ICT Submission 4

Ajilon Change the experience

Paul Wilkins
GM Innovation & Strategy

Ajilon - Perth
Level 12, 108 St Georges Tce
Perth WA 6000
Telephone: +61
Mobile:+

The Chairman
Public Accounts Committee
Legislative Assembly
Parliament House
PERTH WA 6000

10 September 2015

Dear Mr Kimberley

Inquiry into Information and Communications Technology (ICT) Procurement and Contract Management

Please find attached Ajilon's submission to the above Inquiry. We welcome the opportunity to contribute and look forward to the Committee's Report to Parliament.

Yours sincerely

Paul Wilkins
GM Innovation & Strategy

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Public Accounts Committee

Inquiry into Information and Communications Technology (ICT) Procurementand Contract Management

Submission by Ajilon Australia Pty Ltd ('Ajilon')

10 September 2015

Overview

Ajilon is a major provider of ICT application services to the WA government ranging through staff placement, consulting, project services and managed application support. Our comments will, accordingly, be primarily directed at services rather than products and, in particular, those secured through the government's main procurement ICT services procurement vehicle, *CUA 14008 ICT Services* (soon to be replaced with *CUAICTS2015 - Provision of Information and Communication Technology (ICT) Services*).

While there are a range of minor terms and conditions issues with CUA 14008 (principally of concern to SMEs [Small to Medium Enterprises]), it generally compares well with similar procurement vehicles in other states in terms of contestability. Although we see a gap in terms of an instrument providing agencies with panel access to Cloud services, we believe that the procurement framework for ICT services in WA remains largely fit for purpose and posing no impediment to the demands of public sector reform.

However, as we outline below, there are a range of issues which substantially impede its more effective application:

- For sound historical reasons integral to the public sector's core purpose, the sector's inherent bias towards risk mitigation and compliance make it culturally unsuited to the management of large and complex ICT works. The sector's general approach to governance is broadly antithetical to qualities such as agility, innovation and entrepreneurship central to successful ICT delivery. This is an issue grappled with this by all Western democracies as the following commentary on the US indicates:

    - *Governments have not kept up with IT-related economies of scale, largely due to archaic and inflexible budget and governance practices that allow individual programs to perpetuate their own silos and standards.*
    - *Governments, having shown little ability to implement "big bang" projects, need to rely more heavily on agile, iterative development methodologies.*
    - *Governance depends on authority, but authority — especially in governments — is constrained by checks and balances, federated accountability and slow-moving cultures. (Mechling J et al Economies of scale and Agility in Government: Guidance for the US Federal Government (FITARA) and Elsewhere, Gartner G00275311, 23 July 2015)*

- While the more mature agencies recognise this and are prepared to outsource risk and responsibility for outcomes to suppliers (while retaining business sponsorship), many agencies are not. Their recourse for the inevitable deficit in experience and competency which emerges when large and complex works arise is staff augmentation or 'bodyshopping' i.e. the employment of contract staff as de facto agency 'employees' without any transfer of risk to their employer. These arrangements are a frequent source of sub optimal ICT delivery.
- As well as a lack of policy and guidance for agencies around the growing dominance of aaS options (which the Office of the Government Chief Information officer [OGCIO] will hopefully address), there is a lack of proactive guidance (and possibly a lack of enforcement) of existing policy which could lead agencies to better procurement and delivery outcomes. These policies include Gateway Review and National PPP Guidelines.
- There is an increasingly false dichotomy between business and ICT works. The two things are often so intertwined that while it may be convenient to separate the work into packages for procurement purposes, not to include supplier input as part of the business case is often to

impose a solution and delivery approach with significant risk and high cost. Many agencies have difficulty in balancing probity against a superior public good, often to the detriment of the latter.

- The foregoing points are indicative of an approach to ICT procurement ill-suited to meeting the demands of an increasingly constrained public sector. More importantly, such an approach will severely impede any attempt by the OGCIO to implement what we hope will be one of its first priorities i.e. development of a whole-of-government approach to citizen-centric digital engagement. As we discuss, this will require a much closer relationship between suppliers and the sector by virtue of co-design, co-production and co-investment.

Our view is that without address of these cultural and attitudinal factors, there is little of a purely procedural nature that can be implemented to improve ICT delivery within the sector.

DELIVERY OF ICT

What are the common problems witnessed in public sector delivery of ICT goods and services?

Most poor ICT outcomes in government have their genesis in the original procurement decision. And the biggest mistake made by agencies is their over-estimation of their capacity to deliver ICT projects under their own governance. This is not to suggest agencies can absolve themselves of business sponsorship of a project but, too often, they attempt to assume operational project management responsibility for budget, timeline and outcomes. Even though they may attempt to supplement their lack of expertise through the recruitment of external contract specialists, this does not involve any transfer of risk to suppliers of these specialists, effectively allowing them to adopt an 'all care, no responsibility' approach.

1. Lack of understanding of how to extract value from suppliers

With few exceptions, agencies do not have the experience or skills to project manage large and/or complex ICT initiatives. There are several reasons for this:

- For good or bad, the progressive outsourcing of ICT functions has steadily diminished internal public sector ICT expertise.
- ICT infrastructure is becoming increasingly integrated and complex generating new skillsets which are rarely if ever funded within the public sector.
- Public sector governance is generally not conducive to a mature and successful project management environment.
- For most agencies, experience of major ICT initiatives is sporadic and usually linked to 'lifecycle replacement events' which can be separated by a hiatus of 5-20 years.

The obvious response is to transfer risk to a supplier via an appropriate procurement instrument i.e. requiring a supplier to submit a bid based on a commitment to defined budget, timeline and outcome goals. The quid pro quo for this outcome-based approach is to assign project management responsibility to the supplier. Successful suppliers will usually have documented experience in the particular ICT initiative; have the internal competencies to support implementation; and, will have a well-tested delivery and project management approach verifiable by previous clients.

While this is self-evident to the ICT industry, it is a point which often appears to escape government deliberations. This includes commentary from the most vocal internal advocate of improved ICT practice, the Office of the Auditor General (OAG). Illustrative of this is the OAG's latest publication, *Information Systems Audit Report, Report 14: June2014*, reporting on the Department of Health's

Identity Access Management (IAM) project. The report begins by making similar comments as above about agency ICT capability:

> *'As highlighted in past reports, agencies often have difficulty successfully delivering ICT projects, particularly when they involve significant changes and when multiple stakeholders and suppliers are involved……The first phase of the project commenced in 2011…..Health stopped development on the IAM project in October 2013 as they could not see any deliverables from the project. At the time of the decision some $6 million of the $9.2 million project budget had been spent……The reasons commonly found for why ICT projects run significantly over budget and over time were evident in the Identity Access Management Project. Project planning was deficient and governance and oversight including monitoring of progress was inadequate. The business mapping of staff roles to their required ICT access lagged behind the technical development of the solution. Critical technical dependencies and difficulties that threatened the feasibility of the project were therefore not identified in a timely manner. This issue, although raised in successive project status reports, was not elevated to the appropriate levels of management to be actioned.' (p6)*

The Key Findings (p7-8) detail the project's shortcomings in more detail, many of these directly related to the original procurement decision e.g. absence of a business case; lack of a Project Initiation Document; an absence of a Value for Money (VfM) approach; no supplier requirement for a Proof of Concept; no appreciation of dependencies, risks, milestones etc. Notwithstanding, the first OAG recommendation was for Health to;

- *'Enhance its internal capacity to deliver ICT projects.'* (p8)

In other words, despite the initial procurement being the cause of most of the failings that followed, the OAG made no recommendation on sourcing or procurement policy. It also ignored the small likelihood of a government of any persuasion re-insourcing substantial ICT expertise under the prevailing neo-liberal economic orthodoxy.

