



Cloud UK

Paper one

Adoption and Trends 2011

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Executive summary

It is often said that cloud computing is a disruptive technology and will change the way that businesses use information technology.

Today cloud services evoke an understanding and expectation of scalability, agility and value-for-money on a pay-as-you-go basis that can therefore fit the needs of the smallest business or consumer to the largest enterprise or government. It is less technology and more about challenging the fundamentals of how you manage IT operations (and therefore business) efficiently in an online world.

One of the basic challenges for any organisation wishing to operate in the modern world is how do you access, manage and deliver IT services in a secure, flexible and cost effective manner. It has long been the aim to improve the way IT assets are sweated, and to de-risk the need for expensive on-premise infrastructure where asset utilisation is typically around 20 per cent of capacity (due to peak load planning). Cloud computing offers a level playing field upon which the focus shifts significantly from maintenance to innovation and market reach.

It would be much more accurate to say that cloud is revolutionising the way that businesses procure their IT. Instead of buying software licences, storage capacity or infrastructure and bringing it inhouse, under the cloud model these functions are effectively leased from remote operators and supplied across the internet.

This research clarifies that adoption of cloud based services across all manner of organisations, from enterprises to small businesses to the public sector, has been rapid and the cloud now encompasses an incredibly wide range of applications. So, while many technologies are touted as being “disruptive” or “revolutionary”, the cloud model of IT provision seems genuinely to herald a new era in the supply of organisational computing.

The Cloud Industry Forum does not advocate that all business will move into a wholly online delivery model and fully recognises that any combination of technical, commercial, cultural and governance issues will require some aspect of an on-premise presence for most organisations for the foreseeable future.

We do advocate though that cloud services are a reality today, that they are proven, and that they will continue to improve in both capability and adoption, and as such, all organisations need to be aware of, and considering how to best make use of this agile and efficient IT supply model.

This first paper explores the reality of adoption in cloud services across the UK and looks into the levels of adoption across different organisational types; the drivers for adoption; who is driving adoption; the services being accessed; satisfaction levels and the issues and concerns that impede adoption at times. From this paper the reader should be able to gauge current market readiness and satisfaction levels of cloud service users in the UK and be able to understand some of the key issues and considerations to take into account when contemplating or reviewing plans to adopt cloud services as part of a wider IT strategy.

Methodology and sampling

In January and February 2011, Vanson Bourne conducted research on behalf of the Cloud Industry Forum to determine cloud adoption attitudes and trends both among end users and the IT channel.

The research polled 450 senior IT and business decision-makers in enterprises, small-to-medium businesses (SMBs) and public sector organisations.

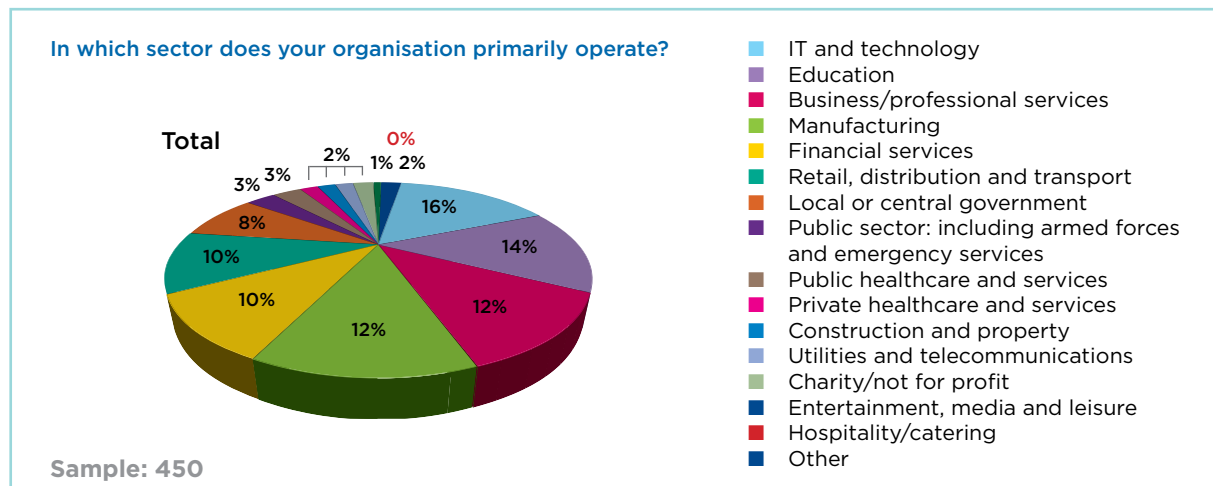
Of the 450 end user organisations questioned, 16 per cent came from the IT and technology sector, 12 per cent from business and professional services, 12 per cent from both manufacturing and financial services and 10 per cent from logistics. A further 28 per cent comprised of public sector organisations ranging from central and local government and healthcare.

Company type was also a major determining factor. 52 per cent of those private sector organisations contacted were in private hands while 33 per cent were publicly listed, the residual comprising of partnerships and subsidiaries.

