

# computing

## Best-case cloud computing more than 10 years away

Performance and security issues will force companies into extended private clouds for want of something better

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Technology and security issues will continue to deter corporate IT departments from migrating internal applications and services to public clouds for the next 10 years.

Many of these will be pushed into exploring the more dubious benefits of private cloud implementations in the meantime. But these solutions arguably lack the same cost and flexibility advantages afforded by the public cloud.

“[Cloud computing](#) is over-hyped right now and will be adopted and embraced much more slowly than people believe,” said John McHugh, chief marketing officer at datacentre infrastructure specialist Brocade.

McHugh defines the ideal state of cloud computing as one where datacentre operators who need applications to run at a specific speed to cope with high demand can be backed up by rock-solid service-level agreements (SLAs), delivery and security guarantees, and provided by multiple service providers that corporate customers can easily switch between to get a better deal.

“That vision is probably 10 years or more away because there are still fundamental issues with being able to deploy and make the cloud work – this includes technical but also business controls and our good old friend, security,” he said.

Public clouds also suffer from problems with scaling the underlying network architecture to deal with peaks in application and service demand from the large numbers of people accessing them simultaneously, according to David Hill, vice president of EMEA sales at networking testing specialist Spirent Communications.

“The performance of the cloud varies significantly and is inversely proportional to their availability,” he said.

“The more available clouds are, the higher the response times – if you could get access every time, you see performance drop off. Does that mean public clouds are not there yet? I’ll leave you to judge.”

Camille Mendler, vice president of global service strategies at research company Yankee Group, counts six essential components which must form the basis of any successful cloud architecture, most of which are not yet in place.

These are physical and virtual IT services management; a next-generation datacentre storage fabric; a high-speed network; interoperability between equipment and service providers to aid customer switching; audited security and support for the IPv6 addressing scheme.

Until cloud security, management and performance can guarantee being able to inspire corporate IT department confidence, some large companies will look to private clouds to provide on-demand application and service provisioning across their organisations. But while this approach beefs up data security and service management, it may also tie them into signing contracts with individual service providers that are difficult to leave to gain a better deal.

Gartner vice president Ian Keene believes that many organisations will also use so-called cloud-bursting techniques to supplement their own datacentre resources at times of peak application and service demand.

“Some enterprises will offload the big stuff on to the cloud and keep their own datacentre in the same way they always have done, using the cloud as a top-up service and little more than that,” he said.

“Enterprises are not going to put their trading floor applications into the cloud because of latency and privacy issues, but they will put email in there,” added Trevor Dearing, head of enterprise marketing at network equipment vendor Juniper.

Mendler says that many firms are also building new business models from the ground up around cloud service provision, using [infrastructure](#) as a service to shore up their own software applications.

“Without the cloud, they would not have the [IT] horsepower for that business,” she said.

McHugh agrees that this type of cloud service will attract smaller businesses, but says that larger organisations want more in the way of performance, security and reliability guarantees, which are so far absent from cloud services unless they lock themselves in to contracts from a single provider.

“Somebody who really wants to embrace the cloud, wants to have capacity on demand, [disaster recovery](#), wants to have a virtualised location outside of their own, in most cases is going to have to work with one provider to develop a customised public cloud environment that they uniquely own that has metal cages around it and assures the integrity of their business information,” added McHugh.

“We really don't have either the technical or legal capabilities to fully engage in the public, or so-called hybrid cloud, in the next five years.”

