The changing role of the IT department
Executive summary

It’s been many years since organisations first started to embrace digital transformation, with this openness to evolution and new ways of working now critical to maintaining competitive advantage in any industry. These digital journeys may have started a long time ago, but they are far from over: rapidly evolving business challenges mean that constant innovation and agility are the way forward. Look at the way AI and automation technologies are developing for evidence of this shift.

At the Cloud Industry Forum, we have been monitoring the adoption of cloud-based services across the UK for the past ten years. We have seen unprecedented change take place in that time, with many companies now realising the potential of cloud services helping them fulfil their digital transformation goals. That said, cloud’s role in all of this is by no means clear cut and has evolved over the years just as much as the businesses themselves. Understanding the ongoing benefits and potential of cloud is crucial if providers are to continue to optimise it.

Building this understanding means not just looking at the current state of play in terms of cloud adoption, but also what businesses are trying to achieve from an IT perspective. What are the big projects? Are AI and IoT implementations front of mind? Do companies want to master their data or build their machine learning competencies? Or all of the above?

In turn, answering these questions is about looking at the current landscape of the IT department. This White Paper will examine the big challenges IT professionals are facing – such as skills shortages – as well as the presence of wider business leaders in the organisation’s digital development. This will shine a spotlight on exactly where organisations are in their technological evolution and define cloud’s ongoing place more clearly within the IT ecosystem.
Methodology and definitions

Methodology and sampling

In late 2019, Vanson Bourne conducted a major body of research on behalf of the Cloud Industry Forum, designed to gauge the latest developments in cloud adoption and the technological challenges UK businesses are facing. The research polled 250 senior IT and business decision-makers in large enterprises, small to medium-sized business (SMEs) and public sector organisations. All of those represented have UK operations.

How many employees does your organisation have globally?

![Employee Size Distribution](image)

Within which sector does your organisation operate?

![Sector Distribution](image)
Definitions

Cloud computing

As the sophistication and scope of cloud computing has grown, its definition has evolved to cover many different things. It might be used to describe hosted IT services or outsourcing of any type, or it can be defined as something more specific, such as data storage or application management. However, for the purposes of this report, we have stuck with the tried-and-trusted definition of cloud put forward by the National Institute of Standards and Technology (NIST):

Cloud computing is a term that relates to the IT infrastructure and environment required to develop/host/run IT services and applications on demand, with consumption-based pricing, as a resilient service. Communicating over the internet and requiring little or no client end components, it provides resources and services to store data and run applications, from many devices, anytime, anywhere, as-a-service. The services can, in turn, be scaled up and down as needed to meet a customer’s variable operational needs, ensuring maximum cost efficiency.

Digital transformation

Digital transformation is the process of moving your organisation away from antiquated legacy approaches in favour of a more agile philosophy that emphasises new, more innovative ways of working and the extensive use of digital, social, mobile and emerging technologies. This could mean changes in leadership, an adoption of new business models, or a willingness to embrace new ways of thinking. At the centre of it all is a commitment to improving the overall experience of your employees, customers, suppliers, partners and stakeholders.
Summary of key findings

Digital transformation continues apace:

- Over a quarter (28%) of businesses have a fully formed digital transformation strategy in place, and over half (54%) are in the process of implementing one
- A lack of human resource, alongside skills shortages and a lack of budget, are the biggest challenges hampering further digitisation
- More than eight in ten respondents (82%) see cloud as either very important or critical to their digital strategies

IT departments face some major challenges:

- Most IT departments are working on more projects than they were three years ago, highlighting the scale of digital transformation and the resource needed to manage it
- Around a third of IT projects are not being completed on time or on budget, again underlining how IT teams are feeling the squeeze
- Organisations are, however, continuing to harness the benefits of cloud, with 93% now using cloud-based services in some form
- 71% of businesses plan to build new applications for the cloud in future, moving away from legacy in favour of a more cloud-native approach

The IT skills landscape is evolving:

- IT staff are expected to be more technical and innovative than ever before, which is indicative of how diverse the technology challenge has become
- AI and robotic process automation have been earmarked as the key areas where skills need to be raised in the next three years
- 91% of organisations’ IT function now reports directly to the board, which represents significant progress over the last five years
Digital evolution

It has been a popular buzzword in IT and business circles over the last few years, but the importance of digital transformation cannot be overstated. IT has come to occupy a dominant place in professional discourse, and given the constant march of tech advancement, there is little chance of it going away any time soon. Inertia is the enemy when it comes to digital evolution: fail to embrace it fully, and your rivals will leave you behind.

