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Introduction

In October - December 2018, IBRS conducted a study of Australian and New Zealand senior executives' attitudes, expectations and plans for enterprise software. The primary aim of the study was to identify what impact cloud infrastructure services and Software as a Service are having on executives' decisions. In addition, the study also identifies differences in attitudes between different business sectors

This report details the key findings and recommendations as to how this may impact executive strategies and decision making.

Methodology

The study was structured to capture both quantitative and qualitative data.

The quantitative data was captured via 216 structured interviews with senior technology and business executives (CIOs, CTOs, CFOs and HR directors) and with responses captured in a formal, structured survey format. The split between business executives and technology executives was approximately 60 per cent business executive, and 40 per cent technology executives. Executives were chosen from mid-to-large-sized Australian and New Zealand firms with a representative sample of industry groups.

60% business executives, and 40% technology executives

IBRS sought to validate the above quantitative data with qualitative data collection. IBRS held two peer roundtables with 30 senior executives to delve more deeply into the issues and to validate the trends apparent in the data. An additional 35 free-form telephone interviews (including 20 to delve deeper into a random selection of the quantitative sample) were conducted.

Between the quantitative and qualitative approaches, senior executives from 261 organisations were interviewed, which represents a statistically valid sample (+-4 per cent) of the Australia New Zealand business landscape.

While this study was funded by TechnologyOne, it was conducted independently by IBRS and not limited nor biased to TechnologyOne customers. Interview subjects were selected at random from registered businesses by an independent third-party and from IBRS's existing contacts of senior business and technology executives.

All data collection was conducted under Chatham House Rule and adhered to Australian Privacy Standards.

The Participants

Figure 1: Number of respondents in quantitative sample by industry

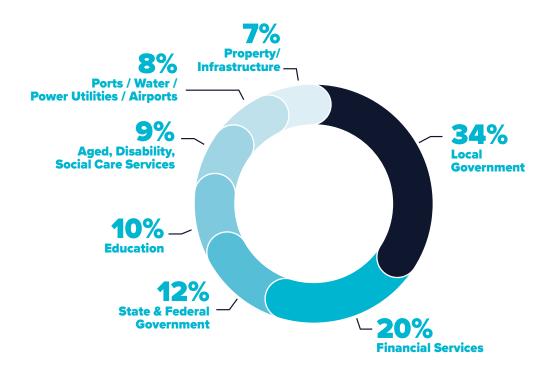
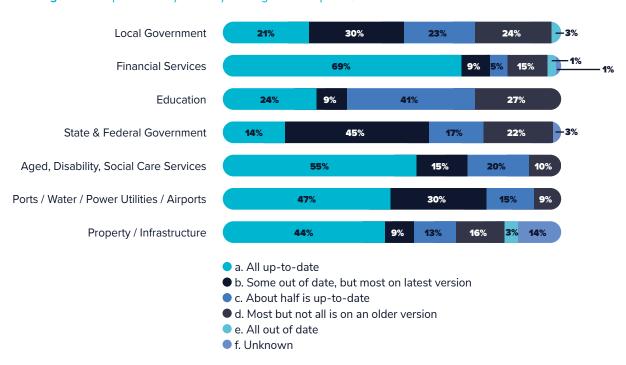


Figure 2: Respondents by Industry and Age of Enterprise Solutions



Findings at a glance

#1 Business units now dominate the IT budget

Who makes the investment decision?

Finance

Human Resources

Service Delivery

Field Operations

IT Group

#2 A tidal wave of new enterprise software spend is coming

Who's buying new enterprise solutions in 2019-2020?

Aged Care & Social Ser	rvices 89%
Ports, Air & Utilities	80%
Education	75%
Property & Infrastructure	65%
Financial Services	57%
State & Federal Government	5%
Local Government 549	%

#3 It's not you... it's me

The factors influencing satisfaction

Technical factors

14% Reliability & Uptime

13% Software Update

Human factors

41% Adopting new processes

27% Obtaining internal skills

31% User experience

#4 Cloud myths that just won't die

Integration

infrastructure

costs

#5

Integration headaches

Unmanaged Software as a Service procurement is leading to integration challenges



Field Operations

Human Resources

#6 Easy to

The word that sums up what people want from enterprise software

- procureaccess
- integrate
- implement
- use
- deploy

Business units now dominate the IT budget

Why the world of enterprise systems has changed and IT groups must fundamentally change

One of the most significant findings of this study was that Software as a Service (SaaS), and to a lesser extent cloud infrastructure, are fundamentally changing the decadesold dynamic between business and IT groups.

