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**Is the cloud
meeting expectations?**

2020 trends
and challenges

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Is the cloud meeting expectations? 2020 trends and challenges

As more businesses move workloads to the cloud it's important to look at the key trends, opportunities and challenges of migration in detail. From prioritising mission-critical functions to preparing for security issues, planning for a successful migration needs to begin early.

With rising emphasis on cloud-first strategies, 2020 is set to be a momentous decade for cloud networking.

The cloud was one of the biggest innovations that defined the 2010s, but the 2020s will pave the way for total takeover. Gartner predicts that by 2025, 80% of enterprises will shut down their

traditional data centres altogether and move to the cloud, deeming physical hubs and server farms virtually redundant.

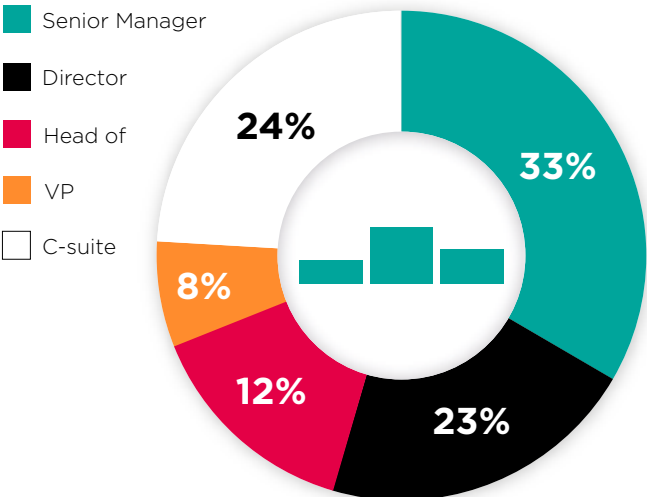
As we are now, 10% of organisations have already made the cut-off. More dependent on cloud services than we've ever been and connected to it almost every time we use a device, the shift from physical servers shows no sign of slowing down. In the turn of the new decade, businesses will accelerate adoption, but this raises a lot of questions and concerns for senior IT executives and directors.

Our report delves into the topic of cloud networking. It looks at how the cloud is being adopted and how migration projects are typically rolled out in terms of timescale. However, we wanted to dig deeper into the topic and gain a better understanding of how professionals within the IT space have tackled these cloud projects, what their experience was like, whether it met their expectations, what their biggest challenges were and what held them back.

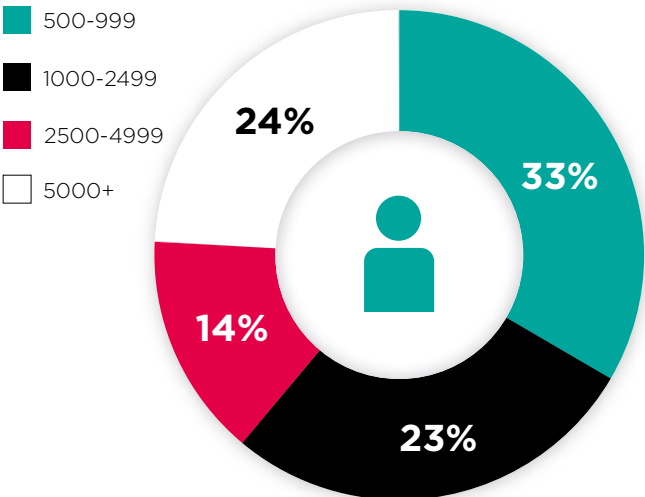
Survey sample

We spoke to 255 respondents working for large enterprises with 500+ employees. These respondents all have senior roles that require them to make high level IT or networking decisions.

What is your authority level within your organisation?



How many employees are there in your organisation?



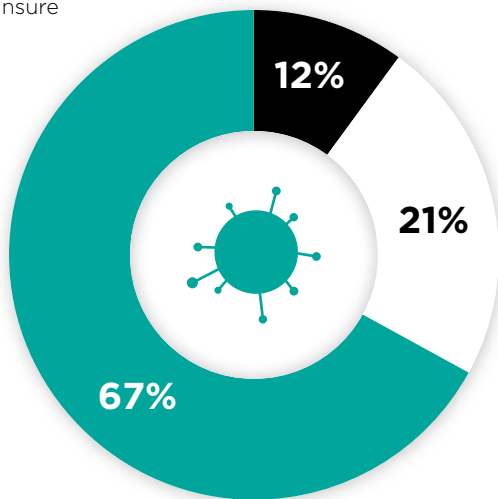


The impact of Covid-19 on cloud migration projects

The primary research for this report was taken in early February 2020, just before the main disruption of coronavirus was felt across Europe. With the cloud having delivered on expectations so far, we wanted to find out what the impact of Covid-19 has been on the next round of migration.

Do you expect Covid-19 to delay your active projects?

