

A Forrester Consulting  
Thought Leadership Paper  
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# Maintaining Momentum: Cloud Migration Learnings



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80% of respondents that have been using cloud for more than two years said they are continuing to migrate applications and workloads to the cloud over the next 12 months.

## Executive Summary

Digital growth and success requires business agility that is enabled by the cloud. Competitive organisations today: can respond rapidly to market conditions; are functionally well-integrated and collaborative in their approach; stay ahead of the curve by delivering new capabilities that will win, serve, and retain increasingly demanding customers. In short, business change, driven by technology adoption, is the new norm.

In February 2018, Rackspace commissioned Forrester Consulting to understand and share the lessons learned from migrating systems, applications, and workloads to the cloud. Forrester conducted an online survey with 326 business and IT respondents with knowledge, influence, or decision-making responsibility for their previous, current, or future cloud migration projects to explore this topic.

The study surfaced a key theme around the expectation versus reality of ongoing cloud migration. Envisioning, managing, and driving cloud adoption across an entire organisation is a complex undertaking. It requires collaboration from across the business to modernise and reshape operating models and establish IT as a key contributor to digital growth within the business. The study revealed:

### KEY FINDINGS

- › **Cloud migration is an ongoing consideration for businesses.** Almost three quarters of respondents are more than two years into their cloud journey. And despite a willingness to invest in cloud, to date, less than a third of these businesses say that cloud has been comprehensively embedded across their organisation. Migrating existing workloads into a cloud environment remains a “critical” or “high” priority consideration for the majority of organisations surveyed.
- › **Cloud complexities pre- and post-migration are hampering digital aspirations.** Transformation and migration projects that are initially successful are typically running into blockers or slowing down once the reality of challenges involved with running production workloads in the cloud becomes apparent. And although businesses were able to preemptively identify some challenges including skills gaps and the lack of alignment between business and IT, the scale and impact of these challenges were far more significant than our respondents predicted.
- › **Organisations are still under-estimating cloud migration costs.** Despite prior experience, business expectations are still not realistic about the costs for migrating to the cloud. Furthermore, the majority identify significant cost reduction as their main driver for migrating applications to cloud environments.
- › **Most organisations would engage external expertise to support their cloud migrations.** Two-fifths of the businesses surveyed are concerned that their cloud infrastructure is too difficult to manage. Ongoing cloud success requires a stable ecosystem of internal and external resources. More than half of organisations said they would hire experienced cloud experts to help prepare them for the business of ongoing change — minimising migration challenges and accelerating time-to-benefit.

# Expectation Versus Reality Of Cloud Migration

The large public cloud platforms are more than ten years old, and Forrester Data shows that over half of European enterprises now use public cloud platforms to run production workloads. Cloud is the engine of digital transformation and the key to ongoing business evolution and innovation: 86% business and IT leaders are willing and continuing the investment in cloud to contribute to their digital growth. We found 71% of respondents are now more than two years into their public cloud journey (see Figure 1) and 80% of these said they will continue to migrate more workloads and applications to the cloud over the next 12 months.



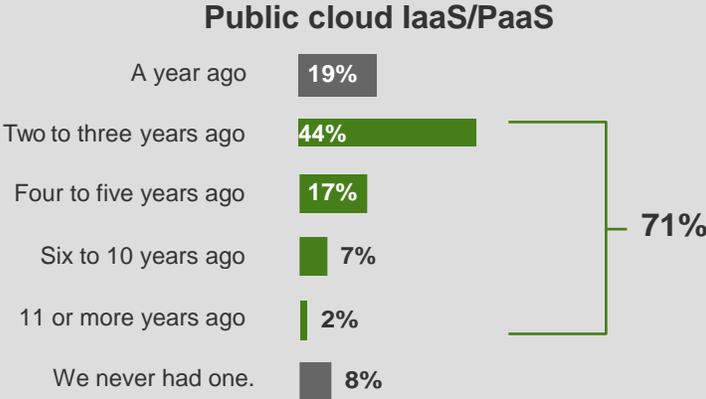
However, despite experience and some initial success, the survey revealed that the reality of running production workloads in the cloud is still not aligned to expectation in terms of cost and complexity (see Figure 2).

