Application Experience (AX) for Asia Pacific Enterprises in Multi-cloud Environments

This research paper summarizes the challenges and expectations CIOs are experiencing when it comes to multi-cloud application experience (AX). It also shares preferences and considerations for migrating and managing applications in multi-cloud environments.

Kemp commissioned Forrester Consulting to conduct a custom research study on the state of application experience (AX) in Asia Pacific, in the advent of the multi-cloud environment.

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Application experience priorities for Asia Pacific CIOs in a multi-cloud environment

Multi-Cloud is the new deployment approach for IT resources and is the primary driver of IT spending. However, cloud management has been complicated by a disarray of public clouds, containers and data centre hosting locations, all leading to unintended complex strategies that can result in less-ideal application experience (AX) for users.

Given the pace of cloud deployment, companies not only have to manage the transition from on-premise infrastructure to cloud, they also need to consider the rise of a multi-cloud infrastructure ecosystem. The multi-cloud environment brings complexities to application delivery and application experience, meaning the adoption of load balancers or application delivery controllers (ADC) becomes even more important.

To explore this further, Kemp commissioned Forrester Consulting to conduct an online survey of 150 enterprise business and technology decision makers across five countries in Asia Pacific, namely Australia, India, Indonesia, Singapore, and Hong Kong. The results of the survey revealed new insights on the challenges, current approaches, and expectations CIO's have for multi-cloud AX.

Multi-cloud hosting is on the rise

Multi-cloud represents an increasing proportion of application hosting environments in the next three years.

Organisations are moving towards a multi-cloud hosting environment. Over 84% of CIOs in Asia Pacific believe multi-cloud will constitute up to 50% of their hosting environment in the next three years, up from an average of less than 30% today.

Given this shift towards multi-cloud, multi-vendor environments are increasing. Over 71% of CIOs surveyed confirm they manage four or more infrastructure providers in their technology infrastructure. Monitoring, managing and executing this is becoming an increasingly difficult challenge for organisations.

Using your best estimate, what percentage of your application hosting is managed in the "following environments"? (Multi-cloud)

How do you believe this will change in 3 years? (Multi-cloud)

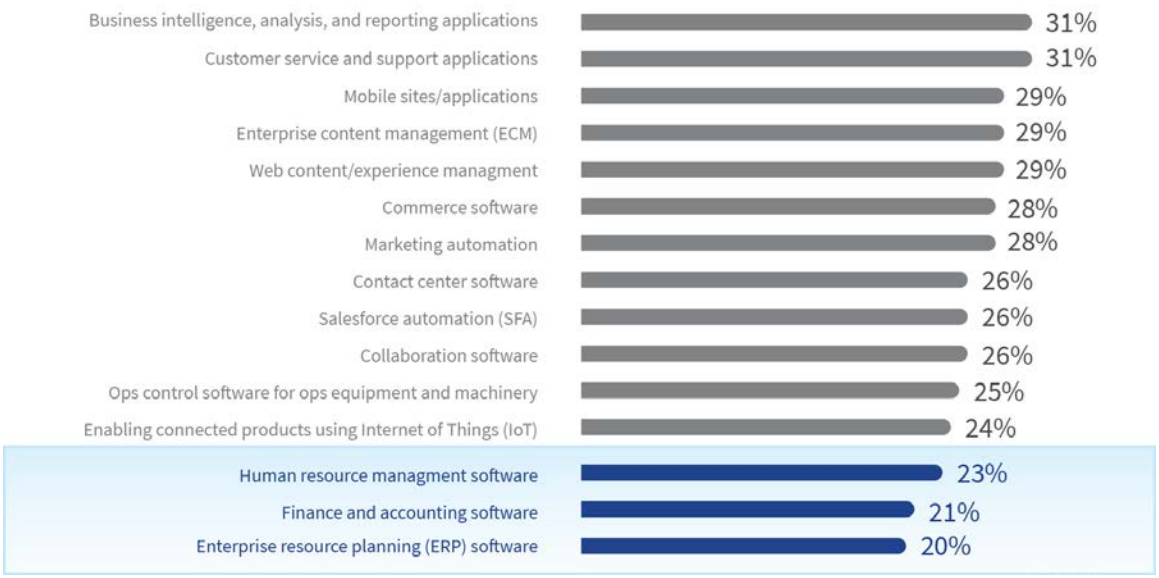
Source: A commissioned study conducted by Forrester Consulting on behalf of Kemp, May 2019
Base: 150 business and technology decision makers across 5 countries
Note: Percentages may not total 100 because of rounding.