- Yes
- No
- Unsure

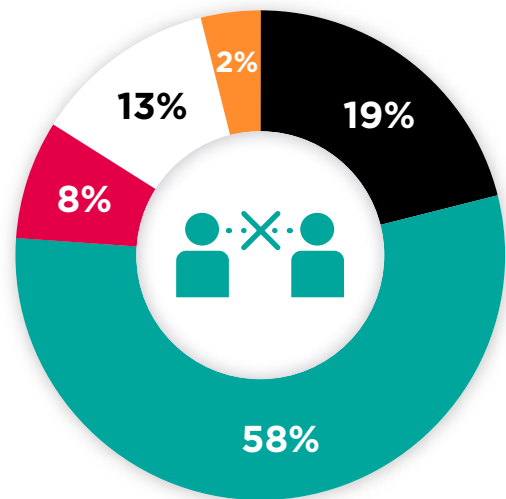


67% of respondents stated that they expect delays on their current active projects – no surprise given the significant change and upheaval faced by all businesses. With most having initially planned projects for the next 6-9 months, we expect these to be pushed back to later in the year.

Cloud collaboration and productivity applications have seen a massive surge in traffic since lockdowns were put into place, as businesses try to enable remote working without compromising productivity. We asked how people are managing to stay in touch and found that only 15% of Insights for Professionals (IFP) survey respondents are having trouble communicating with colleagues – showing that many are coping well.

I am struggling to communicate with colleagues

- Strongly disagree
- Disagree
- Not sure
- Agree
- Strongly agree



The impact of Covid-19 will be felt for many months to come and it's no surprise that some projects are being put on hold. While it's difficult to predict what the world will look like in the future, cloud adoption will only continue to accelerate as businesses embrace flexibility and ease of remote access, driven by the challenges they are facing today.

Our research found that the cloud migration experience so far has met or exceeded expectations; so while projects may be pushed back, now is still the time to be putting together plans that address the challenges identified here and getting teams ready for the next wave of migration.

The future of the cloud

Before we delve into the data, it's important to understand the current state of the cloud – including the use of private or public cloud and the increasing engagement of multiple cloud providers – as well as what cloud will look like in the future.

There are many reasons why more businesses are migrating from physical servers and one of these is the need for flexible working. Cloud computing offers a flexible business model, helping companies to be more agile in competitive markets. A major problem for smaller businesses is a lack of resources and funding. But the pay-as-you-go nature of cloud services means being able to grow with greater flexibility and respond quickly to changing needs and demands. It also promotes flexible working for employees, something which is important for morale, engagement and retention in the workforce.

With the growing gig economy and the shift towards remote working, it's more important than ever to consider flexible services. Cloud-based platforms and digitalisation lead to better collaboration for everyone.

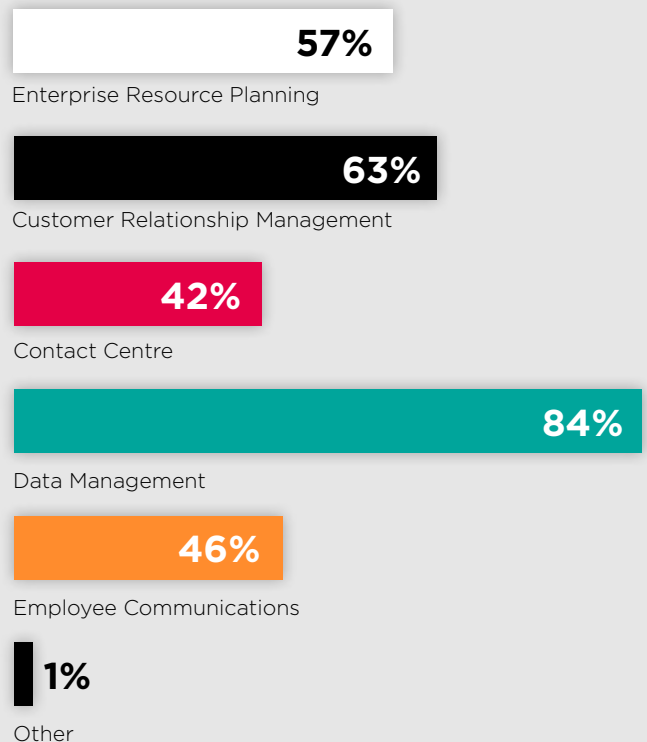
In addition to these factors, there may be added pressure on enterprises as software leaders to set a deadline for migration. For example, SAP is advising customers who are upgrading to the new S4 HANA to take advantage of the cloud with the aim to migrate a large portion of their on-premise database customers to the cloud by 2025. Whatever the motivations, the industry is going to be largely cloud-based going forward.

Businesses moving to the cloud certainly isn't anything new, but there will be a need to understand its potential and how to do it properly. Planning migration is a complex process and key elements such as connectivity, security and disaster recovery must be carefully considered if a migration is to be successful.

What's being moved to the cloud?

We asked which functions had already been moved to the cloud and the responses included data management, CRM (Customer Relationship Management), ERP (Enterprise Resource Planning), employee communications, and the contact centre.

Which mission-critical functions or systems have you migrated to the cloud?



Data management

According to the responses, the most common function to be migrated is data management (84%). This is an area that interests many CIOs as more businesses realise the value of data as a key resource.

The way we capture, store and share data is more important than ever. Not only are organisations accountable for dealing with tightening regulations and compliance, but the quality of data is vital. Good data management means access to business intelligence and having actionable insights for better decision making.

The benefits of using cloud-based data management include consolidation of processes (such as backup and disaster recovery), improved analytics, reduced system maintenance costs, and the added peace of mind of business continuity. Some cloud data management providers also offer ransomware protection, keeping data and applications native to the platform in a secure format.

