

RESEARCH PAPER

**What COVID-19 can
teach us about crises
and cloud-based ERP**

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UNIT4
In business for people

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Introduction

The benefits of cloud computing for the enterprise are well understood and well established – greater flexibility and scalability, greater predictability of costs and lower capital expenditure, enhanced compliance and security, and empowered remote working. However, back-office applications, including enterprise resource planning (ERP), have often been left behind as other workloads and applications are shifted to the cloud.

Computing surveyed 150 decision makers from across Europe, representing organizations from a wide variety of industries including professional service organizations, construction, engineering, technology consultants, media, education, and not for profit organizations. The research explores where organizations are running their ERP applications today, their experiences with cloud and their infrastructure plans, and the benefits and challenges enterprises have experienced with cloud migration to date.

We will also examine the impact of the current coronavirus pandemic on infrastructure decisions, seeking to answer key questions, such as, “What impact are crises, like COVID-19, having on IT leaders and their ERP plans?”, “How is the shift to remote working affecting perceptions around cloud and digital transformation more broadly?”, and, “How is remote working changing how we consume cloud and other key technologies?”

Ultimately, we ask, “Should organizations, now more than ever, be looking to the cloud for ERP?”

Key findings

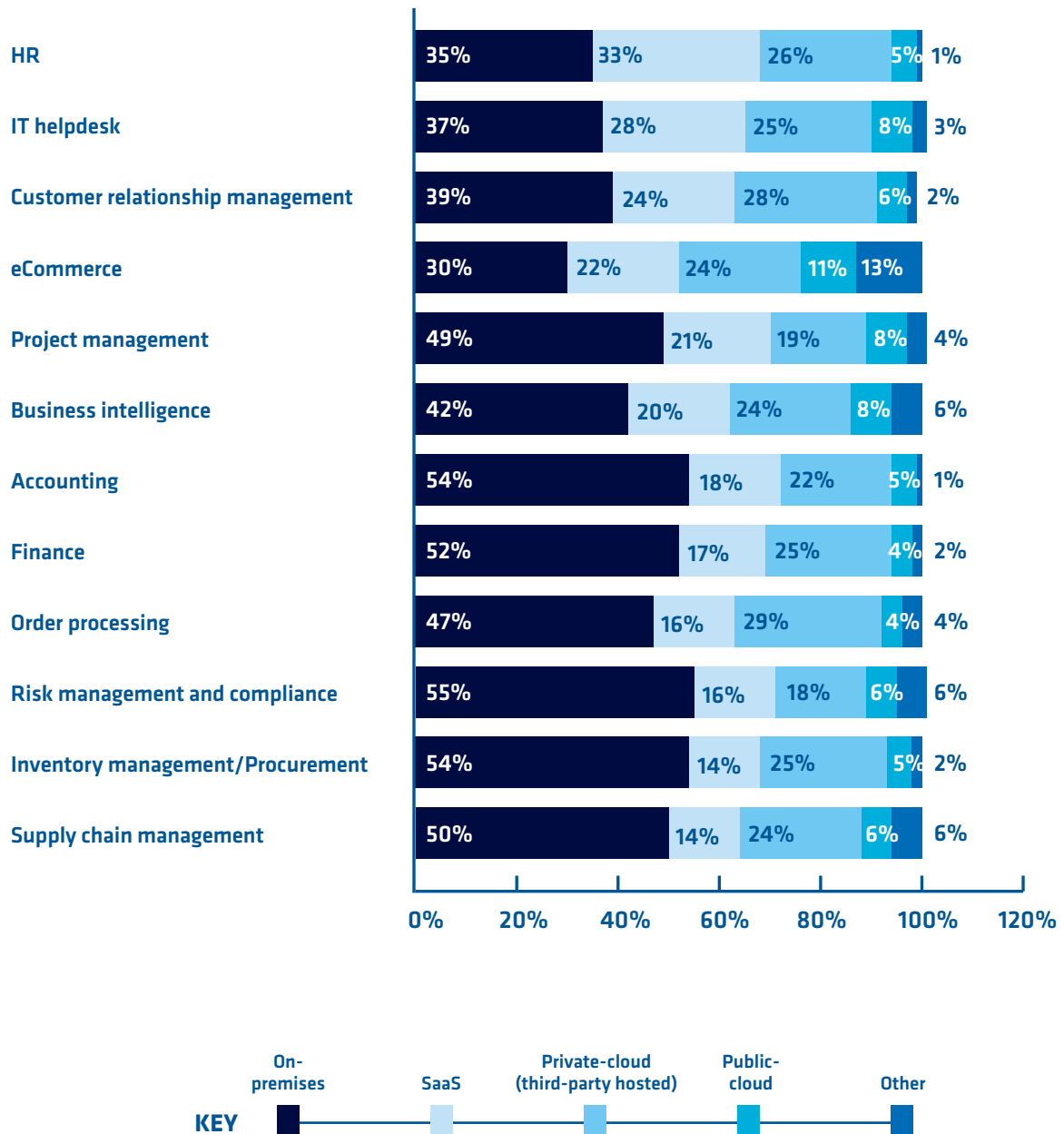
- Overall, ERP applications are most often delivered via on-premises or hosted infrastructure. HR was the most likely part of ERP to be delivered via cloud, with 64 percent of respondents doing so. Web facing applications, CRM, collaboration tools and database were most likely to be situated in some sort of public cloud.
- 75 percent of those participating in our survey had between 51 and 100 percent of their employees working remotely.
- 84 percent agreed that in their organizations, remote working had increased to a considerable extent because of the pandemic.
- 78 percent agreed that the shift to remote working would accelerate their move to the cloud.
- 74 percent agreed that cloud-based ERP enabled greater remote working.
- The most widely reported benefits of cloud ERP by those already using it were easier remote working, improved productivity and scalability and reduced operating costs.
- It is clear from the findings above that moving to cloud ERP can confer considerable benefits in terms of cost reduction while also boosting agility and improving performance and productivity. So why aren't more organizations jumping onboard?
- The biggest barriers to cloud ERP were the bespoke and complex nature of traditional ERP and security concerns.
- Much of the growth in cloud services overall over the next 2 years will be accounted for by cloud ERP.
- 56 percent of respondents stated that they were more likely to implement cloud-based applications/workloads because of the pandemic.
- Approximately 45 percent were likely to increase their use of cloud ERP as a direct result of the pandemic.

