Cloud Computing Adoption to Accelerate in North American IT Organizations

Cost savings and increased flexibility are strong lures, but lingering concerns over security must be confronted and overcome

A TechTarget Research Brief brought to you by Dell and Intel

TechTarget Custom Media

Cloud Computing Adoption to Accelerate in North American IT Organizations

Table of Contents

With cloud computing adoption picking up steam among IT organizations in mid-size and large organizations, many early adopters appear poised to expand their usage of cloud computing, according to new market research conducted among IT decision-makers. Results of this study make it evident that delivery of IT services via the cloud is high on nearly every IT organization's agenda for the foreseeable future.

The study, based on responses from IT decision makers, gives evidence to a key attraction of cloud computing: its ability to deliver both strategic and tactical benefits to IT organizations and their business stakeholders. But what's even more interesting is the "story behind the story" of expanded cloud computing adoption. According to the survey:

- Initial adoption of cloud computing has been driven primarily by financial factors, such as lower capital expenditures. But nearly as important have been benefits such as improved agility and flexibility, as well as being able to deploy new applications more quickly.

- A majority of IT decision-makers who have adopted cloud computing generally feel positive about their experiences, although 40 percent of the survey respondents indicated that it is still too early to see the full range of anticipated benefits.

- Organizations are far more likely to either adopt or consider adopting private clouds than public clouds. However, it's important to note that nearly four in 10 respondents are adopting or plan to adopt a private/hybrid cloud model.

- Among those whose organizations have already adopted cloud computing, three-quarters indicated that they are likely to accelerate cloud usage throughout their enterprises.

- Early adopters of cloud computing have focused primarily upon tactical applications such as e-mail in their initial forays into cloud. However, strategic applications such as business continuity and customer-facing e-commerce applications are also enjoying significant adoption by respondents.

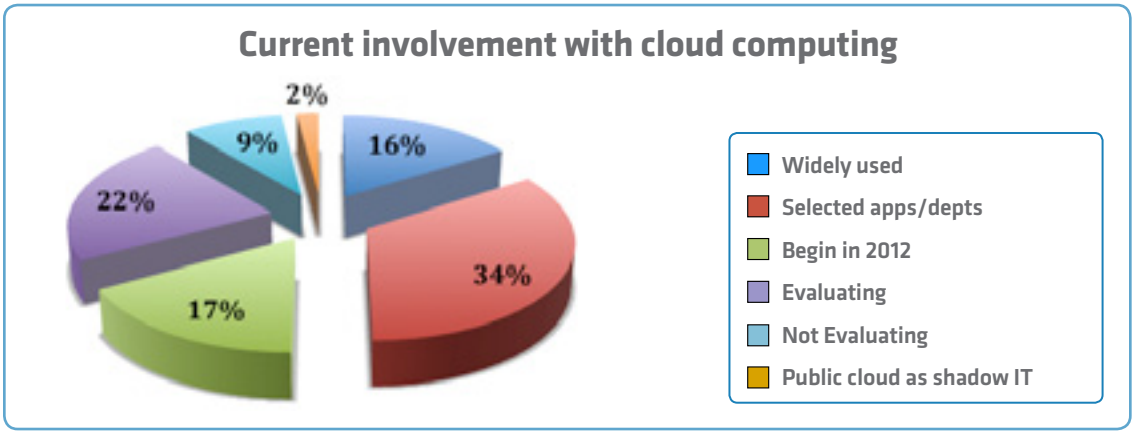
- Another factor driving the potential for increased cloud adoption is the diversification of services being delivered, expanding from the initial focus of software as a service (SaaS) to cloud services for infrastructure, and platforms

- Security, by a wide margin, remains the No. 1 concern among respondents in the survey. In fact, it outdistances the No. 2 concern (service-level agreements) by 28 percentage points.

- Business stakeholders appear to be as aggressive as their IT counterparts in their desire to adopt cloud computing within their organizations.

