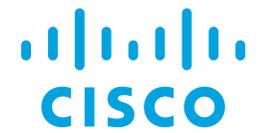


Cisco CloudWatch Summer 2012



Cisco CloudWatch Summer 2012

Table of Contents

- 3** Executive Summary
- 6** Cloud watching – from hype to reality
- 8** Maturing market
- 10** The reality of cloud
- 12** Changing cloud formations
- 14** Cloud and big data
- 16** Moving forwards with cloud
- 18** Conclusion

Executive Summary

Whilst 2011 was the year that the hype around cloud began to dissipate and companies tentatively dipped their toes in the water, 2012 sees many more companies taking the plunge with cloud, with plans to put more of their systems and applications in the cloud as we enter 2013. As the market matures so user experiences and expectations are evolving – cloud is now a reality and companies are now experiencing for themselves how to make the most of this agile and efficient IT supply model.

The Cisco CloudWatch Report is a comprehensive research programme amongst more than 250 IT decision makers in large UK companies across five key sectors about current attitudes and approaches to cloud computing. The five sectors included in the research are Government, retail, healthcare, finance and service providers (including telecoms operators/carriers, media and broadcast companies). This is the second in the annual Cisco CloudWatch series, both Reports conducted by Loudhouse, an independent marketing research company.

In 2011 the Cisco CloudWatch Reports found companies at a cloud tipping point – fully aware of the benefits of cloud and increasingly putting

it on the strategic agenda, yet only making small steps towards full-scale adoption. In 2012, cloud computing has climbed further up the strategic agenda and usage can now be seen as mainstream across the sectors of interest rather than niche. As cloud adoption increases, so customer confidence and clarity is growing and companies are better able to evaluate the benefits and challenges that cloud presents their individual organisations.

Some highlights of the research include:

Cloud Watching – from hype to reality

- Cloud is now on the IT agenda for over 90% of companies, up from just over half of companies (52%) last year. It is considered critical and underpinning much activity for 31% of companies (up from 7% in 2011)
- Where cloud is on the agenda, 85% are planning to invest over the next 12 months (up from 74% in 2011)
- Currently an average of 31% of all IT applications / services are in the cloud (up from 7% in 2011). In two years time, companies would like to have around half their IT applications / services in the cloud (52%)

Figure A: Sample breakdown – Industry sector

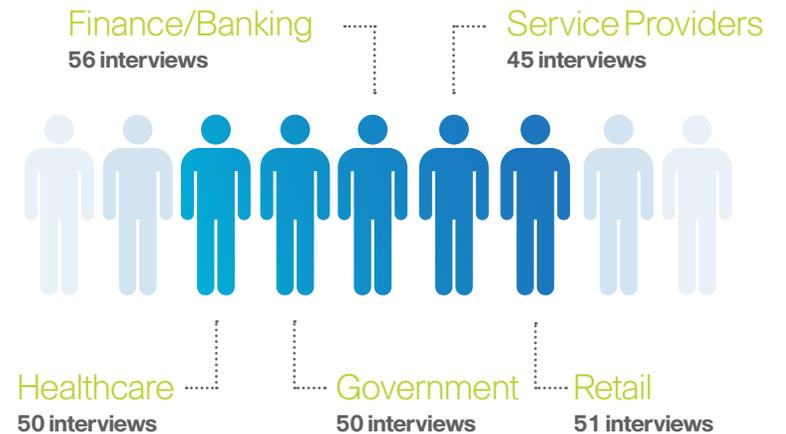
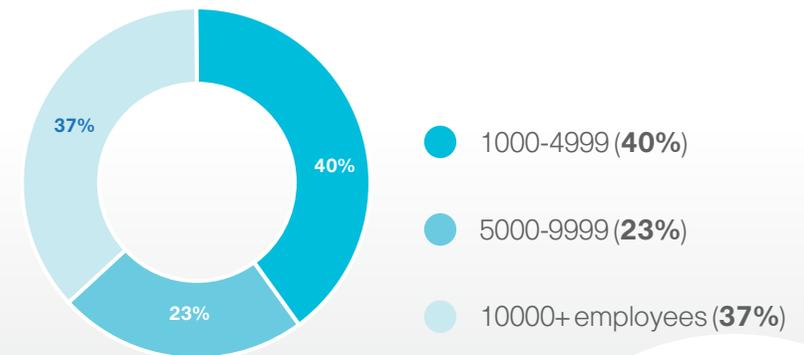


Figure B: Sample breakdown – Company size



Maturing market

- Cloud blur is clearing with 72% able to see a clear distinction between cloud computing and managed services (up from 46% in 2011)
- The areas where companies are most likely to have already invested in cloud are email hosting (48%), desktop applications (44%), back up (42%), payroll/finance (39%) and HR (35%) with around 30% planning to invest in each of the application areas over the next 12 months (including video conferencing, web conferencing, voice services and unified communications)

The reality of cloud

- In 2011, reducing cost was the #5 benefit of cloud. In 2012, this is the #1 benefit (57%), closely followed by easier maintenance (56%) and then automatic updates (48%)
- 70% of companies say that cloud has met or exceeded expectations, up from 36% in 2011

Changing cloud formations

- 54% currently use private clouds (up from 34% in 2011), compared to 29% for public clouds (up from 18%), 16% for hybrid clouds (18% in 2011) and 14% for community clouds (14% in 2011)
- In 5 years time, 54% think private clouds will be the dominant cloud model in their sector (up from 47% in 2011) with public cloud standing at 21% (up from 9%)