The relationship between IT groups and other business units has often been mildly adversarial in many organisations. For more than two decades senior executives have been complaining that IT departments need to be closer to other business units. Astute Chief Information Officers (CIOs) have long recognised this is an ongoing problem and seek to build bridges through various strategies.

One of the main challenges for most IT groups is that it is only recognised when things fail. Therefore, a driving goal of IT groups has been to ensure that applications, networks and technology infrastructure run smoothly to the point of being invisible. In short, IT groups have spent the last 30 years avoiding risk and perfecting ways to run complex infrastructure systems with minimal interruption.

This study shows that cloud-delivered enterprise solutions are breaking down the traditional dynamic between business and IT. With cloud services, IT can stop being solely focused on avoiding failure and instead focus more on improvement and innovation. If they don't, business units will work around them.

The clearest evidence of change is the fact that this study indicates that IT groups are no longer the primary decision makers nor budget holders for enterprise solutions: key business units have overtaken the mantle as technology budget holders.

While marketing has been procuring enterprise-grade "martech" solutions independent of IT for at least the last three-to-five years, this study for the first time revealed that sales, human resources, field workforce management and customer services groups now control their budgets for enterprise solutions.

Customer service and field operations have surged ahead in terms of decision-making power for enterprise applications - even surpassing marketing. This is partly explained by the desire to provide new customer service experiences as quickly as possible. As new digital delivery channels become available such as cloud-based services, these groups are keen to grab the opportunity to innovate.

Human resources departments have been acquiring specialised and often siloed SaaS solutions for a number of key areas, including: hiring, learning, certification tracking, performance management. However, in the last 18 months, HR executives have begun to recognise the need to bring these disparate solutions together, under a comprehensive human capital management cloud-solution.

Key business units have overtaken the mantle as technology budget holders.

Figure 3: Business units are the IT buyers now



Business units are now able to take over the selection, procurement and deployment of complex systems when they are provided 'as a service'. Effectively, the Software as a Service business model removes a risk-averse IT group from the procurement decision, since the provider has subsumed the risk. No wonder cloud-delivered enterprise solutions (SaaS and laaS) have now surpassed onpremises and managed services as the preferred option for future investments (Figure 4).

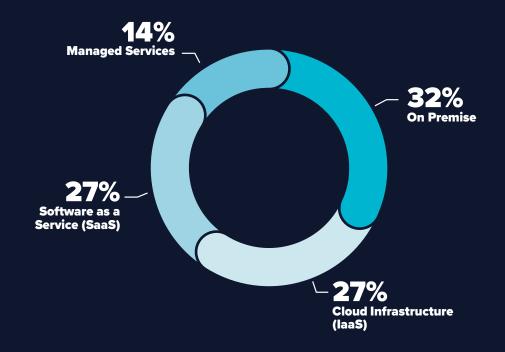
During free-form interviews and roundtables, IBRS noted that organisations opting for Software as a Service enterprise solutions had more positive attitudes towards the resulting solutions. This is because the

business units were directly responsible for any trade-offs in business functionality.

One of the key complaints from business users regarding enterprise solution deployments is that the solution does not "work the way they do". But when the business unit decides to accept software that makes them change the way they work, the change happens naturally. In contrast, when the IT group delivers an enterprise solution that has process trade-offs, staff often resist change.

However, satisfaction with SaaS solutions was tempered by the growing realisation that these business-procured systems often work in isolation of other information sources and processes within the business.

Figure 4: Preferred approach for enterprise solutions



2019 is the beginning

Ageing solutions are posed for a rapid overhaul - how does your sector stack up?

Many organisations have held back enterprise solution upgrades or replacements, particularly in local and state government organisations (see Figure 5 and 6).

A key reason why organisations have withheld investment in ageing enterprise solutions is the decision to adopt a "wait and see" approach to cloud-delivered solutions. Another reason is that organisations have been waiting for the vendors of their existing solutions to deliver functional parity with new web-enabled or cloud-based versions.

However, most organisations are now either satisfied that upgrading or renewing cloud-based enterprise solutions is feasible, or that they can no longer continue holding onto out-of-date on-premise versions of their enterprise solutions.

Upgrade and replacement plans vary greatly between different industries.

Financial Services

Finance has been a trailblazer in the adoption of new enterprise solutions – with the majority of financial institutions interviewed reporting that their enterprise solutions are up-to-date. Therefore, it is no surprise to see that the majority of these organisations are not planning significant upgrades or replacements in the coming year.

