

# The coming cloud tsunami: traditional IT managed service providers must act now

Intermedium White Paper

Prepared for  
Amazon Web Services

# Table of Contents

---

Introduction	3
Cloud is no longer new or unproven	5
The jurisdictional snapshot	8
The cloud opportunity for IT managed services providers	16
The way forward	17
References	18

## Introduction

**This paper indicates the existence of a government cloud ‘tsunami’, which is rapidly building in size and momentum across Australian jurisdictions. As the wave hits the IT managed services market, providers who have not embraced next generation, cloud-based approaches will find their traditional revenue streams washed away.**

Traditional approaches to government IT managed services have been a reliable and lucrative source of revenue for suppliers since the first contracts were struck in 1998 as part of the Howard Government’s move to outsource the management of Australian federal public sector ICT infrastructure.

The next generation (NextGen) of cloud-enabled managed services is threatening this business model, as evidenced by the Australian Taxation Office’s recent approach to the market to overhaul their mainframe computing arrangements.

Over the past decade, policies mandating cloud use have ushered in year-on-year growth of the technology in the government ICT market. Rising costs in traditional IT managed services, particularly in the labour market, is another factor significantly changing agency requirements of their incumbent suppliers.

With now a decade of cloud experience under their belts, learning from both successes and failures, agencies are becoming increasingly confident about seeking innovative, cloud-based solutions when their IT managed services contracts are up for renewal.

At the state and territory level, the story is much the same. More than half of IT managed services are now cloud-enabled in New South Wales. Other jurisdictions are following its lead, with total NexGen managed services contracting value doubling in recent years. At the same time, traditional IT managed services contracting value has declined.

Cloud growth has also been driven significantly by the rise of Software as a Service (SaaS) use by agencies, placing greater need on them to have modernised infrastructure and business systems that can interface with new digital ecosystems.

The emerging theme in many jurisdictional Whole of Government (WofG) ICT and digital strategies and architectures is for agencies to adhere to the ‘Three ‘Rs’ principle. Resilience, Reuse and Rationalisation will increasingly set the stage for future cloud growth. Reuse and Rationalisation in particular will feature more prominently in agencies’ system design and architecture considerations because of tightening ICT operational and capital expense allocations in the post-COVID world.

# The verdict is in: government services need to be cloud services

Across Australia, cloud is now a critical component of government service delivery. Here are four fundamental reasons why that is the case.

## Scalability

Agencies now have the evidence that the agility, resiliency and elasticity of the cloud enables them to rapidly scale up their responses in times of crisis, saving lives and minimising the risk of inaction.

Cloud-based solutions were mission-critical to federal, state and territory governments during the COVID pandemic, with the widespread use of check-in apps allowing businesses to re-open without compromising contact tracing efforts. Cloud was essential to support critical health service provision including widely-deployed telehealth platforms and remote working arrangements for frontline public servants.

## Better use of data

Collecting and linking data across cloud-based platforms allows governments to anticipate citizen needs and provide personalised services to people when they need them most.

Cloud-supported data analytics and artificial intelligence (AI) help public servants derive accurate insights faster, speeding up policy response and leading to better 'time-to-citizen' value.

The fundamental importance of better data use is recognised at the highest levels of government decision-making, with the Australian Data and Digital Ministers' Meeting affirming better data-sharing arrangements across jurisdictions as one of its key goals.<sup>1</sup>

## Modernisation and emerging technologies

Having operated critical IT environments for decades, governments have been left with a plethora of legacy systems and applications that hamstring their ability to deliver services in the 21<sup>st</sup> century. Even traditionally policy-oriented non-service delivery agencies are having to modernise in the wake of the here-to-stay remote working arrangements that were dramatically accelerated by COVID lockdowns.

Cloud allows agencies to progressively modernise their business processes and take advantage of emerging technologies that can enable novel, more efficient and more effective ways of delivering services.

The computing and storage demand of emerging technologies such as Internet of Things (IoT), AI, virtual and augmented reality dictate their use of cloud services.

Trillions of dollars have already been invested in the development of these technologies worldwide and smart devices – supported by cloud – are now ubiquitous in households.

Governments recognise the need to catch up and share in these emerging technology breakthroughs but cannot do so unless they break free of the constraints of their legacy IT environments.

### CLoud BENEFITS

1. Scalability
2. Better use of data
3. Modernisation and emerging technologies
4. Cost savings

**EMERGING TECHNOLOGY: DIGITAL TWINS**

Digital twins combine vastly disparate static and real-time datasets from the public and private sector, as well as from geographically dispersed IoT sensors. Such technologies require scalability, mobile access, and 24/7 reliability that can only be afforded by cloud services.

In the last three years, the NSW, Victorian and federal governments have made significant investments in digital twins, which has necessitated the modernisation of many of their processes, systems and technology, such as cadastral information<sup>2</sup>.

## Cost savings

Moving to cloud fundamentally changes the IT operating model and hence the way government procures technology solutions. Over the last five years, ICT procurement policy has caught up with this fact, both encouraging cloud adoption by agencies and restricting their ability to own and operate IT infrastructure.

Consumption-based pricing models give agencies the flexibility to adopt the newest technologies within a constrained budgetary environment. Cloud also assists agencies in the rationalisation of duplicated systems and the reuse of components, minimising the risk of project cost and time blow-outs.

# Cloud is no longer new or unproven

In October 2012, recognising a societal and technological shift was underway, the Australian federal government announced the National Cloud Computing Strategy.<sup>3</sup>

This strategy standardised procurement policy and required agencies to consider cloud solutions. At the time it was a small drop in the ocean of the ICT market but was a signal for other jurisdictions to follow.

Cloud-first mandates for states and territories were established shortly afterwards, with Queensland being the first to adopt such a policy in 2014.<sup>4</sup>

Cloud take-up was initially low. Agencies accustomed to traditional IT approaches were sceptical of cloud's benefits and concerned about security and data sovereignty issues.

The tipping point occurred in 2019 when hyperscalers such as AWS received certification from the Australian Signals Directorate (ASD).

These certifications were soon followed by WofG purchasing arrangements, such as the AWS Digital Transformation Agency agreement. The agreement covers provision of Infrastructure as a Service (IaaS), Platform as a Service (PaaS), training and professional services to federal agencies, and can also be used by the states and territories.

# 44.3%

Compound Annual Growth Rate  
(CAGR) of Australian cloud  
contracting over the five years from  
2016-17

In its first three years the agreement came to be worth \$390 million, a 1000% increase on its original estimated value, indicating just how rapidly the cloud marketplace is accelerating and transforming beyond all expectations<sup>5</sup>.

