

Federal Government Cloud Adoption Study

A survey of managers and senior executives
in the Australian Federal Government

Kevin Noonan, Chief Analyst
kevin.noonan@ovum.com
May 2018

Contents

- Executive summary 3
- Cloud strategy and direction 9
- Overall impression of cloud services 15
- Perceptions about cloud service providers18
- Investment in cloud services23
- Cloud workloads 31
- Cloud security 36
- Appendix 40



Executive summary



Summary

Catalyst

In 2015 Ovum was commissioned by Macquarie Government to undertake a similar study, looking closely at cloud services in the Australian federal government. At that time, Ovum found that while cloud take-up was certainly happening, it was being driven more by the adherence to government policy, rather than an underlying appreciation of the benefits of cloud services. There were high expectations, but little clarity about the next steps or future use-cases to make it happen.

Three years later, Ovum has now undertaken a follow-up study, to gauge changes in the government market.

Ovum view

In 2015, government agencies were still grappling with lingering concerns about viability of cloud, especially relating to security and availability. The most common reason for transitioning to the cloud was “it’s government policy, so we’re doing it”. The survey picked up a strong sense of passive resistance, with an expectation that cloud would just be a passing fad and would disappear over time.

In 2018, it is now a very different market. Today, the government market is strongly committed to cloud, and has a clear understanding about the challenges and benefits in getting there. However, the focus is quite tactical. Responses to the survey are more about operationalising a cloud transition strategy, than about business and policy opportunities that would come out of a more agile and cloud-driven infrastructure.



Key findings – earlier 2015 cloud study

Strategy/Policy - We'll do it because it's government policy

- It was a market in transition:
Emphasizing the risks of cloud → emphasizing the opportunities
- The top reason for cloud & the top use-case: "It's government policy". For many, cloud was a forced march, driven more by a change in government policy, than by perceived practical benefits beyond websites and dev/test environments
- Some managers were strongly opposed to using cloud

Key challenges - Not completely convinced about cloud

- High expectations, but little clarity on next steps & future use-cases
- Lingering concerns about the long term viability of cloud (both business & IT)
- Concerns: security, availability. Not cloud ready

Key strengths - Procurement procedures in place

- Many agencies had some experience in using cloud services (primarily dev/test)
- Procurement ground rules & panel in place



Key findings – 2018 cloud study

Strategy/Policy - We're ready, so let's do it

- Market has transformed:
From awareness without plans → To purposeful clarity about tactical direction
- Government agencies are now focusing on practical implementation & deployment challenges
- There are still some confused messages about each agency's actual security requirements (Protected)
- Agency focus is still very tactical, with insufficient attention on opportunities for enabling business transformation

Key challenges - Focus on the practical implementation issues

- Procurement is still a challenge, particularly CAPEX/OPEX as percentage of cloud investment grows
- Skills/Resourcing are a lingering concern, as agencies transform to cloud-driven workloads
- There is a lack of focus on communicating the business benefits of cloud, case studies & good news stories
- Implementation & transition are significant concerns, particularly with complex interconnected legacy architectures

Key strengths - Cloud is proven: Secure, reliable, functional

- Cloud is now seen as a more secure, and more reliable way of meeting government hosting requirements
- It is now an enabler for greater agility, and an important part of tactical initiatives
- Ease of deployment is commonly reported as a key strength of cloud



Cloud strategy and direction



Which management issues are most likely to drive future cloud workloads? (ranked priority order)

| | |
|--|-----------|
| Availability of OPEX | 1 |
| Dealing with the challenges of "Shadow IT" | 2 |
| Application modernization | 3 |
| Government policy (e.g. Cloud First) | 4 |
| Your own agency's assessment of cloud security | 5 |
| Procurement guidelines, government contracts etc. | 6 |
| Government security compliance (Australian Signals Directorate) | 7 |
| Return on investment business case | 8 |
| My own agency's cloud strategy | 9 |
| Equipment depreciation cycles | 10 |

Ovum Insights:

- OPEX/CAPEX is likely to become a more significant issue as a greater proportion of government work moves to the cloud.
- Applications modernization requires a hybrid solution to deal with the tangled architecture.
- Shadow IT is an interesting response, particularly in conjunction with applications modernization. This is linked to the need for greater agility, and capacity to react more quickly to changing business needs.



Which factors have influenced your decision to invest specifically in Infrastructure as a Service? (ranked priority order)

| | |
|--|-----------|
| Improving security | 1 |
| Cutting costs | 2 |
| Responding to government policy direction | 3 |
| Delivering a better user experience | 4 |
| Supporting business growth and change | 5 |
| Enabling IT to concentrate on more strategic "value-added" activities | 6 |
| Driving application modernization | 7 |
| Improving business processes and agility | 8 |
| Acting as a driver for data centre/IT consolidation | 9 |
| Replacing legacy systems/infrastructure that are reaching end of life | 10 |
| Improving IT's responsiveness to the business | 10 |
| Supporting innovative new business activities | 10 |
| Resolving capacity planning issues | 13 |

Ovum Insights:

Security now rates higher than cost savings as a cloud driver. "Government policy" is still a significant driver, and sits comfortably among the top issues.



Which are the biggest challenges/impediments for using IaaS in your organization? (ranked priority order)

| | |
|---|-----------|
| Practical difficulties in moving funds from CAPEX to OPEX | 1 |
| Lack of the necessary internal skills | 2 |
| Concerns over reliability/availability (outages) of cloud services | 3 |
| Lack of understanding of what business benefits cloud can deliver to my organization | 4 |
| Complexity of procurement processes | 5 |
| Regulatory/compliance issues | 6 |
| Unpredictability of consumption-based cloud pricing | 7 |
| Lack of a cloud strategy and governance | 8 |
| Lack of the necessary leadership | 8 |
| Difficulty in accurately measuring cost savings from cloud | 8 |
| Availability of suitable offerings that meet our security requirements | 11 |
| Migration risks outweigh the perceived business benefits | 12 |

Ovum Insights:

CAPEX/OPEX again emerges as a key issue. Other Ovum interviews confirm that the skills gap is likely to be an issue of growing importance. Key issues are still quite operational.



