The State of IT Complexity in Asia Pacific and Japan

Ever increasing complexity is holding back digital transformation efforts and restricting cloud adoption. Reducing complexity and increasing security is high on the agenda for CIOs and businesses in Asia Pacific region and Japan.

FOREWORD

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Work is no longer a place. It's an increasingly dynamic activity that people expect to be as adaptable as they are.

How we work is changing, and favoring organizations that enable employees with flexibility and personalized tools to boost productivity, engagement, and creativity. The business advantage goes to those who can recruit, retain, and empower the best talent, with the preferred tools that make technology an enabler, not an inhibitor.

Yet, every major industry is also faced with constant change and looks to technology to smooth the path to work that is faster, more efficient and flexible.

Complexity has grown exponentially. More workloads are moving to the cloud and users require more Software-as-a-Service (SaaS) applications, maintaining and securing company data and IP is critical. At the same time, sources of data in organizations today are multiplying at an exponential rate with the proliferation of users, devices, content, apps, and networks. Meaning Organizations have more rich data available to them than ever before, but data is only as good as the insights it provides and the actions that can be taken as a result.

Work has also moved outside the office walls, and businesses need a new security framework that enables flexibility, productivity, and innovation.

The future has never looked more complex. IT leaders are being asked not only to deliver IT services, but also to improve business outcomes. Employees demand anytime, anywhere access to a wide range of apps and personal devices. The cloud is offering more choices than ever before, and this requires careful orchestration of hybrid and multi-cloud environments, to drive innovation and agility. As if that weren't enough, cyber-attacks are on the rise and continue to threaten companies around the globe. IT teams must protect apps, content, users and networks.

The State of IT Complexity in Asia Pacific and Japan study explores business working environments and specifically addresses the IT challenges, security and cloud readiness of businesses within the Asia Pacific region and Japan.

Research Methodology

Complexity comes from all corners of a business, exacerbated by the fact that many organizations have technology systems that are built up, added to, improved over time or inherited through acquisitions.
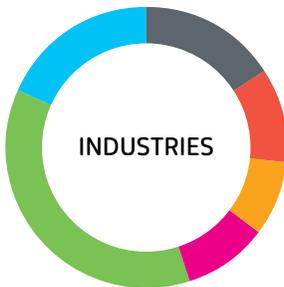
Complexity can also come from sources outside the control of an organization, through compliance reporting requirements and even transparency and access to information requested by customers and partners.

In preparing this study, Citrix commissioned The Glass Elevator to conduct a survey of 1,764 business and technology decision makers from various industries and government organizations in the Asia Pacific region and Japan.

The study aims to explore IT complexity challenges, digital transformation initiatives, security concerns and cloud readiness. Definitions and explanations were provided to ensure a common understanding of each response.

Responses to the survey were by invitation only. Respondents consisted of CXOs, directors, senior executives and IT managers who were required to understand their business and IT working environments.
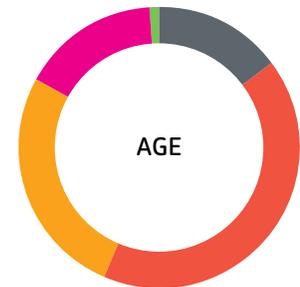
The survey was run between 23 July and 31 August 2018 across Australia, China, India, Indonesia, Japan, Korea, and Singapore. Responses were evenly split across each of the seven markets (14%-15%) and received a minimum response rate of 100 CXOs per market.
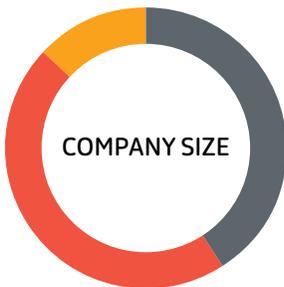

INDUSTRIES

- Banking/finance (13%)
- Healthcare (8%)
- Education (9%)
- IT services (30%)
- Government (7%)
- Retail (15%)

SENIORITY

- C-level (45%)
- direct report to C-level (55%)

AGE

- 18–29 (15%)
- 50-64 (16%)
- 30–39 (42%)
- 65 years and over (1%)
- 40–49 (27%)

COMPANY SIZE

- Medium: 50 – 249 employees (41%)
- Large: 250 – 5,000 employees (46%)
- Enterprise: >5,000 employees (13%)

