



CLOUD ADJACENCY

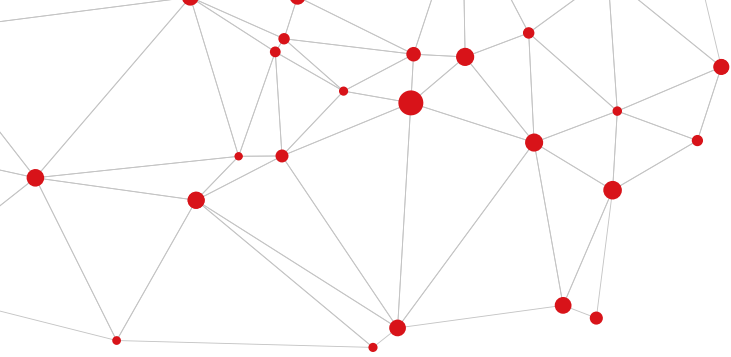
Managing the digital shifts in the payments sector

An industry discussion paper
September 2022



CONTENTS

Introduction: transitioning to the cloud with ease	3
Key expert insights	5-6
Leaders' views on skills, data and compliance	7
The current situation: what companies are experiencing with cloud adoption	8-9
What are the opportunities?	10-11
What's next: the future of the cloud and digital payments	13
Tips for a smoother transition to the cloud	14



A BRIGHT FUTURE AHEAD

Transitioning to the cloud with ease

We sat down with top industry experts to discuss the significance of transitioning to the cloud, how to do it successfully, and more importantly, what it means for the future of the payments industry. The rise of cloud computing and as-a-Service (aaS) offerings have fundamentally changed the way businesses operate by streamlining processes, removing barriers and increasing efficiency. So, what are the future opportunities for payment companies in this new digital world?

To cope with widespread and rapid change to the business landscape as a result of the COVID-19 pandemic, banking and financial services companies have had no choice but to significantly change the way they operate. With the rise of mobile payments, buy-now-pay-later schemes and real-time payments, the move away from large siloed systems to more agile infrastructure such as cloud computing to accommodate these newer solutions has been accelerated.

To respond to the ongoing evolution of customers' demands for integrated and personalised services while improving security and reliability, the banking and financial services sector is under pressure to modernise its legacy infrastructure. It is no longer merely something that should be on the agenda; it is something that must be high on the agenda and acted on. This is evident with the adoption of cloud services set to continue to grow.

A recent report by Gartner¹ found that worldwide end-user spending on public cloud services is projected to increase to US\$494.7 billion in 2022, up 20.4 percent from US\$410.9 billion in 2021. This is expected to increase even further in 2023, with end-user spending forecast to reach almost US\$600 billion.

Australia is leading the way with digital payments

In Australia, digital payments continue to rise. In recent years, Australian consumers and businesses have changed the way they make and receive payments, with less than a third of people today using cash. The popularity of buy-now-pay-later platforms has also changed the payments landscape, with over five million active accounts open in Australia.²


The rapid growth in digital payments involving new technologies has delivered unparalleled convenience to individuals and businesses and has paved the way for the future of the digital economy. However, new tech solutions also introduce new challenges, including data sovereignty, security and financial compliance risks that must be carefully managed. Moreover, transitioning from legacy systems to the cloud is also subject to compliance and security requirements that businesses must balance, especially in the payments sector.

In our industry discussions with Australia's payments sector, several experts came together to discuss the urgent need to prepare for cloud connectivity and how best to achieve digital transformation.

Sources:

1. <https://www.gartner.com/en/newsroom/press-releases/2022-04-19-gartner-forecasts-worldwide-public-cloud-end-user-spending-to-reach-nearly-500-billion-in-2022>

2. https://treasury.gov.au/sites/default/files/2021-12/p2021-231824_1.pdf



“The reality is everybody is realising the hybrid [cloud] model is the right model. There’s some stuff you want to keep in private, but you want to have the access to the cloud for the increased agility, and just being able to do things that you’ve never been able to do before. The key is getting the right balance – that’s the tricky part.”