One of the major impediments in the early years of cloud adoption were concerns about cyber security. These security concerns are abating with greater understanding of the nature of cloud and the recognition that agencies need to appropriately manage cloud risks rather than avoid cloud altogether.<sup>6</sup>

A dramatic illustration of how rapidly cloud is taking off in Australian government markets is achieved by examining the timing and value of cloud-related contracts published by agencies across all jurisdictions<sup>7</sup>. The timeline below (figure 1) shows how state and federal Australian policy decisions have tracked with the rise of cloud contracting value in the public sector.

### THE RAPID TAKE-UP OF CLOUD, AS REFLECTED BY ANNUAL SPEND ACROSS ALL JURISDICTIONS

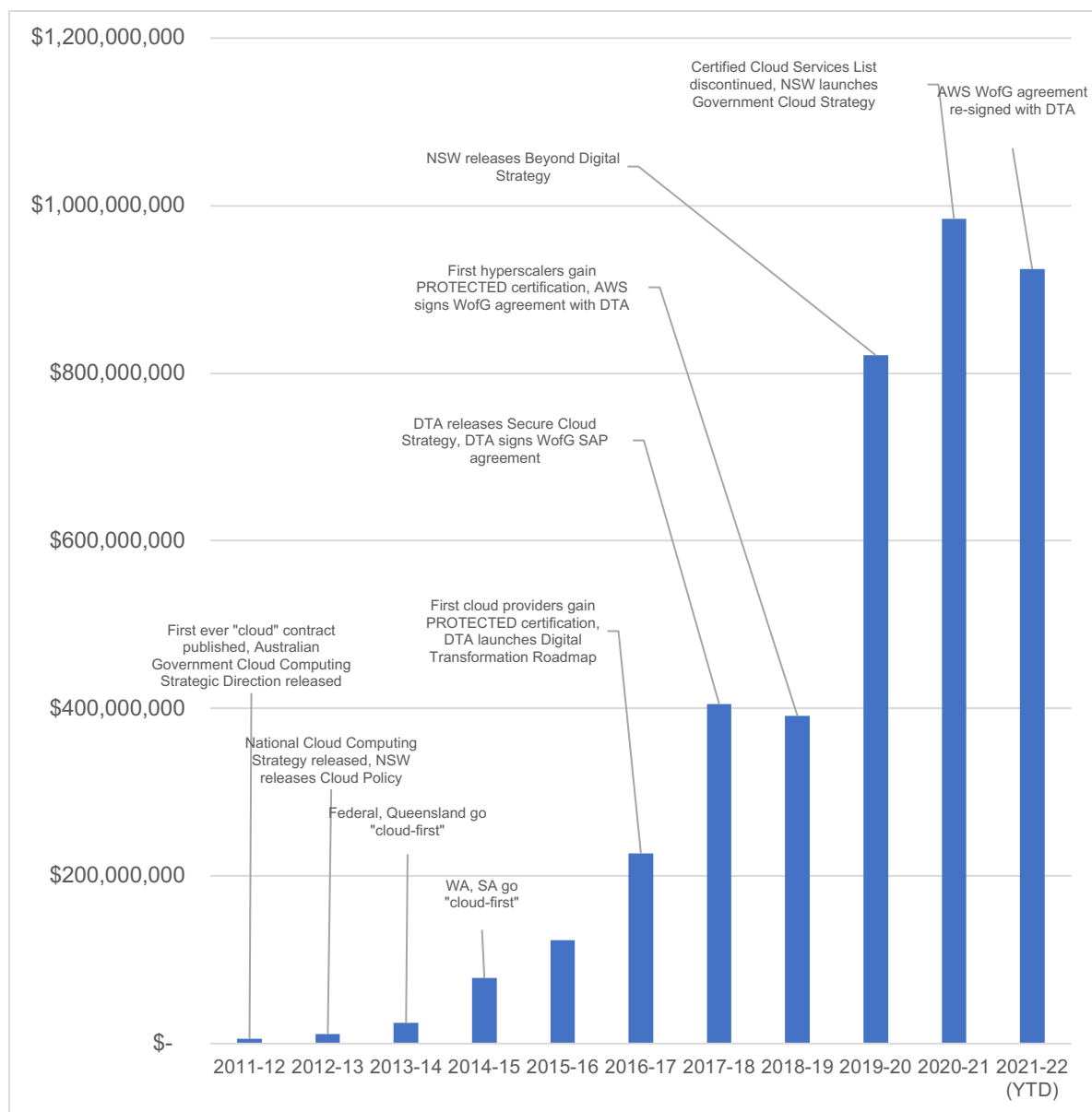


Figure 1

## From data centres to public cloud

An important step for government agencies in the ten-year cloud journey has been the consolidation of fragmented IT environments, paving the way for modernisation of services at scale. Now many governments and agencies have begun their cloud journey in earnest by rationalising their on-premises servers and applications, to data centres.

NSW's GovDC program, established in 2013, consolidated 130 government data centres across government.<sup>8</sup> As a result, agencies are now poised to take the next step of hosting services in the public cloud, which is the aspiration of the state's current cloud strategy.

### RATIONALISATION AND INNOVATION IN SERVICE DELIVERY

Western Australia's 2019 Sustainable Health Review found that despite ever-increasing spending on healthcare costs, outcomes for citizens had not improved.<sup>9</sup>

It predicted that by 2026-27, healthcare costs would account for 38 per cent of the state budget, impacting the quality of service delivery in other critical areas.

The disparate technology systems that supported various hospitals and other health services were found to be a significant contributor to these healthcare costs.

These findings led to the creation of the HealthNext program which consolidated over 2000 servers and 1000 applications into a single hybrid cloud environment.<sup>10</sup>

This rationalisation has helped the WA health system move forward on critical cloud-based systems such as the new \$294 million human resource management information system.

The shift to cloud-based systems has also enabled new virtual models of care, including real-time patient monitoring.<sup>11</sup> The Health in a Virtual Environment (HIVE) program has led to a reduction of six years in length of stay for patients at the Royal Perth Hospital.

## Government's embrace of SaaS

While IaaS and PaaS appear to pose the biggest threat to traditional IT managed services, there is a strong trend towards the use of Software-as-a-Service (SaaS) by agencies. SaaS is particularly attractive to agencies because it avoids a large upfront capital investment and has a rapid time to implementation. As with IaaS and PaaS, SaaS also reduces the requirement for agency-owned IT hardware and any consequent need for traditional IT managed services.

In 2020-21, across the Australian public sector, SaaS contract value could be as high as \$728 million, and looks set to continue growing.