Finance has been a trailblazer in the adoption of new enterprise solutions

Aged care, disabilities and social services

These organisations are undergoing significant structural change due to recent legislation and a competitive market model. Three-quarters of organisations in this category will replace or adopt entirely new enterprise solutions in 2019. A further 11 per cent are upgrading existing solutions. This represents a tidal wave of change for organisations in this sector in 2019.

During interviews, IBRS noted that such organisations are looking to centralise scattered and siloed tactical business solutions. Aged care services, in particular, are centralising disparate systems as a result of mergers and acquisitions.

Education

Nearly three-quarters of educational institutions (higher education, vocational training, colleges) are also planning to replace or adopt new enterprise solutions in 2019. Furthermore, 31 per cent of educational institutions are also upgrading existing solutions.

Education is reinvesting in multiple enterprise capabilities across many domains including: student outreach and marketing, student information systems, enterprise reporting, analytics, next-generation learning management, as well as upgrades to student support, finance and administrative solutions.

Education is reinvesting in multiple enterprise capabilities across many domains

Local Government

Councils are notable laggards with regards to keeping their enterprise solutions up-to-date. But this looks set to change in 2019.

Councils are notable laggards with regards to keeping their enterprise solutions up-to-date. But this looks set to change in 2019, with nearly 58 per cent looking to upgrade existing enterprise solutions this year, and nearly half looking to procure entirely new solutions.

Education and social services sectors' moves to cloud-based enterprise solutions are driven almost exclusively by external pressures. In contrast, Local Government's appetite for enterprise solutions is based on a realisation that new enterprise solution delivery models are now mature. It is pent-up demand that is causing the spike in interest. Web and cloud-based upgrades of many existing enterprise solutions have reached, or surpassed, functional parity with ageing on-premises versions, while also offering IT operational benefits: reduced data centre investments, less IT staff time on infrastructure and more on innovation, and simplified security.

Local Government executives also saw cloud services as being essential for the delivery of greater citizen engagement: from the ability for citizens to engage in self-service and reporting civic issues, to delivering entirely new service experiences to the public.

Free-form interviews with council executives suggest that the push for greater citizen engagement is one of the key reasons for the procurement of new cloud-based enterprise solutions. For Local Government, service innovation is closely linked to cloud delivery models.

State and Federal Government

State and Federal Government agencies have a greater proportion of up-to-date enterprise solutions, compared to their Local Government counterparts. As a result, they have a lower - though still significant - investment profile for 2019, with slightly stronger plans for 2020 and 2021. Approximately 31 per cent of state and federal government organisations plan to adopt new enterprise solutions, while a further 33 per cent will be upgrading existing solutions.

The driver for this renewal is largely a periodic refresh cycle. Agencies that have already adopted SaaS-delivered solutions report they are now in a continual upgrade cycle, and those with on-premise solutions report a long tail (multi-year) manual upgrade cycle.

Utilities, Water, Ports & Airports

They have the highest propensity for both on-premise and managed services, yet 92 per cent are planning to replace ageing or buy new enterprise solutions within the next two years, though they have the lowest ratio of projects already underway among all industries (just 13 per cent).

Utilities, water, ports and airports therefore represent complex, highly-specialised, asset-rich environments that are holding back new IT investments. It can be argued that these organisations have 'missed the cloud maturity wave'. However, the pent-up demand for 2020-2021 suggests that these organisations may be about to leapfrog other industries with innovations in field-force management (while addressing changes in the workforce) and customer service delivery. Certainly, interviews with their executives suggest that the appetite for such innovation is high.

Property and Infrastructure

Property and infrastructure organisations are least willing to adopt cloud delivery and have comparatively lackluster plans for upgrading or procuring new enterprise solutions. Innovation appears to be low on the agenda. It was observed that this sector also has the least business involvement in IT decision-making of all business sectors. While this may not be causation, the correlation is strong enough to be worth noting.

Property and infrastructure organisations are least willing to adopt cloud delivery

