

Global Survey: Has Cloud Computing Matured?

Third Annual Report | June 2011

Executive Summary

The economic climate over the past few years had a significant impact on corporate IT operations. Investors, executive leadership and even customers were forcing businesses to “do more with less” as a standard practice. At the time, signs indicated this could become permanent – or at least very long-term – behavior.

The “do more with less” attitude spurred consolidation, outsourced business processes, and an accelerated investment in technologies that shifted costs from large capital expenditures to smaller operational expenses – including infrastructure, platforms, and applications delivered in the form of services.

Two years on and [Gartner](#), amongst other analyst firms say IT spending is on the rise. But are companies still feeling the same pressure to use technology to shift costs and save money?

In March 2011, [Avanade](#) commissioned a survey of 573 C-level executives, business unit leaders and IT decision-makers in 18 countries to learn how technology, particularly cloud computing, is being used in the enterprise¹.

Key year-over-year findings show:

- Innovation and growth are rising on the IT agenda
- Cloud computing is a maturing technology
- The proliferation of cloud services is creating new growing pains for IT – including unmanaged cloud sprawl

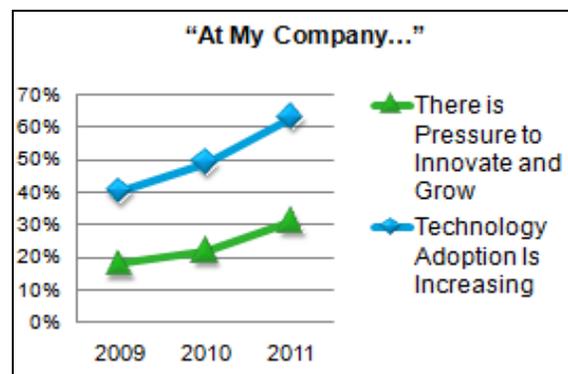
Three years ago Avanade was among the first to conduct extensive global research that quantified the real and perceived business value – and potential pitfalls – of cloud computing as an emerging technology. This report revisits cloud to determine where the megatrend is in the adoption cycle.

Key facts and figures from Avanade’s third annual global survey

Do More With More

Technology investment is on an [upswing](#). Year-over-year, companies are reporting greater pressure to innovate and grow versus save money. As a result, the rate of new technology adoption is also increasing.

Looking to the year ahead, 55 percent of companies report their IT budgets will grow, and for the first time in several years, companies are able to shift from a



“do more with less” to a “do more with more” IT operation. Companies are adopting new technologies to deliver new services and in some cases, to cut ongoing costs with more efficient systems.

When asked about their primary IT focus areas in the next 12 months, cloud computing, security and IT consolidation topped the charts. Of the 573 business leaders in 18 countries, 60 percent report cloud computing, 58 percent report security, and 31 percent report IT consolidation as the three highest priorities.

While 60 percent of companies worldwide said cloud computing is a top IT priority for the next year, the sentiment is even higher in the C-suite with three in four (75 percent) C-level executives reporting cloud computing as top of mind.

Three Signs Cloud Computing Is Maturing

Avanade’s research also finds cloud computing has reached its first milestone as a [mature technology](#). Three signs appeared this year that together define a new level of maturity for cloud computing:

1. Increased investments in resources to secure, manage and support cloud computing
2. Growing adoption and preference for private cloud services
3. New role for cloud computing as revenue-generating services

According to the survey, 74 percent of enterprises are using some form of cloud services. This represents a 25 percent growth since [Avanade’s September 2009 survey](#). Further, the gap between cloud adopters and those who have no plans to implement cloud computing has shrunk dramatically – 54 percent since 2009 (see sidebar). Of the organizations that have yet to implement cloud, three-quarters say it’s on the horizon.