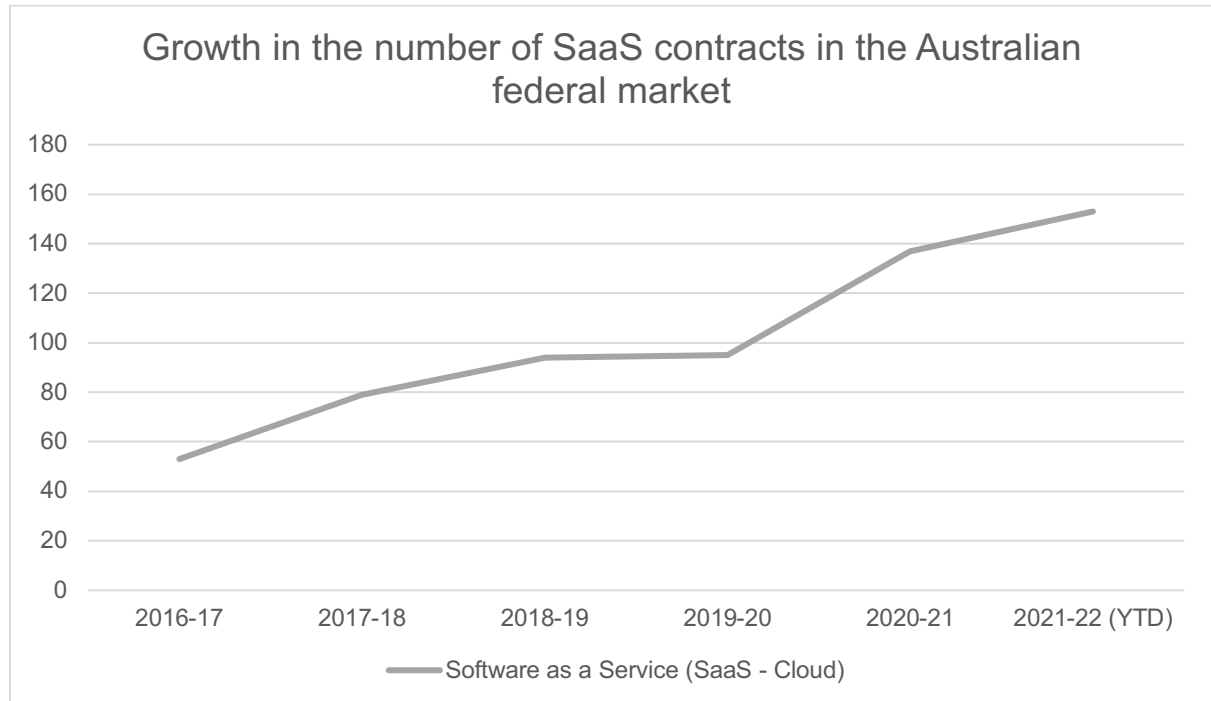
Smaller agencies dominate the federal government's SaaS market, as the technology enables them to set-up and scale digital solutions quickly and cheaply through operational expenditure.

*Growth of SaaS products will likely replace all major on-premises software packages and be consumed via subscription based 'evergreen' 'as a service' commercial and technical models*

– 'Drivers for Change' from ATO mainframe refresh tender documents

**Quick stats:**

- The annual number of SaaS-categorised contracts in the Australian federal market tripled from 2016-17 to 2021-22.
- Only 18% of SaaS contracts<sup>12</sup> are signed with the large agencies in the Australian federal government.
- SaaS is also the favoured form of cloud in other jurisdictions. A 2021 audit of cloud services in six South Australian agencies found that 74% of cloud computing environments are SaaS.<sup>13</sup>

Figure 2<sup>14</sup>

## The jurisdictional snapshot

Nearly every jurisdiction across Australia and New Zealand has a strong position on cloud adoption:

- Victoria's Digital Strategy 2021-26 recognises a need for funding models to change to "reflect the realities of cloud infrastructure".<sup>15</sup>
- NSW's "public cloud-by-default" policy requires 25% of all ICT services to be on public cloud by 2023, and flags that less than 5% of ICT projects should require exemption from the policy.<sup>16</sup>
- New Zealand agencies must adopt public cloud first, with case-by-case risk assessments required for exemption from the policy.<sup>17</sup>
- The federal government stipulates agencies should use public cloud "by default" and where this is not possible, agencies must design applications to be "cloud-ready" through automation, portability and resilience.<sup>18</sup>
- South Australia will exit the government hosting business by 2024 according to its current digital strategy.<sup>19</sup>
- Western Australia aims to "move away from being owners and operators of ICT infrastructure" in its current digital strategy.<sup>20</sup>



Some agencies have their own cloud adoption strategies which in many cases are more ambitious than those required at their WofG level. For example, Service NSW now runs 100% of its IT services on AWS public cloud.

#### NSW'S ALL-ENCOMPASSING SHIFT TO CLOUD

NSW has been a WofG digital leader across ANZ jurisdictions.

It progressed its commitment to digital services for citizens and businesses through reforms including the establishment of a strengthened WofG digital and ICT function within the Department of Customer Service, and the consolidation of service delivery under Service NSW.

NSW's move to cloud services is intrinsic to its digital progress, which has gained significant momentum in recent years following the publication of a new digital strategy, the creation of the \$2.1 billion Digital Restart Fund and the NSW Cloud Strategy.

The Cloud Strategy commits the state to placing 25% of all government IT services on public cloud, with less than 5% of new IT projects to require exemption from the policy by 2023.

These initiatives have meant that in 2021-22 NSW became the first jurisdiction to see the value of its cloud-enabled NextGen managed services contracting overtake traditional work (see *figure 5*).

Several other jurisdictions are currently in the position that NSW was in three years ago, in both policy settings<sup>21</sup> and total value of cloud contracting. Their position on the cusp of digital uptake suggests that there will be a rapid acceleration of adoption of cloud by their agencies in the coming years.

## Resilience

Ownership of on-premises computing infrastructure was once the only option for government agencies. One advantage of this approach was the flexibility to rein in capital expenditure during periods of budgetary belt-tightening by 'sweating' the asset – i.e. continuing use beyond its depreciated end of life.

In many instances, an astute CIO would make the business case for additional capital expenditure to replace end of life assets by pointing out that the risks of system failure were imminent – and would inevitably receive the required investment.

Those days of brinksmanship are long gone, but resilience of mission-critical systems remains a key requirement, whether the systems are managed by the agency or by an IT managed service provider.

Cloud services significantly minimise the risk of system failure, thereby avoiding poor client service, erosion of citizen trust and potentially costly lack of access to, or loss of, critical data.

The unassailable requirement for resilience has made the adoption of cloud more attractive, as evidenced by the Australian Bureau of Statistics' (ABS) 2016 experience.

### THE ABS, RESILIENCY, AND CLOUD SERVICES

In 2016 the ABS conducted its first major online eCensus. A perfect storm of DDoS attacks, router failure and a false cyber threat report caused the ABS to shut down their website, which was hosted in a single data centre in Sydney, preventing citizens from lodging their census information.

