



CSC CLOUD USAGE INDEX

Executive Summary

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Now that cloud computing has arrived in scores of businesses and governments worldwide, what do experienced cloud users have to say about why they chose this solution — and about the business and IT benefits they’ve achieved? Where have expectations been met, and where have results fallen short? What are users’ current attitudes toward cloud as a result of these experiences? And what details of the global cloud environment emerge when cloud practices are analyzed country by country?

Independent research firm TNS surveyed more than 3,500 cloud computing users in eight countries around the world to find answers to these and other timely questions. The survey focused on capturing user information about outcomes and experiences rather than predictions and intentions. While much remains to be discovered about how cloud can transform enterprises, the findings of the CSC-commissioned Cloud Usage Index are nonetheless informative — and often surprising. Among the key findings:

- **What drives the shift to cloud?** Although requirements for business agility and cost savings certainly factor in, neither is the single most important driver for cloud adoption. Overturning conventional wisdom, one-third of respondents cite their need to better connect employees who use a multitude of computing devices as the number one reason they adopt cloud. Seventeen percent cite accelerating the speed of business, while 10 percent say cutting costs is the top reason for cloud adoption.
- **Does cloud deliver cost savings?** The answer is a definite “yes,” with 82 percent of respondents saying they saved money on their most recent cloud project. But there’s more to the story: savings have been relatively small, with 35 percent of U.S. organizations, for example, reporting payback of less than \$20,000.
- **How quickly do organizations benefit?** In terms of overall IT performance, an overwhelming 93 percent of respondents say cloud improved their data center efficiency/utilization or another measure. And 80 percent see improvements like these within six months of moving to the cloud.

The CSC Cloud Usage Index also gathered up-to-date statistical information about cloud and green IT, the cloud successes and challenges of small businesses, whether organizations prepare employees to make the shift to cloud and how cloud practices vary by country, among other areas of interest to stakeholders who design, provide or purchase cloud computing services.

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1. SURVEY METHOD

Independent research company TNS conducted the survey, which was commissioned by CSC, a global IT services provider. Survey method highlights include:

- A total of 3,645 cloud computing users were surveyed in eight countries: the United States, the United Kingdom, France, Germany, Brazil, Australia, Japan and Singapore.
- All survey respondents had experience implementing cloud computing within their organizations.
- Small, medium and large private and public sector organizations were represented evenly.
- The survey's 18 questions focused on eliciting information about the attitudes technology decision makers hold toward cloud computing, and about their recent experiences with cloud implementations.
- For the purposes of this survey, cloud computing was defined as follows:

Cloud computing is a general term for anything that involves delivering hosted services over the Internet. Cloud computing promotes convenient, easy access and rapid provision with minimal management or service provider interaction. Its five essential characteristics are: (1) on-demand self-service, (2) broad network access, (3) resource pooling, (4) rapid elasticity and (5) measured service.
- Interviews were conducted between October 2011 and November 2011.

2. KEY FINDINGS: FULL SURVEY

Conducted by independent research firm TNS, the CSC-funded Cloud Usage Index gathered responses from 3,645 cloud computing users working for small, medium and large businesses and government agencies in the United States, the United Kingdom, France, Germany, Brazil, Australia, Japan and Singapore.

Overall, the findings give a clearer sense of cloud's present and future by encapsulating what well-informed IT professionals say about their recent, real-world experiences with this on-demand service.

Cloud-Adoption Drivers: Connecting Employees Through Multiple Devices

Business agility and cost savings are often featured in analyses of cloud benefits. So it's not surprising that 21 percent of respondents cite speed of business and 17 percent cite cost-cutting as the most important factors in their move to the cloud. But these drivers are not as important as a desire to connect employees through the multitude of computing devices in use today: 33 percent say this factor is the top reason they chose cloud. In the United States, this trend among small businesses is especially pronounced, with nearly half (46 percent) citing information access as most important, while just 10 percent cite cost reduction.

33% of survey respondents cited accessibility to information through multiple devices as the most important reason for their decision to adopt cloud computing.

Accelerated Results: Upgrading IT Performance

The survey indicates that nearly all organizations boost improvements in IT performance following cloud adoption, with 93 percent of all organizations reporting at least one area of IT improvement. Among the most common improvements, 52 percent of users report increased data center efficiency and utilization, while 47 percent witness lower operating costs post cloud adoption. And these benefits arrive quickly as 48 percent of organizations see benefits within 6 months. Overall, more than 80 percent of respondents see gains within 6 months.