A third of the sample is categorised as small companies with a turnover of up to £5m. A further 21 per cent of the sample had a turnover of between £5m and £75m which we categorised as mid sized, whilst at the larger end 23 per cent had a turnover of between £75m and £1bn, with a final 10 per cent in the above £1bn category.

One aspect of the research was to identify and analyse the sample by job function. From the overall sample of 450 end user organisations 11.7 per cent of those questioned defined themselves as the company owner, MD, or CEO. A further 22.4 per cent were CIO's, whilst 43.3 per cent of those questioned were IT Managers and the remainder of the sample - a further 22.4 per cent - defined themselves as IT specialists.

This white paper series summarises the results of this research and examines the drivers for adoption of cloud services by end user organisations; the changing business rationale for migrating to the cloud; and the contractual relationships between cloud service providers and their customers, whether resellers or end users.



1. UK Cloud Adoption

This survey polled 450 respondents responsible for IT decision-making, from a wide range of industries. The most widely-represented sectors included IT and services; education; business / professional services; manufacturing; financial services; and retail, distribution and transport. The public sector was also well represented, with almost a third (136) of total respondents.

The results of the survey clearly show that “cloud” is no longer a nebulous business buzzword: almost half (48 per cent) of all organisations polled already consciously use cloud computing in some shape or form within their organisation.

When further analysis is undertaken it is clear from the findings of the research that it is the private sector leading the way, with far more cloud services used than its public sector counterpart.

Interestingly it would also appear from the figures that private organisations that employ over 20 people are at the forefront of the current cloud revolution in terms of adoption rate, as opposed to the small businesses of less than 20 employees or public sector.

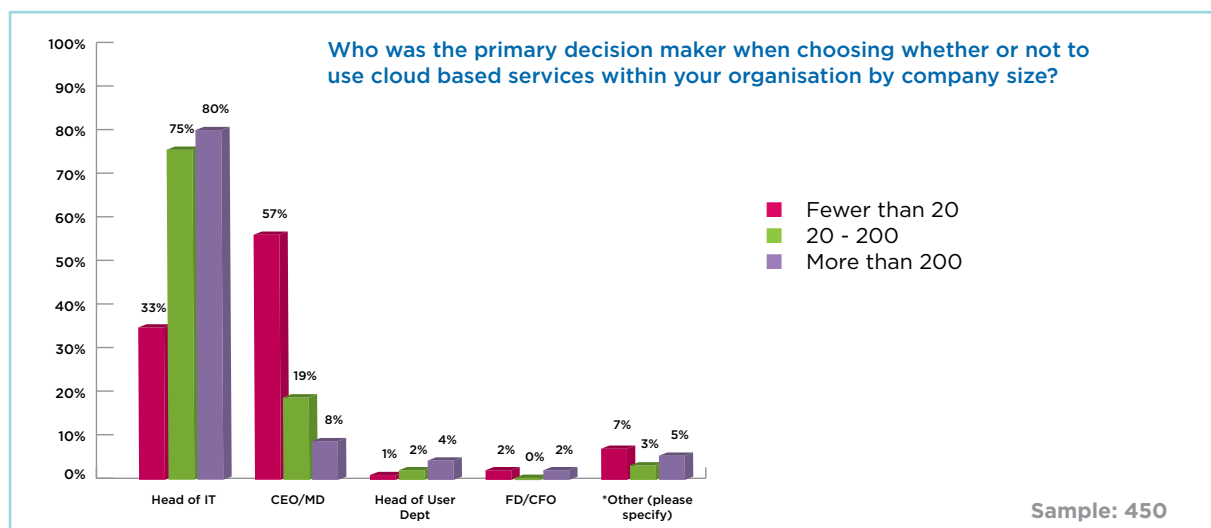
Almost half of organisations are using cloud based services

Does your company have any cloud based services in use today?

All respondents	No. employees					
	Total	Fewer than 20	20 - 200	More than 200	Private	Public
Yes	48%	38%	52%	53%	53%	38%
No	52%	62%	48%	47%	47%	63%
Base	450	127	155	168	314	136

The survey findings also show that the decision to migrate to the cloud is now predominantly taken by the head of IT, with 65 per cent of respondents, compared to just a quarter who said it was still the responsibility of CEOs / MDs.

However, the picture is far more complex when analysed by company size. In those organisations employing fewer than 20 people the decision to adopt cloud computing is unsurprisingly taken by the MD or owner in 57 per cent of cases. This figure dramatically drops to 19 per cent of the sample in the 20 to 200 employee category and even further to 8 per cent in those organisations over 200. Conversely in this final category the head of IT is responsible for the decision to move to the cloud in 80 per cent of the sample.



2. Primary drivers

According to the research the overwhelming reason given for initially adopting cloud-based services is the flexibility that it brings to the organisation. This was identified by 53 per cent of respondents of the entire sample.

When looked at in detail the findings clearly highlight that it is organisations with under 20 employees who placed the greatest value on flexibility (63 per cent) as they seek to compete in the wider market with limited technical resources inhouse. In those organisations of between 20 and 200 it was mentioned in the majority of responses (51 per cent). And even in the large enterprises flexibility was seen as the primary reason for adoption in 49 per cent of those questioned.

