VIRTUAL
INSANITY?

As the fast-paced world of technology continues to evolve minute by minute, companies aiming to cut costs while improving efficiency are looking more closely to the clouds, says Nicolette Allen

As the green movement grows alongside the government's commitment towards making its IT operations carbon neutral by 2013, and the NHS' announcement that it plans to slash its carbon footprint through virtualisation and cloud computing, virtual technologies are becoming increasingly widespread – and hitting the headlines, too.

The focus on cost-cutting while improving efficiency has also been a catalyst for the centralisation and consolidation of technology deliverance, and has seen a move away from disparate desktop systems over the last few years.

But what are the drawbacks to moving technology to a virtual space; a 'cloud' system? Does the concept lack definition at this stage? Gary Barnett, partner and chief technology officer at research and consulting firm the Bathwick Group, said in a recent interview for sourcingfocus.com that part of the problem with cloud computing is that currently, it means "everything to everyone".

Instead, he argues, it helps to think of cloud computing as a spectrum: "At the one end, you have full service provision; then software-as-a-service (SaaS); then utility computing – companies like Amazon with its EC2 platform that offer computing cycles as a utility service," he explains. But whether it's SaaS or utility computing, the Cloud element implies a level of automation and virtualisation that hides the complexities associated with scaling usage up and down – a capability that he refers to as 'elasticity of supply'.

Here, we take a more in-depth look at the benefits and potential drawbacks of virtualisation, cloud computing and hosted services, according to the experts.

VIRTUALISATION

There has been a great deal of talk about virtualisation in recent months, but what might its true benefits be? IT operations are said to be responsible for something in the region of one billon tonnes of CO_2 emissions each year. One of the main benefits of

virtualisation is that it can reduce carbon emissions by decreasing the number of physical computer servers. Fewer physical servers mean a smaller electricity bill from the reduced amount of hardware and the fewer cooling systems needed.

Environmental benefits aren't the only advantage to virtual technology solutions, though. "Used in the right way, virtualisation can actually be a powerful way to drive down costs and increase flexibility – and it's certainly becoming a feasible option for growing businesses," says Ben Gladstone, CEO of IT support provider Conosco.

At a glance, these further benefits are attractive. Virtualisation can save costs by reducing the number of physical servers, increase reliability by keeping critical servers separated and reduce downtime. "By reducing the number of physical servers for example, you automatically cut your upfront capital expenditure and installation costs," explains Gladstone. "Whether you're a startup or have ageing servers, virtualisation can radically reduce your IT budget.

"Similarly, the running costs of virtual servers are lower, due to fewer physical parts to maintain and replace – and with less power consumption, they are greener," he adds.

For reliability, it's better for a business to run each of its central applications (such as Exchange or SQL) on its own server, argues Gladstone. "But few applications use the power of a whole server – most servers rarely use even 10 per cent of their capacity," he says.

"This represents a huge waste of capital, power and support costs. The answer is to get many 'virtual' servers to share one physical server so you can reduce costs as well as being kinder to the environment." A virtually perfect solution, perhaps?

CLOUD COMPUTING

The concept of Cloud computing first began to grab people's attention last year during 2009, argues Graham Beck, senior sourcing advisor at PA Consulting Group. "Understandable scepticism has matched the ballyhoo and media coverage that has been attributed to the new wonder IT solution, though," he argues. "Reality currently sits between the two extremes of interpretation."

The Cloud allows a vast amount of data to be accessed with relative ease. Also, according to Beck, it offers a greater flexibility and speed of response (whilst directing potentially overall lower expenditure away

from capital assets). "All of these things are attractive propositions in today's cash strapped, but 'give it to me now' world," he adds.

But the notion of Cloud computing is yet to completely convert the masses. What is holding it back? "It is the current immaturity of the Cloud service offerings that are effectively applying the brakes to mass take-up," says Beck.

"Questions over security, access, data placement geographically, poorly defined service levels and complicated pricing models all combine to make the seasoned IT director cautious. Entrusting the organisation's intellectual capital and corporate information to such an environment is a highly significant step."

And how will this be changed? "Suppliers of Cloud services will address this immaturity through competitive pressure and the debate will then move to a new level – what applications are best suited to Cloud use and how to connect them with the traditional IT world," Beck concludes.

HOSTED SERVICES AND SAAS

Hosted services, or Software as a Service (SaaS) solutions first started making headlines in early 2000 and have been gaining momentum ever since, as a model whereby an application can be licensed to customers for use as a service on demand.

Frank Sherlock, SVP at customer relationship management software provider Convergys says: "The hosted model allows for unprecedented flexibility. Rather than simply paying a fixed up-front license fee, customers can fund the new technology on a per-user, per month basis, or use more specific metrics, such as call completions.

"As such, organisations can closely link their software requirements to their business needs, adding users as demand grows."

A further advantage is that SaaS solutions lift the burden of in-house support, as the applications and associated data are all hosted remotely. This means companies can try out new service technologies without worrying about ongoing support once they go live.

"By using hosted services, businesses can have access to the right software from the right technology partner; ensuring vital functions are performed whilst not wasting money or labour. This flexibility will be crucial to any company wishing to make 2010 a successful year," concludes Sherlock.