What is your organisation’s annual IT budget?

On average, across all ranges of business, organisations spend just shy of £2 million per year on IT, so decision-makers need to ensure they are investing in technologies that will bring maximum agility and efficiency on their journey to digital to ensure an effective return on investment.

Approximately, what percentage of your organisation’s IT budget is spent on managing infrastructure?

Respondents spend an average of 41% of their annual IT budget on managing their on-site infrastructure. Whilst this is a necessary expense for many companies, it is one that needs to be managed effectively and streamlined where possible. An ongoing commitment to increasing cloud adoption will be helpful in bringing this cost down.
Does your organisation have a digital transformation strategy?

- **YES**
  - YES, WE ARE CURRENTLY IMPLEMENTING ONE
  - NO, BUT WE INTEND TO HAVE ONE IN THE NEXT 12 MONTHS
  - NO, BUT WE INTEND TO HAVE ONE IN THE NEXT 24 MONTHS
  - NO, WE DO NOT INTEND TO HAVE ONE IN THE NEAR FUTURE
  - I DON'T KNOW

When looking at the actual presence of digital transformation strategies, the picture is generally a positive one. While just under three in ten (28%) have a fully formed strategy in place, we’ve now reached a point where over half (54%) are in the process of implementing one (up from a third in our last report). With an additional 15% planning to introduce a digital transformation strategy in the near future, it is clearly on the minds of the vast majority of decision-makers.

How clear is your organisation’s digital transformation strategy?

- **COMPLETELY CLEAR**
- **FAIRLY CLEAR**
- **FAIRLY UNCLEAR**
- **COMPLETELY UNCLEAR**

Clarity of strategy also seems to be the order of the day. Almost all respondents (98%) said their digital transformation strategy is at least fairly clearly defined, which says a lot about how far it has risen up the agenda in recent years. That said, with just over a third (34%) having full clarity, there is still some work to be done to iron out any kinks or uncertainties about what this digital evolution should look like.
Room for improvement?

*Do you believe that your organisation is doing enough to become fully digitised?*

- **28%** YES, MORE THAN ENOUGH
- **56%** YES, JUST ENOUGH
- **14%** NO, MORE EFFORT IS NEEDED
- **1%** NO, MUCH MORE EFFORT IS NEEDED

On the whole, decision-makers are pleased with their organisations’ efforts to digitise, with the majority saying that enough is being done. As with the clarity of strategy figures though, there is still some progress to be made. Doing “just enough” might not be sufficient to keep an organisation ahead of its competitors, so accelerating digitisation efforts even further would be beneficial.

*What is preventing your organisation from becoming digitised more quickly?*

- **0%** We do not have enough human resource
- **10%** We do not have the skills in-house
- **20%** We do not have the budget
- **30%** We do not have appropriate help from partners

There is no standout factor that is hindering companies’ efforts to digitise quickly, meaning that there is no silver bullet than can solve all the challenges in one fell swoop. An overall lack of bodies (41%) and a shortage of specific in-house skills (40%) are common hurdles, as is the perennial lack of budget (38%).

It is also interesting to note that a quarter of respondents (25%) feel they don’t get appropriate help from partners. Cloud’s ongoing potential to make a difference is clear here, as is the role of cloud providers: bring the manpower that businesses are lacking, and digitisation will happen.
Which of the below statements most accurately reflects your opinion of the current digital revolution?

- It’s a great opportunity for my business
- It is a great personal opportunity for my career
- It is a threat to my job
- It is a threat to my business

Winning hearts and minds is crucial to any digital philosophy. Fortunately, the majority of both IT decision-makers (ITDMs) and business decision-makers (BDMs) see the digital revolution as a great opportunity for the business (69% and 66% respectively).

