The small business guide to cloud computing

What is cloud computing and how can it help smaller companies save money while improving operational efficiency?

IDG Connect

in association with Google Enterprise

Introduction

While you have almost certainly heard the phrase 'cloud computing' being bandied about in recent times – you may have even tried a few different services such as Gmail – there is a fairly good chance you'd be hard pressed to define what 'cloud' actually means.

Cloud computing, like many aspects of the technology arena, has evolved and during this process has become known as a variety of other names before 'cloud' became the front runner. However, this evolutionary process has lead of a raft of confusion. Coupled with this is the fact that there are a plethora of explanations around cloud and what exactly it is. However, some of the most widely accepted are from technology analyst companies.

Analyst firm Gartner defines cloud computing as "a style of computing where scalable and elastic IT-related capabilities are delivered as a service to consumers using internet technologies."

Fellow analyst company IDC prefer to split the definition onto two pieces, referring to cloud services as "consumer and business products, services and solutions that are delivered and consumed in real time over the internet" and cloud computing as "an emerging IT development, deployment and delivery model, enabling real-time delivery of products, services and solutions over the internet. (i.e., enabling cloud services)."

Essentially, at its most commonly understood, cloud computing is based on the concept that IT, and specially software applications, can be delivered as a service over the internet. Documents, emails, applications, security and other business data can be processed, stored and secured in the cloud, making them available from any computing device in real-time.

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Gartner

This is reflected in Google's pledge to what the cloud is, in an exert form the official Google blog: "In 2011 we are committed to bringing customers beyond the current notion of cloud computing to a world we call 100% web - where business applications like Google Apps are delivered over the internet and accessed in a web browser. The applications are stored centrally on a multi-tenant infrastructure designed to be highly scalable, secure and reliable.

We believe that 100% web is the future of the cloud computing model, and brings substantial benefits for companies that no other IT model can provide in terms of simplicity, cost, security flexibility and pace of innovation."

Unlike traditional IT systems, genuine cloud applications require no more infrastructure than an internet connection and the devices to access them, enabling companies to reduce upfront capital expense and cut maintenance costs.

Looking at these definitions, it rapidly becomes clear that cloud computing does not refer to a specific technology but to a general way of implementing technology to run a business.

"[Cloud computing is] consumer and business products, services and solutions that are delivered and consumed in real time over the internet"

IDC

Cloud model growing and maturing

Regardless of the definition, industry experts all agree that cloud computing is growing and maturing, and will continue to do so for the foreseeable future.

A recent report from IDC, IDC Predictions 2011: Welcome to the New Mainstream highlights that cloud use by SMEs is expected to surge in 2011, with adoption of some cloud resources topping 33 per cent by year's end.

Similarly, an earlier report conducted by market research agency, Opinion Matters on behalf of SME internet service provider EasyNet Connect, shows a significant rise in the acceptance of cloud computing among SMEs, with the proportion of businesses refusing to use cloud computing dropping by about a half. Whereas in 2008, this figure was 53 per cent, now just 27 per cent share this view. This reflects a growing awareness among SMEs of what exactly cloud computing is, and the benefits it can bring to small businesses.

Easynet's study revealed that, over the course of 2010, the level of SMEs using cloud computing was expected to rise significantly, with 37 per cent of respondents expecting to adopt some form of cloud computing by the end of the year – adding to the existing 13 per cent who already do. Furthermore, nearly three quarters (73 per cent) of SMEs were planning to make the switch to cloud computing within five years, compared to 47 per cent at the end of 2008.

According to Dave Girouard, President of Google Enterprise writing on the Google Enterprise blog:

"2010 was the year cloud computing went mainstream and the conversations moved beyond 'this is a way to cut costs' to 'this is a better way to run my business.' While many IT vendors have now adopted (or co-opted) the term 'cloud computing' to describe a wide variety of technologies, most don't deliver on the true promise of the cloud. Hosting single-tenant server products in a data centre is not cloud computing. Nor is requiring customers to install thick client software. These solutions lock-in customers to multi-year release cycles, leave them with the significant costs of managing client software and expose sensitive data on insecure devices. In 2011, we are committed to moving beyond the current notion of cloud computing to bring customers to a world we call 100% web."

