



IT ADVISORY

# From Hype to Future

KPMG's 2010 Cloud Computing Survey

ADVISORY





# Contents

01	Foreword	4
02	Key findings	6
03	What is cloud computing?	10
04	View on cloud computing	13
05	The current state of cloud computing	18
06	Drivers of cloud computing	24
07	Obstacles of cloud computing	27
08	Learning from early adopters	32
09	Reactions from the cloud computing market on the survey results	35



01

Foreword

Is cloud computing here to stay or is it one of these hyped subjects that inevitably will be forgotten in a couple of years' time?

In this survey, KPMG offers a down-to-earth analysis based on the views of 125 decision makers and business managers in the Netherlands, to conclude that cloud computing is more than just hype. Cloud computing may be a recent term, but it refers to different ways of (inter)network computing, which in itself is based on already existing models and architectures. Nevertheless, the outcome of the survey is clear: the move from 'on-premise' IT to 'on-demand' cloud computing services is indeed taking place at a breathtaking pace with no signs of stopping.

KPMG believes that this survey contributes to understanding the potential of cloud computing, providing insight into its main obstacles and pitfalls. Amidst success stories you'll find experiences on how to avoid these pitfalls.

While organisations can reduce IT spending and benefit from more flexibility and scalability by using cloud computing, the viability of many cloud computing services remains to be seen. Measures to tackle security, privacy and legal issues as well as the standardisation of technology in the cloud are still in their early stages.

I am convinced that this report makes a valuable and distinct offering to the business community and hope you will feel the same way after reading.



**Ing. John Hermans RE**

*Associate Partner  
KPMG Advisory,  
the Netherlands*

# 02

## Key findings



## Cloud computing is successfully gathering momentum

*"I don't believe cloud computing is a hype. Contrary to other IT 'miracles' with a lot of technical mumbo-jumbo, even I understand cloud computing. Go to the internet and get the service you need. I really like this simplicity."*

**Business director of a firm in the professional services sector**

Over the past couple of years, cloud computing has been accompanied by a lot of buzz and many in the business community find it hard to judge whether this issue is anything more than hype surrounded by technical jargon. According to our survey, the view of a vast majority of decision makers, is that cloud computing is the future model of IT and it is definitely not a hype that will subside.

Actions speak louder than words in this respect. Almost 60 percent of participants indicate that they are currently using, or will be using, cloud computing in the short-term. The most commonly used services that are provided via the cloud are data storage, application hosting and e-mail. Government organisations and financial institutions are, however, relatively reluctant to use cloud computing services.

*"When we realised that we were using Gmail and Facebook already, the step to implement cloud computing in our corporate environment wasn't a big one."*

**CIO of a firm in the industrial markets sector**

## Driven by cost savings and more flexibility, while concerns about security remain an obstacle



*"The problem with IT 'solutions' is that they all require enormous investments in hardware, software and human resources. And too many ROI calculations turn out to be completely bogus. If I can have a solution with no upfront costs, I'm in."*  
**CEO of a firm in the professional services sector**

The survey clearly shows the main drivers of cloud computing to be cost savings, improved flexibility and better scalability. Early adapters believe that it brings them more business focus and reduced IT complexity. In particular, large organisations with more than 5,000 computer users quote improved flexibility as an important reason to move to the cloud. It is promising to see that half of the participants indicate that the expected benefits have been achieved within their executed projects. These statistics exceed the usual success rate of 'on-premise' IT implementation projects.

Security is the main obstacle that is encountered when implementing cloud computing, followed by issues regarding compliance, privacy and legal matters. Organisations are worried about security and privacy concerning the use of cloud computing services as the market provides marginal assurance. Matching internal security requirements with the cloud computing vendor's measures and controls proves to be difficult in practice due to discrepancies, lack of insight and insufficient expertise. The opinions of early adapters also tell us that there is room for improvement for integration with existing IT and better transparency regarding architecture and calculation of the costs.



*"Cloud computing vendors told me that my data at their locations was just as safe as my money in the bank. Since the credit crunch we all know how reliable the banks are."*

***CISO of a firm in the public services sector***

*"We used to think that seemingly everlasting IT projects with uncontrollable expenditures were the norm. When we decided to use CRM from the cloud, it took us less than three months with minimal costs to have it up and running. No, we won't go back."*

***Business director of a firm in the industrial markets sector***

In chapters 4-8 we present an in-depth analysis of the results of the survey, combined with KPMG's comments on the findings. However, before elaborating on into these results we feel that it is important to define what cloud computing actually is.

# 03

## What is cloud computing?



"I realised that what I was standing in was a prototype of a new kind of power plant – a computing power plant that would come to power our information age the way great electric plants powered the industrial age."  
Nicolas Carr, *The Big Switch*

Cloud computing refers to hosted online services. These services are accessed via the internet, which is metaphorically depicted as a 'cloud'. Usually, the graphical user interface is provided by the customer's own web browser.

"Basically, cloud computing is storing your data on someone else's computer and accessing it via a network." Bruce Schneier, CTO of BT and renowned security expert

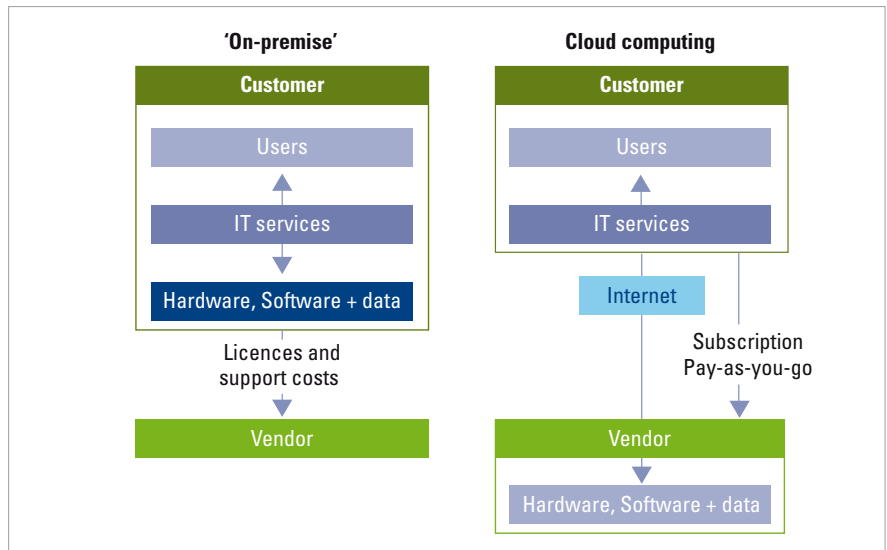
The concept itself has been around since the 1960s and has been boosted in recent years. Various factors have contributed to this such as the increased availability of broadband internet, improved technologies such as virtualisation and new models to deliver web-based services.