Cloud and big data

- Improving the value of business analytics is a growing concern for more than two-thirds of companies (68%)
- Companies are most interested in getting access to data in real time (54%), accessing data from multiple devices (51%) and accessing data from remote / flexible locations (44%). Yet, getting access to data in real time emerges as the biggest challenge for companies (52%) along with speed of data delivery (50%)
- 43% think that data analytics could be improved in their organisation if data analytics was part of cloud services delivered with third party expertise

Moving forwards with cloud

- Security and privacy challenges remain the biggest barrier to wider adoption of cloud, but are less pronounced as barriers (52%) than in 2011 (72%). Other barriers are compliance concerns (42%) and concerns about the location of data (39%)
- 85% think that security concerns, often cited in the media, as a key barrier to cloud adoption are justified and well founded
- 32% say that business departments with their organisation have used cloud services without informing or involving the IT department

The Cisco CloudWatch Report shows that cloud computing now firmly in the ascendant. Positive experience is one of the biggest drivers for organisations extending their usage of cloud and the increasingly consumerisation of IT is leading to a significant proportion of cloud adoption happening outside the jurisdiction of the IT department.

Explosive data growth has fuelled the market for data analytics and companies readily see an application for cloud here as well. How the two disruptive trends of big data and cloud further transform the IT landscape and the role of the IT department is something that cloud watchers everywhere will be closely observing.

70%
of companies say
that cloud has met or
exceeded expectations,
up from 36% in 2011

A person is writing in a notebook with a blue pen. In the background, a laptop is open, displaying a webpage with a profile picture and text. The scene is set on a desk with a yellow object visible. The overall lighting is warm and focused on the writing activity.

Methodology overview

The Cisco CloudWatch Report was conducted by Loudhouse, an independent marketing research consultancy based in London. The research was conducted with IT decision makers in businesses in the UK and Ireland with more than 1000 employees across five key sectors – Government, Retail, Healthcare, Finance and Service Providers. The research was conducted in May 2012.

Cloud Watching – From Hype to Reality

Figures around the absolute deployment of cloud remain difficult to establish, due to both a lack of end-user consensus around what actually constitutes cloud and a degree of cloud-washing by the vendor community. For the second year running, The Cisco Cloud Campaign Survey seeks to establish the extent to which cloud computing is now embedded within IT strategy and the relative adoption levels of cloud for different applications / services.

Figure 1 shows the extent to which cloud computing is considered to play a part in current IT strategy. Overall, more than 90% of organisations now consider that cloud computing now has a role in their IT strategy. With this figure standing at just 52% in 2011, the last 12 months has seen cloud enjoy a considerable upswing in adoption.

Some 31% of companies today consider cloud to be critical to their IT strategy, underpinning much activity, up from just 7% in 2011. There is variation by sector in the extent to which cloud is critically important, ranging from 39% in retail and 38% amongst service providers to just 13% in healthcare. This suggests that cloud is taking off to a greater extent in the private sector, although this is likely to level out over the next two years.

Amongst those where cloud is on the IT agenda, 85% are planning to invest in the next 12 months (up from 74% in 2011). Investment plans are most likely in the healthcare (89%), retail (88%) and finance sectors (86%), with Government lagging behind (78%).

The growth forecast in cloud usage by companies over the next two years is significant. **Figure 2** shows that the average company now has almost a third (31%) of IT applications and services in the cloud and this is predicted to grow to around 52% of applications and services by 2014, when cloud will very much be at the forefront of IT operating methods.

Figure 1: Strategic importance of cloud computing

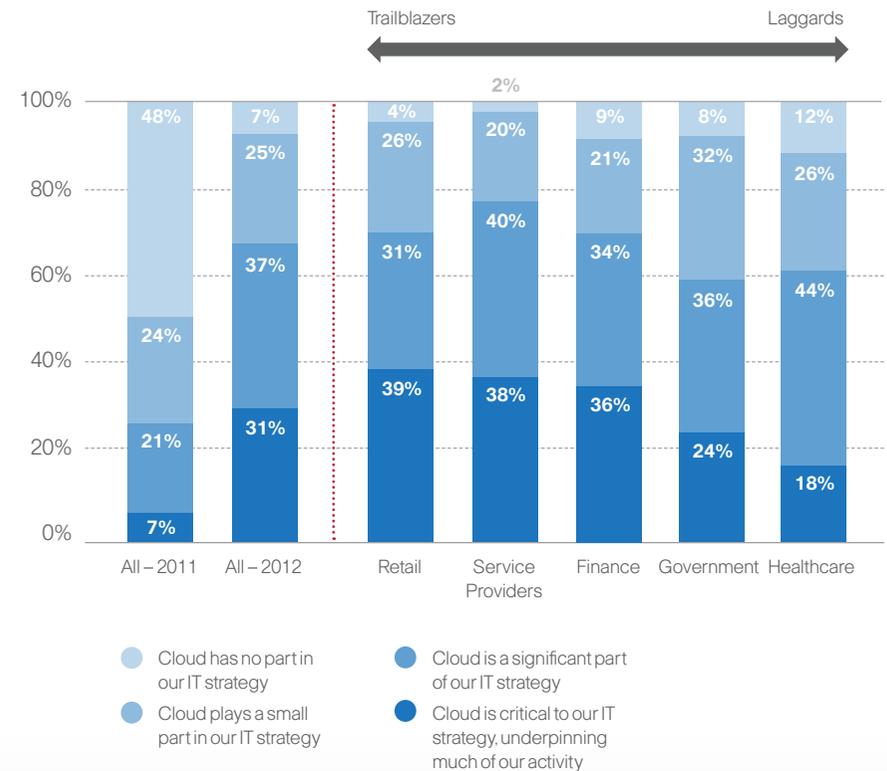
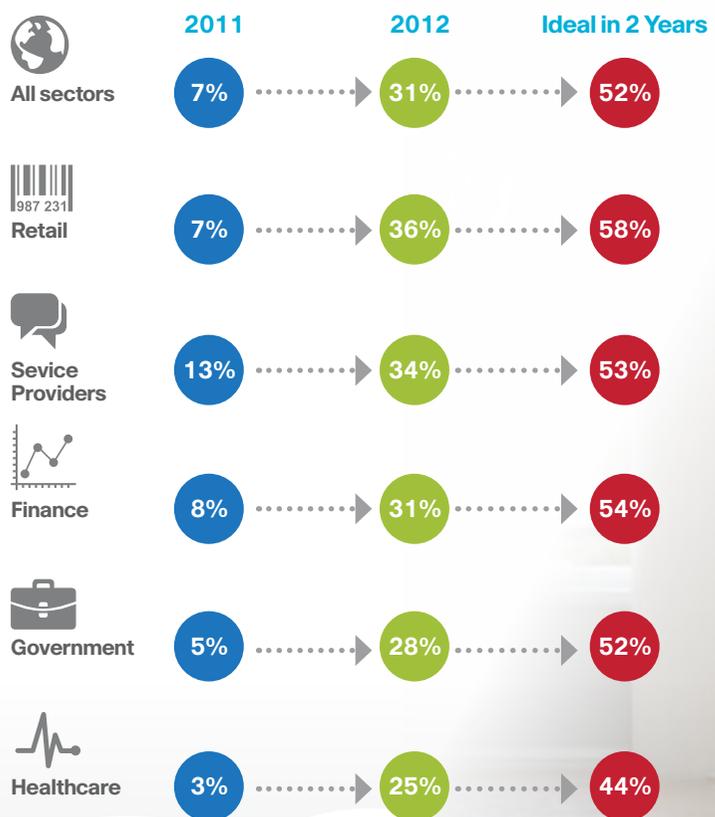