In some instances, agency failure to adopt best practice procurement stems from a lack of maturity or knowledge and, in others, it seems to take the form of cultural resistance. The latter case is, to an extent, understandable as the remaining ICT functions in government see their role progressively reduce (through a combination of budget contraction and outsourcing) and act to preserve their position.

The most common manifestation of this is the misuse of *CUA 14008 ICT Services*. This is a CUA intended for use by agencies seeking outcome-based services involving the transfer of risk to suppliers. However, instead of pursuing outcome-based services, this CUA is regularly used to secure contract staff rather than a more suitable mechanism such as *CUATPS2014 Human Resources – Temporary Personnel Services* (which contains an ICT category). Agencies resort to CUA 14008 in place of other avenues for several reasons:

- It substantially avoids external scrutiny of internal IT practice.
- It avoids the limits on contract duration in CUATPS2014 allowing, in effect, an open-ended duration.
- It disguises as an outcome-based initiative what is actually only staff augmentation. The more flexible buying rules and scope requirements of CUA 14008 are often seen as an easier route to secure contract staff. It can also be a 'workaround' where budget has not been secured (so a smaller scope is constructed) or business case is not approved.

- The response form allows a wide range of additional information to be requested than would be acceptable under avenues such as CUATPS2014. This often takes the form of what are largely unenforceable scope and performance measures.

This has a number of deleterious consequences:

- It wastes the time of suppliers who access CUA 14008 expecting to see an outcome-based request. Where they do decide to respond, it requires them to invest a level of response effort and contractual commitment well in access of what should apply when an agency is simply seeking 'bodies'.
- It severely under uses the potential resident in suppliers organised to deliver outcomes. Such suppliers normally expect to provide a wider range of 'value-add' in terms of experience and methodological competence but the nature of the contract restricts this to the 'person'.
- The previous point often leads to poor consequences for the agencies involved. Because there is no contractual commitment to outcome – contracted staff are essentially agency 'employees' – they are usually (and often deliberately) excluded from the governance forums where their expertise would make a difference.
- It leads to significant wasted effort within the Department of Finance and agency procurement functions. This is because, instead of one contractual instrument to cover a discrete outcome(s), scope is divided across a range of smaller contracts.

The practical result of this in some larger agencies is that instead of several larger, outcome-based contracts transferring risk to suppliers, the agencies literally have dozens or even hundreds of small 'pseudo' CUA 14008 contracts transferring no risk to suppliers. This creates the worst kind of project environment: with no contractual responsibility and dozens of false demarcations, blame and obstacles abound. For example, a wide range of Fiona Stanley ICT works were contracted to the appointed facility manager, which contracted to its own subcontracted ICT supplier, which contracted to major local suppliers which, on occasion, contracted to ICT recruitment specialists. It was almost impossible to hold any supplier contractually responsible. A more mature approach involving outcomes and the transfer of risk would almost have certainly avoided many of the implementation issues experienced at the site.

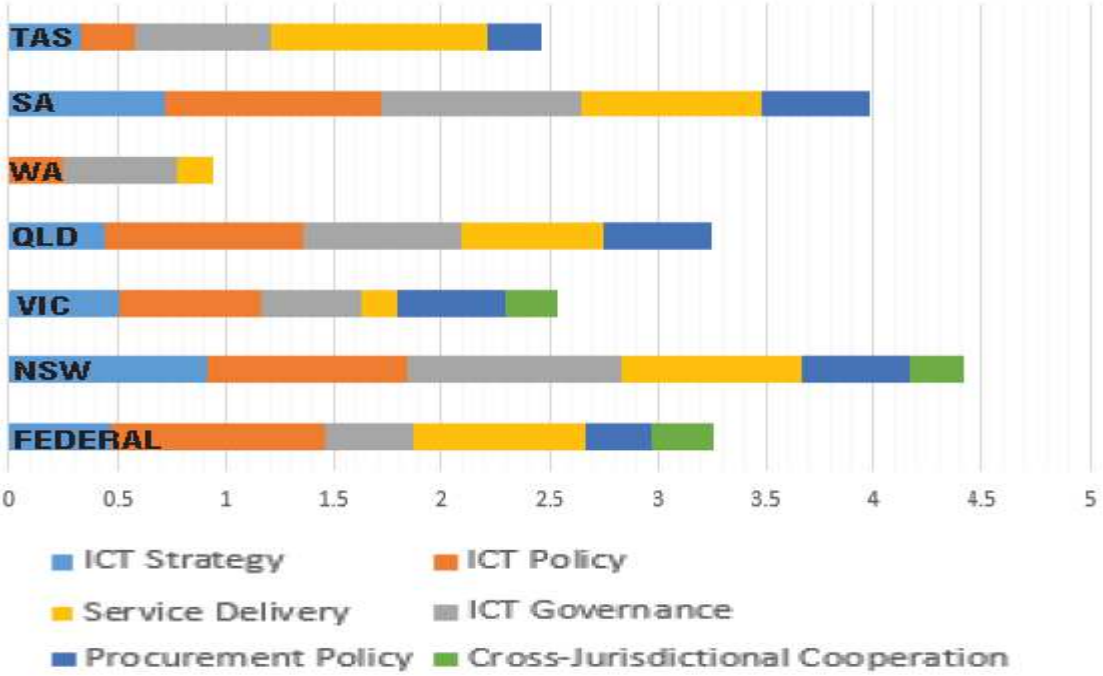
One of the cultural consequences of this lack of sound competency alignment (within the context of a properly elaborated procurement vehicle) is that – particularly in the wake of sub-optimal delivery – a kind of muted resentment of ICT suppliers can arise. Typical comments are 'they're too expensive'; 'they've only documented what we told them in the first place'; 'they won't do anything without a purchase order' etc. At times, there may well be substance to these comments but they stem from the 'arm's length' approach which poorly constructed procurement approaches can impose on suppliers. If supplier' expertise is not shared at the proper level of a governance process (assuming there is one), then this self-evidently increases the risk of sub-optimal delivery. Unfortunately, once an agency has decided to rely on internal competencies (which are not core) to deliver complex ICT initiatives, the type of conversation which ensues – and which is indicated above – tends to rationalise and entrench this as a continuing approach.