The event caused significant embarrassment for the agency and risked compromising the integrity of Australia's most important data collection exercise. A review noted that the scalability of the cloud could have made the census resilient to the events of 2016, noting the traffic incurred by the eCensus was minor and the "equivalent to around 6 seconds of Facebook".<sup>22</sup>

For the 2021 census, the ABS partnered with AWS to host the website on serverless architecture. This afforded the ABS greater security and ability to test services, leading to the census occurring without any delays or security issues.<sup>23</sup>

## Reuse

A considerable advantage of shifting to cloud-based ICT is the ability to reuse capabilities and leverage digital investments across agencies to save time and costs.

Reuse principles are embedded in digital service design standards and WofG architectures in Australia and New Zealand's<sup>24</sup> national governments, NSW,<sup>25</sup> Victoria,<sup>26</sup> and Queensland.<sup>27</sup>

Government agencies are having to justify significant ICT procurements as the development of an asset that can be repeated across other agencies, rather than just satisfying narrow business requirements.

Reuse can apply to:

1. Processes, APIs and standards
2. Platforms and systems
3. Software applications
4. In-house capability and skills

Reuse can generate significant cost-savings by eliminating the need for to procure new systems to do the same tasks as existing government assets, particularly in the areas of HR, ERP and payments.

Cloud has meant governments can contemplate the provision of one instance of an ERP application to a significant number of agencies – as has happened for in the NSW and federal governments.

### SERVICES AUSTRALIA: REUSE IN ACTION

Services Australia's \$1.5 billion Welfare Payment Infrastructure Transformation (WPIT) program replaced decades-old IT processing systems with an SAP cloud-based HANA platform. This platform has been recognised as the core enabler that allowed Services Australia to process citizen income support needs during COVID, floods and bushfires within hours, rather than weeks.

WPIT components such as the Payment Utility and Entitlements Calculation Engine are now listed on the Digital Transformation Agency's online Reuse Catalogue.<sup>28</sup>

WPIT also left Services Australia with a strong in-house SAP platform and capability, which is assisting other agencies such as the Department of Veterans' Affairs (DVA) which assessed that 96 per cent of its 'Veteran-Centric Reform' business applications could be delivered through Services Australia capabilities,<sup>29</sup> helping to manage costs and risks.

For similar reasons, Services Australia's skills are being reused in implementing the WofG GovERP system for the Department of Finance.

## Rationalisation

The largest federal agencies – Defence, Services Australia, Home Affairs and the ATO – contract 60% of the IT managed services work in that jurisdiction (see *figure 3*).

As noted with Services Australia, these agencies are increasingly responsible for creating platforms to do the work that multiple systems that other, and often smaller, agencies previously owned and managed independently.

This trend towards the rationalisation of systems and services to platforms managed by larger agencies is also evident in other jurisdictions. For example, the NSW Department of Customer

Service is responsible for the management of several WofG platforms such as e-Invoicing, licensing and Proof of Identity.<sup>30</sup>

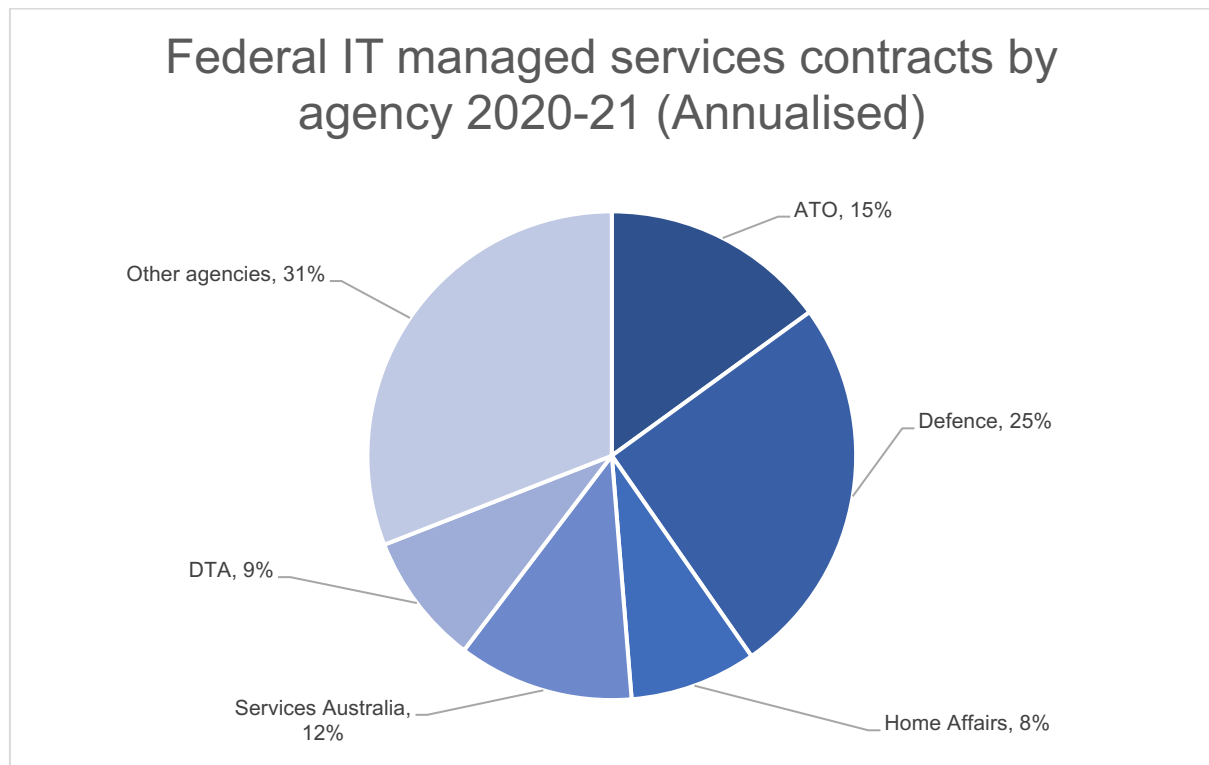


Figure 3<sup>31</sup>

## ‘Like-for-like-for-less’ is a no-win situation

During IT managed services contract renewals, it is now commonplace for agencies to insist that technology innovation savings (e.g. from application and infrastructure monitoring automation) be passed on in the form of reduced fees. Sometimes referred to as ‘like-for-like-for less’, these agency demands are squeezing margins and making profitability ever more challenging for vendors.

In addition, traditional IT managed services work is plateauing or in some instances decreasing across jurisdictions, as measured by annualised contract value (ACV) data.