Most notable [growth in cloud adoption](#) was reported in Italy (89 percent), Canada (68 percent), France (45 percent), Germany (43 percent) and Australia (31 percent) from 2009-2011. The U.S. has seen steady growth with a 19 percent increase in cloud adoption since [Avanade’s September 2009 study](#).

For most organizations it is the increased flexibility, improved efficiency and cost savings benefits of cloud computing that are driving such widespread adoption. Further, the majority of executives across industries, regions and companies large and small, report that cloud computing has simplified their IT operations.

Investing in service and support

Avanade’s research shows that companies have matured in their use and understanding of cloud computing. Execs are investing in security solutions as well as human capital to ensure successful cloud deployments. In fact, 64 percent report they are investing in training for both new and current employees to increase their expertise in cloud technologies.

In terms of their overall IT budget, 74 percent report they have allocated up to 30 percent to cloud computing annually. For 10 percent of companies, this means spending \$2 million or more on cloud computing each year. Companies are investing in their employees too. In fact, most companies report their IT spend on cloud services is between \$100 and \$499 per user (38 percent).

This year, additional investments in cloud services were matched by significant spending on security and training for new cloud deployments.

Not a Cloud in Sight

Despite the widespread adoption of cloud, nearly a quarter of companies (24 percent) still say cloud computing currently isn’t in their plans.

So what’s preventing this group from taking the leap to the cloud?

Avanade’s research shows security is a growing hurdle, with 51 percent of companies reporting security concerns as the top reason not to move to the cloud – an increase of 28 percent since 2009.

Research shows this fear is not unfounded.

Nearly one-fourth of companies report they have had a security breach with a cloud service. In fact, 20 percent of business leaders have turned off a cloud service in their organization and moved back to traditional applications.

Security concerns were the biggest drivers for moving back to on-premises applications.

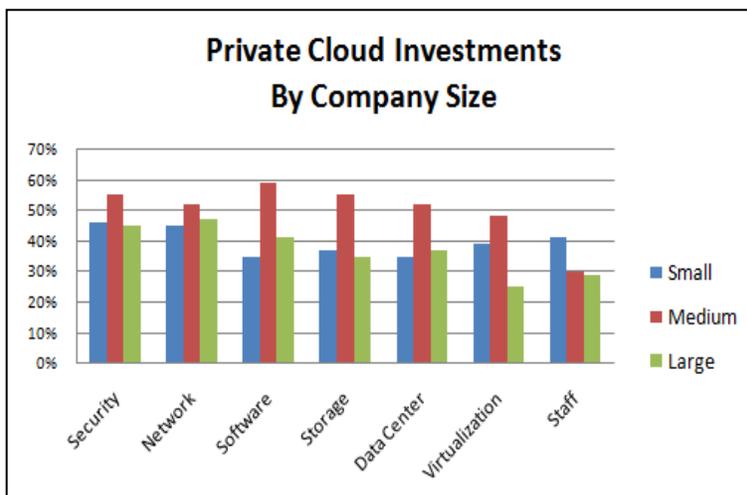
Additional road blocks to adoption for this group include lack of knowledge (37 percent), costs (36 percent) and privacy issues (33 percent).

A private cloud preference

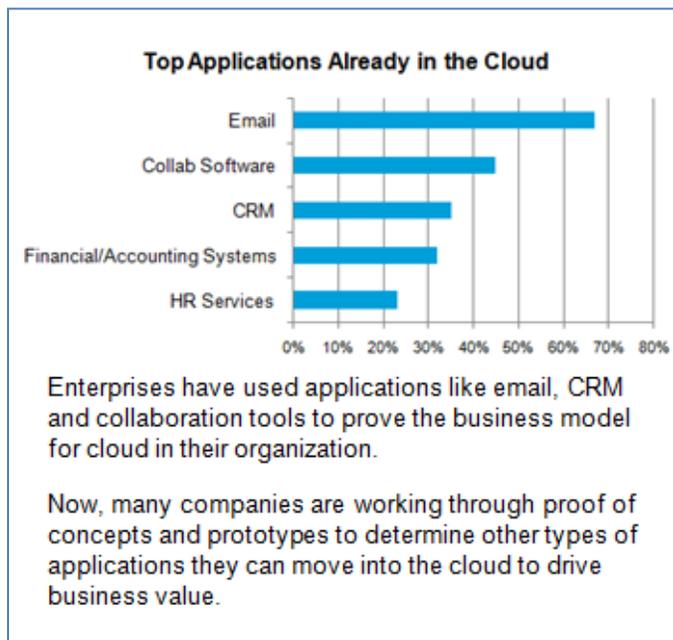
Avanade’s research also reveals a [preference for private cloud deployments](#), especially where critical, differentiating internal operations and customer services are at stake.