It is an illuminating picture as it indicates that it is the SMB sector (as opposed to the larger organisations - which historically have been the first to ride the wave of technological innovation) who are now recognising far faster the benefits of migrating to the cloud.

Analysing the results another way, by job function, is also insightful. When asked what was the primary reason for adoption flexibility once again came out on top with the majority of all IT decision makers, be that the MD on 55 per cent, the IT director on 50 per cent, the IT manager again on 50 per cent and the IT specialist on 65 per cent!

Arguably one of the more interesting statistics is that there is very little separating public and private sector organisations. In both cases flexibility came out as the number one reason for the adoption of cloud (public:private - 55 per cent:52 per cent) by those correctly making use of such services.

Over recent years the market has been primarily focusing on the cost savings afforded by cloud migration and yet, as the research proves, whilst financial benefits are achieved and do drive further investment from companies already using the cloud, it is the agility given to businesses to deliver new services; access technology quickly; and, to offer solutions that they did not already have that has driven initial adoption.

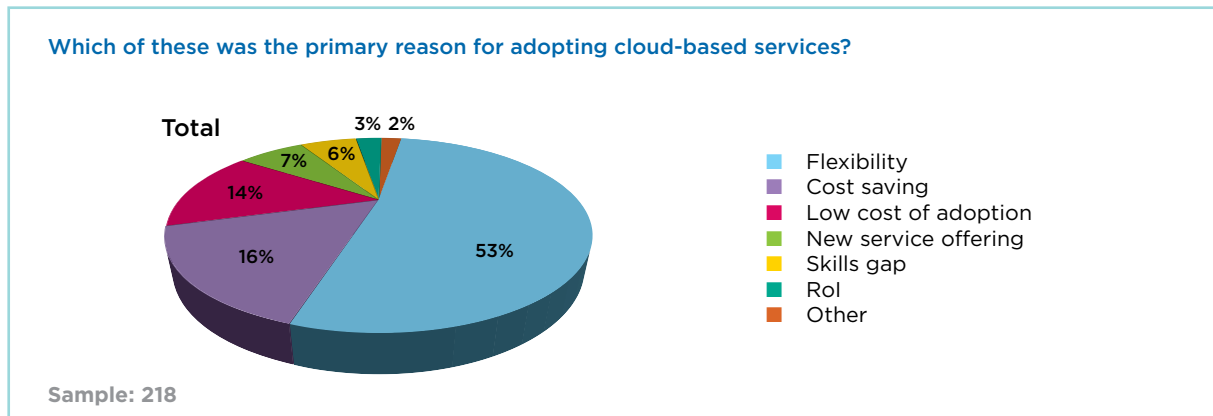
Interestingly, cost savings were only cited by 16 per cent as the primary driver for initial cloud adoption. However, this increases to 69 per cent when organisations already using cloud services consider the drivers for further cloud service adoption and how they currently access technology through the supply chain - see later.

Again by taking a closer look at these figures we see an interesting picture emerging. Larger enterprises were more than twice as likely to name cost savings as their primary reason (22 per cent) as smaller organisations (10). While the public sector - no doubt with a keen eye on the current budget constraints it is confronted with - stated cost as the primary reason in 22 per cent of the sample, as opposed to 14 per cent of those private sector organisations questioned.

However, when you analyse the figures by job function, it is the owner/MD in only 10 per cent of the sample that cites cost as the primary driver, as opposed to 18 per cent of the IT specialist, or even 21 per cent of IT managers.

The flexibility of cloud-based services is the most reported reason for its adoption

Low cost of adoption was the third primary driver in 14 per cent of the overall sample. While new service delivery was identified by 7 per cent.



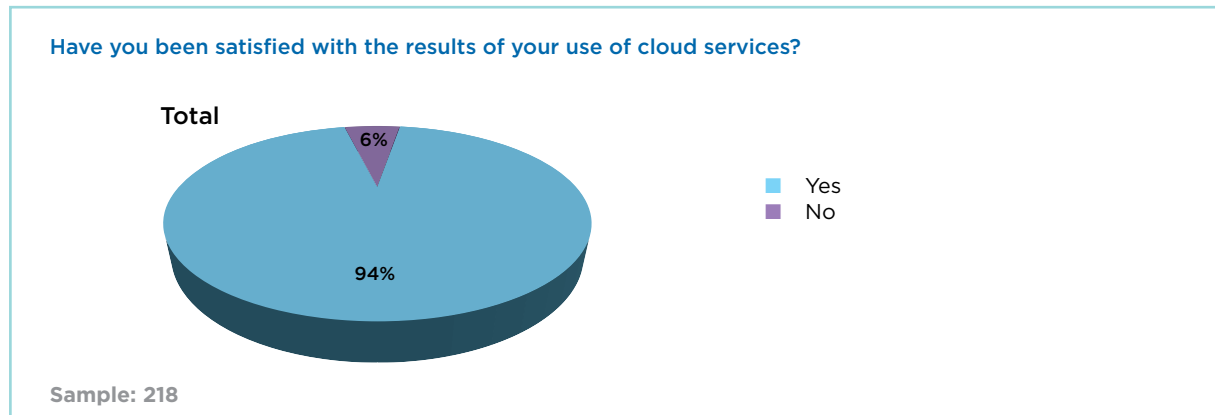
So what conclusion can we draw from this? The evidence indicates that the cloud is affording businesses both large and small, public and private, the flexibility they need to adapt to the ever changing business climate. This is the principal hook for early adopters. The fact that cost savings can materialise over time is a secondary benefit.