2. Absence of Policy

The AIIA (Australian Information Industry Association) has lobbied the government for some years to provide agencies with guidance on its attitude to the wave of recent technologies which have the potential to increase sector productivity and address reform pressures. Other mainland states and the federal government have provided a range of advice/tools to their agencies to facilitate their use of these technologies where WA has not. These include;

- Policy on data storage offshore
- Best practice sourcing
- Use of offshore resources
- 'Cloud-first' policies
- Procurement panels for aaS (as a Service) options
- BYOD (Bring Your Own Device) guidelines
- Structuring aaS tenders (and how to deal with issues such as security etc.)
- Framework for digital citizen interaction (an embryonic version of which – in regard to the Australian Government – is detailed on its Digital Transformation Office' site)

Much of this policy deficit will hopefully be addressed by the new OGCIO but, currently, the only passing reference to these and related matters is http://www.finance.wa.gov.au/cms/Government_Procurement/Cloud_Computing/Cloud_Computing_Resources.aspx which refers readers to federal government guidelines (with the recent inclusion of a link to OGCIO). The extent of the deficit is indicated in the diagram below which indicates each major jurisdiction's preparedness in the field of digital service delivery.



(*Intermedium Executive Insight, Government ICT Quarterly Issue 13 Quarter 4 2014-15, p1*)

As this indicates, WA is the laggard in nearly every measure but does not rate at all on procurement policy. To some extent, absence of clear policy direction excuses the behaviours described in the previous section: for those resistant to change, it justifies their lack of action; and, for early adopters, can lead to sub-optimal delivery of new technologies (as the following quote from the previously mentioned *Information Systems Audit Report* suggests):

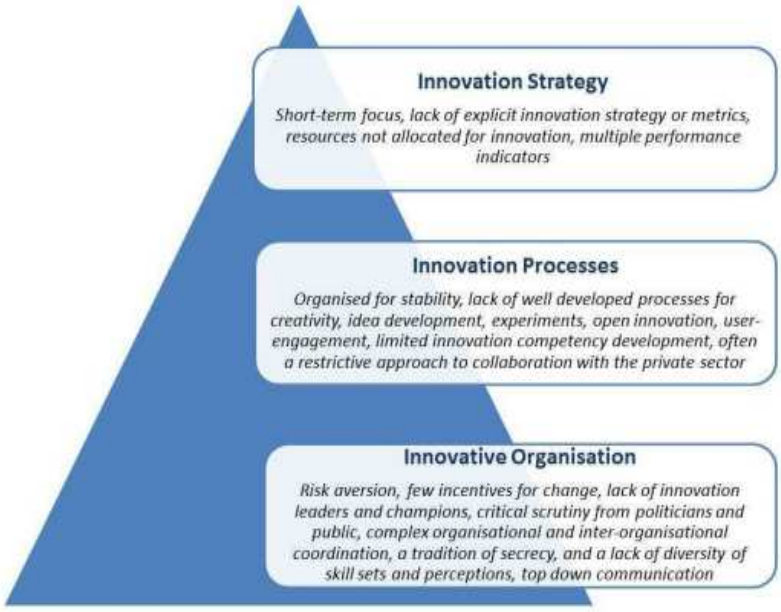
> *'The second item reports on how five agencies were managing their cloud computing arrangements. Cloud computing is a new business model for delivering ICT resources, but is not new technology. One of the prominent risks of cloud arrangements is the potential threat to data sovereignty and security. We therefore looked at the extent to which agency data was held offshore and at the controls to protect data sovereignty and security. Of concern was that none of the agencies could demonstrate effective contract management of their cloud based services.'* (p4)

A particular frustration for all agencies is the lack of Treasury guidelines to cover the change in funding model which accompanies the various aaS options. Typically, agencies considering a major ICT initiative bid for capital with the ongoing recurrent requirement a secondary (albeit necessary) component. This situation has now reversed: aaS options allow agencies to lease (often on a fluctuating volume basis) rather than buy a solution: this leads to an atypical recurrent bid request. Treasury budgetary practice and process for major ICT initiatives is still premised on major capital funding with limited guidance on aaS options.

Amendment of Treasury practice/policy should also extend to Strategic Asset Planning. Notwithstanding its increasing share of agency asset base, ICT continues to be the 'poor relation' in comparison to physical assets such as land, buildings and vehicles. It is rare to find an agency Strategic Asset Plan that is fully funded for maintenance/replacement of its ICT asset base. aaS options offer a way to reduce risk in this regard.

What elements represent best practice in ICT delivery?

As indicated to this point, the impediments to best practice delivery start prior to procurement and are largely culturally determined. Despite the increasing pressure on agencies, it is no simple task to engage in new ways of thinking when – as indicated by the diagram to the right (*Australian Public Sector Innovation Shaping The Future Through Co-creation*, Institute of Public Administration Australia (IPAA) Public Policy Discussion Paper, June 2014, p13) – the prevailing culture is one built on risk aversion and stability. Changing behaviour requires not only new policy but clear direction from government that new behaviours – such as innovation, partnership etc. – are acceptable and attract reward. In this regard, WA already has policy which provides a base for best practice delivery but, for the majority of agencies, the cultural signals remain at odds with its active embrace. Consequently;

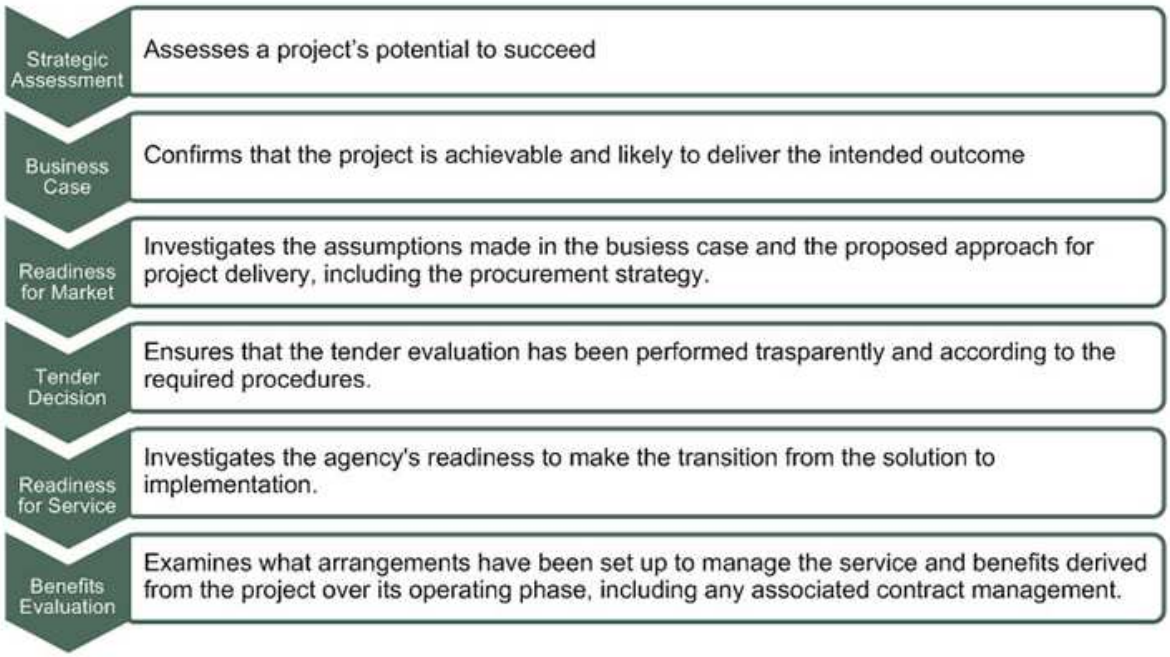


> *'For public managers, working in a different way, involving a wider scope of people, utilising deep qualitative knowledge, and running a more open, experimental and collaborative process, will require a significant measure of courage.'*(Bason, C *Leading Public Sector Innovation*, The Policy Press, 2010, p241)

Two examples of the policy base are the Gateway Review process and the National Public Private Partnership (PPP) Guidelines (to which WA is party). The former provides an avenue to test what this paper suggests is the main impediment to good delivery i.e. whether the chosen procurement vehicle is fit for purpose. This is shown as the 'Readiness for Market' gate in the diagram below:

The Gateway review process

Six decision points, or gates, guide the Gateway program of reviews.



