outcome 7: Cloud Certification Framework	The Department of Finance and Deregulation (AGIMO) will continue investigation of a Cloud Certification Framework for Government.	December 2013
Outcome 8: Public sector cloud services use report	The Department of Broadband, Communications and the Digital Economy supported by the Department of Finance and Deregulation (AGIMO) will consult with agencies and industry to develop and publish a report annually on the use of cloud services in the public sector.	April 2014
Outcome 9: Use of Cloud by Non-Government Organisations (NGOs)	The Department of Broadband, Communications and the Digital Economy will investigate how the use of cloud services can be promoted to NGOs that receive government funding, and consider what assistance could be provided to NGOs in procuring cloud services.	December 2013
Outcome 10: Continued engagement with industry and research institutes	The Department of Broadband, Communications and the Digital Economy and the Department of Finance and Deregulation (AGIMO) will continue to engage with industry and research institutes through existing mechanisms to identify research needs for cloud computing.	Ongoing
Outcome 11: Continued engagement with the National Steering Committee on Cloud Computing	The Department of Broadband, Communications and the Digital Economy and the Department of Finance and Deregulation (AGIMO) will continue to engage through the NSCCC to examine cloud computing issues, opportunities and challenges.	Ongoing
Outcome 12: Continued engagement with standards institutions and research committees.	The Department of Broadband, Communications and the Digital Economy and the Department of Finance and Deregulation will strengthen Australian engagement with regional and international standards institutions and technical committees' and strongly encourage involvement by the private sector.	Ongoing

Stream	Outcomes	Target Completion
Outcome 13: Review Australian Government Cloud Computing Strategic Direction paper	The Department of Finance and Deregulation (AGIMO) will review the current cloud strategic directions paper, and issue an updated version shortly after the release of the National Cloud Computing Strategy.	Completed

Implementation Roadmap

The table below replicates the estimated timescale for the above outcomes.

Outcomes		May 13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14	Apr-14
Procurement													
1	Agencies to consider cloud services for new ICT procurements			■	■	■	■	■	■	■	■	►	
2	Agencies to procure cloud services for test and development needs			■	■	■	■	■	■	■	■	►	
3	Agencies to transition public facing websites to public cloud services			■	■	■	■	■	■	■	■	►	
4	Investigate ICT funding models			■	■	■	■	■	■	■	■	►	
Capability Building													
1	Clarify agency obligations	■	■	►									
2	Identify trials and establish information sharing	■	■	►									
3	Identify training and skills development opportunities			■	■	■	■	■	■	►			
4	Government community cloud feasibility business case			■	■	■	■	■	■	►			
5	Data Centre as a Service development	■	■	■	■	■	■	■	■	■	■	►	
6	Refresh of Data Centre Facilities Panel	■	■	■	■	■	►						
7	Continue to investigate a Cloud Certification Framework	■	■	■	■	■	►						
8	Develop and publish report on public sector use of cloud services			■	■	■	■	■	■	►			
9	Use of cloud by Non-Government Organisations (NGOs)			■	■	■	■	►					
10	Continued engagement with industry and research institutes			■	■	■	■	■	■	■	■	►	
11	Continued engagement with the National Standing Committee on Cloud Computing			■	■	■	■	■	■	■	■	►	
12	Continued engagement with standards and research committees			■	■	■	■	■	■	■	■	►	
13	Review Australian Government Cloud Computing Strategic Direction paper	►											

Success Indicators

The Australian Government will be a leader in the use of cloud services when agencies use cloud services to:

- achieve greater efficiency;
- generate greater value from ICT investment;
- deliver better services; and
- support a mobile work force.

Strategies, Policies, Guidance and Standards

A range of strategies, policies, guidance and standards are related to the decision making process when procuring cloud services. Agencies are urged to review, and incorporate where appropriate, the following:

Strategies

National Digital Economy Strategy

The *National Digital Economy Strategy*[7] aim is that, by 2020, Australia will be among the world's leading digital economies. The strategy identifies the role cloud computing can play in reducing the cost of ICT to government and the improvement in service delivery to business and individuals.

National Cloud Computing Strategy

The *National Cloud Computing Strategy* complements the *National Digital Economy Strategy* and examines the broad role of cloud technologies, the various opportunities and potential for the nation (private, public and not for profit sectors) and includes a section on the 'Government's use of Cloud Computing' in the context of the wider Australian economy.