Cloud computing has the following main characteristics:

- Multi-tenancy – IT resources are shared between different users and customers
- Rented service delivery model – customers pay for the service instead of buying software licences and hardware
- On-demand usage/flexibility – cloud services can be used almost instantly and can easily be scaled up and down
- External data storage – a customers' data is usually stored externally at the location of the cloud computing vendor

Parts of IT resources can also be reserved and dedicated for one customer only. This type of cloud computing is called private cloud computing

Cloud services can also be hosted, delivered and used exclusively within one organisation. This is called internal cloud computing. As this variant is almost fully dependent on internal, on-premise IT resources, it is highly questionable if internal cloud computing should be defined as cloud computing at all.



Source: KPMG the Netherlands, 2010

Cloud computing offers services on various IT layers. When it is at the software layer, it is also known as Software-as-a-Service (SaaS). Gmail is an example of SaaS. Platform-as-a-Service (PaaS) delivers IT services on the platform layer, such as an operating system or an application framework; additional software must be developed or installed by the customer. Infrastructure-as-a-Service (IaaS) delivers technical infrastructure components such as storage, memory, CPU and network. Additional platforms and software must be installed by the customer.



Source: KPMG the Netherlands, 2010

# 04

## View on cloud computing



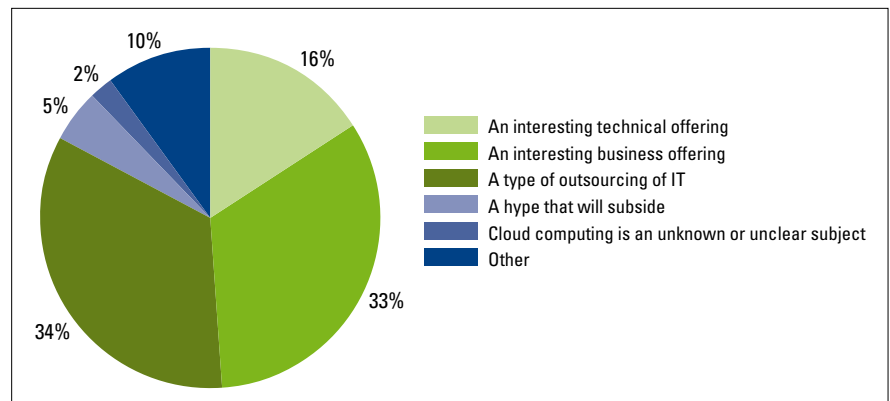
## Cloud computing is hardly about technology



Cloud computing is not about buying hardware or software and in this respect differs radically from classic heavily technology-centred IT concepts. Cloud computing is about receiving IT services as a commodity via the internet. Contrary to on-premise models, the management of IT resources is no longer an organisation's own responsibility as it is handed over to the cloud computing vendor. In short, cloud computing is hardly about technology and this is reflected in the results of our survey.

A minority of 16 percent considers cloud computing to be an interesting technical offering. One third of the participants (33 percent) cite cloud computing to be an interesting business offering and around the same percentage (34 percent) of the participants feel that cloud computing is primarily a type of outsourcing.

### What does cloud computing primarily mean for your organisation?



Source: KPMG the Netherlands, 2010



Cloud computing is in fact – as one of the interviewees stated – the ultimate form of outsourcing. Traditional outsourcing meant an organisation phasing out its internal IT staff, but keeping its own IT resources such as software and hardware. Cloud computing is phasing out an organisation's entire IT, including its IT resources.

*"I primarily see cloud computing as a democratisation of IT. Complex and expensive systems like ERP used to be for the big and cash-rich companies only. With cloud computing, every company regardless of their size and cash position can subscribe to a cloud service and use it."*

**CEO of a firm in the professional services sector**

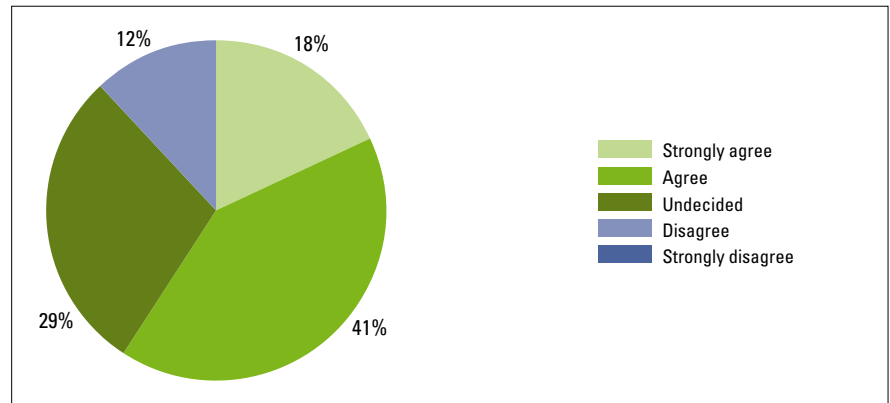
*"Our senior management talks a lot about cloud computing and what benefits it may bring. On the contrary, our IT department shuns this topic as much as possible. Maybe they are afraid that the cloud is taking over their jobs, maybe they are afraid of the security issues. The IT department used to come up with new technologies, but cloud computing seems to be a business topic rather than an IT topic."*

**Head of architecture of a firm in the industrial markets sector**

## The cloud is here to stay

Historically, IT has been dominated by concepts and trends that come and go at a rapid pace. Some argue that cloud computing may be the next one on that list. The participants in our survey strongly believe that cloud computing is not hype. An overwhelming 59 percent of them agree with the statement that cloud computing is the future model of IT. Only 12 percent of participants indicate that they do not agree with the statement, while around a third are undecided. Clearly, the decision-maker's expectations towards cloud computing are exceptionally high.

### Statement: cloud computing is the future model of IT



Source: KPMG the Netherlands, 2010

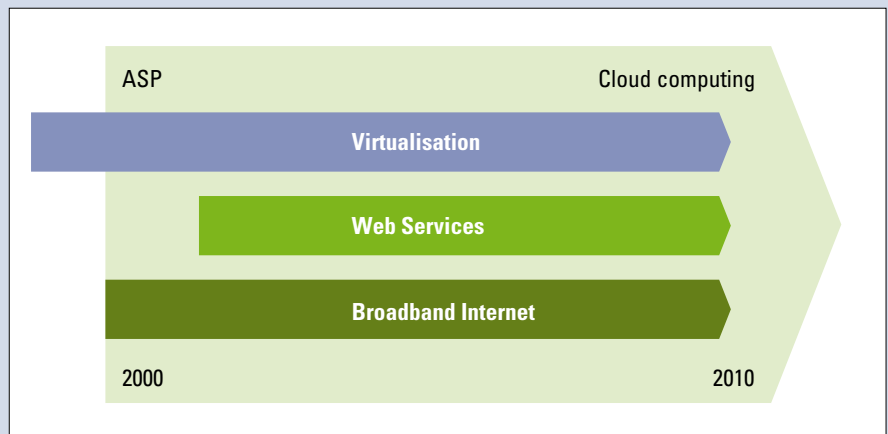
A number of interviewees believe cloud computing to be the next stage of evolution in IT. They feel that current, on-premise IT is highly inefficient and too complex for individual organisations to manage. Cloud computing is the model of choice to shift the complexity to professional vendors and to benefit from their economies-of-scale.