Further, regulatory compliance issues require some companies to have data on site, particularly where financial and healthcare information is concerned.

Previously, companies relied on third-party public cloud providers for the majority of their cloud infrastructure. Yet today, nearly half of all companies (43 percent) report they utilize private clouds. Further, another 34 percent say they will begin to do so in the next 12 months.



Overall, 63 percent say they are ready for private cloud and the majority says it plays a role in their cloud strategy. In the C-suite, perceptions are higher with more than 70 percent saying their company is ready for private clouds. In preparation for this, companies are investing in everything from security (48 percent) to their networks (47 percent) and staff (35 percent).



While opinions vary, most see private clouds as more secure and easier to control.

New focus on the top line

Another sign of cloud computing maturing is executives’ heightened focus on utilizing the technology as a revenue-generating tool. Companies are moving beyond internal employee-facing cloud services to use them with external customers.

Further, aggressive adopters report top-line growth as a driver for cloud deployments. The mandate to use cloud computing to deliver new products and services to customers is coming from the C-suite. More than one in five C-level executives believe cloud computing will increase revenues.

Companies are increasingly looking to the cloud to help their workers share information,

streamline operations and better understand customers.

Cloud Growing Pains

While Avanade’s research shows respondents view private clouds as more secure, [public cloud services](#) are becoming faster, easier and cheaper to provision. Some are so easy to use and purchase, they are outpacing IT’s ability to manage and control them. Enter [cloud sprawl](#) – the unmanaged spread of public cloud services inside the enterprise.

Today, one in five executives report it's impossible to manage all the disparate cloud services within their organization, while an additional 60 percent of executives are worried about unmanaged cloud sprawl.

Part of the problem is that more than one in four companies don't have a centralized system to identify and track their IT cloud service providers.

A matter of control – is cloud governance working?

As is true with many forms of technology innovation, such as social media, consumer technology has a way of secretly creeping into the enterprise and [leaving IT in the dark](#). Today, cloud services are no different.

One in five respondents say they have personally purchased a cloud service without the IT department's knowledge.

Why are some people purchasing cloud services without IT involvement?

- 61 percent say it is easier to provision cloud services themselves
- 50 percent report it takes too long to go through IT
- 27 percent say their company's cloud policy actually prohibits the cloud services they want to use

While nearly two-thirds of companies (60 percent) report they have corporate policies in place that prohibit such actions, respondents say there are no real deterrents for purchasing cloud services by stealth. In fact, 29 percent report there are no ramifications whatsoever and another 48 percent say it is little more than a warning.

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Perhaps the biggest issue is that one-quarter of executives report they don't have open communication with the departments and business unit leaders that may be provisioning their own cloud services.

Managing Cloud Sprawl – Views from an IT Advisor

This report shows cloud technologies are maturing in the enterprise. Companies are reporting wider applications for them and in some cases improved business results. Clearly, companies are no longer going for an all-or-nothing approach.

Instead they are increasingly looking to both public and private cloud for opportunities to transform operations and impact business performance. And they're not scrapping their traditional on-premises infrastructure for new cloud deployments.