(https://www.finance.wa.gov.au/cms/Government_Procurement/Gateway/Review_process.aspx)

Although the Gateway process has the potential to be very effective, a number of factors prevent this:

- It is not mandatory to use (even for larger ICT initiatives).
- The starting assumption for most agencies – for which large ICT initiatives are not routine – is to concentrate on securing the funding (a difficult enough task) and going to market as quickly as possible. The two gates ahead of Readiness for Market – which directly influence this gate - are rarely addressed. There are various reasons for this but a common one is the divorce of a policy or legislative priority from its ICT operationalisation. The 'priority' is often taken as the 'Business Case' (rather than just a component) and there is a reluctance to question things at this point for fear of jeopardising any associated funding.
- There is no requirement to share gate review outcomes outside a project/program or to act on its recommendations.

Assuming an agency did follow the Gateway process, then the National PPP Guidelines provide a methodology for considering how to fit delivery to procurement (Volume 1, Procurement Options Analysis). They contemplate a range of arrangements which solidify as the methodology unfolds:

Figure 2: Stages of selecting a delivery model

(Overview, p14)

The methodology includes a Public Sector Comparator (PSC – Overview, p36) which is an estimate of the hypothetical, risk-adjusted whole-of life cost of a public sector project if delivered by government. This is provides a transparent benchmark to compare the relative value-for-money of different procurement approaches. Although the Guidelines advise that;

> *'Governments have no ideological preference between traditional procurement, PPP or any of the other procurement approaches…..'* (Volume 1, p1)

the reality is that there is a strong bias to traditional procurement on the part of most agencies. To some extent, this is because the PPP Guidelines were produced by Infrastructure Australia and there is an assumption on the part of agencies that they are primarily a means to fund physical infrastructure. While this is not correct, there are aspects of the Guidelines which act against their wider adoption (but especially for ICT works):

- Although it is possible to include projects of a lesser amounts, the general threshold for PPP initiatives are those requiring a capital investment of at least $50M (Policy Framework, p7).
- As indicated by the previous guideline, PPP requires a deeper level of preliminary analysis e.g. Procurement Options Analysis should be fully developed as part of the business case (Volume 1, Procurements Options Analysis, p1). This is a 'step too far' for many agencies.
- The Guidelines refer to 'social' as well as 'economic' infrastructure but the former is still described in terms of the built environment e.g. hospitals, correctional facilities etc. (Volume 3: Commercial Principles and Social Infrastructure, p32).
- 'Core Services' are also referred to as a target for PPP but there is a strong inference that they are services associated with a major infrastructure investment (Policy Framework, p6) i.e. services alone are not really contemplated as a PPP target.

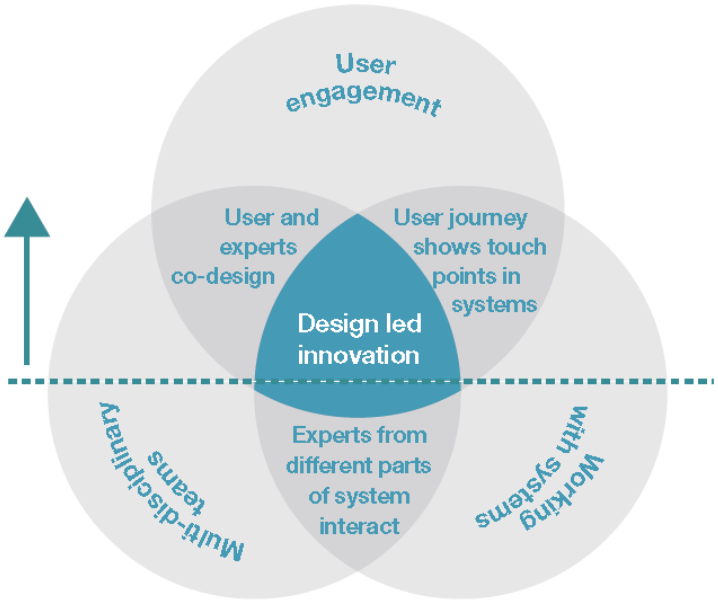
Although not specifically excluded, the concentration on infrastructure means that the Guidelines will not normally be considered as an alternative procurement route for major ICT works. This said, it is known that at least one WA agency is pursuing a 'PPP like' option in respect to major ICT works. It would be useful for the WA government to actively promote the Guidelines (along with other non-traditional avenues) and provide more proactive guidance to agencies. An example of this type of promotion by the NSW government is indicated in the following extract from its *Digital+ NSW Government ICT Strategy UPDATE 2014-15*:

> *' - identifying opportunities to deliver more efficient and effective ICT investment through early consideration of different sourcing strategies.'* (p13)

As importantly, all the mainland states with (the exception of WA) are concurrently addressing the cultural impediments to adopting such strategies through the promotion of co-design, co-production and co-investment. Pioneered in Europe, it is a recognition that new public sector approaches are required to solve the growth in the number of so-called 'wicked problems'. These are compounded by increasing citizen demands; the neo-liberal push for smaller government and lower taxes; and, the expectations driven by consumer technology for greater process and system integration:

> *'….citizens usually pay little attention to jurisdictional boundaries. Nor do they want to be engaged two or three times by different orders of government on issues they see as interconnected.'* (P44, UK Design Council et al Design for Public Good, 2013)

This has led to a re-conception of both 'supplier' and 'user': the former, in terms of expanding the role to include 'trusted partner' status; and, the latter, in terms of extending the role to include citizen/business users of public sector processes and systems. The confluence of techniques which organisations such as The Australian Centre for Social Innovation (TACSI) suggest deliver a better response to 'wicked problems' is shown as the 'Design led innovation' section of the graphic to the right (Adapted from UK Design Council et al Design for Public Good, 2013, p23).