- › Higher costs than estimated (40%), particularly around application transformation.
- › Longer time-to-migrate applications or workloads to the cloud (37%).
- › More complexity involved in integrating, maintaining, and managing the cloud environment (27%).

Despite these realities, business and IT leaders are willing and continuing investment in cloud to contribute to their digital growth (86%).

**Figure 1**

“Thinking about each of the following cloud types you use, approximately how many years ago did you first launch production applications or workloads on them?” (Select one for each row)



Base: (N = 326) business decision makers/IT decision makers  
 Source: A commissioned study conducted by Forrester Consulting on behalf of Rackspace

**Figure 2**

The actual cost/time/complexity was higher than our estimate prior to migration:



Base: (N = 326) business decision makers/IT decision makers  
 Source: A commissioned study conducted by Forrester Consulting on behalf of Rackspace

# Challenges To Migration Momentum

Cloud is foundational to continuous business evolution that responds to emerging market conditions. Business and technology leaders need to work together to drive organisational value from cloud, reshaping operating models where necessary to capitalise on its characteristics.



But getting this right is by no means an easy task. Even though some challenges (such as inadequate or missing skills and the lack of alignment between business and IT) were recognised pre-migration, the scale and impact of these challenges was far more significant than expected.

The study revealed key learnings from IT leaders when migrating applications and workloads to the cloud (see Figure 3):

- › **Learning 1: Align business and IT early on.** To sustain digital change dependably over time, business and IT leaders must apply discipline to overcome siloed thinking, and drive a holistic perspective around cloud migration. However, 69% of survey respondents identified a lack of alignment between business and IT negatively impacting their migration. A lack of alignment can quickly result in decision makers taking their cloud migration efforts in multiple directions, slowing migration down. Only a few organisations (14%) identified this as a challenge before migration took place. Additionally, most found the impact was further compounded due to an inflexible corporate culture (71%) and poor change management (75%).



Figure 3

“What are the biggest challenges your organisation encountered before and during migrating your systems and applications to the cloud?”



Base: (N = 162) IT decision makers

Source: A commissioned study conducted by Forrester Consulting on behalf of Rackspace

Unfortunately, more than half (58%) of our survey respondents revealed that they don't even have a shared vision or strategy to build on. Organisations will struggle to shape or execute the business' broader digital vision, and cloud's place within it, if they cannot first align and cooperate on a strategy

› **Learning 2: Skills and training are critical to smooth migrations.**

An overwhelming 77% of organisations realised during and after a cloud migration that their user training was insufficient and were held back by a lack of relevant skills within the organisation (74%). Maintaining a strong focus on stakeholder enablement will help businesses decrease their time to value and embed new ways of working in the organisation more quickly.

Training staff, hiring cloud experts and maintaining ongoing cloud migration results in consuming financial resources, and organisations realise very quickly that funds get depleted very quickly. Additionally, costs cover hardware, software, licenses, maintenance contracts, spare parts, network bandwidth, labor and even facilities. In fact, Forrester Data suggests the largest proportion of migration costs are due to people, not cloud services.

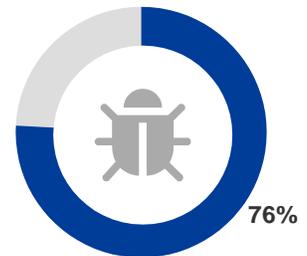
› **Learning 3: Security and privacy represent the largest pre-migration challenges.** When asking what concerned them in their current cloud infrastructure we heard how firms had heightened security fears. Seventy-six percent rank security and privacy as a top concern, while 21% identified security and privacy issues before migration as the top ranked challenge (see Figure 4).

69% of organisations realised they were out of depth and unable to maintain control during and after migration. With hacker stories are not far from the headlines, and GDPR raising customer awareness of how widely accessible their personal data may be, it's important for firms to understand the cloud security and privacy operating model. They must also remain compliant which adds to the complexity. Security becomes increasingly essential as mission-critical apps and workloads move to the cloud. While the use of cloud services has become more mainstream, decision makers are increasingly concerned about their cloud security. According to Forrester Data, 54% of security technology decision makers are very concerned about their public cloud security.