*“Just like we don’t have our own energy generators at our buildings anymore, IT will become a commodity and will be delivered from huge IT factories in the future. So as the IT market is getting more mature, cloud computing will naturally take over our local IT. When you think about it, the fact that we are still running our own IT factories is quite insane.”*

**CIO of an international firm in the industrial markets sector**

## KPMG's comment

Cloud computing is a promising IT service delivery model that requires a limited amount of technology on the customer's side, especially in the case of Software-as-a-Service (SaaS). A computer with access to the internet is all that is needed on the customer's side. With the maturing of virtualisation, web services and broadband internet over the last five to eight years, important preconditions for cloud computing have been met.



Source: KPMG the Netherlands, 2010

### ASP

IT services via the internet is itself an old concept and has been available since the late 1990s as ASP (Application Service Provider). ASP's commercial success was marginal, mainly due to ASP vendors' limited scale of operations and the scarcity of network bandwidth at the time. ASP can be seen as the predecessor of cloud computing.

Many cloud computing services are already common for personal use. Gmail, Twitter, LinkedIn, Facebook and Hyves are attracting millions of people every day and each of these services can be considered as cloud computing services. With so many people already using the cloud for personal use, the move to the cloud for corporate use should only be a small step.

Cloud computing can be considered both as a democratisation as well as an oligarchisation of IT. Professional IT services, which previously required considerable upfront investment, now become accessible to many (small and medium-sized) enterprises with limited financial resources. At the same time, the cloud computing market is dominated by very few vendors (Google, Amazon, Salesforce.com and Microsoft as the 'Big Four'). Vendor lock-in and weak positions to negotiate as customers on service levels and customisation should be taken into account.

# 05

## The current state of cloud computing

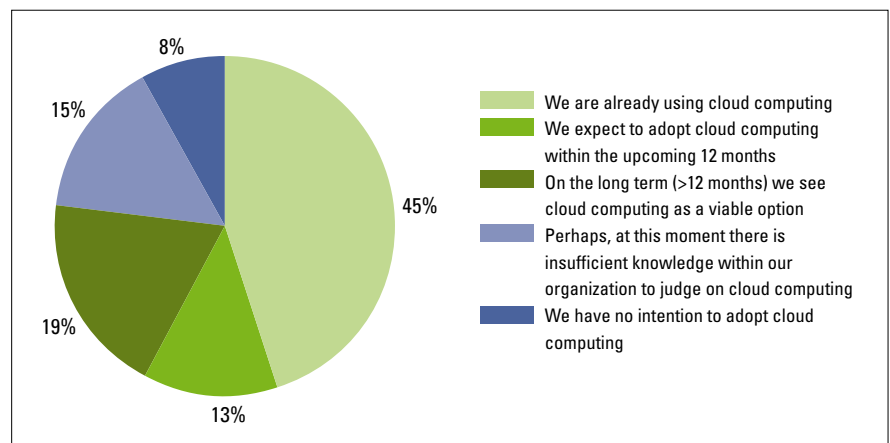


## The current adoption rate varies by sector

Expectations are high and nowadays every major IT company has its own cloud computing offering. In the words of Microsoft's CEO, Steve Ballmer, "cloud computing is the next step, it's the next phase, it's the next transition." The commercial viability will, however, depend on the willingness of customers to implement the offerings.

The survey tells us that 45 percent of the participating organisations are already using cloud computing services and 13 percent expect to adopt cloud computing within the next 12 months. Just a small minority (8 percent) of those taking part in the survey have no intention of adopting cloud computing.

### Is your organisation willing to use/adopt cloud computing for (parts of) your IT?



Source: KPMG the Netherlands, 2010

There are a couple of remarkable differences between sectors. The professional services and industrial markets sectors are already using cloud computing services on a large scale (over 50 percent). These figures differ significantly from financial services (32 percent) and the public sector (33 percent) where the adoption of cloud computing is relatively low. Furthermore, in the latter sector the highest number of participants indicated that they either lack knowledge on the subject or that they have no plans to adopt cloud within their current IT landscape.

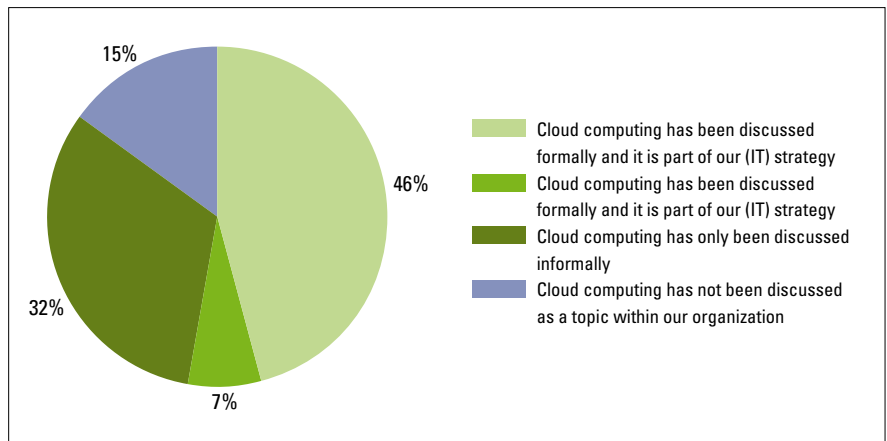
*"We are very interested in cloud computing, but it is difficult for us to relocate our IT personnel with this type of outsourcing."*

**Head of IT of a public organisation**

## Cloud computing hits the strategic agenda

Cloud computing is not just a subject for the IT community. It rapidly develops into a business topic and should get C level attention in order to incorporate it into strategy and budget discussions. 85 percent of participants indicate that cloud computing has been discussed within their organisation. For 46 percent of participants, cloud computing is already a formal part of their (IT) strategy.