– IT infrastructure professional

Key expert insights



Digital enablement has significantly advanced in recent years

The world has experienced significant and rapid change. Businesses now need to balance digital transformation with regulatory compliance, while still running a profitable business and staying ahead of the competition – and to do this as simply and easily as possible. That's a big ask, which is why there is a great need for value from digital investment. Today, it's not about investing in the future – investments need to be delivering a return from the outset.

Senior IT professionals who are familiar with both legacy and newer systems are gradually retiring, leading to a shortage of skilled workers. As a result, many businesses are unable to transition smoothly to cloud. This is a growing concern that has forced companies to think more strategically and creatively about IT project implementation, and rather than resource internally, look to external specialists with the right skills, capabilities and expertise to enable a smoother, successful digital transformation.



Businesses are hindered by a skills shortage and this is set to worsen



The line between what is mandated and what is best practice is blurred

The complexity of security is only increasing, and the difference between obligations that are mandated and mere guidelines is not as clear. For example, Australia's ePayments Code was revised in June 2022 to incorporate current areas of concern such as compliance monitoring and data collection, but currently adherence is voluntary. There are many examples like this that make it harder to differentiate obligations that must be met, and best practices that are advisable but aren't required by law.

The foundational components of any technology system must be robust, thorough and under constant review. This helps reduce the need for 'triage' in relation to threats like the disclosure of customers' personal information, systems attacks like DDoS, cybercrime and fraud – and the consequences thereof, such as reputational damage and loss of business, and fines. Companies that have applied proactive risk management have been better placed to deliver a fast, effective response to any security incident.

Sound enterprise-wide security begins at the business core



Cloud adjacency enhances strategic long-term business agility



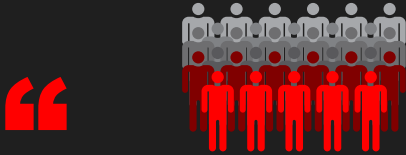
Most enterprises cannot do everything in the cloud, as the majority have some legacy, compliance or regulation systems. The solution? Cloud adjacency. Cloud adjacency enables the necessary security while still being customisable. Users can make different choices within a very short time frame to alternate between a hardware system and cloud-based systems with greater control; put simply, an adjacent system provides a secure bridging platform.

“The rapid growth in digital payments involving new technologies has delivered unparalleled convenience and paved the way for the future of the digital economy. However, new tech solutions introduce new challenges, including data sovereignty, security and financial compliance risks that must be carefully managed.”

– Payments specialist

Leaders' views on...

Skills shortages



What Australia's realising now is whilst we can import labour and import expertise, we cannot import local system knowledge. We cannot import local environment knowledge.

– IT professional

Regulatory compliance

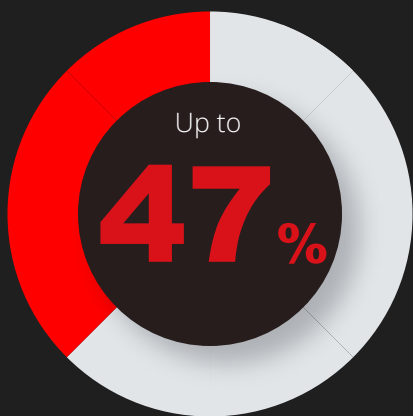
The business landscape is evolving – with new technology, new opportunities and new risks – and in response, regulatory bodies are modifying and putting in place new rules. Businesses must stay abreast of and comply with these.



Transitioning from legacy systems

Many industry experts agree that it's common for companies to have trouble transitioning legacy infrastructure to modern systems.

Data security



of Australian companies experience a security breach or failed audit in cloud environments*



8 in 10

Asia-Pacific firms are concerned about security as more employees leverage cloud for remote access*

The cloud opportunity



All businesses are going to a hybrid cloud, and payments is no different. In terms of infrastructure diversity, a hybrid cloud is offering different ways to enable more security.