However, similarly to last year, there remains a discrepancy between ITDMs and BDMs regarding the perceived threats of digital transformation. 14% of BDMs consider it a danger to their jobs, compared to just 7% of their counterparts in the IT department. 12% of BDMs see it as a threat to the wider business, dropping to just 8% for ITDMs. These figures might only be in the minority, but they underline a continued gap in perceptions that needs to be bridged for digital strategies to reach the next level.
Cloud cover

Digital transformation can only be hailed a success if a strategy is effective but doesn’t break the bank either. Cloud computing – now an established technology – has a pivotal role to play in this process, as it brings the flexibility and easy scalability that an agile organisation needs.

Cloud can be described in myriad ways, but at its core, it serves to reduce reliance on expensive on-site infrastructure that is so often a burden to maintain. By moving applications and workloads to an as-a-service model, significant resource can be freed up for IT teams to work on new initiatives that drive value for the business.

To what extent is cloud important to your organisation’s digital transformation strategy?

Almost all respondents see cloud as being an important part of their organisation’s digital transformation strategy, with more than eight in ten (82%) seeing it as very important or critical.

SUMMARY

Digital transformation is well and truly an established concept, with only a tiny minority not embracing it in some way. We’re beginning to see greater clarity in the way leaders are formulating their strategies, but that doesn’t mean it’s time to rest on our laurels. There is still much that businesses can do to speed up processes, build efficiency and convince all leaders that digital is the way to go. Cloud’s role in all of this remains vital, given its emphasis on flexibility at a time when these qualities are more important than ever.
IT adoption

Before we go into any specifics on cloud adoption, we would like to examine more closely the general state of play in IT departments, as this will give us a better idea of the specific challenges they are facing in 2020. There are a few important questions to answer here, including on the pace of technology adoption, and the particular projects that organisations are trying to get done.

How does your organisation’s IT adoption compare to its competitors?

- **WE ARE SIGNIFICANTLY AHEAD**
- **WE ARE SLIGHTLY AHEAD**
- **WE ARE ON PAR**
- **WE ARE SLIGHTLY BEHIND**
- **WE ARE SIGNIFICANTLY BEHIND**

Two-thirds of respondents (66%) believe that they are either slightly or significantly ahead of their competitors when it comes to IT adoption, while just under a quarter (22%) believe they are on par. Clearly there’s no shortage of confidence amongst decision-makers regarding their embrace of IT, but the real insight comes when we delve a little deeper.

How have the number of IT projects that your organisation runs changed over the last three years?

- **SIGNIFICANTLY INCREASED**
- **SLIGHTLY INCREASED**
- **REMAINED THE SAME**
- **SLIGHTLY DECREASED**
- **SIGNIFICANTLY DECREASED**
- **I DON’T KNOW**

Clearly there’s no shortage of confidence amongst decision-makers regarding their embrace of IT, but the real insight comes when we delve a little deeper.
Two-thirds of decision-makers polled (67%) have seen either a slight or significant increase in the number of IT projects their organisation runs in the last three years. This gives some indication of the scale of the current and future IT challenge for businesses, and suggests that many will feel the squeeze in terms of having the skills and resources to stay on top of every project, but also a recognition of the efficiencies using cloud services can bring.

**What percentage of your organisation's IT projects deliver on time or on budget?**

On average, 67% of respondents’ IT projects are delivered on time, and 64% are delivered on budget. There’s a fairly positive correlation between time and budget which reflects positively on the way projects are both planned and executed, but there is still around a third that are exceeding the allocated time and budget. This is surely something that organisations will be looking to tighten up, through more efficient processes and a commitment to the flexibility of cloud.
Turning to cloud

What does your organisation prioritise when looking for a cloud provider?