While more and more small businesses are adopting cloud computing, it's clear that many are still unsure of what it is, how it relates to their specific business sector and most importantly how it can benefit them. This paper will help to fill in the gaps and provide a simple insight into cloud computing for small business.

The drivers behind cloud

Cloud computing represents a convergence of several drivers coupled with the overarching benefit of offering cost-effective solutions to key business demands. These drivers can be broken down into three broad categories; societal/ organisational, economic and technological. These overlap in some places, but all converge to create a perfect storm that helps make this the right time to consider adopting cloud computing.

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Our everyday lives are changing at a fundamental level. As a society we are increasingly online, both in our homes and while out and about, making us more connected, more engaged and increasingly available. These trends are also seeping into businesses of all sizes, which are becoming increasingly mobile, collaborative and demanding greater levels of flexibility and scalability.

Economically, the bursting of the dot com bubble at the turn of the century combined with the more recent global recession has created a time when people are a lot more wary about any IT investments they make. It is generally accepted that, in an average organisation, around 70 per cent of the IT budget is spent on "keeping the lights on" – routine maintenance and upkeep costs just to maintain the status quo. This is unsustainable and has to be addressed.

The accelerating pace of technology is driving many of the above factors. Ever-faster fixed-line and mobile internet access, smaller and more powerful computing devices and a growing number of services and applications being delivered over the web have all helped to make us more connected with a greater desire for always on access and the ability to process data for less. More importantly, this has shifted the focus away from the technology itself and over to what the technology can deliver.

Why small businesses look to the cloud

A major challenge for small businesses, especially those just starting out, is the upfront cost of IT infrastructure and the huge costs incurred managing IT, when they could be saving cash and investing it in other areas that are core to their business. Cloud computing significantly reduces the need for costly infrastructure associated with traditional, on-premise software and the additional management overheads required.

These benefits can be categorised as follows:

Cost: Unlike traditional IT systems, cloud applications require no more infrastructure than an internet connection and can even work wirelessly on mobile devices This capability enables companies to reduce upfront capital expense and slash maintenance costs. Tools such as Gone Google can give you a good indication of the potential savings that can be realised by moving to the cloud.

Mobility: Having access to email, documents, contacts and calendars while out and about can help your staff keep in touch with customers and remain productive when they are not in the office. And, there is very little retraining for your staff to use this technology; the familiarity remains the same – it's just the delivery method that has changed.

Speed: IT departments don't have to go through the lengthy process of building IT infrastructure and deploying software to multiple of computers when using cloud services. Instead, they subscribe to services and receive them.

Reliability: The cloud computing provider is responsible for maintaining and upgrading the infrastructure. This means greater security and higher levels of uptime, leaving your IT staff free to focus on more important core business processes, safe in the knowledge that software and hardware refresh cycles are already taken care of.

Scalability: You only have to pay for the resources you use. Instead of buying hardware, software and consultants to set up and run applications, businesses can pay a cloud-based provider on a per-user per-month basis, and add or subtract capacity as the load dictates paying only for what they use. This means the services you use can be scaled up or down as required, so as your company grows, your IT systems can grow with you, with very little hassle or cost.

Innovation: small businesses can often not afford huge software installations, and with cloud they no longer have to. Small businesses can now get the very latest versions of the software they need at all times, with no refresh cycles, so they are always working on the very latest technology to help drive their business forward.

Keeping your data in the cloud

Despite the numerous advantages of cloud computing, there are of course challenges that still linger, primarily around security, privacy, compliance and supplier lock-in.