The strategy identifies cloud computing as a key enabler of the digital economy and addresses the barriers to adoption of cloud computing by setting out a range of actions to accelerate the adoption of cloud services across the sectors.

Australian Public Service ICT Strategy 2012-2015

The *Australian Public Service ICT Strategy 2012-2015*[8] outlines how Australian Government agencies will continue to use ICT to drive better service delivery, improve government operations, drive productivity, and to engage with people, the community and business. It supports better, more accessible government services for people when, where and how it suits them, so they can be more productive.

The strategy recognises the benefits cloud computing provides to increased capability and improvement of efficiency through lower customisation and integration costs to government operations.

Australian Government Data Centre Strategy 2010-2025

The *Australian Government Data Centre Strategy 2010-2025*[9] aims to improve and optimise government use of data centre facilities over a fifteen year period through the aggregation and standardisation of agencies data centre requirements via the Data Centre Facilities Panel.

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[7] http://www.nbn.gov.au/nbn-benefits/national-digital-economy-strategy/

[8] http://agimo.gov.au/policy-guides-procurement/ict_strategy_2012_2015/

[9] http://agimo.gov.au/policy-guides-procurement/data-centres/data-centre-strategy/

The strategy identifies a number of trigger points such as asset refreshment cycles, end of outsourcing contracts, end of life for data centre, or expansion of data centre capacity that place mandatory obligations on agencies to use the Data Centre Facilities Panel.

Agencies considering infrastructure cloud services such as Infrastructure and Platform as a Service (IaaS and PaaS) are advised to contact the Data Centres team at datacentres@finance.gov.au

Australian Government Big Data Strategy

The *Australian Government Big Data Strategy* is scheduled for release in July 2013. The strategy investigates the use of big data analytics as a tool to improve productivity through better service delivery and policy development.

Policy

Protective Security Policy Framework

The *Protective Security Policy Framework*[10] provides a principles and risk-based approach for the way the Australian Government protects its people, information and physical assets.

The policy is the Government's principle document outlining agencies mandatory obligations for the protection of information including the management of security risks associated with electronic data transmission, aggregation and storage.

Information Security Manual

The *Information Security Manual*[11] provides a principles and risk-based approach to the security of government information and communications technology systems.

The manual articulates mitigating strategies and processes for agencies to reduce the security risks to the Government's information assets.

Commonwealth Procurement Rules

The *Commonwealth Procurement Rules12* (CPRs) are issued by the Minister for Finance and Deregulation under Regulation 7 of the Financial Management and Accountability Regulations 1997 .

The CPRs set down the rules for Australian Government procurement and articulate the Australian Government's requirements for officials performing duties in relation to procurement. FMA Regulation 7 requires officials to comply with the CPRs when performing duties related to procurement.

The FMA Regulations also require that proposals to spend public money must be approved. In particular, FMA Regulation 9 requires an approver to be satisfied, after making reasonable enquiries, that the spending proposal is an efficient, effective, economical and ethical use of public money that is not inconsistent with the policies of the Commonwealth.

ICT Customisation and Bespoke Development Policy

The *ICT Customisation and Bespoke Development Policy*[13] aims to reduce the percentage of customised and bespoke ICT solutions across government. The policy places a mandatory obligation on agencies to consider existing government or commercial off-the-shelf ICT solutions, such as cloud services.

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[10] http://www.protectivesecurity.gov.au/pspf/Pages/default.aspx

[11] http://www.dsd.gov.au/infosec/ism/

[12] http://www.finance.gov.au/procurement/procurement-policy-and-guidance/commonwealth-procurement-rules/

[13] http://agimo.gov.au/files/2012/04/ICT_Customisation_and_Bespoke_Development_Policy.pdf

Guidance

Cloud Security Considerations

The Defence Signals Directorate's *Cloud Security Considerations*[14] paper provides agencies with a risk-based approach to the assessment of the viability of using cloud services by detailing a comprehensive list of issues to consider.

The paper assists agencies to conduct a risk assessment and make an informed decision regarding whether an agency's proposed use of cloud services has an acceptable level of risk relevant to the security requirements of the information.

A Guide to Implementing Cloud Services

The *A Guide to Implementing Cloud Services*[15] provides an overarching risk-managed approach for agencies to develop an organisational cloud strategy and implement cloud-based services.