Since 2018-19 the ACV of the federal traditional IT managed services market has decreased from \$1.8 billion to \$1.4 billion per annum, approximately a 20% decrease in just four years.

In NSW, the results are even more dramatic. Traditional IT managed services have dropped from a total spend of \$300 million to \$150 million, a reduction of 50% in five years.

Although not as pronounced as NSW’s cloud-forward approach, other major jurisdictions show a discernible trend towards NextGen services at the expense of traditional IT managed services. Victoria’s 2021-22 figure shows 19% of its managed services contracting value can be attributed to cloud-based approaches, placing it at roughly the same level as NSW’s 21% in 2018-19 (see *figures 4-8*).

Traditional IT managed services suppliers are seeing fewer, and potentially lower value, opportunities coming to the market as cloud solutions take their place.

In an already keenly competitive market, competing on price will become tougher and tougher. Options for traditional managed services vendors to increase their profitability through innovation will also become more difficult to deliver without the advantages of the NextGen, cloud-enabled approach.

*The more we put in one bucket, the less we have available [in] another bucket, and where the value is for us is... trying to get as much of our investment to drive tech-enabled change*

– Ramez Katf, ATO Chief Information Officer

Source: ITNews

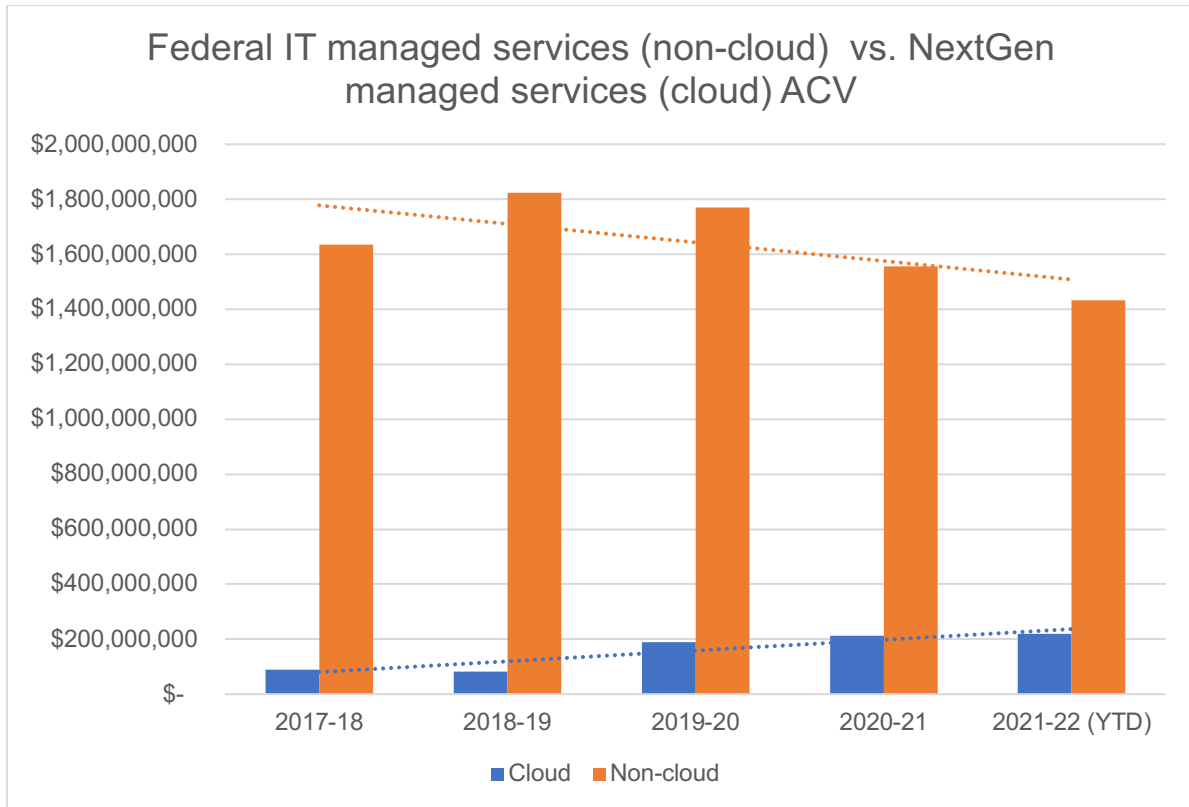


Figure 3

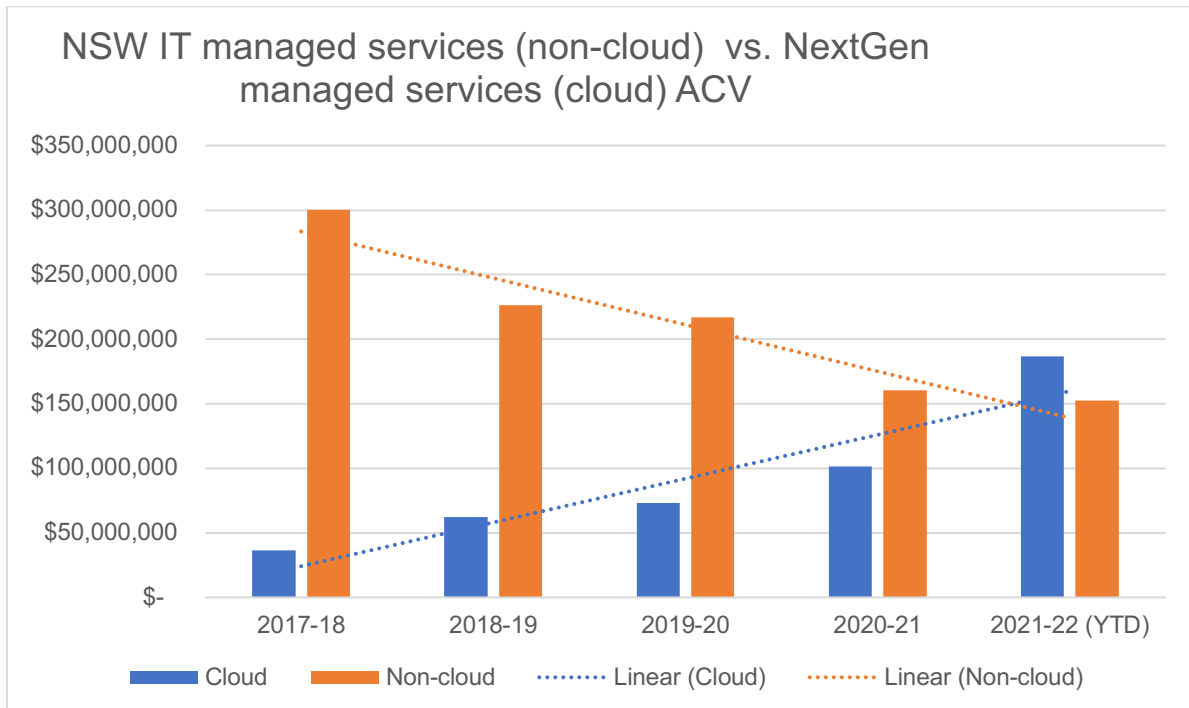


