



Exploring Current Perceptions and Use of Cloud Computer Services

June 2012

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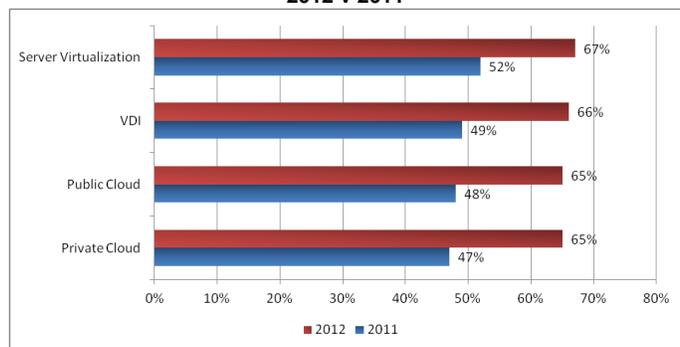
i3 Research Group, in conjunction with Trend Micro, recently conducted a second year survey of high level IT personnel to determine (1) current perceptions and usage of virtualization and Cloud Computing services and (2) emerging Cloud Computing technology trends. Based on the results of the research, this white paper provides specific information on Cloud Computing services in today's business market and how those practices are growing and changing.

Cloud Computing services is a model for enabling convenient, on-demand network access to a shared pool of computing resources that can be quickly and easily provisioned and released with minimal management effort. Cloud Computing services can be either private, i.e., hosted within a company, or public, i.e., hosted by a 3rd party vendor. As companies turn to Cloud technology in an effort to reduce IT costs and increase data security, the potential for public Cloud technology vendors is great, but only if they understand the market. This research study focuses on providing this insight, exploring perceptions, concerns, and uses of current Cloud Computing services in the marketplace today.

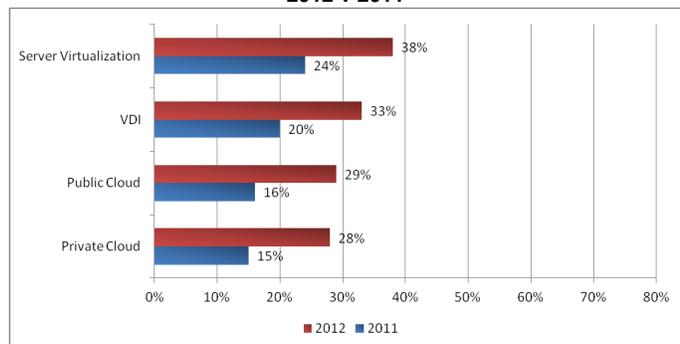
In June, 2012, some 5,900 respondents were contacted and screened for participation in a study on virtualization and Cloud Computing services. All of 5,900+ respondents participated in a series of market questions; 1400 provided more in-depth information. Respondents were from seven countries: US, Canada, UK, Germany, Japan, Brazil and India (n=200 each). This is the second year that i3rg and Trend Micro have run this study; the first year in which Brazil was included.

In looking at the total population of respondents (n=5,900+) from a broad range of high tech and non-high tech industries, what quickly became apparent was the significant increase in usage of both virtualization and Cloud (public and private) technologies over the past year. Since 2011, awareness of virtualization and Cloud technologies has increased significantly and actual usage (piloting or in production) has almost doubled.

**SOMEWHAT OR VERY FAMILIAR WITH TERM/TECHNOLOGY
2012 v 2011**



**CURRENTLY HAVE TECHNOLOGY IN PILOT OR PRODUCTION
2012 v 2011**



Perceptions of Cloud Computing Services

Although it is apparent more companies are adopting virtualization technologies, this does not mean that virtualization users are more confident in the security of Cloud Technology services. Businesses continue to struggle with the idea of using public Clouds because of their concern for data safety. Not only do businesses want to know their data is safe, but they are also concerned about the security of the Cloud infrastructure, itself. What kind of performance can they get from the Cloud service? What is the Cloud availability/uptime? Who within the Cloud vendor administration will have access to their sensitive data? How will their data be recovered in the event of a natural disaster? In other words, how can they be guaranteed that they will be able to maintain control over their data?

