



Digital Continuity

UK Technology Research 2020

serviceteamit

The Insight Report

UK organisations are facing a challenge: to ensure business continuity in a period of huge change.

The outbreak of COVID-19 has presented institutions with the task of navigating a new normal for their business, operations, employees and customers.

For our fourth annual research report, Service-team IT, in partnership with Doogheno, wanted to create a publication which an organisation could refer to and extend their position. A document where information on the experience of businesses as well as further research on this knowledge was easily accessible.

Our aim was to identify the extent of technology reliance for UK business survival, following the unprecedented crisis caused by the COVID-19 pandemic.

There are countless articles about 'How COVID-19 is Changing the Future of Business' or 'How to Work Effectively from Home'. This is not one of those publications.

This publication will include what specific infrastructure has helped real businesses through COVID-19.

Instead, we have compiled this insight report from primary research, including a survey and interviews, and secondary research. This publication will include what specific infrastructure has helped real businesses through COVID-19 and what investment will look like post-pandemic considering the challenges and benefits of digital transformation. There will be resources concerning how to best implement a technology or service to your business and guidance to aid your organisation through challenges experienced.



Our hypothesis was: the further along an organisation is with digital transformation, the more proficient the company would be at managing the effects of the outbreak of COVID-19.

This report will move through 12 sections.

Our research is a culmination of primary and secondary data. The primary data collection consisted of a quantitative survey and qualitative interviews. The secondary data was acquired from online news sources, academic journals and further studies.

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The Truth About Digital Transformation

/Question 1

Arvind Krishna, The Chief Executive of IBM, said “History will look back on this... as the moment when the digital transformation of business and society suddenly accelerated”. Do you agree with this statement?

This question was answered on a scale of one to five. One being strongly disagree and five being strongly agree.

76% of respondents either agreed or strongly agreed with Arvind Krishna’s statement regarding digital transformation.

Professor Klaus Schwab, founder and Executive Chairman of the World Economic Forum stressed

“[regarding digital transformation] my concern, however, is that decision-makers are often caught in traditional, linear (and non-disruptive) thinking or too absorbed by immediate concerns to think strategically about the forces of disruption and innovation shaping our future”.

In this way, some business may struggle to digitally innovate. Yet, 45% of respondents rated their agreement as four out of five. Although 96% of respondents rated their agreement over three – which was considered neutral – 4% of respondents gave the rating of two.

The Truth About Digital Transformation

/Question 2

Was your organisation's IT infrastructure able to reduce disruption to operations when the nationwide lockdown began?

87% of respondents reported that their IT infrastructure was able to reduce disruption to operations when the nationwide lockdown began.

Rick Williams works with the Home Office on Agile Programme and Project Management and told Serviceteam IT that as a software business, they have been using tools to enable remote working for several years.

"Whilst the current crisis has shifted the emphasis to full home working, it has not had any significant effect on the efficiency or effectiveness of the business" Rick mentioned.

Therefore, our hypothesis on the surface appears correct: the further along an organisation is with digital transformation, the more 'proficient' the company would be at managing the effects of the outbreak of COVID-19.

However, 6% of respondents answered that their IT infrastructure were not able to reduce disruption to operations during the nationwide lockdown. A further 6% of respondents answered 'unsure'.

6% of respondents answered that their IT infrastructure were not able to reduce disruption to operations during the nationwide lockdown.



87% of respondents reported that their IT infrastructure was able to reduce disruption to operations when the nationwide lockdown began

McKinsey & Company found that although more organisations have pursued large scale changes, the success rate of these digital transformations is relatively low. They comment that there are five categories which the best practices of digital transformation fall into:

1. having the right, digital-savvy leaders in place
2. building capabilities for the workforce of the future
3. empowering people to work in new ways
4. giving day-to-day tools a digital upgrade
5. communicating frequently via traditional and digital methods

Therefore, if an organisation's current IT infrastructure has not been able to reduce disruptions to operations, businesses could use these best practices to improve their chances of successfully implementing digital changes.

Practical Guidance

The past few months have shown that digital transformation is unavoidable, and every business must have an online presence. This does not have to be confusing, stressful or expensive.

IT is constantly evolving and there will always be the 'next big thing'. If you do not have the knowledge or infrastructure to further digital transformation in-house, outsourcing might be the best option.

Outsourcing is defined as to "obtain (goods or a service) by contract from an outside supplier". Major functions are contracted out to specialists or business partners.

There are many types of tech outsourcing including cloud services, data centre outsourcing, cyber security, software development and infrastructure management.

Reasons for outsourcing could include operational difficulties, outsourcing might allow global reach, or the required skills or resources are not available in-house.

If your organisation is considering outsourcing, a business vision is beneficial

This may be difficult with current challenges being uncovered, or unknown challenges looming. Page 16 contains business challenges UK organisations have faced over the past 3 months and, on page 29, the results of respondents predicting the future of business. These two sections may help to formulate a strategic plan.

Further Resources

Name	Publisher	Description
Unlocking Success in Digital Transformation	McKinsey & Company	This article recognises the difficulty of digital transformation and provides five factors which contribute to its successful implementation in an organisation.
Digital Revolution: UK Technology Research 2019	Serviceteam IT	This research uncovers the extent of technology adoption in the UK and the IT challenges businesses faced in 2019.

What IT Infrastructure has helped organisations?

/Question 3

Most of the organisations we interviewed have valued collaboration services over the past 3 months. Which of the following services were already implemented in your organisation prior to lockdown?

Productivity platforms e.g. Google and Microsoft	92%	92% of respondents had implemented productivity platforms, such as Microsoft and Google. Additionally, 81% of respondents were using VOIP/IP Telephony in their organisation.
VOIP/IP Telephony	81%	We spoke to James Augustin, the Company Director at CoronaUnity, a charity start-up whose mission is to create projects that tackle the effects of COVID-19 on society. CoronaUnity was formed during lockdown and have introduced a PhoneAFriend service. James told Serviceteam IT the team built a database to recognise matches at specific times. With the help of Twilio, a phone masking service, they can control what information is given out with these calls. CoronaUnity do not vet people very strictly as they want to be a friendly and informal service.
Collaboration services e.g. Slack and Teams	67%	
Virtual Desktop Infrastructure/ Desktop as a Service	42%	
Other	1%	

“Rather than people calling each other’s numbers, they call a central phone line...This ensures that no information of either the user or volunteer gets passed on. It is an essential line to protect data” says James.

Zoom stated that there are over 300 million daily Zoom meeting participants.

Further, 67% of respondents were using collaboration services prior to lockdown.

For Rick Williams, who works with the Home Office on Agile Project and Programme Management, collaboration technology is based around G Suite.

“We use this toolset to share team calendars, schedule online meetings and video conferencing with Google Meet, share storage drives and collaboratively work on documents.

Although we use Gmail, by far the most used communication tool is Slack, which is a Cloud based instant messaging system. Response times are significantly faster when using Slack, and conversations tend to be in real time without the ‘lag’ which is inherent with email systems. You can create separate channels to discuss different topics and themes and also create private channels with selected individuals to talk through a particular topic if necessary.”

Additionally, Zoom stated that there are over 300 million daily Zoom meeting participants. James Augustin believes it is important to have a face-to-face element when you are working with a team, especially when you cannot see people in an office or are working globally.

Tim Hodge, the Chief Information Officer at People’s Dispensary for Sick Animals (PDSA), the UK’s leading vet charity, told Serviceteam IT that his team have found the Microsoft Teams collaboration platform to be invaluable.

Their team’s “usage was relatively minimal prior to lockdown but, this platform has come into its own from the day we went into lockdown and is likely to lead to far more virtual meetings/collaboration in the future alongside a cultural change to embrace much more remote and flexible working”.

Serviceteam IT also spoke to Mandy Blizzard, the Head of ICT at St Basils, a charity who work with young people to prevent homelessness and increase their confidence, skills and opportunities. Prior to lockdown, most staff did not have laptops and Microsoft Teams was not widely used. The COVID-19 pandemic has accelerated the technology adoption at St Basils with 120 laptops being purchased and staff actively using Teams. Mandy told us that the organisation would have reached this level of adoption eventually, but it would have taken one to two more years.

Although it was unlikely, no respondents reported that they had implemented no digital services.

What IT Infrastructure has helped organisations?

/Question 4

Which of the following technologies were already implemented prior to lockdown?

Security and identity e.g. Multi-factor authentication	85%	85% of respondents reported that they use security and identity technologies, such as Multi-factor Authentication.
Enterprise applications	71%	In Serviceteam IT's 2019 research, only 36% of respondents witnessed an increase in cybersecurity incidents over the past 12 months compared to 50% in 2018. This highlights that organisations have been deploying cybersecurity technology.
Emerging technologies e.g. AI or IoT	17%	Further, in our 2019 research, we asked whether organisations were currently using or planning to adopt emerging technologies - Artificial Intelligence, Blockchain, Edge, Internet of Things, or Robotic Process Automation - in the future. The takeaway was that there was more interest than action.
No digital technology	4%	This year, 17% of respondents reported that they had already implemented emerging technologies. Therefore, there has been more action than interest in the past year.
Other	1%	4% of respondents reported that they had implemented no digital technology prior to lockdown.

Practical Guidance

Whether or not your organisation's services or technologies were efficient during this unprecedented time, improvements to business infrastructure will be ongoing.

Regarding continuous improvement, Alex Novkov from Kanbanize suggests analysing the organisation's current situation and how it operates. Then implement PDCA: plan, do, check, act. This needs to be implemented into a strategy to realise benefits such as accountability and a shared mindset.