### Has cloud computing been formally incorporated into your organisation's strategy?

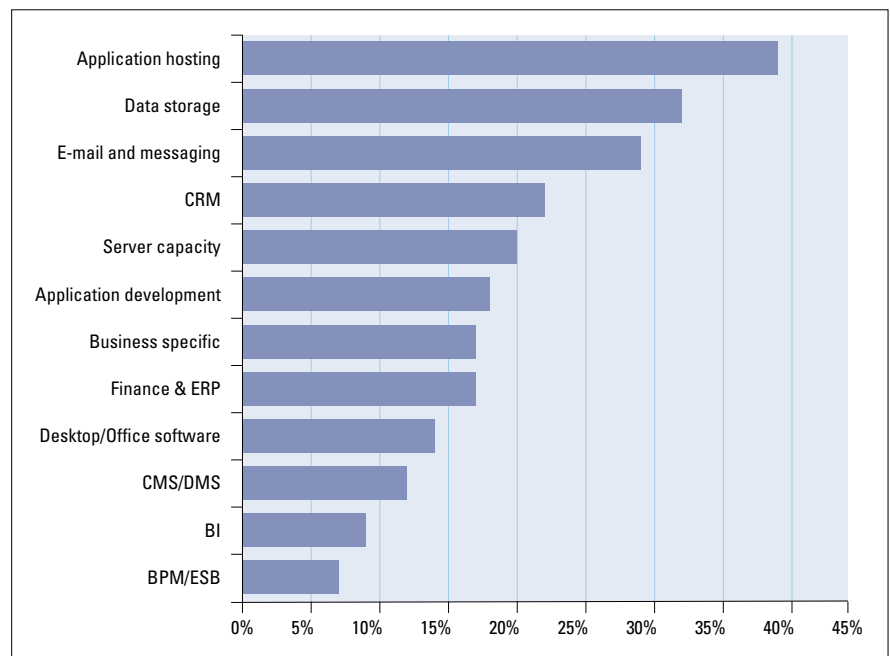


Source: KPMG the Netherlands, 2010

## Application hosting is the most popular use of cloud computing

In our survey, the participants from those organisations that are already using cloud computing indicate that the most commonly used type of services are application hosting (39 percent), data storage (32 percent) and e-mail/messaging (29 percent). Business Intelligence (9 percent) and BPM/ESB (7 percent) offerings are yet to become commonplace in the cloud.

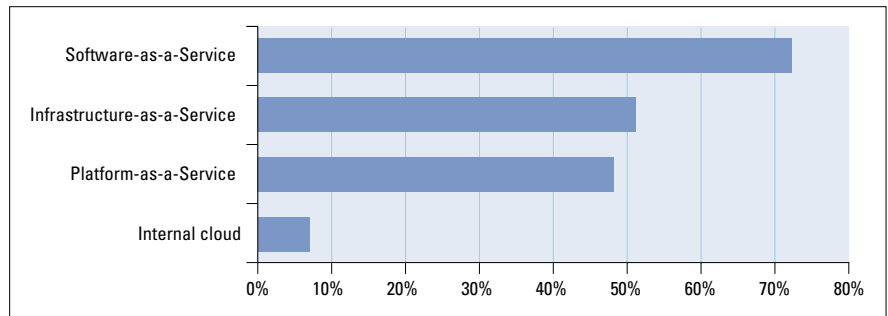
### Which cloud computing services are you already using or implementing?



Source: KPMG the Netherlands, 2010

When we look at the different layers of cloud computing, SaaS is the most commonly used type of cloud computing (72 percent). Internal cloud's share is marginal (7 percent). It must be noted that many interviewees feel that there is confusion regarding the terminology between internal cloud computing, private cloud computing and virtualisation.

**Which cloud computing types are you already using or implementing?**

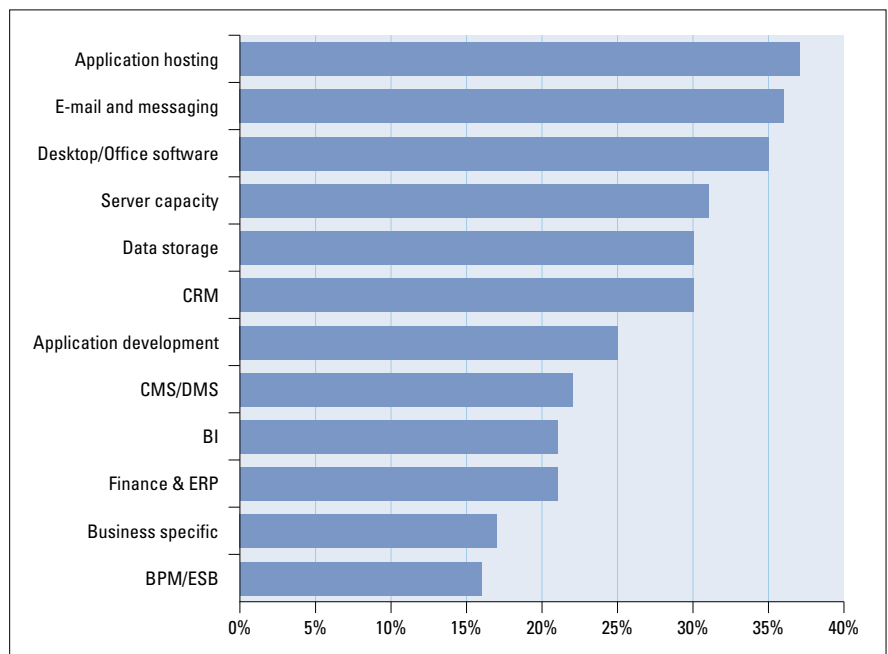


Source: KPMG the Netherlands, 2010

*"We are still using our locally installed ESB and BPM software. Cloud computing is great for relatively simple services such as e-mail and CRM. When it comes to complex architectures such as SOA, a cloud is pretty much useless."*

**Head of architecture of a firm in the industrial markets sector**

**Which cloud computing services are you investigating?**



Source: KPMG the Netherlands, 2010

Future expectations are in line with current views. Over one third of participants are investigating the use of application hosting, e-mail and desktop/office software from the cloud.

## KPMG's comment

Cloud computing is evolving from a discussion topic towards real implementation in many organisations. Overall, the public sector and financial services sector are having a more conservative stance towards this evolution.

HR and the corresponding legal issues are blocking the path for cloud computing at many public organisations. It is difficult for public organisations to phase out IT personnel and storing public data containing personal details is subject to strict regulations. Therefore, cloud computing will probably only be adopted at a slow pace.

Financial services organisations, amidst the aftermath of the credit crunch, tend to be more risk-averse when it comes to innovation. The risks of using cloud computing services are still hard to assess (see also chapters 7 and 8 of this survey) and very few in this sector are currently willing to take additional risks, despite the potential benefit in reducing their IT expenditure.

Although many organisations appear to be adopting cloud computing, the overall uptake should be taken into perspective. Aside from the success of cloud computing, the current share of cloud computing in total IT spending is less than 5 percent and the vast majority of software and hardware is still locally installed. Even the most optimistic scenarios estimate cloud computing's share of total IT spending at no more than 15 percent by 2015. We anticipate that cloud computing will continue and even accelerate its growth, but, for the time being, on-premise IT will still dominate the IT market.



