



Storage and the data boom

Knowing what a customer needs and keeping abreast of technology are key for resellers to keep ahead, says *Brian J Dooley*.

“We are entering a new era made possible by the integration of Big Data, analysed through optimised systems that are managed as a cloud. The combination of these capabilities can enable any enterprise to drive innovation while doubling IT capacity for the delivery of service on a flat IT budget.” **Simon Cambridge, IBM**

STORAGE REQUIREMENTS CONTINUE to grow on an exponential basis, as Big Data brings increasing digitisation to everything, and storage capacity grows to accommodate it. As data volumes grow, problems of backup, security, and access are rising in significance. In addition to the trends of past years in areas such as mirroring, virtualisation, and de-duplication, today's storage solutions are looking increasingly toward the cloud, in both its private and public forms, as an essential part of the storage mix.

For resellers, storage is always growing, and supporting infrastructure is always required. This is an area in which knowing the customer's requirements and remaining abreast of evolving solutions will certainly pay off in boosting customer confidence and building follow-on sales.

IBM has long had a strong interest in storage, storage infrastructure and now in Cloud IT.

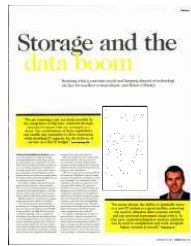
“Over the last decade we have developed a foundational set of storage functionality which forms the basis for all solutions across the IBM storage portfolio,” says IBM NZ sales specialist, Simon Cambridge. “This is a significant technological innovation for the market, and we are investing aggressively to ensure that we sustain this innovation going forward. Clients can reduce storage requirements with data compression and data de-duplication, increase utilisation with storage virtualisation and thin provisioning and move data to the right place with automated

tiering and automated data migration.”

The most important current storage trends have been around for a few years now and are continuing to accelerate. Managing the increased cost and complexity that comes with explosive information growth remains the top priority for most organisations.

“We are entering a new era made possible by the integration of Big Data, analysed through optimised systems that are managed as a cloud,” says Cambridge. “The combination of these capabilities can enable any enterprise to drive innovation while doubling IT capacity for the delivery of service on a flat IT budget. As businesses across all industries strive to gain competitive and operational advantages from higher levels of IT agility and smarter systems, they are leveraging advanced automation and analytics to extend the value and reputation of their decision making processes. This balance between decision automation and focused human intervention is further driving new classes of applications and workloads.”

For resellers, Cambridge advises, “get out there and talk to clients to understand their business objectives and any current issues. Many clients have less time than they would like to focus on strategic activities and always respond well to proactive solutions where you can demonstrate real business value to them. Don't just focus on storage — delivering an integrated and



optimised solution will deliver even more value to a client."

HP has recently introduced a range of new products in the storage space. In August the company announced the expansion of its Converged Storage portfolio to include the new federated storage software HP Peer Motion and the new P10000 3PAR Storage Systems with features designed for delivery of enterprise IT within public and private clouds.

"The move to cloud-based applications and services must be catered to with storage solutions which offer agility and convergence — linking multiple storage systems together to act as a single entity in a process known as storage federation," says storage business unit manager, Phillip Martin. "This makes it possible to remove extra layers of virtualisation appliances, reducing cost and service level risk. As cloud technology plays a larger role in the enterprise, storage must reflect this by allowing non-disruptive data movement, and eliminating downtime and service interruption. Cloud services also demand improved consolidation of workloads, greater port connectivity, and load balancing."

Clients are facing explosive data growth and require cost-effective technologies which can simplify management of this data, increase the efficiency with which it can be accessed and scale capacity to match demand. For those seeking to make their first forays into cloud technology, HP sees a growing demand for modern architectures, purpose-built for the demands of virtualisation, and capable of providing an upgrade path to the cloud. These solutions must also work to reduce the complexity of virtualisation and be aligned to clients' business goals.

"HP offers solutions which are able to work in conjunction with existing IT systems, allowing the gradual migration of services to modern architectures," says Martin. "The growth of cloud solutions is also key to allowing SMBs access to enterprise-level services which were previously too costly. The cloud also provides SMBs with flexible storage solutions without the need for large capital expenditure, allowing them to plan for future growth."