Alex also shares how to implement this by looking inward to your business. This includes the Negative Case, a part of the business needing improvement, the Neutral Case, somewhere where nothing is obviously wrong but could be better, and the Positive Case, which is a successful business aspect to learn from.

If you are considering deploying an IP Telephony solution, Cloud PBX/Hosted PBX is a means for you to make and receive telephone calls using your network connection. You can enjoy all the features of a high-end PBX without the need for any onsite equipment and at a fraction of the cost of traditional phone systems. Full call centre solutions, designed for high volume in-bound Telesales or out-bound calling are available, including advanced functionality, call scripting or CRM integration.

Cloud PBX solutions can be deployed with any number of options and through a multitude of providers including:

- Twilio (mentioned by James Augustin) with advanced voice analytics.
- Asterix for robust PBX functionality
- BroadCloud owned by Cisco for enterprise voice capabilities.
- Costs range from pennies to tens of pounds per user per month.

81% of respondents reported that they have invested in IP Telephony. From our team's personal experience, we have found it difficult to get a hold of company employees if they are working remotely

VDI / SaaS

42% of respondents used Virtual Desktop Infrastructure or Desktop as a Service. This includes Azure VDI, AWS Workspaces, VMware Air Desktop and Navisite Spectrum Enterprise which demonstrate in a fashion that would be most acceptable to users - it is immediately identifiable as a Windows Desktop with familiar applications and layout. This facilitates adoption as it represents no perceptible change in use.

The intended device for access to the Desktop as a Service environment is any RDS client (Windows), any VMware View client, any PCoIP client (Teradici) or any HTML5 browser. App clients are available for iOS, Android, Windows Phone.

We highly recommend a dedicated PCoIP Client, such as Wyse. The Wyse P20 and Wyse P25 single-purpose devices that have no operating system, require no local configuration or management, have no attack surface for viruses and malware, and keep up with advances in protocols automatically.

Key features include:

- Zero attack surface: Immune to dangerous viruses and malware; all data is stored in the data centre, where it belongs.
- Zero configuration and management: The P20/P25 is configured out-of-the-box to

your preferences for plug-and-play speed and ease of use.

- Zero compromised user experience: PCoIP delivered in hardware, delivers extremely high performance with brilliant graphics over multiple displays, multimedia playback, and HD audio, and 4 USB ports.
- Extremely flexible: Along with Wyse desktop and mobile thin clients, choose from Linux, Windows Embedded or Wyse Zero clients.
- Green: Draws under 7 watts of power; saves up to £100 in energy costs per desktop each year

Protect content and eliminate the data security exposures of traditional PCs:

- Reduce end user downtime and support costs by ensuring data and applications are secure and available.
- Reduce costs of hardware and software deployment and maintenance and increase IT efficiencies.
- Lower TCO by reducing IT time and effort, energy consumption and PC replacement costs.
- Meet increasingly strict compliance mandates as well as requirements for new green IT initiatives.

Further Resources

Name	Publisher	Description
Essential Guide: Technology Readiness for the Covid-19 pandemic	Computer Weekly	This is a very helpful guide to discuss best practice advice for IT leaders and departments which focuses on the infrastructure, technology, leadership or social advice your business requires.
Gartner Top 10 Strategic Technology Trends	Gartner	Written in 2019, "the trends are structured around the idea of "people-centric smart spaces," which means considering how these technologies will affect people (i.e., customers, employees) and the places that they live in (i.e., home, office, car)". These trends include hyper automation, multi experience, democratisation, human automation, transparency and traceability, the empowered edge, the distributed cloud, autonomous things, practical blockchain and AI security.

The Actual Challenges Businesses have faced

/Question 5

Organisations have faced unexpected challenges as a result of the COVID-19 pandemic, which of the following have you experienced?

Innovating to meet changing customer needs	26%
Reduction in the number of customers	26%
Connectivity e.g. broadband & internet whilst WfH	25%
Having to change the digital and/or business plan.	21%
Experienced no challenges	20%
Hardware or software issues	18%
Communication within your organisation	17%
Collaboration with your team	14%
Building an online presence	10%
Building a digital culture	7%
Limited Global Outreach	4%

80% of respondents have experienced unexpected challenges as a result of the COVID-19 pandemic.

26% were struggling with innovating to meet changing customer needs and 26% experienced a reduction in the number of customers.

James Augustin, the Company Director of CoronaUnity told us:

"I did not have the foresight of switching over [to working remotely and communicating digitally]. From talking to other organisations, I think people who have switched over have found it harder. As CoronaUnity has all been digital from the start, this has seemed the norm.

One of the challenges is ensuring people reply, especially as this is a voluntary service...Whilst the group chat has had its place...one on one messaging has been very important."



This reflects 17% of respondents reporting communication within their organisation and 14% reporting communication with their team being a challenge experienced as a result of the outbreak of COVID-19. James told Serviceteam IT that Slack has helped to centralise the CoronaUnity volunteers.

Additionally, CoronaUnity have introduced Charity Pro Bono Consulting to deliver consultancy projects for third sector organisations over the summer.

One written response was “too much going on to know what’s really happening. We think we have a handle on it but some of it is not certain”.

26% of organisations reported to be struggling with innovating to meet changing customer needs

Practical Guidance

Katherine Guyot and Isabel V. Sawhill from the Brookings Institution wrote “the COVID-19 pandemic is, among other things, a massive experiment in telecommuting”. Therefore, it is highly likely that for most businesses there are challenges along the way.

To have professional devices anywhere, at any time and on any device, we recommend Office 365.

18% of respondents reported they experienced hardware or software issues and 7% mentioned they are experiencing the challenges of building a digital culture. To have professional devices anywhere, at any time and on any device, we recommend Office 365. Cloud connected services include email, calendars, documents and storage, which is secure. Office 365 can also grow with your business.

If you deploy a Microsoft Cloud Partner or a Microsoft Cloud Solution Provider, they can directly bill and support the organisation using Microsoft Cloud services. This could also reduce the cost savings and provide ongoing support. Bespoke services include sizing and resource allocation in Azure, emailing continuity and compliant company-wide email signatures for Office 365.

Further Resources

Name	Publisher	Description
Responding to the UK business impacts of coronavirus (COVID-19)	PwC	This includes numerous resources and research using different media - including podcasts - which aims to support organisations with the ongoing impact of COVID-19. This includes practical insights.
COVID-19: Implications for business	McKinsey & Company	McKinsey and Company's "latest perspectives on the coronavirus outbreak, the twin threats to lives and livelihoods, and how organizations can prepare for the next normal". This continues to be updated with the latest developments.
Outmanoeuvre uncertainty: navigating the human and business impact of COVID-19	Accenture	A webpage to navigate and find further resources for your specific business challenges to turn them into meaningful change. The areas include: <ol style="list-style-type: none">1. Impact on Strategy2. Impact on Customers3. Impact on Workforce4. Impact on Operations5. Impact on Finance6. Impact on Technology7. Impact on Industries

The Unexpected Benefits from the Move to Digital Platforms

/Question 6

What have been some of the unexpected benefits your team have noticed from working on digital platforms over the past 3 months?

A better work-life balance	53%
Being more productive at home	41%
Innovating to meet changing customer's needs	29%
Better communication within our team and other teams	22%
Utilising key areas of the organisation's digital infrastructure	22%
Experienced no benefits	17%
Maintaining customers both nationally and internationally	16%
The Business Continuity Plan mitigated challenges	16%
Networking nationally and internationally	12%
E-commerce has been successful	11%

53% of respondents reported that they have experienced a better work-life balance over the past 3 months.

Rick Williams, who works with the Home Office in Agile Project and Programme Management, told us that he has not really witnessed any unexpected benefits as “[digital working] has been our ‘modus operandi’ for a number of years. However, employees with long commutes can now spend more time doing other things they enjoy”.

Therefore, organisations who were digitally oriented may have experienced fewer operational challenges and instead experienced benefits from digital platforms, further supporting our hypothesis.

Additionally, 29% of respondents reported that they have been able to innovate to meet changing customer's needs.

Tony Seaton, a Client Director at Jerroms, told us that, in his opinion, around 75% of their clients have been able to continue operations as normal. Although some clients have had to close or furlough staff, others have diversified, and Tony has witnessed a lot of innovation.



Tony commented that there are people who have said “we have done it like this for 25 years, why should we do it differently?” but he mentioned there has been on a drive to go paperless and this experience will accelerate that.

16% of respondents mentioned that they have been able to maintain customers both nationally and internationally, and a further 12% reporting they were able to network nationally and internationally.

We spoke to Lee Nabbs, the Head of IT at the College of Medicine and Dentistry (CoMD), a private education provider who is focusing on teaching students online. CoMD’s technology means the college can deliver webinars anywhere in the UK, or the world.

Lee noted that the practical aspect of the education is where the students are missing

out. However, up to 10,000 people have discovered the college by attending the free lectures and CPD courses CoMD have made available. Some students even prefer to work from home.

Overall, Lee commented that the college has been able to continue working with relatively little disruption and if anything, the team may be more productive. 41% of survey respondents also agree they have been more productive working from home.

However, 17% of respondents reported that they experienced no unexpected benefits from the move to digital platforms over the past 3 months. The key word here may be ‘unexpected’. Organisations either experienced the benefits of digital platforms before the outbreak of COVID-19 so it is business as usual, or unfortunately, have not witnessed any benefits from digital transformation.

Practical Guidance

If your organisation is not experiencing any unexpected benefits from the move to digital platforms, it may be that all four types of digital transformation identified by Andrew Annacone are not being addressed.