The benefits of the cloud have been known for some time, not least its rapid deployment, reliability, scalability and pay-as-you-go financial model. What appears to be happening in the market is that this message, for so long evangelised by vendors and IT channel alike, is being heard, and actioned on, by organisations seeking to expand or change their IT capability in support of their organisational performance.

Cost savings are secondary to operational flexibility in the first phase of cloud adoption

3. Satisfaction levels

When it comes to organisational satisfaction with the current use of cloud services, a staggering 94 per cent of those currently using cloud services stated that they were happy with the results of their use of the cloud. This is an extremely high figure and is clear evidence that the market is not immature and that businesses that have embraced the opportunity perceive that they are reaping the benefits they sought.



Breaking this result down by decision maker the results were as follows.

Only asked of respondents whose company uses cloud based services	Decision Maker				
	Total	Owner/CEO/MD/Partner	CIO/IT Director	IT Manager	IT Specialist
Yes	94%	100%	95%	93%	94%
No	6%	0%	5%	7%	6%
Base	218	20	64	100	34

Breaking this result down by company size the results were as follows.

Only asked of respondents whose company uses cloud based services	Company Size			
	Total	No. employees Fewer than 20	20 - 200	More than 200
Yes	94%	100%	93%	93%
No	6%	0%	7%	7%
Base	218	48	81	89

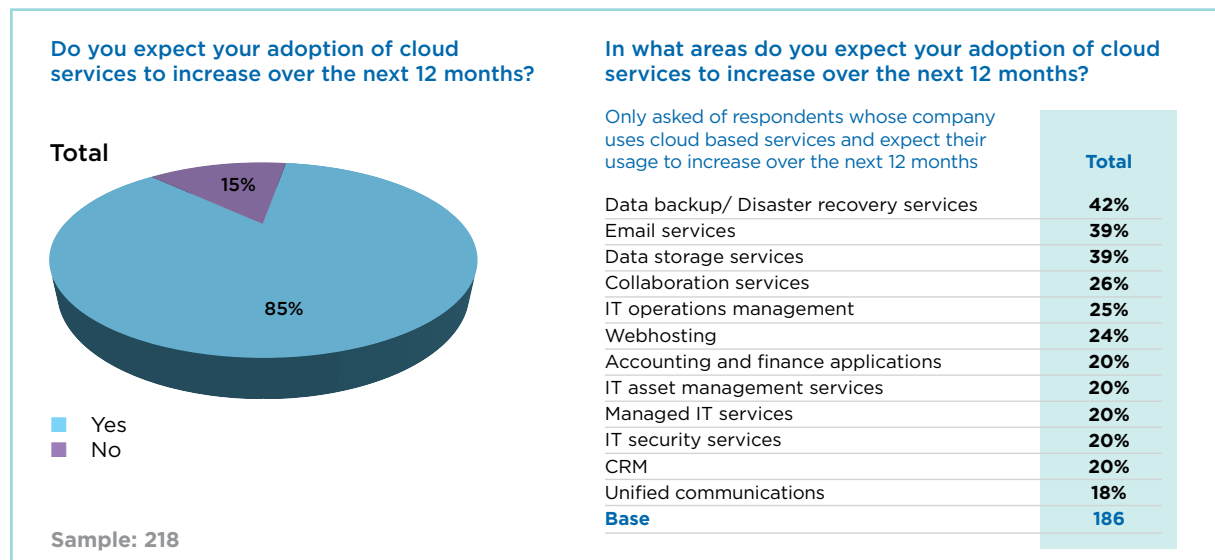
Those organisations that stated they were unhappy with the level of service amounted to a total of 12 and while statistically this is not a representative sample, the reasons cited need to be explored from a cloud services provider perspective.

Over half of this group highlighted poor levels of service provision and interestingly they all came from the mid to large scale enterprises. It is this category of end user that also claimed that the migration to the cloud had proven difficult.