STRONG, TRUSTING RELATIONSHIP 56%
LARGE, STABLE COMPANY 51%
DEEP TECHNICAL KNOWHOW 50%
THE BEST PRICE 49%
STRATEGIC VISIONARIES 42%
SMALL SPECIALIST PROVIDER 30%
NOTHING IN PARTICULAR 3%

Naturally, a stretched IT department is likely to look for external support to ensure projects are delivered in good time. This is where cloud providers really come into their own, as long as they are aware of what their customers want.

The above shows that organisations’ priorities are diverse. Price is important, but more so is a strong, trusting relationship and deep technical knowledge, allied to a consistent, stable approach as a company. Cloud providers that can offer a blend of these attributes are most likely to make their mark.

To what extent do you agree or disagree with the following statements?

The cloud simplifies challenges the IT department faces
My organisation struggles to keep up with new cloud technology
Multi-cloud is now crucial for us to operate efficiently
Cloud technology has introduced more complexity for us
We have more IT projects in flight than we did three years ago
Cloud is the key enabler for my organisation in the future

Cloud has clearly simplified the IT challenges organisations face, with 77% of respondents agreeing that this is the case, and 75% saying that it is a key enabler for their organisation’s future ambitions. However, there are still some pain points: 60% agree that cloud has brought more complexity, and 74% say that they have more projects on the go than three years ago. Notably, 76% also see a multicloud approach as being essential, which brings added complexity in itself.
Assessing the big projects

Which of the below are your organisation’s most important IT projects?

Infrastructure management
New technology projects (e.g. AI etc.)
Networking
Migration
Legacy
Containerisation and microservices
Other
I don’t know

Infrastructure management (56%) is the most widely cited priority IT project, with new tech such as AI close behind on 53%. Networking, migration and legacy also figure prominently, but the big thing we’re seeing here is that businesses are balancing their priorities between day-to-day management and pursuing those valued-adding new tech opportunities. Reaching this equilibrium is a tough ask, but is an area where cloud is essential for freeing up time for IT teams.

In the future, which of the following is your organisation more likely to do?

BUILD NEW APPLICATIONS FOR THE CLOUD
LIFT EXISTING APPLICATION FROM ON PREMISE
I DON’T KNOW

The above illustrates just how much cloud has become integrated into the IT ecosystem. More than seven in ten respondents (71%) believe that their new applications will be built for the cloud, with only 26% being lifted from on-premise systems. This shift from legacy to a cloud-native approach will pay dividends in the long run.
What percentage of your organisation's workloads are stored within the following:

- **Own data centre or on premise servers**: Average 37.5%
- **Private, dedicated space in a third-party data centre**: Average 28.6%
- **Public cloud (AWS/Azure/Google etc.)**: Average 33.5%

On average, 34% of organisational workloads are stored within public cloud, with 29% held in private cloud. While this equates to over 60% of workloads now being cloud-based, 38% are still stored on-premise, proving that traditional or hybrid approaches remain commonplace.

**An eye on the future**

How important will the following technologies be to your organisation in the next five years?

- **Cloud infrastructure**: Critical
- **Cloud SaaS (Software-as-a-Service)**: Very Important
- **Cloud applications**: Somewhat Important
- **Cloud platforms**: Not Important at All
- **Blockchain**: Critical
- **Artificial Intelligence (AI)**: Very Important
- **Internet of Things (IoT)**: Somewhat Important
- **Machine learning**: Not Important at All
- **Big data and/or analytics**: Critical
- **Virtual Reality (VR)**: Very Important
- **Augmented Reality (AR)**: Somewhat Important
Cloud is very much front of mind when decision-makers consider the next five years, whether this be infrastructure, SaaS, applications or platforms. However, there are a few other areas that are worthy of our attention and which only become feasible with the utilisation of cloud based technology at their foundation.

Big data and analytics stand out, with 70% of respondents seeing this as either very important or critical. IoT isn’t too far behind (62%), along with machine learning (60%) and AI (50%). Of course any large volumes of data are the basis for effective AI implementations. It will be interesting to see how the cloud market evolves in the next few years to accommodate these requirements.