ERP in 2020

Enterprise Resource Planning (ERP) systems have been around in one shape or another since the 1970s but evolved into their present form throughout the 1990s. ERP now comprises numerous components – financial management, project management, operational reporting, procurement management, HR and payroll, field service management etc. – and these sit at the heart of enterprise systems. To say that ERP is business critical is an understatement. These systems are the heart, lungs, and central nervous systems of an enterprise. Failure is not an option.

The starting point for our research was to establish how enterprises currently run their ERP systems. Figure one breaks down ERP into its component parts and sets out whether these are currently run on-premises, in a hosted private cloud, consumed as SaaS, and so on. It is immediately clear that a clear majority of businesses are running these functions themselves on-premises or via a third-party hosted environment. The numbers using SaaS and other public cloud options are comparatively small.

Fig. 1 : Where do you primarily host the following ERP applications?



The parts of ERP most likely to be delivered via public cloud are HR, IT helpdesk and eCommerce (in that order). Nonetheless, the majority still deliver these functions with their own infrastructure, whether that infrastructure is on their own premises or hosted by a third party.

Fig. 2 : Which of the following other operations do you run in a cloud environment?

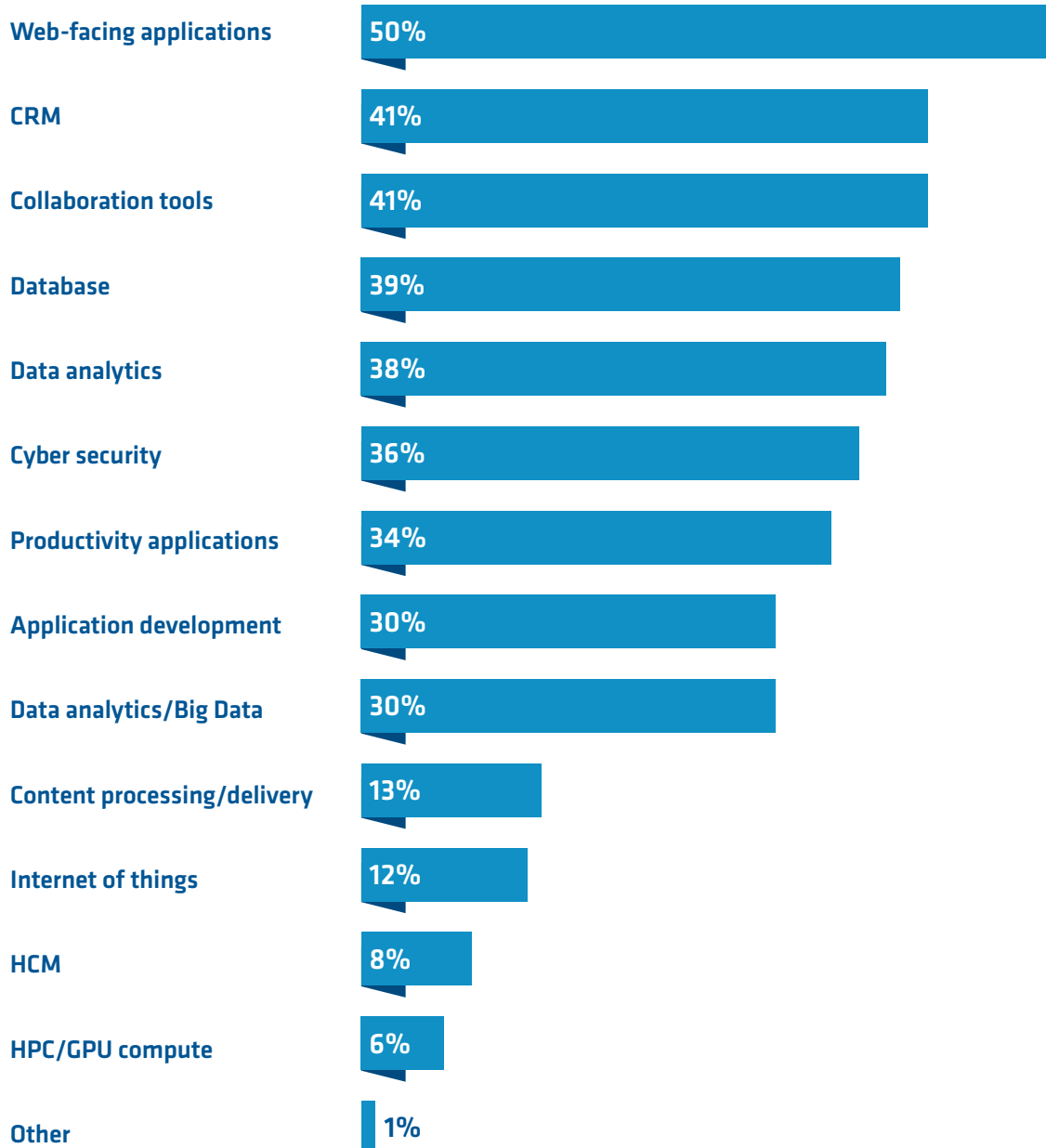


Figure two shows how much more likely other aspects of infrastructure are to be delivered via a cloud model. Bearing in mind that HR was the most likely part of ERP to be delivered via cloud, with 64 percent doing so (across SaaS, private-cloud and public-cloud), web facing applications, CRM, collaboration tools and database were all more likely to be situated in some sort of public cloud.

The difference isn't huge but, at present, ERP is less likely be executed from a cloud than other parts of enterprise infrastructure. Nonetheless, cloud-based approaches will increasingly become the norm over the next few years, as part of broader cloud migrations and maturation of SaaS-based ERP solutions.