Top business reasons driving further applications into the cloud (detailed responses)

| |
|---|
| Ability to transform in-house deployment of workloads to cloud |
| Cheap maintenance and ease of deployment |
| Cloud brings us an ability to increase/decrease the instances of users easily |
| !! Gives us the independence to increase/decrease workload/users |
| Cost effective |
| Cost effective and easy to maintain |
| Customer query redressal and application testing |
| Data can be accessed through various locations real time |
| Development and Disaster Recovery as a Service |
| Development and Testing environments only |
| Disaster recovery and security features |
| !! Ease of deployment |
| Ease of deployment and easier to use |
| Ease of deployment and security features |
| !! Ease of usage along with reliable infrastructure |
| Enhanced security and quick deployment |
| !! Enhanced security features and ease of deployment |
| Financially feasible |

| |
|--|
| Increased security and interoperability |
| Integration between applications and services |
| !! Interoperability is the biggest benefit |
| Low cost maintenance & Easy to use |
| Real time support |
| !! Real time support and ease of deployment |
| Reliable and Scalable solutions |
| Reliable for any workload |
| Reliable solutions |
| ROI is high |
| Running cost is low |
| Saves a lot on cost and deployment |
| Seamless integration within applications and services. |
| !! Technical support is available round the clock and we have back-up always ready. |
| The ability to integrate the existing applications on the cloud. |
| Fits our strategy economically |
| !! Improved performance and best-in-class scalability. Low cost of maintenance. |



Overall impression of cloud services



What practical advice would you give? (summary)



Ovum Insights:

The detailed survey quotes (see next slide) provide some clear messages:

- “Cloud is a blessing for the organization if it is administered in the right way”
- “Staff should be provided with proper training before deployment”
- “If handled in the correct way, (cloud) can prove to be very effective”
- “Choose the vendor wisely as it will affect your deployment and support”



What practical advice would you give? (detailed responses)

Very effective provided you have done good planning and have a strong strategy

!! Choose the vendor wisely as it will affect your deployment and support

Choose the vendor with the most secure environment

!! Cloud is a blessing for the organization if it is administered in the right way.

Cloud services are of a great help provided you have done your preparations right.

!! Make sure strategy contains broad network access with reachability and platform options

Contains vast network access with reachability

Costs are low but might sacrifice security at some points.

Easier to gather insightful data

Easy to deploy and cost effective

Effective planning and creating a strategy before deploying

!! Effective planning before deployment

!! Effective training and use of experienced players.

Ensure security and have effective training sessions

Evaluate various vendors to select the best one

Gather enough knowledge before deploying

Gather knowledge and experience before deployment

If handled in the correct way, can prove to be very effective

Check how much service adheres to the cloud computing model

Internal staff should be properly trained before deployment

Learn from others' experiences

Look around to learn from real-life experience

Make sure that the end-users are trained properly.

Make sure you have enough experience

Must be a multi-tenant environment fostering location-independence

!! Must examine different attributes to predict future effectiveness.

Must examine the attributes to determine whether the services will deliver the expected outcomes

Must support rapid elasticity with the ability to grow and shrink based on policy, with no impact to apps or users

Plan thoroughly before migrating

Properly train the staff

Provide a baseline for discussion from what is cloud computing to how to best use cloud computing

!! Security at it's best with 24*7 support through vendors

Should be a measured service, metered by performance with a pay-as-you-go pricing model

Should launch in testing phase initially to avoid any information loss.

Should study the market thoroughly before coming to conclusions about cloud

Staff should be provided with proper training before deployment

The capabilities available for provisioning has to be unlimited

To be patient and make sure the transition is smooth

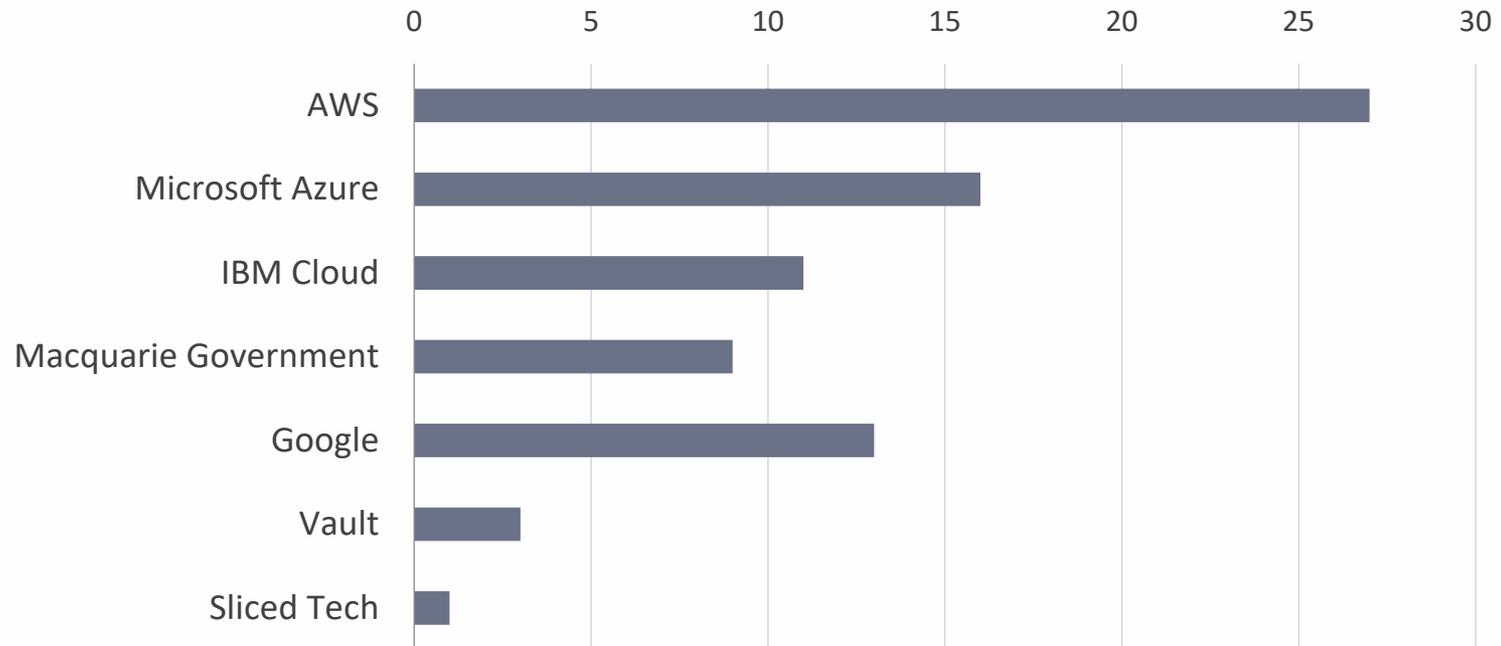
!! You should be open to suggestions and change continuously to improve the setup