Figure 4

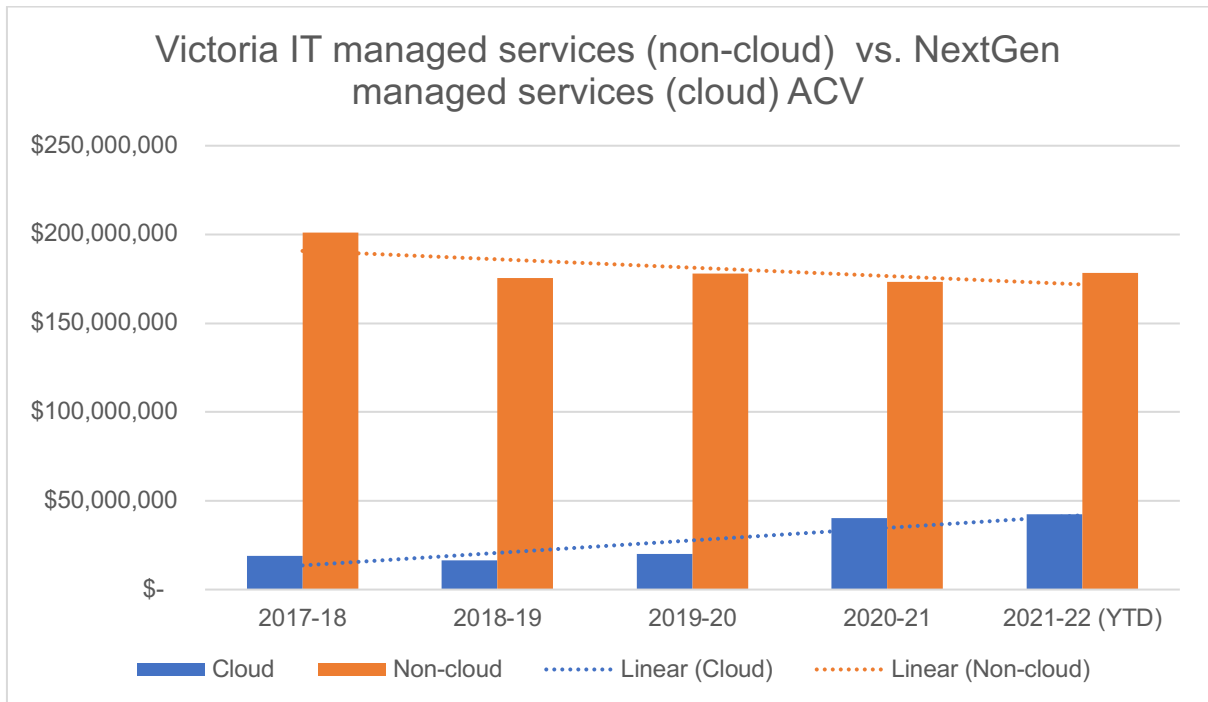


Figure 5

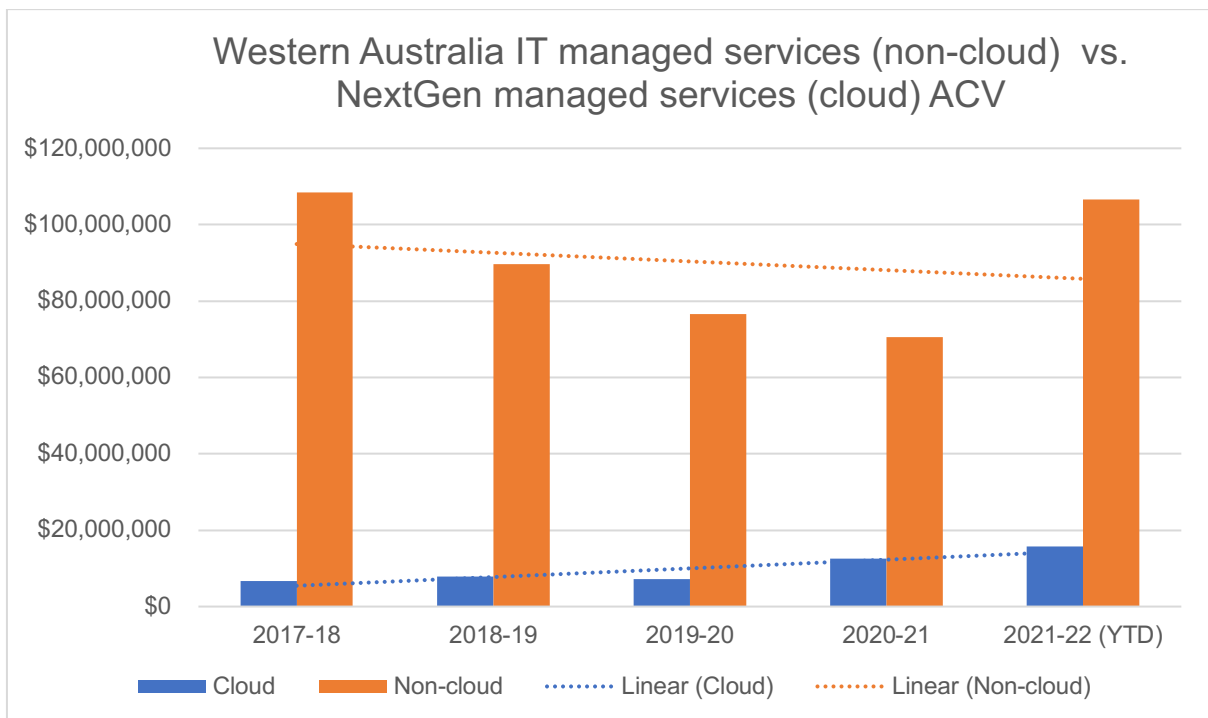


Figure 6

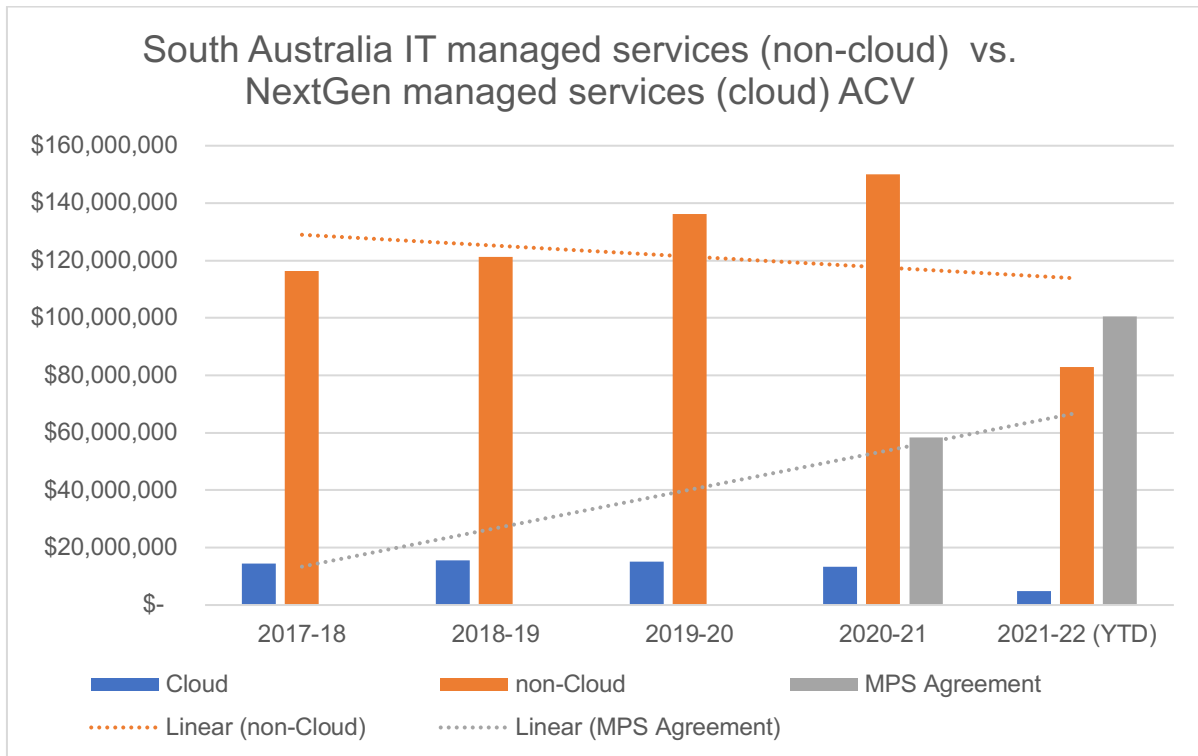


Figure 7<sup>32</sup>

## The labour market squeeze

Since 2014, the federal government ICT labour hire market has been running hot, with a compound annual growth rate (CAGR) of just over 26% per annum.

Across the nation, skills shortages in this demand-driven market, are resulting in ICT contractors extracting ever-higher fees for their skills. ICT labour hire has become a massive cost centre for all ICT and digital activities.

This hot labour hire market is not only squeezing the profit margins of traditional IT managed services but also providing an incentive for governments to shift to the cloud with greater urgency. This shift enables agencies to tap into productivity-generating SaaS and other cloud-based technologies that will reduce their exposure to high labour costs.

**\$4.1B**

Federal ICT market - labour hire total contract value (2020-21)

**36.7%**

Labour hire as a percentage of federal ICT market by contract value (2020-21)

**26.2%**

CAGR of labour hire contract value in federal ICT market (2013-14 to 2020-21)

# The cloud opportunity for IT managed services providers

The procurement shift from ownership to consumption-based models has been underway since 2012, accelerating with the creation of cloud marketplaces and WofG purchasing arrangements, which have in turn facilitated the rapid growth of cloud contracting.