Figures from the [National Archives & Records Administration in Washington](#) reveal 93% of companies who lost their data centre for 10 days or more due to a disaster filed for bankruptcy within a year. Half of businesses that had no data management contingency in place for the same time period filed for bankruptcy immediately.

CRM

The second most common function in the cloud is CRM (63%). It's easy to see why this pattern has emerged; a cloud-based CRM can be accessed from anywhere, and most cloud CRMs are mobile-friendly, making them easy for remote workers who need to login via connected devices.

Since it's hosted in the cloud, data is accessible 24/7, promoting better collaboration between teams. They're flexible and scalable as your customer service team grows and, with excellent usability, employees won't require intensive training.

In terms of integration, a cloud-based CRM offers easier compatibility than stand-alone, on-premise technology, making it effortless to share and open documents, save contacts from other platforms, and work with multiple applications.

ERP

Over half of the companies surveyed (57%) already have their Enterprise Resource Planning (ERP) facility in the cloud. Traditionally, this has been hosted on-site and maintained by IT staff, but common issues included the need for constant upgrades and costly hardware maintenance.

Migrating to the cloud is not only more affordable and flexible, but it can also greatly improve business performance. Compared to on-premise systems, cloud solutions are faster and more scalable, helping to streamline all key areas of operations.

Employee communications

Cloud collaboration is hugely beneficial for the modern business, so it's no wonder that almost half (46%) of respondents have already adopted it within their organisation.

Collaboration platforms or communication apps hosted via the cloud improve interactions between people across various teams, departments, branches and international offices. Not only does a successful communication platform garner higher participation levels and boost productivity, but it can help to boost morale, keeping employees engaged and motivated.

Contact centre

A significant proportion of companies in our survey (42%) said their business contact centre had been migrated. Being in the cloud not only reduces overheads while improving customer agent efficacy and efficiency, it also empowers employees with one main goal; to enhance the customer experience.

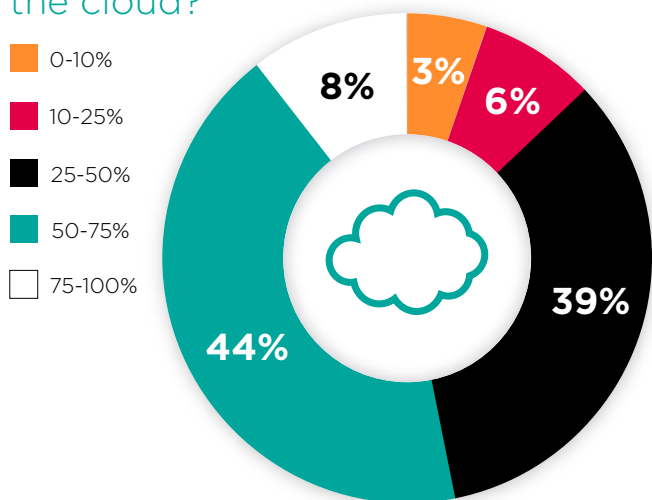
There has been a great deal of emphasis on customer experience (CX) in recent years. According to a [Walker study](#), customer experience beats price and product as the key brand differentiator in 2020. So finding better ways of connecting with clients and customers on their chosen platforms (and making their journey as stress-free as possible) should be a priority.



Growing confidence in the cloud

When looking at the progress of migration, almost half of businesses surveyed (44%) have 50-70% of their critical processes in the cloud. This is followed by over a third of companies (39%) with 25-50% in the cloud. Only a small percentage (6%) have migrated 10-25% of their business processes and a very small percentage (3%) have migrated less than 10%. Additionally, 8% have between 75-100% of their processes in the cloud, showing a growth in the confidence of cloud adoption.

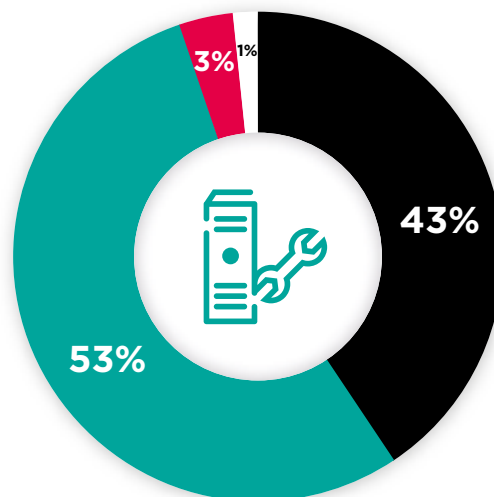
What % of your critical business processes or systems are in the cloud?



As the reliability and maturity of cloud technology increases, businesses can embrace change more readily. With 96% of respondents either quietly confident or fully on board with moving critical applications to the cloud, people are ready for the next wave of adoption. The implications of this are huge, as organisations who are embarking on a digital transformation journey are already paving the way for cloud 3.0.

How comfortable are you in moving critical applications or services to the cloud?

Fully On-Board
 Quietly Confident
 Somewhat Unsure
 Not in a million years



A very small number of respondents (3%) said they were “somewhat unsure” while only 1% were totally opposed to the idea of moving critical business processes to the cloud. No single technology receives 100% support from those in the industry, but those who aren’t embracing the idea of cloud computing could leave themselves at risk. If vendors and suppliers are moving services to the cloud, those that are opposed could face out-of-date tech that becomes expensive to maintain and more at risk of a breach.