AGE OF BUSINESS OPERATION
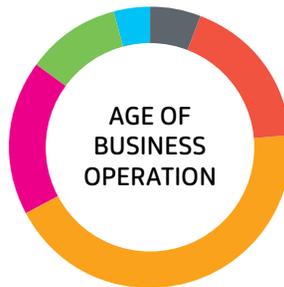
- Less than 5 years (6%)
- 30–49 years (18%)
- 5–9 years (18%)
- 50–100 years (11%)
- 10–29 years (44%)
- over 100 years (4%)

Introduction

Today's C-suite are faced with a complexity conundrum. The pursuit of agility, productivity and workforce mobility has added more systems, applications and services, but what has been removed? Almost nothing. Complexity continues to increase and organizations in Asia Pacific region and Japan are starting to feel weighed down, unable to deliver the digital transformation required of tomorrow's business.

A tangle of overlapping systems, applications, and new and old infrastructure costs time, money, and affects innovation - hindering an organization from identifying new business opportunities.

Although complexity is inevitable, as we live in a highly distributed world, understanding the complexity and seeking ways to simplify the management of this complexity to deliver on the promise of a positive end-user experience and secure management of organization data and IP is possible.

Research commissioned by Citrix into the state of organizational complexity and its impacts on business agility, digital transformation, security and cloud readiness, titled; The State of IT Complexity in Asia Pacific and Japan study, uncovers correlations between the increasing levels of complexity felt within organizations and their IT environments. It also highlights a reduced capacity for digital transformation, cloud adoption and ability to respond and prepare for new regulatory requirements and improved data security management.

The study also revealed the effect of complexity, delayed digital transformation and cautious cloud adoption and a link to lost productivity. These are some of the main concerns for businesses across the Asia Pacific region and Japan.

This report provides valuable insights and strategies to help businesses in Asia Pacific region and Japan take back control of their complex environments and deliver flexible, secure digital workspaces that can contribute to an increase in efficiency and unlock productivity for businesses and government organizations.

Constrained by Complexity

Complexity comes from all corners of a business, exacerbated by the fact that many organizations have technology systems that are built up, added to, improved over time or inherited through acquisitions. Complexity can also come from sources outside the control of an organization, through compliance reporting requirements and even transparency and access to information requested by customers and partners.

The pace of change, technological advancement and demands from workers to bring personal devices and applications into the workplace has increased the complexity felt by organizations at a rate never seen.

Today's organizations are feeling the impacts. More than half (53%) of organizations in the Asia Pacific region and Japan believe their IT environments are significantly more complex, or more complex than two years ago.

The sheer volume of applications that need to be maintained, delivered and secured also continues to climb, with one in three businesses in Asia Pacific region and Japan using over 100 business applications.

Windows, web and mobile applications are in high use across each country except for Japan. More apps – from more disparate sources, cloud, on-premise, SaaS and any combination – mean more complexity for IT management and worryingly adds complexity for the end user, hampering day-to-day tasks and impacting productivity.

The adoption of Software as a Service applications (45%) shows a willingness to adopt newer forms of technology and cloud-based programs. The adoption rates of Windows (81%), web (76%), mobile applications (69%), and Software as a Service (45%) follows the timeline by which each of these standards were introduced to market .

The research also uncovered troubling data, that end-users are showing signs of IT fatigue at best, and at worst intentionally bypassing IT systems and procedures to introduce personal applications, devices and processes into their everyday work life.

With an alarming 87 per cent of respondents admitting that they bypass IT policies and security, by using non-business approved applications to get work done. This highlights a growing dissatisfaction on the part of workers, struggling to meet the demand of businesses using tools that are no longer up to the task. Whilst IT departments are trying to keep pace with an increasingly distributed workforce.

Moving towards Digital Transformation

Digital transformation is well underway across the Asia Pacific region and Japan despite the fact businesses are struggling under the weight of complexity.

Almost all businesses surveyed (94%) are in some form of digital transformation. However, only 22 per cent of businesses consider themselves at a mature stage of digital transformation.

The main reasons for undergoing digital transformation are business centric, e.g. improving an organization's own processes rather than being driven by outside business factors. According to the findings, organizations in the Asia Pacific region and Japan are primarily seeking improved;

1. Productivity and cost savings
2. Compliance
3. Staff morale and business agility

Digital transformation is not finite, it's an ongoing evolution; and the top three barriers to digital transformation uncovered in the research are;

1. Lack of budget
2. Inflexible IT cultures and workflows
3. Legacy technology, lack of skills and compliance

A digital transformation strategy, designed to reduce complexity for the end-user and for IT management, will not only unlock potential productivity from the workforce, but also increase security and improve transparency. This assists with compliance and required reporting under various laws and regulations.