Cloud Computing Adoption Trends

Most survey respondents said their organizations already have adopted cloud computing to at least some degree—and a significant portion of those respondents have already widely adopted cloud. More than 16 percent of respondents said cloud computing is widely used throughout their organizations, and another 34 percent noted that the cloud has been the deployment and delivery method for select applications and departments. Additionally, another one in six respondents indicated that their organizations intend to begin using the cloud during 2012.

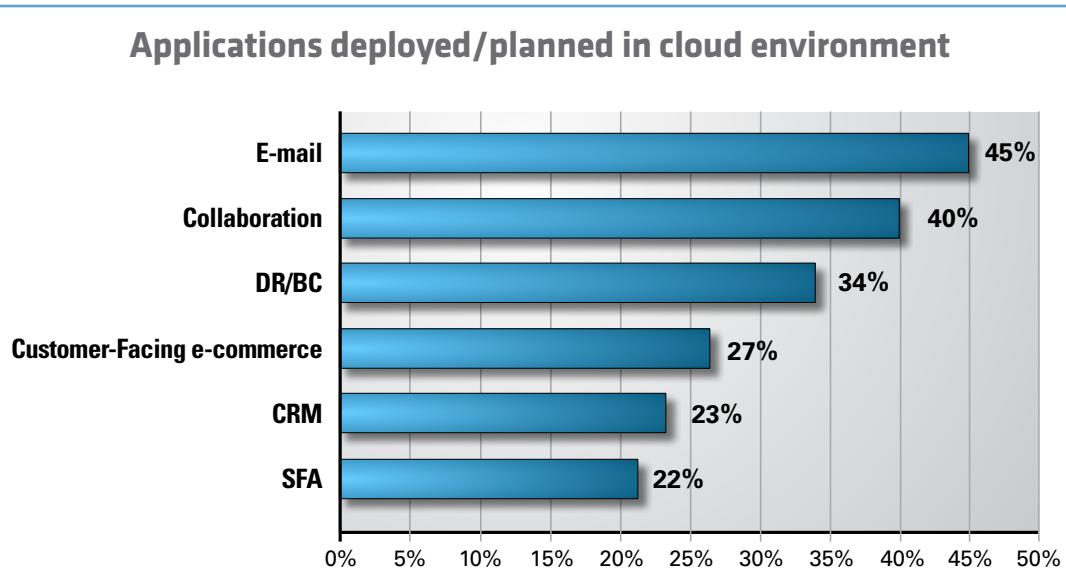


Only 9 percent of the respondents indicated that their organizations have not adopted cloud computing during 2012, although 22 percent of those IT executive respondents acknowledged that they are at least evaluating cloud computing. Additionally, only 2 percent of the respondents said public cloud services are being used inside their organization as a "shadow IT" capability, most likely as a way to get around resource limitations of internal IT for business groups' projects.

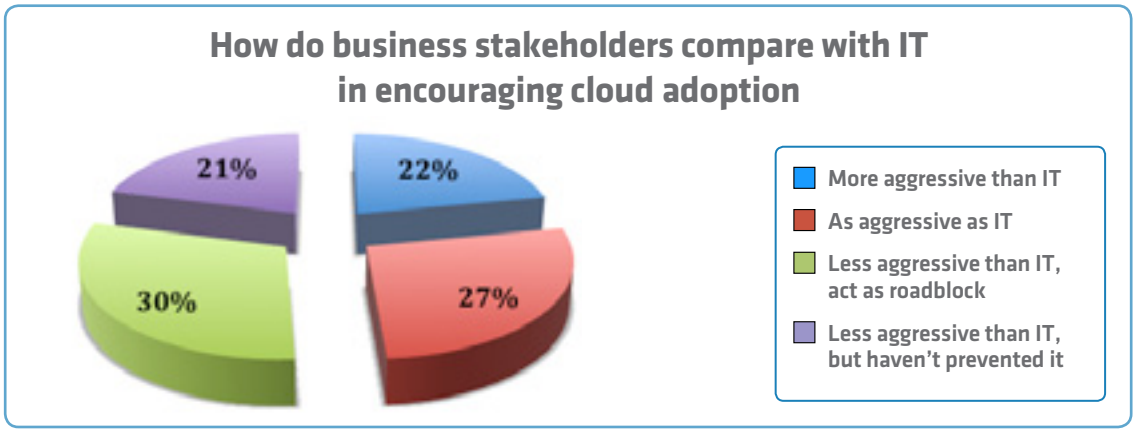
Respondents also said that they are focused primarily upon private cloud environments as their principal method for cloud deployment. In fact, respondents were more than five times more likely—35 percent versus 7 percent—to have adopted or to have plans to adopt private clouds than public clouds. Still, 37 percent of the respondents said that they have adopted or plan to adopt a hybrid private/public cloud model.