He argues that there are four types of digital transformation: business process, business model, domain, and cultural/organisational. "Failure to address all four types leaves significant value on the table" so his article analyses these types of transformation.

Alternatively, the article Digital Transformation is Not About Technology in the Harvard Business Review argues:

there are four types of digital transformation: business process, business model, domain, and cultural/organisational.

"Most digital technologies provide possibilities for efficiency gains and customer intimacy. But if people lack the right mindset to change and the current organisational practices are flawed, DT will simply magnify those flaws. Five key lessons have helped us lead our organizations through digital transformations that succeeded."

These five key lessons are:

1. Figure out your business strategy before you invest in anything
2. Leverage insiders
3. Design customer experience from the outside in
4. Recognise employee's fear of being replaced
5. Bring Silicon Valley start-up culture inside

Furthermore, unexpected benefits may not be witnessed as it is business as usual. It seems this would more likely be in an organisation with a start-up culture.

Further Resources

Name	Publisher	Description
Should CIOs be Replicating Start-Ups?	Serviceteam IT	An article for, and against, introducing a start-up culture in an organisation.
Seven Ways to Implement a Digital Transformation	Rajat Dhawan for Forbes	“Digital technologies are changing most industries in a significant way. Employing these new capabilities in the context of your business is no longer an option but a question of timing”. This article highlights that although there is intent to better use digital tech, many leaders are unable to progress past step one. Rajat covers 7 principles “that are applicable to all leaders wanting to embark on their digital transformation journey”

The Movement to E-Commerce

/Question 7

Has your organisation had to change its business model to focus on e-commerce?

E-commerce includes retail, wholesale, services, drop shipping, crowdfunding, subscription, physical products and digital products.

79% of respondents reported that their organisation did not have to change its business model to focus on e-commerce.

Therefore, respondents either already had an appropriate e-commerce business model, or they are choosing to not utilise e-commerce. Tim Hodge, the Chief Information Officer at PDSA told us

“There is no doubt we will increase the focus on digital fundraising as we will electronic sales via our e-commerce platform”

There are four main types of e-commerce:

1. Business to Consumer (B2C)
2. Business to Business (B2B)
3. Consumer to Consumer (C2C)
4. Consumer to Business (C2B)

It seemed highly likely that respondents would have to change their business model considering it encapsulates a huge online presence. However, only 12% of respondents did.

Practical Guidance

McKinsey Digital wrote the thesis “companies can create a working e-commerce site in much less time than they think. In fact, a poor understanding of what’s really possible with digital can be one of the most significant hindrances to moving quickly”. Therefore, a new business can be launched in fewer than four months, rather than the standard six to nine months.

McKinsey tested this thesis on the experience of one European retail chain with around 1,000 physical stores with no previous e-commerce presence. The article is split into the main lessons of that programme which includes:

1. Be pragmatic
2. Be clear with responsibilities: Assign ownership, not tasks
3. Learn and adapt

The article covers how the European retail chain started its ecommerce, how long it took them, and a detailed description of each of the lessons from the programme.

Further Resources

Name	Publisher	Description
Tips for cybersecurity when buying and selling online	European Union Agency for Cybersecurity	5 tips for buying online and 5 tips for secure selling online for both citizens and SMEs to prevent cyber issues with online transactions during COVID-19.
5 Types of Ecommerce Business Models That Work Right Now	Ecommerce CEO	This article argues that a business must understand the fundamentals of e-commerce before getting caught up in the latest trends. The guidance includes understanding different business models and e-commerce business clarifications.

Working from Home and Operational Efficiency

/Question 8

After considering your current operational efficiency, where are your team likely to work when lockdown is eased?

15% of survey respondents reported their team are likely to work from home when lockdown is eased.

69% of respondents reported their team are likely to experience a balance between working from home and working at the office.

According to the ONS, in 2019 of the 32.6 million people in employment in the UK, around 1.7 million people reported working mainly from home. Further, less than 30% said that they have worked from home previously. These statistics suggests it is unlikely that many businesses had the framework to allow most employees to work from home over an extended period.

In March, a Gartner survey found

“76% of HR leaders reported the top employee complaint during the coronavirus outbreak as “concerns from managers about the productivity or engagement of their teams when remote.” But worries about employee productivity are often overblown”

Numerous organisations have been able to maintain operational efficiency working from home.

Rick Williams works with the Home Office on Agile Programme and Project Management and told Serviceteam IT that

“Remote working is considered part of the culture and an employee benefit, offering our staff flexibility and a more sustainable work life balance”.

However, during lockdown the business has kept a close eye on the wellbeing of their staff.

“Everyone is different, and some people can adapt to the lockdown and sense of isolation better than others. We are conscious that team bonding is a lot more difficult when everyone is working remotely, but regular video conferencing between members of the team and more online team meetings have helped. We have also scheduled a ‘virtual drinks’ session at 4.00 every Friday, where anyone can hang out and chat in the ‘communal bar’ over a few beers and wind down for the weekend” Rick commented.

Additionally, Tony Seaton, a Client Director at Jerroms, reported that their team have been productive working from home so, in his opinion, there is no hurry to go back into the office. He mentioned the team all have a monitor and a keyboard so that staff are not looking at a laptop screen all day. Further, Tony believes their IT team have been very supportive; all problems have been sorted within an hour of them arising.

However, Tony is mindful that working from home will present different challenges for people. Jerroms have started preparing for the safe return to work. Tony predicts one third of the workforce will be in the office for one day per week, two meters away and with plastic screens between desks. This, he foresees, will be gradually built upon once it is safe.

15% of survey respondents reported their team are likely to work from home when lockdown is eased.

Tracy Brower for Forbes argues ***“it’s tempting for companies to conclude the office is irrelevant”***. She mentioned this is understandable considering the costs of an office and productivity levels remaining high despite uncertain times, partners being furloughed or children not attending school.

However, Tracy notes that the office cannot simply go away as it ***“is necessary on multiple levels – for our effectiveness, for our sanity and for our humanity”*** and analysed 5 benefits of working in an office.

Tracy argues we can do relatively efficient and productive work from home; however, we are better when the office is a part of the holistic work experience in addition to working from home.

On the opposing side, 12% of respondents reported their team are likely to work in an office when lockdown is eased and 1% were unsure.

Practical Guidance

In terms of returning to the office, there is one term we have seen over and over: risk assessment. A risk assessment should be completed, whether you use a template or outsource this responsibility, for the safety of your staff before returning to the office.

Additional reports have argued that an increase in a home-based workforce may reduce the likelihood of the traditional 9-5 business hours. A workday may become more flexible with more people opting to work outside regular hours, including at night. However, this would require 24/7 service operations for businesses. Therefore, operations may change with the shift to remote working.

Further Resources

Name	Publisher	Description
Working Safety During Coronavirus (COVID-19)	Gov.UK	This is government issued advice to help employers, employees and the self-employed to understand how to work safely during COVID-19. There are 8 guides which are updated when there is new information.
Employer Guide: COVID-19	Westfield Health	An employer guide to help businesses mitigate the risk of COVID-19 in the workplace and to introduce plans to contain the virus should a member of staff contract it. This includes response plan templates and a 5-step process.
COVID-19: returning to the workplace	CIPD	CIPD provides guidance and sources, including a general workplace safety risk assessment template, so businesses are informed of the practical and legal requirements for employees to return to work. It is an in-depth guide on different scenarios for businesses to consider.

Predicting the Future of Business

/Question 9

We have been talking to organisations about the new normal. Predicting the future of business, which one of the following options will impact your organisation the most?

Maintaining staff motivation	34%
Social distancing to ensure employee's safety	33%
Virtual meetings	31%
Reduced budgets	30%
Expanding the business	28%
Furloughing or terminating contracts of skilled employees	25%
Reworking a digital and/or business plan	20%
Creating, or building, a digital culture	19%
Digital networking	17%
Legislation allowing employees to work from home	14%
Removal, suspension or end of government support	14%

34% of respondents noted that maintaining staff motivation will impact their organisation the most.

The Economist suggested:

“As economies reopen, activity will recover, but don’t expect a quick return to a carefree world of unfettered movement and free trade. The pandemic will politicise travel and migration and entrench a bias towards self-reliance. This inward-looking lurch will enfeeble the recovery, leave the economy vulnerable and spread geopolitical instability”

This reflects the responses of 31% of respondents who viewed virtual meetings as a future impact and 9% of respondents expecting global outreach to impact their organisation.

Tony Seaton, a Client Director at Jerroms, mentioned to Serviceteam IT that many companies are trying to get through the initial challenges now and predicts there will be two years of pain before there are fewer challenges.



“Gradually getting confidence in people to mix with others will be the hardest thing”

Tony stated that the world will never go back to how it was. He believes the days of catching the train to London for a meeting have long since gone. Although he was not savvy in IT, applications he did not know he could use two months ago are now a great asset. He believes lockdown is a good exercise in how you use your IT skills by utilising infrastructure that was already implemented.

This sentiment is reflected by 19% of respondents who noted a future impact to their organisation will be creating, or building, a digital culture.

Mandy Blizard, the Head of ICT at St Basils, told Serviceteam IT that the change in the way people will work will have the great-

est impact on their organisation in the long term. For example, staff only being in the office for two or three days per week rather than five. Mandy commented that this will likely result in a change in the hardware or software they need, and the way they are managed.

Forbes argue that “the consensus among industry experts is the companies have to go digital because they cannot afford not to”. 20% of respondents note they will have to rework their digital or business plan.

Practical Guidance

Any device or resource is susceptible and highly vulnerable to attack if left un-patched and un-managed.

