

What is the Cloud?



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What is the Cloud?



Cloud Computing

“Cloud computing is a model for enabling convenient, on-demand network access to a shared pool of configurable computing resources (e.g., networks, servers, storage, applications, and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction. “

[Definition taken from National Institute of Standards and Technology]

In moving to the cloud, you can choose to implement any combination of several cloud models:

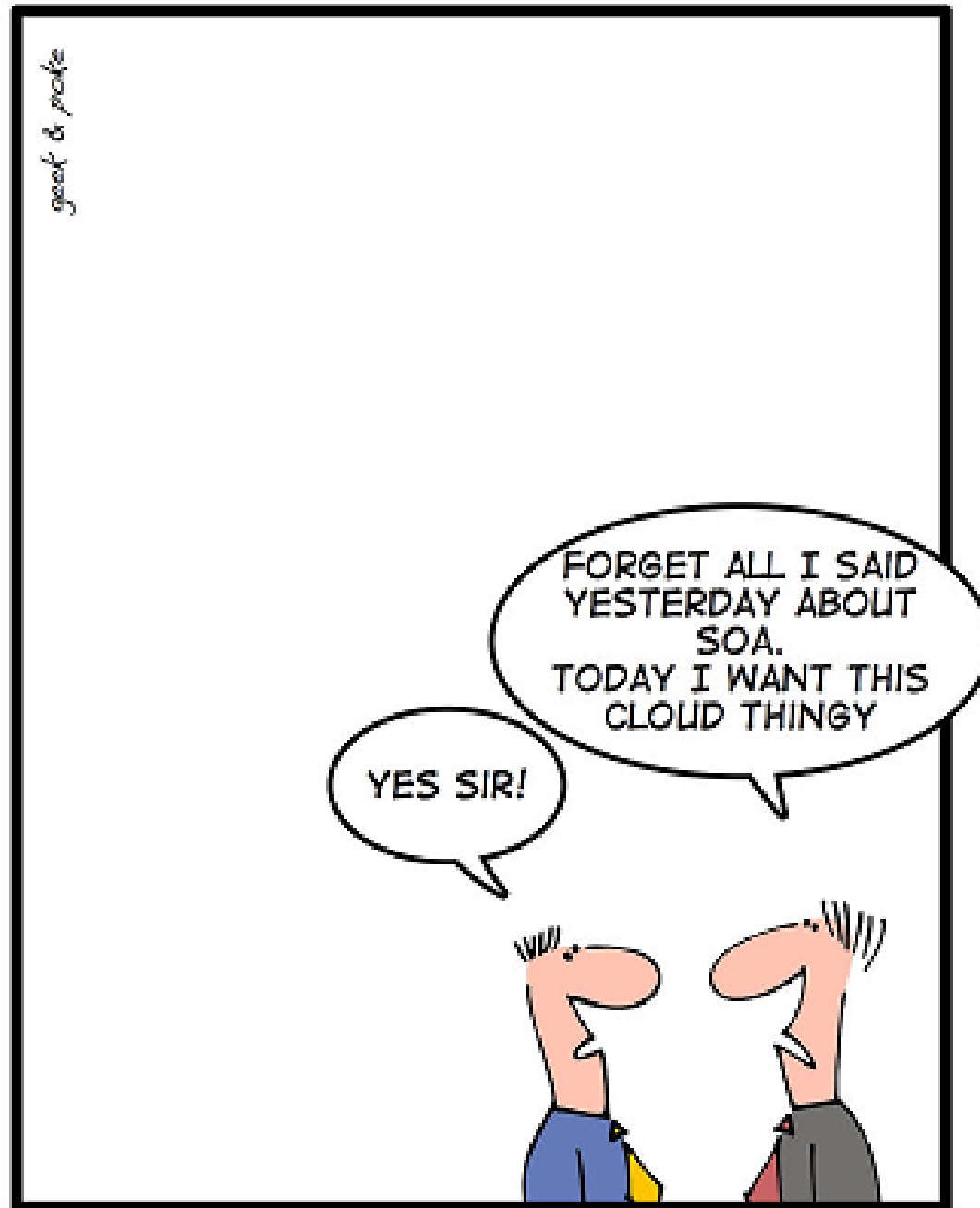
Public Cloud: This typically describes complete services offered by third-party providers. The cloud infrastructure is made available to the general public or a large industry group and is owned by an organisation selling cloud services.

Private Cloud: A “private” cloud involves a cloud infrastructure operated solely for an organization on-premises or via dedicated hardware from a third-party host (off premise).

Hosted Cloud: The cloud infrastructure is shared by several organisations and supports a specific community that has shared concerns (e.g., mission, security requirements, policy, and compliance considerations). It may be managed by the organisations or a third party and may exist on premise or off premise.

None of these models are all-encompassing. Part of the cloud’s unique power is its flexibility. Cloud models are designed to work together, so you can use the right models for your organization as well as for individual workloads. This can lead to **Hybrid Clouds** (a composition of two or more clouds.)