**SUMMARY**

Organisations are fully switched on to the need for IT adoption and development, and most seem to recognise the importance of cloud in helping them carry out their day-to-day duties. However, competition in any industry is fierce, so the number of projects being carried out by IT departments will grow exponentially in the coming months and years. This is especially true as emerging technologies gain more of a foothold.
Digital skills and the role of IT

A successful digital transformation means having the right blend of skills across the organisation and empowering the IT department to make a positive difference to how the company is run. With this in mind, it is useful to get an idea of just how healthy businesses are looking in this respect, and what needs to be done to deal with any lingering issues.

An evolving skillset

What people skills does your organisation look for now, and in the immediate future?

The need for digital transformation strategists and visionaries – both now and in the future – is high, and the next 12 months are especially critical. Cloud project management competencies are also of great importance, especially in the here and now.

Another interesting point to make here is the expected significance of AI and robotic process automation skills in three years’ time: organisations clearly have one eye on the future, while working on getting their houses in order in the present.
How have the roles of infrastructure and networking professionals changed in your organisation over the last three years?

The skills required are now more technical/specific
Innovation has to be at the forefront of their thinking
Remote working has increased the complexity
Endpoint numbers make visibility almost impossible
They are expected to do more with less
Repurposing of staff resources
Keeping the lights on is no longer sufficient
Other
These roles have not changed
I don’t know

This need for evolution in IT roles is confirmed by the above graphic. Half of respondents said that infrastructure and networking professionals now need to have a greater depth of technical knowledge. Not only that, but they are expected to be innovative in their thinking (cited by 43% of respondents). This shows that IT teams are not just expected to keep the wheels turning, but also need to add real value to the business.

Training on the job

Does your organisation have a structured training programme for employees/users for the delivery of cloud services?

When it comes to delivering cloud services, 90% of respondents have at least some form of structured training in place. This is just as likely to be purely internal, or a mixture of internal and external training (both 34%). It is encouraging to see such a strong emphasis on upskilling staff, although there remains a heavy reliance on outsourcers to help provide this.
IT in the wider business

Which of the following functions in your organisation are a key IT stakeholder?

For over half of organisations (56%), the board of directors is a key stakeholder in IT matters. Operations teams are heavily involved in 49% of businesses, and finance departments in 41%. It’s always a good sign to see board-level involvement in IT matters, although there is plenty of room for it to rise further up the wider company agenda.

Another positive sign is that 91% of respondents say their IT function reports directly to the board, which represents enormous progress compared with five years ago. It has also become commonplace for IT teams to report to HR or finance. This joined-up thinking is crucial if any digital transformation strategy is to be successful across the business.
Future development

Which of the following development principles is your organisation currently utilising, or planning to use in the future?

<table>
<thead>
<tr>
<th>CURRENTLY UTILISING</th>
<th>PLANNING TO UTILISE IN THE NEXT YEAR</th>
<th>PLANNING TO UTILISE IN ONE TO TWO YEARS</th>
<th>PLANNING TO UTILISE IN BEYOND TWO YEARS</th>
<th>NO PLANS TO UTILISE AT ALL</th>
<th>I DON’T KNOW</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

DevOps (33%) and agile development (31%) are the most common principles currently in use, demonstrating that IT teams are making concerted efforts to collaborate more closely with one another. The expected growth of microservices in the next year (34%) also highlights this evolution, as IT departments move away from more rigid styles of working to embrace flexible approaches.

**SUMMARY**

IT matters are no longer the preserve of the IT department itself. Business decision-makers on the board and in other departments have much more visibility of what is going on, and are taking much more interest in how it affects the wider business than they did a few years ago. This is good news, but the demand for deeper technical skills means companies need to work hard to maintain this momentum and keep digital transformation moving.
Cloud trends

Finally, a study on cloud's ongoing role in digital transformation wouldn’t be complete without looking at wider trends around cloud adoption. This will give us a clearer idea of how the market will develop over the course of 2020 and beyond.

Does your organisation have any hosted or cloud-based services in use today?

Looking at things at the most basic level, cloud usage is at an all-time high (93%), giving some indication of its almost ubiquitous presence in the modern business.

Which of the following would be your organisation’s top choices of cloud vendor?