Perceptions about cloud service providers



Cloud providers that account for at least 20% of client workload

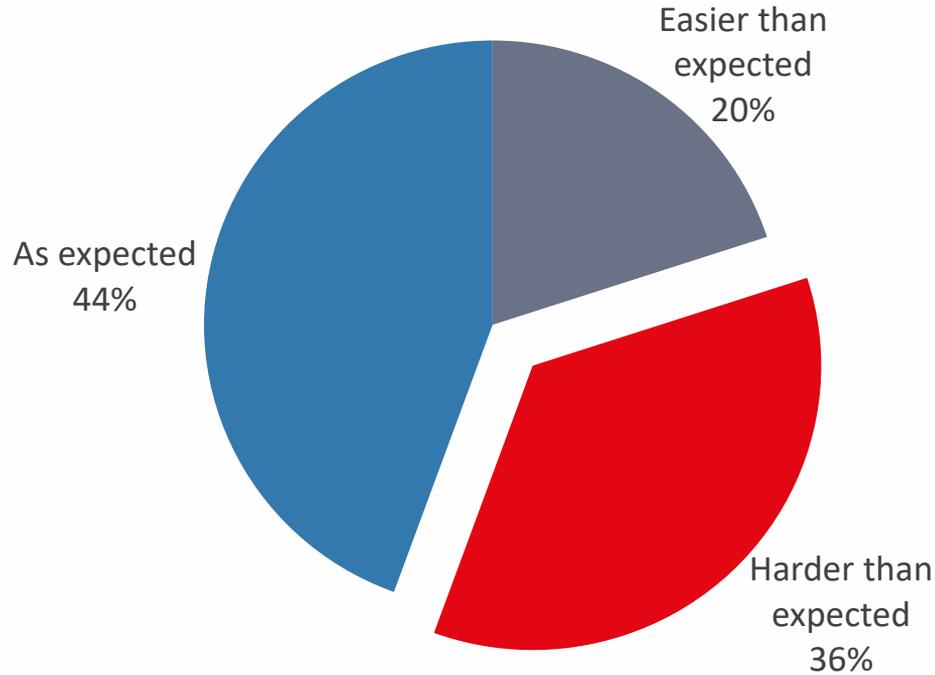


Ovum Insights:

- In order to appear on this graph at all, cloud providers need to deliver at least 20% of the agency's client workload. The two clear leaders are the recognized global players, AWS and Microsoft.
- Local cloud provider, Macquarie Government, makes a strong showing in the next grouping of cloud providers.



Ease of most recent cloud implementation

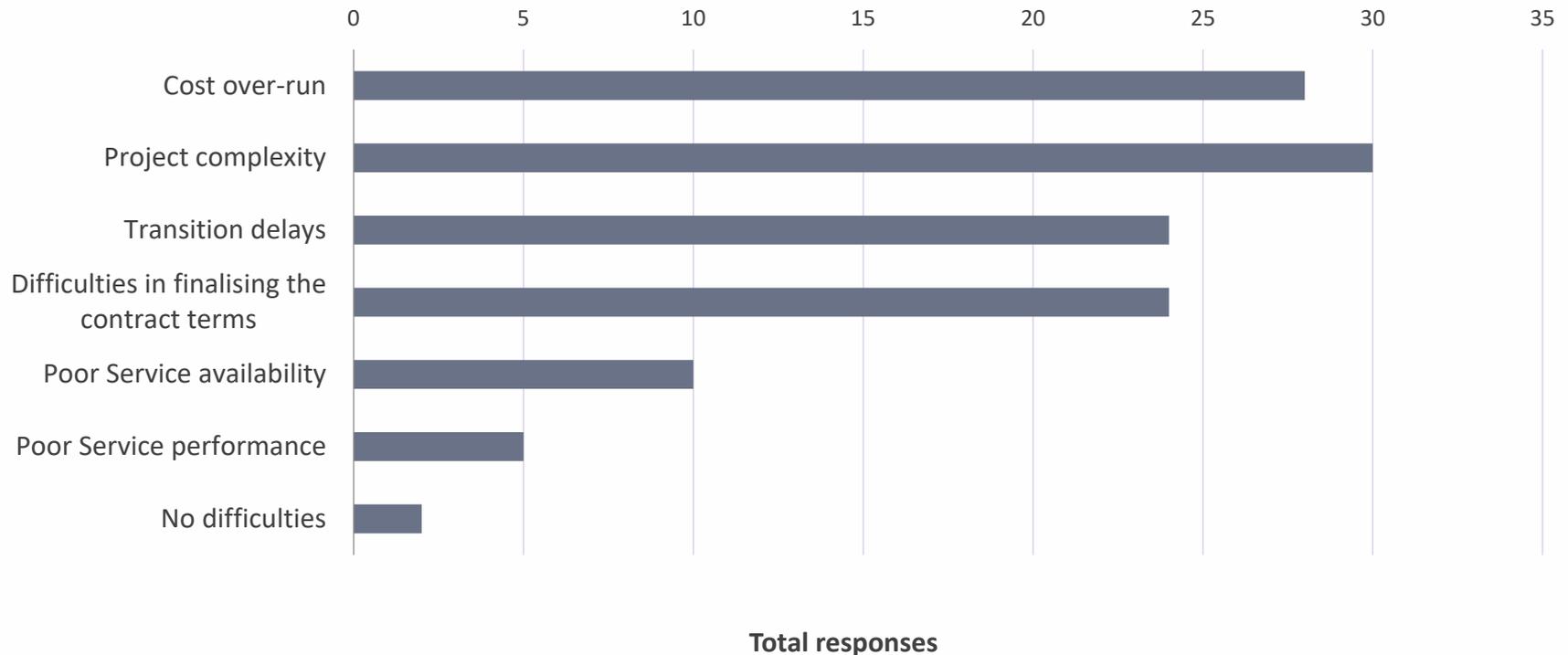


Ovum Insights:

While it is comforting to see 44% of agencies reported their cloud implementation went as expected, it is concerning that a significant 36% found the implementation was harder than expected. The next slide provides some clear insights about the underlying reasons.



Migrating to cloud: Nature of difficulties encountered

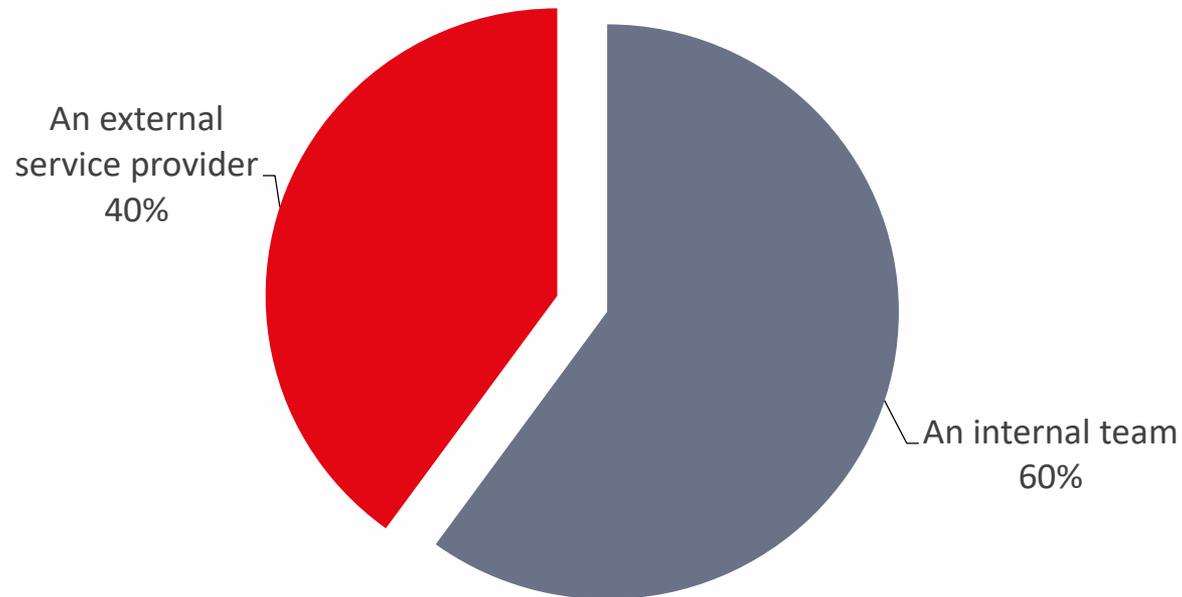


Ovum Insights:

This question provides some important insights about the transition to cloud. Vendor performance is rarely the problem. Instead, the challenges tend to relate to an underestimation of the planning and effort that needs to be invested.