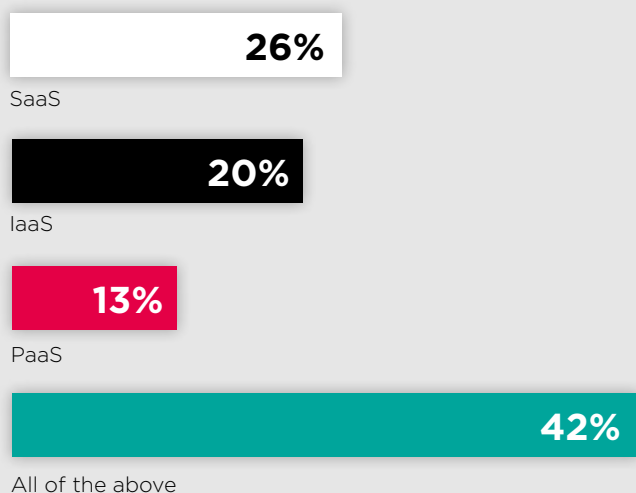
Businesses are using a mix of computing models

As well as growing confidence in the cloud, businesses are deploying a mix of cloud networking models. The most popular model may come as no surprise, with 1 in 4 (26%) of Software-as-a-Service (SaaS) adopters using software available via third-party providers. This is followed by 20% of businesses choosing to invest in Infrastructure-as-a-Service (IaaS), where they manage their own applications, data, runtime, middleware and O/S. 13% of businesses said they were deploying Platform-as-a-Service (PaaS), which sits somewhere between SaaS and IaaS in terms of in-house responsibility.

But the largest percentage (42%) are currently deploying all three models. This shows there's flexibility with the cloud and companies are making the most of the choice and options available to them.

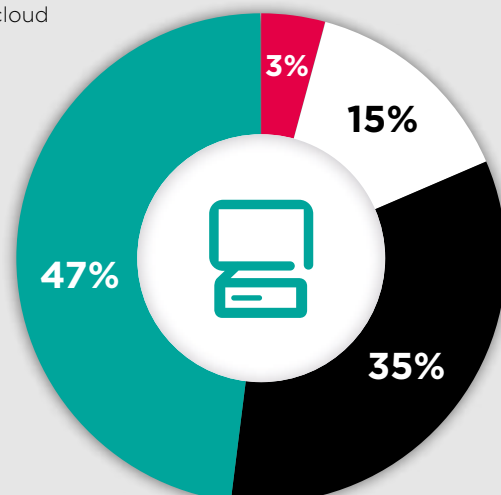
97% of businesses already use some form of cloud computing with 15% claiming to be cloud-only. The adoption of the cloud means 35% have a cloud-first strategy while almost half (47%) use a hybrid cloud strategy.

Which cloud computing models have you deployed in your organisation?



Which best describes your cloud computing strategy?

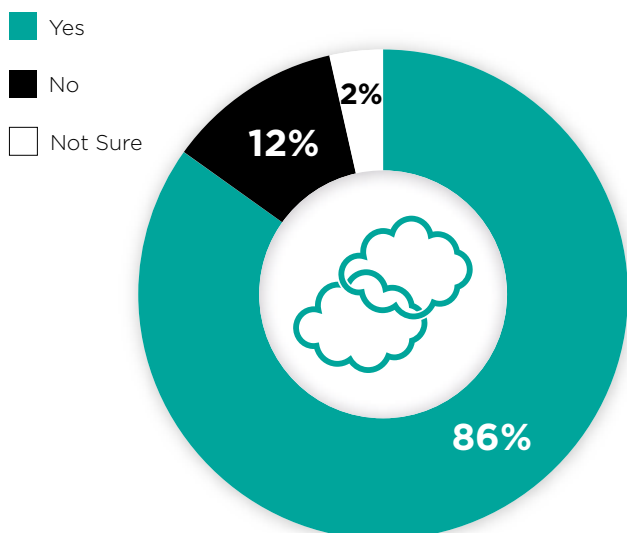
■ On-premise only □ Cloud only ■ Cloud first
■ Hybrid cloud



The rise of private multi-cloud connectivity

Enterprises can see huge benefits in migrating processes over to the cloud. However, the reality is multiple cloud service providers are often needed to support the varying geographic and data requirements. It's not unusual for businesses to use several providers at the same time, for reasons such as needing to access data on legacy software, compliance with regulations such as GDPR in terms of hosting location, or accessing critical applications not supported by an existing provider.

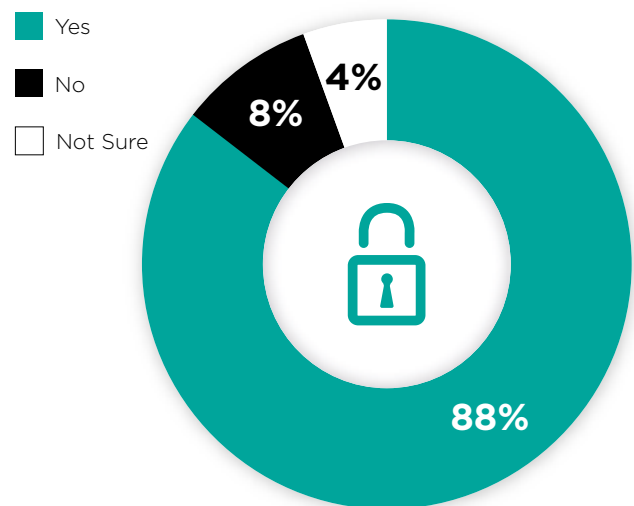
Do you have to manage multiple cloud environments?



