

# Cloud Computing

*Survey Results*  
*June – July 2009*



IT agility. Your way.

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## EXECUTIVE SUMMARY

As organizations cope with a dynamically changing business environment, IT managers look to cloud computing as a means to maintain a flexible and scalable IT infrastructure that enables business agility.

In June 2009, F5 Networks conducted a study examining the adoption of cloud computing by enterprise IT managers. The study found that although significant confusion regarding the definition of the cloud exists, IT managers are aggressively deploying cloud computing initiatives to accomplish business objectives. Additionally, the study found that widespread enterprise adoption is contingent upon solving access, security and performance concerns.

Key findings of the 2009 Cloud Computing Research Report include the following:

- Confusion about the definition of cloud computing
- Cloud computing has gained critical mass
- Cloud computing is more than SaaS
- Core technologies for building the cloud
- Influencers go beyond IT

## METHODOLOGY

F5 Networks surveyed 250 companies. Applied Research was selected to perform the survey and targeted the following personnel:

- Enterprise IT (at least 2,500 employees)
- Manager, Director, VP, SVP (no CIOs)
  - Network
  - Information Security
  - Architecture
  - Development

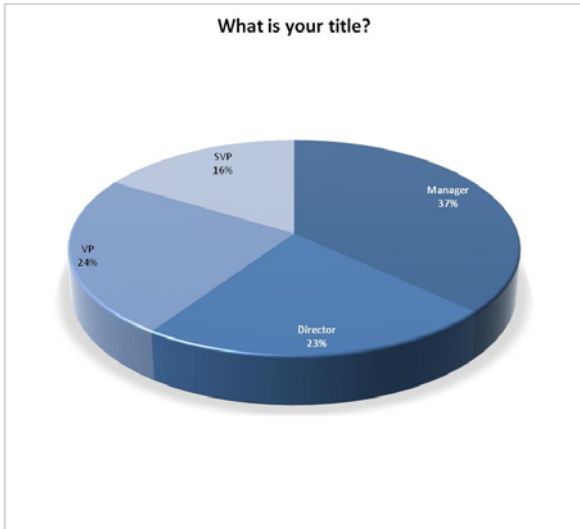
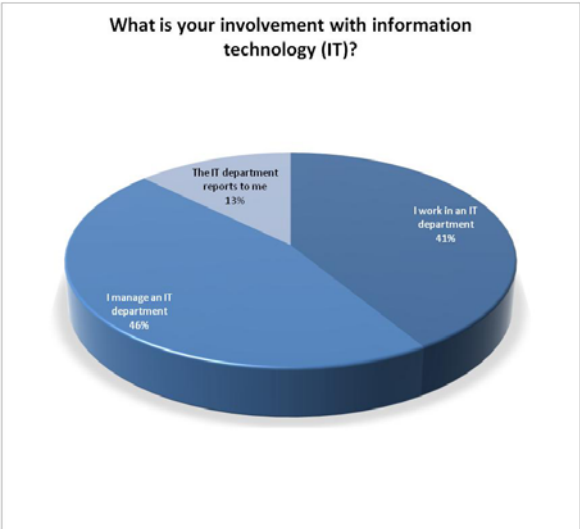
The survey was conducted via telephone and was performed in June and July 2009.

### DEMOGRAPHICS

F5 Networks spoke with 250 companies. All companies included in the survey had at least 2,500 employees worldwide, with a median of 75,000 employees.

37 percent of respondents were IT managers. 24 percent were VPs, 23 percent were IT directors, and 16 percent were SVPs. No CIOs were included in this study.

Of all respondents, 46 percent manage an IT department, 41 percent work in an IT department, and the IT department reports to 13 percent.



## ONE: CLOUD DEFINITION ELUDES IT

Cloud computing is pervasive within the enterprise, but respondents had little agreement on how to define the term. Applied Research tested six industry definitions of cloud computing and found the study participants were unable to choose any of them as being "just right."