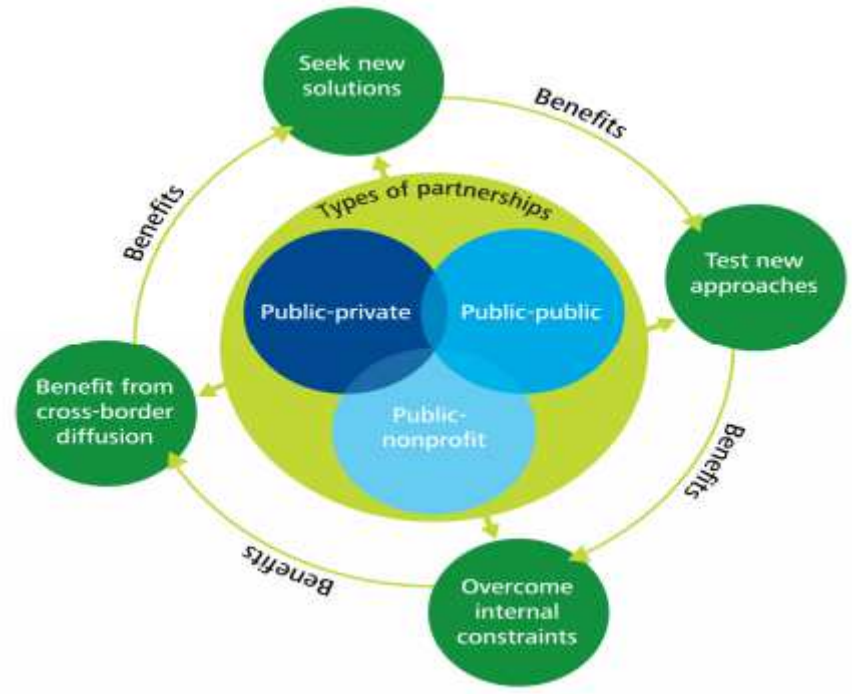


The fundamental premise of co-design (which may subsequently lead to co-production and co-investment) is that the interaction between agency, potential suppliers and stakeholder citizens should occur well advance of procurement and, ideally, well in advance of the business case. This extrapolates from the nature of 'wicked problems' i.e. there is rarely an obvious response and moreover any response is likely to fall short in some regard. Reducing risk and optimising outcomes in this regard means casting the net wide in terms of views to achieve as broad a consensus as possible (assuming relatively apolitical outcomes are desired). Such an approach also increases the chance for innovation and often leads the resultant procurement to 'fuzzy' rather than the traditional prescriptive requirements (a desirable thing in that it increases the scope for innovation). Delivery in such instances is through agile development, concepts such as 'minimum viable product and the transfer of risk to partner suppliers including, where appropriate, co-investment by the supplier. Building on this, countries such as NZ foresee that agencies will have;

> *'Less public ownership of service delivery, with wider delegation of responsibility for investment in outcomes and customer relationships to private or community service- delivery organisations'.* (Evans L, Guthrie G, Quigley N Contemporary Microeconomic Reform Foundations for the Structure and Management of the Public Sector, Working Paper 12/01, NZ Treasury, May 2012, p61)

This is also foreseen in the PPP Guidelines which depict (below) some of the possible new ways of working.

An excellent Australian overview of case studies relevant to these partnerships is provided in Gary L Sturgess's *Diversity and Contestability in the Public Service Economy* written in 2012 on behalf of the NSW Business Chamber to provide input into NSW's 2013 ICT procurement reforms. His paper adds a partnership type to those shown here i.e. Public-Private-Non Profit.



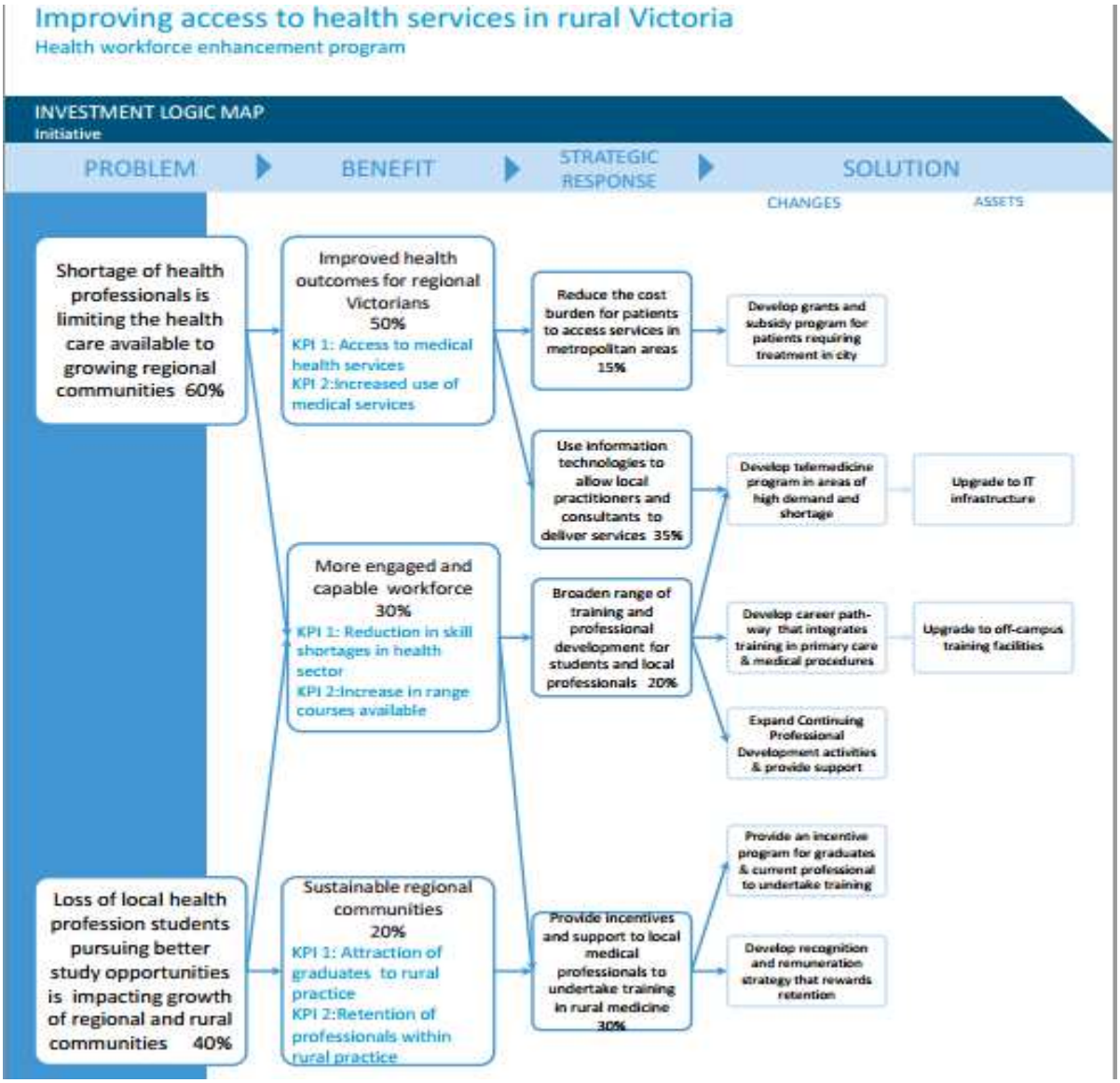
Much of the previous goes to the 'strategic' elements of best practice delivery e.g. sourcing policy; 'fit for purpose' procurement; addressing cultural constraints etc. There are, of course, a range of operational best practices which agencies have to varying extents adopted such as COBIT (for ICT strategy), ITIL (for service management) and PRINCE2 (for project management). Agency adoption of operational practices more suited to an aaS environment (such as agile development and Dev/Ops) has been much slower. Whether it is more accepted or newer operational practices, however, none can thrive without address of the strategic issues mentioned. This is clearly evidenced by the fact that there has been no shortage of their adoption by most of the agencies involved in major ICT failures (the Office of Shared Services being a case in point).

