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Cloud Computing

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The Cloud Computing Market Solidifies

Traditional and emerging models rise as companies anticipate moving more than half their IT environment to the cloud by 2016

Despite the persistence of security concerns, companies are moving a wider variety of both IT and business operations to the cloud at a steady pace — indeed, they expect more than half their IT environment to be cloud-based by 2016. While the expanding cloud services market offers them a plethora of vendors to choose from, they are largely relying on a handful of trusted market leaders, according to a survey of 962 IT decision-makers.

The results of IDG Enterprise's survey represent the practices and opinions of technology buyers whose organizations have already moved at least one application or a portion of their infrastructure to the cloud, or who plan to do so. Nearly three-quarters (72%) have already made cloud investments, while 16% plan to do so in the next 12 months. The remaining 11% plan to move applications or infrastructure to the cloud within the next three years.

For the first time, companies can foresee a time when more than half their IT environment will be in the cloud. Currently, 8% of respondents boast an entirely cloud-based IT environment, but they are outliers. On average, companies have 44% of their IT environment in the cloud. They anticipate that will expand by 12 percentage points over the next 18 months so that an average 56% of their IT environment is in the cloud by the end of 2016.

The survey results also indicate that while companies will continue to use a mix of public, private and hybrid cloud models, private cloud is gradually becoming the preferred option. Companies' current cloud deployments are tilted toward private cloud (23%) over public (16%), and they expect their use of each will expand at approximately the same rate over the next 18 months. By the end of 2016, private clouds will make up 27% of the average company's IT environment, while the public cloud will account for 21%.

Meanwhile, migration to hybrid cloud, which involves connecting a mix of public and private clouds together, remains similar to last year. In 2014, companies anticipated that their usage of this model would grow to 7% from 5% by the end of 2015. In the 2015 survey, they predict their use of hybrid cloud will increase by 3 percentage points by the end of 2016 from the current 6%. At that point, hybrid clouds will still account for less than 9% of the average company's IT environment.

There are significant differences, however, between large and small to mid-sized companies and industries. Enterprise organizations, with 1,000 or more employees, strongly prefer private clouds, as do financial services companies.

Regardless of their preferred model, the average company plans to dedicate one quarter of its IT budget to cloud computing in the next 12 months, or an average of $1.6 million. Unsurprisingly, larger companies plan to spend far more than smaller ones, $2.8 million compared to $578,000. However, larger companies' projected average spending on cloud is down from $3.3 million the previous year, whereas smaller companies' is up from $400,000. Spending also varies by industry, with high tech, professional services, and health care organizations planning to spend significantly more of their IT budgets on cloud services.

Allocating Cloud Spending

Although two-thirds of companies (67%) plan to allocate some part of their cloud computing budget towards Software-as-a-Service (SaaS), the majority of companies plan to spend half of their cloud budget on SaaS. A solid 23% of those planning to invest in SaaS intend to spend 75% or more of their cloud budget on it.

More than half (57%) plan to invest an average of 30% of their cloud budget in Infrastructure-as-a-Service (IaaS), and nearly 20% of those planning an IaaS investment expect to devote at least half their cloud budget to it. Nearly half (45%) plan to spend an average of 19% of their cloud budget on Platform-as-a-Service (PaaS).

Storage-as-a-Service, Disaster-Recovery-as-a-Service, and Monitoring-as-a-Service are in particular favor. Nearly three in four companies already use or plan to deploy Storage-as-a-Service in the next year, although financial services is notable in its avoidance, presumably reflecting security concerns. More than half are using or planning to use Disaster-Recovery-as-a-Service (59%) and Monitoring-as-a-Service (54%).

Enterprise organizations in particular are also using APIs to integrate a variety of applications and other workloads into the cloud in the next 12 months: 58% are using them to integrate with databases, messaging systems, portals, or storage, while 48% are connecting the application layer with cloud and underlying IT infrastructure.