4. Future trends

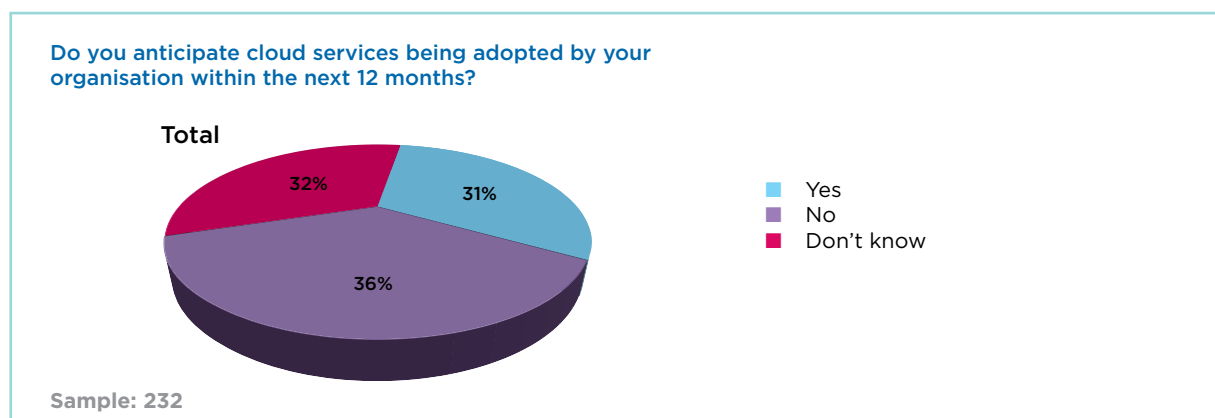
Given the clearly high levels of user satisfaction it may come as no surprise to see that moving through 2011 and into 2012 the overwhelming majority of those end users already using cloud services intend to extend cloud provisioning throughout their organisations.

85 per cent of those organisations questioned in the research currently using cloud services expect to increase their use in the next 12 months, with growth most likely to centre on three core applications - email, data back-up / disaster recovery and data storage services



The third White Paper will go into further detail on the nature of business applications being migrated now and in the future.

However, what is also insightful is that of those organisations not currently employing cloud services, almost a third (31 per cent) said that they anticipated adopting them in the next year, a further third (32 per cent) unsure at this time, and a slightly higher proportion (36 per cent) reporting that they had no plans to move into the cloud.





Breaking this result down by company size the results were as follows.

Only asked of respondents whose company does not use cloud based services	Total	No. employees Fewer than 20	20 - 200	More than 200
Yes	31%	20%	32%	42%
No	36%	34%	38%	37%
Don't know	32%	46%	30%	22%
Base	232	79	74	79

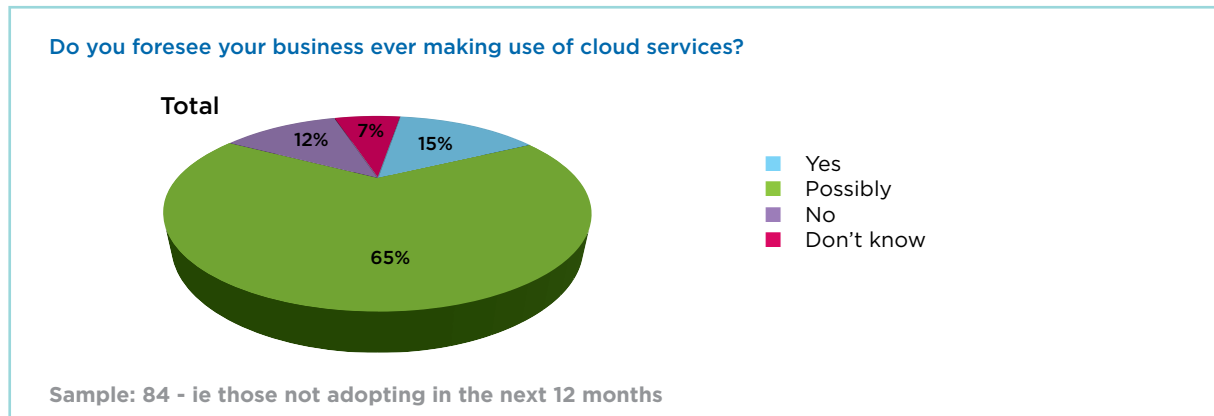
When analysed in detail the research indicates that this is being driven more by IT heads – such as IT directors, managers or specialists, more than company owners and MDs.

Looking forward beyond 2012 the survey asked those organisations not currently using cloud services if they foresaw their business ever making use of the cloud.

Indeed 65 per cent stated it was a high possibility, and a further 15 per cent said that they would in fact migrate at some stage.

The figures give us another valuable insight into the thinking of the end user community as only 12 per cent of the sample stated categorically that they would not ever migrate which is 2 per cent of the total base.

Given the lifecycle of any new technological innovation this will come as no surprise. And yet what is clear from the cloud revolution is the scale and speed of early adoption.



The survey also asked those existing users of cloud services why they would not extend cloud provisioning still further. Admittedly this is a small sample of 32 organisations, and yet it is worth dwelling on the figures.

Just over a third (34 per cent) cited that they wished to keep their remaining applications and data inhouse. This figure leapt to 57 per cent amongst those companies employing under 20 and declined dramatically amongst the larger enterprises.

The secondary reason cited was that at this stage they had no further need for cloud services – 28 per cent.

Even though the general trend of cloud adoption is very positive the vast majority of participants (65 per cent) still consider that there are applications and data sets that they deem to be unwilling to move to a cloud delivery model at this time. Notably employee data and accounts/financial data were cited by over 50 per cent of the respondents.

