

IBM Redefines On Demand Compute Flexibility with New eServer zSeries 990

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With the new IBM eServer zSeries 990 IBM have created a state-of-the-art system for eBusiness on demand. The new system combines all the hallmarks of the mainframe environment with additional scalability, flexibility, and performance, with new pricing to entice users to take advantage of these capabilities and lower data centre costs.

The End of the Mainframe as Monolith

The first thing one notices about the new z990 is that it is big. Really, really big. However, despite the impressive scalability of the system, the real coolness factor lies in the combination of technology and business changes IBM have implemented to make the mainframe the most flexible yet powerful system available today. Technically, customers have a system that has been rearchitected for more flexible size and scale configurations, autonomic capabilities, integration, and virtualisation, without sacrificing any of the underlying strengths of the system. From a business sense, IBM have changed the WLC pricing structure so that users have greater flexibility in workload size along with reduced prices overall. The result gives customers with traditional workloads greater room for growth and customers with new workloads such as Linux greater flexibility to create the environment they need as business needs change. This new system demonstrates that the days of the monolithic mainframe environment are truly gone forever.

A Glimpse underneath the Hood

In order to provide flexibility, IBM have modified some of the technology. They have taken the z900 family architecture and condensed the processors, memory, and I/O onto a “book” consisting of up to eight processors, 64GB of memory, and twelve 2GB/sec I/O connectors. The new system can have one to four books, and scale as needs change. IBM have also doubled the number of channels available to 512 by adding a second channel subsystem. Partitions can be built regardless of the physical structure in the system, which means that processors in a partition can sit in more than one book, and channels can be located in more than one subsystem. This architectural flexibility translates to easier consolidation of applications. Users no longer have to plan every connection in advance. In recognition of non-traditional workloads, IBM have also added more HiperSockets or virtual network connections to the new z990. Customers now have up to sixteen HiperSockets available to them. And finally with faster I/O throughput, performance is significantly improved, so price/performance ratios have improved as well.

On the business front, IBM have altered their WLC pricing. The new minimum subcapacity is only three MSUs or eighteen MIPS. This means that customers can bring a workload of almost any size onto a mainframe at a reasonable price. When this pricing is coupled with capacity on/off demand, users have a flexible system that has greater granularity for changing business cycles without requiring them to pay for unused capacity.

The New Mainframe: More than Just for CICS

The new z990 flexibility can provide benefits for many customers. It has obvious benefit for the customers who just need more; those who need to scale out as well as those who need to scale up. The technology benefits also make consolidation much simpler to execute. Customers who have struggled with rigid system constraints will find these have largely been removed, and customers who have been hesitant to add new workloads because they were too small, too variable, or required greater scale-out capability should also consider the z990. Finally, this system is also worth a serious look if cost is an issue, as it is in most IT departments. This system lowers fixed costs and improves the ability to control variable costs, which will appeal to financial departments. The requirements to achieve real flexible, business-responsive computing will continue to evolve, but the new z990 appears to have advanced the Darwinian curve about a millennium.