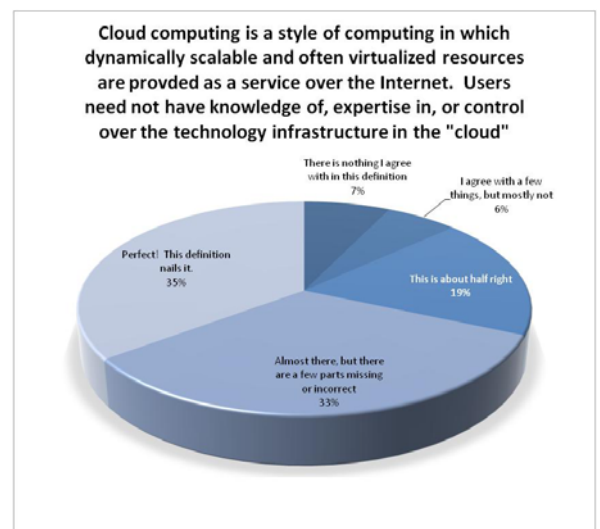
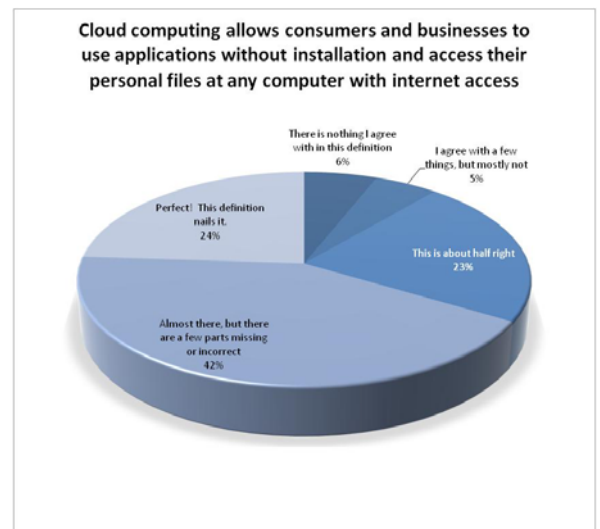
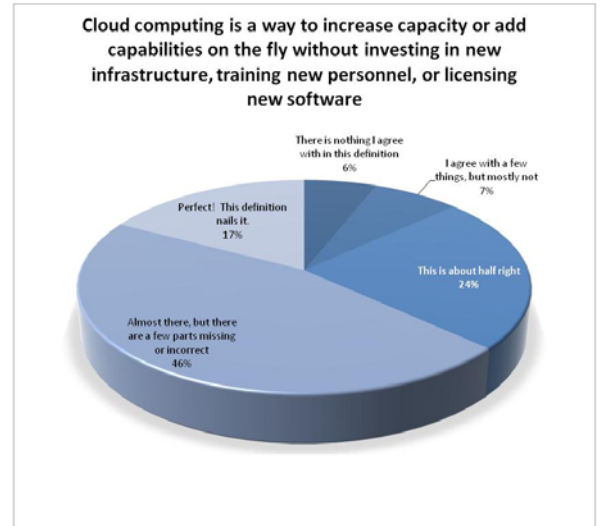
The study tallied how many respondents marked "Almost there or "This is perfect" for each definition. Based on definitions reported by respondents, the two most popular, each with 68 percent were:

- Cloud computing is on-demand access to virtualized IT resources that are housed outside of your own data center, shared by others, simple to use, paid for via subscription and accessed over the Web.
- Cloud computing is a style of computing in which dynamically scalable and often virtualized resources are provided as a service over the Internet. Users need not have knowledge of, expertise in, or control over the technology infrastructure in the "cloud."

### Defining the cloud

F5 Networks also conducted a focus group of IT managers, network architects and cloud service providers in order to establish a firm definition of cloud computing. Focus group participants debated the merits of each definition in the survey, and agreed upon the following as a standard definition for cloud computing:

*Cloud computing is a style of computing in which dynamically scalable and often virtualized resources are provided as a service. Users need not have knowledge of, expertise in, or control over the technology infrastructure in the "cloud" that supports them. Furthermore, cloud computing employs a model for enabling available, convenient and on-demand network access to a shared pool of configurable computing resources (e.g., networks, servers, storage, applications, services) that can be rapidly provisioned and released with minimal management effort or service provider interaction.*