Organizations must consider a long-term view of digital transformation, ultimately to manage and reduce complexity, with a focus on delivering a secure, unified digital workspace for the end-user that is simple to use, and importantly centralised and simple to manage for IT.

Concerned about security

Security continues to be a key concern for organizations across the Asia Pacific region and Japan. Although this is not surprising, it is telling that security remains a top concern for organizations as they struggle to address distributed workforces and connected technologies.

The business reputational and financial impact of lax security has never been higher, with the introduction of more stringent privacy and data legislation such as the General Data Protection Regulation (GDPR) and related penalties.

With mandatory data breach legislation now enacted in many countries, three-quarters (73%) of Asia Pacific and Japan businesses are concerned about their ability to respond to requests regarding privacy policy and law . Complexity around data integration was listed as the biggest concern.

The timeliness of a response is of greater concern for Singapore and India, with 85 per cent of Singapore and 79 per cent of Indian businesses stating they are concerned about their ability to respond to a breach in time . Alarmingly, over a quarter of Japanese businesses (28%) were unaware if their business could or could not respond to requests.

As businesses seek agility and competitive advantage through the adoption of cloud technology and implementation of digital transformation initiatives they must also address the very real possibility of data threats and breaches that this opens up.

Knowing where, how and who has access to company data, applications and systems across an expanding array of devices and networks, is only becoming harder. Organizations must consider a people-centric approach to security, with a holistic view of the infrastructure, regardless of where applications, data and workloads reside.

If organizations cannot rid themselves of the complexity around data integration, storage and access; concerns over the ability to respond within the required timeframes will quickly change to real world fines, that in some cases could cripple an organizations ability to continue to operate.

Clouds on the horizon

Cloud readiness and cloud adoption are closely watched across the region and globally. Advances in technology and reduction in capital expenditure in favour for steady operational expenditure, unlocks vital capital for improving business innovation and processes. The advantages of cloud technology are well evidenced, however opposing concerns around data sovereignty, security and access control continue to be debated in boardrooms across the region.

The study revealed that 80 per cent of organizations across the Asia Pacific region and Japan are already adopting cloud technology in the form of SaaS solutions delivered by well-known brands like SalesForce, Office 365 and Workday.

A high percentage of organizations (80%) are already approaching the move to cloud strategically, and are currently using, developing or planning to develop bespoke cloud native applications.

Cloud native applications in use, planning or development

AUSTRALIA	CHINA	INDONESIA	INDIA	JAPAN	KOREA	SINGAPORE
83%	85%	90%	92%	50%	73%	86%
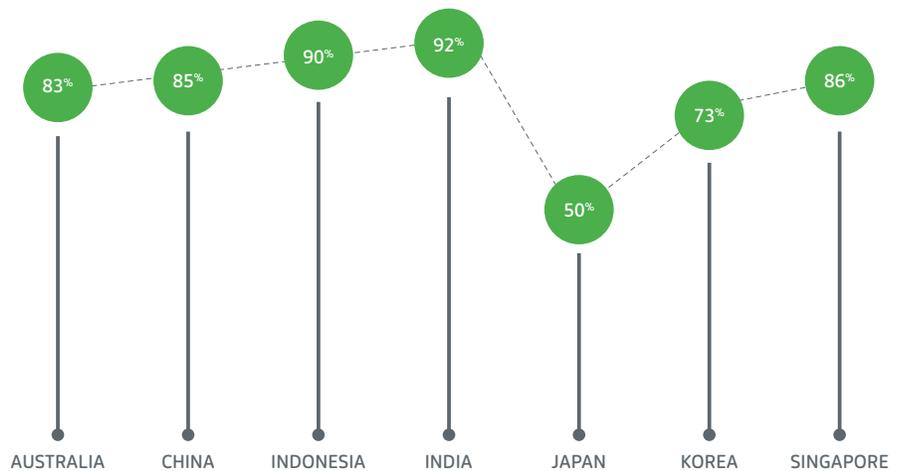
Japanese respondents indicated a lack of drive to develop or use cloud native application, with half (50%) stating no plans to use or develop cloud native applications. Looking only at the markets currently developing cloud native applications three leaders emerge; India (40%), Australia (36%) and Singapore (35%).