Setting Priorities, Making Choices

Despite making spending plans, 56% of companies are still identifying IT operations that are candidates for cloud hosting. This is unchanged since 2014, while the percentage of companies that have finished the process of identifying the IT operations they're comfortable migrating to current cloud offerings — 36% — is actually down 2% from the previous year. This may be due to a series of well-

publicized hacking incidents in the last two years. Alternatively, it may be that so many new cloud offerings have emerged that the task of evaluating them is taking more time.

Whatever the reason, decision-makers are being driven by clear goals and objectives. Overall, companies cited lowering total cost of ownership and enabling business continuity as their top reasons for investing in cloud initiatives, followed by speed of development and replacing on-premise legacy systems. However, IT and business have markedly different goals. IT wants to enable business continuity, lower TCO, and replace on-premise systems, in that order. Business wants to focus on speed of development, followed by reducing resource waste and lowering TCO.

Objectives also vary by industry. Financial services' second most important goal is achieving greater flexibility to react to changing market conditions — unsurprising given turbulent global financial markets, but notable as a relatively low priority for all other industries (46% versus 28% overall). Government and manufacturing, on the other hand, are significantly more likely than other industries to rank replacing legacy systems as a high priority.

Security: Still an Issue
Across the board, more than two-thirds of respondents (67%) cite security concerns as the top barrier to cloud computing, with integration (43%) and compliance issues (35%) in second and third place. In many ways, these are three aspects of what companies call their top challenge in integrating cloud applications and services: ensuring the security of data as it moves to and from the cloud (66%). It also explains why companies' top three criteria for determining which applications to migrate to the cloud are the sensitivity of data accessing or being accessed by the application (83%), importance to daily business operations (82%), and the cost associated with migration (75%).

Given that security is both the top barrier to implementing a cloud strategy and the top challenge of ensuring interoperability, it's understandable that 54% of companies also say they need to be sure their cloud service providers' security meets compliance requirements before they make any further cloud commitments. It's also unsurprising that they cite access across untrusted networks (41%) and uncertain ability to enforce their own security policies at a provider site (41%) as their top challenges for securing data in the public cloud.

However, in a sign that companies are finally recognizing that the cloud can be just as secure as on-premise systems, 77% of organizations say they're somewhat or very confident in the security of the information they've placed in the cloud; which is up from 74% last year. There is some slight difference by company size, as enterprise organizations remain more cautious when it comes to cloud. Eighty percent of small to mid-sized organizations say they are confident compared to only 74% of enterprises.

Help (from Vendors) Wanted

Overall, the people with the strongest strategic grasp of the infrastructure — the CIO, CTO, and IT managers —have more influence over cloud purchasing decisions than the CEO or even the CFO. However, the cloud is definitely impacting the business. Companies expect cloud computing will increase IT's collaboration with other business units or departments over the next 12 months.

Possibly to support this increased collaboration, respondents say they want vendors' assistance in selling the benefits of cloud to internal stakeholders. Whether choosing public or private cloud, they want help proving their investments will lower TCO, enable business continuity, and replace on-premise legacy systems. For private cloud, IT and business alike are looking for evidence that it will also save on capital expenditures and speed deployment. For public cloud, both business and IT want support in selling it as a way to replace legacy systems and improve customer support, but while respondents in IT most want evidence to prove that using public cloud will lower TCO, business respondents' priority is persuading stakeholders of its benefits in supporting business continuity.

Methodology

IDG Enterprise's 2015 Cloud Computing Survey was conducted among the audiences of six IDG Enterprise brands (CIO, Computerworld, CSO, InfoWorld, ITworld and Network World). The survey fielded online with the objective of understanding organizational adoption, use-cases, and solution needs with respect to cloud computing. This was a targeted research effort, to be considered qualified respondents must have reported cloud utilization was planned or currently leveraged at their organization. Furthermore, respondents must have reported personal involvement in the purchase process for cloud solutions at their organization.

Results are based on 962 qualified responses. The margin of error on a sample size of 1,672 is +/- 3.16 percentage points. For the purposes of this report, large companies refer to those respondents at companies with 1,000 or more employees. Small and mid-sized companies refer to those respondents at organizations with less than 1,000 employees. Percentages on single-select questions may not sum to 100% due to rounding.