Figure 5: New solution investment plans

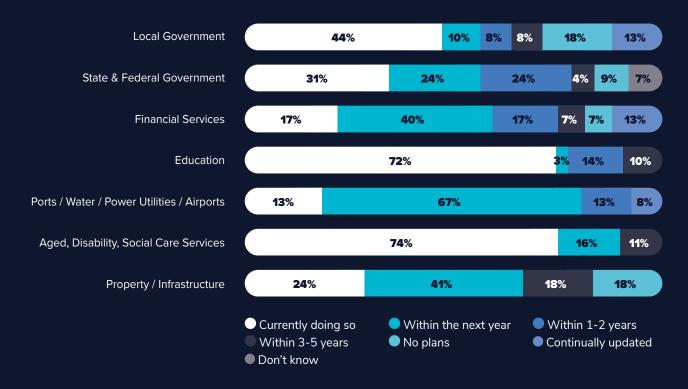


Figure 6: Upgrade investment plans

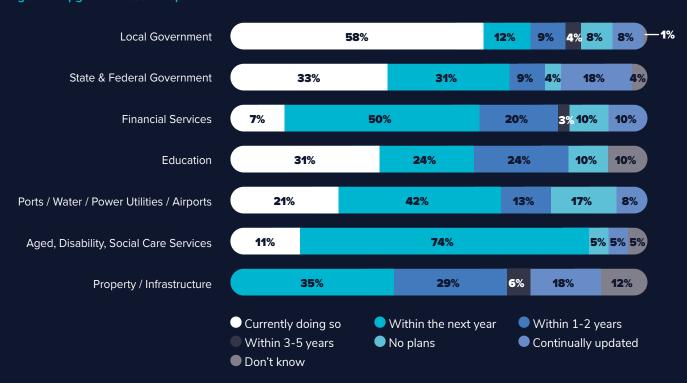


Figure 7: IT budget change by industry

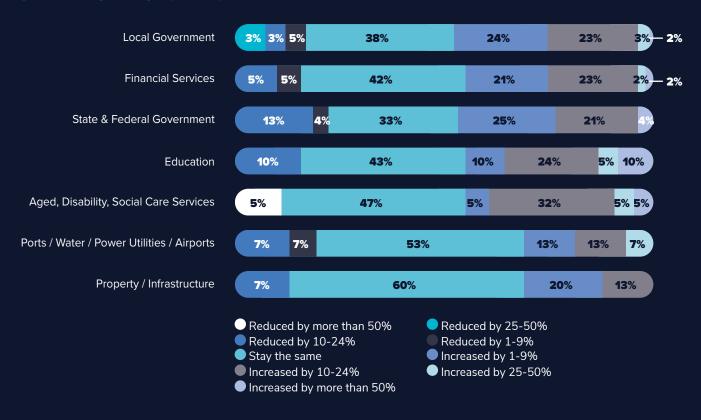
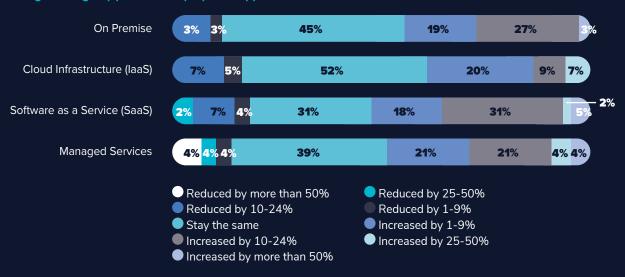


Figure 8: IT budget change by preferred deployment approach



It's not you... it's me!

Change management challenges continue

Satisfaction levels with enterprise solutions remain low - largely due to the change management challenges of getting staff to adopt work processes enforced by the new enterprise solutions. Over 40 per cent of executives reported that getting staff to adopt the rigorous processes demanded by enterprise solutions remains a major challenge, while a further 45 per cent indicate it remains a minor challenge. In short, 85 per cent of organisations struggle to get staff to adopt new processes.

Poor user satisfaction is an issue that has plagued enterprise solutions for the last two decades.

Interestingly, the majority of users reported comparatively few challenges with regards to technical issues: keeping software up-to-date (13 per cent), reliability and uptime (14 per cent), obtaining support services (21 per cent).

However, digging a little deeper reveals that organisations with the most dissatisfaction with enterprise solutions reported the greatest frustration getting staff to adopt new processes, along with the user experience.

Organisations with high satisfaction levels reported only minor frustration with getting staff to adopt new processes and innovation rates, but instead had a greater propensity to report frustrations with cost and timeliness of upgrades.

85% of organisations struggle to get staff to adopt new processes

While the reported challenges did not vary greatly by industry sector, they did vary based on cloud adoption. Organisations with a preference for SaaS reported significantly less challenge with getting people to adopt cloud services (down to 35 per cent as opposed to the 40 per cent across all industries) but found generating business innovation difficult (50 per cent, as opposed to the 24 per cent across all industry groups). In-depth interviews indicate that this is because once organisations eliminate technical infrastructure concerns, their attention turns to finding new ways to work and compete. Many of the CFOs, COOs and HR executives interviewed believe

that their organisations are only using a fraction of the capabilities of their enterprise solutions. In some cases, entire modules of the solution are being ignored.

Staff need to be educated into thinking about how these solutions will fundamentally alter staff and customer (or citizen) engagement and change how work is done

Thus, the thorny issue of change management is complicated with the adoption of modern customer / social facing enterprise solutions, which not only streamline manual processes but also allow for innovations in service delivery and business processes.