Ginni Rometty, the Executive Chairman of IBM, suggested that digital transformation trends were accelerating. With the move to remote working, she suggested that there will be pressure on corporate responsibility to change the way the organisation is structured.

User devices, servers, on-premise equipment along with cloud deployed services should be audited and ensured to be up to date regarding patching and security. Any device or resource is susceptible and highly vulnerable to attack if left un-patched and un-managed.

Several commercial products exist, however, it's difficult to justify their expense in a large environment. Zabbix is a mature and widely implemented enterprise-class open source monitoring solution for almost any network, application, client device, cloud infrastructure and many more besides providing monitoring of millions of metrics.

Additionally, Business Continuity should be considered by all organisations, especially regarding staff access to services and availability of the data for those services. Local backup with synchronisation to cloud is very cost effective, such as with a Datto ALTO or SIRIS.

Hybrid Cloud with DRaaS

Datto utilizes Hybrid Cloud technology to improve redundancy and give users greater protection for their systems and data. The appliance provides workstations and servers with local data protection. From there, it is automatically and securely transmitted to the Datto Cloud, which provides remote data protection and Disaster Recovery as a Service (DRaaS). All with a solution that can be installed and protecting servers in minutes.

Hybrid Virtualization Technology

To virtualize and run a protected server with Hybrid Virtualization, the appliance initializes a virtual machine (VM) for that server in the secure Datto Cloud. Then the appliance automatically connects that VM in the Datto Cloud to the local network through the appliance, using a secure VPN tunnel.

Off-Site File Restore

No matter where you are, you can recover files and folders from any protected server or workstation, from any point in time. The intuitive, familiar Datto Portal now features a simple, powerful utility for browsing the complete file structure for any recovery point. Even better, you can perform searches to find exactly what you need.

Multiple Virtualization Options

Datto protects systems from site-wide outages using instant off-site virtualization. In the event of a local disaster such as a fire or flood, the entire network can be recreated in the secure Datto Cloud in a matter of minutes. Secure connections are provided to employees and a business can resume normal operations.

Ransomware Detection

Datto rocked the industry when it announced the first ransomware detection feature as part of the Datto Total Data Protection platform. Ransomware, like most illicit software, leaves an identifiable footprint as it takes over a server, PC or laptop. Even from the very first backup, Datto uses several proprietary methods for detecting the presence of ransomware. If ransomware is detected, the appliance notifies admins that they have a likely ransomware attack on their hands. From there, recovery is simply a matter of restoring from a previous backup. Stop worrying about ransomware and get back to business fast with Datto.

Inverse Chain Technology

Datto's proprietary Inverse Chain Technology eliminates the problem of broken backup chains—the place where most

issues arise in the backup process. You have the freedom to change retention and delete recovery points without re-setting the chain or having to take a new base image. Since each backup is always in a fully constructed state, and is a fully bootable virtual machine, there is no need for complex, time-consuming conversion processes before performing a restore or off-site or hybrid virtualization. Inverse Chain Technology also makes a 5-minute backup frequency a possibility.

Advanced Screenshot Backup Verification

No more guessing if your backup is working properly. After backups are completed, the appliance can be scheduled to boot backups as virtual machines right on the local device. Once they boot, we capture an image of the login page to give you visual proof that your data has been successfully backed up. Need to know if a database is corrupted, or if a service is running? Datto now offers disk integrity checking and script execution to further ensure a backup is viable. Don't just think a backup is viable - know it is with Advanced Screenshot Verification.

Image-Based Backup

Datto uses image-based backups to capture a complete picture of a protected workstation or server. Advantages include quick full system restores, easy recovery of individual files, bare metal restore (BMR) capability, and the ability to boot individual backups as virtual machines. Application-aware VSS snapshots are used by default with Windows. Go from physical machines to virtual (P2V) or vice versa with our unique dissimilar hardware tool that allows for maximum flexibility.

ALTO

An ALTO protects mission-critical data against outages, data loss and any other workplace disasters. Since its inception, ALTO has been built specifically with small businesses in mind, eliminating barriers to entry for both the solution provider and end-user.

The ALTO takes snapshots of servers and workstations, and automatically replicates them to the ultra-secure Datto Cloud.

Image-based technology allows ALTO to capture full images of machines, not merely backing up files and folders. This allows entire systems to be restored in minutes, either locally or to a hosted Virtual Machine:

- Eliminate Downtime, save backups both locally and in the secure Datto cloud
- Skip Broken Backup Chains, recover your data faster
- Quality Backups, screenshot-based backup verification provides proof of success
- Compact, ALTO fits on desktops, or on the back of a monitor
- Protects Your Business, industry-leading continuity, as standard
- Non-Prohibitive Outlay, enterprise-grade service at cost-effective entry points

SIRIS

Total Data Protection platform built for medium-sized businesses. Easily protect any physical or virtual infrastructure running on Windows, Mac, or Linux, and spin up lost servers in minutes in the secure Datto cloud - without the need for additional tools. Backup automatically on your schedule to a local device, and replicate backups to the Datto Cloud. Recover granular data quickly from multiple points in time, getting back to business in minutes.

10TB of local SSHD storage in a 1U chassis. With it comes plenty of storage available on the Datto Cloud, ready to recover any failed servers with fast Hybrid Virtualization Technology.

Provision capacity on the SIRIS appliance to serve as shared NAS file storage (NFS and CIFS), or as IP block storage with iSCSI. Apply a snapshot schedule and protect in the Datto Cloud.

Datto SIRIS integrates seamlessly with the remote monitoring and management (RMM) and professional services automation (PSA) tools that are the lifeblood of a managed services prac-

tice. SIRIS devices are easily connected with Autotask, AVG Managed Workplace, MAXfocus, Kaseya and ConnectWise Automate (formerly LabTech). Keep tabs on your fleet, set up alerts and notifications, and track billing and setup across your client base. All of this means less time spent on technology and more time invested in growing your business

Further Resources

Name	Publisher	Description
How to Engage and Motivate your Team Remotely	Dr Maggi Evans for Hays	There are five tips to engage and motivate your team. This is split into partnership, short term targets, ongoing feedback, flexibility and longer-term vision. Each of these themes are unpacked and applied to business.
3 Steps to Building a Digital Culture	Melissa Henley for CMS Wire	This article stresses that a digital culture does not happen overnight. Melissa unpacks three techniques to motivate people to change

What Tech will UK Organisations be Investing In?

/Question 10

What additional technologies, services or infrastructure will your organisation consider adopting to overcome these business challenges?

Productivity platforms	32%
Emerging technologies e.g. AI	31%
No digital technology	27%
Collaboration services e.g. Slack	16%
Enterprise applications	11%
Virtual Desktop Infrastructure/ Desktop as a Service	8%
VOIP/IP Telephony	6%
Other	8%

32% of respondents noted that they would consider adopting productivity platforms to overcome business challenges.

The second most popular response was 31% of respondents considered adopting an emerging technology.

Written responses to this question included “we already have all of these in place, our business is always looking for more software to help our staff” and “online client adjustment marketing approach look at online engagements” and “our BCP anticipated this scenario, so we are well equipped, only challenge was expanding our limited video conferencing facilities to handle a significant increase in usage”.

Danielle Hernandez, research analyst of the European Digital Transformation Practice at IDC said

“the only way to accelerate out of this crisis is to increase productivity. Now is the time for digital transformation to shine, helping organizations multiply the value they produce with automation, intelligence, and connectivity because that’s what is key to a faster economic recovery.”



However, some organisations have no plans to invest in further technology. 27% of respondents noted they were not considering investing in digital technology to overcome the business challenges mentioned in question nine.

What Tech will UK Organisations be Investing In?

/Question 11

Which emerging technology are you planning on adopting?

47% of respondents noted they were 'unsure' which emerging technology they are planning on adopting

Although there was a significant interest in emerging technologies, 47% of respondents noted they were 'unsure' which emerging technology they are planning on adopting.

42% of respondents reported that their organisation was going to implement AI. This was the second most popular response after 'unsure'. This level of interest is consistent with our 2018 and 2019 research results.

Bernard Marr in an article for Forbes argues AI has the power to change not just business, but everything. He noted nine areas to look at when developing an organisation's AI strategy. This includes business strategy, strategic AI priorities, short term AI adoption priorities, data strategy, ethical and legal issues, technology issues, skills and capacity, implementation and change management issues.

This year only 5% of respondents are planning on adopting Blockchain, Edge and IoT respectively.

Although the level of Blockchain and Edge adoption was to be expected from previous year's research, the planned adoption



of IoT has significantly plummeted compared to our previous results. In 2018, IoT was the most used emerging technology. This could be because UK businesses have already adopted the technology.

