

INSIDER GUIDE:

GETTING STARTED WITH **THE** **CLOUD**



INTRODUCTION TO THE CLOUD



So you have no doubt heard about the 'cloud' that is taking the world by storm and at some level you instinctively know that you should be leveraging it but you really don't know where to start. Besides that everyone's idea of the cloud seems to be different and it's hard to know who to believe. If it all seems too confusing then hopefully we can demystify it for you.

NOT ALL CLOUDS ARE EQUAL



The first thing to recognise is that the word 'cloud' means very different things to different people. One person will take their server and put it in a data centre and say they have 'the cloud' and technically they will be correct. But is that what all the fuss is about?

As you are no doubt aware, IT people love to use acronyms and when it comes to cloud they have had a field day. You may have heard of Haas/laas, Paas and Saas (collectively hardware/infrastructure, platform and software 'as a service'). Then add to that public and private cloud and it's no wonder people get confused.

Fortunately someone came up with a really smart way of explaining the different cloud offerings by using something we all know – pizza!



THE 'AS A SERVICE' CONCEPT



Consider your options when purchasing a pizza. You could purchase the ingredients individually, make the dough, add the toppings and cheese, put in in your oven, bake it and then sit down at your dinner table and eat it.

Well that's kind of like the 'on premise' IT model. You purchase your own servers, perhaps through your IT provider, install the operating system, install your line of business applications, install the servers in your own rack, pay for the electricity to keep them cool and connect to them from your pc on your local network. That's the way things used to work before the 'cloud' and many companies still operate effectively using that model.

But if you take the pizza analogy, what you really want is to eat the pizza and there are others to enjoy a pizza besides making it yourself. You could purchase a pre-made 'raw' pizza from the supermarket and then heat it up and eat it, kind of like putting your server is someone else's 'data centre (hardware as a service).



Alternatively you could order a take-out and have it delivered. You no longer need an oven or electricity, you just need a dinner table and plates (platform as a service).

Finally you could go out to a restaurant, order a pizza and eat it at their table using their cutlery (software as a service).

All of the above methods give you what you want (a pizza ready to eat) but in each case you gradually hand over control of the process to a third party. That's exactly how the cloud works. What you really need is the functionality that an application provides and there are many ways to achieve that.

PUBLIC VS PRIVATE CLOUD



There are many variations to private cloud but the common factor is that the resources that you are using are dedicated to you and in the case of infrastructure as service, managed by you. So that may mean dedicated space in a data centre or dedicated resources on someone else's physical server.

Either way you connect to server infrastructure that is remote from your office.

In the case of private cloud most companies select local data centres or hosting providers so that do not have the potential issues of speed when connecting to infrastructure in another city or even country. Very often the IT provider will manage the applications or virtual servers themselves while the hosting provider will manage the hardware and the environmental factors like electricity and physical security.

On the other hand, when people refer to public cloud they are typically referring to cloud infrastructure managed by a global company like Microsoft or Amazon. The services provided by these vendors are typically similar to utilities. The same 'vanilla' service is provided to everyone and if it goes down everyone is affected in the same way. You have almost no ability to customise the solution, it is designed by the vendor for public consumption on a large scale.



BENEFITS OF THE CLOUD



Now that you have a better understanding of the different options you may be wondering what the benefits are?

The most common expectation is that cloud is much cheaper than on premise solutions and while that is true in some cases, more often than not cost reduction is not a significant benefit. There however some very real benefits of moving to the cloud and the most important ones are discussed below:

Agility – cloud services can be deployed really quickly and applications can be moved from one cloud platform to another so as a business you can be really responsive when required.

Elasticity – most cloud billing models are based on a consumption model and are subscriptions so you can scale up and down very easily. This type of model is great for cash flow and it also allows you to run software trials and proof of concepts without investing in your owning testing infrastructure.



Mobility – the desire to create mobile workforces is possibly the strongest driver for cloud adoption with the increasing cost of office rentals and the drive to create an anywhere, anytime, any device environment. This trend is particularly evident in the area of sales where inbound marketing and sales automation applications are changing the game in many industries.



Disaster recovery – most datacentres have a high level of redundancy built into them to mitigate the risk of hardware failure and because data is typically mirrored across multiple data centres (in the case of public cloud) you don't need to invest in costly backup infrastructure. You also get high availability guarantees with public cloud solutions so disaster recovery becomes a non -issue.

Software updates – software vendors that provide hosted applications typically maintain and update the applications themselves so you always have access to the latest version and you don't have to worry about updates or the downtime associated with updating applications hosted on premise.



Security – while security concerns are often at the forefront when considering moving to the cloud, the reality is that all public cloud and most private cloud offerings have sophisticated security built into them. There are however some industries that have legislative requirements that prevent certain data from being stored in the cloud so it's always prudent to check these for your industry before moving your data into the cloud, especially if the data is hosted in another country.