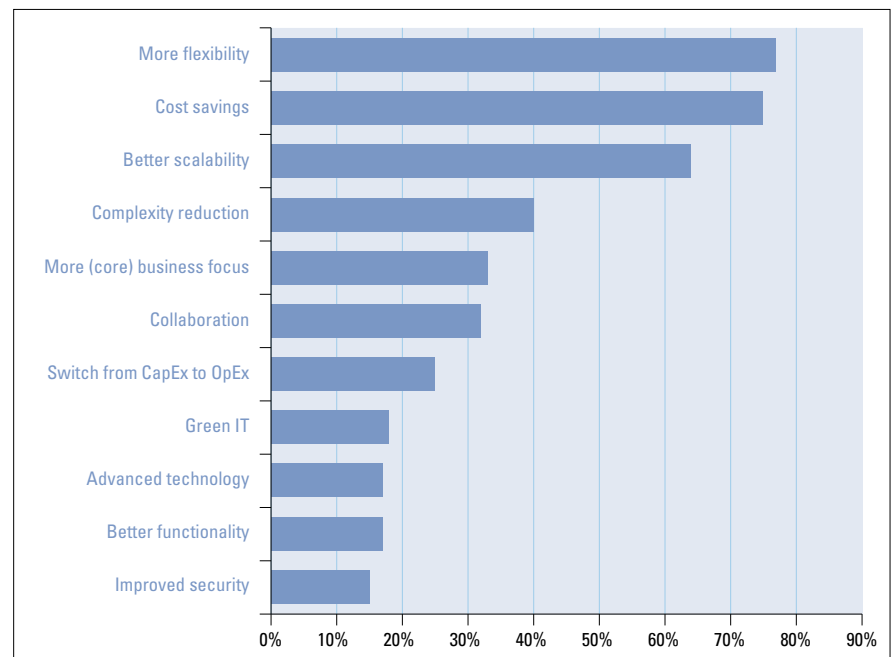
06

Drivers of  
cloud computing

## Cost savings and flexibility are the key drivers

The majority of the participants expect three main drivers of cloud computing: more flexibility (77 percent), followed by cost savings (75 percent) and better scalability of their IT (64 percent). Some interviewees complained about the rigidity of their internal IT, combined with an unacceptable time to market. Cloud computing can bring relief by the faster deployment of applications for less cost. In particular, large organisations with more than 5,000 computer users quote improved flexibility as an important reason to move to the cloud.

### What benefits do you expect from cloud computing?



Source: KPMG the Netherlands, 2010

Less than one fifth of the participants expect advanced technology (17 percent), better functionality (17 percent) and improved security (15 percent) from the cloud. Despite the attention on energy savings and sustainability, greener IT does not appear to be a main driver (18 percent).

*"While we were discussing about potential risks of putting our data outside our internal network, our CEO decided to move our email to the cloud. 75 percent of cost savings that would be realised by using cloud computing were well worth the eventual risks."*

**CISO of a firm in the industrial markets sector**

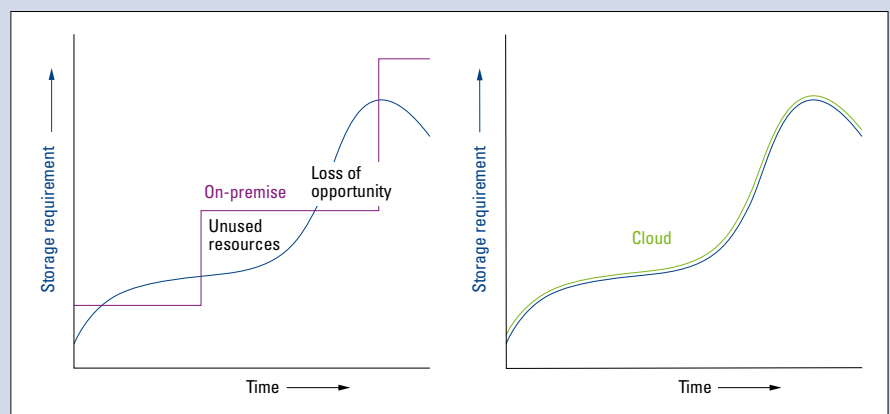
## KPMG's comment

Benefits of cloud computing have much to do with the economies-of-scale that cloud computing vendors can achieve. Instead of having individual IT resources for each organisation, one cloud computing solution delivers services to multiple organisations by sharing the IT resources. Due to this multi-tenancy concept, IT resources can be exploited much more efficiently compared to on-premise IT. Most on-premise IT resources rarely exceed a utilisation rate of 20 percent (meaning that 80 percent of its capacity is being wasted) and greater efficiency could be achieved.

Efficient use of IT resources at cloud computing vendors may well lead to much lower costs. As a result, cloud computing solutions can be offered for lower prices than on-premise alternatives.

For each layer (infrastructure, platform and software), cloud computing provides already installed and instantly usable services. Therefore, the implementation of cloud computing services is generally less complicated and less time-consuming compared to on-premise alternatives.

By using various types of virtualisation and load-balancing, cloud computing solutions can easily be scaled up and down. Combined with the 'pay-as-you-go' or subscription models that are common to cloud computing, customers only pay for what they use and the required IT capacity is always available. In contrary to on-premise IT, IT capacity is never idle and never scarce.



Source: KPMG the Netherlands, 2010



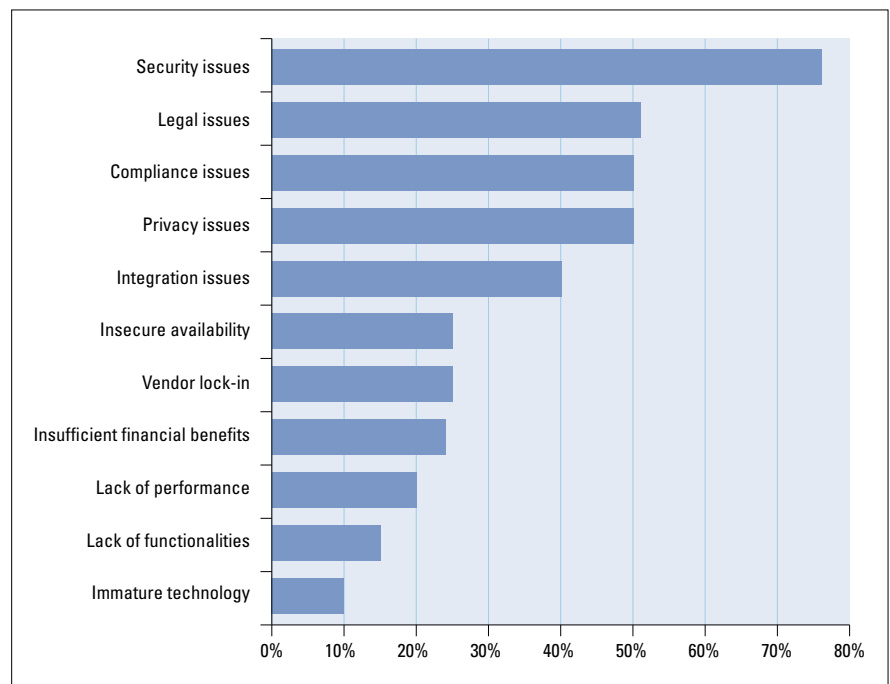
07

# Obstacles of cloud computing

An overwhelming majority of participants (76 percent) consider security issues to be their main concern regarding the use of cloud computing. In addition, legal (51 percent), privacy (50 percent) and compliance issues (50 percent) are considered to be areas of risks.