How do we best measure or define success in ICT delivery?

The first point to make is that successful ICT delivery does not always equate to initiative or program success. ICT works may be delivered on time, on budget and to scope but the intended business outcome may be sub optimal or not achieved (and examples can be provided). ICT delivery is not an end in itself but should be seen as a means – often the primary means - of achieving a business outcome. Assuming an initiative or program stems from an approved business case, the measures of success (to which ICT delivery contributes) should be self-evident. The reality is that identifying success can be difficult in the public sector where a public good is rarely simply a measure of ROI. This difficulty is lessened if an ICT works is the result of a political commitment or government direction (usually accompanied by legislative change such as occurred with the National Disability Insurance Scheme). In effect, the direction is the business case or mandate and the issue then becomes one of implementation. The more difficult situation is those business cases not directly attached to such a direction but which all agencies must pursue to some extent to maintain, adapt and improve their service delivery. Defining measures of success for these is frequently challenging and it is rare to see;

- Measurable KPIs included in the business case;
- KPIs checked/amended through design and implementation; and,
- Even more rarely, KPIs measured post-implementation.

Recognising this, various governments have attempted to assist agencies to draw out measures of success. Perhaps the best example of this is the Victorian Government's Investment Logic Map (an extension of its Gateway Review process), an example of which is shown below:



http://www.dtf.vic.gov.au/Publications/Investment-planning-and-evaluation-publications/Investment-management/Investment-logic-map-example-Initiative

While not a purely quantitative means of measuring success, it does provide a powerful guide to subsequent solution design and implementation and proof of (or lack of) benefits realisation if assembled by the appropriate stakeholders (considered by Victoria to include agency CEOs in the case of major initiatives). Unfortunately, as with the WA Gateway Review process, logic mapping is not always pursued.

Looking to a new formulation of success, a number of things are key:

- In isolation, ICT delivery success has no better definition than delivery to agreed time, budget and scope parameters.
- Achievement of ICT delivery success should be assigned to a bodies with core delivery competencies and a proven track record. This is rarely an agency.
- Risk and responsibility for ICT delivery should be assigned wholesale to the appointed body to allow maximum leverage of delivery competencies and experience.

- ICT delivery success should be subservient to achievement of the intended business outcomes. These are always an agency responsibility.
- Co-design offers the opportunity to 'incentivise' suppliers involved in ICT delivery by basing some of their financial return on 'payments-by-results' i.e. a sharing of responsibility for business outcomes (G L Sturgess, *Diversity and Contestability in the Public Service Economy*, NSW Business Chamber, 2012, p37). This would help ensure a close and continuing connection between ICT delivery and business outcome but is only possible with the type of early involvement in business case development implicit in co-design.
- ICT delivery and business outcomes should combine in closely integrated fashion in a fit-for-purpose procurement vehicle which clearly articulates and prioritises business success measures.

GOVERNMENT ICT SOLUTIONS FOR WESTERN AUSTRALIA

What are the latest developments (domestic and/or international), in the area of government ICT systems?

Specific developments will be covered in the next section. The point made here is that, in and of themselves, they are not a 'silver bullet' unless the strategic context is clear. For example, what is the order of priority? Will the measure be mandated? Will there be preferential central funding? Is it a service that is best retained in government? Common to most jurisdictions with a successful approach to ICT – hopefully presaged by the OGCIO in the case of WA – is clear guidance to agencies on where to direct their ICT efforts, especially in regard to common ICT infrastructure e.g.

> *'The* [Australian] *Department of Finance has released a revision to its WoG ICT Investment Principles, focusing on shared services and co-development. It also requires that agencies ensure that their ICT investments align with the government's digital transformation agenda.'* (Intermedium Executive Insight, Government ICT Quarterly Issue 13 Quarter 4 2014-15, p1)

As this implies, guidance generally falls into four main areas:

- Broad direction on sourcing. This is explored in more detail below.
- Common 'back office' elements which (in preferably mandating) do not compromise individual agencies' legitimate ICT differentiation where required by their legislative mandate. These elements typically cover identity and access management solutions, data centres, wide area networks, enterprise resource solutions, client relationship management and collaboration platforms, whole-of-government personal productivity software and the like. WA has made minor progress in this area but generally does not mandate.
- Common 'front office' elements aimed at an increasingly digital relationship with citizens. Examples include a 'once only' entry for change of personal details automatically promulgated to all authorised agencies. Ideally, this would also serve as a reusable proof of identity (something tangentially being pursued by various agencies). Beyond some very basic work on standards (see for example https://www.finance.wa.gov.au/cms/Government_Procurement/Website_Governance_Framework/Standards_and_Guidelines.aspx), WA has made little progress in this regard.
- Prioritisation of shared business process/supply chain reform designed to secure productivity improvement rather than simply cost reduction (the primary focus of the back and front office elements mentioned). Some of the most successful work in this area has been via COAG's (now Council for the Australian Federation?) multi-jurisdictional initiatives. One such example stemmed from COAG's 2010 National Electronic Conveyancing (NECS)

initiative which led to the formation of Property Exchange Australia (PEXA) and it winning BRW's 2015 Best Overall Innovation and Best Business Model Innovation awards. As described;

> *'PEXA is a new online property exchange. It aims to achieve for real estate transactions what the ASX did for taking shares online. Digital real estate transactions are finalised faster than traditional paper settlements.*
>
> *PEXA at a glance:*
>
> *• A world-first digital platform for completing online lodgement and property settlements*
> *• Conveyancers, lawyers, banks and land registries interact, collaborate and share information*
> *• Banishes cheques, postal services and attending settlement in person*
> *• PEXA integrates into state-based land registries' databases*
> *• Property sellers' funds can be banked in hours rather than days compared with paper settlements*
> *• 30 financial institutions have subscribed to PEXA including the four major banks*
> *• Nearly 2,000 legal and conveyancing firms are active or joining PEXA'*
>
> (https://www.pexa.com.au/news/article/pexa-s-push-to-digitise-6-trillion-property-industry-snares-two-major-awards/242)