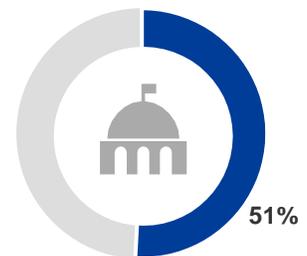
**Figure 4**

**Top concerns with current cloud infrastructure:**

Security and privacy concerns regarding application/data protection



Meeting specific compliance requirements



Base: (N = 326) business decision makers/IT decision makers  
Source: A commissioned study conducted by Forrester Consulting on behalf of Rackspace

# Optimising Migration With Partners

In order to keep up with the pace and change of technology adoption, the way organisations manage migration activities is key. Business and IT decision makers told us why they are migrating their applications to a cloud-computing infrastructure (see Figure 5). They recognise the opportunity to manage cost (50%), and value the ability to easily scale workloads (45%) and understand the benefits of managed services from cloud providers (42%). But, perhaps more importantly, 72% also stressed the importance of improving the company's ability to innovate, and 78% highlighted improving the experience of their customers. These priorities are intimately linked to successful, scalable, and sustainable investments in moving applications to the cloud and running them there.

However, widespread eagerness to move to the cloud masks the ongoing difficulty that organisations face getting there and then operating effectively in an unfamiliar environment. Respondents continue to struggle with cloud solution selection, governance capabilities, and the challenge of aligning their existing management processes with cloud operating models.

Forty-one percent of organisations said their cloud infrastructure is too complex to manage (see Figure 6) and IT leaders should leverage outside help. In fact, 77% of respondents agree or completely agree that they rely upon service partners to help them run workloads in the cloud. 78% also recognise the role of service partners in helping them build operating models that enable their cloud strategy.

Cloud service partners can help organisations meet their goals to minimise cloud migration challenges and accelerate the realisation of benefits. Fifty-one percent of organisations learned lessons during earlier migrations and hope to hire experienced cloud experts next time, either into the company or as consultants and partners (see Figure 7).

Forty-one percent recognise the need to increase the assistance they get from advisory and consulting services. Why? Organisations are seeking support to (see Figure 8):

Figure 5

**“What were/are the key reasons driving your firm toward migrating existing applications to a cloud computing infrastructure?”**

Significant cost reduction (50%)



Ability to scale quickly and easily (45%)



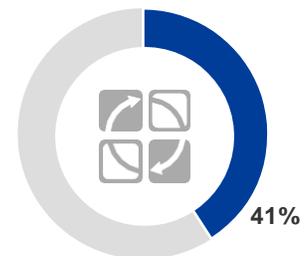
Benefits of managed services from cloud service provider (42%)



Base: (N = 326) business decision makers/IT decision makers  
Source: A commissioned study conducted by Forrester Consulting on behalf of Rackspace

Figure 6

**Our cloud infrastructure is too complex to manage.**

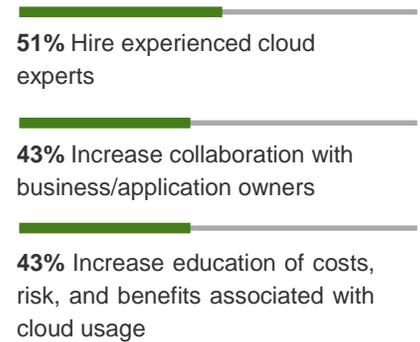


Base: (N = 326) business decision makers/IT decision makers  
Source: A commissioned study conducted by Forrester Consulting on behalf of Rackspace

- › **Overcome data issues.** Forty percent of survey respondents identified data issues as an area of concern. This is important as organisations become more data-driven, pooling insights from internal processes, customer interactions and third-party services to drive their business forward. New skills are required to securely manage data in the cloud, blend multiple sources of data and extract valuable business insight, while staying on the right side of lawmakers and increasingly savvy customers. Partners can help overcome data issues with the technical depth to handle integration complexity and compliance challenges.
- › **Guide vision and strategy for cloud migration.** Being able to manage multiple services and systems is a key requirement for organisation (31%). Firms need a clear vision and strategy that connects both business and IT and helps them work toward one common goal. In fact, lack of a strategic vision was an issue before, during, and after migration to the cloud for more than half of respondents (58%).
- › **Keep the plates spinning.** Cloud migrations are big, complex, multiheaded beasts. Seventy-five percent of respondents cited that a key challenge during and after cloud migration was inadequate change management processes. Many organisations have been on their cloud journey long enough to have migrated applications before, but even for them this is still relatively unfamiliar territory. It makes sense to recognise that some expert help should make the whole project flow more easily from an end-to-end perspective by helping manage multiple workloads in the cloud (34%) and offering communication (31%) and project management (30%) capabilities.