Remarkably, very few participants (15 percent) believe that lack of functionality is an area of concern despite the standardised services that many cloud computing vendors offer. They also did not have many concerns when it comes to cloud computing's immature technology (10 percent).

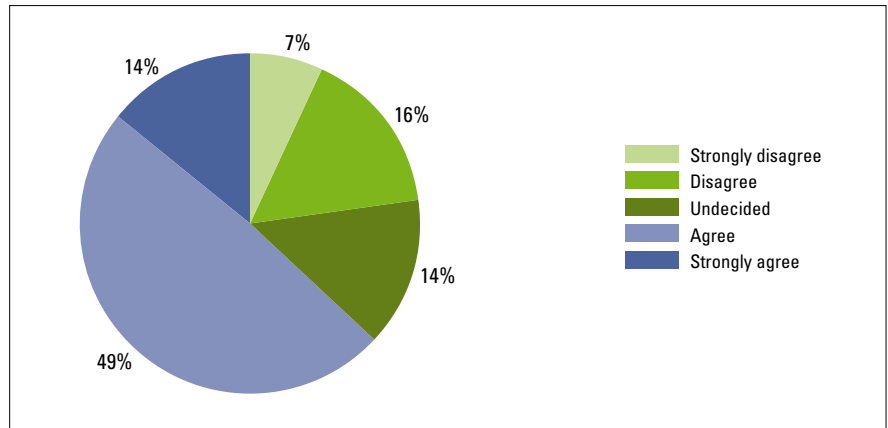
**What are your main concerns regarding the use of cloud computing?**



Source: KPMG the Netherlands, 2010

Focusing on the security issue, 63 percent of participants agree that security concerns are blocking their move to the cloud. It appears that they are not worried primarily about the lack of security measures in themselves, but about the lack of transparency on the side of vendors.

**Statement: security concerns are a blocking issue when it comes to cloud computing**



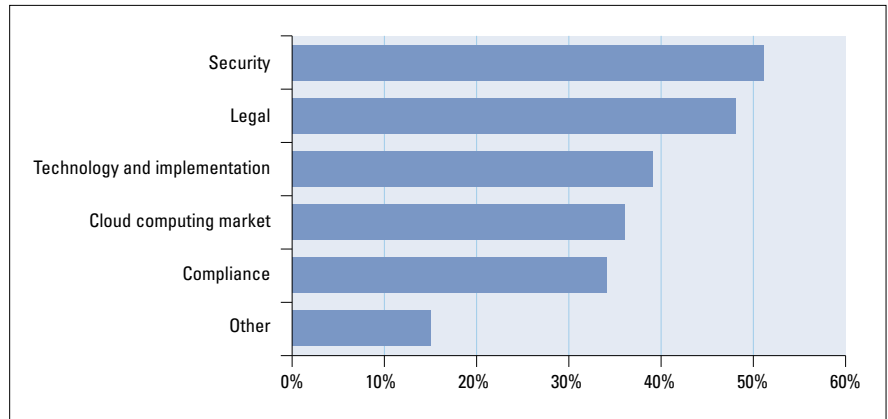
Source: KPMG the Netherlands, 2010

*"The biggest issue for me when it comes to cloud computing is obscurity. It not exactly about the lack of security measures, but the total lack of transparency. All we got was a SAS70 report which did not comply with our security controls. Additional security audits were not permitted by the vendor so we decided to depend on our internal IT for the time being. Our internal IT is far from perfect but at least I know what our weaknesses are."*

**CISO of a firm in the industrial markets sector**

Concerns aside, many participants feel that there is insufficient knowledge/expertise on cloud computing within their organisations, especially on security (51 percent) and legal (48 percent). Decision makers at multinational firms explained in interviews that existing legislation and regulations are lagging behind the reality of cloud computing. Legislation and regulations may even be irrelevant, yet organisations cannot afford any incomppliance.

**What type of knowledge/expertise is lacking/insufficient within your organisation regarding cloud computing?**



Source: KPMG the Netherlands, 2010

# Cloud computing and Tax issues

## Minimising risk and exposure

Cloud computing's impact triggers taxation issues in the service provider's country as well as in the customer's country. Typically, three taxation themes need thorough consideration.

The first is the fact that a permanent establishment issue may occur if a cloud computing vendor has a server in another country. In such cases, the other country's tax authorities may have the fiscal viewpoint that the server creates a local permanent establishment and that part of the related profits are taxable in their country.

The second is in the field of VAT. For VAT purposes, a cloud computing vendor may need to register itself in foreign countries where its customers are based and local VAT may be due.

A third point of consideration is the set-up of cloud computing services. Under certain circumstances, tax authorities may take the position that a cloud computing service rendered to a customer is subject to local withholding tax.

It is important that the structure is set-up correctly and processes are continuously monitored in order to

minimise tax exposures and risks. This requires an integrated process and control framework.

Through planning and structuring, there are opportunities to design tax-efficient structures under the appropriate circumstances.

Willem Jan Paardekooper,  
Partner, KPMG Meijburg and  
Herko Koekkoek,  
Senior Manager, KPMG Meijburg

## KPMG's comment

Security is the main obstacle for many organisations in their move to the cloud. This relates to the following risk areas of cloud computing:

- External data storage
- Dependency on the (public) internet
- Multi-tenancy
- Integration with internal security

Storing data at an external location, either on a dedicated or a shared environment, means less physical control over an organisation's data. In addition, the organisation is dependent on the level of security of its cloud computing vendor. Where sensitive/confidential data is concerned, external storage outside a country's border may cause legal complications such as privacy violations. It must be taken into consideration that legislation from different countries, especially outside the EU, can be conflicting and contradicting.

Dependency on the (public) internet is rarely raised, yet it is an important subject. Contrary to an internal network, accountability and ownership of (parts of) the internet are not clearly demarcated, often unaddressed and regulation over the internet is limited. Given its commercial importance, the internet is exceptionally poorly protected. While the internet has proven to be reasonably stable and resilient so far, threats such as botnets need to be closely monitored.

Sharing IT resources with other users/organisations may be efficient, but harbours potential security risks. Inadequate segregation of data between different customers may lead to data contamination and a lack of access controls could give unauthorised persons access to valuable data. Therefore, effective Identity & Access Management is essential.