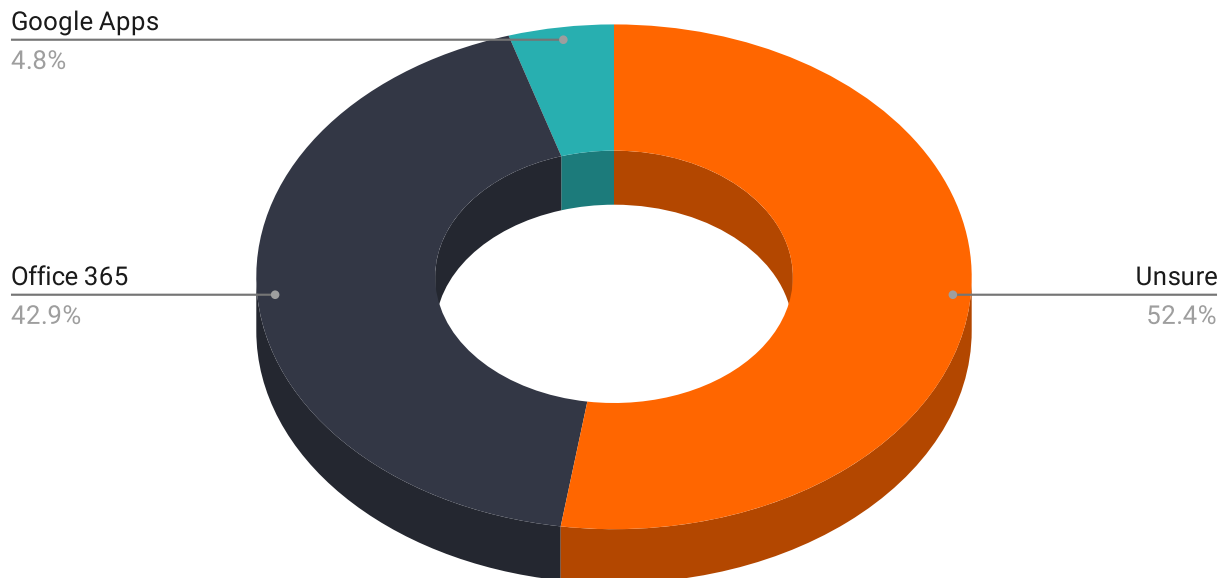
Only 10% of respondents noted they were planning on adopting Robotic Process Automation. This is less than other researchers have forecasted. Richard Lesser, the CEO of Boston Consulting Group, said that robotics amongst other approaches to manufacturing make the case for moving factories closer to home because they may reduce the cost difference.

A new addition to our emerging technology list is 5G but only 10% of respondents are planning its adoption.

What Tech will UK Organisations be Investing In?

/Question 12

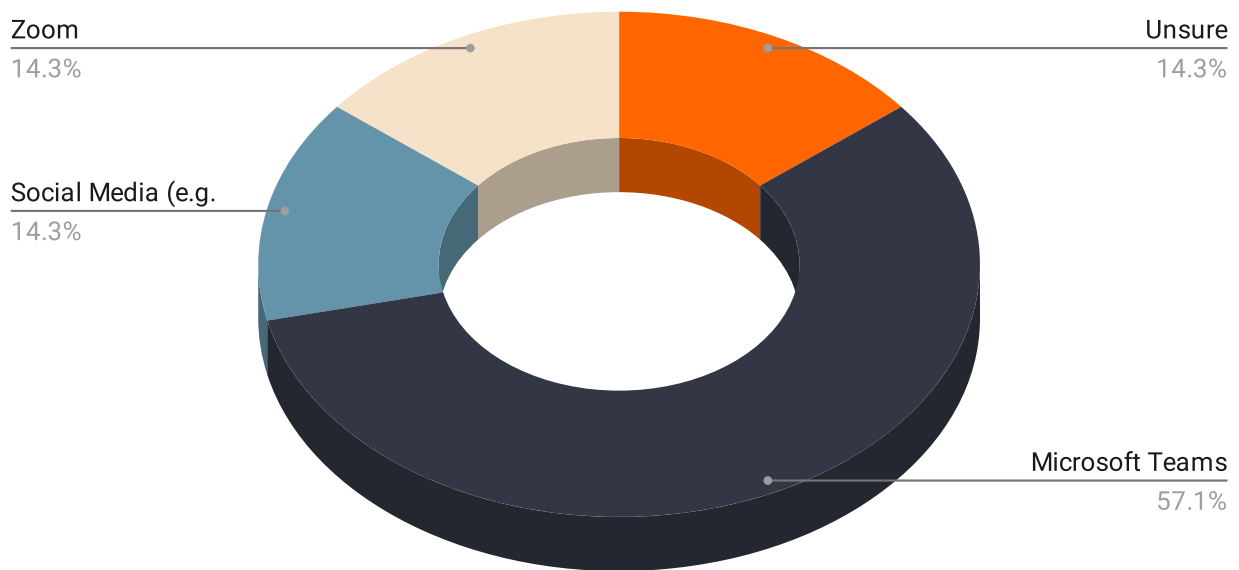
What productivity platforms are you planning on adopting?



What Tech will UK Organisations be Investing In?

/Question 13

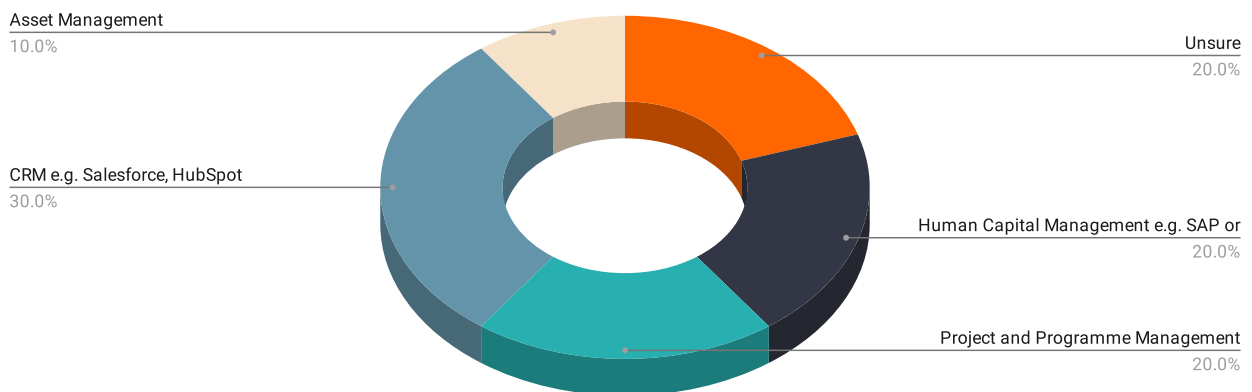
What collaboration services are you planning on adopting?



What Tech will UK Organisations be Investing In?

/Question 14

What enterprise applications are you planning on adopting?



Practical Guidance

The fourth industrial revolution is tech. Therefore, organisations will be investing in services and technologies. However, it would be inappropriate to invest in a technology, service or infrastructure which requires specialised skills or research which your organisation cannot carry out.

In these circumstances, it may be most suitable to outsource these adoptions to increase efficiency. With outsourcing, both business and technical expertise is available. This increase in knowledge may also come alongside a decrease in the cost of services when comparing this to in-house.

These businesses are continually improving their service, for example “partner development companies in the Accelerance Global Network continually invest in new talent and train their existing staff for emerging technologies. Our partners are essentially software development factories that exist for the very purpose of bringing capacity and innovation to the marketplace for your company”.

Therefore, these companies invest in training and resources, so your organisation does not have to.

From respondents in Question 9 noticing that more interaction will be online and the safety of workers being paramount, internet and network access would be somewhere that funding could be directed to. This includes fibre ethernet, cloud connect and a smart network.

Assets should be deployed fully and tested. We recommend investigating additional resilient options via any or all:

- diverse fibre
- secondary connection, such as ADSL

- media resilience, such as microwave or 4G/5G

Alongside Internet access additional implementation of VLANs across these connections, known as Smart Network, can protect securely. Services such as IP Telephony/Cloud Telephony and Cloud Connect interconnects for productivity (Office 365), cloud desktop, CRM, HR, Finance, LoB and Cloud Compute (Microsoft Azure/Amazon Web Services).

Further Resources

Emerging Technologies

Name	Publisher	Description
Bot.Me: A revolutionary partnership	PwC	The article argues that technological revolutions have not, and will not, happen overnight but “it is up to mankind to find the best ways to leverage these machine revolutions to help the world evolve”. The publication explores attitudes towards AI and its implications on society.
Implementing a blockchain from scratch: why, how, and what we learned	Favian Knirsch and Others	The article introduces the core concepts of blockchain and follows the implementation of a custom, private and permissioned blockchain from scratch. It also evaluates the desired properties of the technology. It offers real experience to help guide others through opportunities and challenges when implementing blockchain.
What you need to know before implementing edge computing	Nick Heath for ZD Net	This blog details why you may want to engage in edge computing to improve day-to-day operations and factors to consider whilst you are implementing this technology. This includes further research and case studies.
IoT Implementation and Management: From the Edge to the Cloud	Gartner	This report argues that a well formulated IoT strategy is indispensable and “dives into the technical challenges in both the building blocks and implementation practices, organizational challenges, and examples from select IoT industries”.
Intelligent Automation: RPA and AI Report 2020	PEX	This report covers how to take advantage of intelligent automation, why humans are indispensable to this process, how automation will digitise manual processes and the internal processes of Microsoft.
How 5G will reshape business	Sarah Wray for 5G.co.uk	An article which details the key features of 5G, its benefits and potential uses in specific industries, including transport and retail.

Further Resources

Productivity Platforms

Name	Publisher	Description
Best productivity tools of 2020: free and paid apps	Mike Williams and Brian Turner for Tech Radar	<p>“Working online can mean distractions and loss of productivity, not least when multiple applications and software platforms need to be used and switched between. Luckily, a number of apps to improve productivity are now available to ensure that individuals and teams can work more efficiently, by keeping communications on a single development platform, so that users don’t have to keep changing logins to use other ones”.</p> <p>Mike Williams and Brian Turner conclude the best office software in the world now is Microsoft 365. However, Google apps and Zoho are also mentioned alongside 10 paid platforms, 5 free apps, the 5 best mobile office suits for Android, and other Android office suites.</p>

Collaboration Services

Name	Publisher	Description
15 collaboration tools for productive teams	Workable	This blog includes a list of 15 collaboration tools which can support your team’s needs as well as the ones listed in our survey. This includes tools for communication, managing projects and tasks, completing tasks as a team and information about how to choose the software for your business.
Intelligent Workplace: 2020 technology trends	NTT	The NTT argue that businesses need to optimise the workplace for an outstanding employee experience. “Intelligent workplace is designed to enhance employee comfort, collaboration and productivity while delivering superior customer experience”. The report recommends accelerating the move to a single collaboration platform, focus on enabling teams to accommodate a wide range of work styles, design spaces to make employees happy, and make the single source of data a strategic priority.

