

ON THE SPOT – DATA CENTRES



YOUR BUSINESS CAN'T OPERATE WITHOUT IT, BUT YOU'VE NOT UPDATED IT SINCE '79. PROBLEM? PERHAPS.

words SAMANTHA PERRY



> (Left to right) Fabio Torlini, Rackspace; Manoj Bhoola, HP SA; and (bottom) Cary de Sousa, Citrix



The hub of many larger organisations, the data centre is a much neglected beast, and many are in dire need of a facelift, if not an entire refresh. In this On the Spot, *Brainstorm* asks what looks the data centre of the future will be sporting.

➤ The data centre of the future will be built to optimise energy and space. Infrastructure optimisation solutions will encourage more effective placement of servers and better management of hot and cool air. For example, at the moment, many people are guilty of over-cooling and over-populating cabinets (as opposed to spreading the load in the data centre), resulting in energy wastage. We will also see the phasing out

of the characteristic 'raised flooring' and 'false ceilings' of server rooms, and the creation of 'cold isles' to concentrate correct airflow. Data centres will provide accurate tracking of performance and its carbon footprint.

Dawie Bloomberg, business services director at The Webcom Group

➤ In the future, there will be more emphasis on centralised access to multiple networks and a further drive towards virtualisation and on-demand computing. There will be an improvement in the operational efficiencies of the data centre through improved design, product selection and the management principles employed. The varied client usage and corporate requirements will require the regular use of modular



components and pre-manufactured elements to improve speed of deployment, design flexibility, improved quality and improved management of the data centre. With improved measurement of the data centre capacity profile, there will be more

accurate predictions of data centre growth and the ever increasing financial demands on data centre infrastructure. **Lex van Wyk, MD, Teraco Data Environments**

➤ The data centre will evolve drastically in the next few years as a result of a number of driving forces, among these: cost reduction, increased regulation and green computing. Data centres will begin to adopt the principles of cloud computing, with enterprise data centres resembling internal clouds that will need to operate alongside external clouds, while SMEs will move completely to externally hosted data centres to manage their IT services. **Cary de Sousa, corporate account manager, Citrix Systems SA**

FEATURE ON THE SPOT



> (Left to right) Jim Holland, Axiz; Giancarlo Scaramelli, NetApp; Lex van Wyk, Teraco; and (bottom right) Dawie Bloomberg, Webcom

“PLACING DATA CENTRES UNDERGROUND CAN BE BENEFICIAL, FROM A DATA SECURITY AND ENVIRONMENTAL POINT OF VIEW.”

FABIO TORLINI, RACKSPACE HOSTING

and scalable design. The modular design will enable relatively easy forecasting of provisioning time, space allocation and energy needs. **Giancarlo Scaramelli, Net-App EMEA data centre expert**

model, all the devices in a data centre – from processors to storage to networks – are virtualised; services are paid for on demand; business needs will dictate which resources are used; and automation will finally drive down the cost of IT. **Jim Holland, category lead: HP Enterprise at Axiz**

➤ Today, data centres are bulky silos and energy-sapping monsters that cost companies more than an arm and a leg. Integration is a big issue. I see a new data centre in the future, one that would be extremely efficient in energy consumption and situated away from a company's premises. These data centres will be hosted at a service provider that will deliver a similar level of quality via the cloud, leaving critical information on smaller converged servers within a smaller data centre, at the company's location. This will result in a more mobile workforce and immediately reduce the carbon footprint as the service provider will host many organisations' applications in one box and drastically reduce the cost of electricity in companies.

Manoj Bhoola, HP Enterprise, Servers, Storage and Networking country manager, SA

➤ The data centre of the future will be the result of a new approach to building design, size and location, efficient (free) cooling and overall energy efficiency. These will be vital points for the design of public or external data centres, which end users heavily depend on, in terms of space and resources. When building these data centres, the emphasis will be in making the hosting facilities as energy-efficient as possible. Private, internal data centres, however, will benefit from the implementation of a provision of on-demand architecture in a highly modular, high-density



➤ Industry leaders have long promised a future nirvana, when computer power would be available on tap, on a "pay as you go" basis. Computing is now on the cusp of this seismic revolution. The data centre industry is in transition from proprietary, expensive and manually intensive computing to a more commoditised, more automated, virtualised and cheaper model. In this

➤ The major driver determining what data centres will look like five years from now is the environment. Top-level data centres with 99.999 percent uptime don't ordinarily have the best carbon footprint and there is industry pressure to change this. A data centre designed for maximum uptime can also offer a reduced carbon footprint. It just costs more. Location is most important because, for example, the cost of cooling facilities in Dubai is much greater than the UK and Europe, where, in winter, temperatures drop below 20°C. Placing data centres underground can be beneficial, both from a data security and environmental point of view, because they require less cooling. Hot and cold aisles for server racks conserve energy by managing air flow.

Fabio Torlini, marketing director EMEA, Rackspace Hosting B