For resellers, understanding the needs and goals of clients is the most important factor for any in pairing clients with storage technology. "For many clients, the ability to gradually move to a new IT system is a great enabler, removing the need to abandon older systems entirely and any previous investment along with it,"



"For many clients, the ability to gradually move to a new IT system is a great enabler, removing the need to abandon older systems entirely and any previous investment along with it. In this case, understanding how modern solutions can be used to compliment and work alongside legacy systems is crucial." Phillip Martin, HP

says Martin. "In this case, understanding how modern solutions can be used to compliment and work alongside legacy systems is crucial."

Telecom's Gen-i data division currently offers a suite of ReadyCloud 'Infrastructure as a Service' solutions.

"At the recent IDC Hybrid Cloud 2015 conference in Auckland, IDC predicted that by 2013 core cloud services such as compute, storage and collaboration/communication will commoditise to the point they'll become almost free," says Gen-i cloud expert, Dan Hewitt. "To this point, the consensus gathered from this event was that it makes sense to commoditise infrastructure, while other work processes still require further innovation."

Gen-i recently surveyed 95 CIO & IT Managers within the corporate and enterprise sector on cloud storage. According to the research, 20 percent of clients are likely to take up cloud storage in the next few years and these clients will prefer to access cloud storage over a private network for security reasons.

Of those clients that are interested in cloud storage almost 80 percent are interested in fibre





“In the wake of increasing security threats and events like the Christchurch quake, we have noticed that clients want to know they can restore critical data promptly, often in less than a day. A traditional on-premise tape solution cannot address this, making cloud backup a useful solution.” Dan Hewitt, Gen-i

channel storage, although there is an emerging group interested in flash channel which provides superior throughput performance. Clients believe that service providers should position cloud storage as an opportunity for a client to remove storage management complexity from the business.

Overall the cloud storage market still needs to be educated on the value that cloud storage provides and needs to address barriers such as security. Clients that have concerns about where their data is physically stored now have a variety of service provider options.

“Since the Canterbury and Japanese earthquakes there have been more inquiries from clients with regard to off-site storage and backup,” says Hewitt. “Generally there is a preference for local storage solutions due to performance security and cost. Clients are pragmatic and are selecting cloud storage solutions that best meet their particular needs, whether it be primary (running apps) or secondary (archiving) data storage solutions. Hybrid environments are common, as clients need to manage their existing investments in

infrastructure and integration.”

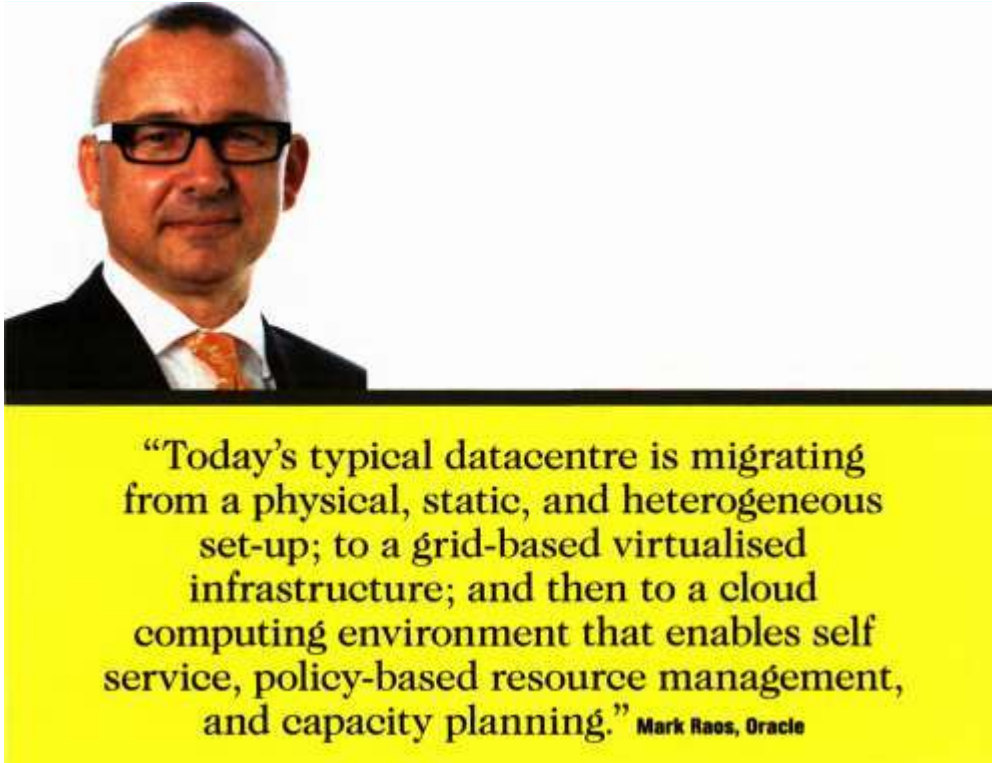
Gen-i has seen an increasing drive for cloud backup services, driven by an increasing threat from malware and natural disasters. The best practise for backup is now viewed as being a hybrid disk/tape solution, backing up data that is expected to restore to disk first. Then, all other backed up data that is not expected to be restored and is kept for compliance reasons can be archived to tape as a more cost effective solution.