With cloud applications and the drive to develop bespoke cloud native applications well underway in the Asia Pacific region and Japan, a hybrid multi-cloud model appeared to be the favoured option. With the top five markets (Australia, China, Indonesia, India and Singapore) indicating an average 92 per cent among themselves, that they have fully adopted, are currently adopting or planning to adopt a hybrid cloud model in the next 12 months. Australia leads the way with 20 per cent of respondents having hybrid-multi cloud under consideration.

The two lowest rates of adoption across hybrid/multi-cloud are Japan and Korea, with over 40 per cent of Japanese respondents stating that hybrid/multi cloud will not be used or considered within their organisations at all.

In all these great statistics, there is one clear laggard; analytics. When asked if they felt that they or their organisation was missing out on the full benefits of analytics; 84 per cent said yes. Half the people who felt their analytics was lacking (39%), named concerns that the effectiveness of the analytics being run, was being hindered by the disperse nature of their data and applications.

Based on the above responses, the hybrid multi-cloud adoption trend will continue across the region for the next few years. And while this grows, organizations in the region need to take control early, and seek out a solution that allows for a unified, contextual and secure digital workspace that enables employees to realize the full benefits of hybrid and multi-cloud environments, while simplifying management, opening up clearer pathways for analytics with a holistic view and transparency into data sets and overcoming security challenges with a people-centric approach to security.

The real strategic value of cloud adoption is as a platform for building your own applications. This will really transform business processes, how organizations do things, new ways of working and new ways of delivering those apps – this is real digital transformation and should be considered part of a broader journey.
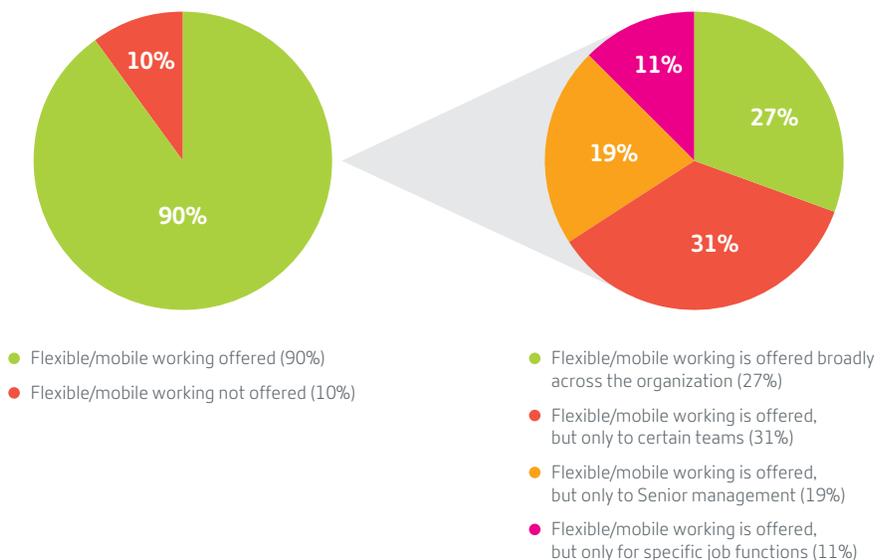
Flexibility Frustration

The benefits of flexible working are clear, and can help workers better balance their work and home lives. Happier workers are more likely to be productive and innovative. They are also likely to remain with their employer for longer, reducing recruitment and training costs and minimising disruption in the workplace.

Although flexible working environments continue to grow, with most businesses in Asia Pacific region and Japan offering flexible working options (90%). The study reveals that most countries restrict this offering to certain teams; creating flexibility frustration.

FLEXIBLE WORKING IN APJ

- Flexible/mobile working offered (90%)
- Flexible/mobile working not offered (10%)

- Flexible/mobile working is offered broadly across the organization (27%)
- Flexible/mobile working is offered, but only to certain teams (31%)
- Flexible/mobile working is offered, but only to Senior management (19%)
- Flexible/mobile working is offered, but only for specific job functions (11%)

As you can see with the graph above, although a generous 90 per cent of organisations surveyed offered flexible working, the real percentage of workers able to participate in flexible/mobile working was much lower, with a majority (61%) restricted leaving only 27 per cent were offered broadly within the organisation.