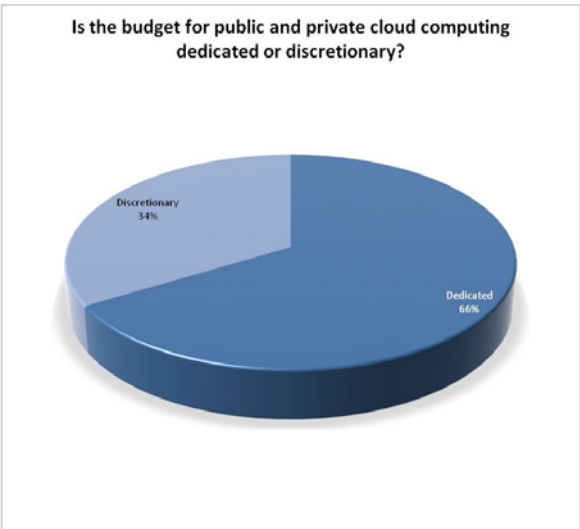
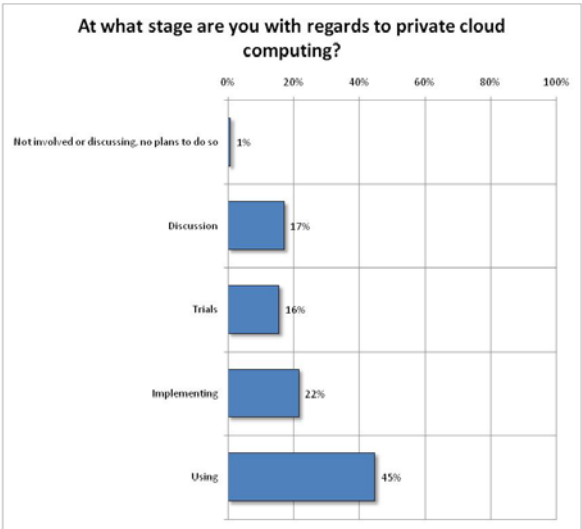
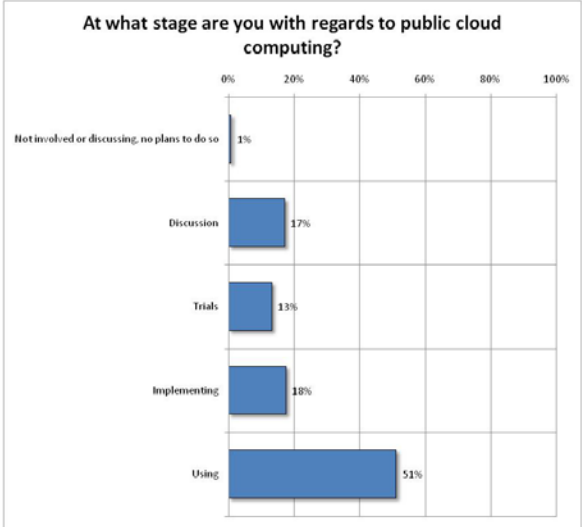
### TWO: THE CLOUD HAS GAINED CRITICAL MASS

Though IT managers may be confused about the exact definition of cloud computing, the technology has become widespread. 99 percent of respondents claim they are currently discussing or implementing public and private cloud computing solutions.

82 percent of respondents report they are in some stage of trial, implementation, or use of public clouds. Furthermore, 83 percent of respondents claim they are in some stage of trial, implementation, or use of private clouds.

#### Budgetary allocation

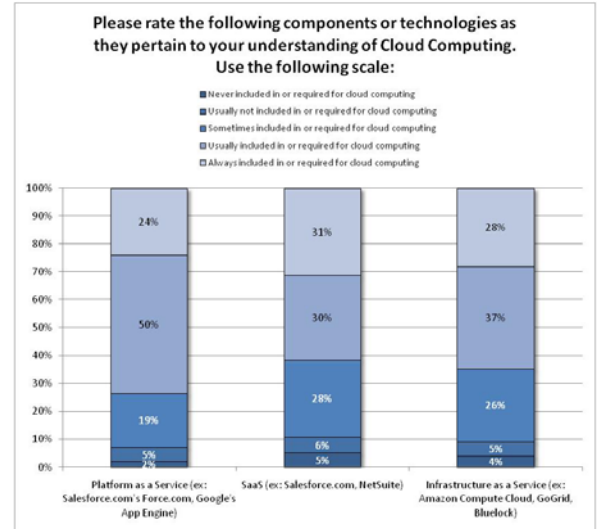
As managers move to incorporate cloud computing into their IT strategy, budgets are being adjusted to accommodate the shift. 66 percent of respondents report they have a dedicated budget for the cloud. Additionally, 71 percent of respondents expect cloud computing budgets to grow over the next two years.