Figure 2: Average proportion of IT applications and services in the cloud in 2011, 2012 and ideal for 2014



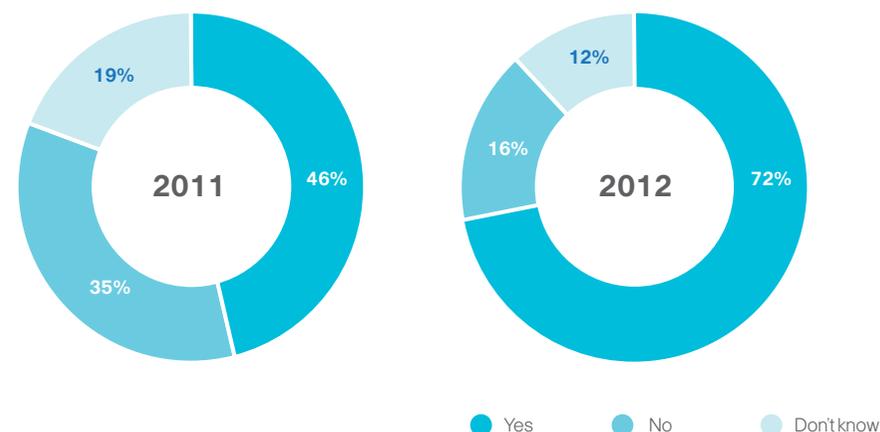
Maturing Market

After years of hype and lots of confusion around what actually constitutes cloud computing, it seems that the cloud blur that was very evident in last year's survey is clearing. **Figure 3** shows that 72% of respondents are now able to distinguish between cloud computing and managed services, a significant increase from 46% last year.

Figure 4 shows where the most activity and enthusiasm for cloud computing resides. Email hosting emerges as the area most likely to have attracted cloud investment (48%), closely followed by desktop applications (44%) and back up (42%). The highly publicised data explosion means that the need for back up and storage is undeniably high and the cloud with its scalability and flexibility is clearly being used to manage growing data volumes.

Last year's front runners, web conferencing (13%), video conferencing (12%) and unified communications (12%) have all drawn investment from between a quarter and a third of companies and look set for further growth over the next 12 months. The finance sector is leading the way in adoption of unified communications with 32% having already invested in cloud solutions and 36% of companies in the finance sector have invested in web conferencing (36%), only email hosting and back up more likely to already be in the cloud. Healthy growth is forecast in these collaboration services over the next 12 months.

Figure 3: Clear distinction between cloud computing and managed services?



72%
of respondents are now able to distinguish between cloud computing and managed services