The future potential value of cloud services can be gauged by looking at the estimated per-annum spend on IT managed services by federal government agencies. In 2020-21 this spend was \$1.77 billion.

Traditional IT managed services contracts with a total value of almost \$1 billion have end dates in 2022-23 (see *figure 9*). While many of these contracts have permissible contract extensions and due to high procurement costs and perceived risk of changing suppliers arising from 'transition in' and 'transition out' overheads. Historically, such extensions have been exercised, rather than investing in a full-scale evaluation of a transition to cloud.

However, traditional IT managed services providers can no longer be complacent about their incumbency. In theory any of them could be challenged by a potential cloud transition brought on by urgently changing circumstances, such as the increasing cost of government debt driving agencies to identify cost savings wherever possible.

The ATO's recent approach to the market<sup>33</sup> shows that large agencies are now willing to contemplate cloud-related transformation projects. Its \$2.1 billion, thirteen-year contract for mainframe services is currently subject to a market test and is being unbundled in a manner which will see most of these services moved to cloud-based systems.

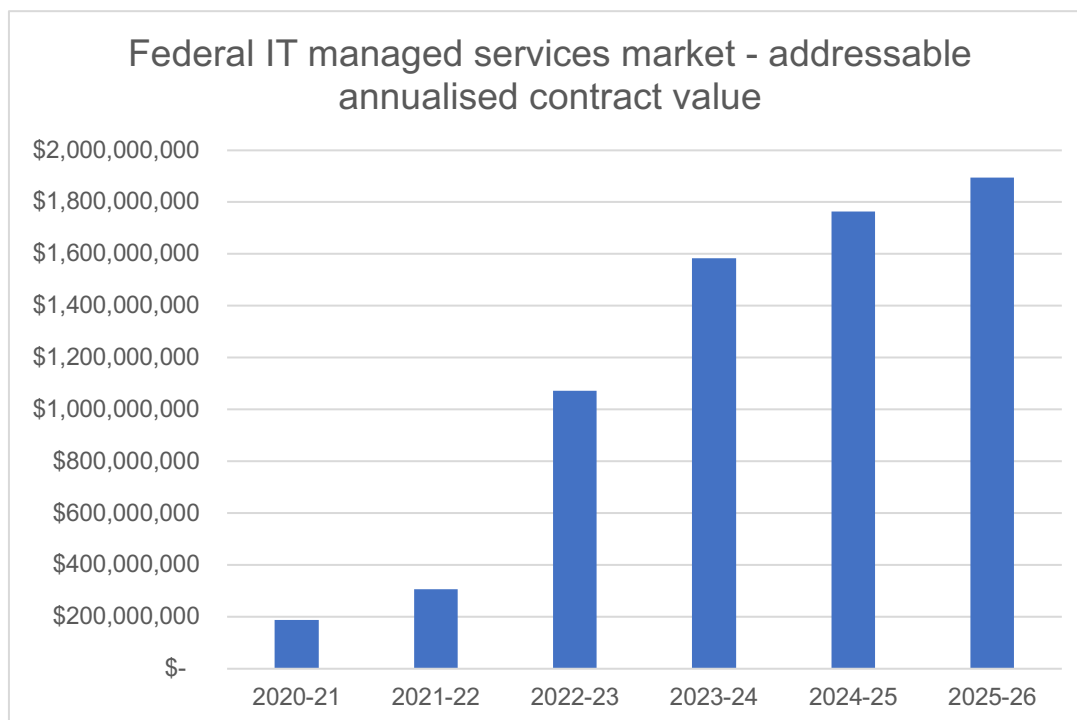


Figure 3



# The way forward

Traditional IT managed services providers must strategically plan their future in the face of this strong and sustained rise of government cloud.