Senior leadership must take responsibility for changing the culture, policies and technologies to unleash the potential of flexible working within their organization. With today's technology, flexible working can easily be implemented. It is up to businesses and government organizations to seize the day, implement policies and encourage organization-wide culture change to embrace flexible working, and unlock potential productivity gains from a happy, mobile, secure, and enabled workforce.

Almost all (83%) of the Asia Pacific region and Japan respondents were in strong agreement that employee user experience is linked to productivity. Organizations need a secure digital workspace that integrates technologies, platforms, devices, and clouds, to secure and simplify IT management, while delivering employees personalized access to the relevant systems and tools they need, when and how they need them; ensuring excellent end user experience and promoting productivity.

Conclusion & recommendations

The State of IT Complexity in Asia Pacific and Japan study reveals how increased complexity is hindering organizations across Asia Pacific region and Japan to successfully digitally transform their business. A strategic move towards a unified platform that simplifies the end-user experience, while securing company data and IP, has never been more important.

Providing a secure digital workspace, a single pane of glass, through which a worker can access all the applications, data and system to get their work done – that can be easily deployed and managed by IT, isn't constrained by where the data and applications are hosted or even what operating system they require – can free up time, resources and eliminate frustration that has led to Shadow IT practices.

This futuristic state outlines the ideal flexible, secure, mobile and more importantly, simple work environment. However, this is not some distant future – the future is now, and is already being leveraged by some of the world's largest businesses to overcome the complexity they were facing, simplify work and enable their workforce to work securely and seamlessly from anywhere, on any device or network.

Strategies for combating complexity; managing ever-increasing lists of security threats, while enabling your workforce to work flexibly, are outlined below:

For CIOs:	For Organizations:
Focus resources on accelerating business outcomes. Simplifying an ever-increasing complex IT infrastructure will free up resources and help the IT department drive better business outcomes.	**Enable users to work from anywhere.** Employees expect to have access to whatever device or app they need, whether they're at the office or on the go. They also expect the same seamless experience, regardless of where they're working.
Design and deliver a simplified cloud strategy. Use a centralized cloud strategy as the foundation for governing the use of cloud services across the business and IT organization. The strategy should shift apps and data to the cloud to accelerate innovation and agility, while ensuring flexibility and control.	**Invest in innovation.** Cloud-based infrastructures can reduce cost and risk while unlocking potential productivity. It can also allow you to push the enterprise to reach new markets, implement new business models, and develop new products and services. Your cloud strategy must consider multi or hybrid cloud options — not lock you into infrastructures, clouds, endpoints, or data centers — and allow you to shift strategies as often as innovation demands.
Get serious about security. When your employees work anywhere on a multitude of devices, the old ways of securing data with firewalls and perimeters is not enough. Security must be smarter and center on the user. You need new solutions that think about security differently, focus on the user and provides people-centric security - such as a digital workspace with a secure digital perimeter.	**Be global.** Managing a dispersed workforce only adds to IT infrastructure complexity. Seek out a single unified platform that centrally manages users, devices, data, workloads, and networks, to optimally leverage global resources and comply with data governance restrictions.

Case study; Queensland Investment Corporation

Queensland Investment Corporation (QIC) in Australia required a system capable of both handling their rapid expansion into international markets, and provide their growing team with anytime, anywhere, access for their people.

Utilizing Citrix solutions and cloud services allowed QIC to adopt a complete solution without having to have any on premise hardware or data center requirements. This allowed QIC to consume the service without having to build or maintain it, giving them the flexibility to move quickly.

Citrix and long-term Australian IT services partner MOQdigital designed a cloud solution with virtual desktops in Microsoft Azure to help QIC achieve their goals of greater access, higher performance and flexibility to scale on demand.

The importance of these systems was emphasised by a nature disaster in Brisbane, in which a flood caused damage to QIC's traditional data centers. It became clear that if they didn't look to cloud, they would have business continuity issues moving forward and no system for disaster recovery. Since moving to a cloud service model, QIC has gained the opportunity to redeploy their services in another region around the world in minutes.

"Citrix does help you stay ahead of the unpredictable, there's no doubt about that. They've done that for a long time and when you look at what cloud has done, they've stepped it up to another level."

"Now we're able to run the Citrix workload in the cloud, so when we look at that business continuity and staying ahead of that unpredictability... Citrix provides that."

— Scott McPherson, Solutions Director MOQdigital

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