Our data reveals 86% of businesses are taking the multi-cloud approach. As well as multiple clouds being necessary in most cases, having more than one provider also improves resilience against breaches. If a cloud provider is hit with a cyber attack, IT can shift the workload to another environment.

Organisations are also choosing private cloud connectivity with the percentage of companies choosing private WAN (88%) closely aligning with the percentage of companies managing multiple clouds.

Do you have dedicated private connectivity to the cloud?



This leads us onto one of the biggest trends in cloud networking; the use of multi-cloud over a private connection. While more than one provider can give you better resilience during an attack, multiple clouds generally come with other performance and security challenges. This is certainly the case if you connect over public internet, which has led to a growing demand for private connectivity instead. When combined, private multi-cloud is one of the most powerful options for global companies today.

The benefits of private connectivity include enhanced security, resilience, faster performance, and a better experience for employees and customers. This option provides secure and reliable private network connections between data centres or office locations and major providers.

Not only is it the most cost-effective and convenient way of meeting all your business requirements, but it significantly reduces digital threats, keeping data and company information safe.

The timescale of migration projects

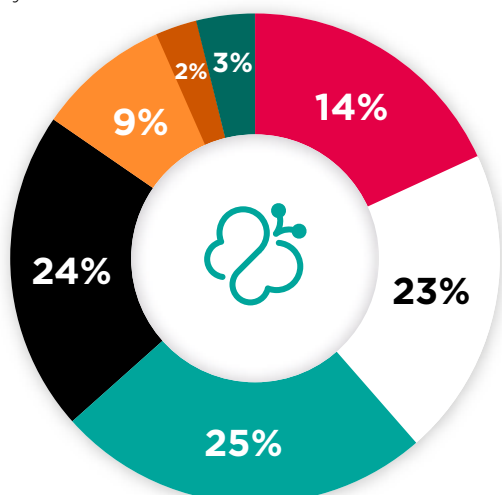
When do senior IT leaders plan to migrate to the cloud?

The migration of critical applications and systems to the cloud continues at a breakneck pace. 14% of respondents said they were looking to migrate a system immediately – within 3 months. 37% will be looking to take on a project within the next 6 months. This speaks to a growing desire to keep moving towards their goal and to keep planning timelines to a minimum, even within larger organisations.

Overall, the majority of our respondents (86%) will be looking to embrace another migration project within the next 12 months. This clearly shows the continued tectonic shift towards the processing of data and the delivery of critical services by the cloud.

Only a very small percentage (5%) will wait more than 2 years before looking to migrate another system. This could be for a range of reasons, including lack of funding, lack of resources or lack of stakeholder decisions. Generally speaking, momentum is kept and many businesses will approach a staggered rollout with the next project always in sight.

When do you next plan to begin migrating a business system or application to the cloud?



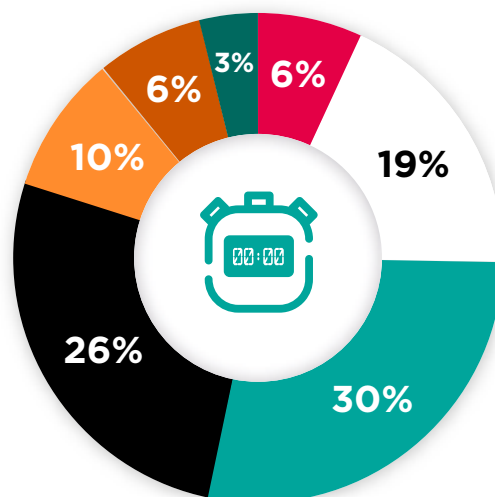
How long does cloud migration take?

The time it takes to roll out a cloud migration project varies greatly from company to company. Our data gives a clearer idea of what this looks like; the majority completed a migration project in 3 months to a year. Almost a third of businesses (30%) stated 6-9 months for a typical project, with 1 in 4 (26%) taking longer at 9-12 months, and 19% of businesses taking as little as 3-6 months.

Some companies (10%) took 12-24 months, while a small proportion experienced delays taking them 2-3 years or 3+ years (6% and 3% respectively).

Overall, three-quarters of businesses took more than 6 months to complete a migration project, indicating either the scale of these projects or that a lot can be done to streamline them.

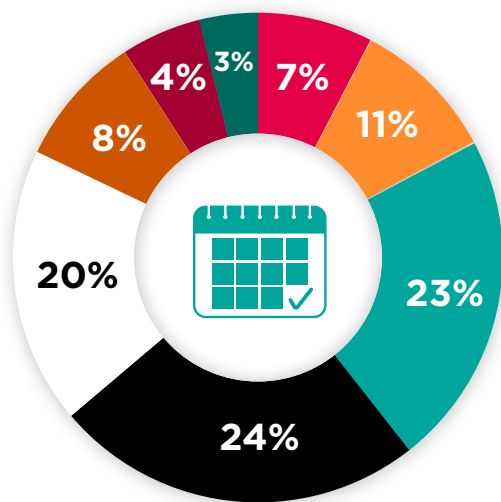
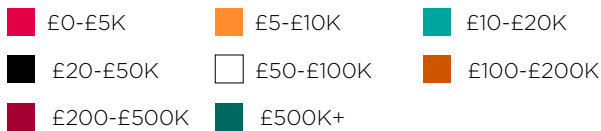
What is the typical duration of a cloud migration project in your experience?