Core Apps are making their way to the cloud

Core applications are gradually moving towards a cloud environment.

While the cloud migration of customer-facing and reporting applications has been widespread, many organizations are now considering the migration of core 'run the business' applications. For core applications, optimizing the hosting environment becomes even more important for businesses.

Which of the following types of applications are currently being developed using a cloud environment or have been delivered to a cloud environment in the past 12 months?



Source: Forrester Analytics Business Technographics Global Developer Survey, 2019
Base: 1,832 Developers who developed software for a cloud computing environment

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Multi-cloud shows positive impact on app experience

Multi-cloud migration considered to positively impact capabilities in application experience

In the survey, 67% of CIOs believe that multi-cloud migration has a positive impact bringing better capabilities in load balancing. Control and flexibility are key to multi-cloud application experience. Load balancing vendors must give enterprises a centralised, interconnected way of simplifying how they optimize, analyse and secure applications across various cloud environments. A variety of multi-cloud deployment options, as well as subscription and metered licensing of load balancing resources, can make this possible.

How is multi-cloud migration impacting your application delivery experience?

Source: A commissioned study conducted by Forrester Consulting on behalf of Kemp, May 2019
Base: 150 business and technology decision makers across 5 countries
Note: Percentages may not total 100 because of rounding.

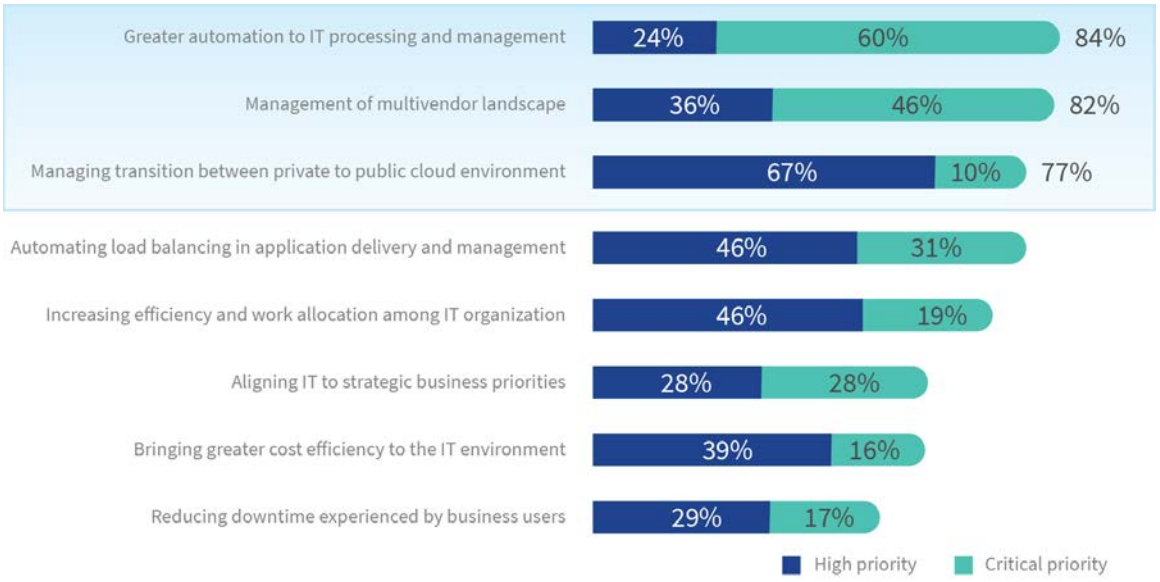
Priorities lie in automation and multi-vendor management

Multi-cloud management shape IT priorities and the importance of automation and multi-vendor management.

It may come as no surprise that automation is a priority for CIOs. Most of the respondents cited greater automation along with multi-vendor management as important IT priorities. Automation of IT processes is key to driving down costs and increasing IT efficiencies. While it is becoming the norm to always ask "can we automate that," there are challenges when there are a variety of vendors in the mix.