Data security and privacy is an oft-cited reason for wariness toward cloud computing even for smaller businesses that don't often boast all the redundancy capabilities of larger businesses. Sceptics argue that once your data exists out in the cloud, you are hard-pressed to ensure no one else has access to it or to get it back if you want to change providers. This also includes the issue of uptime – ie; how your service provider ensures that the internet doesn't 'go down' and what guarantees are there for this. This issue may be causing more than a few firms to delay adoption of the cloud, but needn't be an insurmountable obstacle. In fact, when it comes to securing your information in the cloud, top tier cloud providers have such stringent security protocols and security service level agreement, the data is often seen as more secure than many small businesses would provide for themselves – especially when it comes to area such as disaster recovery and retrieval.

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Organisations also need to consider which applications they put into the cloud will then deliver the best Return on Investment (ROI). Cloud computing is as much about having the power and flexibility to meet particular needs as and when they arise, as it is about ongoing business success and efficiency. So businesses need to think carefully about how the technology could help to meet strategic objectives.

All of these challenges can be addressed and overcome through the selection of the right, trusted and reliable cloud computing partner. It's important to ensure elements of the contract are suited to your needs, for example that there is a stringent service level agreement that details data backup and redundancy measures, a guaranteed level of uptime, and clear export protocols for example, this way, companies can ensure that their critical business data is just as safe, if not safer, in the cloud as on-site.

One way of doing this is to seek advice from others. Cloud computing services have a strong and loyal community following. Companies should find out if anyone else in their business community has implemented cloud computing and look to learn from their experiences and emulate their successes.

The future of cloud computing

As cloud computing continues to mature and evolve, it is a trend that we will see develop into the foreseeable future.

According to the PEW Research, Future of Computing Report, a solid majority of technology experts and stakeholders expect cloud computing will become more dominant than the desktop in the next decade.

While the desktop computer is not set for extinction any time soon, the report foresees a hybrid life arising within the next decade, as some computing functions move towards the cloud and others remain based on personal computers.

The vast majority of those polled for the research said that by 2020, most people will not do their work with software running on a general-purpose PC. Instead, they will work in internet-based applications such as Google Docs, and in applications run from smartphones. Cloud computing will continue to expand and come to dominate information transactions because it offers many advantages, allowing users to have easy, instant and individualised access to tools and information they need wherever they are, locatable from any networked device.

The generation entering the workplace today have never known a world without computers in their living rooms, internet on their mobile phones and networking without using social media. And in order to entice this new generation, according to the Google Decisive decade report, 68 per cent of those surveyed believe companies will have to offer the very latest in technology and flexible workspaces to attract and retain the brightest workforce – and cloud computing is a fundamental foundation for this.

Synonymous with this new generation is their behaviour within the workplace - as companies seek to become ever more innovative, to drive new ideas and new services and products, employee collaboration will be instrumental, using, sharing and changing documents and ideas together using cloud computing as a facilitator.

Ultimately technology and the onset of cloud computing will change the way we all work in the future, ensuring anywhere, anytime access to the information and the people we need in order to get things done and drive business growth.

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PEW Research

Conclusion

Technology has to be seen for what it is – an enabler of the business processes layered on to it – and cloud computing is no exception. Technology was on the cusp of becoming a hindrance to many small businesses because of cost, unreliability and complexity. Looking to the cloud to offload commodity technical services, such as patching and upgrades, provide higher level services such as security and uptime, and for only paying for the IT you actually use, puts IT back where it should be: at the heart of the business, but not dictating the business.

"There has never been a better time for SMEs to make the switch to cloud computing."

By choosing a partner that can provide the accessibility, security, scalability, flexibility and peace-of-mind that exceeds what you could expect from in-house IT, you can reap the full benefits of cloud computing. By turning costly IT infrastructure management over to the cloud, a small business can spur innovation from the IT staff and focus its limited resources on the primary objective of growing the business.

There has never been a better time for SMEs to make the switch to cloud computing. The technology is low-cost; scalable, easy to implement and use. Such is its flexibility that it can be used at the heart of business strategy helping to drive cost efficiencies, operational effectiveness and ultimately competitive edge. For SMEs, life in the cloud is too compelling a prospect to ignore.