What are the costs of delays?

Delays are not uncommon with cloud networking projects, but these delays ultimately cost businesses money. According to the data, the cost of delays were significant .

What is the cost of a delay of 1 month of your cloud migration project?



The majority (67%) reported anywhere between £10k and £100k in losses due to a project being delayed by a month. A small group (8%) claimed losses were as high as £100k-£200k, while 4% stated up to £500k and a further 3% estimated £500k or more.

The average cost of delay is £50-£100K that could consume significant chunks of departmental budget and cause further problems down the line, or even impact the success of future projects. It's clear from these figures that any type of delay could be incredibly costly and damaging.

Were expectations met after migrating?

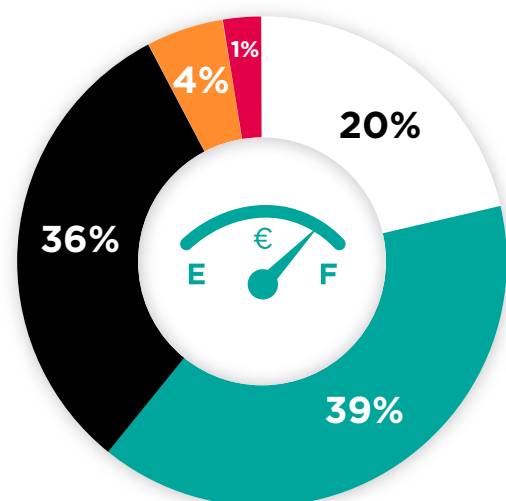
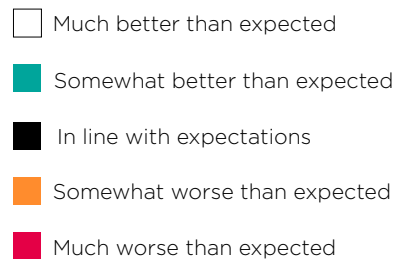
In terms of performance, most companies which migrated to the cloud have had positive experiences, with their expectations either met or exceeded. A fifth (20%) of those surveyed said their experience was "much better than

expected", while 39% said their experience was "somewhat better than expected", and 36% said their experience was "in line with expectations".

Only 5% conveyed the performance as worse than expected.

It seems that past project experiences may be setting low expectations for cloud migration but it's clear that with sufficient planning in place, this process can actually be a lot smoother than many anticipate. Whether that's down to choice of vendor, application or the migration plan that's been created, migrating critical applications to the cloud is meeting expectations. That doesn't mean to say businesses should rush in without due consideration, but it does support the argument against those who refuse to migrate critical applications. If the majority of experiences are positive, there's less reason for businesses to hold back from migration providing they've done their due diligence.

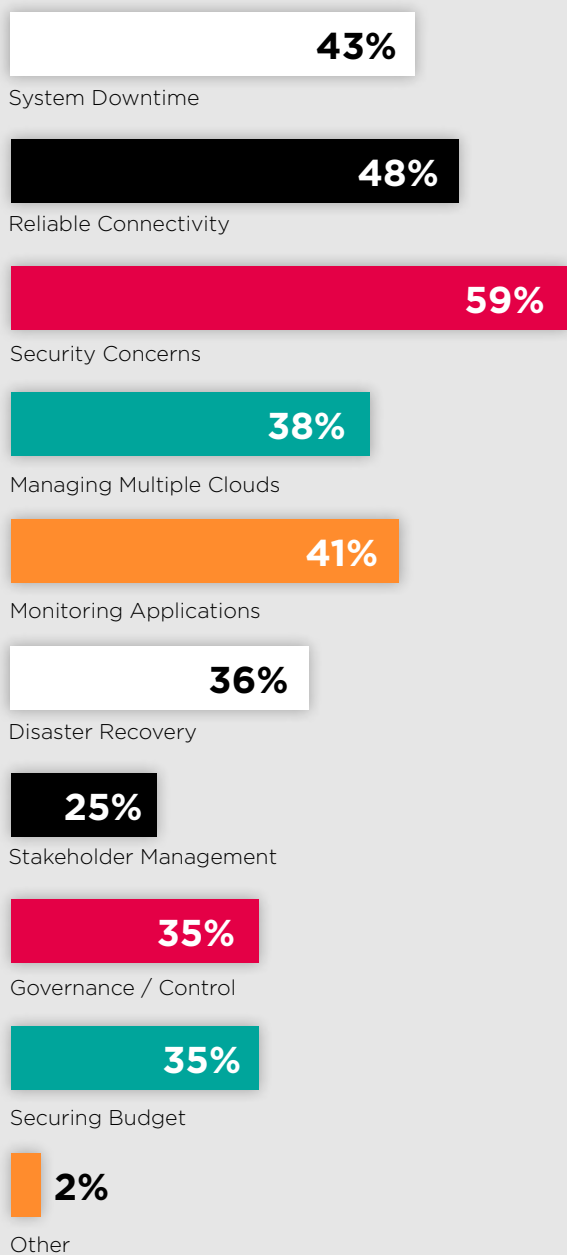
How have your cloud migration projects performed compared to your expectations?