The guide is aimed at experienced business strategists, architects, project managers, business analysts and IT staff to realise the benefits of cloud computing technology, focuses on activities to identify and implement cloud opportunities and advocates for a coordinated approach to the implementation of cloud services between business and ICT managers.

Privacy and Cloud Computing for Australian Government Agencies

The *Privacy and Cloud Computing for Australian Government Agencies*[16] guide provides agencies with an understanding of how to comply with privacy laws and regulations when choosing cloud services.

The guide aims to give agencies an awareness of their privacy and security obligations, advises on a risk-based analysis of their information and to ensure that the contractual arrangements they enter into with ICT providers adequately address their privacy obligations to citizens information.

Negotiating the Cloud – Legal Issues in Cloud Computing Agreements

The *Negotiating the Cloud – Legal Issues in Cloud Computing Agreements*[17] *guide* provides agencies with an understanding of the typical legal issues involved when entering into cloud services agreements. The guide highlights the core set of legal issues that agencies should consider with any cloud services agreement.

Agencies are reminded to use contractual instruments to ensure cloud services providers address the legislative and regulatory requirements on behalf of an agency.

Financial Considerations for Government use of Cloud Computing

The *Financial Considerations for Government use of Cloud Computing*[18] guide provides agencies with an understanding of the often complex financial considerations agencies should address when procuring cloud services.

Records Management in the Cloud

The *Records Management in the Cloud*[19] guide provides agencies with a risk-based approach to the management of information in cloud services. The guide provides a checklist to assist

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[14] http://www.dsd.gov.au/infosec/cloudsecurity.htm

[15] http://agimo.gov.au/files/2012/09/a-guide-to-implementing-cloud-services.pdf

[16] http://agimo.gov.au/files/2013/02/privacy-and-cloud-computing-for-australian-government-agencies-v1.1.pdf

[17] http://agimo.gov.au/files/2013/02/negotiating-the-cloud-legal-issues-in-cloud-computing-agreements-v1.1.pdf

[18] http://agimo.gov.au/files/2012/04/financial_considerations_for_government_use_of_cloud_computing.pdf

[19] http://www.naa.gov.au/records-management/agency/secure-and-store/rm-and-the-cloud/

agencies determine if a proposed cloud service complies with the requirements of the *Archives Act 1983*.

Community Cloud Governance – Better Practice Guide

The *Community Cloud Governance – Better Practice Guide[20]* provides agencies with an appropriate governance framework to manage the roles and responsibilities of agencies that may wish to develop or enter into a community cloud.

Australian Public Service Mobile Roadmap

The *Australian Public Service Mobile Roadmap,* scheduled for release soon, will assist agencies build a consistent, whole-of-government approach to the adoption of mobile technology that will extend services to citizens, improve agency and staff productivity, and engage more effectively.

Australian Government Architecture Framework

The *Australian Government Architecture Framework[21]* provides a range of artefacts with the aim of assisting agencies engineer more consistent and cohesive services to citizens and support the more cost-effective delivery of ICT services by government.

Standards

The Australian Government is committed to and will continue contributing to the development of international cloud standards via its work with Standards Australia on the JTC1 SC27 and SC38 programs of work.

Procurement

Agencies are reminded of their obligation to comply with relevant legislative and regulatory requirements and to select cloud services commensurate with the requirements of the information.

Figure 1: provides agencies with a suggested high level approach to the process of assessing and selecting cloud services.
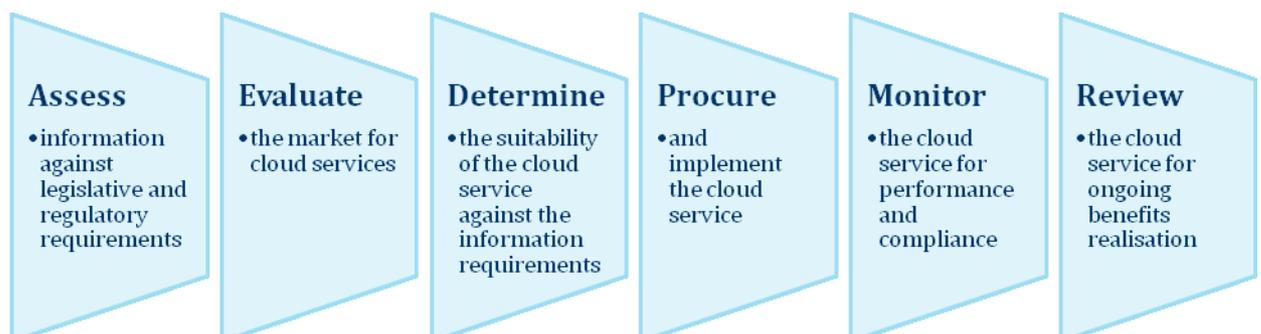
The Data Centre as a Service Multi Use List[22] is an option available to agencies for the procurement of cloud services.

