IBM Takes The Wrap Off of Raptor –
Smaller zSeries Mainframe Targets New Uses

Analyst: Mike Kahn

Long since the dinosaur was proclaimed dead and irrelevant and in the face of tough economic times, IBM's five-quarter growth of mainframe MIPS and revenue is noteworthy. **More noteworthy is the recent birth of a predatory smaller mainframe, cloned from its z900 big brother. Internally code -named "Raptor", the new zSeries Model 800 – z800 for short – is a leaner, meaner fighting machine, priced to be attractive to new classes of users**, but quite useful to many existing mainframe customers as well.

- **Those wanting a highly-scalable Linux consolidation server in a single box.** This is what IBM pre-announced at Linux World several weeks ago. Capable of running hundreds of Linux instances under a single point of control, this is a story of total cost of ownership, especially against typical rack-mounted Linux-server farms. In this case, the z800 might be used for LAN and web infrastructure servers, distributed Unix application servers, and/or server hosting.

- **Those wanting a most-capable platform to run what IBM calls "new workloads"** – contemporary applications, such as ERP, CRM, supply chain management, DB2, WebSphere, and others, including those written in Java and C++ – that do not run traditional mainframe transaction processing workloads, such as COBOL and IMS. They might be enterprises new to the world of mainframes, or existing mainframe customers that want to process some of these applications on separate servers.

- **Those wanting a smaller, but fully contemporary (64-bit) zSeries mainframe.** These might include S/390 customers running on IBM's G-5 and Multiprise models, among others. Capable of running traditional IBM mainframe operating environments, the z800 can function in a Parallel Sysplex and can run as an Integrated Coupling Facility.

This "baby Z" has similar genetics and architectural markings to its big brother the z900 and brings much sophistication in a mid-sized box. There are 10 models, 8 of which are "general purpose" (can run a mix of workloads and operating environments) and two are special purpose (Linux-only, and only as a Parallel Sysplex Coupling Facility). Here are some of the z800's key characteristics:

- **Broad range of power and connectivity** – a range of models delivering from 80-636 MIPS, all with 5 processors installed, with 1-4 for application use, with 8-32 GBs of memory, and with high-bandwidth I/O capabilities in a variety of flavors (Ethernet, GbE, ESCON, FICON, TR and ATM).

- **Can be deployed in many ways**
    - **Singular purpose** – running one application in a single operating environment (such as SendMail under Linux).
    - **Multiple e-business applications** (e.g., transaction processing, web serving, and CRM) under a single operating environment (e.g., z/OS or Linux).
    - **Multiple applications running in multiple operating environments** (e.g., web serving under Linux, coupled with DB2 under z/OS).

- **Has a number of specially-priced operating systems**, designed to reduce the cost of acquisition by new customers
  - **z/OS.e** – very similar to z/OS (based on the same code base), except that it cannot run "traditional mainframe workloads"; priced to compete with open mid-range servers from Sun, HP and Compaq.
  - **z/OS under zELC pricing** – the fully featured version of z/OS (it can run traditional mainframe apps), with reduced entry-level pricing (to make introduction into the mainframe world more attractive).
  - **Linux** – from a number of established software companies – running either on the Linux-only model of z800, or on a general purpose z800 model in an LPAR or on one or more dedicated engines via the Integrated Facility for Linux (IFL). In both cases, the total cost of acquisition can be very compelling, when compared with traditional Linux implementations.

With the z800 and a choice of operating systems tailored and priced to use, IBM returns its mainframe to the middle of the server market. By selling the cost-effective z800 primarily through its business partners – who have been given significant incentives to drive it aggressively into new markets – IBM gives many enterprises another alternative to consider. **Set the decade-old aspersions aside – take a closer look.**

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Mike Kahn **is Chairman and a cofounder of The Clipper Group.** Mr. Kahn is a thirty-year veteran of the computer industry. For the vendor community, Mr. Kahn specializes on strategic marketing issues, especially for new and costly technologies and services, competitive analysis, and sales support. For the end-user community, he focuses on mission-critical information management decisions. Prior positions held by Mr. Kahn include: at International Data Corporation — Director of the Competitive Resource Center, Director of Consulting for the Software Research Group, and Director of the Systems Integration Program; President of Power Factor Corporation, a Boston-based electronics firm; at Honeywell Bull — Director of International Marketing and Support; at Honeywell Information Systems — Director of Marketing and Director of Strategy, Technology and Research; with Arthur D. Little, Inc. — a consultant specializing in database management systems and information resource management; and, for Intel Corporation, Mr. Kahn served in a variety of field and home office marketing management positions. Earlier, he founded and managed PRISM Associates of Ann Arbor, Michigan, a systems consulting firm specializing in data management products and applications. Mr. Kahn also managed a relational DBMS development group at The University of Michigan where he earned B.S.E. and M.S.E. degrees in industrial engineering.

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