Cloud migration challenges

What are the main problems and issues businesses face when taking on a migration project? Cloud networking can raise many concerns for CIOs and IT directors. Our data shows a realistic view of what organisations have experienced when moving critical processes to the cloud:

Which cloud migration challenges have you experienced?



The biggest challenge by far is security, according to 59% of respondents. In second and third place are reliable connectivity and system downtime (48% and 43% respectively). Following closely are issues in monitoring applications, managing multiple clouds, disaster recovery, ineffective governance and securing enough budget.

Tackling security

The main concern for organisations is vulnerability to threats such as cyber-attacks. The cost of an average data breach is \$3.92 million, and DDoS attacks are increasing at a worrying rate.

For businesses adopting cloud platforms, securing the network is a critical step. A holistic approach is needed to map out key vulnerability touchpoints, and multiple layers of defence are essential for both the edge and core of the network and along the network path.

Reliable connectivity

Security and connectivity go hand in hand. A multi-cloud approach seems to meet a range of organisational needs, while also meeting the necessary GDPR standards from a global perspective. But managing multiple clouds can pose security challenges.

For this reason, private connectivity is growing in demand. By choosing a secure, low-latency and on-demand connection, you can make the migration process seamless. Planning ahead is important too, as a last-minute approach to connectivity can put the whole migration at risk.

Your connectivity checklist should include the following:

1. Network depth
2. Network breadth
3. Flexibility
4. Security and resilience
5. Vendor neutrality

All of which need to be backed by clearly defined SLAs.

System downtime

Another challenge with migration is downtime. If applications go down, business operations often grind to a halt. The cost of downtime is one reason why firms can be reluctant to move to the cloud.

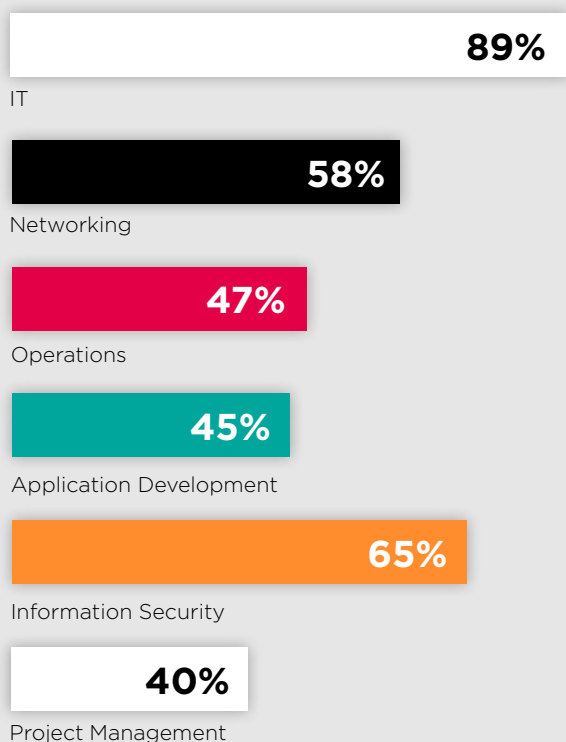
The good news is infrastructures today are more modular than they were in the past, but the downside is that modern workloads are usually large and complex. To avoid downtime, it's important to break the process down into manageable steps. Begin migration with the smallest, simplest items before working your way up to the more complex.

The importance of collaboration

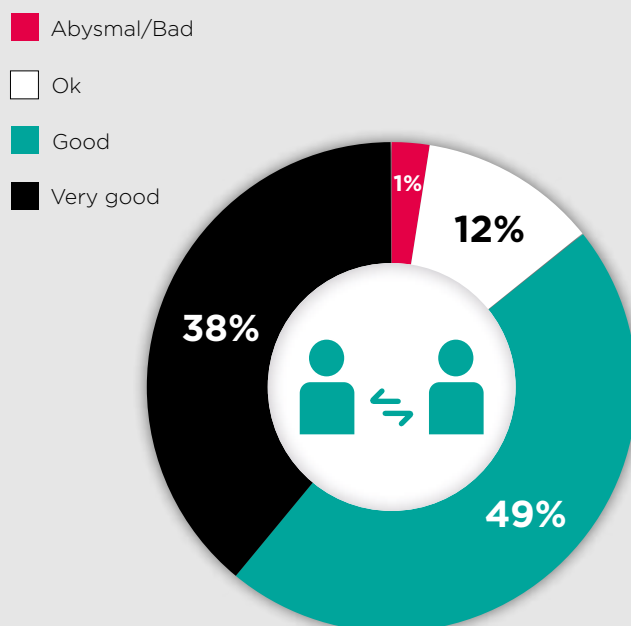
There are many stakeholders involved in the migration process, with each project bringing together IT, networking, operations, app development, security and project management teams.

For projects to be successful, good communication between these departments and stakeholders must exist. Of the respondents we talked to, most of their experiences of communication within their organisation were "good" or "very good". But 12% said communication levels were just "ok", and 1% said communication was bad.