Training staff on how to use new enterprise solutions (that is, the user interface) is insufficient.

Staff need to be educated into thinking about how these solutions will fundamentally alter staff and customer (or citizen) engagement and change how work is done.

This often demands a shift in mindset and vision.

During the roundtables and follow-on free-form interviews, many senior executives stated that their organisations lacked the maturity in both strategy and process for change management. They also stated that there was confusion regarding who should own change management, though there was some agreement that the IT group could only guide, but not lead, any change programs.

Organisations with a preference for SaaS reported significantly less challenge with getting people to adopt

Figure 9: Satisfaction rates with enterprise software

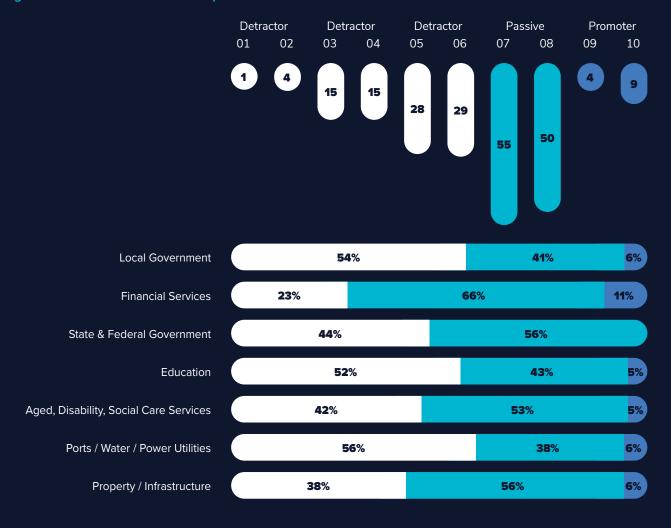
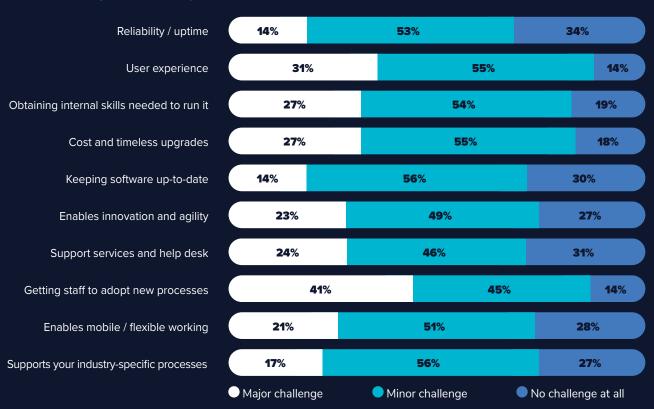


Figure 10: Challenges



The Cloud myths that just won't die

It's no longer a matter of why but why not?

Despite Australia being a world leader in enterprise cloud adoption, this study unexpectedly revealed that some market segments remain in the thrall of cloud myths. Most (80 per cent) interviewees – across all industry sectors - believed their organisations' executives had a passable or higher level of understanding about cloud services. Yet organisations that state a preference for on-premise services rated security as the primary reason for not moving to cloud services.

Distrust in cloud security was strongly correlated to the market sector.

State and Federal Government agencies were strong advocates of the cloud: 48 per cent of respondents in this sector indicated that there was a preference for SaaS while an additional 36 per cent preferred cloud infrastructure services for deploying new enterprise solutions – a whopping 84 per cent of state and federal institutions preferring cloud. In contrast, their Local Government counterparts were far less keen to adopt cloud, with 55 per cent preferring cloud deployment, and 35 per cent wishing to keep their enterprise solutions on-premises.

Infrastructural business sectors – ports, airports, utilities and water- were also shy of preferring cloud over on-premise deployments, with just under half preferring to keep enterprise solutions on-premise. In addition to security concerns, these organisations have a stronger requirement for capital expenditure, so their preference for cloud services is based at least in part on the structure of their set of accounts, rather than technology.