– Payments specialist

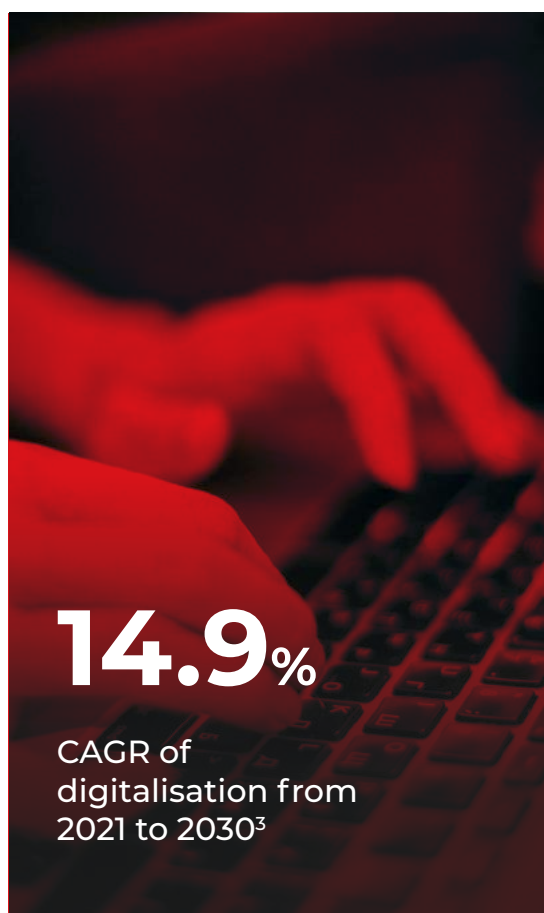


Source:
* 2022 Thales Data Threat Report

THE CURRENT SITUATION

What companies are experiencing with cloud adoption

Moving away from traditional and monolithic legacy systems has always been challenging, but organisations must bite the bullet and proceed to build a solid and modern foundation so they can then take the transformative leap to capitalise on cloud technology in the future. Here are some insights from leaders about their digital transformation journey to date.



Industries worldwide have undergone a sustained period of accelerated digitalisation in recent years. Although reports suggest that the pace has started to slow, the rate of digitalisation is still set to grow at a CAGR of 14.9 percent from 2021 to 2030,³ which is still high. According to the *Equinix Global Interconnection Index Vol. 5* report, this uptick in digitalisation has in turn prompted growth in worldwide interconnection bandwidth, at a projected CAGR of 44 percent by 2024.

While it is widely recognised that cloud infrastructure does indeed provide many benefits, it is also true that many companies have trouble transitioning legacy infrastructure to modern systems, confirmed by the industry experts we spoke to. The three main concerns that leaders voiced when transitioning to the cloud are: high costs, skills shortages and security issues.

Changing core infrastructure is costly

Changing underlying infrastructure that has been in place for years and years is not an easy thing to do. It can be very costly, as can the move to the cloud and the perceived risk associated. As one systems integration expert explained, “Moving to the cloud first and then modernising is going to cost you so much more. You might bring the cost down through modernisation over a period of years but the very act of going to the cloud is not going to be necessarily a silver bullet.”

A payments professional agreed, noting, “Cloud doesn’t always necessarily mean cheaper.” He then pointed out: “But at least with the cloud, [your system] is at least always up to date and typically the most recent version of the hardware.” In other words, every business leader must weigh whether the high costs involved in the transition to cloud are worth the benefits – and this will depend vary depending on your company and business context.

A skills shortage is worrying leaders

According to the industry experts we spoke to, one of the biggest obstacles standing in the way of enterprises transitioning to the cloud is the increasing shortage of skilled workers who are familiar with both legacy systems and newer cloud-based systems.

Source:

3. <https://www.globenewswire.com/news-release/2022/02/09/2381880/0/en/Digital-Transformation-Market-Size-to-Hit-US-1-692-4-Bn-by-2030.html>



“The challenge in banking is that there’s so much legacy in all banking environments. You’ve got banking platforms that are 30 years old that just don’t work nicely. So, it’s absolutely an opportunity, but it also brings a lot of challenges.”

– Payments professional in the banking sector

“Most of the senior people are retiring, and that’s creating a real gap. The primary thing is we’ve started this journey exporting our IT skills instead of developing them in-house. And I think what Australia’s realising now is whilst we can import labour and import expertise, we cannot import local system knowledge. We cannot import local environment knowledge,” said one IT professional.

