Cloud computing…umm…err…what's that?

'Cloud Computing' is the new great thing that will save our souls. Of course, the consultants can tell you what it is, as the dollar signs whizz round in their eye sockets, but most of them talk in the language of the land of fluff. So what is 'Cloud computing' to the rest of us?

Apparently, cloud computing is the next evolution of how we will work over (or, within) the internet. "It's become 'the phrase of the day' and we are all talking about it," says a senior analyst of one of the biggest analyst firms. He is echoing many of his peers. However, as we see every time a new concept arrives, everyone seems to have a different definition – and when you ask them you get theirs.

The words 'cloud' and 'computing' already have meanings to us. When we hear 'cloud', we probably conjure up images of PowerPoint slides, or architecture diagrams, which have a picture of a cloud where the internet should be. 'Computing could conjure up anything from a vast datacenter to an abacus, and anything in between. When we add the two together we form our own, very personal, impression of what 'cloud computing' might be.

Naturally, there are many analysts and vendors defining cloud computing for us – out of their mouths it seems to means exactly what they happen to be selling. Some go narrow, 'it's the virtulisation of servers'. Some go broad, 'it's anything outside your firewall'.

To some, cloud computing is about IT and what IT needs – an ability to turn on and off data and processing capacity at will and on demand. From the IT perspective, cloud computing probably encompasses any hardware or software, subscription-based or pay-per-use service that, in real time over the Internet, extends the IT Department's existing capabilities.

This implies that, as with food when 'green' became the 'next big thing' in the supermarkets and suddenly, abracadabra, with a change of packaging, new 'green' food appears everywhere, so with our IT services, server virtulisation, 'software as a service', data storage etc., become 'cloud computing services'

Clearly what 'cloud computing' is will evolve as our collective understanding and agreement evolves (by which time it will qualify for inclusion is the dictionary). Let's take a quick look at some of the common services that, today, are normally included in what we understand as 'cloud computing':

Software as a service (SaaS)

Software applications that are delivered through a browser to thousands of users with the capability to up-scale, add users etc., on the fly.

Utility Computing

This is normally understood to be the capability to access storage and virtual servers on demand, normally buying capacity rather than specific machines.

Web services in the cloud

An extension as Software as a service where the functionality to build, or add features to, useful applications/systems is delivered on demand over the internet. Google Maps, graphics engines etc., are examples.

Platform as a service

A variation of Software as a Service. The whole development environment is delivered over the internet rather than just the application.

MSP (managed service providers)

New badge for an old favourite - outsourcing (see sourcing, below) anything from virus scanning to every scrap of hardware and software to a third party service provider to manage.

Service commerce platforms

A service offering a 'portal' that users access and use from within their own environments – travel companies offer such portals as do companies who aggregate buying and offer central procurement.

Sourcing

Much of the above also falls under the heading of 'outsourcing', or 'sourcing strategy'. In other words, it gets into the cloud because it was outsourced. Perhaps we'll see a new breed of service providers rebranding as 'Cloud Service Providers'

This, though, is just the tip of the iceberg. If you find a dark corner and have a quite word with some of the service providers who are positioning themselves neatly at the forefront of the cloud computing wave you get a very different picture. The most common analogy that is being used to describe the new world of cloud computing is of utility companies – delivering IT as a utility, like, say, electricity. The vision of these boys have is one where you have on your company premises only the IT you actually need to touch (keyboards, monitors, mouse, telephones etc). *NO* IT department (that's right guys and gals – no IT department!) As with the other utilities, the facilities manager (sorry, director) will pay the bills and chase the vendor when service is cut off. Of course, the promise is that this will not happen – multiple redundancy, mirrored, earthquake and hurricane proof datacenters the size of Mount Everest, but underground, will ensure our service continuity. Phew!

Seriously though, the folks who are creating the new cloud computing services have worked their business models through quite thoroughly and the potential payoff from moving all our IT services out into the cloud environment certainly seems real – in terms of :

- Flexibility – like electricity, use only what you need – service on tap and service levels too (60w bulb or 100w bulb) – only pay for what you use.

- No capex – just as you see no line item on your electricity bill for the power cables and pylons, in a pure cloud computing environment you will see nothing on your bill but the 'services' you have used – capacity is just there and you just use it - and then pay for what you used.

- Security – The level of security that cloud computing firms are likely to provide as standard (for many reasons, not least because they will need to

overcome the inevitable and inherent distrust that arises when firms release from their own sweaty mitts their business critical systems) will be far higher than all but the most secure environments currently provide.

- Service levels – likely to be higher and more consistent than internal the IT departments of many firms are financed to provide.

- Value for money – we are told the cost models seem to be offering savings in the region of 20% to 60% over in-house costs, though, due to the immaturity of the market, we have been unable to verify these estimates with facts.

Obviously there are concerns: data security, data confidentiality, lack of control over business critical infrastructure, consequences of aggregation with other company's systems and infrastructure etc.,– these are just some of the issues that seem to worry potential 'cloudies'.

At the end of the day the chances are quite high that if the business model works, the price is right and the psychological obstacles overcome, the CFO will ultimately get his way.

In summary, cloud computing is looks set to be the next big thing. IT bods had better get ready for a ride – their cheese just moved!

About the Author – Mike Henry is the CIO at Elix-IRR. Previous to this, he has occupied numerous CIO and Director roles, working in complex IT environments and working on outsourcing deals around the world.