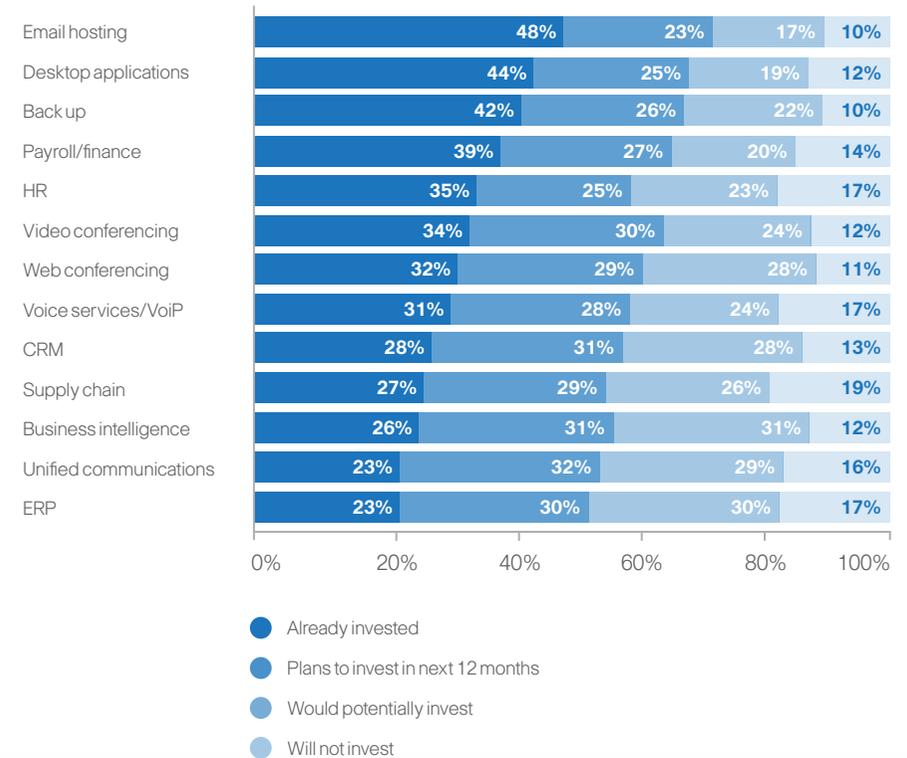
Interestingly, adoption of cloud for HR and payroll has exceeded expectation as these, last year, were very much considered later candidates for cloud. The move to put payroll / finance in the cloud is being particularly driven by Government, where 50% of organisations claim to have moved payroll / finance to the cloud, ahead even of email hosting (44%). Healthcare is most reticent about putting payroll / finance in the cloud (22%) followed by the finance sector (32%)

This suggests that customer confidence is definitely increasing as companies begin to move business critical applications to the cloud. The compelling economics, maturing platforms and mindset shifts are making cloud the clear choice for many companies and many applications.



customer confidence is definitely increasing as companies begin to move business critical applications to the cloud

Figure 4: Cloud investment by application

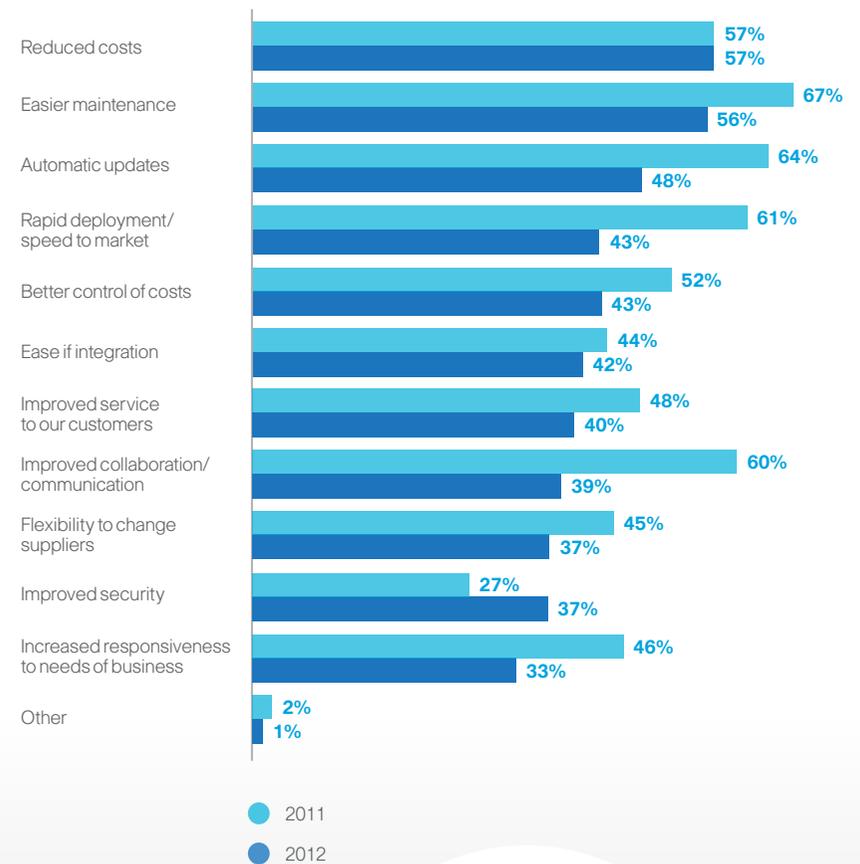


The Reality of Cloud

Cost savings are widely known to be the primary driver for adopting cloud services, with promises of reduced capital outlay. The Cisco CloudWatch Report seeks to explore the benefits of cloud computing over and above keeping IT in house or using managed services.

Figure 5 shows a shift in what companies perceive to be the benefits of cloud compared to 12 months ago. The first observation is that the results are generally less “spiky”, which is typical as a market matures, hype slowly abates and perceptions are based more on actual experience rather than media and vendor messages. It is also worth noting that a far higher proportion of customers are now able to effectively distinguish between cloud and managed services. In 2011, respondents listed a wider range of benefits to a greater degree, focusing especially on easier maintenance, automatic updates, rapid deployment and improved collaboration followed by reduced costs in fifth place. Fast forward twelve months, and reduced costs emerges as the biggest benefit (57%) alongside easier maintenance (56%).