Security continues to worry companies

Security is another key concern that is holding many companies back from transitioning to a cloud-based infrastructure. According to the 2022 *Thales Data Threat Report*, as many as 47 percent of Australian companies experience a security breach or failed audit in cloud environments. Moreover, eight in 10 companies in the Asia-Pacific region have also expressed concern about remote security, as more and more workers are now relying on the cloud for remote access.

While industries like the banking and finance sector may have taken large strides towards embracing digital transformation, there may be resistance on the ground when it comes to fully shifting systems to the cloud. As one cloud security expert noted, some banking professionals may believe “the banking system will continue to be rooted in trust in hardware, and will probably never revert to a software-only delivered core system [due to] the risks associated with taking the core banking system outside of proprietary hardware”.

The real question is: how can businesses transition to the cloud in a way that retains control and leaves the door open for future needs?

EVERY CLOUD HAS A SILVER LINING

What are the opportunities?

New technologies offer a world of opportunity and growth for businesses across the entire financial services ecosystem – from start-ups to fast-growth companies and more established enterprises. While there are risks involved with adopting any new technology, there are just as many advantages, said our industry experts.



It has become difficult to ignore the many benefits that the cloud brings to businesses, like increased accessibility and optimised workflows especially in today's hybrid workforce environment. And even with cost concerns, migrating to the cloud has been shown to unlock significant business value – projected at over US\$1 trillion if executed correctly.⁴

For the payments sector, given ongoing rapid advancements in technology and with consumer behaviour currently changing at an astounding pace, cloud could give businesses a competitive edge by enabling flexibility in infrastructure, reducing costs, and increasing data security.

Enabling infrastructure flexibility

The cloud gives organisations greater infrastructure flexibility, allowing them to reconfigure and restructure operations to meet changing demands easily. More specifically, cloud adjacency gives businesses the flexibility to make different choices within a very short time frame, to alternate between a hardware system and cloud-based systems with greater control.

As one payments expert in the banking sector put it: "Things like core banking platforms and payment systems typically aren't quick to move or easy to deal with. Being able to be there in the market, with the right capability, at the right time is absolutely critical, and moving to the cloud for certain capabilities definitely enables us to leverage partnerships quickly through cloud providers or through companies that are agile."

Reducing overall costs

By moving from a legacy system to the cloud, there's also the opportunity to reduce the financial and time costs of using outdated software and systems. These generally become more difficult to maintain over time, so the sooner they're addressed, the better. In a recent survey, 52 percent of respondents indicated that 'retiring IT applications' helps reduce these costs.⁵

"What we're finding is a sharp increase in cost to maintain this kind of old data centre world. It achieves some things – low attack surface, very low visibility. And data sovereignty is not an issue, particularly for our overseas acquirers, as we know exactly where the data is. But it's starting to come at a cost. It's almost unsustainable, so we must do something now," said one IT infrastructure expert.

Sources:

4. <https://www.mckinsey.com/industries/technology-media-and-telecommunications/our-insights/cloud-migration-opportunity-business-value-grows-but-missteps-abound>

5. <https://www.leanix.net/en/company/press/survey-top-it-initiatives-for-2022>

Increased data security

On the one hand, with the seemingly disparate nature of cloud infrastructure, many business leaders are concerned about data security and sovereignty, and compliance. This is not unwarranted given the current business landscape.

However, the good news is that data is arguably even more secure with hybrid cloud applications and infrastructure compared to purely on-premises solutions.⁶ Under the cloud shared responsibility model, which is the approach typically used in the market today, the organisation is responsible for the security of their data, while the cloud provider is responsible for the security of the cloud infrastructure. This collaborative approach can be very effective in addressing security weaknesses.

Furthermore, the flexibility of the cloud can benefit banks when it comes to cross-border regulatory compliance requirements – something that on-premises infrastructures may struggle to achieve.⁷

“All businesses are going to a hybrid cloud, and payments is no different,” said one payments specialist. “In terms of infrastructure diversity, a hybrid cloud is offering different ways to enable more security.”

“Newly architected systems are bringing efficiency, security, speed and cost savings to financial services customers and their companies, and this is spilling over to their customers as well.”

– Payments specialist



Sources:

6. <https://www2.deloitte.com/global/en/pages/financial-services/articles/bank-2030-financial-services-cloud.html>

7. *Ibid.*

“The future of banking and payments is instant, open and everywhere.”