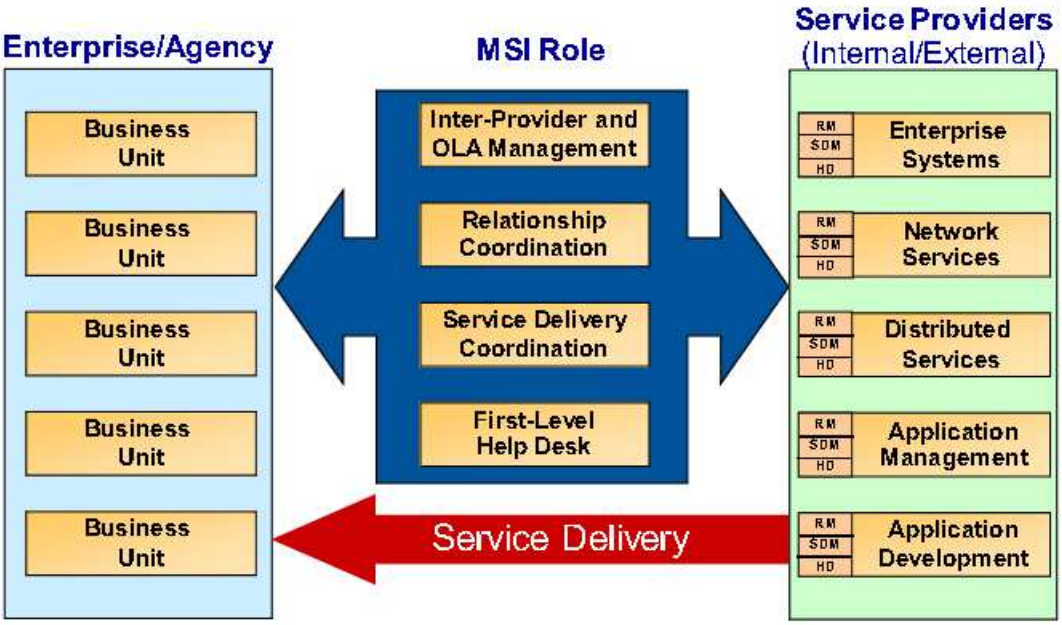
While other COAG 'business process/supply chain' reform has been less successful (such as the National Occupation Licensing initiative [see http://www.cbs.sa.gov.au/wcm/licensing-and-registration/occupational-licensing-and-registration/national-occupational-licensing-system/]), this remains one of the most powerful mechanisms to achieve 'disruptive' change. It would benefit WA greatly if concurrent 'business process/supply chain' reform occurred on an intra-state basis, sensibly at portfolio level.

Regarding sourcing, it is acknowledged that – although less pronounced than previous years -there are still some ideological/political components to sourcing, usually around the insourcing/ outsourcing/ offshoring divide. Ongoing debate about this will be influenced by a number of developments:

- Continuing reform/budgetary pressure will pressure agencies to re-examine their conception of 'core service' in terms of whether aspects can be more effectively delivered by other agents for a greater 'public good' (a fluid term in itself). Some governments (such as the US) have attempted to provide a degree of certainty around this by defining what is 'inherently governmental' (Sturgess, 2012, p28-30). A pertinent WA example is infringement processing which is handled locally by WA Police but in Victoria is managed by the private sector.
- It was said at the outset that there is a range of ICT maturity across ICT agencies, fairly strongly correlated with the level of outcome-based outsourcing. The most common instances are the functional outsourcing of infrastructure support, application support and/or project services. With the exception of some offshoring within these instances, this is as far as the WA public sector has currently pushed the outsourcing of ICT delivery. Even in the best of the agencies practising functional outsourcing, this still leaves a considerable inhouse ICT resource. Proponents of the model suggest that this is necessary so that there is an informed internal voice to mediate between suppliers and the 'business'. While there is something to this argument, in practice the more likely outcome is a duplication of resources and the exclusion of the supplier from governance forums involving the business. The latter point is a major impediment to supplier agility and capacity to support reform. To save cost

and more closely co-opt their suppliers in business outcomes, other jurisdictions have progressed beyond this point to consider ITO (IT outsourcing), BPO (Business Process Outsourcing) and BPaaS (Business Process as a Service) models.

- Beyond the potential resident in long-established models (such as ITO and BPO), new models are emerging to cope with the increasing complexity of 'multisourced hybrid IT ecosystems'. The strongest of these is the Multi Sourcing Integrator (MSI) or what in the UK is known as the Service Integration and Management (SIAM) an overview of which is shown below:



The advent of this model stems from the conclusion that;

> *'Without the MSI role, client organizations are likely to find that their team of internal resources and external best of breed/"champion" service providers can't operate as a "champion team" and will deliver sub-optimal service outcomes.'* (J Longwood, *The Role of the Multisourcing Service Integrator in Delivering End-to-End Outsourced Services*, Gartner G00200898, 21 June 2010)

The summation of the above is that the contraction of insourced ICT competencies seems likely to continue. What the remaining insourced competencies should be – that is, those 'inherently governmental' - is something sensibly within the scope of future ICT procurement and/or OGCIO policy.

What jurisdictions (domestic and/or international) have adopted the latest developments in government ICT systems that have demonstrably reduced the cost, and improved the delivery, of government services?

- **Could such systems be incorporated into Western Australia?**
- **If so, what factors need to be taken into account to ensure successful implementation?**

The most obvious example which the Federal Communications Minister, Malcolm Turnbull, has offered to all government agencies at no cost is myGov, a user interface which lays the foundation for a single login to all government services (http://www.themandarin.com.au/21720-turnbulls-digital-free-states-can-join-mygov-nothing/?pgnc=1). This follows the example of other 'single point of access' government sites such as the UK's GOV.UK. Creating a myGov account allows linkage to a range of Australian Government services with one user name and password. These currently include Medicare, the ATO, Centrelink and Child Support and will progressively be expanded to include such services as PCEHR (Personally Controlled eHealth Record) and the National Disability Insurance Scheme (https://my.gov.au/mygov/content/html/about.html). The Victorian and Tasmanian Governments have accepted Minister Turnbull's offer.

This essentially provides the 'front office' template for digital interaction with citizens and business discussed earlier. Some will argue that state sites such as https://www.wa.gov.au/ or http://www.service.nsw.gov.au (ServiceNow) provide equivalent functionality but this is hard to sustain when the following is considered:

- Assuming state sites had achieved a single login for all participating agencies, it would still require citizens and businesses to have a minimum of two logins to access all agencies, Businesses dealing with more than one state/territory government could potentially require up to 8.
- As it is, no state has achieved a single login. WA is a case in point where navigation to a driver license renewal can be pursued through https://www.wa.gov.au/ but to actually transact on line with the Department of Transport (DoT) requires the establishment of a DoT-specific login (http://www.transport.wa.gov.au/dotdirect/dotdirect.asp).
- The planned expansion of myGov to include PCEHR and its current trial with MyPost Digital Mailbox (http://auspost.com.au/money-insurance/digital-mailbox.html) will increasingly marginalise 'standalone' state sites. This is especially the case as MyPost potentially extends myGov's transaction base to include those businesses which use Australia Post's bill paying service.
- Implicit in myGov's achievement of single login is a level of secure, 'back office' infrastructure. It is not clear (although it seems unlikely) that this is included in Minister Turnbull's offer but, if not, it provides clear direction for the necessary architecture.
- While content will alter with change of government, the fundamental architecture is non-contentious and will persevere over time.
- With its recent announcement that it will work with stakeholders to establish a Trusted Digital Identity Framework (https://www.dto.gov.au/budget/trusted-digital-identity-framework), myGov is following in the tracks of GOV.UK Verify (https://gds.blog.gov.uk/2015/03/29/government-as-a-platform-the-next-phase-of-digital-transformation/) to build a platform for identity for citizens to prove who they are when they use government services. This will avoid people having to prove their identity multiple times, a problem that pervades all Australian governments' transactions and which would be better served by a national solution.

