Umsatz und Gewinnplus bei IBM durch Mainframes

Der US-amerikanische IT-Dienstleister IBM hat im zweiten Quartal 2006 21,9 Milliarden US-Dollar (17,4 Milliarden Euro) umgesetzt. Gegenüber dem Vergleichsquartal des Vorjahres stieg der Umsatz um 1 Prozent.

Der Nettogewinn wuchs um 10,5 Prozent auf 2,02 Milliarden US-Dollar (1,6 Milliarden Euro).

IBM-Chef Samuel J. Palmisano hebt in seiner Stellungnahme das Softwaregeschäft hervor, das allein im vergangenen Vierteljahr 4,2 Milliarden US-Dollar umsetzte und damit 4,5 Prozent mehr als im Vergleichsquartal des Vorjahres. Auch verwies er auf das Geschäft mit dem System-z-Mainfraime, dessen Umsatz um 7 Prozent wuchs.

First National Bank of Omaha

First National Bank Omaha

	Servers	*Reliability*	*Utilization*	*Staff*
First move: Implemented distributed computing architecture that became **too difficult to monitor, maintain, upgrade and scale**	■ 30+ Sun Solaris servers ■ 560+ Intel servers	Un-acceptable	12%	24 people growing at 30% year
Next move: Consolidated back on the mainframe	z990	Much improved	84% with additional reserve capacity ***on-demand***	Reduced to 8 people

Seven times better utilization on mainframe hardware

100 Millionen Dollar für Mainframes

Sparkassen Informatik modernisiert

MÜNCHEN (CW) – IBM hat von der Frankfurter Sparkassen Informatik GmbH einen der größten Aufträge der letzten Jahre erhalten.

Der für rund 240 Sparkassen tätige Dienstleister will einen Großteil seiner Infrastruktur austauschen, die derzeit aus Systemen von Big Blue und anderen Herstellern besteht, und durch 20 neue „z990"-Mainframes sowie weiteres IBM-Equipment ersetzen. Die Rechenkapazität steigt dadurch auf 100 000 MIPS. Sparkassen Informatik wickelt jährlich über 23 Milliarden Transaktionen für geschätzte 30 Millionen Bankkunden in Deutschland ab. Durch Konzentration auf ihre neueste Lösung „System OS Plus" in Kombination mit der neuen IBM-Hardware erhoffen sich die Frankfurter Kostenersparnisse von mehr als 200 Millionen Euro jährlich.

Analysten gehen laut „Wall Street Journal" davon aus, dass die pro Stück rund zehn Millionen Dollar teuren Mainframes selbst nach Rabattierung zusammen immer noch mehr als 100 Millionen Dollar kosten. Gartner-Analyst Josh Krischer sagte: „Das ist der größte Computerdeal, von dem ich seit langem gehört habe." *(tc)*

Postbank entscheidet sich für drei IBM Großrechner der neuesten Generation

Bonn/Stuttgart, 24. September 2008. Die Postbank hat sich für die Beschaffung dreier neuer IBM Großrechner des Typs System z10 entschieden.

Die Postbank setzt schon seit Jahren auf den Einsatz von Großrechnern. Nach einer Konsolidierung von IBM System z900-Großrechnern auf leistungsfähigere z990-Server wird nun das aktuelle Modell IBM System z10 in die IT-Infrastruktur integriert. Die Großrechner werden bei der Postbank ein hohes Transaktionsvolumen bearbeiten und neue Maßstäbe im Bereich Ausfallsicherheit und Energieeffizienz setzen. Die Systeme sind außerdem Teil eines umfassenden Konsolidierungsprojekts. Die Postbank unterstreicht mit dieser Entscheidung ihre Core-Banking-Strategie und baut ihre technologische Infrastruktur weiter aus.

„Für uns stellen die neuen IBM System z10-Server eine effiziente Plattform für unser Core-Banking dar“, sagt Manfred Löw, für den Betrieb verantwortlicher Vorstand der Postbank Systems AG. Die neuen Mainframes sind hochverfügbar und leistungsstark und ermöglichen mit ihrer Energieeffizienz nicht zuletzt einen wesentlichen Beitrag zur Green IT – Ausrichtung in der Postbank IT."

First National Bank of Omaha

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Stadtverwaltung Gelsekrchen 2009

28. Mai 2009. Der kommunale IT-Dienstleister gkd-el aus Gelsenkirchen migriert auf IBM System z10 Mainframe und verbessert Dienstleistungsangebot seiner Behördenkunden.