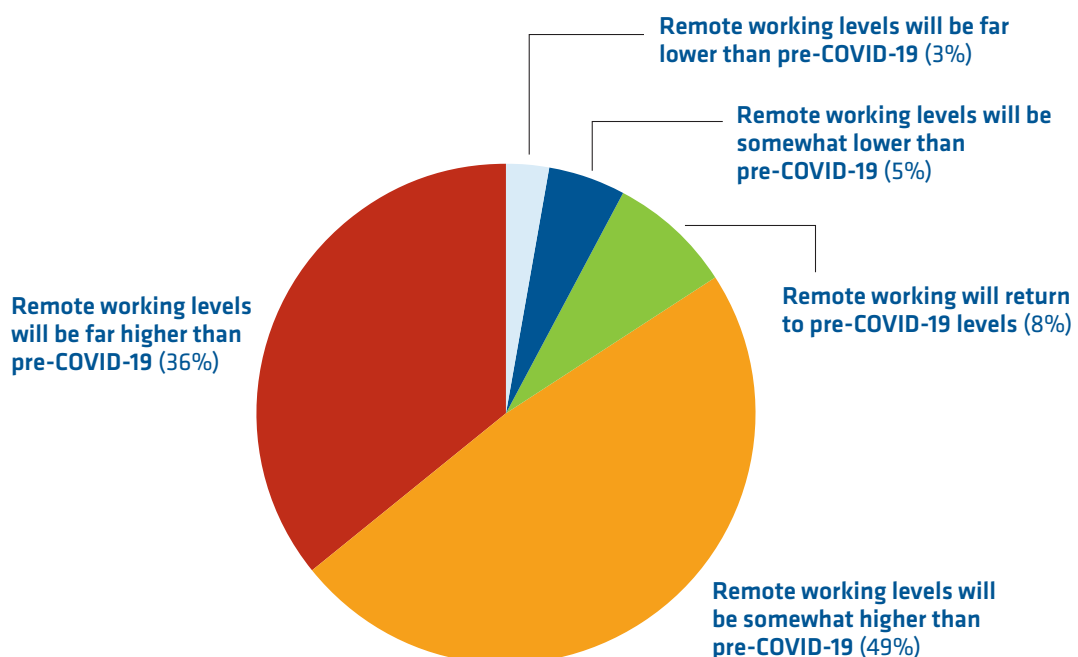
COVID-19 and remote working

The COVID-19 pandemic took the trend towards increased levels of remote working and put rocket boosters on it. Governments across Europe advised that employees should work at home if possible, in mid-March and, while other lockdown measures have eased across Europe, home working is still significantly more widespread than it was pre-pandemic. Recent research suggests that a greater proportion of office workers in some European countries have returned to their offices than is the case in the UK. Nonetheless, some sort of blended three days at home, two days in the office – or an office – remains the safest prediction of what working life will look in the years ahead.

75 percent of those participating in our survey had between 51 and 100 percent of their employees working remotely. 84 percent agreed that in their organizations, remote working had increased to a considerable extent because of the pandemic. In many organizations – both enterprise, and central and local government – there is an understanding that working primarily from home is likely to continue for the rest of 2020.

The likely shape of working life as the pandemic (hopefully) recedes has been much discussed. While the requirements of different age groups vary, figure three shows that few people expect working life to simply return to how it was. While communication, creative thinking and collaboration are aided enormously by being physically present and many employees miss the social aspect of work, it is also clear that many organizations will not require as much office space in the future. Blended working is likely to become the norm. Offices won't disappear – but they are likely to get smaller.

Fig. 3 : How do you expect remote working levels to change compared to pre-COVID-19 levels at your organisation, once social distancing measures are abolished?



What COVID-19 can teach us about crises and cloud-based ERP

COVID-19, and its impact on our working patterns has had a significant influence on the discussion about how ERP should be delivered. 70 percent of decision makers we surveyed agreed that **“crises, such as COVID-19, create a strong case for cloud-based ERP.”** Why?

The traditional, on-premises model of ERP works perfectly well – provided everyone happens to be in the office. As soon as workers start moving around, things become more complex. Cloud ERP provides a flexibility and versatility of access that more traditional remote access solutions, which necessarily involve going via your corporate network, cannot. The fact that you can access cloud services from anywhere – and any device – with an internet connection is their entire point. Greater productivity need not compromise security which can be maintained via Identity and Access Management solutions and Unified Endpoint Management.

The symbiosis of cloud computing and remote working is strongly evident in the responses of those participating in our research to two statements about these areas. When asked about the extent to which they agreed that, **“the shift to remote working will accelerate the move to the cloud,”** 78 percent did so either somewhat or strongly. When asked whether **“cloud-based ERP enables greater remote working,”** 74 percent also agreed.

