Global Survey of Cloud Computing
September 2009

Executive Summary

There has been a startling shift in attitudes and adoption of cloud computing. A recent global survey of C-level executives and IT decision makers reveals the first real-world indications of an embrace of cloud computing, including huge increases in those who are testing or have plans to implement the emerging technology. And, key data shows the majority of companies that have begun to use cloud computing are taking a hybrid approach to adoption.

The worst recession in decades seems to have had little impact on the implementation of cloud computing. The vast majority – more than 70 percent of 502 respondents globally – said that the economy has either increased or had no impact on cloud adoption. Clearly, companies around the world are becoming more familiar and more comfortable with cloud computing as a viable model for technology adoption.

An independent market research firm, Kelton Research, conducted its second large-scale survey of cloud computing adoption in September 2009, commissioned by Avanade. The same firm conducted the first "Global Survey of Cloud Computing" nine months earlier, in January 2009, as the economy teetered on uncertain ground. Kelton and Avanade were able to identify important trends the most recent report by benchmarking data between these two global surveys. Key findings and data trends are outlined the following report.

The Gap is Rapidly Shrinking

Despite the global recession and a keen focus on cost savings, the rate of respondents reporting that they are beginning to plan or test cloud computing has increased three-fold in the nine months since the last survey was conducted. During the same period of time, companies reporting no plans to adopt cloud computing declined from 54 percent to 37 percent. The gap between those with plans and trials, and those with no plans to adopt, is shrinking dramatically.

As the economy went from uncertainty to collapse in the nine months between surveys, a significant portion of respondents who were waiting on the sidelines in January indicated that they were now ready to plan for and trial cloud computing services.

The industry's comfort level with this emerging technology is on the rise, and appears resilient given the macro-economy. Key data from the survey shows:
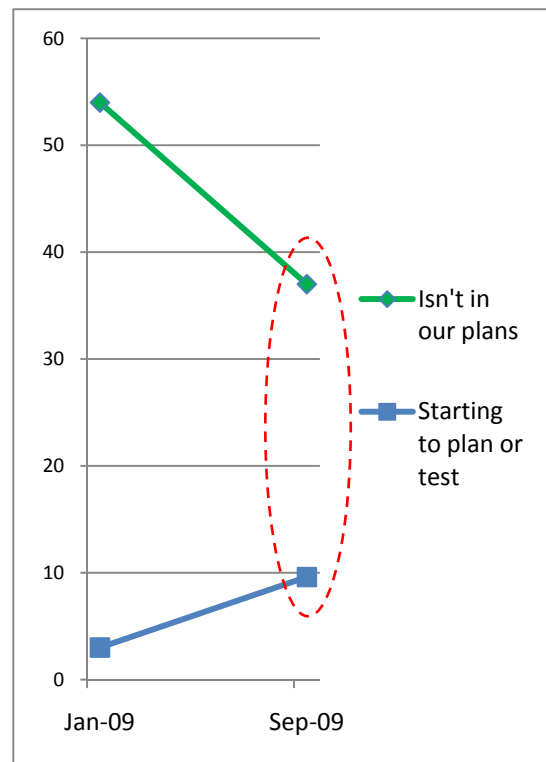
- An increase of 320 percent in the rate of respondents with cloud computing deployment plans or trials in place, compared to January 2009 (10 percent now versus 3 percent nine months ago).
- 85 percent of respondents report their company's rate of new technology adoption is increasing or staying the same.
- More than 70 percent of global companies reporting that the economy has either helped (13 percent) or had no effect (58 percent) on efforts to implement cloud computing.

This latest survey offers timely data on the impact of the economy on IT plans as 2009 comes to a close, and we enter a new business year. Of the 502 business and IT executives surveyed, 59 percent of global respondents, and 67 percent in the United States, said they thought the global recession has "hit bottom." Respondents showed a cautious optimism about IT projects amidst the global recession.

Hybrid Deployments are the Way Forward

While companies are becoming increasingly comfortable with the concept of cloud computing, in practice there are few reports of full migrations to cloud services. Less than 5 percent of companies are adopting a cloud-only model. As has been widely reported, the No. 1 factor (cited by two out of five respondents) for not using cloud services is security concerns.

Instead, companies are moving to a hybrid approach – that is, they report deploying a combination of cloud and internally owned systems, or on-premises.