Which stakeholders are involved in a cloud migration project?



How would you rate communication on cloud migration projects in your organisation?

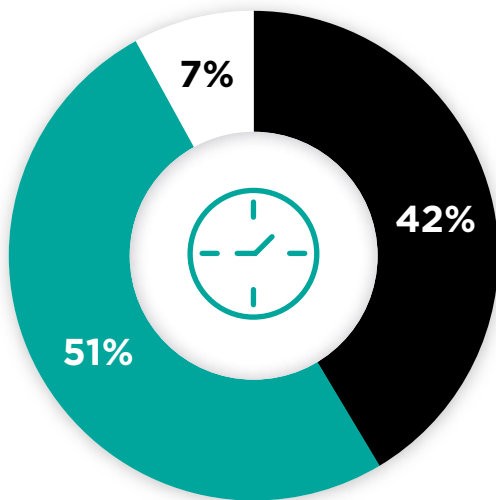




While interactions and teamwork efforts were largely on the positive side, poor communication was still a major source of delays in a project.

Has bad communication ever caused delays in a cloud migration project?

- Yes
- No
- Not Sure



While 51% didn't associate bad communication with project delays, a large portion (42%) of respondents did.

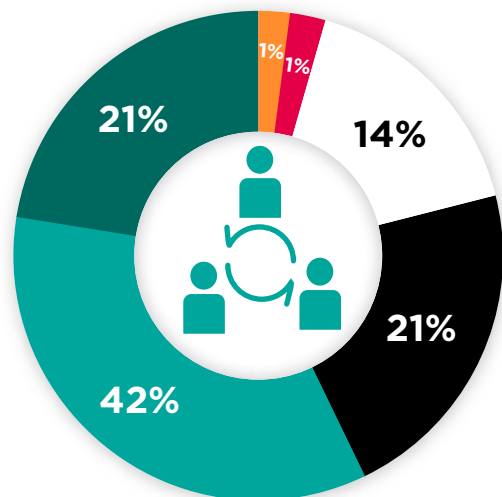
This means collaboration is key when it comes to making migration successful. Taking on a big project such as cloud networking requires multiple teams to work together effectively, so collaboration platforms are necessary. There also needs to be a level of transparency and seamless sharing of information between employees.

When looking specifically at how IT and networking teams work together, a large

proportion (42%) said senior team members were the ones to lead the interactions, while only 21% have a defined NetOps framework, 1 in 5 (21%) communicate directly in a more relaxed format, and 14% communicate through project managers.

How do you collaborate between IT and networking teams during cloud projects?

- We barely talk at all
- We talk infrequently, and only as needed
- We communicate mainly through project managers
- We communicate directly without formality
- Senior team members speak often
- We have a defined NetOps framework



It's clear companies value good communication and the majority believe regular communication is essential. With such a large percentage of respondents believing delays can be avoided by better collaboration, establishing a seamless way of working should be a priority.



Conclusion

While the cloud is delivering on expectations, this success relies on overcoming several key challenges and ensuring teams are set up to succeed. The overall cloud experience is dependant on multiple factors and, if application performance isn't up to scratch, the IT and networking teams will soon know about it.

Migrations aren't quick projects and delays can be costly, while migrating large amounts of data takes time and systems may need to be run in parallel to make sure they're synced up. The majority of migration projects take three months to a year, with delays of a month potentially costing organisations up to £100k depending on the scope of the project.

These projects need to be as flexible as possible and carefully managed, but those who aren't already planning their next migration should move soon, with most looking to start their next project in less than 9 months. The majority of businesses have over 25% of their critical functions moved over to the cloud already, and some are operating with 100% cloud platforms.

From Gartner's predictions about enterprises shutting down physical servers, the number of companies embracing total cloud takeover is only going to grow over the course of the next decade.

Next steps

If you're planning a migration, based on our findings we've put together five steps you should take next.

Put together a plan

Sounds simple enough, before you start migrating your business over to the cloud, you should prepare a plan to accompany it. Create a project plan and implement a project team to oversee this. The level of planning and the time it

takes to do this will depend on your organisation size and the amount of processes you're shifting to the cloud.

Choose your cloud environment

Picking out the cloud model you want to run and what is right for your business is crucial when planning a cloud migration project. As our report shows, businesses are using a mix of computing models and cloud computing strategies.

Find the right cloud partner for you

The right cloud partner will support you through your migration process. You need to consider how experienced they are in delivering this type of project, how they can help with migrating legacy applications, how they deliver on a global basis, and their service-level agreements.

Consider connectivity

Planning ahead with connectivity can make or break a cloud migration project. Being able to have a network provider that provides cloud services securely and consistently is key. Consider your connectivity needs based on your cloud strategy, if you're engaging with multiple cloud partners you will need to factor in private connectivity to accompany this.

Communicate collaboratively

A cloud migration project doesn't just involve IT, there will be multiple stakeholders across an organisation who are involved. Taking on a big project such as cloud networking requires multiple teams to work together effectively, so collaboration platforms are necessary. There also needs to be a level of transparency and seamless sharing of information between employees.

With more business migrating to the cloud, are you ready? Colt's network is connected to over 900 data centres around the world and we partner with all the major cloud service providers. Contact us today to start your migration journey.

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