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Is it just marketing hype?

Yes, there is much publicity around cloud based services at the moment – whether you are reading an article or viewing product material for e.g. software applications or are simply watching TV and see an ad for accessing new applications on your iPhone or Blackberry. Given the high profile and growing number of cloud based services and applications – it is far more than just ‘marketing hype’ and is, therefore, a way of accessing technology that should be explored and (at least in part) considered. Cloud computing – with its ability to potentially deliver scalable services, cost-effectively – may present an opportunity to transform how your business and its people work.

Whilst taking the potential advantages on board – as with all technology decisions, it is wise to tread carefully and ensure any decision to move part or all of your services into the cloud is taken having understood any potential drawbacks and / or limitations.

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What can it offer my business?

Currently any IT purchasing decision is based on a large amount of guess-work around how much to buy. Do you purchase licenses and server capacity to meet today's need or tomorrow's potential demand? One of the potential advantages of moving some services to the cloud is the improved scalability – and ability to reduce up front costs:

- « **Reduced Costs** – lower total cost of ownership; reduce IT hardware, software, and/or service costs
- « **Improved Agility and Reliability** – enable faster time to market; improve availability and scalability; improve disaster recovery and data backup
- « **Ability to scale rapidly** – up and down
- « **Deploy services only when and where they're needed**
- « **Deliver rich experiences across the PC, phone, and browser**
- « **Generate efficiencies and cost savings** by paying as you go for only the services used

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What do I need to consider before adopting the Cloud?

- « **Why and how are we going to connect** Public and Private Clouds, and my On-Premises infrastructure?
- « **Data Concerns** – data portability, privacy, sovereignty
- « **Data Migration** – moving data both into and perhaps one day out of the cloud
- « **Availability concerns** – can I trust the cloud yet; should I make my own backups; is there a service level agreement from my Cloud provider that meets my business needs?
- « **Control of my data** – who has access and control?
- « **Network bandwidth and reliability** – at the Cloud provider, my office location(s) and the network in-between (e.g. the Internet); is there enough bandwidth; what happens if I lose connectivity; do I have a service level agreement for my office Internet connection?

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Conclusion

The very basic concept of Cloud Computing isn't particularly new—everyone of us has been using a global and pretty secure Cloud based service ever since we started using ATM machines to withdraw money. Numerous businesses including many of our clients are using the technology building blocks behind Cloud computing such as server and desktop virtualisation, storage area networks, automation, templates—and are benefiting from increased performance and productivity whilst reducing costs through consolidating, standardisation and centralisation of infrastructure and business systems.

Cloud Computing is simply a generic term that represents a network of computing resources (server hardware and software, storage, etc). Whether these computing resources are known as On Premise, Public, Private or Hybrid is simply stating whether the technology supporting your business systems resides on your premises; OR hosted and managed on shared infrastructure where your business systems and data sit alongside those belonging to other companies across the country or even globe; OR hosted off-premise on dedicated infrastructure (i.e. not shared with other businesses) (owned by you or third-party) and managed by either internal IT or third-party; OR any combination of the above.

The basic questions you need to ask yourself include: Do I want to own the equipment? How do I keep sovereignty of my business systems and/or data? Should equipment reside at my premises or in a data centre? If in a data centre, do I want my business systems and data to reside on dedicated or shared infrastructure? Does my Internet connection have enough bandwidth and appropriate SLA? Am I happy with a one-size-fits-all approach or do I need bespoke design, customisation and support to meet my business needs? What am I trying to achieve through Cloud Computing in the first place?

If your key goals are to drive down costs and improve productivity, but have concerns over Cloud security etc, these goals can still be achieved through implementing the technologies behind Cloud Computing as an On Premise solution.

And remember, you don't have to jump in with both feet, initially you could explore Cloud for part of your business systems, e.g. email.



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Want to discuss your Cloud Strategy or any other aspect of how technology can support your business

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Whether you have a Cloud Strategy or the subject of Cloud is new to you, we welcome your views and questions. This is an evolving area and one which will have significant impact on the way we access and use technology in the future. As with all technology, it is important to review the options available and identify the potential implications and opportunities within your business. We cannot cover everything within this brief overview document – this is simply a snapshot of the areas to consider with cloud technology.

As founder of Tek Response, an established multi-vendor accredited company I am proud of our history of delivering IT solutions which are individually tailored to our clients needs. A key goal in our business is to develop a long term partnership with clients and through our dialogue with them to understand their business needs and challenges and provide them with the advice and expertise they need when making choices about the appropriate technology for their business. I believe this is why today we work with such a diverse range of companies spanning many industry sectors.

My goal in producing these short guides is to help inform our clients a little about current technology trends; how these can improve productivity and performance, whilst reducing costs; and to perhaps help de-mystify some of the jargon and information overload which has become common in today's "communication rich" environment.

If you have any questions or would like to discuss your Cloud Strategy or any other aspect of how technology can support your business, please do contact me. I hope this information has been useful and welcome your feedback into any improvements you would suggest or topics you would like to see covered.