



Unisys – leveraging Windows scalability

It's ironic that, at a time when many vendors are discussing how to make Windows scale up more successfully into the data centre, Unisys seems to have reached the top and is now making its way down again. With its latest announcements, the company is looking to extend the architectural strengths of its ES7000 'Windows mainframe' down into the server mid-range, where the competition is stronger but the potential rewards substantially greater.

Like all vendors of high-end proprietary systems, Unisys has faced its fair share of challenges over the years in protecting its revenue stream, providing a solid growth path for its existing loyal customers, and growing (or at least maintaining) market share.

For Unisys, the solution was Cellular MultiProcessing (CMP), a common architecture that allowed it to support its two ClearPath customer bases (inherited nearly 20 years ago from the Burroughs MCP A-Series and Sperry 2200 Series respectively), while pursuing its long-term vision for the future – a mainframe-level Windows platform in the shape of the ES7000.

ES7000 was a brave decision for Unisys in many ways – the performance and viability of Windows in the enterprise data centre space have made it a relatively tough sell for vendors. But it was a risk that paid off, and Unisys has achieved steady growth with the newer platform, while holding onto its ClearPath market. Moreover, in recent months, as companies have focused more on system consolidation and cost-reduction, and Windows 2000 Datacenter itself has become more resilient and secure, the idea of scaling the operating system up into the 'big iron' world has gained popularity – a trend that will continue with Windows Server 2003. Unisys has developed a unique relationship with Microsoft, providing the memory management, resource manipulation tools, switching and availability management expertise for Windows that the Redmond giant lacked. It's clear that, as demand for data centre-level Windows applications increases, Unisys will be very well positioned to exploit it.

But Unisys has now decided to reach beyond the high-end database server niche into which the ES7000 originally slotted. It has identified a far greater



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potential market for the ES7000 in the mid-range application server sector, where users are looking for the resilience of a mainframe-class solution, but at a lower price-point than that of the biggest machines. This is where the company is positioning its 510-540 models, scaling from the 4-8 way 510 up to the high-availability 32-way 540.

This territory currently belongs to IBM's formidable x440 and the HP (Compaq) ProLiant systems (not to mention the Unix/RISC based systems that still dominate this sector and the growing Linux presence). Margins will be tighter, and users will be paying close attention to the relative price/performance and functional differentiators of the IBM, HP and Unisys offerings.

Benchmarks based on existing systems suggest that Unisys will have little trouble breaking into the application server space. Moreover, it will be exploiting some advanced design techniques in its new models, including cell-level partitioning, centralised cache control, and a vertically mounted centralised memory core to achieve optimum performance. For users looking to start small on the 510, the growth path through to the 540 looks pretty seamless, both technically and financially.

It will also be possible to run UnitedLinux (SCO) apps natively on some of the new systems, alongside Windows, although Unisys' marketeers are understandable ambivalent about Linux support. The company has long experience of accommodating multiple operating systems, but is always anxious to stress that Windows scalability is its primary objective.

Ultimately the strongest selling points for Unisys will be the architectural strength of Cellular MultiProcessing, which has already proved itself on the larger machines, and the unique pool of expertise in business-critical Windows Server management that the company brings to the table. If customers are looking for a real differentiator for the new application servers, this is likely to be where they find it.

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