Matching an organisation's own security measures and requirements with the cloud computing vendor's measures and controls have proven to be difficult due to discrepancies and lack of transparency. In particular, this has been an issue for large organisations which have to be compliant with various regulations and standards. A right to audit should be negotiated.

It must also be noted that the number of major incidents in the cloud regarding commercial offerings have been relatively low. Cloud computing may even enhance the level of security by the centralisation of security expertise.



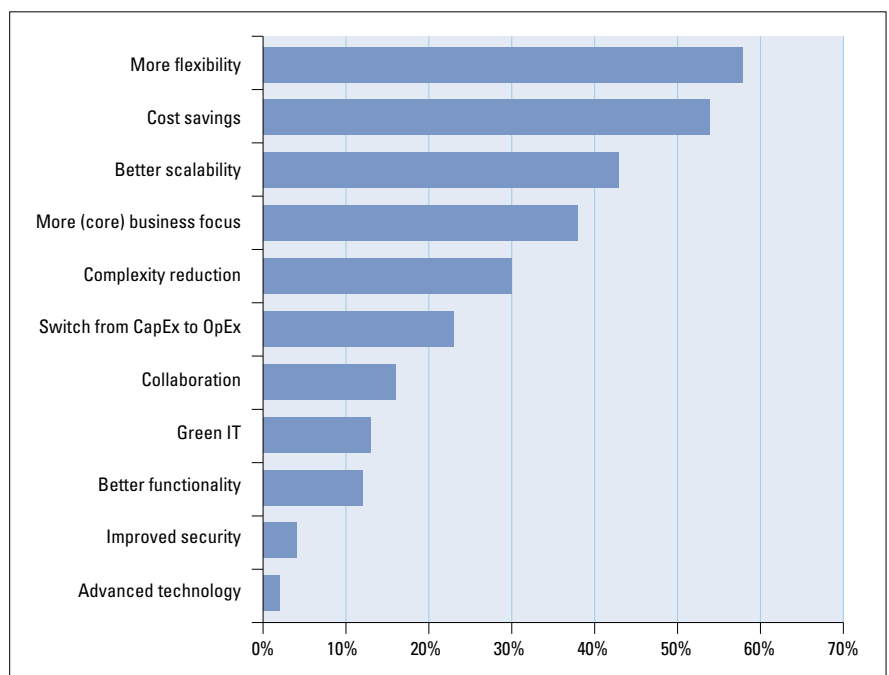
# 08

## Learning from early adopters

## Achieved benefits – Cost savings and flexibility

The previous chapters contain an analysis of the expectations of cloud computing. Since half of the participants (45 percent) are already making use of cloud computing, we asked them for their insight into the achieved benefits and main points of improvement.

### What benefits do you actually experience from cloud computing?

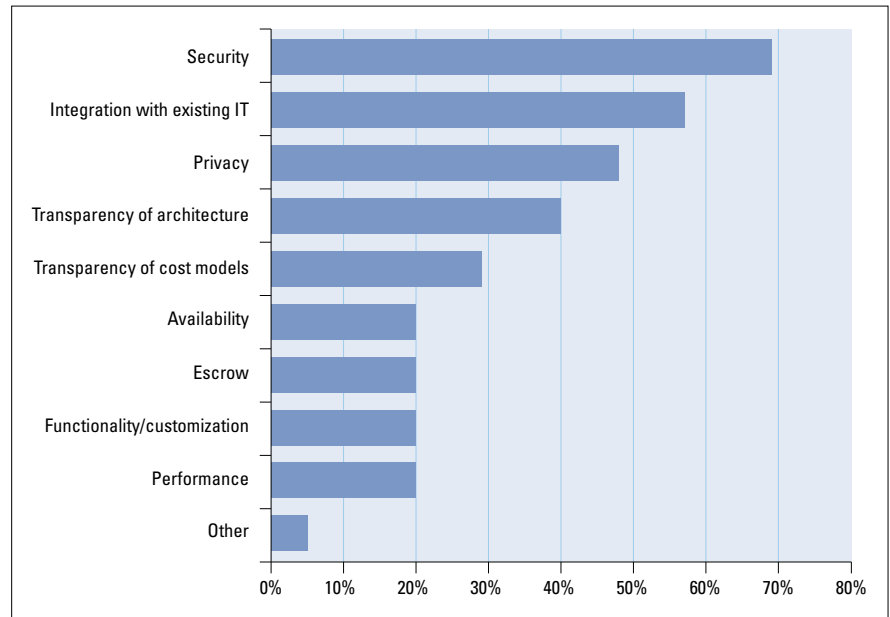


Source: KPMG the Netherlands, 2010

Over half of the participants indicate that cost savings (54 percent) and flexibility targets (58 percent) have been achieved by the cloud offerings. Participants clearly indicate that the major improvement points for cloud computing are security, privacy and integration with existing IT.

It should be noticed that the integration with existing IT is mentioned as an improvement point by over half of the respondents (57 percent).

### What aspects of cloud computing should be improved?



Source: KPMG the Netherlands, 2010

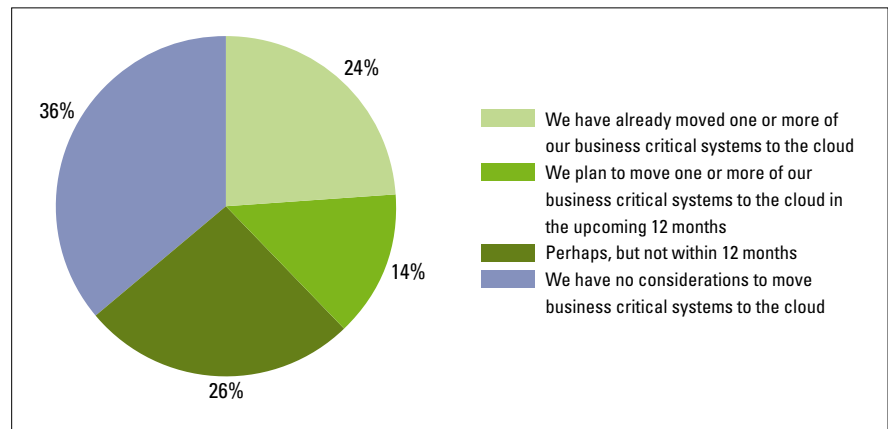
*"I have absolutely no idea what security measures our cloud vendor has taken. All we got was an SAS70 Type 1 report with very little relevant controls. I asked them for additional information, but as our procurement department forgot to demand the right to audit, I got no response."*

**Audit manager at a large government organisation**

## Fears for using the cloud for business critical processes

Over a third of all organisations (38 percent) are already using or planning to use cloud computing for business critical processes.

### Are you considering moving business critical systems to the cloud?



Source: KPMG the Netherlands, 2010

When considering the adoption of the cloud for business critical systems, it becomes evident that financial services organisations are the most averse to cloud services for business critical processes. 63 percent of these respondents indicate that they are not considering moving business critical processes to the cloud.