Benefits of cloud ERP

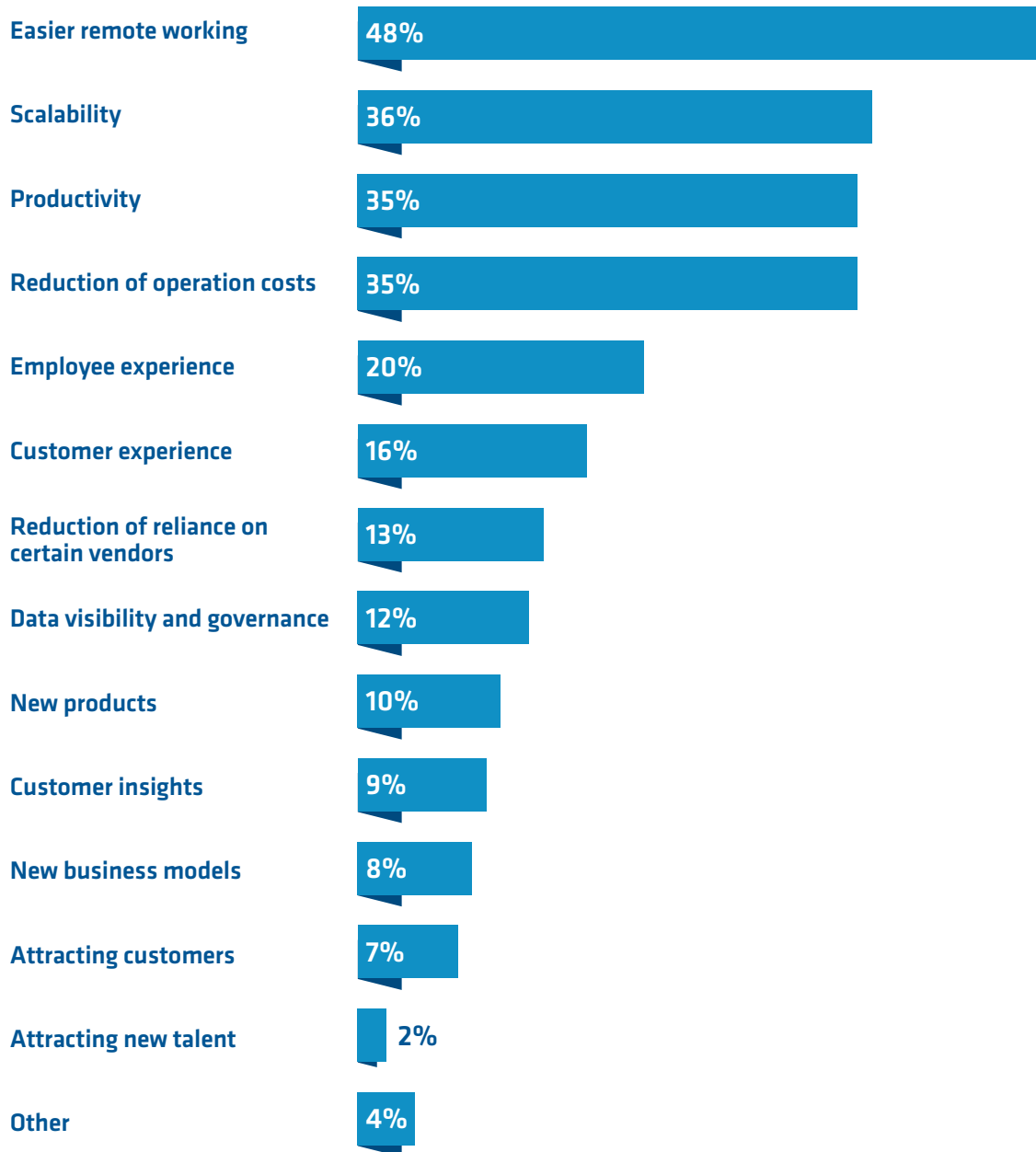
Computing asked survey respondents who were delivering at least some aspects of ERP via cloud what benefits, if any, their organization was reaping from its deployment, and their answers are illustrated in Figure 4, *next page*.

The ease of remote working reported by almost half of respondents is an intuitive finding given the strong relationship between remote working and the cloud which the same individuals have already asserted. Enhanced productivity which was also widely reported is directly tied to this point.

The enhanced scalability of cloud ERP when compared to on-premises is also a key reason for the consuming cloud services in general. Scaling on-premise ERP is likely to be labor intensive, potentially risky, and almost certainly expensive. The ability of cloud services to be ramped up (or down) almost immediately with the needs of an enterprise has been core to their growth.

Many of those we surveyed were also enjoying a tangible reduction of operating costs. Traditional on-premises ERP was a huge investment. It would have involved a large initial capital outlay, labor intensive installation and front-loaded support costs. Indeed, one of the reasons that many enterprises are still using relatively old ERP is that they cost so much in the first instance. By contrast, cloud ERP represents much better value for a majority of enterprises. Up-front costs are drastically cut, and ongoing operating cost is vastly reduced by the fact that the infrastructure itself does not have to be supported by the customer.

Fig. 4 : What have been your organisation's main benefits of using cloud-based ERP?