Lead role for cloud migration projects



Ovum Insights:

Notwithstanding the importance of the vendor, government agencies still have a preference for using internal resources to lead the cloud migration project. This has clear implications for internal training and development of skills in management and architecture, rather than traditional skills in technical delivery

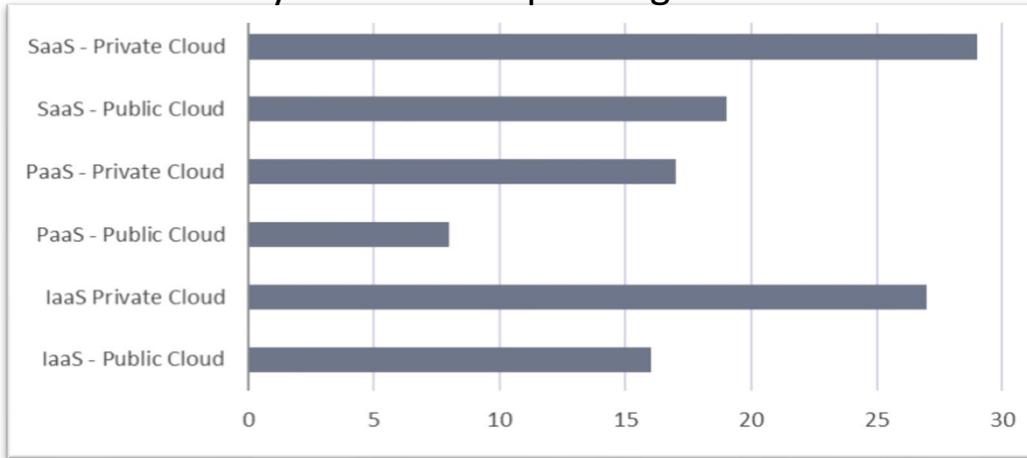


Investment in cloud services

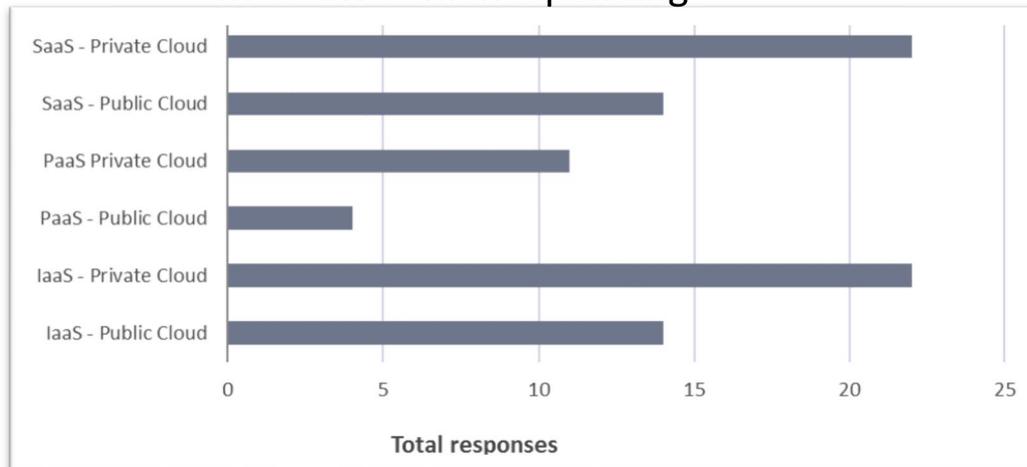


Areas of existing cloud investment

Any investment spending



Most investment spending

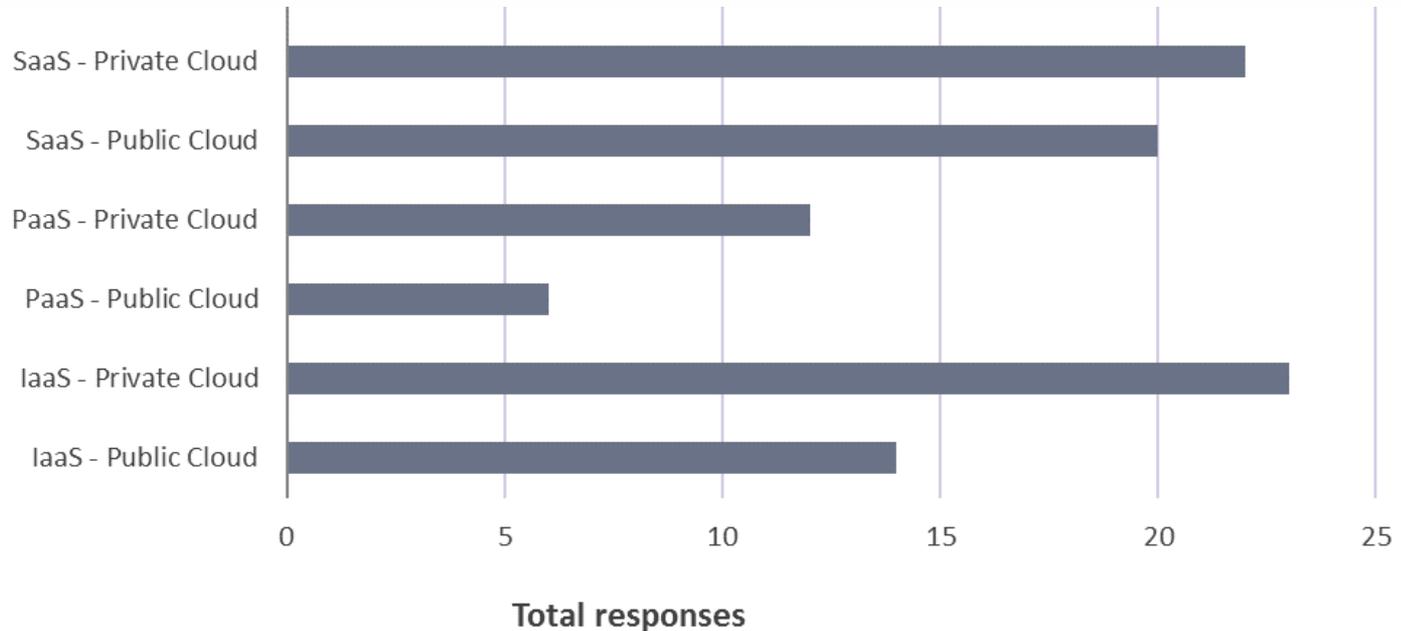


Ovum Insights:

Private cloud is still the most significant area of existing investment. This typically involves IaaS & SaaS workloads



Areas of investment growth – next 12 months

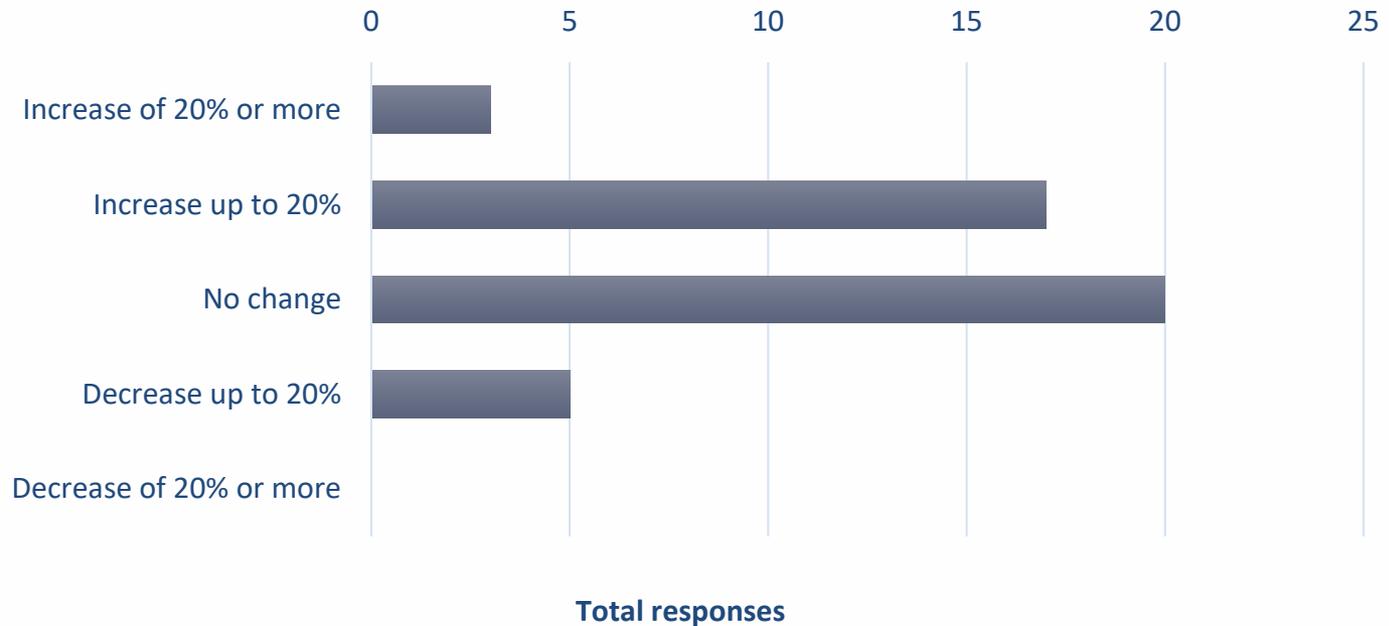


Ovum Insights:

The big change for the 12 month outlook is Public Cloud SaaS, showing a significant increase over existing investment. Public Cloud IaaS is the next highest area of growth



Areas of investment growth – IaaS over next 12 months



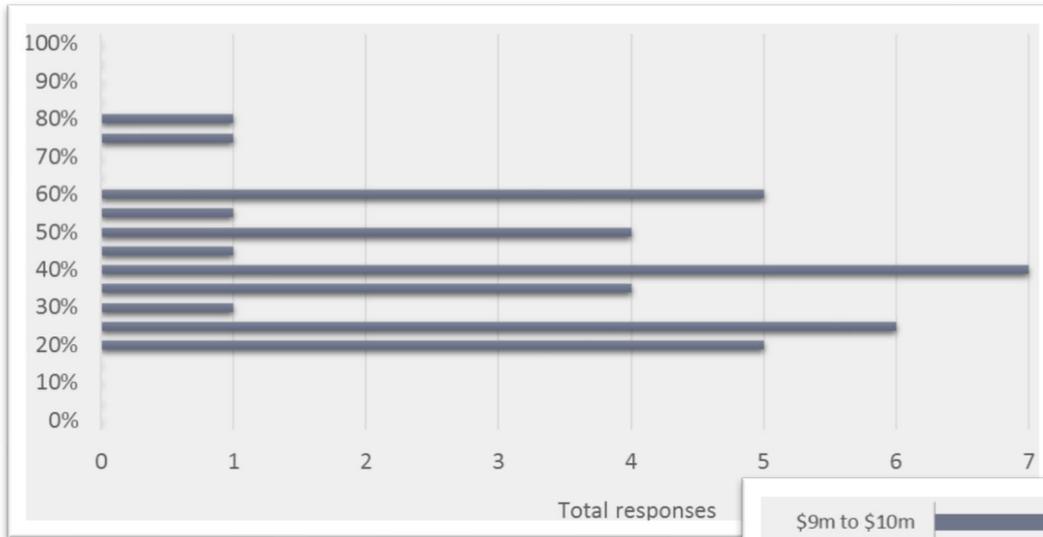
Ovum Insights:

Cloud investment (IaaS) is clearly growing. The path ahead will be more about slow and sustained investment, rather than explosive growth.