Cost Savings: Reducing IT Costs — Modestly

Eighty-two percent of all organizations cut costs with their latest cloud projects. That includes an impressive 92 percent of Brazilian organizations and 70 percent of Australian organizations. However, cost reductions are modest. Thirty-five percent of all organizations save less than \$20,000. In addition, 23 percent of all U.S. organizations and 45 percent of U.S. organizations with fewer than 50 employees report no savings.

Workforce Strategies: Preparing Employees for the Cloud

Employee preparation in advance of cloud implementation varies. U.S. and Australian organizations lag somewhat in preparing employees for cloud adoption with 80 percent and 81 percent of companies, respectively, providing information or training, while 97 percent of Brazilian organizations prepare their employees.

Another workforce finding is that few organizations downsize IT after cloud adoption. In fact, only 14 percent of companies downsize their IT departments after adopting cloud while 20 percent of organizations hire more cloud experts.

48% of U.S. government agencies moved at least one workflow to the cloud following the new requirement that U.S. federal agencies adopt a “cloud-first” policy.

Emerging Areas: Tracking Sustainability, Government Clouds

Among the ways cloud affects the enterprise is in sustainability, and the survey indicates that cloud computing clearly gives organizations a green boost. In fact, 64 percent of organizations say that adopting cloud has helped them reduce waste and lower energy consumption. Another strengthening trend relates to government cloud adoption. Forty-eight percent of U.S. government agencies moved at least one workflow to the cloud following the new requirement that U.S. federal agencies adopt a “cloud-first” policy.

Future Outlook: Committing to Cloud for the Long Term

Businesses are in the cloud for the long term, with 65 percent of organizations choosing cloud subscriptions lasting 1 year or more. As cloud matures, small businesses are facing less workforce resistance to cloud adoption than companies of other sizes; 74 percent of small businesses say no one in their company resisted the move to the cloud.

3. STATISTICS BY COUNTRY

The CSC Cloud Usage Index gathered country-specific data across four basic themes: (1) the top reasons why organizations adopted cloud; (2) the most common business and IT benefits achieved, such as cost savings and data center improvements; (3) barriers to cloud adoption including resistance within organizations; and (4) buying habits including length of subscription.

Respondents were also asked to provide information about areas such as sustainability, security and their use of training to prepare employees for the shift to the cloud.

In the following subsections, we present this data for each of the eight countries surveyed: Australia, Brazil, France, Germany, Japan, Singapore, the United Kingdom and the United States.

Australia

For respondents in Australia, access from multiple computing devices is the key reason for corporate cloud adoption, with 41 percent of organizations adopting cloud to enable access to information from any device. Businesses reported limited resistance to cloud adoption, as 56 percent of organizations say that no one in the company resisted the move to the cloud. And 71 percent of organizations bought subscriptions for cloud services for 1 year or more.

In terms of benefits, 88 percent of Australian organizations see improvement in their IT departments since adoption of cloud, and 82 percent see benefits in 6 months. However, the cost savings of cloud are not as high as expected; 64 percent of organizations say they save under \$20,000 or nothing at all after their last cloud adoption project. In particular, cloud computing is not helping small businesses save money, as 95 percent save less than \$20,000 or nothing at all. In fact, 48 percent of small businesses say they saved no money.

Eighty-one percent of organizations say they prepared their employees for cloud computing. Seventy-three percent hire more experts, create new positions or say that existing IT staff are more productive since moving to the cloud. In the area of security, 64 percent of organizations say their concerns about data security have not changed since adopting cloud.

Brazil

Cloud brokers are popular in Brazil, with one in three medium-to-large-sized businesses using cloud brokers. Meanwhile, nearly two-thirds of all Brazilian organizations face some internal resistance to cloud migration. Among stakeholders, senior government staff are the most likely to resist cloud migration.

When it comes to tapping the advantages of cloud, large Brazilian organizations realize benefits most quickly. After cloud adoption, the top IT benefits among Brazilian organizations are (1) lower operating costs, (2) increased data center efficiency and (3) waste reduction. Currently, three-quarters of Brazilian organizations using cloud computing will buy more cloud. Nearly all prepare employees for cloud migration, with 97 percent holding training, increasing help desk support or establishing beta testers.

France

Being able to access information from any device is more important to France's small businesses (57 percent) than large businesses (36 percent), while cutting costs (22 percent) is more important to large businesses than small (13 percent). When it comes to realizing those cost savings, almost half (49 percent) of French organizations say their total cost of delivering enterprise services declines with cloud. And they cite increased data center efficiency and utilization as the area of greatest improvement.

88% of Australian companies see improvement in their IT departments since adoption of cloud.

