

Date: 11 October 2004

## Action Point:

**IBM's latest storage product announcements are geared largely around infrastructure consolidation and manageability. The IBM TotalStorage DS6000 storage device for medium to large organisations is game-changing, in that it offers unprecedented levels of capacity, performance and resilience for the mid-range customer. To gain the most benefit however, such companies must organise themselves for centralised storage management.**

## Announcement:

IBM is announcing two new products in its TotalStorage hardware product line. The first, the DS8000, is based around the POWER5 processor, and will initially offer storage capacities up to 192TB, in a space-efficient form factor. The device can take advantage of the POWER5's on-chip server and storage virtualisation capabilities.

The DS6000 also offers up to enterprise-class storage, but in a much smaller, rack-mounted format, only 5 inches tall. The single device offers up to 4.8 terabytes of storage, and a potential 13 expansion units can be linked to a base controller for increased resilience and capacity, to give a maximum of 67TB. While the device has a fibre channel-based architecture which is appropriate to be connected to a SAN, it can be used with the IBM NAS Gateway 500 to provide a NAS solution.

## Background:

The industry downturn has caused many enterprise customers to delay procurements, focusing on essentials rather than strategic purchases. In particular, there was an overcapacity of purchased storage. However, this did not mean that innovation-driving principles such as Moore's Law ceased to exist, or that manageability issues in corporate storage environments became any less significant.

Given the growing pool of pent up demand, some vendors are deciding the time is right to catalyse the market. There has been a flurry of acquisitions and venture capitalists are increasingly willing to inject cash. Recent, innovative product announcements are the fruits of this extended period of activity.

## Significance:

Today's storage hardware and software offerings are less about capacity (though, of course, this is growing all the time) and more about how storage environments can be made easier to manage. Two aspects of this are the consolidation of repositories onto fewer, more manageable boxes, and the subsequent use of virtualisation technologies to enable efficient provisioning of storage capacity.

Both of IBM's product announcements offer the opportunity for consolidation. For the DS8000, the virtualisation-on-a-chip offered by the POWER5 will be attractive to some customers, but it could compete for mindshare with other virtualisation technologies in hardware, software or in the storage fabric.

The DS6000 is more revolutionary. This is not the first time that mainframe capabilities have been reduced to a form factor no larger than a rack mounted server. Given its expected pricing however, the DS6000 is a breakthrough for smaller organisations. It brings enterprise-class capacity, performance and resilience to a sector where there was no such capability before, let alone the opportunities for rationalisation, consolidation and heterogeneous management that can result.

There is also a place for the DS6000 in enterprise organisations, as a departmental/edge storage server or as a business continuity solution.

## Business Impact

Storage consolidation and simplification solutions can offer measurable increases in efficiency and effectiveness. For organisations to take full advantage however, they need to be geared up organisationally, operationally and architecturally.

The DS6000 from IBM broadens the opportunity for storage consolidation to a wide variety of non-enterprise organisations, which may not have previous experience in running such centralised operations. This is an education and consultancy issue as much as anything else, and presents both challenges and opportunities for the customers and channel partners alike.

*"The DS6000 is revolutionary in what it enables for the smaller organisation, bringing enterprise-class capacity, performance and resilience to a sector that could not previously achieve such capabilities."*