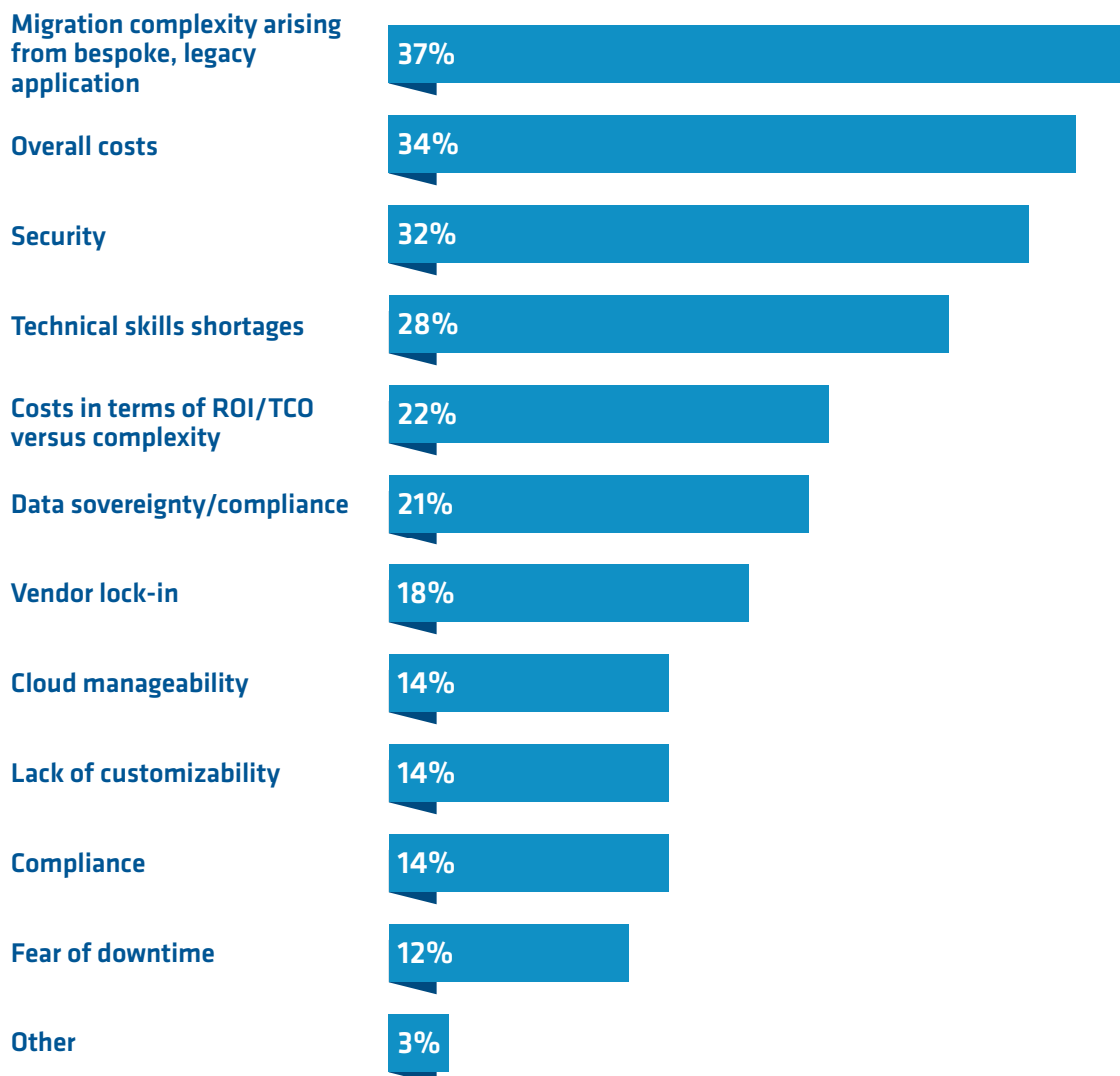


Barriers to cloud ERP

It is clear from the findings above that moving to cloud ERP can confer considerable benefits in terms of cost reduction, while also boosting agility and improving performance and productivity. So why aren't more organizations jumping onboard?

Figure five, below, sets out the reasons that our respondents not yet using cloud ERP, are still tied to on-premises infrastructure. A huge part of the problem is the nature of ERP and the migration difficulties arising from it. ERP applications are often old and bespoke, and many have been further customized over the years. In many cases a complex web of point to point integrations has been spun. The outcome for many enterprises is that ERP has become a monster. The cost (which was the second most frequently cited objection) time and risk involved in rearchitecting these applications for a cloud environment are prohibitive. These are the applications keeping the on-premises datacentre on life support.

Fig. 5 : If you are delaying moving ERP applications to cloud architecture, please share your main concerns



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It is certainly true that, due to this complexity, existing on-premises ERP is unlikely to be a candidate for a “lift and shift” approach. However, it is also true that on-premises infrastructure is aging and that newer iterations of ERP require progressively greater compute and storage capacity. Not adding newer features and functionality to ERP isn’t an option when enterprise agility is a defining factor of commercial success, but the cost of adding this capacity on-premises is becoming relatively greater when compared with starting over in the cloud.

Migrations must be planned and managed tightly but, in the end, the cost of migrating to cloud ERP will become lower than the cost of retaining the status quo. Cloud ERP enables businesses to switch direction, add features and functionality and scale at speed. The result is greater flexibility overall, which is going to enable them to retain and grow their share of the digital economy.

Concerns about security also featured heavily in our survey. The security of confidential data in the public cloud has been a subject of debate and concern since its inception, and in fairness to those with concerns the stakes don’t ever seem to have been higher. However, while the shared security model whereby both cloud provider and customer are responsible for security is a perpetual area of concern, ERP vendors typically provide robust security controls and can guarantee a level of resilience which can never be replicated in-house. It is their reputation on the line in the event of a breach.

However, cloud ERP customers can take measures to reduce their exposure to risks. The most obvious way of doing this is to deploy the security measures made available to them by the cloud ERP vendors. Combining these with other measures such as Identity and Access Management and Universal Endpoint Management reduces risk to a manageable extent. It’s also worth noting that the security of remote users can be improved by cloud ERP because data is not stored locally on laptops or phones, so the theft or loss of a particular device is less worrying from a security perspective than it otherwise would be.