Further Resources

VOIP/IP Telephony

Name	Publisher	Description
IP Telephony Webpage	Serviceteam IT	<p>IP telephony is “a phone service delivered over an internet connection. As the service is hosted remotely over the internet, it has several unique advantages. It allows you to make calls at a fraction of the cost, eliminates the need for any onsite equipment, and allows you to access a range of features that can drive productivity, encourage collaboration, or keep your business safe with a range of security options”.</p> <p>“IP Telephony can be used to integrate multiple offices into one central network or can connect homeworkers so that they can make and receive calls exactly as they would be able to from the office. It also supports as many numbers as you need, whether they are 0800, premium rate, or UK area code numbers.”</p> <p>This webpage includes a brochure and video detailing the features and benefits of IP Telephony.</p>
Cloud PBX	Vopi-info.org	<p>If you are out of the office, you can stay connected through cloud PBX. It works by connecting to your IP, or Internet phone, for internet connection. Therefore, “you must have a VoIP or other IP system in place in your office in order to use a cloud PBX”. The cloud PBX service provider oversees connecting calls to the recipient over the Internet, storing and managing the data.</p> <p>The article further details how it works, the average prices of installation and upkeep of PBX and the controversy over using cloud technology.</p>
What is PCoIP Technology?	Teradici	<p>PC-over-IP (PCoIP) “uses advanced display compression to provide end users with on-premises or cloud-based virtual machines as a convenient alternative to local computers”. It “compresses, encrypts and transmits only pixels to a broad range of software clients, mobile clients, thin clients and stateless PCoIP Zero Clients, providing a highly secure enterprise environment”. For a user, there is no difference between a local computer with software and an endpoint with streamed pixel representation.</p> <p>This article details how this can secure your data, enable mobility and collaboration, how this can enhance performance as well as cloud environments which support PCoIP.</p>

Further Resources

Enterprise Applications

Name	Publisher	Description
Turning Intelligence into Value	Accenture	The report is an insight into how ERP solutions are being used by CIOs in the UK and how the future will change this with evolving opportunities and challenges. Accenture identified trends and actions for Digital ERP a business should take based on their primary research with UK CIOs.
An HR Glossary for HR Terms	Bamboo HR	“Human Capital Management (HCM) is the comprehensive set of an organization’s practices for recruiting, managing, developing, and optimizing employees (as an intangible asset) in order to maximize their business value”. This article includes examples of administrative support, strategic support and technical support. It argues it is an important resource as individuals are a “valuable resource that can either make or break an organisation”. It acknowledges the key features and functions of HCM software. For example, employee self-service, employee performance reviews and integration with payroll.
The Best Asset Management Software for 2019	PC Mag	This webpage includes a breakdown of each of ten asset management providers, what asset management is and an in-depth review of the providers.
The Best CRM Software for 2020	PC Mag	This webpage includes a breakdown of each of ten CRM providers, an outline of CRM software and an in-depth review of the providers.

Further Resources

Virtual Desktop Infrastructure/Desktop as a Service

Name	Publisher	Description
Desktop as a Service	Serviceteam IT	<p>“Desktop-as-a-Service gives end-users a persistent Windows desktop instance in the Cloud. With a DaaS service, you can quickly and easily enable business-critical desktop resources to end-users, allowing full-featured desktop capabilities; this means no hindrance to productivity and a drastic increase in efficiency”</p> <p>A webpage with media, including a video and a brochure, which uncovers DaaS and its key features and benefits for a business.</p>
Windows Virtual Desktop	Microsoft	<p>This webpage details the features and benefits of deploying a Windows Virtual Desktop. This includes Windows 10 and Microsoft 365.</p>

The Skills Shortage and Retraining of Staff

/Question 15

Does your organisation currently have the skillset to capitalise on the technology you are planning on implementing?

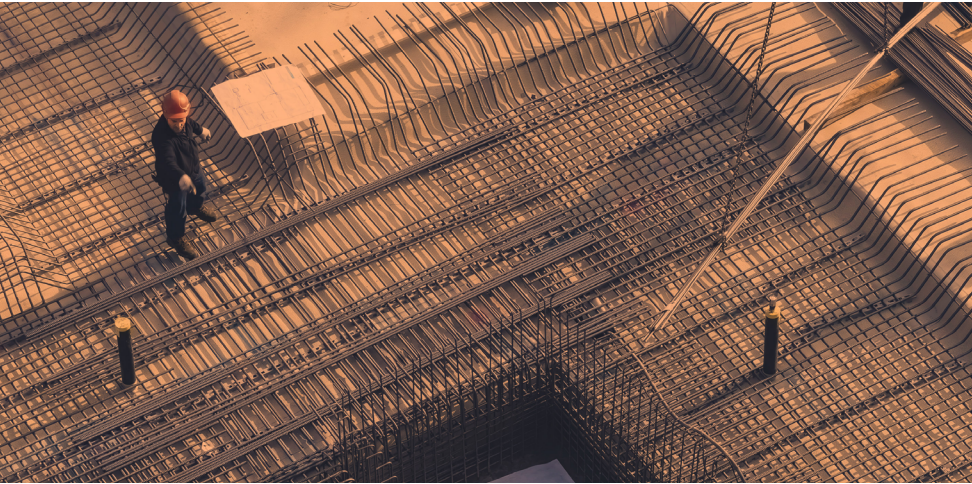
This question was not answered by respondents who were not considering adopting additional technologies, services, or infrastructure.

75% of respondents reported their organisation currently has the skillset to capitalise on the technology their organisation is planning on adopting.

Given the effect of the COVID-19 pandemic, the Economist suggests that:

15% of respondents were unsure whether their organisation has the skillset to implement these technologies

“the evidence is clear that the virus has widened existing divides between professionals, low-paid workers and the young. Start with the most fortunate. Many professionals can easily work at home, replacing one-to-one meetings with phone calls and group meetings with Zoom gatherings or Google hangouts. These “Zoomers” are mostly working on full pay and are currently being spared the daily commute...For many others, however, the pandemic is a serious threat. Some key workers, who have to attend their jobs are at more risk from the virus. Others cannot work from home and have either lost their jobs or seen their incomes cut...”



This could have a serious implication on young professionals and future employees of a company

“In Britain firms have cut entry-level jobs by 23% says the Institute of Student Employers, a recruiter’s association”

Therefore, if young professionals are not being trained and there is no current funding, this could have long-term implications for skilled staff.

Rishi Sunak’s summer statement will outline a “£2 billion scheme designed to boost the economy...by creating jobs for young people” through six-month placements. However, the skills learnt will depend on how businesses will utilise these grants and the training provided.

15% of respondents were unsure whether their organisation has the skillset to implement these technologies and only 8% said they did not.

The Skills Shortage and Retraining of Staff

/Question 16

Has, or will, your organisation put in place a framework for retraining staff to a new normal?

There was a fairly equal division between 'Yes', 'No' and 'Unsure'.

In Serviceteam IT's 2019 research, we asked how organisations were addressing the skills shortage. We found

"The two most common ways to address the skills shortage were 'recruitment' and 'training'. Recruitment is a good way of bringing talent in-house, but it does nothing to solve the sector-wide shortage. It moves workers around in an industry where they are in short supply, rather than working to increase the overall supply"

Women in Tech argue that hiring and retraining women in tech will be required if companies want to keep their teams diverse. They cover the benefits of retraining women and courses, including WISE for women in STEM, Digital Mums, Makers Academy, Mums in Technology, Sky UK Get into Tech and TechPixies.

The Skills Shortage and Retraining of Staff

/Question 17

How have you, and your organisation, been networking during this lockdown period?

88% of respondents have been using virtual calls, such as through Teams or Zoom to network during lockdown.

Networking through social media was the least popular, selected by only 42% of respondents.

James Augustin, Company Director at CoronaUnity, told Serviceteam IT that it is important for his organisation to use social media, especially Facebook, Instagram and LinkedIn. Regarding recruitment for CoronaUnity, James used a Google search for LinkedIn groups with professionals. For example, James Googled “best LinkedIn groups for designers”

Professionals can message you if they are keen to get involved. Therefore, preparing a good message on LinkedIn is very important.

James mentioned if your organisation is a charity or non-profit you might attract professionals you did not think would get involved.

Practical Guidance

CMSWire discovered tech companies find it “extremely hard” to recruit candidates and the existing workforce with “skills in data science, artificial intelligence, machine learning cloud engineering and SQL data programming”.

There are calls to provide tech-focused programmes at educational institutions. CMSWire comments however, that tech companies are no longer relying on these institutions and have case studies from Adobe, Salesforce and Looker with how they are combatting the skills shortage.

In terms of networking, there are many articles focused on how to utilise your professional network which can be found through an internet search. These include tips, such as sharing and commenting on industry news or maintaining a network.

SHRM references 5 mobile apps to help build a professional network: Shapr, Nameorize, Camcard, Meetup and Bizzabo. These apps encourage you to build stronger connections rather than numerous connections.