Only 2% of the 450 organisations researched believed they would not adopt cloud services

Top 6 IT services your business would not consider moving to the cloud?

Only asked of respondents who either currently use cloud services or do so at some point in the future

	Total	No. employees Fewer than 20	20 - 200	More than 200
Employee information	54%	66%	53%	50%
Accounts/financial data services	52%	57%	48%	53%
Internal file sharing	32%	29%	36%	30%
Client/third-party data	23%	26%	23%	22%
File/print services	20%	17%	28%	15%
IP/patent data	20%	20%	15%	24%
Base	210	35	80	96

5. Concerns

Material concerns over committing data to be stored and accessed in the cloud do clearly remain. When asked to name their chief worries about cloud adoption, users were clear that data security and privacy stood out above all others, cited by 64 and 62 per cent of respondents respectively.

What are your most significant concerns, if any, about the adoption of cloud in your business?

Only asked of respondents who either currently use cloud or will do at some point in the future

	Total	No. employees Fewer than 20	20-200	More than 200
Data security	64%	62%	61%	68%
Data privacy	62%	68%	61%	60%
Dependency upon internet access	50%	53%	58%	42%
Confidence in the reliability of the vendors	38%	32%	38%	41%
Contract lock-in	35%	30%	43%	30%
Cost of change/migration	32%	27%	35%	33%
Contractual liability for services if SLA's are missed	31%	16%	38%	33%
Confidence in knowing who to choose to supply service	28%	27%	29%	28%
Confidence in the vendors business capability	24%	16%	25%	26%
Confidence in the clarity of charges (ie will they be cheap on-prem)	22%	16%	26%	21%
Lack of business case to need cloud service	21%	11%	27%	22%
Base	323	73	112	95

The physical location of data was another area of concern for cloud users, with three quarters (75 per cent) saying that it was important data is stored either solely in the UK or within the European Union (EU) or the European Economic Area (EEA). Of particular note, companies with less than 20 employees and public sector respondents both prefer data to be stored within the United Kingdom. The potential impact of countries' laws on data storage means that eight in ten respondents would be more likely to insist their data only be stored in the UK, EU or EEA.

Is it important to your business that your data is stored inside the UK, EU or EEA?

Only asked of respondents whose company uses cloud based services

	Total	No. employees Fewer than 20	20 - 200	More than 200	Private	Public
Yes UK only	41%	63%	40%	31%	37%	55%
Yes UK, EU or EEA	34%	17%	33%	44%	36%	27%
No	14%	15%	12%	15%	15%	10%
Don't know	11%	6%	15%	10%	12%	8%
Base	218	48	81	89	167	51

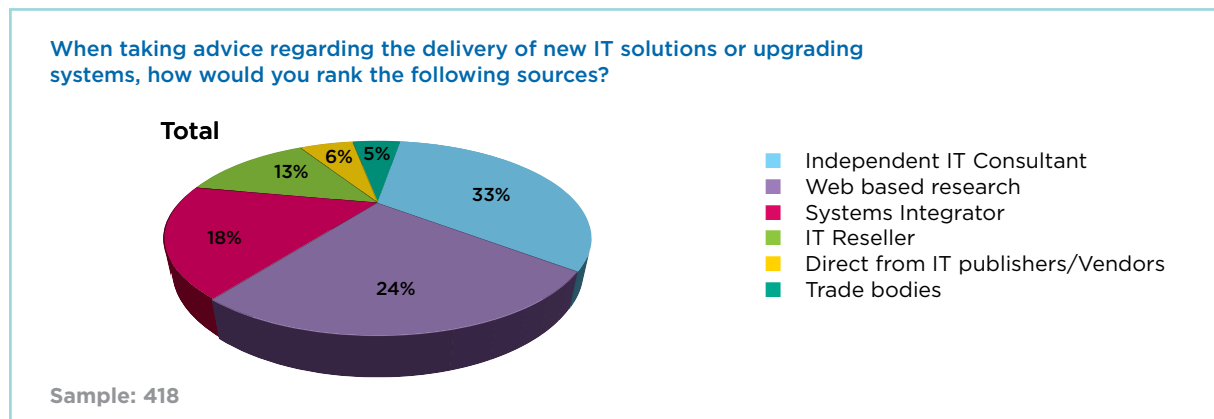
This is an interesting development as it reflects natural concerns driven by regulation (such as the Data Protection Act) but also has a sense of national Law providing a higher level of comfort to cloud users. This is particularly relevant as it would require end users to be able to determine where their data will reside in a hosted environment and requires the cloud industry to ensure that it caters for clarity and choice in the design and delivery of SaaS and IaaS solutions as a one-size-fits all delivery will not meet all organisations requirements, regardless of cost benefits. It's also noteworthy that small private companies and public organisations have a greater sense of concern than upper mid-market and enterprises reflecting that this is more about access to knowledge and technology than a fundamental weakness in cloud security.

The three biggest users concerns are data security, data privacy and Internet dependency

6. Influencers on cloud service selection

The majority of the organisations polled said that they take third party advice regarding the selection and delivery of IT solutions “at least sometimes”. A further third replied that they always sought advice. When looked at in detail – by company size and market focus – this appears to be a consistent picture with little difference between the respective sectors.