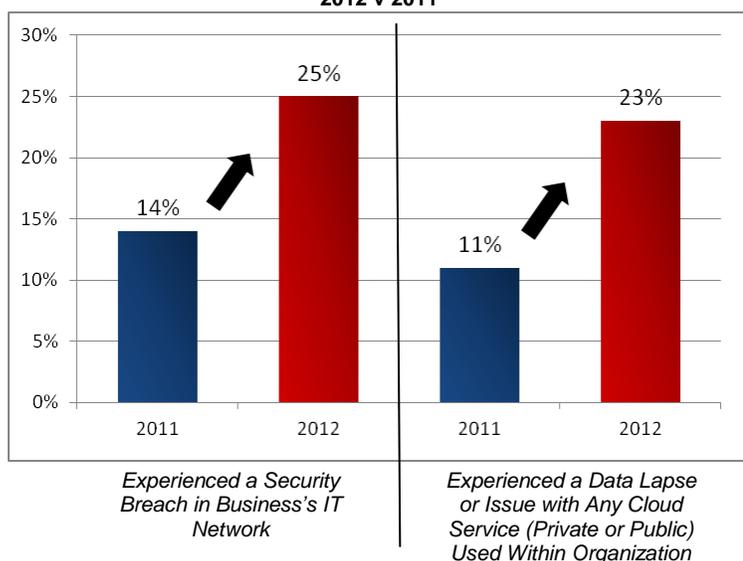
Their concerns are valid. Of the 5,900+ respondents surveyed, 25% indicated their organization had experienced a security breach in their IT network within the past 12 months. This is up from 14% in 2011; almost double. Another 23% indicated their organization had experienced a data security lapse or issue *with a cloud service* (private or public) used within their company. This number is up from 11% in 2011; more than doubled. It is not surprising, then, that businesses are apprehensive about storing their sensitive business data with a 3rd party vendor. In fact fully 88% of the public Cloud users indicate they follow the best-practices of encrypting any data they store on the Cloud, and keeping a 1:1 copy of all data that is synced to the public Cloud.

These concerns were the same ones voiced in 2011. In fact, the frequency and intensity of concern has not changed over the past year. This indicates that while businesses do have real and valid concerns, they believe the benefits of Cloud technology usage out-weigh the potential issues.

Use of Cloud Computing Services

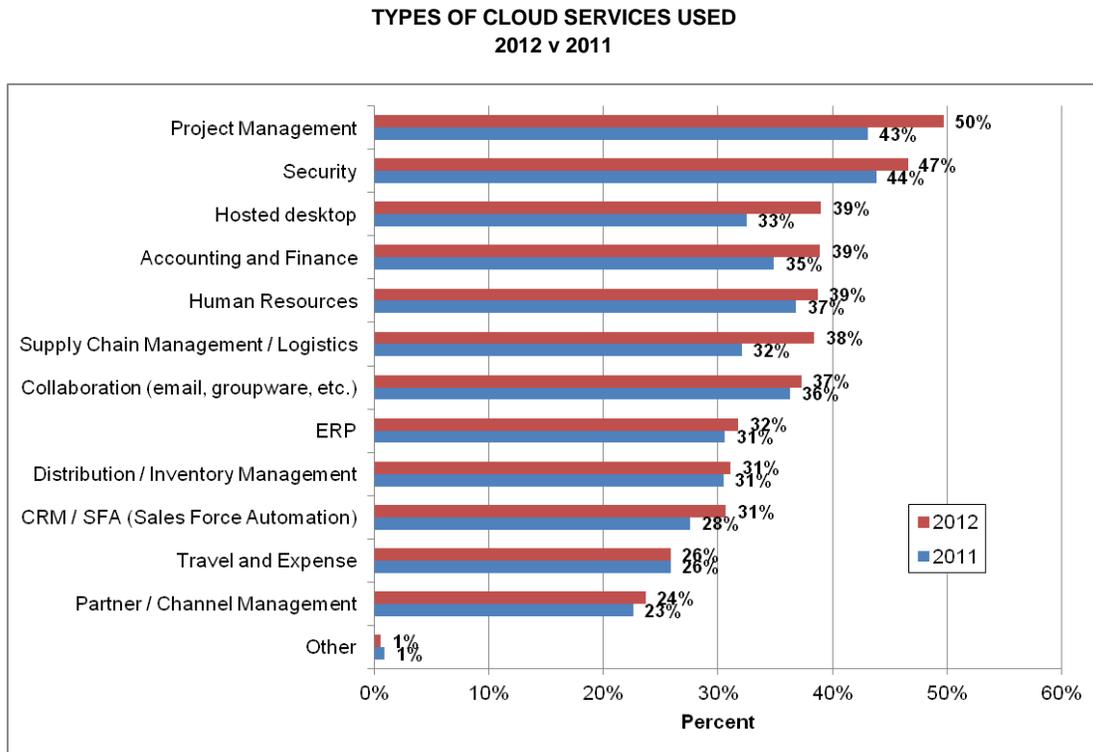
Adoption of Cloud Computing services is being driven by IT departments, specifically IT Infrastructure teams. For those respondents who currently use public Clouds and/or are piloting public Cloud Computing services, many indicate that 50% or more of their existing