Die gkd-el hat mehrere Server auf einem einzelnen IBM System z10 konsolidiert. Das Ergebnis ist eine einfachere IT-Infrastruktur, in der weniger physische Systeme betrieben werden müssen. Der Betrieb der gesamten SAP-Landschaft erfolgt auf System z, inklusive der Infrastruktur mit Linux on System z und z/VM, z/OS, DB2 für z/OS und den zugehörigen Netzwerken.

Die SAP-Anwendungsserver werden auf mehreren virtuellen Instanzen von SUSE Linux Enterprise Server (SLES) 10 unter IBM z/VM 5.3 ausgeführt.Der SAP-Datenbankserver für jede Anwendung läuft unter IBM DB2 für z/OS. Für den Plattenspeicher wird ein IBM System Storage DS8100 eingesetzt, und Daten werden auf einem Bandarchiv IBM TotalStorage 3494 gesichert.

Die Zahl der Server bei gkd-el, die mit Linux on System z betrieben werden, wächst stetig. Zurzeit sind alle SAP Anwendungsserver, der zentrale Druckserver für die Massendruckprogramme und ein Server für GIS (ein System mit Grundbuch-Informationen) als virtualisierte Server implementiert.

Die im Projekt realisierten Vorteile lagen in einer spürbar höheren Zufriedenheit der Endbenutzer dank der Verkürzung der durchschnittlichen SAP- Dialogantwortzeiten von 570 ms auf 190 ms.

Im Rahmen der Serverkonsolidierung auf Linux on System z werden immer mehr physische Server ersetzt. Auf der Grundlage gemachter Erfahrungen schätzt die gkd-el, dass ein qualifizierter Administrator in der Nicht-Mainframe-Umgebung 10 Systeme effektiv verwalten kann, während ein für Linux on System z zuständiger Administrator etwa 50 Systeme betreuen kann.

"Dank der EAL5-Zertifizierung für z/VM können wir sicher sein, dass wir jedes Linux-Gastsystem auf dem System z wie einen vollkommen eigenständigen Server behandeln können, was die Trennung von Instanzen angeht. Das ist enorm wichtig für uns, weil wir strenge Bestimmungen für den Datenschutz und die Datensicherheit einhalten müssen“, sagt Karl Große Vogelsang, Leiter des Rechenzentrums der gkd-el.

Armonk, NY - 26 Feb 2007:

IBM Mainframe Revenue and Profit Growth

IDC reported today that IBM continues to hold the number one position in worldwide server revenue share with 32.8 percent revenue share for 2006 .

IBM's leadership position in global server revenue in 2006 was augmented by noteworthy revenue growth in its System z mainframe business .