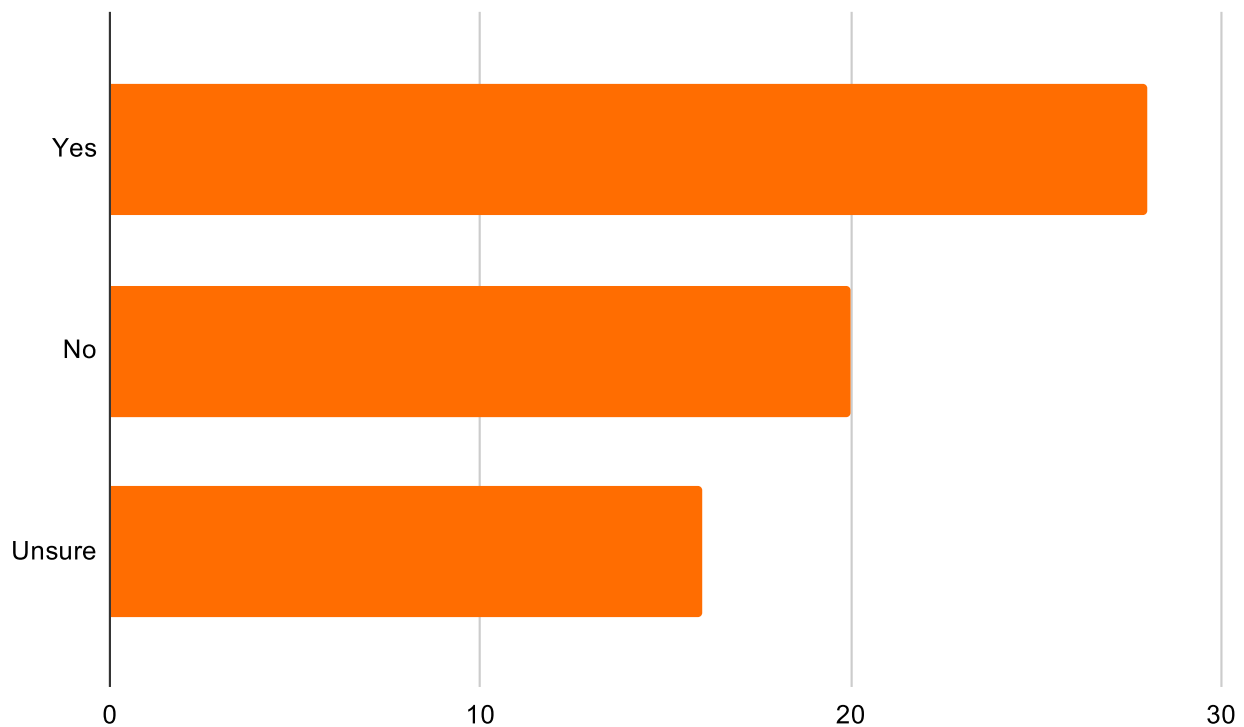
Further Resources

Name	Publisher	Description
Coronavirus: what does HR need to know?	People Management	People Management finds out “what employers are doing to tackle the logistical, financial and staff wellbeing implications of the global pandemic”. There are case studies, resources, the latest news, advice for HR professionals, and employment law advice. The numerous case studies include Waterstones, Virgin Media and Bank of Ireland. You can find a specific concern and read how businesses have overcome this or plan your organisation’s next steps. There is practical advice, for example, an article named ‘How should employers approach redundancies in the coming months?’ and guidance.
Resources to stay connected and improve digital skills amid COVID-19	techUK	This article stresses that in 2019 “Lloyds’ annual UK Customer Digital Index found that in the UK alone, 17.3 million people in employment do not have the Essential Digital Skills required for today’s workforce”. So, techUK has signposted 11 free training courses to upskill online.

How to Budget for IT in Unprecedented Times

/Question 18

Has there been any change in the priority of your organisation's spending?





The Business Insider comments that “a simple look at the stock market will tell you that coronavirus has led to a volatile economy”. It cited the disruption to global supply chains and the surge in filed unemployment benefits as examples of this. Therefore, it is not surprising that 43% of respondents reported a change in the priority of their organisation’s spending.

Consumer spending has also changed. COVID-19 has altered what consumers will spend money on. McKinsey and Company acknowledged that consumer behaviours are settling into a new normal. Their examples of changing consumer behaviour include a shift to value and essentials, and investing in digital infrastructure. Organisations must adapt to the change in customer wants and needs, which further explains our findings.

There has been an increase in government funding to aid businesses through the economic crisis caused by the outbreak of COVID-19. The full list of the most recent immediate fiscal impulse is available on the Bruegal [website](#) ‘The fiscal response to the economic fallout from the coronavirus’.

How to Budget for IT in Unprecedented Times

/Question 19

Where are your organisation's resources being directed?

This was an open answer question for respondents to detail their experience.

Some of the responses included:

- "Working from home and trying to survive"
- "Streamlining operations"
- "Shipments"
- "To the top clients and connections"
- "Frontline services"
- "New business development"
- "Addressing backlog and supporting new business"
- "Reviewing and updating org structure to enhance client experience"
- "Virtual VPN appliances to accommodate 10,000 workers working from home"
- "We needed to buy additional hardware which came out of another part of the budget"
- "Immediate needs have brought forward some projects but cancelled others"



- “Remote working infrastructure and a safe working environment”
- “Improving the performance of our video conferencing solution, unused until lockdown, now heavily used for team meetings, client contact etc.”
- “To retain tenants and bring in new tenants due to the change in requirements from COVID-19. Also, making the campus COVID-19 compliant to make tenants feel safe and providing a full range of service to tenants even though 50% of workforce is on furlough.”
- “More virtual focus on business growth, we’re seeing a lot more growth in our training services due to them changing to virtual”

One respondent answered that the resources were not redirected but new investments were put on hold until the situation is clearer.

How to Budget for IT in Unprecedented Times

/Question 20

Will there be an increase or decrease to the IT budget in your organisation over the next two years?

39% of respondents answered that their IT budget would remain the same. Only 14% of respondents reported that there would be an increase in their budget; however, this was the same percentage as respondents who reported that they would experience a decrease in their budget.

Practical Guidance

If you are presenting a case for your IT budget in the coming years, it is important to be mindful of potential oversights which could increase the organisation's spending. For example, hardware or software updates and training of staff. Alongside potential new technology which you believe is suitable for your organisation, critical infrastructure has never been more important.

If you are struggling with your IT budget, or experiencing a decrease in funds, outsourcing may be able to reduce cost of labour, operations or services.

Further Resources

Name	Publisher	Description
Ten budget-busting IT disasters that you should learn from	ZD Net	This blog details case studies of misplaced IT spending, what went wrong and what the outcome was. Although the case studies include huge spending figures, Nick Heath writes that "behind each of these disasters seem to be familiar stories – of unrealistic expectations, systems not working as intended, users not being consulted and poor management". Learn what not to do.
Funding Technology at Market Speed	KPMG	This report suggests that organisations must continually adopt technology as "moving at market speed is the IT operating model of the future" however IT sees finance as a gatekeeper, while business sees IT as slow, reactive and expensive". This report details a new approach to funding innovation which is broken into five sections: <ol style="list-style-type: none">1. Fund value instead of projects, and think like a venture capitalist2. Adopt lean funding to keep the technology portfolio current3. Embrace the decentralisation of IT4. Catch bad ideas faster5. Communicate transparency and value

Data and Cybersecurity... GDPR is Still in Force

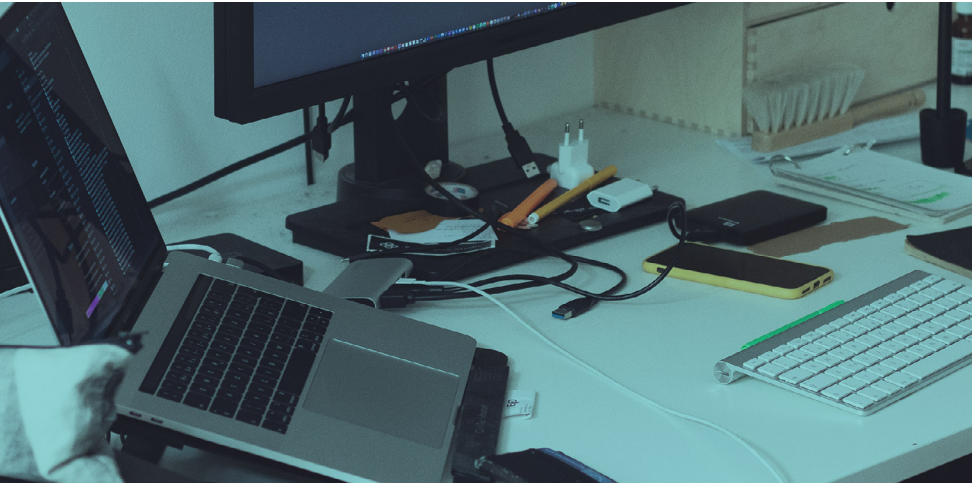
/Question 21

How has the outbreak of COVID-19 impacted keeping your organisation's data safe?

Most responses were that the outbreak of COVID-19 had no impact on keeping the organisation's data safe or that the organisation's technology was able to maintain data security. One respondent also noted that the outbreak of COVID-19 will not affect their plans for future technology implementation.