SECURITY ISSUES EXPERIENCED IN THE PAST 12 MONTHS
2012 v 2011



applications are deployed in the cloud and within the next year they expect an even greater percentage of *new* applications to be deployed. This shows a definite trend among Cloud users: once a business has adopted Cloud technology, there is definite movement toward increasing their use of this technology and relying on even more virtualization.

Of the various uses for Cloud technology, businesses were most likely to indicate using Cloud Services for Project Management or Security.



Awareness of Public Cloud Computing Services

One thing that might help to ease some of the concerns businesses have about using Cloud Technology is the knowledge that they may already be working with a Cloud vendor without even realizing it. An interesting finding from the 2011 study showed that although the majority of respondents already work with a Cloud vendor (93%), some didn't know they were in fact utilizing Cloud services. In fact, a full 7% of the respondents who were working with a Cloud vendor in 2011 reported that their company had no plans to implement any type of Cloud services within the next 12 months. In 2012, that number increased. Although most of the respondents currently work with a Cloud vendor, a full 9% said their company had no plans to implement any type of Cloud services within the next 12 months. Helping businesses to understand how they are currently using the Cloud may help Cloud vendors ease the concerns of business users.

Indicators of Public Cloud Technology Adoption

Noted in 2011 and verified in 2012, use of Server Virtualization technology was a significant indicator of public Cloud adoption. Once a company has ventured into the field of virtualization through this most basic of the virtualization technologies, it is very likely that they will continue the process, either through VDI technology or Cloud Computing. Use of VDI technology is also a precursor to public Cloud Computing. Although few of the 2011 respondents indicated using all three types of virtualization technologies (Server Virtualization, VDI and Cloud) within their organization, in 2012 that number increased to 30%, and may be a reflection of the greater virtualization technologies used, overall.

Other factors, such as company size, whether or not the company is an early adopter of technology, and having a dedicated IT Security Staff are strong indicators of public Cloud adoption. The more likely companies are to be large, with the resources for a dedicated IT Security Staff, and the foresight to adopt technology early, the more likely they are to be public Cloud users.

Conclusion

There is concrete evidence that businesses are increasingly adopting Cloud technology. Therefore the potential for Cloud vendors is great. To effectively market public Cloud services, the successful vendor will need to address, first and foremost, issues of data security – including encryption, administration, and processes, both day-to-day and in the event of a disaster. There is also a needed element of education. Currently some businesses that are using public Cloud services do not understand that they are using Cloud technology. Addressing this lack of awareness / understanding may help to alleviate some of the current concerns regarding Cloud technology in the marketplace today. Focusing on companies that have the resources for a dedicated IT Security team and a culture of adopting leading edge technology will also increase potential sales and market penetration.