



Snapshot

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## IBM eServer z890 and ESS Model 750 Provide Mainframe Punch in a Pint-sized Package

*By Joyce Tompsett Becknell*

*IBM's mainframe capabilities are legend. Customers deploy systems that remain for years because they continue to work well. However, mainframe systems have seen significant technical improvements for running new applications in the last few years, and customers can see real gains in price/performance if they can take advantage of this new technology. The new IBM eServer z890 combined with the IBM TotalStorage Enterprise Storage Server (ESS) Model 750 provides customers running older systems with an infrastructure solution to run traditional and new workloads that fit their budgetary needs. This new combination should give customers with older systems the impetus to update.*

### **Small is Beautiful... and Affordable too!**

Over the years, many customers have diversified their data centres with distributed systems, and some have allowed their mainframe systems to lag behind. Some customers turned to distributed systems because the new applications were not designed for the mainframe, and for other customers it was the cost of running that application on the mainframe. With previous generations of systems, engine capacity grew and there was little granularity between models. Customers selected the size that best fit their environment, regardless of how much they used or how they used it, and pricing was based on engine capacity. These customers need systems with the capabilities of high-end Shark systems, but again, they need a smaller entry point with a corresponding price point.

### **Zooming In on the Systems**

IBM have responded with the new z890 mainframe coupled with the new ESS 750, systems with smaller entry points that sacrifice none of the capabilities enterprises have come to expect from high-end systems. The new 28-capacity setting matrix on the z890 allows customers the ability to match their workload requirements with a capacity setting. This helps them both from a hardware and software alignment perspective. Like its predecessor the z800, the z890 also offers z/OS.e, a specially priced product offering with a select subset of z/OS functionality that is designed to make the deployment of new applications on the server attractively priced. The options like Linux, z/OS.e, and running Java provide new flexibility and value for customers. Purchasing a z890 allows customers to use IBM Entry Workload License Charge pricing (EWLC) versus the traditional PSLC software pricing. For applications based on middleware such as WebSphere, there is Value Unit Pricing for sub-capacity workloads. Using these new pricing models can lead to cost savings of 20% to 40% depending on current customer configurations and the new configuration. These savings alone will stimulate some IT managers to reconsider upgrade projects at this point. However, in addition to the software pricing changes, IBM's new technology is worth a look as well. The z890 has four engines, each with seven capacity settings, leading to the twenty-eight different capacity settings starting as low as 26 MIPS and scaling to 1,365 MIPS. This new design allows customers to match engine size(s) and total capacity more closely with their workload requirements. The system also has the option of the new zAAP processor, which provides an

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Sageza Ltd  
25 Heathfield  
Mortimer Common, Reading RG7 3SN

London +44 (0) 20-7900-2819  
Milan +39 02-9544-1646  
USA 650-390-0700 fax 650-649-2302

economical Java execution environment, as well as the IFL for Linux which allows IT managers to incorporate Linux-based applications onto a system partition. To assist with demand-driven flexibility, the new systems feature on/off capacity on demand, which allows customers to activate more processing power as they need it, and deactivate it when it is no longer needed. This means customers truly pay for what they need when they need it, and they can pay for the right size of system for their business and still have room for spikes in usage without ruining budgets. IBM have developed programs and pricing for on/off demand that let IT managers explore the feature and its benefits with minimal risk.

The new systems have improved technologies in other areas, including I/O connectivity, manageability, and security. For system availability, many of the new autonomic capabilities of the mainframe provide automatic sense and respond features that make maintaining service levels easier. Using z/VM technology allows managers to create, deploy, and manage virtual servers. The zSeries architecture is designed to provide data isolation and security across partitions within the system, superior to that available on other systems. This means that customers can not only upgrade their existing workloads to the newer systems at lower prices, but they have an opportunity to consolidate workloads from other servers into partitions on the systems with greater security, more efficient use of resources, and easier management.

The ESS Model 750 is an entry-level version of the IBM Shark high-end storage system. It scales from 1.1 to 4.6TB of disk, less than other ESS models, but still provides the high-availability characteristics required for mainframe application data. Should data requirements increase significantly, it is designed to upgrade non-disruptively to an ESS Model 800, so investment protection is provided. The systems support zSeries performance enablers such as parallel access volumes (PAV), priority I/O queuing, and multiple allegiance. PAV improves performance by enabling multiple I/Os from any supported operating system to access the same volume at the same time, and multiple allegiance enables different operating systems to perform multiple concurrent I/Os to the same logical volume. I/O queuing means the system matches I/O priority to application priority.

### **What Are You Waiting For?**

For many customers who have held back upgrading their older systems, particularly 9672 family systems, there really is little reason to postpone any longer. The issue of granularity has been addressed with the new z890 capacities, which should help customers from both a hardware and software budget perspective. Additionally, mainframe technology developments continue to drive the leading edge of on demand technology for system infrastructure. Many storage concerns have also been addressed through the use of the smaller, more economically-priced ESS 750. IT managers really should be re-evaluating their upgrade policy in the next few months, as IBM are ready to help them make the transition. As part of the Mainframe Charter, IBM have committed to maintaining the mainframe as the leading edge of computing. IBM continue to dedicate resources to the ISV and developer communities for development of on demand business and Linux workloads on the mainframe, and will continue to bring mainframe capabilities to their other platforms, ensuring that integration remains leveraged across the infrastructure for heterogeneous environments. IBM's zSeries provides tactical advantages for today's IT environments and provides maximum flexibility for future development.