Figure 5: Benefits of using cloud computing over and above keeping IT in house or using managed services



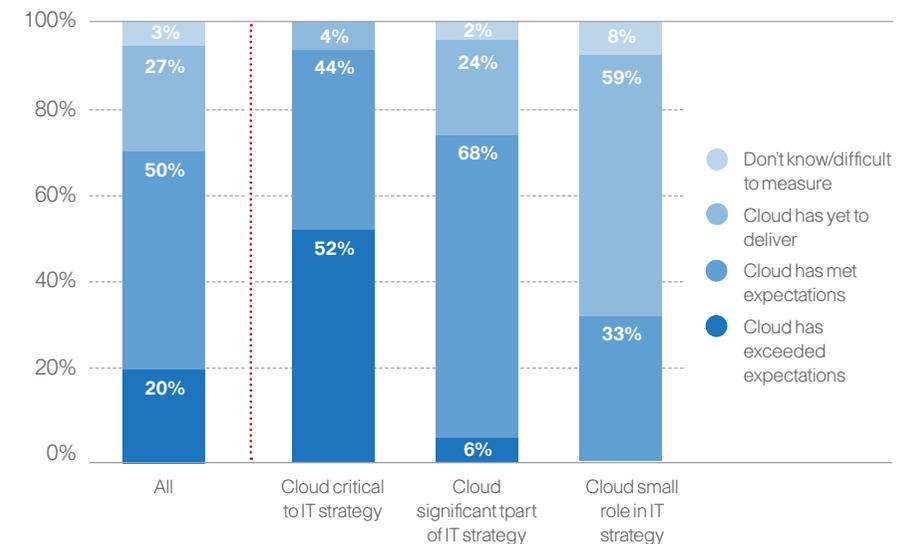
In the early days of cloud, adopters could forgive the occasional glitch or service outage. Now cloud is reaching the masses, and customers are becoming savvier, these sorts of issues are far less acceptable. Expectations are riding high following the huge wave of hype around cloud, the likes of which have rarely been seen in technology and business circles. **Figure 6** shows the extent to which companies feel cloud has delivered the commercial and business benefits they expected.

70% of companies say that cloud computing has delivered the commercial and business benefits they expected it to – 20% of these saying that cloud had actually exceeded their expectations. In 2011, just 36% of companies felt that cloud had met or exceeded their expectations.

Plans to invest further in cloud are undoubtedly being driven by positive experiences of cloud to date. This is very good news for the industry and firmly reinforces the fact that cloud is here to stay and will continue to experience healthy growth over the coming years as customers share their positive experiences within and outside their industry sector.

70%
of companies say that cloud computing has delivered the commercial and business benefits they expected it to.

Figure 6: Extent to which cloud has delivered the commercial / business benefits expected

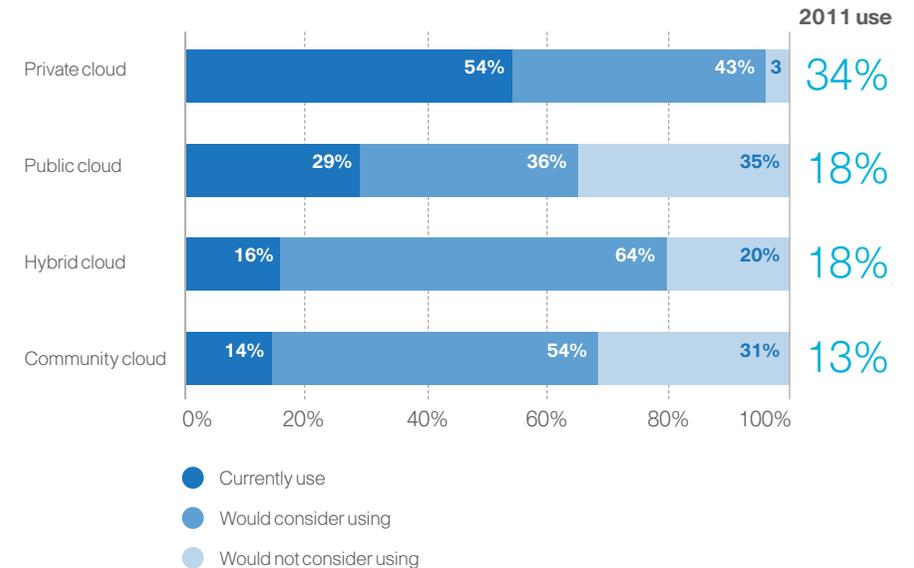


Changing Cloud Formations

Cloud computing can best be viewed as an over-arching philosophy comprising many different solutions and an alternative way of thinking about how IT services are delivered within the organisation. When moving to the cloud it is important that the business requirements for the move are understood and that the cloud service and deployment models are selected to meet these needs.

70% of respondents claim to fully understand the differences between the various deployment models for cloud, in line with last year's survey (69%). Much of the growth of cloud appears to be driven by private cloud deployments, and to a lesser extent public cloud. **Figure 7** shows the relative use and consideration of different deployment types. 54% of companies are currently using private clouds (up from 34% in 2011). This compares to 29% for public clouds (up from 18%). There has been little change in the uptake of hybrid or community clouds but definitely a healthy interest, 64% stating that would consider using hybrid clouds, for example.