New multi-vendor application delivery analytics tools make it possible to manage multiple load balancing vendors such as F5, Kemp, Nginx, HAProxy, and AWS in one place. These tools help organisations turn multi-vendor load balancing analytics into a means to improve overall application experience and drive more streamlined IT efficiency.

To what extent are the following IT priorities important to your organization?



Source: A commissioned study conducted by Forrester Consulting on behalf of Kemp, May 2019
Base: 150 business and technology decision makers across 5 countries
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In the survey, 77% of respondents believe that managing the transition from private to public cloud environments is a high, if not a critical IT priority. Building a strategy to manage this transition is key to its success and ensuring you have the right vendors in place will help negate over-spend, and potentially over-complicating an already difficult task.

Need for more visibility and control

Improving app resilience and availability are the key drivers for multi-cloud deployments in the region.

Resilience and better control of application experience are key factors that drive organizations towards adopting multi-cloud. In the survey, 77% of respondents want to create application resilience and availability through multi-cloud platforms but face major challenges in building better integration and management of the multi-cloud environment.

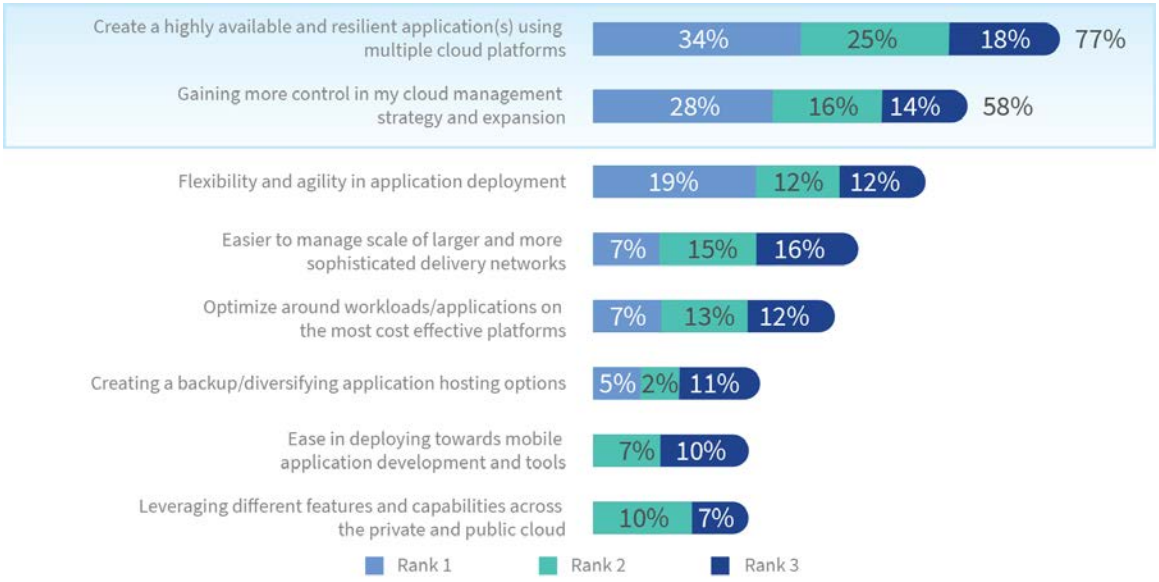
With over 54% of organisations depending on their load balancers to manage this complexity of hosting environments, it's becoming increasingly important for companies to understand what their current load balancing vendor can offer in these key areas.

Over one-third of companies surveyed are dissatisfied with their current load balancer vendor for two key reasons:

- 67% find a **lack of visibility and predictability** in load balancing across their IT environments
- 54% cited **lack of control** on multi-cloud platform management

In addition to this, 57% of CIOs surveyed need better core reporting capabilities across public and private cloud environments.

Which of the following are your biggest drivers in migrating towards a multi-cloud environment?