### THREE: THE CLOUD IS MORE THAN SAAS

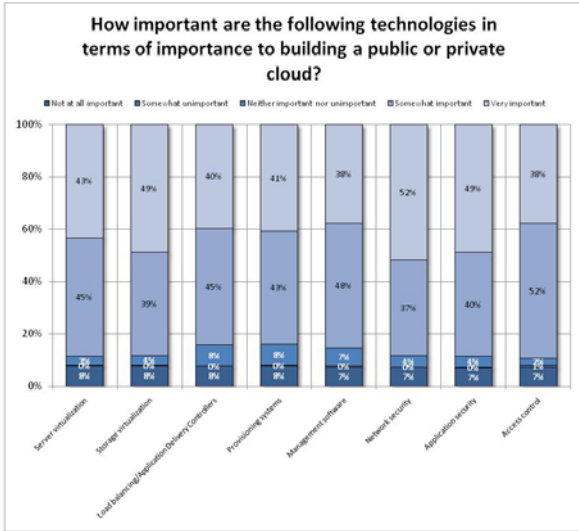
IT managers commonly equate Cloud Computing with Software-as-a-Service (SaaS). Although SaaS is an important element of cloud computing, IT managers do not see it as the most important element.

Three-fourths of respondents reported that Platform-as-a-Service (PaaS) is usually or always included in the cloud. Additionally, two-thirds said Infrastructure-as-a-Service (IaaS) is usually or always included in the cloud. By way of comparison, three-fifths said SaaS was usually or always included in a cloud deployment.



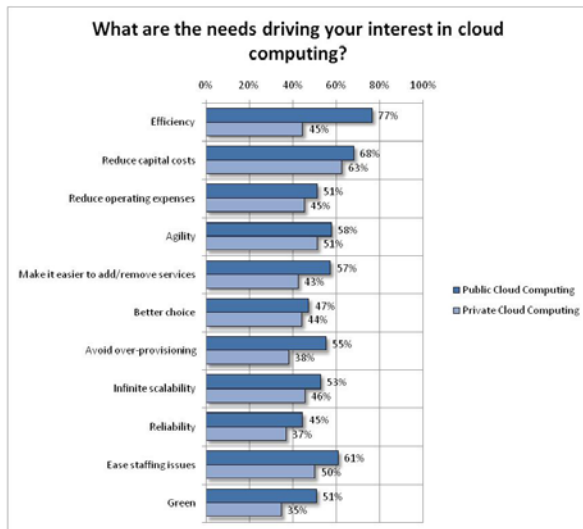


## FOUR: CORE CLOUD TECHNOLOGIES



As budgets for cloud computing increase, IT managers are examining critical technologies for building the infrastructure behind the cloud. 90 percent of respondents named access control as somewhat/very important for building the cloud. An additional 89 percent listed network security as a core technology. 88 percent of respondents listed both server and storage virtualization as essential technologies in the cloud.