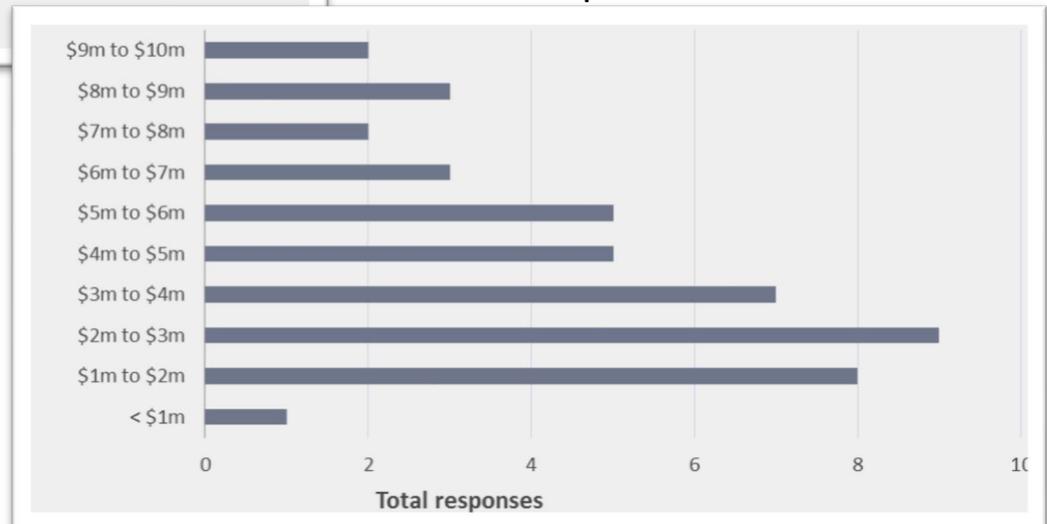


Government spending on cloud services

Cloud spend as a proportion of IT spend



Current spend on cloud services

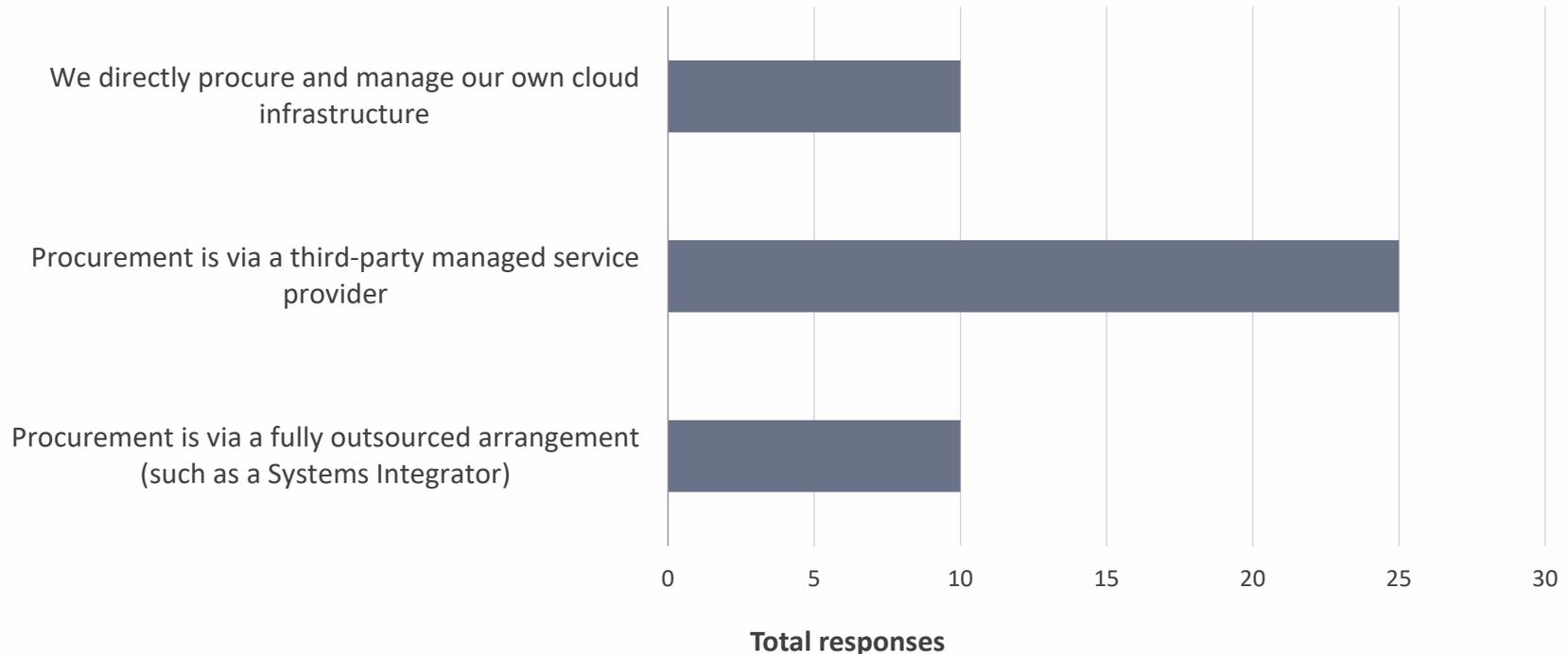


Ovum Insights:

Cloud is now a clear part of the government technology landscape. No agencies reported less than 20% of their workload in the cloud. Almost all were in the 20%–60% range.



Procurement strategy for IaaS



Ovum Insights:

Third-party managed service providers are by far the most preferred procurement strategy. Government agencies are looking for assistance, but not someone to take over the process (eg through a fully outsourced arrangement)



Describe your cloud readiness (detailed responses)

We leave no stone unturned, providing our clients with a fully-informed view into existing infrastructures and processes, as well as potential opportunities and challenges. The assessments also provide a total cost of ownership (TCO) analysis for a new cloud platform with applications in scope

We first have deployed non-critical applications on cloud for real-time testing

We are at par with our competitors

We have studied a lot of use cases to try and eliminate the risks.

!! I'm sure about our cloud competencies.

!! We are ready for cloud adoption

Priority is agility and security

Timelines & Migration strategy

It is taken care of by a capable in-house team.

!! We have entrusted an external provider to facilitate the migration to cloud

I think we are still in the process of assessing the priorities and benefits.

!! Outsourcing vendor has done a fantastic job!

We have plans for evaluating our current efficiency of infrastructure to increase the cloud services.

!! I believe we are ready to accept and adopt the latest innovations on the cloud setup.

We are somewhat prepared.

Have assessed our options and then chosen the way forward.

We waited for the early adopters to release their success stories and then learned from their journey

I think we are ready

!! We identified good providers and are sticking by them and their decisions

Strategy is clear, to increase the efficiency of the system

!! Planned our cloud migration for a long time before making a move.

Data security is the prime concern

The external providers deal with this.

We are matured cloud users and at the forefront of cloud adoption

Complete readiness is a never ending process, we are always learning and adjusting accordingly.

We have a highly skilled internal IT team that is ensuring a smooth transition to cloud

!! All in readiness

We did thorough research and that helped us a lot.

Round the clock availability in affordable prices

Well thought step by step process

It is decided that we need to use a managed service provider

!! We are all prepared and ready to migrate to cloud.

Third party vendor is responsible to keep the organization ready for the cloud adoption

We spent a lot of time forming an internal team to take care of the cloud needs of the organization

We are assessing our priorities

It is clear that utilizing the services of a 3rd party provider is hassle free, so we are doing the same.

I think we are ready.

Complete migration in the coming years

Being a public company, cloud readiness is being taken care of by the contracted providers.