Figure 7: Use of different cloud deployment models



54%

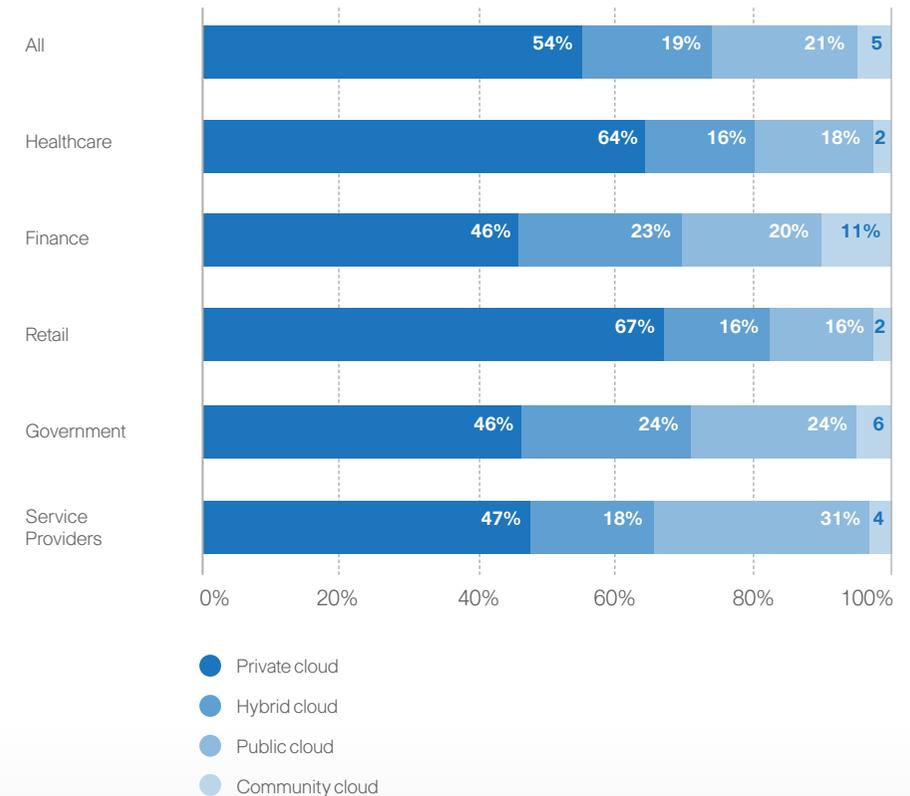
of companies are currently using private clouds (up from 34% in 2011). This compares to 29% for public clouds (up from 18%).

Organisations now have a bewildering array of cloud options at their disposal. Looking ahead to the next five years, IT decision makers were asked what they believe will be the dominant cloud model in their industry sector. **Figure 8** shows that overall private clouds are forecast to be the primary model (54%) up from 47% in 2011 and this holds true for each of the five separate industry sectors. Next in popularity are public clouds (21%) and hybrid clouds (19%) with community clouds only rated by 5% as being the likely dominant cloud model come 2017. There are some notable sector differences with retail (67%) and healthcare (64%) particularly adamant that private clouds will dominate. In contrast, finance, Government and service provider organisations show relatively more support for both public and hybrid clouds.

As companies continue to grow in cloud confidence so they will move from tentative experimentation to having multiple individual cloud offerings sourced from multiple providers. Hybrid cloud is a natural evolution in the market and represents a good way for companies to get the best out of cloud – taking advantage of the less costly public cloud while ensuring highly sensitive information is safeguarded. Cloud preferences look set to oscillate further as the market continues to mature and customers become more confident and discerning about the choices open to them.

Cloud preferences look set to oscillate further as the market continues to mature and customers become more confident and discerning about the choices open to them.

Figure 8: Likely dominant cloud model in 5 years time



Cloud and Big Data

Respondents were asked what they saw as the aspects of their IT strategy set to increase in importance over the next 12 months. Four key areas emerged – keeping pace with changing IT security demands on the business (71%), improving the quality of business applications delivery to the business (70%), creating greater levels of end user mobility / remote access (70%) and improving the business value of data analytics (68%) – all requiring attention alongside an increased focus on maintaining network performance (67%) and moving to a more service based / cloud delivery based model of IT (62%). It seems therefore that IT departments are being stretched more than ever before in multiple directions.

Figure 9: Critical success factors in achieving corporate objectives

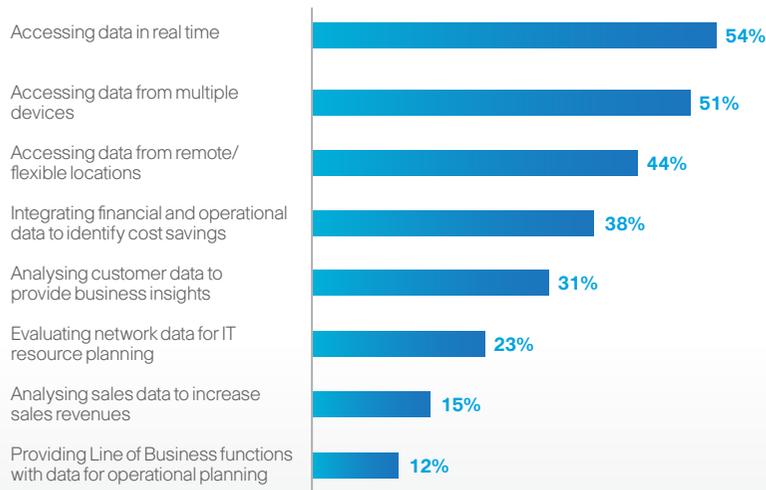
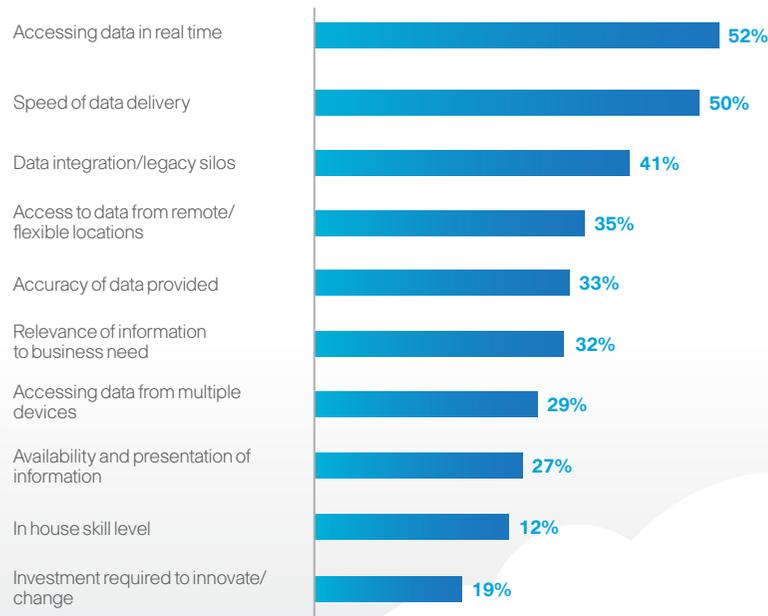