Nine months ago, 61 percent of respondents indicated that they were using only internal IT systems and today, that number has dropped to 41 percent. At the same time, those using a combined approach on a global level have increased to 54 percent (from 33 percent) nine months earlier. What is less clear is whether a hybrid model is a first step toward a pure cloud-only model or if some applications will forever remain on-premises (internally owned) out of concerns for security and control. The constant shadow of security continues to hover over cloud deployments. Only time will tell where this trend is moving. (Avanade addresses cloud security in "A Practical Guide to Cloud Computing Security.")

The Embrace of Software-as-a-Service

While companies are just now becoming more comfortable with cloud computing, they are already embracing the adoption of Software-as-a-Service (SaaS) applications, one aspect of cloud computing. More than half of respondents report SaaS use and in the United States, that number increases to 68 percent.

But, while respondents report a very high satisfaction rate, reliability issues remain. A surprising number of companies have experienced service outages with their SaaS-based applications.

Nearly a third of respondents (30 percent) reported more than a day of business had been lost due to a service outage. However, there is still near universal agreement on the success of SaaS deployments among companies that have adopted the technology. More than 90 percent of respondents who currently use SaaS would say their company's experience with SaaS has been largely successful. Not surprisingly, more than 62 percent of participants report plans to increase their SaaS use in the next year. Clearly, respondents buy into the value of SaaS and see it delivering on its promise.

Today's SaaS Deployment

Attitudes and adoption of Software-as-a-Service may be seen as a leading indicator of broader adoption of cloud services.

Based on this year's research, here is what SaaS looks like in most of today's corporate computing environments:

- It's a relatively new deployment – in use for a year or less.
- It's one of two or three SaaS-based deployments.
- It's seen as a resounding success.
- Companies expect SaaS to grow in use within their organizations.

Similar to cloud perceptions, there is also a clear preference to deploy SaaS applications over a company's internal network versus a third-party SaaS provider. In-house cloud services such as these internal SaaS deployments are increasingly known as "private clouds." Globally, there is a 2:1 ratio of respondents who prefer SaaS delivered internally versus from third party service providers. There is an even greater disparity in the United States, with a 4:1 ratio in favor of internal SaaS deployments. Providers of SaaS applications have more work in convincing end-users about the security and reliability of third-party provided applications.

Another interesting finding of the survey is that a significant number of users are relying on multiple SaaS providers. One third of global respondents indicate that they are using three or more providers. With so many providers, there may be opportunity for rationalization as this market grows and matures.

Evaluating all SaaS-related findings, we see that once companies adopt SaaS, they are hooked. They buy into not only the service but its value proposition.

Viewpoints from an IT Advisor

These data and trends show how cloud and SaaS will change IT in 2010 – and importantly, how IT systems may not change. Avanade, a business technology consultancy, formed the following key viewpoints from the survey findings:

1. As we look to 2010, based on customer work and as the research suggests, hybrid clouds – a combination of internally owned, on-premise and SaaS or other cloud computing systems – will continue to make significant inroads in large organizations in 2010. What won't change is a wholesale shift to cloud. Except for unique situations – for example, smaller organizations or perhaps larger companies entering new geographic markets where speed to market is essential – we don't anticipate organizations will migrate to a fully cloud environment in the next 12-18 months.

2. The research also shows the gap is closing between those companies with cloud computing plans and trials, and companies with no plans to adopt it. Avanade believes that these two paths will intersect in late 2011 or early 2012 when those with plans and trials in place will outnumber those with no cloud computing plans.

3. As discussed in the above "Hybrid Deployments" section, it is unclear whether hybrid deployments of cloud services mixed with traditional software is a first step toward a pure cloud-only model, or if certain applications will always require internal systems. We believe

cloud computing models will follow a similar trajectory to other technologies that have emerged as enterprise resources. There are some applications and business processes that might never make sense to move to a cloud-based model. Companies need to make smart decisions about what to migrate.

4. Online services, such as SaaS and other cloud computing models, are quickly gaining acceptance. Online service models are beginning to fundamentally change how IT services are consumed and provisioned. As with other transformational technologies including e-mail, instant messaging, and social media, we've seen rapid acceptance and adoption of SaaS. And looking historically, the use of SaaS and these newer technologies is spreading faster than older technologies (see graph below[1]). In September 2009, more than half of respondents report that they are currently using SaaS applications. In the United States, that number increases to more than two-thirds (68 percent). For businesses, the accelerating use of online services means increased operational elasticity, IT cost reductions and, increased connection with various stakeholders for businesses embracing this model.