In terms of the negative impact the COVID-19 pandemic has had on keeping data safe, respondent's experience included:

- "People have been emailing files which we do not allow but people do what is easiest not the best"
- "Workers at home on their own computers are a risk"
- "Being more aware of GDPR but nothing major"
- "We have always maintained very high security standards pre-COVID, however everyone working from home overnight did cause a strain on our shared services for the first few months"



However, the respondents who believe their organisations have kept their data safe have implemented infrastructure including:

- “We have had to rollout VPN solutions to all employees whilst working at home to ensure the safety of data transfer.”
- “This is BAU. DPIA, Risk Assessment and mitigation along with working practices such as security training (annually undertaken by all staff) minimal access rights, 2FA, encryption, has helped us maintain the same levels of control.”
- “It hasn’t - it’s all hosted with Azure/ Microsoft 365 and we have ISO9001 and ISO27001 and nothing has been affected”
- “Not one bit, our VDI solution keeps data under our control, we have software that monitors attempts to transfer data outside our approved methods.”
- “No, we were already building a ‘secure work from anywhere’ business model”
- “Not made a huge difference as we have had a security awareness training programme running for all staff for 12 months already”
- “Regular training pre-COVID was supportive especially around identifying possible phishing attempts. Updated email warnings on all external emails to highlight to the user”
- “It remains safe as applications and infrastructure was already in place to mitigate risks as we already regularly WfH and have several security accreditations that ensures data security for ourselves and our customers”
- “Anything that goes offsite is encrypted”
- “Office 365 and the cloud keep it safe”

Data and Cybersecurity... GDPR is Still in Force

/Question 22

Have there been any changes to the cybersecurity risks in your organisation as a result of the COVID-19 pandemic?

No changes in cyber-security risks	69%
Increased possibility of data leakage	21%
Employees not using company-issued devices	14%
Data sharing through the internet	8%
Increased number of cyber attacks e.g. phishing, malware, DDoS, MitM	6%
Threats to employee's mobile phones	4%
Other	3%

69% of respondents reported no changes in cybersecurity risks as a result of the COVID-19 pandemic.

The PwC podcast episode The Emerging Cyber Threat Landscape mentioned, "cyber criminals will be capitalising on confusion and uncertainty as we all adjust to new ways of doing things". There has been an increase in cyber-attackers using content around COVID-19 and social engineering is now a particular risk as they are leaning on a human factor.

21% of survey respondents reported that there was an increased possibility of data leakage, which would reflect the PwC conclusion, as would the 14% who reported employees not using company-issued devices is a change in cybersecurity risks in their organisation.

One written response reported that it was "too early to say" and another that it is "harder to monitor as people have been working from home and are retraining staff through One-Drive".

Data and Cybersecurity... GDPR is Still in Force

/Question 23

Has your organisation altered its cybersecurity policy since the outbreak of COVID-19?

69% of organisations responded that they had not altered their cybersecurity policy since the outbreak of COVID-19.

On a further PwC podcast, it was mentioned that with the shift to remote working, one of the main areas of concern is extending secure remote access whether this is with a VPN or looking to third parties to do this securely. Additionally, strong Multi-factor Authentication controls need to be maintained.

According to the podcast, some businesses have removed Multi-factor Authentication to allow employees to have access to the business space; however, if this is the case, there needs to be extra security in place. If an organisation starts to bring in systems or devices where controls are relaxed or removed, over time these controls need to be put back in place or a business must check for risks that may not have been there before.

It may be that the respondents to our survey did not remove or add any cyber controls, although 7% reported that their organisation had changed their policy. 4% of respondents noted that they did not have a cybersecurity policy.

4% of respondents noted that they did not have a cybersecurity policy.

Data and Cybersecurity... GDPR is Still in Force

/Question 24

What cybersecurity policy has been altered, and why?

This question was answered by respondents who reported that their organisation had altered its cybersecurity policy in Question 23. This was an open answer for respondents to detail their experience.

A clear trend was that there was a need to reinforce messages and training for greater cybersecurity awareness. Additionally, there needs to be a stronger focus on sharing data online.

Given the number of individuals who are now working from home, it is understandable that this will need to be further stressed to staff.

Data and Cybersecurity... GDPR is Still in Force

/Question 25

Has cybersecurity policy been followed in your organisation since the switch to remote working?

63% of respondents reported that their organisation's cybersecurity policy has been followed during lockdown. 28% of respondents were unsure and 6% of respondents reported that it had not been followed.

The PwC podcast *How to Manage the Impact of COVID-19 on Cyber-Security* mentioned

"We expect that many initial organisational responses to COVID-19 will have a net-negative impact on the cyber security posture of the business. This will be both as a result of existing risks being left unaddressed as security expenditure is cut and IT changes are frozen, and as we see new risks emerging".

Practical Guidance

We always recommend a firewall with greater Enterprise security focus, such as a Cisco, Juniper, Watchguard, Sonicwall or Fortinet. Our primary recommendation would be a Unified Threat Management appliance.

We recommend Cisco Meraki MX firewall devices. The MX64 is a Cloud Managed Security device and can perform multiple security functions within one single appliance: network firewalling, network intrusion prevention and gateway anti-virus (AV), gateway anti-spam, VPN, content filtering, load balancing, data leak prevention and on-appliance reporting. 2FA (Two-Factor Authentication) should be enabled across network.

Hardware

Stateful firewall throughout: 250 Mbps

Traffic shaping and application management

Layer 7 application visibility and traffic shaping

Application prioritization

Networking and security

Stateful firewall

Auto VPN™ self-configuring site-to-site VPN

Active Directory integration

Identity-based policies

Client VPN (IPsec)

3G / 4G failover via USB modem

Cloud-based centralized management

Managed centrally over the web

Classifies applications, users and devices

Zero-touch, self-provisioning deployments

Advanced Licence

Content filtering

Google SafeSearch and YouTube for Schools

Intrusion detection & prevention (IDS/IPS)

Advanced Malware Protection (AMP)

Cisco Threat Grid

A firewall:

- Provides centralised security with control over distributed networks.
- Reduced complexity being a single security solution via a single vendor for multiple security needs including anti-virus and VPN
- Simplicity through reduction of multiple software installations and maintenance
- Easy management and reporting with a Plug & Play security architecture, Web-based GUI for easy management
- Achieve regulatory compliance in many areas

Regulatory compliances like HIPAA, GLBA, PCI-DSS, FISMA, CIPA, SOX, NERC, FFIEC require access controls and auditing that control data leakage. UTM's that provide identity-based security give visibility into user activity while enabling policy creation based on the user identity, meeting the requirements of regulatory compliance where appropriate.

Data Protection

ICAEW's article Coronavirus: what new steps should I be taking to comply with data protection? provided guidance on how to maintain compliance with GDPR and Data Protection Act 2018 during the COVID-19 pandemic.

Data subject access requests (DSARs) still must be responded to in one month, although with a staff shortage ICAEW com-

mented that the ICO understand that they may not be able to receive a response in this time. However, ICAEW advise to make every effort to respond within one month and do not ignore any requests.

Data breaches must be reported within 72 hours. ICAEW wanted to remind readers that this does not have to be resolved in 72 hours, but the ICO need to be notified of it and the plans to rectify this.

The ICAEW also answer FAQs on personal data of employees during COVID-19. Can you answer these?

- Can I disclose the name of an employee who has tested positive for COVID-19?
- What about collecting and processing data about an employee's health?
- Can I ask employees or visitors if they have been abroad (and where) and/or are experiencing COVID-19 symptoms?
- If I am aware that one of my employees has an underlying health condition that may make them more vulnerable can I disclose this to other employees?

Further, if your organisation would like staff training, the NCSC is providing a free cybersecurity training course through an e-learning package called 'Top Tips for Staff'.

Further Resources

Name	Publisher	Description
Home working: preparing your organisation and staff	National Cyber Security Centre	This guide includes advice such as setting up new accounts and access, implementing new services for team collaboration, controlling VPNs, USBs, using personal devices and spotting scam emails.
Remote working and cyber security	IT Governance	This webpage contains six remote access security risks, how to spot them and how to mitigate them. This includes free templates including Bring Your Own Device (BYOD) and Business Continuity Planning templates, tips, and infographics.
How to Write an Effective Cyber Security Policy	The AME Group	If your organisation does not currently have a cybersecurity policy, this blog considers 5 key starting points for a policy as well as offering further help by contacting the AME Group.
Maintaining Cyber Hygiene During Coronavirus (COVID-19)	ICAEW	This guide covers new threats to look out for, how to get the cybersecurity basics right, cybersecurity an organisation needs to consider when working from home and protecting sensitive data remotely.
Data protection and coronavirus information hub	ICO	This is a hub of COVID-19 and cybersecurity related information with two research subsections: 'I have concerns about how my data is being used' and 'I have concerns about using other people's data'.

Insight Review



the further down the digital transformation scale an organisation is, the more proficient their company would be at managing the effects of the outbreak of COVID-19

The strongest argument is that our hypothesis – the further down the digital transformation scale an organisation is, the more proficient their company would be at managing the effects of the outbreak of COVID-19 – is correct.

Serviceteam IT and Doogheno hope that you have been able to gain insight from this report to take back to your organisation.

Would you like to be a part of next year's research? Check out our submission form on the Serviceteam IT website to sign up.

Please see our bibliography for links to the resources referenced in this report for further research and guidance.

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/2017

CLOUD SNAPSHOT

“Serviceteam IT, in partnership with Dooghenno, conducted a study to reveal the most significant challenges facing UK businesses and the trends of the use of cloud in the UK.”

/2018

BEYOND THE CLOUD

Serviceteam IT, in conjunction with Dooghenno, carried out our second annual technology adoption survey of 1,100 UK companies. The survey gives a snapshot of British business at this significant time of change.



/2019

DIGITAL REVOLUTION

The third annual Serviceteam IT research project, with Dooghenno. The aim was to uncover the extent of technology adoption in the UK and the IT challenges in businesses of all sectors.



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