– Payments specialist





WHAT'S NEXT

The future of the cloud and digital payments

Although cloud adoption can present challenges to companies, the opportunities and advantages of cloud adjacency far outweigh the risks and can accelerate the growth of Australian businesses in the digital payments space.

As we have already established, digitalisation and cloud technology have changed the way businesses and financial institutions operate, and the need to find the most suitable balance between legacy and cloud systems has become a matter of urgency.

In Australia, there has been some resistance in cloud adoption in the payments sector due to data sovereignty and security concerns. However, with the growing progress that cloud infrastructure has made in terms of security and regulatory compliance, as well as the long-term cost benefits of migration, businesses in this industry need to start taking a closer look at how they can best optimise and manage their systems.

This can be initiated by having a broad overview of how cloud infrastructure can change their operations and identifying the type of capabilities that can be gained. Companies that take the cloud adjacent approach enjoy greater flexibility and can adjust their systems within a very short time frame. On top of that, even with recent technological advances, it's still not easy to move wholly from one cloud system to another. Cloud adjacency provides a secure bridging platform, while allowing the business to maintain and retain control.

To help you start your digital transformation journey off on the right foot, here are some tips to modernising your systems with the cloud.

Tips for a smoother transition to the cloud

Whether it's optimising processes, maintaining data privacy or improving regulatory compliance, having a strategic approach and the right IT partner can simplify the process and deliver the desired outcomes while maintaining the highest security standards.

1 Identify and understand your business use case to develop an effective roadmap for the future

Review your resources and current context to determine how the cloud can benefit your business and the economics behind implementing it. While a cloud platform can provide tangible benefits, having a system that cannot fully utilise or leverage its capabilities may result in even more technical debt being incurred. To achieve the best possible outcomes, you need to thoroughly understand where the gaps are – then devise a cost-effective way to fill these.

2 Embrace new technology – but remember not to throw the baby out with the bathwater

A cloud-first strategy – whether that involves public, private or hybrid cloud – can help your business attain the flexibility and accessibility it needs to survive and thrive in today's fast-changing world. If you commit to such a strategy, the company needs to embrace the process of transformation. However, make sure you do so intelligently. Weigh the pros and cons at every step, and where necessary, consider transitioning more gradually, in phases.

3 Stay abreast of the latest developments in security and regulation to ensure your systems are up to date

Data security and regulatory compliance are crucial to the payments sector. When transitioning to the cloud, check for loopholes to reduce the risk of data loss. You also need to put the appropriate cloud governance frameworks in place and maintain continuous compliance. This may require specific skills or expertise, so you may need an external partner. Under the cloud shared responsibility model, you and your partners can collaborate to address security gaps.

4 Address the skills shortage and overcome barriers by engaging partners with the right capabilities

We've found there is a false economy of investing in systems and people that aren't optimised, and may not be reliable over the long term. Consider the integrity and ethos of your partners. Businesses also need to review capabilities required in-house, versus cloud adjacent and tech skills available on demand from the market. Partnering with external experts to leverage specific skills and capabilities to solve problems could be more cost-effective in the long run.



About A24 Australia

A24 is a global business partner of Equinix and Thales with over 15 years of Cloud Adjacency expertise across continents that uses its engineering skills and capabilities to solve customer networking, data centres, banking, payments and financial services digital transformations in the rapidly growing hybrid cloud space that customers need to meet their compliance, regulatory and commercial goals in an ever competitive world.



About Equinix

Equinix is the world's digital infrastructure company™. Digital leaders harness our trusted platform to bring together and interconnect the foundational infrastructure that powers their success.

[Equinix.com](https://equinix.com)




About Thales

Today's enterprises depend on the cloud, data and software in order to make decisive decisions. That's why the most respected brands and largest organisations in the world rely on Thales to help them protect and secure access to their most sensitive information and software wherever it is created, shared or stored. As the global leader in cloud and data protection, our solutions enable organisations to move to the cloud securely and achieve compliance with confidence. Thales Cloud Protection & Licensing is part of Thales Group.

Thalesgroup.com

Reach out to us to find out how you can transition your payments business to the cloud with confidence.

 +61 1300 172 944

 sales@a24.io