When it comes to applications that have been deployed in a cloud model, the initial focus of respondents has been on what is arguably the No. 1 tactical application in the industry: electronic mail. By a wide distance, e-mail has been more widely deployed in the cloud than any other application. However, more strategic applications, such as collaboration, disaster recovery/business continuity and customer-facing electronic

commerce, have also been adopted at relatively high rates, which would seem to indicate future use of cloud services for more business-critical requirements.



As the potential benefits of cloud computing have become apparent to not only the IT community but increasingly to business stakeholders as well, non-IT decision-makers have become an important part of the cloud adoption strategy. In fact, IT respondents in the survey noted that their business counterparts are as aggressive as IT departments in supporting cloud adoption. Even among the business stakeholders who favor a "go slow" approach to cloud adoption, many have acceded to IT's desire to deploy IT services in a cloud environment, according to the respondents.



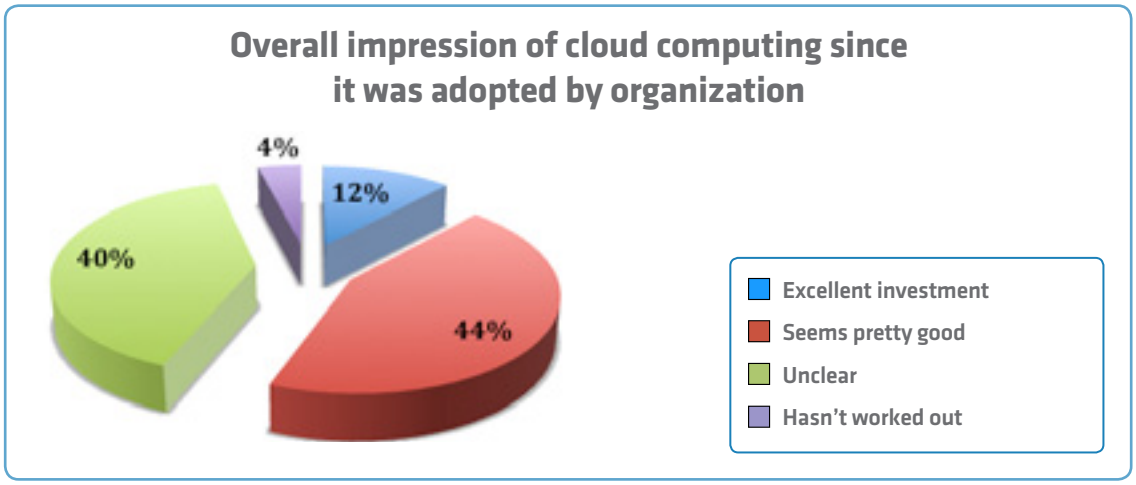
Drivers Behind Cloud Adoption

It's interesting to note that, although respondents said their adoption of cloud has been driven primarily by financial benefits such as lower infrastructure spending, benefits that improve organizational efficiency and increase flexibility to support changing business requirements were nearly as important.