Source: A commissioned study conducted by Forrester Consulting on behalf of Kemp, May 2019
Base: 150 business and technology decision makers across 5 countries
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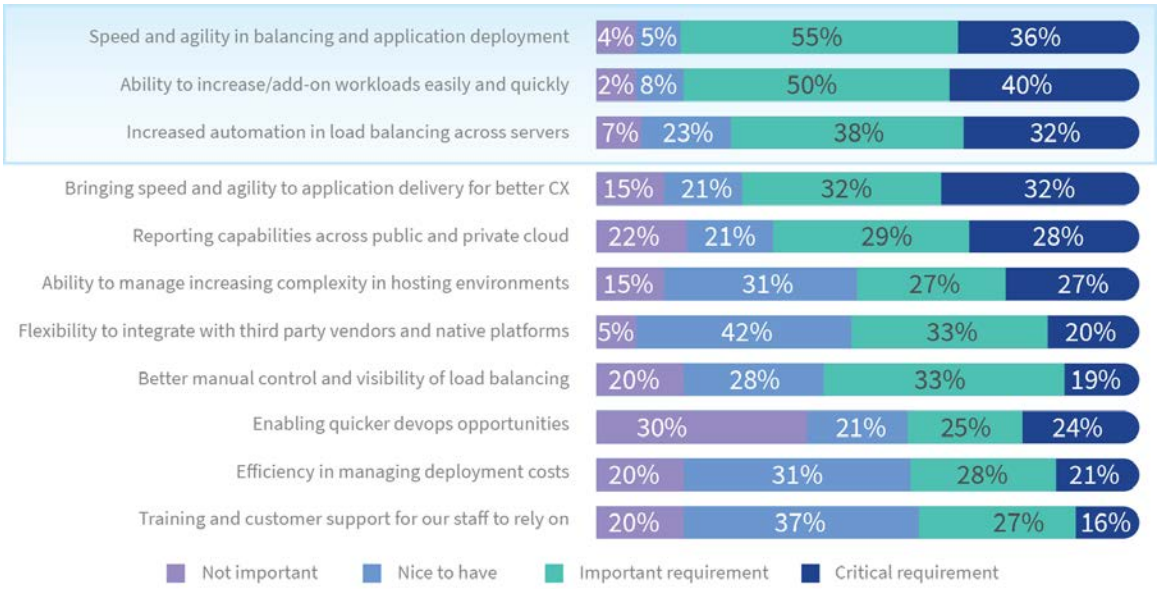
Speed and scale are the name of the game

Adapting to scale is critical for APAC businesses when selecting load balancing solutions.

Eight out of ten organisations surveyed are managing between 50 and 400 applications on a given load balancer instance. It is inferred that speed and agility in optimizing and securing an application deployment are top of mind when CIOs in Asia Pacific select a load balancing vendor.

How important are the following capabilities in choosing your application delivery controller (load balancing) vendor?



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Preference for flexible payment model

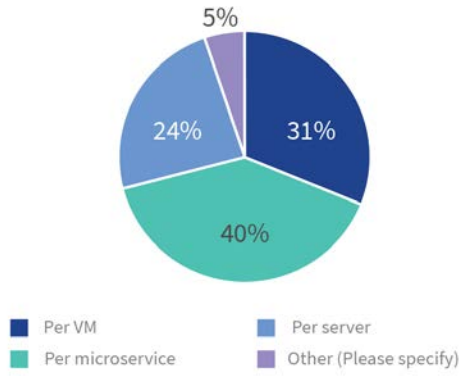
Pay-as-you-go & customized payment options preferred in a load balancer investment.

The survey indicates that 72% want a pay-per-use or subscription model however, this can be costly if not implemented correctly. Pay-per-use load balancing is emerging as flexible and elastic way for enterprises meeting variable application capacity demands and running multiple load balancers within cloud environments.

When looking at this option its always best to do some core calculations based on your specific requirements. Perpetual and subscription licensing options may be best for those who understand their long-term application requirements, while metered licensing can provide more short-term flexibility when workload requirements are uncertain.

The leading load balancing vendors offer cost calculators that can help make real-world calculations to help determine the right size to capably manage traffic demands.

Which of the following best describes your preference in the cost models for your load balancing vendor?