Adoption Rates of New Technologies[1]
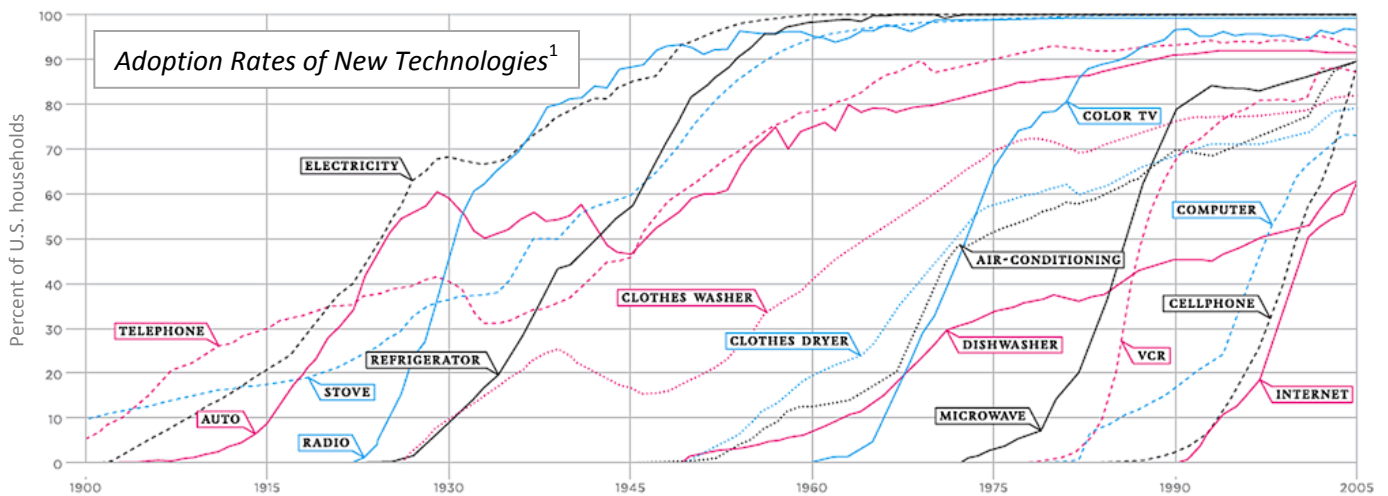
This latest global research arrives as IT undergoes change due to corporate demands, economic pressures and regulatory reforms. The key findings, along with several viewpoints on future trends, can help companies make informed business decisions about their IT environments today and investments for tomorrow.

Notes on Methodology

The Cloud Computing survey was conducted by Kelton Research, an independent research firm, between August 26, 2009, and September 11, 2009, on behalf of Avanade.

The 502 respondents include C-level executives (e.g. CEO, CFO, CIO, CTO), business leaders (GMs, heads of departments and functions, etc.) and IT decision-makers from 16 regions, including Australia, Belgium, Canada, Denmark, Finland, France, Germany, Italy, Netherlands, Norway, Singapore, Spain, Sweden, Switzerland, the United Kingdom and the United States. Large enterprises (similar in size to

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[1] Source: W. Michael Cox and Richard Alm, New York Times, Feb. 10, 2008

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 1 percent of the largest companies by employee headcount within their respective countries. Respondents from all other countries originate from the top 5 percent of the largest companies by employee headcount within their respective countries. Nearly a quarter (23 percent) of respondents work at the largest companies with 10,000 or more employees.

Companies surveyed span major industries, including
- Aerospace
- Defense
- Telecommunications
- Energy
- Healthcare
- Financial services
- Government
- Non-profit
- Media
- Logistics
- Manufacturing

Results of any sample are subject to sampling variation. The magnitude of the variation is measurable and is affected by the number of interviews and the level of the percentages expressing the results. In this particular study, the chances are 95 in 100 that a survey result does not vary, plus or minus, by more than 4.4 percentage points from the result that would be obtained if interviews had been conducted with all persons in the universe represented by the sample.

All decimals in this report are rounded to the nearest percentage point. This may result in certain numerical totals adding up to slightly more or slightly less than 100 percent.

About Avanade
Avanade provides business technology services that connect insight, innovation and expertise in Microsoft technologies to help customers realize results. Avanade's services and solutions help improve performance, productivity and sales for organizations in all industries. The company applies Microsoft expertise from its global network of consultants, drawing on the right mix of onshore, offshore and nearshore skills, which together are designed to help deliver results faster, at lower cost and with less risk. Avanade, which is majority owned by Accenture, was founded in 2000 by Accenture and Microsoft Corporation and serves customers in more than 20 countries worldwide with more than 8,600 professionals. Additional information can be found at www.avanade.com.