Of the third that always seek advice the most likely sources were independent IT consultants, web-based research, resellers and systems integrators.



Breaking this result down by company size the results were as follows.

Only asked of respondents who either currently use cloud or will do at some point in the future	No. employees			
	Total	Fewer than 20	20-200	More than 200
Independent IT Consultant	33%	40%	29%	33%
Web based research	24%	34%	27%	16%
Systems Integrator	18%	9%	20%	23%
IT Reseller	13%	9%	13%	15%
Direct from IT publishers/Vendors	6%	5%	4%	9%
Trade bodies	5%	3%	7%	5%
Base	418	110	148	160

In our second paper we will be taking a close look at the cloud and its impact on the IT supply channel. However, for the purposes of this paper the research findings clearly indicate that relations between the IT channel and end users are still strong, with six in ten organisations having a formal or preferred relationship with a specific IT reseller for hardware and software provision.

However, it appears almost two fifths (38 per cent) of resellers that have a formal relationship with end users are not engaging with their customers about the relevance of cloud services versus on-premises technology. According to the majority (60 per cent) of these customers, this is because the reseller has not raised the issue of cloud provisioning. This figure increases to more than three quarters (77 per cent) of organisations with fewer than 20 employees, suggesting that for the IT channel there is a tremendous untapped market opportunity. However, the opportunity could easily turn in to a threat if the resellers involved do not adopt a proactive stance toward the inclusion of cloud services as part of their over-arching solution portfolio.

60% of End Users have a preferred supplier relationship

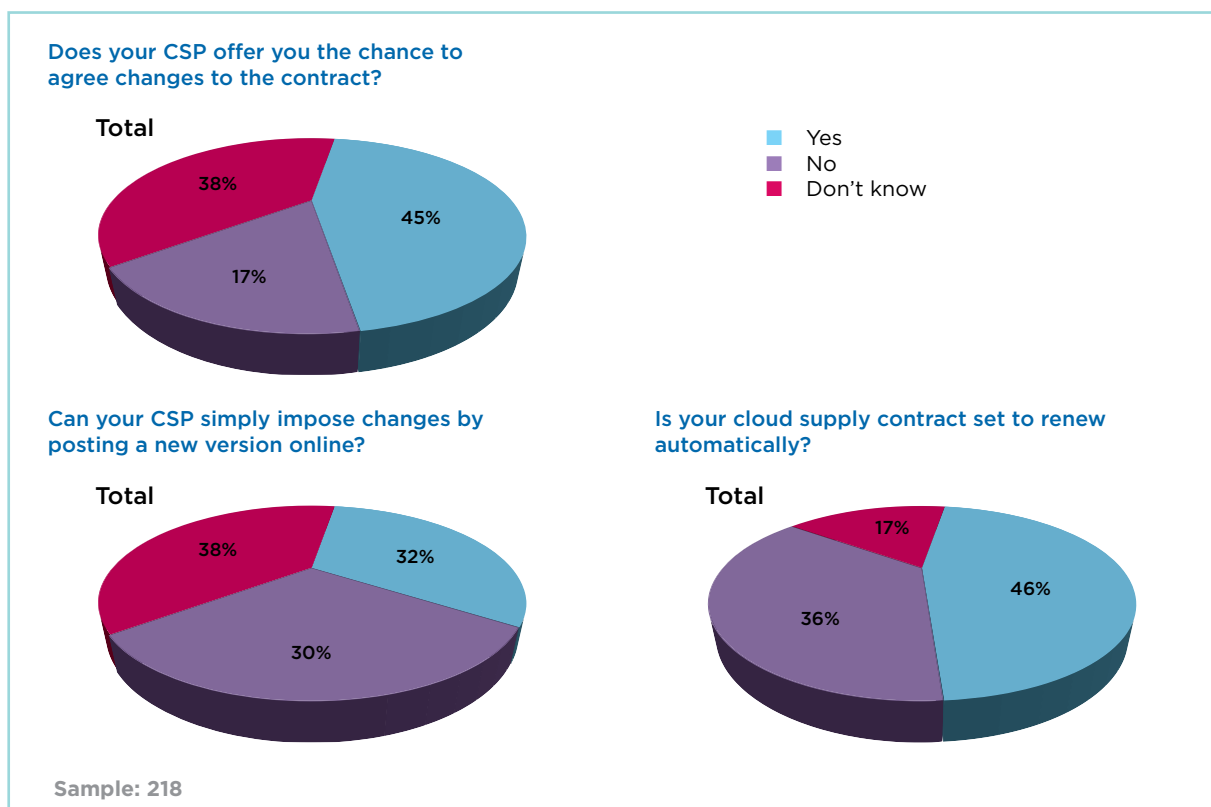
7. Contractual relationships

One sign of the immaturity of the cloud market is reflected in terms of contractual process, as barely half (52 per cent) of cloud users negotiated the legal terms of their contract with their cloud service provider (CSP), with larger organisations more likely to do so. This also infers an evolution of the culture that led to the click-thru agreement online more than a business critical supply agreement. This topic and guidance for providers and users of cloud services is covered specifically in White Paper 4 – Contracting and Cloud Service Provision.