*"I really don't know how secure the cloud is, but the availability has been good so far. We've had numerous problems with availability of our (on-premise) business critical applications in the past. If they are not available, we can't do business."*

**Business director of a firm in the professional services sector**

## KPMG's comment

The achieved benefits for organisations that have embraced cloud computing appear to outshine the concerns. So far, the number of major incidents concerning cloud computing have been surprisingly low. It must be noticed that with higher adoption rates and the exceptionally strong market positions of very few of the big vendors, dependency on their solutions will increase over time. Incidents such as security breaches at their sites will lead to major disruptions at their customers with significant financial losses.

Integration between different systems and applications has been a long-standing stumbling block in IT and cloud computing is not about to change that. In addition, bigger cloud computing vendors are establishing their own, partly incompatible, 'standards' to complicate integration with other vendor's solutions.

The IT market's profit model has been based on on-premise IT for the last two decades. This ecosystem of hardware selling, software licences, consultancy and training will change dramatically with cloud computing. Cloud computing means no hardware, no software licences, limited consultancy and marginal local IT management. The financial figures of many, mostly small to medium-sized, cloud computing vendors show that cloud computing's profit margins are paper-thin at best. Financially, cloud computing has so far been a precarious business model for many vendors.

# 09

## Reactions from the cloud computing market on the survey results



## Reactions from the cloud computing market on the survey results

Several vendors have high expectations of the market for cloud computing services. We confronted a number of them with the results of our survey, to find that most of them feel that the results are a proper reflection of the atmosphere in (and state of) today's market. Here are some of their comments:

*"Cloud computing impacts not just the lives of individuals. Employees now expect the same ease of use at work and flexibility of access as they have with applications in their personal lives. This means sharing information and collaborating on projects in the same way as they chat on social networks and invite people to comment on their blogs. Information sharing is as important within organisations as it is to individuals, but many businesses don't have the time, money or infrastructure to provide this experience for their staff. Cloud computing makes all of this possible."*

*"We believe cloud computing is here to stay and is having a huge impact on the world of computing. As web applications become more flexible and responsive to user needs, they increasingly reflect the fact that at home and in the workplace, people are all inherently collaborative. With that, innovations in information creation and distribution will challenge traditional notions and boundaries."*

**Erik de Muinck Keizer, Country Manager Enterprise, Benelux, Google and Eddy Veldhuizen, Regional Channel Manager, Benelux, Google**

*"Be aware that most companies actually are already familiar with moving data outside of their organisation: think about hosting, outsourcing, rise of mobility."*

*"Standards will always be an issue, however, also notice this: in essence, a cloud is built on TCP/IP, HTTP and HTML. So in its most essential form interoperability is available. We know of services that combine Amazon EC2, Google, Windows Azure and Facebook. Moreover standards are converging based on the SOA architecture principles.*

*We do agree that support for standards should be a decision parameter."*

**Martin Vliem, IT infrastructure architect, Microsoft**

*"Salesforce.com's customers have chosen to subscribe to our solutions for the exact reasons mentioned in your study: cost savings and flexibility."*

*"Cloud computing does not take away the need for a customer's IT department but rather transforms its role. Instead of focusing on technical issues and architecture, IT departments can now be linked much closer to the business and help translating the business requirements into cloud computing solutions, their implementation, configuration, integration, change management and governance within the existing IT landscape. It will also give IT departments a level of responsiveness never seen before."*

**David Van Puyvelde, Platform specialist, Salesforce.com**

*"At T-Systems we recognise the findings of the survey with our own customers. Cloud computing is not a hype. Going up the value chain from IaaS to real SaaS is the way forward in the coming years; especially SaaS, including software licences on a 'pay-what-you-use' basis."*

**Martin van der Pol, Head of Team Consulting CSS, T-Systems**

*"We recognise many of the questions and issues (perceived or real): the survey indeed reflects the atmosphere in (and state of) today's market. Cloud computing is approaching much faster than is commonly assumed. In fact, most of us are already using cloud without realising it."*

*"In our experience, most of the fears can often be taken away. The issues of security and privacy are justified; however, the market should investigate the available options unbiased."*

**Joost Metten, CEO, Terremark Europe**

# Appendix

## Survey method and acknowledgement of sources

A solid base of data was provided as 125 participants from over 100 organisations located in the Netherlands participated in the survey. Almost all participants were decision-makers (business managers and executives) within their organisations. This group contained participants from organisations of different sizes and from a variety of industries.

The survey was performed using an online questionnaire as well as conducting one-to-one interviews during March and April 2010.

The distribution of participants with respect to size and sector is detailed in the table below:

Total participants	125
<b>Organisation size (number of computer users)</b>	
More than 5,000	42%
1,000 - 5,000	18%
100 - 1,000	21%
Less than 100	19%
Total	100%

<b>Organisation sector</b>	
Professional services	27%
Financial services	24%
Public sector and healthcare	21%
Manufacturing and industrial markets	10%
Other	19%
Total	100%

Source: KPMG the Netherlands, 2010



## Project team

### **Authors:**

Mike Chung and John Hermans

### **With valuable support from:**

Roy van der Veld, Egge de Jong,  
Kai Hang Ho, Edo Roos Lindgreen,  
Pieter Ceelen, Herko Koekkoek,  
Willem Jan Paardekooper,  
Jochem Pasman, Loek Sanders,  
Dennis van Ham, Bart Bastiaans  
and Frank Engel

## Additional references

- OECD, OECD Information Technology Outlook 2008, 2008
- KPMG, Audit in the Cloud, Security audits versus cloud computing, 2010
- Mike Chung, Informatiebeveiling versus Software-as-a-Service, EDP-Auditor, 2009



## Contact us

### **KPMG**

Laan van Langerhuize 1  
1186 DS Amstelveen  
The Netherlands

P.O. Box 74555  
1070 DC Amsterdam  
The Netherlands

### **John Hermans**

Tel. +31 (0)20 656 8394  
Mob. +31 (0)6 5136 6389  
hermans.john@kpmg.nl

### **Mike Chung**

Tel. +31 (0)20 656 4034  
Mob. +31 (0)6 1455 9916  
chung.mike@kpmg.nl

The information contained herein is of a general nature and is not intended to address the circumstances of any particular individual or entity. Although we endeavor to provide accurate and timely information, there can be no guarantee that such information is accurate as of the date it is received or that it will continue to be accurate in the future. No one should act on such information without appropriate professional advice after a thorough examination of the particular situation.

© 2010 KPMG Advisory N.V., registered with the trade register in the Netherlands under number 33263682, is a subsidiary of KPMG Europe LLP and a member firm of the KPMG network of independent member firms affiliated with KPMG International Cooperative ('KPMG International'), a Swiss entity. All rights reserved. 108\_0610