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[20] http://agimo.gov.au/files/2012/04/files/2012/04/community_cloud_governance_better_practice_guide.pdf

[21] http://agimo.gov.au/policy-guides-procurement/australian-government-architecture-aga/

[22] http://agimo.gov.au/policy-guides-procurement/data-centres/data-centre-as-a-service-dcaas-multi-use-list-mul-fact-sheet/

Attachment A Progress on Deliverables

The table below shows progress on the deliverables of the Australian Government Cloud Computing Strategic Directions Paper, April 2011.

Stream	Output	Status
Enabling Preparing to adopt cloud: policy, principles, contract guidance and knowledge guidance	Establishment of a Cloud Information Community	Completed
	Development of a Cloud Framework, including:	
	"Use of Cloud" Principles (incorporated into AGA principles)	Completed
	Better Practice Guides	
	Security	Completed
	Records Management	Completed
	Privacy	Completed
	Legal Issues	Completed
	Financial Considerations	Completed
	Implementing Cloud Services	Completed
	Community Cloud Governance	Completed
	Investigation of a Risk-based Service Provider Certification Program	Under Consideration
Public Clouds A tactical (or opportunistic) approach to cloud services with agencies adopting public cloud as offerings mature	AGIMO public-facing websites transitioned to public cloud (e.g. www.data.gov.au and www.govspace.gov.au)	Completed
	Sourcing model, e.g. Whole of Government Public Cloud Service Provider Panel	Completed
	Proof of Concepts / Pilots undertaken by agencies	Agency Defined
Private and Community Clouds A strategic approach to cloud services with the integration of a whole of government approach to cloud with the Data Centre Strategy	Integration with Data Centre Strategy: (projects that support future cloud capability)	
	The *Optimising Data Centre Use* project - to provide guidance to assist agencies in using advanced virtualisation & cloud-type technologies	Completed
	The *DCaaS* project - will assess cloud technologies in providing common data centre facilities and ICT solutions for the 50 smaller Australian Government agencies	Completed
	Investigation and adoption of Private and/or community clouds	Agency Defined
	Investigation and establishment of a Government "Storefront" or Government Community Cloud	Completed
	Expansion of the Cloud Information Community to undertake governance role for the Government "Storefront" or the Community Cloud/Government "Storefront"	Not Under Consideration

Attachment B Tactical Application and Use of Cloud by Government

The matrix below is provided to assist agencies consider where cloud services may be appropriate at the Information and Technology layers. Decisions to transition at the information and services layers should be made based on a risk-managed approach taking into account information assurance requirements. (The content of the Data Centre with Advanced Virtualisation column represents a service provider view, while the content of the Private Cloud, Hybrid cloud, Community Cloud and Public Cloud columns represents a user view.)

Layer	Example	Data Centre with Adv. Virtualisation	Private Cloud	Hybrid cloud	Community Cloud	Public Cloud
Information and Services layers						
Citizen-facing services	Citizen-driven (joined-up) service delivery (lines of business)	Now (spanning Private–Public)				
Business Processes	Consolidated or shared business processes, for example, Financial, HR, Budgeting, Procurement, content management, case management	Now (spanning Private–Public)				
Applications	Custom applications/Packaged applications/external services	Now (spanning Private–Public)				
Citizen Information	Concerns individual citizens, covered by privacy and data protection (security)	Now (spanning Private–Community)				3 - 5 years
Public Information	Open government data / mashups Collaborative tools, e.g. blogs, wikis, data.gov.au					Now
Technology layer						
Channels (online)	Government websites and portals Web2.0 technologies (e.g. Gmail) Discovery tools, (e.g. Google Search)			Now		Now
Technology (Infrastructure)	IT and telecommunication infrastructure – utility model	Now (spanning Private–Public)				
Technology (process / storage capability)	Process and analyse large datasets Use as a storage platform	Now (spanning Private–Public)				