The primary reasons for avoiding cloud deployment of enterprise software were relatively consistent across all business sectors:

- Security
- Utilise existing IT infrastructure
- Integration with existing or legacy on-premises applications



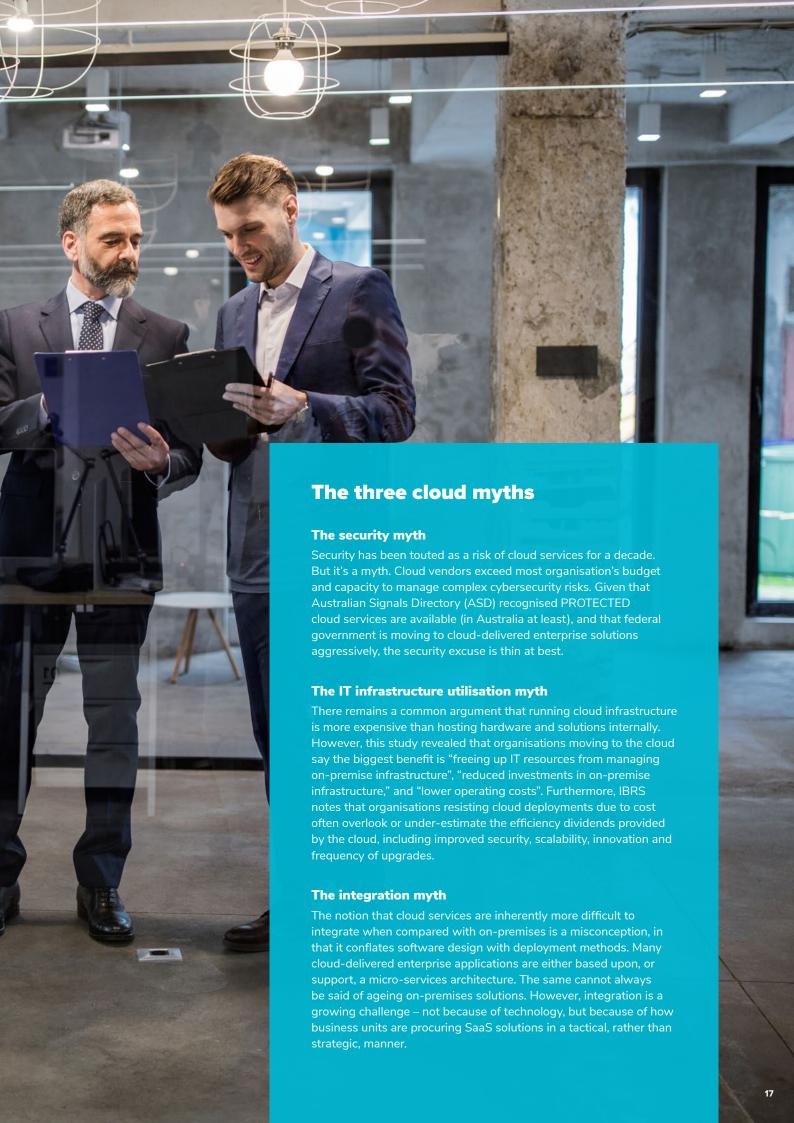


Figure 11: Understanding of cloud

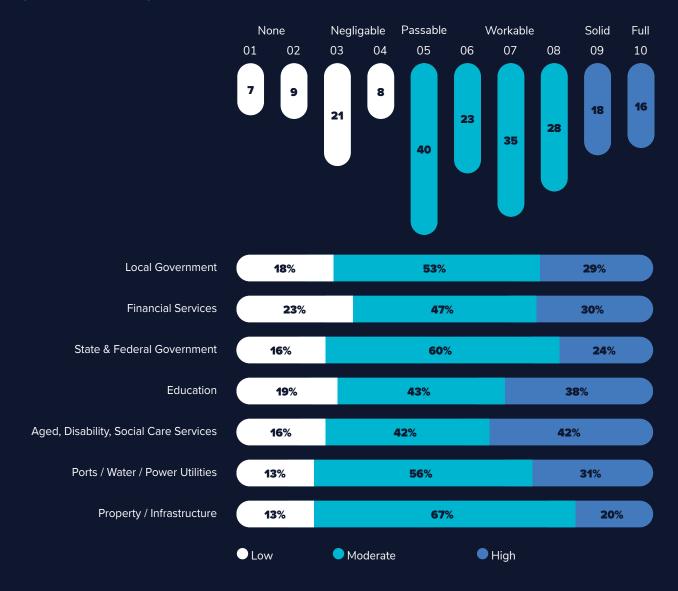
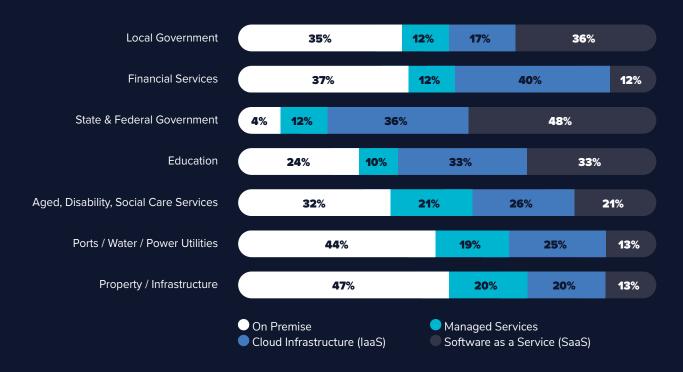


