SILVER LINING

It may seem fuzzy, but the cloud concept has real potential, says Graham Oakes.

Graham Oakes: these visions are missing something

Clouds are grey, fuzzy things that rain on you. Only meteorologists can get excited about clouds; and young children who stare up at the sky and imagine the shapes they can see.

The IT industry is a lot like the latter. We've taken the deliberately fuzzy metaphor of the cloud and projected a variety of disparate visions onto it.

The cloud can be a storage infrastructure. It can be an application development platform. It can be a computing utility. Whatever my company wants to sell, I can call it 'cloud' and it will become current and sexy.

Few of these shapes that are being imagined onto the cloud are actually very exciting. As the sceptics point out, we already have storage infrastructures and application development platforms. A computing utility might differ in degree from an old, time-shared mainframe, but it isn't a fundamentally new idea.

Most visions of the cloud simply project forward our current systems, perhaps making them slightly easier to access and manage.

I think these visions are missing something. Pervasive access is good. More manageability would be great (although the cloud creates about as many management and governance challenges as it solves). But the real opportunity that cloud computing creates isn't in the cloud at all – it's in the periphery.

The reason the cloud is different to the mainframe is that it's connected to smart devices.

Under the mainframe model of computing, all truth and control lay at the centre, to be distributed via dumb terminals. But the cloud interconnects a network of devices which are capable of gathering, enriching and processing complex data sets in their own right.

Current mobile phones, for example, can gather a huge amount of information about their environment. Cameras, accelerometers, GPS chips – our phones are as much sensory devices as they are communications accessories. And when this data is combined with that from our social networks, fellow commuters, other environmental sensors and suchlike, then some really interesting applications become possible.

That's what the cloud could be – a way to provide pervasive memory and interconnectivity for smart devices.

It could help them (and hence the people using them) to understand what's going on around them and hence to know how to respond effectively to events and opportunities. It could also provide historical context, taking sensory data provided by the devices and mining it for trends and patterns that could inform future actions.

There are many challenges to this vision, both in processing the amounts of data involved and in managing concerns like privacy. But if we're going to set out a vision, let's make it a little more exciting than 'like a mainframe, only fuzzier'.

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