The benefits for citizens and businesses of a single government login are obvious and progressive moves towards this are likely inexorable. It is of itself a significant microeconomic reform and lays the foundation for a range of others. In this, it extends the COAG agenda of moving towards standardisation and common business models seen in initiatives such as federal Health's unique Provider/Patient IDs (providing foundational elements for PCEHR); the NECS initiative previously mentioned; and, the National Heavy Vehicle Regulator. Similarly, the avoidance of cost in creating state versions of myGov seems clear: in replacing the previous DirectGov and Business Link sites with GOV.UK, it is estimated that the UK saved £60M a year (ibid.).

GaaP or PfG?

Government as a platform	Platform for government
'Bazaar' mode of organising (disruptive)	'Cathedral' mode of organising (traditional)
Open participation	Open access
Active co-creation of services	Passive consumption of services
'Platform' is a business model	'Platform' is a piece(s) of technology
'Agile' is about citizens organising differently	'Agile' is about government tech responding to 'user needs'
Government stewards and enables civic marketplace	Government provides better access to its 'vending machine' of services
Platform-ecosystem economics (Government consolidates around standard business rules; market innovates continually around this demand)	Traditional economics (Government pays people to build, and run, its technology)
Focus on service outcomes; open standards	Focus on technology inputs; open source
Minimal technology and commercial legacy	Substantial technology and commercial legacy

Beyond the 'front office', the highly legislatively-specific nature of national and state jurisdictions continues to make government resistant to industry platforms as exist in industries such as manufacturing, oil & gas etc. Some portfolios such as policing and health have seen the emergence of a lower level of platform but this is not widespread. Rather, the emergence of common platforms is taking place around a level of task that is common to both private and public sectors and as occurred with the personal productivity tools resident in Microsoft's desktop solution. It is evident in governments across Australia that there is a growing standardisation around Microsoft tools for collaboration (Sharepoint) and customer relationship management (Dynamics). Well implemented, these are sound and scalable tools and, when secured through a whole-of-government Enterprise agreement, are cost-effective.

Although this sums development to date, there are moves to consider anew a government industry platform. Following this year's re-election of the Cameron government, the head of the UK's Government Digital Service, Mike Bracken, was assigned this task. However, the form of the platform (as illustrated by the preceding diagram (http://www.computerweekly.com/opinion/Government-as-a-platform-or-a-platform-for-government-Which-are-we-getting) is up for debate and goes beyond technology to the method of engagement with citizen and business. As the diagram indicates, the PfG approach does deliver a return but is basically an evolution of approaches well in train (which, with some exceptions, is the main tack being taken by the federal government's Digital Transformation Office). The opportunity for WA is whether it wants to move beyond this – to a GaaP approach – which is potentially

revolutionary. Some useful examples of how other countries have tackled this are described in Archer G, *Government CIOs Need a Simple Digital Strategy to Lead Change in a Complex World*, Gartner G00278668, 24 July 2015.

Other observations on improved delivery/reduced cost system options for government include the following:

- There is major waste associated with the aggregation and disaggregation of ICT infrastructure as part of Machinery of Government changes. This is exacerbated by the fact that any substantiated need for realignment of secure agency boundaries can be achieved much more cost-effectively by measures other than the level of unnecessary 'physical'/budgetary separation often seen.
- Industry has pressed the Department of Finance to establish a panel to allow agencies to access pre-qualified cloud providers and cloud system integrators to mirror similar panels in the larger states and the federal government. It is assumed that this will now be progressed in conjunction with the OGCIO so that the deficit in necessary policy settings mentioned earlier can be addressed.
- Except for the largest agencies, it is now generally accepted that Tier 1 ERP solutions exceed agency requirements unless they are accessing them as part of a shared services arrangement. Cheaper Tier 2 solutions are gaining traction with smaller agencies and are providing sufficient functionality for their needs.
- The use of open source solutions continues to expand as they increasingly exhibit 'enterprise' performance and functionality. Their use involves a different support paradigm which needs to be taken into account when calculating TCO (Total Cost of Ownership) but they offer an attractive and viable alternative to proprietary products in many situations.
- There are a range of mature 'application modernisation' approaches which provide an alternative to the traditional capital intensive end-of-life system replacement.

Successful implementation of any of the foregoing, as already suggested, is dependent on government giving clear strategic direction. This needs to be accompanied by a supporting framework which supports and measures agency performance against the direction (see for example the federal government's requirement that nominated agencies complete a Digital Transformation Plan https://www.dto.gov.au/standard/digital-transformation-plan).

RECOMMENDATIONS

1. Mandate that *CUAICTS2015 - Provision of Information and Communication Technology (ICT) Services* only be used for outcome-based ICT works.

2. Issue a whole-of-government Cloud panel supported by relevant policy guidance relating to data sovereignty, open data, security, offshoring and other relevant matters.

3. Require that the default position for all ICT works >$500K be that their delivery (inclusive of project management) is outsourced unless the Readiness for Market and preceding Gateway Reviews clearly indicate otherwise.

4. Amend the WA section of the National PPP Guidelines, Volume 6: Jurisdictional Requirements, to widen its scope to explicitly allow consideration of substantial ICT works which may be predominantly services-based and where the indicative financial threshold is based on TCO (Total Cost of Ownership) rather than capital investment.

5. Establish a clear vision of the WA government's intended framework for digital interaction with citizens and business based on the federal government's myGov 'front end'. Include as a 'bedrock' goal single logon access to all government services (state and federal) and align with developments in other governments which directly or indirectly advance this goal (such as the federal government's Trusted Digital Identification Framework).

6. Identify what ICT competencies are 'inherently governmental' as a basis for sizing internal agency ICT branches.

7. Prioritise projects which improve business process at the portfolio level and/or contribute to a similar COAG endeavour.

8. Encompass the foregoing in a proactive agency education campaign (supported by appropriate collateral, templates, supplier interaction and case studies) on the nature of 'best practice' ICT delivery and procurement in a constrained public sector. This should include guidance and direction on;
    - cultural impediments to successful ICT delivery;
    - the appropriate demarcation of responsibility/competencies between agency and supplier;
    - using co-design, co-production and co-investment to build trusted supplier relationships;
    - what is meant by 'outcome-based delivery' and how suppliers can be productively co-opted in risk sharing and performance-based payment;
    - the use of alternative funding mechanisms (such as PPP or recurrent based aaS subscription) and how to pursue these through the budget process;
    - the preferential use of common ICT elements including myGov and identified collaboration and CRM platforms;
    - new engagement models emerging to support aaS; and,
    - critically, the intersection between business case and ICT delivery and the need to clearly draw this out in the first three gates of the Gateway Review process.