Figure 9 shows what IT decision makers see as critical success factors in achieving corporate objectives in 2011. Two priorities emerge ahead of others – accessing data in real time (54%) and accessing data from multiple devices (51%). It is no exaggeration to say that organisations of all shapes and sizes are experiencing a data explosion and that the IT department is in the eye of this data storm. Real time access to data is not only seen as a critical success factor, but as shown in **Figure 10**, this also emerges as the key challenge when it comes to providing data analytics to the business (52%) alongside speed of data delivery (50%).

Figure 10: Challenges in providing data analytics to the business



Various other challenges emerge with managing data analytics – 54% say it is more complex due to the volume of information the business generates, whilst 53% attribute complexity to the increased array of sources from which the data originates and 46% experience issues because Heads of Business have unrealistic expectations on the levels of insight available. Data analytics, it seems is vitally important but far from straightforward.

Data analytics could be improved by taking into account the context, source and security of the information rather than looking just at the data itself, according to 59% of respondents. With positive experiences of cloud very much front of mind, 43% say that data analytics could be improved in their organisation if data delivery was part of cloud services delivered with third party expertise. It could be argued that cloud computing is increasing the demand for real-time business insights as data is being accessed and consumed through various devices anywhere, anytime. The capability of cloud alongside the sheer power of big data analytics represents a fascinating fusion of two innovative IT trends, the full impact of which is yet to unfold.

It could be argued that cloud computing is increasing the demand for real-time business insights as data is being accessed and consumed through various devices anywhere, anytime.



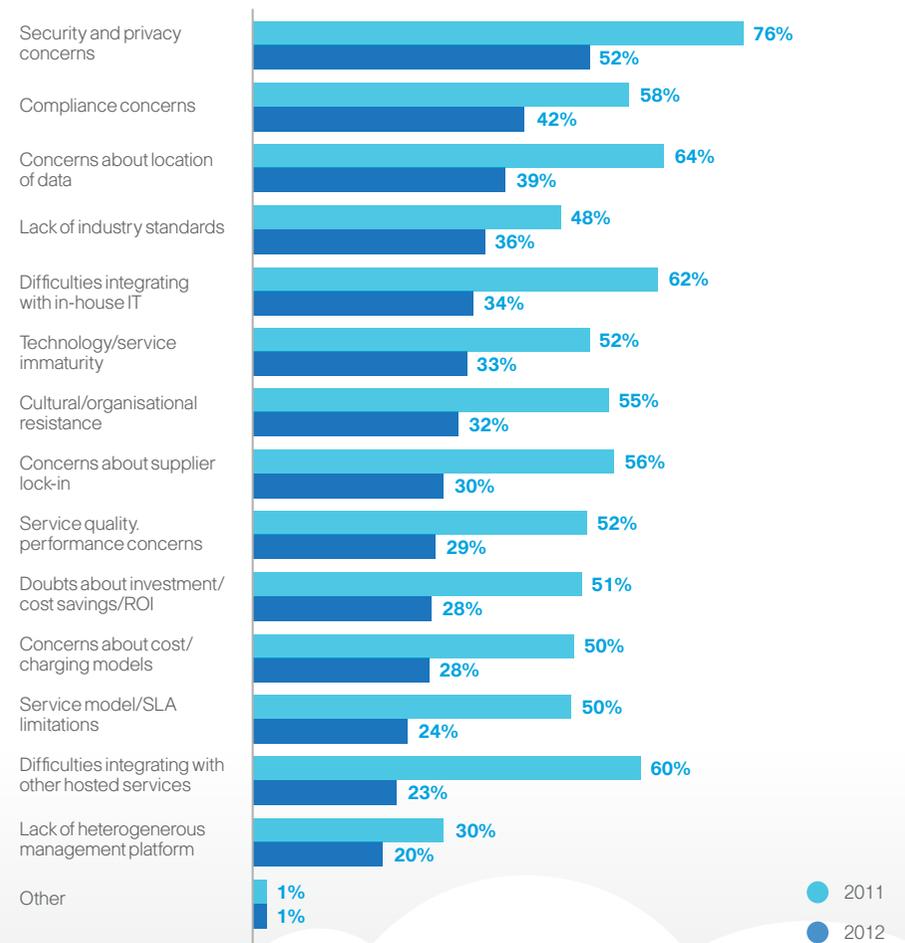
Moving Forwards With Cloud

As in 2011, security remains a key sticking point with around half of companies (52%) seeing this as a barrier to wider adoption of cloud within their sector. This, along with the other barriers mentioned, is far less pronounced than last year when around three-quarters of companies (76%) cited security and privacy concerns as a barrier. Compliance concerns (42%) and worries about the location of data (39%) also emerge as barriers this year although much less marked. This shift can be explained by an increased market maturity and it is encouraging that concerns that companies had 12 months ago have now largely abated as adoption increases and hype recedes.