“In the wake of increasing security threats and events like the Christchurch quake, we have noticed that clients want to know they can restore critical data promptly, often in less than a day,” says Hewitt. “A traditional on-premise tape solution cannot address this, making cloud backup a useful solution.”

Oracle has added to its database-driven storage interest through acquisition of Sun Microsystems. Sun provides more than 40 years of systems and storage expertise in servers and storage.

“Our storage strategy is to ensure that Oracle software runs faster and more efficiently on Oracle storage,” says NZ systems sales manager, Mark Raos. “Integrated automatic





provisioning and management provides storage performance on demand, and streamlines end-to-end data movement and protection.”

Organisations are seeking better ways to cost effectively manage enterprise data growth and data centre complexity. Cloud computing has emerged as a way to help organisations provide a way to pool resources, broad network accessibility and rapid elasticity.

“To help organisations deploy their applications, databases and storage in private clouds, we are offering Oracle Cloud File System,” says Raos. “Oracle Cloud File System delivers a storage cloud infrastructure that simplifies pooling of storage across file systems, middleware, and applications. It also provides network accessible storage with unified namespace for files and supports rapid elasticity through online storage provisioning that are key requirements for cloud

computing.”

Oracle has noted that most of its customers are doubling their data every two years but their budgets are not growing at even 50 percent per year. “Long term storage applications like digital archives, fixed content, multimedia and compliance are ideally and economically well suited for tape,” says Raos. “We have actually seen a shift of customers who have used disk exclusively for backup now going back to a combination of disk and tape. As a complement to disk, tape helps control costs, energy consumption and addresses security with encryption.”

Looking forwards, the future of storage management must be simpler, more easily accessible, cost efficient, environmentally friendly and streamlined, so that organisations can function and perform quicker and better.



“There are three essential elements that must be considered when formulating a storage strategy to meet growing data demands,” says Raos. “These are the evolving function of the data centre, business drivers, and the ‘nirvana’ storage solution. Today’s typical datacentre is migrating from a physical, static, and heterogeneous set-up; to a grid-based virtualised infrastructure; and then to a cloud computing environment that enables self service, policy-based resource management, and capacity planning. Business drivers have moved on from cost reduction to where business growth and profitability top the CIO’s agenda. The storage strategy must fall in line with these objectives. Then, there is the idea of creating a ‘storage nirvana’, featuring the best of security and storage options along a path of accelerated performance, profitability and lower IT costs.”

To make the strategy a reality, companies must shift away from the traditional approach of managing islands of storage and move to an automated, tiered and unified storage infrastructure. By adopting a formula whereby certain data to be stored is assigned to certain storage pools, organisations will improve the price, performance, capacity and functionality of their storage infrastructure.

“Organisations today are continually challenged with managing and storing the explosive growth in both structured and unstructured data,” says Raos. “By combining leading, industry-standard servers and storage hardware from Sun with the intelligence built into Oracle software, the Oracle Exadata Database Machine allows customers to achieve unmatched data scalability, capacity and reliability.”