Figure 12: Preferred way to obtain enterprise solutions



Integration headaches

Unmanaged Software as a Service procurement is driving fragmentation

Software as a Service is both a blessing and a curse. On the one hand, it has enabled business units to easily acquire and run enterprise-grade business solutions that are specific to their needs, without significant input from IT. On the other hand, this ease of acquisition and deployment also means that many organisations are creating silos of information and processes.

Integration is proving to be a challenge for the growing number of organisations where business units have procured cloud-based applications with only superficial IT involvement.

For example, IBRS has noted that human resources departments that procured SaaS based e-learning and human capital management solutions from cloud services without IT involvement are now struggling to obtain a consistent view of staffing.

In short, the procurement and use of SaaS by individual business units is starting to drive fragmentation of information and processes. Often, IT is being asked to integrate multiple cloud and on-premise enterprise solutions only long after these solutions are put in place – an unenviable and untenable situation.

During the roundtables and free-form interviews, IBRS noted that integration is now recognised as a strategic imperative. Senior executives view the integration of core enterprise solutions as a necessary precursor to innovation initiatives.

However, many senior executives also note that integration is not solely a technical issue: it is a strategic business issue. More specifically, the challenges of integration mirror the challenges of structuring a business and the processes that flow both externally and internally.

Having clarity as to the business structure and process is essential to understanding how the integration challenge will be addressed, and how further operational innovations will be achieved.





The three degrees of integration

Which suits you?

#1

The pre-integrated enterprise

The organisation invests in a well-established enterprise solution from a single vendor, including core services (e.g. finance, payroll, HR) and industry-specific modules (e.g. student information management, property and rates). With a single vendor solution, all modules are integrated. Furthermore, business analytics and dashboards are simplified as information is consistently defined between modules.

Pros

- Little or no custom integration required
- Common user experience across business units
- Adoption of 'industry best practice' processes
- Centrally administered

Cons

- Less flexibility for bespoke business processes
- Resistance to adopting new processes

Good for

- Organisations seeking a stable and low-risk platform
- Organisations wanting to re-deploy IT resources
- Organisations seeking to adopt industry best-practices

#2

The core services and satellite apps enterprise

The organisation invests in an enterprise solution that offers business functions that are common across most industries (e.g. finance, payroll). Business units take the lead on identifying specialised enterprise solutions to meet their needs, generally via SaaS. These 'satellite' applications are then integrated into the core enterprise solution.

Pros

- Allows for highly specific applications to be deployed
- Ready acceptance of the new business processes enabled by the satellite applications

Cons

- Inconsistent user experience across business units
- Custom integration required increasingly through a cloud integration service
- Fragmented administration of business services
- Potential for business processes to become siloed between organisational units
- Inconsistent data taxonomies add complexity to data analytics and reporting
- Need for integration tools and specialised skills

Good for

- Organisations with relatively undifferentiated core requirements compared to competitors can benefit from the economics standardisation
- Organisations with strong IT support and budgets
- Organisations with existing investments in onpremises enterprise solutions, but an intention to move the cloud over time - can benefit from the economics of hyper-scale platforms

#3

The business service mesh

The organisation adopts a microservices / API software architecture and only procures applications that support such. Individual solutions are procured for specific business functions and connected via APIs.

Pros

- Allows business units to select 'best-of-breed' applications (provided they adhere to the microservices architecture)
- Allows for the greatest flexibility in terms of how business functions are assembled
- Flexibility to change business processes and functions at least in theory

Cons

- Inconsistent user experience across business units
- Extensive need for integration services and specialised integration solutions
- Fragmented administration of business services

Good for

- Greenfield/start-up organisations (born in the cloud)
- Organisations that are disruptors or those who need to change business practices rapidly
- Organisations with strong internal integration capabilities and budgets

The ideal enterprise solution is

Participants were asked to describe their ideal enterprise solution. IBRS conducted a textual analysis of the responses. One word stood out strongly: "EASY."

Gone are the days when IT could take months, possibly years to gather requirement, plan, select and implement enterprise software and demand staff change. SaaS and greater business control of IT budgets mean that IT groups are competing against specialised, open-market solutions. This is not just a case of "shadow IT" in the traditional sense, but "enterprise-grade shadow IT".