COVID-19 & the cloud

Perhaps inevitably, the pandemic has had a significant impact on organizations’ views of, and plans around, both cloud computing in general and cloud ERP. Organizations that were able to switch quickly from being primarily office-based to primarily home-based were able to do so at least partly due to core applications such as ERP being accessible from any location.

We asked respondents how their use of cloud computing is likely to change in general over the next two years. 84 percent told us that their use of cloud was likely to increase either somewhat or greatly. However, we also asked how their use of cloud computing for ERP likely to change over the next two years and 64 percent gave the same “somewhat” or “greatly” answer. 35 percent said it was likely to remain unchanged. These findings suggest that much of the growth in cloud uptake amongst our respondents’ businesses is likely to be accounted for by ERP applications.

Fig. 6a : To what extent is COVID-19 changing your organisation's cloud plans over the next two years?

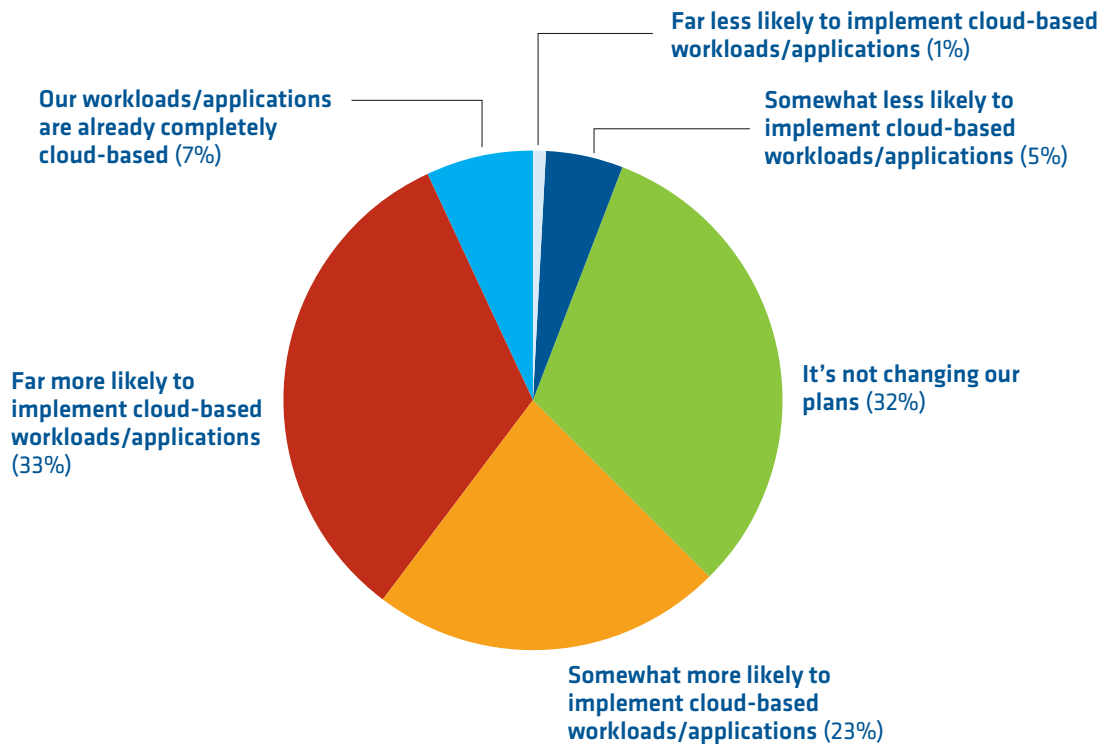


Fig. 6b : To what extent is COVID-19 changing your organisation's ERP plans for the next two years?

