Cloud computing myths
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Cloud computing is the delivery of ICT services over the internet on demand. Consumers no longer need to buy, build or install expensive computer systems. Users simply access computing resources as a utility service via a wired or wireless network – from the cloud. New innovations often bring with them both hype and criticisms and cloud is no exception. The purpose of this guide is to tackle some of the myths and misconceptions (both good and bad) in order to promote a better understanding of cloud services.
Is the cloud secure?

Some will tell you the cloud is not safe and cannot be trusted - this is emerging as one of the biggest myths about cloud computing.

All ICT has benefits and trade-offs which you should consider. The key is to compare the options in order to assess their relative benefits and risks. For instance, are your local computers, servers and back-up devices better protected against data theft or damage than cloud-based alternatives? For many small businesses the answer is likely no, for larger enterprises the answer might be yes. In either case it will depend on your situation.

It is also important to understand that cloud service providers, due to their scale and servicing of multiple customers, can invest far more heavily in security than the average stand-alone business. Large technology companies have dedicated security teams, use sophisticated encryption and implement best practices to keep their services and your data secure.

So when thinking about whether cloud meets your security needs, it is also useful to compare it to the alternatives. See Questions to ask about a Cloud Service for further guidance on questions you could ask, or information you could seek, to help compare the features of a cloud service.
Is the cloud reliable?

- No system—whether hosted in-house or in the cloud—is available 100 per cent of the time.
- Given their scale cloud computing services are typically designed to provide higher redundancy and availability compared to a standard corporate IT environment. While this same level of redundancy or availability is possible to achieve in-house or with dedicated hosting, it is generally costly. Cloud service providers also have very strong commercial incentives to ensure your services stay up and running—after all, they depend on their customers to survive.

- Don’t be put off by high profile cloud outages you might hear about in the news from time to time. For the most part these are no different to the in-house outages that don’t make news. You know the ones—such as when an internal network for a small business goes down and the IT guy is on holidays? Those outages can be devastating because there isn’t the same level of operational support, redundancy and resiliency that cloud service providers can offer to minimise the disruption.
Is the cloud really always cheaper?

There are many who will say cloud computing is always cheaper than traditional ICT alternatives.

Due to the different payment models for cloud computing and traditional ICT it can often be difficult to compare the true cost of using a service or ICT solution over its lifecycle. When you compare these costs over the lifetime of a service cloud computing will sometimes be cheaper, sometimes cost the same, and sometimes cost more. In short, it depends on the situation and the service.

For some ICT applications cloud computing will be very attractive cost-wise, such as for temporary computer processing power. For other applications you will need to do the sums to see how the costs compare.

So if your primary reason for considering cloud is that it will be dramatically cheaper, then you might find yourself disappointed. But you shouldn’t be - there are many other great reasons to consider cloud services, for more information see [www.digitalbusiness.gov.au/tools/cloud-computing](http://www.digitalbusiness.gov.au/tools/cloud-computing).
Can the Australian Government access my data in the cloud whenever it wants?

Given the widespread adoption of digital services the Government’s access to data stored in the cloud has been the subject of much media focus. It is important to understand that under Australian law the Government is not allowed to access your communications or data except in circumstances permitted under law. These circumstances will generally relate to matters of law enforcement or national security. For more information about applicable laws see Legal Tips for Small Businesses using Cloud Services.
Can Foreign Governments easily access my data when it’s stored offshore or with a transnational cloud provider?

Like Australia, most foreign countries have laws that allow access to stored electronic data for the purposes of law enforcement and national security. In some cases these laws allow law enforcement and national security agencies to access information held overseas. Whilst these rules vary from country to country, it’s still important to research the reputation of your cloud provider and understand what rules might apply in that jurisdiction. As an example, we will explore the applicable laws of the United States, given many offshore cloud services are provided by US-based providers.

What is the US Patriot Act?

The US Patriot Act introduced changes designed to assist US authorities to investigate matters relating to international terrorism and espionage. This includes seeking access to electronic records stored with US based cloud providers (either operating in the US or offshore). However, before requesting access to any records, US authorities must apply for and obtain a warrant through a Court. Any application must include a statement of facts demonstrating there are reasonable grounds to believe the records sought are relevant to an investigation to protect against international terrorism or espionage.

How often are warrants used?

For example, in 2010 the U.S. government made 96 applications to the Foreign Intelligence Surveillance Courts for Orders granting access to business records. Of those requests, 80 percent were for Internet records.¹

Cloud Computing is just marketing hype

The truth is every new innovation comes with a bit of hype – so you are justified in being cautious. However, cloud computing is a reality and is radically changing the way many internet services are delivered.

Cloud computing is not a new technology, but rather a new way to deliver ICT services by using the internet. The widespread availability of fast and reliable internet has made it possible to deliver ICT on a larger scale and in a more convenient way to end users. As a result, companies have been investing billions of dollars in cloud infrastructure in response to consumer demand. This demand is driven by a number of enduring trends that relate to basic needs:

- The desire to acquire ICT as a service and pay only for what is used
- Shifting capital expenditure to operational expenditure
- The need to access files and services from smartphones and tablets

Cloud is not a solution for everything, but it is certainly more than just hype - it is a viable option for delivering many types of ICT services, and worth considering.

The cloud is only for storage

Many people believe that cloud computing is just for storing information. But it offers much more.

Cloud services enable users to access ICT applications through a web browser or a mobile app. The term ‘cloud’ refers to the fact that users no longer need to buy, build or operate sophisticated hardware or software. This enables users to acquire sophisticated ICT services with greater flexibility and less complexity.

Examples of productivity enhancing services include:

- Customer Relationship Management (CRM) systems to manage customer interactions, sales and orders
- HR, payroll and accounting services
- Document collaboration tools and applications.

For more information about the benefits of cloud please see [www.digitalbusiness.gov.au](http://www.digitalbusiness.gov.au).
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