**Figure 7**

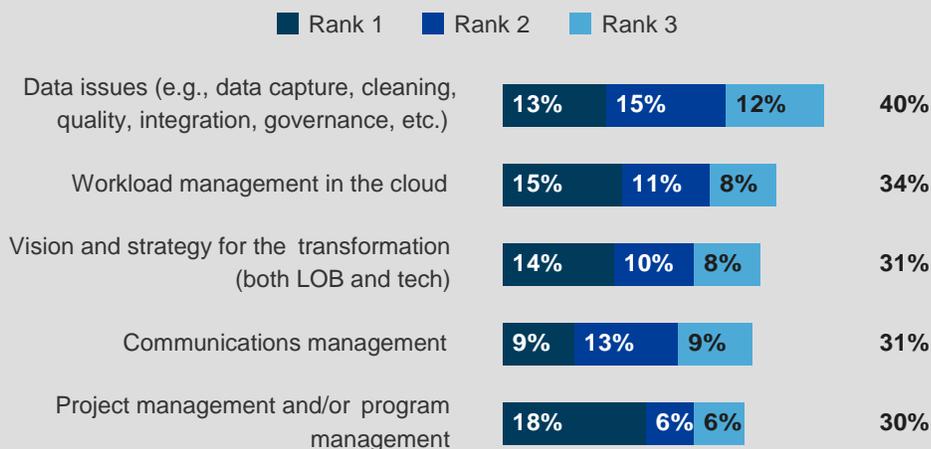
**“Which of the following actions did your firm prioritise for your cloud migration project?”**



Base: (N = 326) business decision makers/IT decision makers  
 Source: A commissioned study conducted by Forrester Consulting on behalf of Rackspace

**Figure 8**

**“Which of the following challenges does your organisation face when planning and executing its cloud journey?”**  
 (Rank your top three)



Base: (N = 326) business decision makers/IT decision makers  
 Source: A commissioned study conducted by Forrester Consulting on behalf of Rackspace

# Key Recommendations

Technology migration programs will only continue to grow in scale and complexity as business change becomes the new norm.

Technology and business leaders must therefore be laser focused on what they want to achieve from their cloud migrations to achieve greater agility, ultimately enabling their organisation to serve customers better. Forrester recommends the following:



**Review your operating model.** Businesses often struggle with new technology adoption when the migration vision and operating model are not aligned. Ongoing management activities, policies and standards need to be considered in parallel with desired migration outcomes to identify potential frictions and incompatibilities. Address these in advance to avoid costly and complex production issues — consider using consulting partners to create a target operating model that supports your cloud and technology adoption strategy.



**Develop a strong “people plan”.** Skilling up internal teams or bringing in outside expertise to support migration activities will dramatically reduce time-to-value. Ensure user training programs are integrated into the core migration strategy rather than a non-technical afterthought.



**Establish and maintain momentum.** Ultimately, organisations will improve their ability to adapt and meet customer expectations by maintaining migration momentum. Becoming comfortable with change can be a steep curve for some businesses so keep it small and frequent, rather than sporadic and monolithic. External partners can draw on experience to help you set a pace that works for your business and support timelined outcome delivery.



**Collaborate on strategy.** A cloud strategy should be short and concise. It should highlight the broader organisation’s cloud priorities and guide its overall action — but this should be revisited and updated frequently by both commercial and technology leaders to maintain a unified approach and stay on course.