Ease of use is the common theme among executives' view of an ideal enterprise solution. This is not a comment about the interface, but rather the entire experience of working with the software, the ability of the solution to solve immediate problems and automated industry-specific processes.

As spend increases in 2019 through to 2020, IT groups should expect an increased uptake of such solutions and will need to consider how they want to manage the integration of their software. As IT investments are increasingly led by business executives, there may be greater reflection of how they want to manage their business operating models, and on the enterprise solution architectures that will best fit their needs. Also, there remains an urgent and compelling tension between legacy enterprise solutions and the need for greater agility.

Executives want ease in all aspects of the enterprise solution:

Easy to procure: simple licensing, based on simple consumption metrics (number of users) and modules, and without having to factor in complex infrastructure and operational calculations.

"It would have flexibility, pricing based on number of users and low maintenance costs."

- COO, Local Government

- CEO, Aged Care

Easy to configure: preconfigured to streamline specific industry processes.

"A new system must be customisable and personalisable... with the ability to adapt to our industry needs, not the other way around."

Easy to deploy: being able to get staff utilising the capabilities of new solutions quickly.

"We want cloud software. It offers lower cost, higher performance and is perfectly suited to our industry's unique requirements."

- CIO, State Government Agency

Easy to access: enterprise solutions should be available on any device, anywhere at any time – thus public-cloud ready solutions are preferred.

"It has to be reliable, fast and easy to use on any device, at any time, anywhere."

- COO, Utility

Ease of integration: business process and data should be available across all business functions and potentially extended to external parties.

"True enterprise solutions allow data to be entered once and used many times across the business with a single workflow. It's not just about connecting systems, it's about process automation."

- COO, State Government Agency

Ease of use: consistent user experience across all modules and on all devices.

"New software must be as intuitive – much like downloading an app from the app store and being able almost instantly to use it."

- HR, Education



Where to from here?

Senior business leaders

01

Take care when selecting SaaS enterprise solutions and seek advice from IT groups regarding: the ability of any solution to integrate with existing solutions, impact to cross-functional business processes, implementation and change management, and return on investment modelling. In short, business executives should recognise that IT groups often excel at project management, not just from an individual view of the business, but from a holistic view of the organisation. And they should leverage that expertise.

02

Evaluate your organisation's change management maturity level as a matter of priority and implement any processes needed to improve capabilities before the deployment of new enterprise solutions. While there are several change management maturity models and evaluation approaches available, choosing a model that provides actionable advice is essential.

03

Be alert for the three major cloud myths when planning new investments. In particular, do not accept 'security' as a catch-all excuse for refusing to adopt cloud services. While there may be valid reasons to keep enterprise solutions on-premises, these should be fully articulated from the perspective of "why not?".

04

Engage with senior IT executives to determine the most appropriate enterprise solution architecture for your organisation: pre-integrated enterprise, core services and satellite apps enterprise, or the service mesh enterprise.

Senior IT executives

01

Prepare for a shift in how enterprise technology is procured. This involves restructuring the IT group to be an internal 'as a service' change agent for the organisation.

02

The focus must shift from minimising technical risk to advising business stakeholders as to how to solve their specific business needs, while also helping the organisation avoid redundant investments and fragmentation of processes between cloud services, or the creation of isolated information silos.

03

Be sure that investments in enterprise solutions are in line with trends in your market – if others in your industry are heavily investing in SaaS, you'd better know why.

04

When it comes to implementing new enterprise solutions, especially cloud-based solutions that enable greater automation of customer or citizen-facing services, do not attempt change management from the perspective of simply training. Instead, identify business unit 'visionaries' to take ownership of change management programs, who will educate the impact business unit staff at all levels as to the potential benefits and innovations, rather than just 'how-to-use' training.

05

Get ahead of any integration problems by working with business executives to identify your organisation's enterprise solution architecture, and become viewed as a trusted advisor to business units seeking to procure new SaaS solutions.

About TechnologyOne

TechnologyOne (ASX: TNE) is Australia's largest enterprise software company and one of Australia's top 150 ASX-listed companies, with offices across six countries. We provide a global SaaS ERP solution that transforms business and makes life simple for our customers. Our deeply integrated enterprise SaaS solution is available on any device, anywhere and anytime and is incredibly easy to use.

Over 1,200 leading corporations, government agencies, local councils and universities are powered by our software. For more than 33 years, we have been providing our customers enterprise software that evolves and adapts to new and emerging technologies, allowing them to focus on their business and not technology.

About IBRS

IBRS is a boutique Australian IT Advisory company that mitigates risk and validates strategic decisions by providing independent and pragmatic advice to senior technology and business decision-makers.