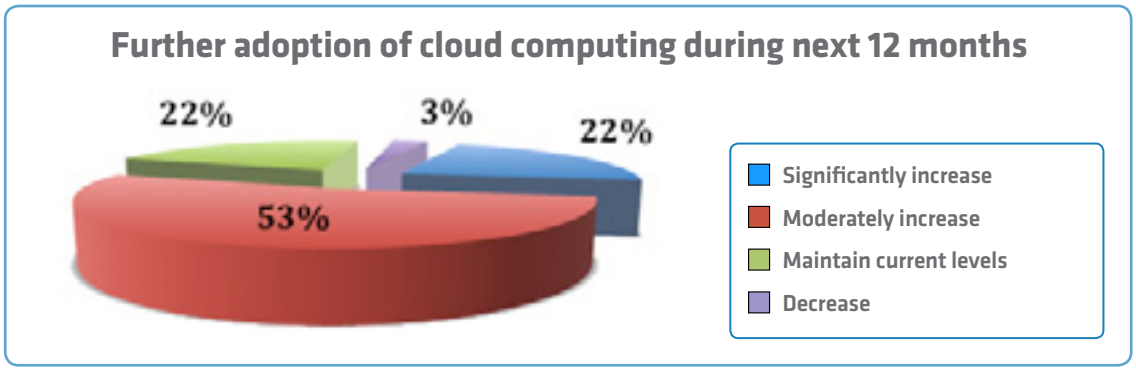
Significant Driver	Percentage
Reduce CapEx spending	64%
Improve IT agility	52%
Enable flexibility to meet changing capacity needs	45%
Deploy new applications faster	44%
Reduce IT management complexity	33%
Enable internal IT to focus on business goals	31%
Facilitate collaboration with external providers	20%
Leverage technical skills of service providers	18%
Bring new users on board faster	17%
Improve security	16%

The focus on cloud computing's ability to help improve IT organizational efficiency, reduce complexity and provide greater flexibility to cope with quickly changing capacity requirements makes a lot of sense in light of the industry-wide trend toward larger storage requirements and tighter budgets. Many IT leaders have been vocal in their stance that cloud computing is one of the key tools that enables them to support transformative business applications.

Among respondents whose organizations have already adopted cloud computing, impressions are generally positive—although these respondents acknowledged that they still need more experience with cloud computing in order to assess its full value. Slightly more than one-half (56 percent) of the respondents said that although cloud computing has been either an "excellent investment" or one that "seems pretty good," they are still hoping to gain more benefits as they increase their usage of the cloud. Four in 10 respondents, meanwhile, said they need more experience with cloud computing in order to fully evaluate its benefits.



Even with IT organizations still evaluating the benefits of cloud computing and looking for even better results, the vast majority of survey respondents indicated that they are going to increase their use of cloud computing in the next 12 months. Three-quarters of respondents said their organizations would either significantly or moderately increase cloud usage in the coming year, while almost all of the remainder of respondents said they would maintain their current level of usage.



There seems to be little doubt of cloud computing's ascendency among IT professionals; the only matter of debate is how extensive an uptick cloud computing will enjoy and how far cloud's usage will spread from the low-hanging fruit of software as a service to other cloud services. For instance, while two-thirds of the respondents said their organizations have deployed cloud-based SaaS, implementation of cloud-based infrastructure and platforms has also reached significant levels.

Cloud Delivery Method Method	Percentage
Software as a service	67%
Infrastructure as a service	51%
Platform as a service	33%