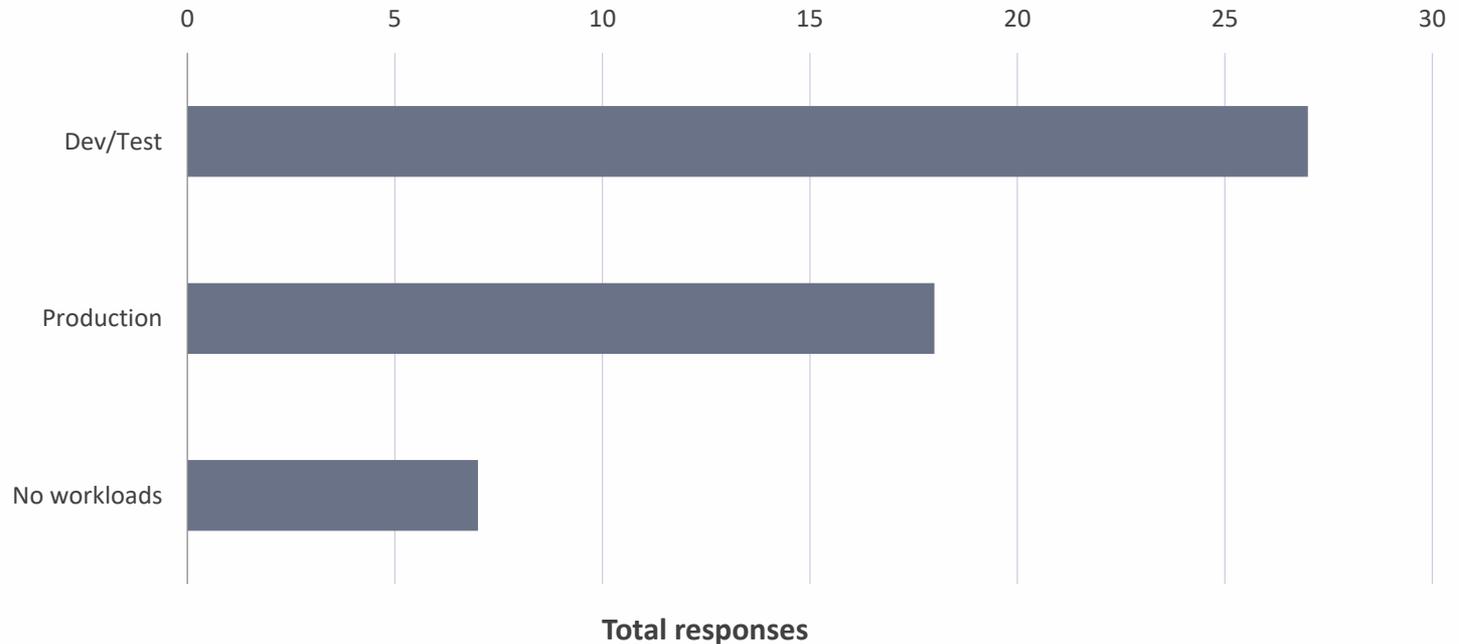
Looked at results of different MSPs before selecting our cloud supplier



Cloud workloads



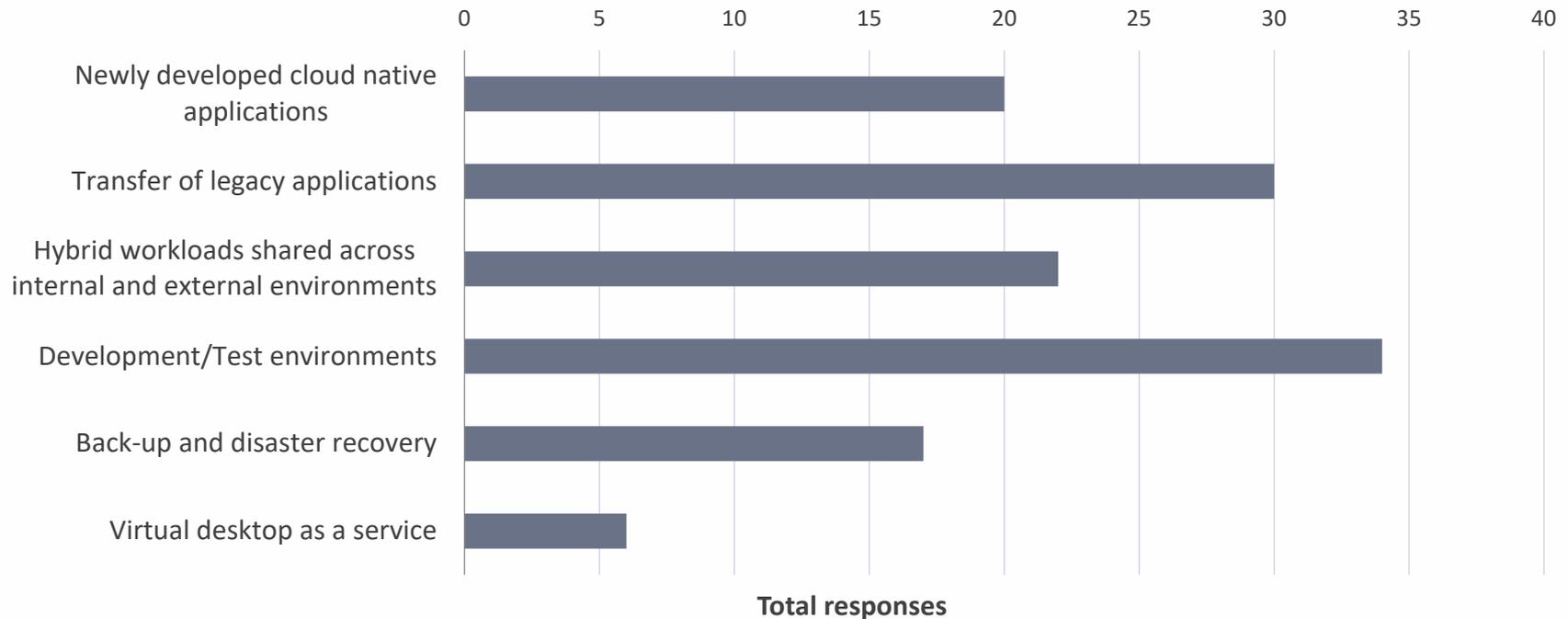
Use of containers in the next 12 months



Ovum Insights: There is solid interest in using containers, particularly for development/testing workloads



Workloads planned to be deployed in the next 12 months on Infrastructure as a Service



Ovum Insights:

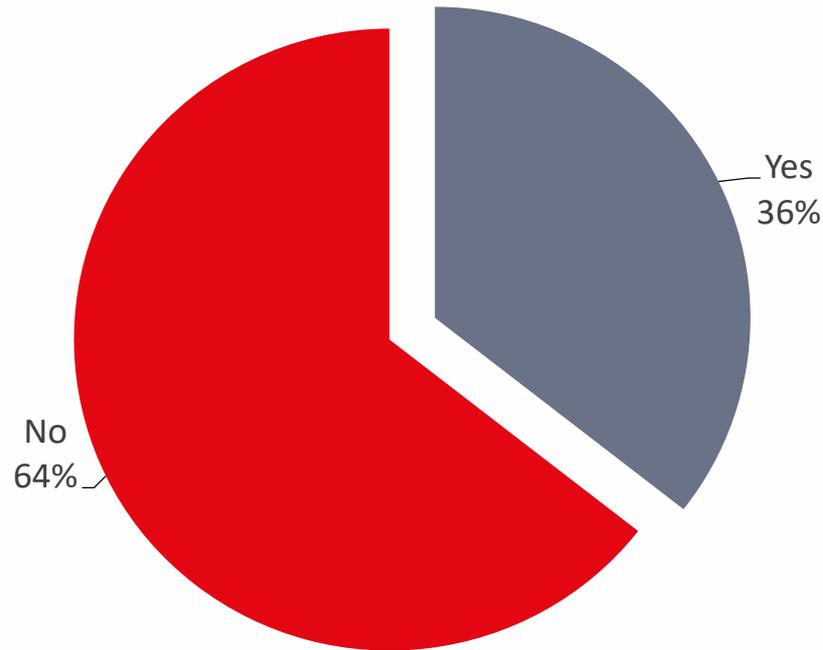
Development and testing have been attractive workloads for cloud for some years, so the high level of interest in the survey is no surprise. It is also noteworthy to see the strong interest in transferring legacy systems to the cloud, as well as hybrid workloads and newly developed cloud-native workloads. Collectively, these demonstrate the broadening awareness of mainstream cloud opportunities.