Almost half (46 per cent) of respondents said that their contracts were set to renew automatically – although a significant proportion (17 per cent) didn't know. Whilst many end users may not have much control over contract changes or renewal, most organisations demand a high degree of assurance from their providers, with almost 8 in 10 asking for additional protection beyond that mentioned in standard service level agreements (SLAs).

Some of the most striking results from the research show that users are often in the dark over questions of liability, indemnity, insurance and ownership of content stored in the cloud; and that while users have certain expectations in these areas, they often do not know if they are being met in their contracts with CSPs

Only half of the organisations using cloud services consciously negotiated their supplier agreements



In a reflection of the issue surrounding business continuity and risk management, less than half (43 per cent) of users said that their insurance covered business interruption from a disaster at the CSP's data centre or a data leak, although two thirds (65 per cent) believed this should be covered by the CSP. Again this reflects that clarity on what should be deemed the norms for responsibility and accountability for the end to end delivery of hosted cloud services is yet to be codified not just in the IT supply chain but also in the wider insurance industry and best practice guidelines.

Conclusion

The migration towards cloud services has been rapid with 48 per cent reported use across the research base and its adoption is widespread across all manner of organisations, from large enterprises to small businesses, and in both the public and private sectors. In looking at cloud adoption in the UK, a number of key conclusions can be drawn:

1. Satisfaction with cloud services (where they have been adopted) is, at 94 per cent, extremely high, and is leading the vast majority of current users to expand their use into other areas of their IT operations. This simultaneous move to a new type of technology-led business model is a rare and perhaps a unique phenomenon in business IT: after all it has usually been only the large organisations and enterprises that can afford to be the pioneers of new technology.
2. While the first wave of adoption has been primarily driven by end user desire for the flexibility that the cloud delivery model provides, it is the pursuit of ongoing cost savings that is the main driver for the second wider phase of adoption.
3. The current “big four” core cloud services are: email; back-up / disaster recovery; storage; and webhosting services. While this by no means defines “the cloud”, it gives a very helpful indication of how the cloud is most popularly and effectively employed by end users, and interestingly this reflects more about IT back office services than the higher profile often given to vertical specific business applications, confirming that IT departments are also looking to make the cloud delivery part of their wider IT strategy to embrace on-premise and cloud solutions overall. A fact directly confirmed by the majority of participants.
4. There are several areas of concern that are limiting the rate of growth of cloud computing. End user organisations continue to express anxieties about data security, privacy and sovereignty, all of which were cited by a majority of respondents and in response to which the cloud industry needs to provide more practical guidance and comfort. Further it was interesting to note that 41 per cent of the participants did not want their data hosted outside the UK (sovereignty) and that this percentage increased for smaller businesses and public sector to exceed 50 per cent.
5. Adoption of cloud services relating to employee or customer data is perceived by most users as to be higher risk than any other IT activity. Again there is a lack of confidence and clarity surrounding the protection of data online that the industry should seek to educate the market on to build confidence and trust on this critical topic.
6. The opportunity of cloud services has clearly won over IT departments. The decision to move into the cloud is not one taken purely by senior or functional management, but now involves and is being driven by IT managers themselves.
7. Whilst most end users have a preferred relationship with a specific IT reseller for hardware and software provision, it was a point of note that a number of these resellers are failing to engage their customers effectively on the subject of cloud computing. Where this engagement is lacking, a majority (60 per cent) of customers say that it is because the reseller has not even raised the issue with them. For smaller customers – the key growth area for cloud computing – the figure is more than three quarters. The implications of this should resonate with resellers, especially given that most end users (66 per cent) see the cloud as facilitating the opportunity for self-service. If resellers are not proactively having conversations with their customers about the role and opportunity for the cloud as part of the wider IT strategy, there is in effect nothing to stop those customers bypassing their traditional trusted supply chain and procuring services directly to reap the benefits that they seek, believe exist and appear to be achieving.

The research found that cloud computing is fast becoming the norm in organisations of all types and sizes. What is more, there are major opportunities for expanding the cloud market alongside an on-premise capability, by enabling organisations that have yet to adopt or by encouraging end users that they can safely take even more data and IT functionality into the cloud.

In closing, when asking the participants in the research “Do you see value in working with CSP’s who sign up publicly to an industry Code of Practice that is independently audited over those that have no public accountability?” the overwhelming majority, 83 per cent, said yes, reinforcing the Cloud Industry Forum’s focus in driving adoption of the industry Code of Practice.



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

We achieve this through a process of self-certification of vendors to a cloud Service Provider Code of Practice requiring executive commitment and operational actions to ensure the provision of critical information through the contracting process. This Code of Practice, and the use of the related Certification Mark on participant's websites, is intended to provide comfort and promote trust to businesses and individuals wishing to leverage the commercial, financial and agile operations capabilities that the Cloud based and hosted solutions can cover.



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