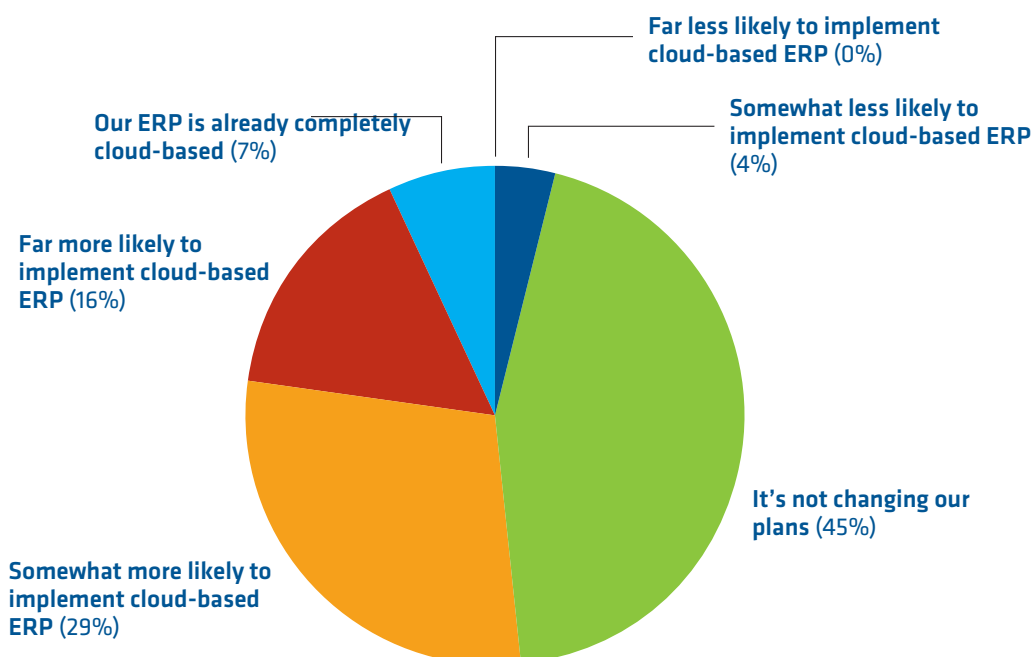


Figure 6a shows responses to questions about the effect COVID-19 has had on cloud plans and cloud ERP plans specifically. Two things stand out. The first is that the pandemic is likely to fuel significant growth in overall cloud services, with almost 56 percent of respondents stating that they were more likely to implement cloud-based applications/workloads. The second is that almost 45 percent were likely to increase their use of cloud ERP. To put it another way, this means that for those increasing their use of cloud services, cloud ERP is likely to play an important role in those plans.

Conclusion

Our exclusive research on cloud ERP has established that, at present, a minority of enterprises are delivering ERP applications via SaaS or other public cloud services. Web facing applications, CRM, collaboration tools and database were most likely to be situated in some sort of public cloud.

However, given the widespread shift to cloud-based applications, greater remote working, and growing recognition of the benefits of cloud-based ERP, the migration of back-office applications to the cloud will undoubtedly accelerate over the next couple of years. Ignore the advantages of SaaS approaches to ERP at your peril, as it increasingly becomes the norm.

Remote working, in many industries, is now very much the norm. Three quarters of our research participants had a majority of their employees working remotely, and 84 percent said that remote working had increased in their businesses to a considerable extent because of the pandemic. Very few expected working lives to return to the pre-COVID norm. A trend very much echoed by mainstream media discussion on the subject and a majority agreed that the shift to remote working would accelerate their move to the cloud.

A similar majority also believed that cloud ERP enables greater remote working. This is because accessing on-premises ERP via VPNs has a detrimental impact on the productivity of workers and confines them to their homes if they want to access their ERP. While this may not have been an issue in April when we were all confined to our homes, it will become more and more of an issue as remote workers begin to move around more and need to access ERP applications via the internet.

The importance of remote working could be seen in the benefits that businesses are reaping from cloud ERP, along with improved productivity and scalability. Many were also benefiting from reduced capital and operating costs.

The most significant barrier holding back more widespread cloud ERP was the combination of bespoke legacy ERP and their subsequent fragility. The costs and risks of rearchitecting these mission critical applications are keeping them going long past their sell by dates. The metaphorical expiration of sell by dates matters because the costs of keeping up with newer product versions is becoming more and more expensive. Each organization has its own balancing act but in the end the costs and risks of migration will become less than the costs and risks of maintaining old applications that may not even be supported anymore. The transition to cloud ERP is inevitable. All that varies is the timescale.

Inevitably, this is reflected in views about how cloud computing is likely to change over the next two years, with a huge number (84 percent) likely to increase their use of cloud in general, with ERP accounting for a significant proportion of this growth. This trend was in place before the pandemic struck but our research has shown that for a majority of enterprises, the pandemic has likely brought forward cloud migration plans. More than half of those responding stated that they were more likely to move data and applications into a cloud setting than they were pre-pandemic.

What COVID-19 can teach us about crises and cloud-based ERP

They were also much more likely to be planning a cloud ERP migration, with 80 percent of those increasing their use of cloud services doing so via cloud ERP.

It will be years before the full effects of COVID-19 on our socioeconomic fabric can be fully assessed and understood. The businesses that survive will be the most agile and able to scale operations as required. ERP are the applications that power businesses. Without them a business cannot operate. Delivering ERP via the cloud is the most flexible, scalable, and cost-effective way to operate. It enables and powers remote working – and subsequent improved productivity – that businesses have needed and will need in the future. Traditional ERP delivered via on-premises infrastructure was designed for a different era. It will have a difficult time adjusting to the realities of our post-pandemic world.

About the sponsor, Unit4

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