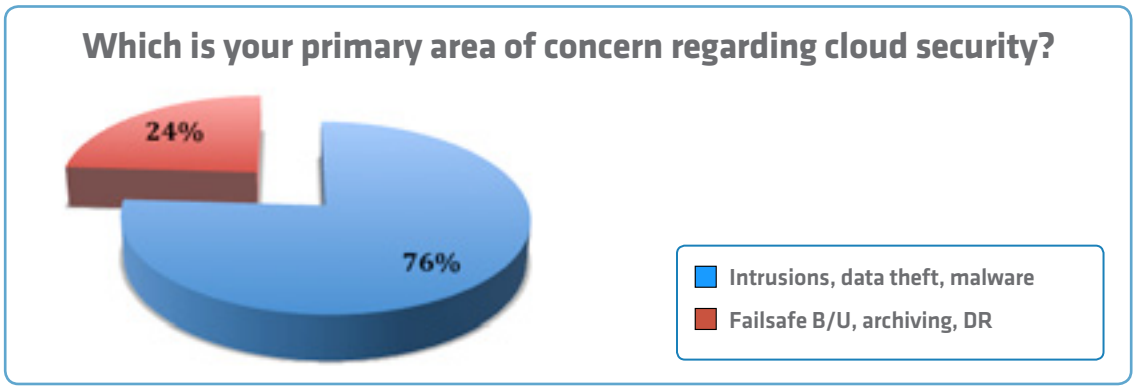
Concerns Over Cloud Computing

Exactly how widespread and aggressively cloud computing will be deployed in the coming year depends, at least in part, on IT organizations' ability to overcome several key concerns about cloud computing. And, as is often the case with new IT technologies and delivery approaches, security tops the list of significant cloud challenges, according to survey respondents. More than four in five respondents said security is a significant concern in terms of their organizations' adoption or consideration of cloud computing, outdistancing the second most-cited concern—service-level agreements—by 28 percentage points.

Significant Concern	Percentage
Security	81%
Service-level agreements	53%
Putting mission-critical apps/data in cloud	44%
Integration	42%
Business continuity	33%
Unclear economic benefits	25%
Lack of internal hands-on experience with cloud	23%
Viability/expertise of cloud service providers	22%
Unclear operational benefits	21%
Insufficient internal resources for deployment	16%
Lack of buy-in by senior execs/business stakeholders	15%
The industry's limited track record with cloud	13%
Unwilling/unable to make financial commitment	11%

That finding is consistent with another data point in the study about the preferred form of cloud environment: Only 7 percent of the respondents said their current or planned cloud implementation would be a public cloud, compared with 35 percent who indicated that they have deployed or would deploy a private cloud. Undoubtedly, demand for more control and highly secure service-delivery models has driven IT organizations far more aggressively toward the private cloud model.

It's also worth noting that, for the most part, IT professionals' concerns about cloud security focus primarily on issues surrounding unauthorized and inappropriate access to data and applications, rather than on the debilitating impact of service outages and unplanned interruptions. However, with a wealth of new tools and best practices emerging to address problems such as unauthorized intrusions, data theft and malicious usage, the service provider industry is already positioned to quickly alleviate these cloud security concerns.



Summary

It's hardly a revelation that IT organizations are increasing their adoption and expanding use of cloud computing. No longer limited to early adopters in small organizations, cloud computing is becoming more and more pervasive in midsize and large organizations, as indicated by the survey results.

What is revealing, however, is that cloud computing appears to be approaching the much-discussed "inflection point" in its market development, where initial hesitations and concerns are easing as new tools, best practices and reference accounts emerge to give both IT and business decision-makers more confidence in cloud computing's ability to help them reduce costs, simplify management and flexibly scale their requirements in step with changing business conditions.

As a result of increased success stories and demonstrable economic benefits, organizations are creating a wider profile for cloud computing in their organizations. Fortified by positive results in delivering essential applications in a SaaS model, IT decision-makers increasingly are deploying mission-critical applications such as customer-facing e-commerce/self-service and business continuity in a cloud architecture, as well as using cloud-based delivery for infrastructure, platforms and virtual desktops. While cloud-based security issues remain at the top of IT professionals' minds, there's mounting evidence that such concerns have been addressed with new technical approaches, smarter business processes and new managed security offerings. And as third-party cloud service providers continue to step up their game around security, scalability and cost efficiencies, IT organizations will continue to gain confidence in recommending cloud computing to financial decision-makers inside their companies.

Strategic-minded IT professionals more and more often are viewing cloud computing as more about choice . The choice to unshackle themselves from time-intensive management of low-level applications and user services and gain the freedom to focus on strategic initiatives where IT expertise can be directly applied to business goals and problems. When it comes to cloud computing, the issue no longer is, "Should we deploy?" Instead, the question has become, "How aggressive can we be?"