Their core business model is being squeezed by a budget-constrained environment, and there is increasing acceptance by agencies that cloud solutions are the only way forward.

IT managed service providers will need to demonstrate that they can offer NextGen services, which will involve partnering with cloud infrastructure providers to unlock new, innovative ways for services to be delivered and managed. If these companies are slow to adapt to this new reality, they risk being shut out of the future managed services market altogether.

# References

---

- <sup>1</sup> <https://www.pmc.gov.au/sites/default/files/publications/data-and-digital-ministers-meeting-communicue-250322.pdf>
- <sup>2</sup> [https://www.anzlic.gov.au/sites/default/files/files/Update\\_on\\_ANZLIC\\_Strategic\\_Plan\\_2020-24\\_implementation.pdf](https://www.anzlic.gov.au/sites/default/files/files/Update_on_ANZLIC_Strategic_Plan_2020-24_implementation.pdf)
- <sup>3</sup> [https://www.infrastructure.gov.au/sites/default/files/National\\_Cloud\\_Computing\\_Strategy.PDF?acsf\\_files\\_redirect](https://www.infrastructure.gov.au/sites/default/files/National_Cloud_Computing_Strategy.PDF?acsf_files_redirect)
- <sup>4</sup> <https://app.intermedium.com.au/news-byte/qld-becomes-first-jurisdiction-formally-mandate-cloud-first>
- <sup>5</sup> The Digital Transformation Agency (DTA), the agency responsible for managing the agreement, originally placed a \$39 million value on the contract because when it asked federal agencies how much they thought they would transact off the contract, this was the aggregated amount it was told.
- <sup>6</sup> <https://www.cyber.gov.au/acsc/view-all-content/publications/anatomy-cloud-assessment-and-authorisation>
- <sup>7</sup> The majority of government agencies in Australia are required to publish the contracts they enter into. Intermedium has sourced these contracts from the various jurisdictional tender publishing sites, such as AusTender. The values in figure 1 are likely to be an understatement, as not all relevant contracts are published due to jurisdictional differences in procurement regulations relating to the threshold values at which contracts are obliged to be published, various panel arrangements which do not require the publication of individual contracts on the panel, and sometimes, agency incompetence.
- <sup>8</sup> <https://www.digital.nsw.gov.au/policy/cloud-strategy-and-policy/cloud-strategy>
- <sup>9</sup> <https://ww2.health.wa.gov.au/Improving-WA-Health/Sustainable-health-review>
- <sup>10</sup> [https://www.wa.gov.au/system/files/2021-08/Health%20Next%20Case%20Study%20\\_v1.pdf](https://www.wa.gov.au/system/files/2021-08/Health%20Next%20Case%20Study%20_v1.pdf)
- <sup>11</sup> <https://app.intermedium.com.au/article/next-big-things-wa%E2%80%99s-digital-health-journey>
- <sup>12</sup> For AusTender contracts categorised as “Software as a Service (SaaS – Cloud)”
- <sup>13</sup> <https://www.audit.sa.gov.au/Portals/0/Documents/Audit%20Reports/2020-21/Other/Report%2016%20of%202021%20-%20Cloud%20computing%20in%20SA%20Government.pdf>
- <sup>14</sup> Reported contracts through Austender under the Software as a Service (SaaS – Cloud), Platform as a Service (PaaS – Cloud) and Infrastructure as a Service (IaaS – Cloud) categories.
- <sup>15</sup> <https://www.vic.gov.au/a-future-ready-victoria>
- <sup>16</sup> <https://www.digital.nsw.gov.au/policy/cloud-strategy-and-policy/cloud-policy>
- <sup>17</sup> <https://www.digital.govt.nz/standards-and-guidance/technology-and-architecture/cloud-services/about/cabinet-minutes/>
- <sup>18</sup> <https://www.dta.gov.au/our-projects/secure-cloud-strategy>
- <sup>19</sup> <https://www.dpc.sa.gov.au/responsibilities/ict-digital-cyber-security/ict-cyber-security-digital-strategy>
- <sup>20</sup> <https://www.wa.gov.au/organisation/department-of-the-premier-and-cabinet/office-of-digital-government/digital-strategy-the-western-australian-government-2021-2025>
- <sup>21</sup> <https://app.intermedium.com.au/system/files/digital-government-readiness/Intermedium-2022-DGRMI.pdf>
- <sup>22</sup> <https://apo.org.au/sites/default/files/resource-files/2016-11/apo-nid70705.pdf>
- <sup>23</sup> <https://www.aboutamazon.com.au/news/aws/how-the-cloud-helped-to-deliver-a-smooth-experience-for-the-2021-australian-census>

- 
- <sup>24</sup> <https://www.digital.govt.nz/standards-and-guidance/digital-service-design-standard/principles/collaborate-widely-reuse-and-enable-reuse-by-others/>
- <sup>25</sup> <https://www.digital.nsw.gov.au/delivery/digital-service-toolkit/design-standards/reuse-and-repurpose/reuse-whats-available>
- <sup>26</sup> <https://www.intermedium.com.au/article/reuse-technology-high-victorian-government-agenda>
- <sup>27</sup> <https://www.qgcio.qld.gov.au/documents/digital-service-standard#AppA>
- <sup>28</sup> [https://www.buyict.gov.au/sp?id=platform\\_catalogue](https://www.buyict.gov.au/sp?id=platform_catalogue)
- <sup>29</sup> <https://www.anao.gov.au/work/performance-audit/effectiveness-the-planning-and-management-veteran-centric-reforms>
- <sup>30</sup> <https://www.digital.nsw.gov.au/delivery/digital-service-toolkit/solutions>
- <sup>31</sup> Tier 1 agencies have an average annual ICT contract spend of >\$500 million over the last three years, these include: Defence, ATO, Services Australia, and Home Affairs. Tier 2 agencies have an average annual ICT spend from \$100-\$500 million.
- <sup>32</sup> The Managed Platform Services Panel is a three-year WofG purchasing arrangement to rationalise managed services spending in South Australia. It contains both cloud and non-cloud components and is the primary vehicle for enabling cloud procurement in South Australia.
- <sup>33</sup> <https://www.tenders.gov.au/Atm/ShowClosed/7bbc391e-0180-481a-ba71-ff3ee77661d9?PreviewMode=False>