Further, certain industries must comply with regulations regarding where data is stored as well as maintain capabilities to run audits and reports on data center operations. This creates a natural barrier to public cloud adoption for some organizations. Until physical data centers for cloud vendors are available in every geographic region and meet all industry-specific regulations, private cloud services are a more viable option for certain industries, such as financial services and government.

Regardless of the approach, security and governance must top the list of factors that guide adoption of cloud computing.

Today, the reality is just about anyone can go out and purchase a public cloud service using their credit card. This transaction disappears on an expense sheet. Often times this happens without the knowledge of the individuals responsible for ensuring data security. In fact, sometimes this is an unintended consequence of unclear or hostile security and governance in place.

As a result, cloud sprawl is a high probability if left unmonitored and can result in disparate company and customer data.

So what steps should companies take to get on the right path to cloud governance and [managing cloud sprawl](#)?

1. **Define and communicate a clear, user-centric cloud strategy.** An overarching cloud strategy should be defined with all key stakeholders in mind and mapped to business objectives. The strategy must accommodate users' needs as best as possible, and be jointly communicated from both IT and business leaders to the entire organization.
2. **Conduct a cloud audit.** During this discovery phase, IT should collect and survey where cloud is being used in the enterprise and identify potential governance gaps.

Real-world test cases can help identify gaps – interviews with power users can reveal usage scenarios that fall outside mainstream policies. IT and users should partner to identify a resolution that both meets the needs of the user and ensures the security of the company's data

3. **Create a migration roadmap.** Next, business and IT should work together to create a clear roadmap to migrate current cloud deployments to the company's cloud strategy, determine which, if any cloud services should be shut off, and ensure all deployments meet business objectives.
4. **Communicate strategy and positives.** Today, most companies (71 percent) post their cloud policies online. This is simply not enough. In order to be effective, enterprise cloud strategies and policies must be clear, concise, and regularly communicated throughout the organization.

Companies should also focus on the positives. It is important to regularly reinforce both the company's cloud strategy and policies by communicating concrete business benefits delivered by cloud services. This includes one-on-one and frequent conversations between IT and employees.

5. **Enforce and refine.** Companies should have ongoing dialogue with users to teach them about the risks of using rogue cloud services. From time to time, IT will need to take measure to stop the use of these rogue services. Companies should also revisit their cloud strategies often and adjust based on user and business needs.

By following these steps, it helps to ensure that IT remains flexible and responsive to customer demands – thereby increasing the value of IT in the long run. But more importantly, it puts companies on the right path to managing cloud sprawl and ensuring the security of their valuable data.

Cloud security and governance are part of the inevitable progression of IT and they must be embraced by organizations to stay competitive. Companies who approach cloud computing in a mature manner need not be afraid about entering the cloud because of security concerns. IT professionals should start with a clear plan, sound analysis and proven methodologies and practices.

Additional Resources

[Is there a right time to move to the cloud?](#)

Understanding the drivers and spotting migration opportunities

[Choose your cloud.](#)

Private, public or hybrid, we can help you decide

[How deep should your cloud strategy go?](#)

Developing a business benefit-driven migration

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The third annual global survey of cloud computing was conducted by Kelton Research, an independent research firm on behalf of Avanade, from March 14 to April 12, 2011. The 573 respondents include C-level executives (e.g. CEO, CFO, CIO, CTO), business unit leaders (GMs, heads of departments and functions, etc.) and IT decision-makers from 18 countries across North America, South America, Europe and Asia Pacific.

Large enterprises (similar in size to companies in the FORTUNE 1000) made up the majority of respondents on a global basis. Respondents from the United States, Canada and the United Kingdom originate from the top one percent of the largest companies by employee headcount within their respective countries. Respondents from all other countries originate from the top five percent of the largest companies by employee headcount within their respective countries.

Companies surveyed span major industries, including aerospace, defense, energy, financial services, government, healthcare, logistics, manufacturing, media, non-profit, and telecommunications.