Cloud security



Impact of ASD Certified Cloud Services List (CCSL) in influencing choice of vendor



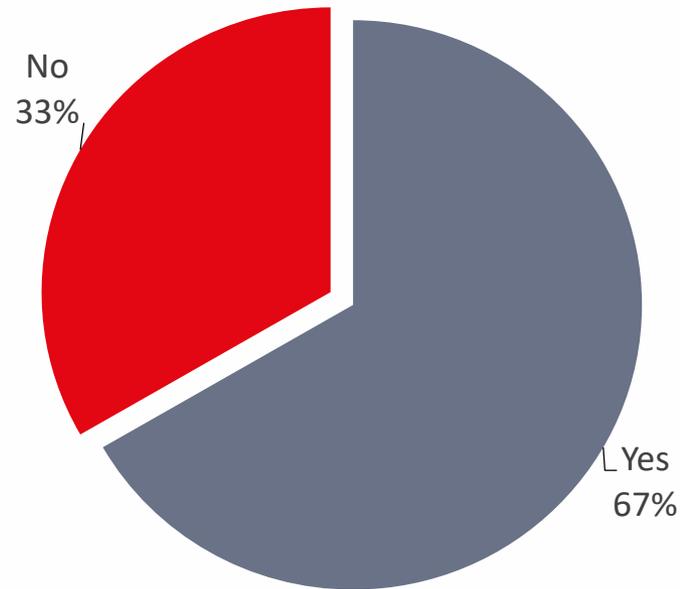
Ovum Insights:

The survey revealed some mixed messages regarding cloud security.

Security is clearly a top-of-mind issue, but the CCSL is currently seen as a slow process that has trouble keeping up with developments in the fast-changing cloud market. Recent announcements in the Federal Government Cloud Strategy will go a long way toward dealing with this issue.



Requirement for PROTECTED (or higher classification) workloads in the cloud today

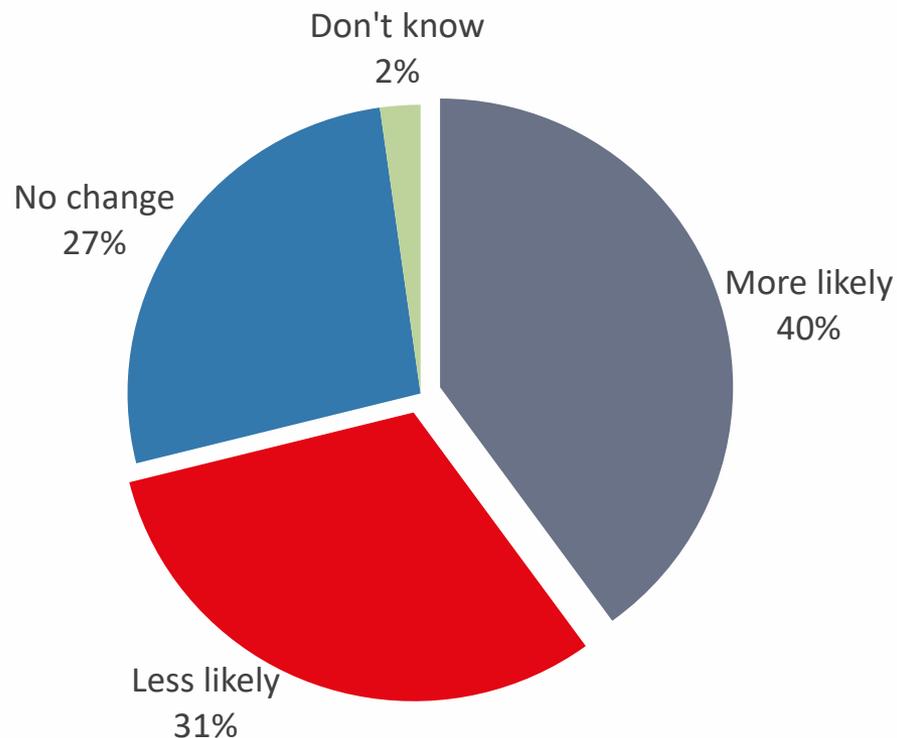


Ovum Insights:

The response to this question is a little surprising, since it is clear that 67% of government agencies do not currently run their existing internal workloads at a Protected security classification. This response does say quite a lot about the “halo effect”, where agencies may be looking for extra security headroom as a buffer to address possible future needs. It may also reflect Protected classification as an emerging “gold standard” for government workloads in the cloud.



Likelihood of moving PROTECTED workloads into the cloud, compared to 12 months ago



Ovum Insights:

This survey question reports a growing interest in moving existing workloads, with a Protected security classification, into the cloud. Cloud is increasingly being seen as a more secure and reliable platform than internally managed infrastructure.



Appendix



Appendix

Further reading

"The emergency services sector is facing a disruptive future," IT0007-000876 (March 2016)

"Digital transformation needs to be built on a strong foundation," IT0007-000869 (February 2016)

"It is time to bid farewell to transaction processing," IT0007-000868 (February 2016)

Delivering More Effective Digital Services, IT0007-000851 (December 2015)

Leading the Digital Enterprise, IT0007-000856 (December 2015)

Author

Kevin Noonan, Chief Analyst

kevin.noonan@ovum.com

Ovum Consulting

We hope that this analysis will help you make informed and imaginative business decisions. If you have further requirements, Ovum's consulting team may be able to help you. For more information about Ovum's consulting capabilities, please contact us directly at consulting@ovum.com.



Copyright notice and disclaimer

The contents of this product are protected by international copyright laws, database rights and other intellectual property rights. The owner of these rights is Informa Telecoms and Media Limited, our affiliates or other third party licensors. All product and company names and logos contained within or appearing on this product are the trademarks, service marks or trading names of their respective owners, including Informa Telecoms and Media Limited. This product may not be copied, reproduced, distributed or transmitted in any form or by any means without the prior permission of Informa Telecoms and Media Limited.

Whilst reasonable efforts have been made to ensure that the information and content of this product was correct as at the date of first publication, neither Informa Telecoms and Media Limited nor any person engaged or employed by Informa Telecoms and Media Limited accepts any liability for any errors, omissions or other inaccuracies. Readers should independently verify any facts and figures as no liability can be accepted in this regard - readers assume full responsibility and risk accordingly for their use of such information and content.

Any views and/or opinions expressed in this product by individual authors or contributors are their personal views and/or opinions and do not necessarily reflect the views and/or opinions of Informa Telecoms and Media Limited.