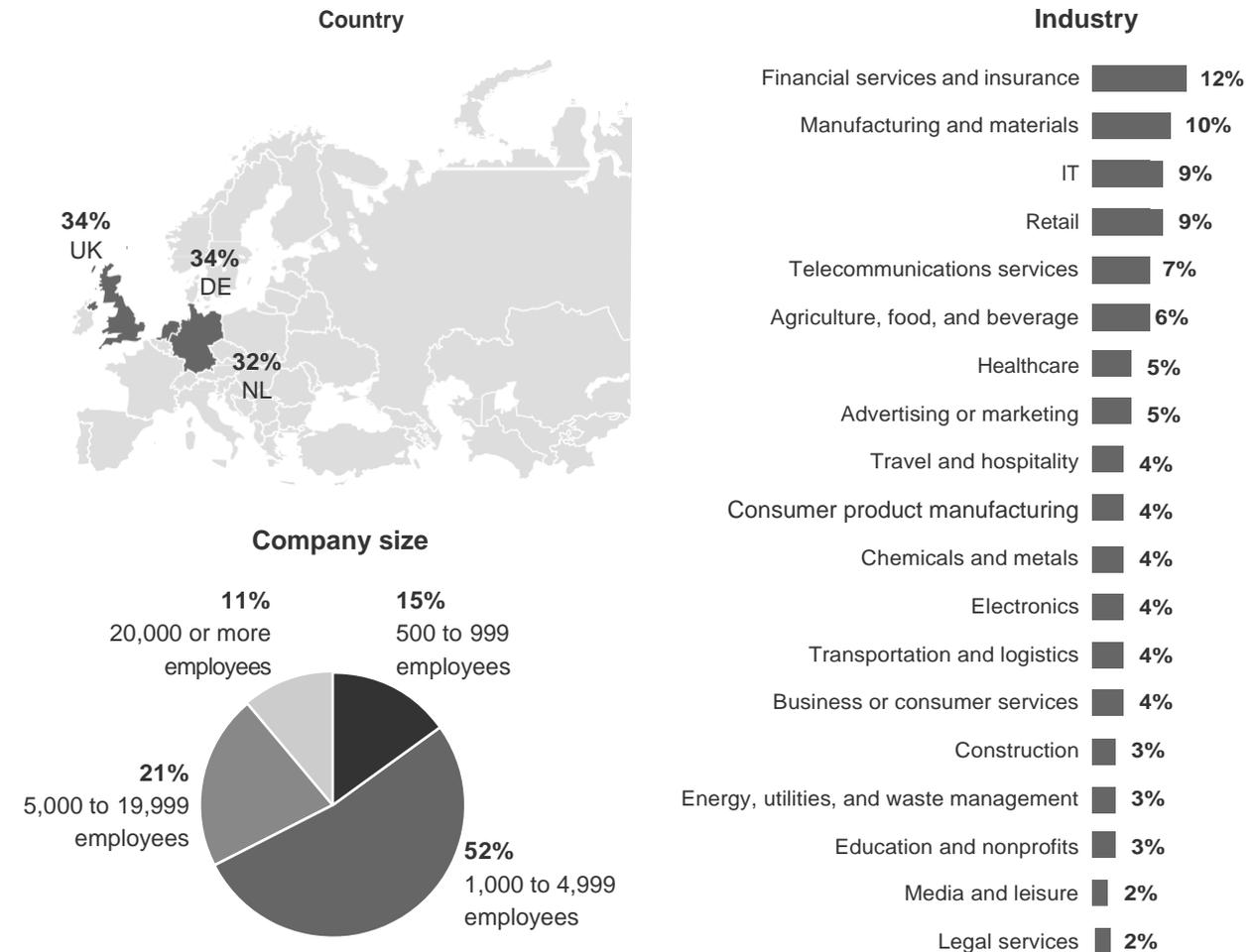


**Take (sensible) shortcuts.** In a first-to-market economy there is no advantage in ‘doing it the hard way’. Leverage partner skills and experience strategically to create successful outcomes early on and establish a change cadence as a foundation for later transformations. Ensure knowledge transfer is comprehensive and structured to develop internal understanding and information assets.

# Appendix A: Methodology

In this study, Forrester conducted an online survey of 326 organisations in UK, France, Germany, and the US to evaluate lessons learned from migrating applications and workloads into cloud environments. Survey participants included decision makers in both business and IT and were manager level or above. Questions provided to the participants asked the biggest challenges they realised before, during, and after they migrated their workloads into cloud environments. The study began in February 2018 and was completed in May 2018.

# Appendix B: Demographics/Data



Base: (N = 326) business decision makers/IT decision makers  
 Source: A commissioned study conducted by Forrester Consulting on behalf of Rackspace

# Appendix C: Endnotes

## ENDNOTES

<sup>1</sup> Source: Forrester Analytics Global Business Technographics Infrastructure Survey, 2017 and “Taking The Pulse Of Europe’s Cloud,” Forrester Research, Inc., January 22, 2018.