Despite the less acute security concerns that cloud users themselves are experiencing, they are quick to point out that security concerns, often cited in the media are justified and well-founded (85%) suggesting that security is one area that cloud users themselves have successfully navigated. A lack of industry standards, as in 2011, however remains an issue with 76% of organisations saying they would welcome the development of a set of standards or guidelines for cloud computing – although this appears less urgent than in 2011 when 86% highlighted this, again reflecting a more established market and increased buyer confidence.

The role of the IT department has changed dramatically in the last five years, and with the rapid adoption of cloud and increasing consumerisation of IT, it looks set to continue to evolve further. We have already seen that security, end user demands, application delivery and demands for data analytics are jostling for the attention of the IT department. 1 in 3 respondents (32%) say that business departments within their organisation have used cloud services without informing or involving the IT department, an issue which appears to be becoming more prevalent (up from 23% in 2011). There is a risk that IT might be excluded from implementing IT solutions in the organisation as cloud is changing traditional routes of IT procurement and putting more power into the hands of users. This may result in the IT department taking on new roles such as cloud service portfolio manager, cloud service analyst and cloud service integrator, adding value to business in fresh and different ways.

Figure 11: Barriers to wider industry adoption of cloud



1 in 3

say that business departments within the organisation have used cloud services without informing/involving the IT department (32% up from 23% in 2011)



Retail	47%
Service Providers	31%
Healthcare	30%
Government	28%
Finance	25%

Conclusion

There is no doubt about it, cloud computing has well and truly arrived. Adoption has increased dramatically over the last 12 months and forecasts suggest that this will continue over the next two years, to the point where, for many companies, cloud will be at the forefront of IT operating methods. Whilst the future of cloud looks very rosy, such rapid maturing of a technology is not without its growing pains.



Companies, to date, are satisfied with their cloud experiences, quick to say that it has met or even surpassed expectation. Cloud blur has cleared and companies are gaining clarity and confidence around the different cloud choices open to them. In 2011, flexibility was viewed as a key benefit, alongside easier maintenance and automatic updates. A year on, it is the desire for ongoing cost savings that is the main benefit being derived from cloud and most likely to drive further adoption. Big data is set to be another significant driver of cloud adoption as companies grapple with how to store, manage and protect vast quantities of data.

The industry has made significant headway in proving that cloud is a safe, reliable and attractive proposition. Security concerns and a lack of industry standards still remain, although to a lesser degree, but these will be stumbling blocks in convincing cloud sceptics to come on board.

Perhaps the key challenge now is one of shifting organisational mindsets and ways of working to make the most of the enormous opportunities that cloud affords. There is no one-size-fits-all cloud solution – it can be consumed in multiple service and deployment models to fit individual organisation's requirements.

Central to its success, however, is for organisations to think of their businesses as a collection of services and to recognise that cloud does represent a shift in how IT services are procured and managed and what this means for the company in terms of balancing control and empowerment, cost and value.

Cloud usage has now gone mainstream. After several years of 'hype' across the IT industry, it now seems that cloud is maturing and organisations across a broad range of sectors are realising the benefits of moving to a cloud model.

Ian Foddering

Chief Technology Officer and Technical Director,
Cisco UK and Ireland



UK Headquarters

Cisco
9-11 New Square
Bedfont Lakes
Feltham
Middlesex, TW14 8HA
Tel: +44 (0)20 8824 1000
Fax: +44 (0)20 8824 1001
Sales: 0800 0153003

Ireland (Dublin)

Cisco
Block P6,
Eastpoint Business Park,
Dublin 3, Leinster
Ireland
Tel: +353 (1)819 2700
Fax: +353 (1)819 2818
Sales: 1800 556 670

Scotland (Edinburgh)

Cisco
3rd Floor, Building 4
96 Commercial Quay
Commercial Street
Edinburgh, EH6 6LX
Tel: +44(0)131 561 3613
Fax: +44(0)131 561 3601
Sales: 0800 0153003

Cisco has more than 200 offices worldwide. Addresses, phone numbers, and fax numbers are listed on the Cisco Website at www.cisco.com/go/offices.

Cisco (Company Number: 02558939) is registered in England and Wales with its registered office at 1 Callaghan Square, Cardiff, South Glamorgan CF10 5BT

©2012 Cisco. All rights reserved. CCVP, the Cisco logo, and the Cisco Square Bridge logo are trademarks of Cisco; Changing the Way We Work, Live, Play, and Learn is a service mark of Cisco; and Access Registrar, Aironet, BPX, Catalyst, CCDA, CCDP, CCIE, CCIP, CCNA, CCNP, CCSP, Cisco, the Cisco Certified Internetwork Expert logo, Cisco IOS, Cisco Press, Cisco Unity, Enterprise/ Solver, EtherChannel, EtherFast, EtherSwitch, Fast Step, Follow Me Browsing, FormShare, GigaDrive, GigaStack, HomeLink, Internet Quotient, IOS, IP/TV, iQ Expertise, the iQ logo, iQ Net Readiness Scorecard, iQuick Study, LightStream, Linksys, MeetingPlace, MGX, Networking Academy, Network Registrar, Packet, PIC, ProConnect, RateMUX, ScriptShare, SlideCast, SMARTnet, StackWise, The Fastest Way to Increase Your Internet Quotient, and TransPath are registered trademarks of Cisco and/or its affiliates in the United States and certain other countries.

All other trademarks mentioned in this document or Website are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company.