In comparison with other countries, in France the CIO and CEO present the most resistance in moving to the cloud. In the United States, for example, only 8 percent of users meet resistance from the CIO, but 15 percent do in France. French organizations meet more resistance to adopting cloud from senior staff (50 percent) than management (19 percent). Twenty-nine percent of French organizations buy their clouds through a spotcloud provider. Mid-sized companies are the most likely to get a one week subscription to the cloud (27 percent) compared with large (7 percent) and small (3 percent) businesses.

A strong majority (67 percent) of French organizations are more likely to buy cloud again based on their last cloud experience. Forty-four percent of French organizations increase desk support to help prepare their organization's employees for cloud computing, and over half (56 percent) of French organizations hold cloud trainings for their employees.

Germany

Half of Germany's small businesses cite being able to access information from any device as the number one reason for adopting cloud (versus only 28 percent of large businesses). Eighteen percent of German organizations cite having employees work together more as the most important reason (the highest out of all the countries — only 2 percent of U.S. companies, for example, cited this as the most important).

More than half (51 percent) of Germany's small businesses see benefits immediately after adopting cloud compared with large businesses (24 percent). In Germany, as in France, the CIO and CEO present the most resistance to moving to the cloud, with 16 percent in Germany meeting CIO resistance. Half of German organizations buy their cloud through a services vendor. German organizations cite having comprehensive end-to-end offerings as the biggest factor for choosing a cloud provider. For small businesses (21 percent), existing relationships have a bigger impact on choosing a cloud provider than for large businesses (8 percent).

Japan

Seventy-seven percent of Japanese organizations begin to see the benefits of moving to the cloud within 6 months. Fifty-three percent report a lower operating cost post cloud adoption, and 89 percent say their total cost of delivering enterprise services decreased or stayed the same.

Cloud computing helps organizations in Japan become more sustainable, with 84 percent of companies saying cloud has reduced waste and energy consumption.

In Japan there is little resistance to cloud adoption, as 62 percent of organizations say that no one in the company resisted the move to the cloud. Sixty-three percent say their concerns about data security have not changed since adopting cloud. And many organizations are using cloud services for shorter-term projects, with 38 percent purchasing cloud service subscriptions for 1 week or less.

Singapore

Device pervasiveness drives cloud adoption in Singapore, with 30 percent of organizations implementing cloud to enable access to information from any device. Eighty percent of organizations begin to see the benefits of moving to the cloud within 6 months. Among the top benefits, 65 percent of organizations see increased data center efficiency and utilization, and 50 percent see the total cost of delivering enterprise services go down. In the area of sustainability, 80 percent of organizations say that adopting cloud has helped them reduce waste and energy consumption.

Among Singapore's public-sector organizations, IT departments resist cloud adoption more than other stakeholders. With respect to security, 47 percent of

84% of Japanese companies say cloud has reduced waste and energy consumption.

88% of UK companies have a cloud subscription length that lasts 1 month or more; 40% of these have subscriptions lasting more than 1 year.

companies that implemented cloud say they are more concerned about data security since adoption.

United Kingdom

Over half (54 percent) of small businesses cite information access from multiple devices as a leading factor in moving to the cloud. UK organizations overall are happy with their current cloud experience; 34 percent say their service provider has met all of their expectations while 40 percent say their performance is exactly what they expected. Eighty-two percent of UK organizations see benefits from the cloud in under 6 months; 38 percent see benefits immediately. Almost half (49 percent) cite increased data center efficiency and utilization as the number one benefit from adopting cloud. However, 63 percent of small businesses say their total cost of delivering enterprise services stayed the same after implementing cloud services.

Forty percent of small businesses buy cloud through a services vendor. When choosing a cloud provider, the reputation of the vendor (18 percent) is more important than security guarantees (14 percent). For small businesses in the UK, the reputation of the vendor (25 percent) is more important than cost (18 percent). Eighty-eight percent of UK organizations have a cloud subscription length that lasts 1 month or more; 40 percent of these have subscriptions lasting more than 1 year.

United States

Nearly half of small businesses cite information access from multiple devices as the leading factor in the move to cloud computing. Almost all U.S. organizations reap some benefits from cloud migration. And 90 percent of U.S. organizations experience IT improvement post cloud. However, cost savings were not as extensively realized. In fact, nearly a quarter of U.S. organizations don't find any cloud savings.

Price and security guarantees are leading factors in selecting a cloud provider, and location of cloud data is unimportant to nearly all. Currently, half of U.S. government agencies are in the cloud. Among small businesses that have moved to the cloud, 40 percent did so without any employee preparation.