### Needs driving the cloud



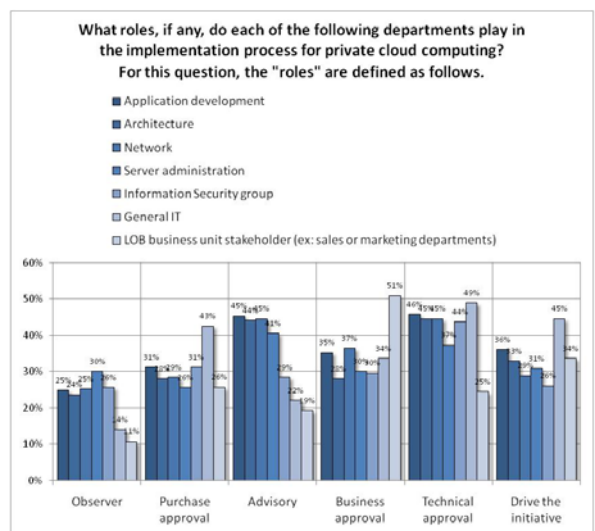
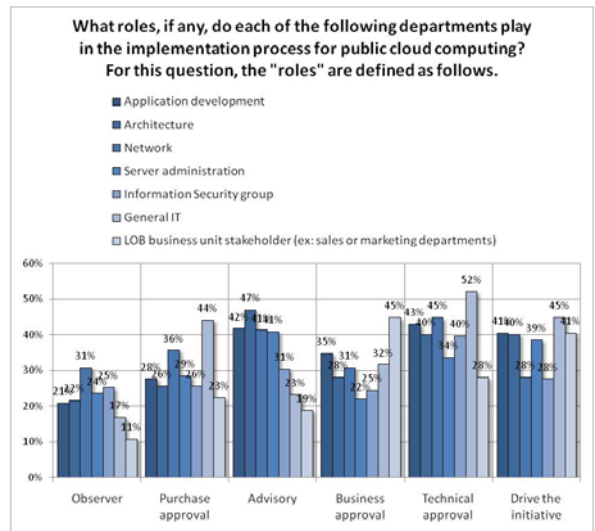
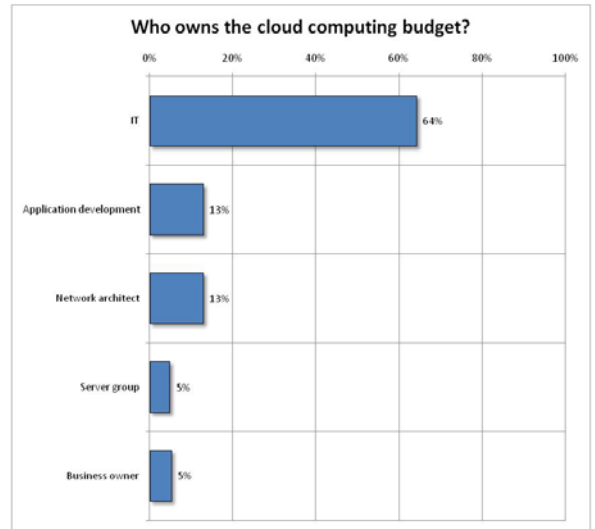
The key cloud computing technologies listed by respondents fall in line with needs that drive IT managers' interest in the cloud. 77 percent of respondents reported that efficiency is a driver for public clouds. Additionally, respondents claim that reducing capital costs (68 percent) and easing staffing issues (61 percent) are key drivers behind public clouds.

For private cloud computing, respondents listed reducing capital cost (63 percent), agility (50 percent) and easing staffing issues (50 percent) as drivers.

## FIVE: INFLUENCERS GO BEYOND IT

Though IT is intrinsically a part of cloud computing, it is not the only influencer over an organization's cloud computing policies. Survey respondents claimed that IT generally controls the cloud computing budget (64 percent compared to the 13 percent each held by application development and network architects). According to respondents, the top influencers for public clouds include IT (45 percent), application development (41 percent) and LOB business stakeholders (41 percent).

On a similar note, respondents claimed the top three influencers in the implementation process for private clouds are IT (45 percent), LOB business unit stakeholders (36 percent) and application development teams (24 percent).



## KEY RECOMMENDATIONS

- Organizations should look beyond SaaS offerings when evaluating cloud computing options. IaaS and PaaS services are key cloud computing technologies that can be leveraged to accomplish business objectives.
- Cloud computing touches many different technologies. Organizations should invest time understanding how the cloud will affect access control, network security, virtualization and other core network components before implementing a cloud environment.
- Cloud computing deployments should be a cross-functional effort with IT, application developers, network architects, and other critical business stakeholders weighing in prior to cloud purchasing decisions.