Although perhaps not yet reflected in market share statistics from the big analyst firms, Microsoft Azure tops the list as the preferred cloud vendor for both ITDMs and BDMs, followed by Google Cloud in second place. Interestingly, IBM has emerged to challenge the Big Three providers, with BDMs preferring this over AWS. However, this is the other way around for ITDMs, who would choose AWS over IBM.
How many different hosted or cloud-based services does your organisation use today?

- **ONE** 28%
- **TWO** 8%
- **THREE** 39%
- **FOUR** 22%
- **FIVE OR MORE** 3%
- **I DON’T KNOW** 22%

Despite this lack of overall year-on-year growth in adoption, multicloud’s presence remains hugely significant.

Multicloud usage has remained fairly static on last year, with 69% of respondents saying that their organisation uses more than one cloud-based service. Despite this lack of overall year-on-year growth in adoption, multicloud’s presence remains hugely significant. This is to be expected, given organisations’ desires to take full advantage of different cloud vendor offerings, while reaping the security benefits of spreading workloads across clouds.

Why is your organisation utilising hosted or cloud-based services?

- **37%** Great flexibility of IT spend
- **35%** Significant cost saving
- **35%** Cloud gives scalability
- **31%** More business agility
- **24%** Need to upgrade old system
- **24%** Strategic, board level decision
- **22%** Infrastructure costs are high
- **22%** We can redirect our IT skills
- **19%** We prefer to outsource our IT
- **19%** Able to test new technology
- **18%** We have trusted IT partner
- **12%** We don’t have IT skills in-house
Motivations for using hosted or cloud-based services are numerous, but a few stand out above the others. Having greater flexibility of IT spend is the prime driver (37%), closely followed by cost savings (35%), scalability (35%) and improved business agility (31%).

What proportion of your organisation’s IT infrastructure is hosted in the cloud?

![Chart showing the proportion of IT infrastructure hosted in the cloud.](chart)

Only 2% of organisations report being almost or completely cloud-based, but 26% are well on the way, as they now host between 20 and 60% of their infrastructure in the cloud. On average, 53% of companies’ IT infrastructure is now cloud-based, meaning we’re now in majority cloud territory as a general rule.

Do you expect your organisation’s adoption of cloud services to increase over the next 12 months?

![Chart showing the percentage of organisations expecting an increase in cloud adoption.](chart)

Unsurprisingly, this growth in cloud usage is set to continue over the next 12 months. Almost nine in ten respondents (87%) expect their adoption of cloud services to increase, which sums up definitively its prominent place in the modern IT estate.
Conclusion

Ten years after the formation of the Cloud Industry Forum, we’ve reached a stage where cloud is an integral component of many a digital transformation strategy. The main questions these days are less about cloud itself or whether it’s getting traction, and more about how its role is evolving as businesses continue to go digital.

Digital transformation has seen further development in the past year, with IT investment remaining high and some clear signs that IT matters now figure prominently in boardroom discussions. We’ve come a long way, and cloud has played a big part in this.

Despite these reasons for optimism, there is still much to think about for the future. Technologies are becoming more sophisticated almost by the day, with AI, automation, IoT and many others shaking up the way businesses approach cloud and IT in general. The digital skills needed to make everything work are more complex and demanding than ever before, and the sheer number of IT projects being carried out is growing at an unprecedented rate.

This is where cloud will continue to play a leading role, especially as businesses increase their adoption of multicloud. Organisations will need a helping hand to manage the intricacies of cloud, so the opportunities are numerous if vendors are sharp enough to take them.
Cloud Industry Forum executive team

Alex Hilton - CEO
alex@cloudindustryforum.org

David Terrar - Chairman
david.terrar@cloudindustryforum.org

Frank Bennett - Deputy Chair
frank.bennett@cloudindustryforum.org
About

The Cloud Industry Forum (CIF) was established in direct response to the evolving supply models for the delivery of software and IT services. Our aim is to provide clarity and advice for end users when assessing and selecting Cloud Service Providers based upon the clear, consistent and relevant provision of key information about the organisation/s, their capabilities and operational commitments.