Environment – cloud solutions have a far larger carbon footprint per capita so cloud is great for environmentally conscious businesses.



FACTORS AFFECTING YOUR DECISION TO MOVE TO THE CLOUD



While the benefits of moving to the cloud are very clear, it is important to stress that few businesses are in a position to move to the cloud at a moment's notice. Like any significant business decision, the costs and benefits need to be carefully weighed up and cloud migrations should be carefully planned. Here are some things to consider around timing your move to the cloud:

Previous investment in physical infrastructure and software

If you have recently invested significantly in physical infrastructure then you may wish to get a return on that investment before abandoning it for a cloud solution. Also, some software license models like Original Equipment Manufacturer (OEM) 'bind' software licences to the physical infrastructure so the software cannot be transferred to cloud infrastructure. Some not for profit organisations get access to heavily discounted software licenses from certain vendors, a benefit which is not necessarily available in the Service Provider Licensing Agreement (SPLA) cloud licensing model while other organisations are tied into fixed term licensing agreements. All these factors need to be considered and sometimes cloud migrations are best aligned with the expiry of licensing agreements.

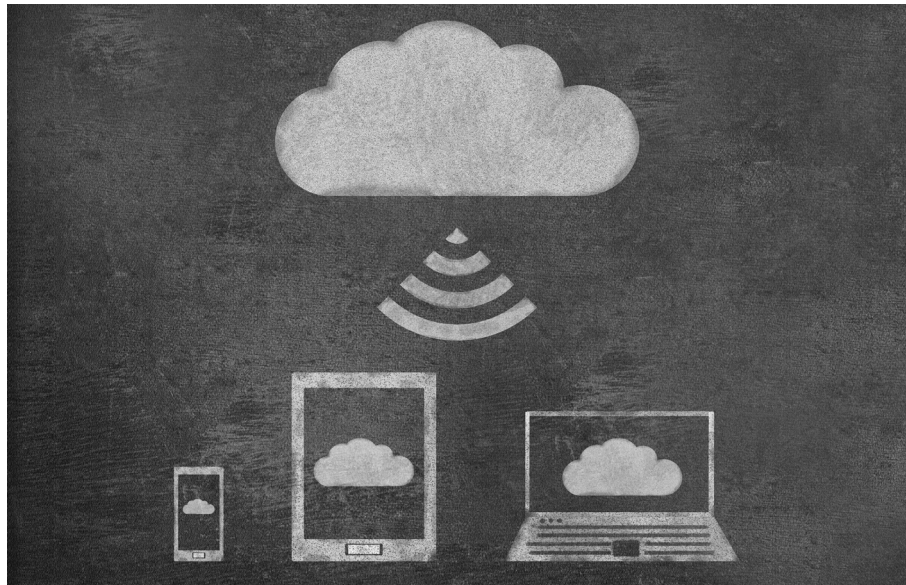
Line of business applications

Some applications are not designed to run in a cloud environment and moving applications to the cloud can also break things like email integration, scanning and printing. Its best to check with all your relevant software vendors that the application are cloud ready or alternatively consider moving to applications that are designed to run in the cloud. Some applications are able to run in a hybrid configuration (like Microsoft Exchange) where you can get the best of both worlds.

Demographics

Sometimes businesses are perfectly capable of operating in the cloud but are simply not good candidates to leverage the benefits. Fast growing businesses with offices in multiple locations are often able to leverage shared cloud resources and conversely single location businesses with a stable head count are often better off with an on premise environment.





Internet connectivity

Lack of decent internet connectivity is the most common 'cloud killer', especially in remote areas. While internet speeds can sometimes be improved through the use of Wide Area Network (WAN) accelerators or compression technologies like Citrix, a slow connection will ultimately lead to a lot of frustration for the end users and user experience should always be tested before taking the plunge. There are also some businesses that generate particularly large files (like architects using 3D applications) which are better suited to on premise environments.



PEOPLE CULTURE

While recent graduates are 'born in the cloud' and typically demand access to cloud based applications, the opposite can be true particularly for the baby boomer generation. The fear of change can be a significant obstacle when it comes to introducing cloud technology and businesses should do their homework before imposing changes that are likely to meet with significant resistance. We would recommend companywide cloud literacy testing as part of any cloud migration change management process.



SECURITY AND COMPLIANCE



One final word of caution: moving to the cloud does not eliminate compliance requirements like data retention and privacy. If anything cloud vendors should be required to demonstrate full compliance with relevant legislation before you engage them. This is particularly important in the medical profession where there are specific requirements around storing patient records for example.



WHAT NEXT?



Hopefully after reading this article you will have a pretty good understanding of what the cloud is and how cloud technology can benefit your business. If you feel you are a good candidate to leverage the cloud then the next step would be to plan your cloud migration.

We would recommend engaging a suitable party to complete a 'Cloud Readiness Assessment' so that you can identify the optimal time to migrate your environment whilst mitigating all associated risks.



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