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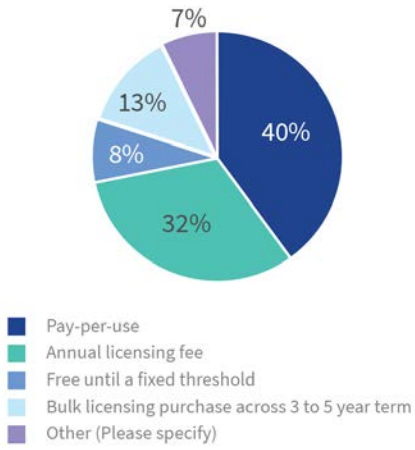

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Conclusion

Multi-cloud architecture can eliminate the dependency on any single cloud provider. However, significant AX challenges are being encountered when using two or more public clouds, in conjunction with private cloud infrastructure. As more critical applications move to the public cloud the ability to get visibility and control is critical to maintain resilience and availability and to ensure the highest standard application experience. The migration of applications into public cloud environments or across multiple clouds can enable better application experience, control and flexibility when paired with load balancing infrastructure. IT teams are predicting a more complex environment deploying applications in the cloud and are expressing a clear need to simplify deployment, get better management and control of those applications. Speed, agility, scalability, and automation are now the top requirements for these load balancers.

Deployment of load balancing on a per-application basis that matches exact requirements will become more common to achieve the speed and agility required today. Where load balancers were once configured and left to run for months or even years at a time, IT teams today are looking to automation to help build and deploy load balancers in desired states more frequently – ensuring applications can be scaled up and down, migrated to and from different clouds, and to address failover scenarios.

Enterprises need actionable insight to prevent application issues and to ensure an always-on, always-secure application experience. Context-relevant analytics and predictive analytics into applications could limit or eliminate downtime by detecting and resolving application issues before they occur. Ad-hoc troubleshooting can be time consuming. The end-user application experience for customers or employees can remain highly-available when increased insight and observability is supported by application and networking experts who understand the unique or varied circumstances around application issues. Centralized management can manage load balancing from multiple vendors, across multiple platforms including public cloud and local hypervisors.

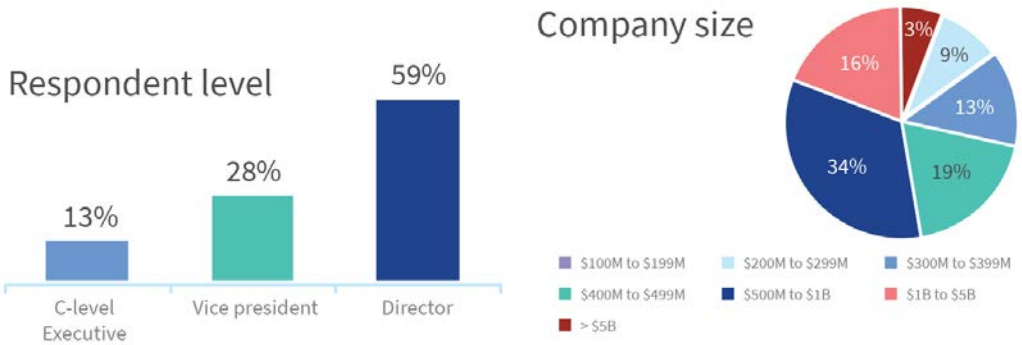
Sources

Source for Findings 1, and 3 – 7 is a study conducted by Forrester on behalf of Kemp, May 2019.
Base: 150 business and technology leaders in 5 countries. Companies of US$100M in revenue and above.
Note: Percentages may not total 100 because of rounding.

Source for Finding 2 is Forrester Analytics Business Technographics Global Developer Survey, 2019
Base: 1,832 Developers who developed software for a cloud computing environment.

Methodology

An online survey was conducted to gather direct feedback and responses from APAC-based organizations across 15 different industries. To reflect the expectations of technology decision makers, all respondents are VPs, Directors, or Managers of their respective application delivery networks within their organizations. The surveyed APAC companies have a revenue of US$100 million or higher.



The online survey received 150 responses from five countries in the Asia Pacific region – Australia, India, Indonesia, Singapore, and Hong Kong, with approximately equal number of respondents from each market. Industries include: Hospitality, Logistics, Telecommunications, Retail, Manufacturing, Technology services, Healthcare, Government, Financial Services, Energy, Electronics, Consumer Services, Consumer Goods, Professional Services, Advertising & Marketing.

About Kemp
Kemp powers always-on application experiences (AX) for enterprises and service providers. Leveraging an agile, per-app ADC/load balancing consumption model, predictive analytics, and automated issue resolution, Kemp is radically simplifying how customers optimize, analyse, and secure applications across private and multi-cloud environments. Kemp counts more than 25,000 customers and 60,000 application deployments in 115 countries. Take control of your application experience at kemp.ax.