IDC Worldwide Quarterly Server Tracker, 4Q06, issued on February 26, 2007

http://www-03.ibm.com/press/us/en/pressrelease/21148.wss

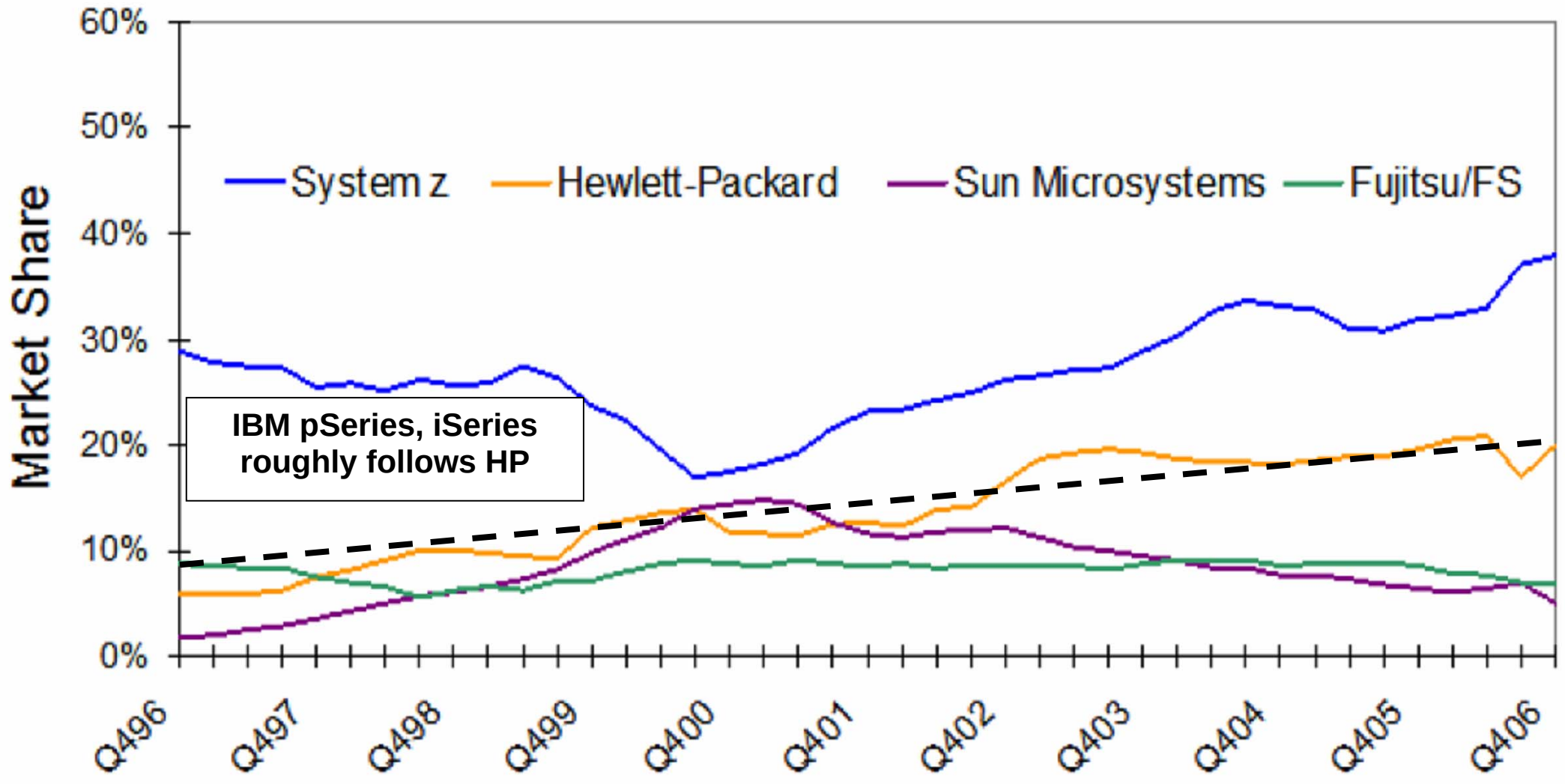
IBM REPORTS 2008 THIRD-QUARTER RESULTS

Total Global Services revenues grew 8 percent (4 percent, adjusting for currency). Global Technology Services segment revenues increased 8 percent (5 percent, adjusting for currency) to $9.9 billion, with strong growth in Integrated Technology Services. Global Business Services segment revenues increased 7 percent (3 percent, adjusting for currency) to $4.9 billion. The company ended the third quarter with an estimated services backlog, including Strategic Outsourcing, Business Transformation Outsourcing, Integrated Technology Services, Global Business Services and Maintenance, of $114 billion, adjusting for currency.

Revenues from the Systems and Technology segment totaled $4.4 billion for the quarter, down 10 percent (11 percent, adjusting for currency). Systems revenues decreased 7 percent (8 percent, adjusting for currency). Revenues from System z mainframe server products increased 25 percent compared with the year-ago period, with double-digit growth in all geographies. Total delivery of System z computing power, which is measured in MIPS (millions of instructions per second), increased 49 percent. Revenues from the converged System p server products increased 7 percent compared with the 2007 period. Revenues from the System x servers decreased 18 percent, and revenues from the System i servers decreased 82 percent.

Revenues from the Software segment were $5.2 billion, an increase of 12 percent (8 percent, adjusting for currency) compared with the third quarter of 2007. Revenues from IBM's total middleware products, which primarily include WebSphere, Information Management, Tivoli, Lotus and Rational products, were $4.1 billion, up 12 percent versus the third quarter of 2007. Operating systems revenues of $594 million increased 5 percent compared with the prior-year quarter.

For the WebSphere family of software products, which facilitate customers' ability to manage a wide variety of business processes using open standards to interconnect applications, data and operating systems, revenues increased 4 percent. Revenues for Information Management software, which enables clients to leverage information on demand, increased 26 percent. Revenues from Tivoli software, infrastructure software that enables clients to centrally manage networks including security and storage capability, increased 2 percent, and revenues for Lotus software, which allows collaborating and messaging by clients in real-time communication and knowledge management, increased 10 percent year over year. Revenues from Rational software, integrated tools to improve the processes of software development, increased 23 percent compared with the year-ago quarter.



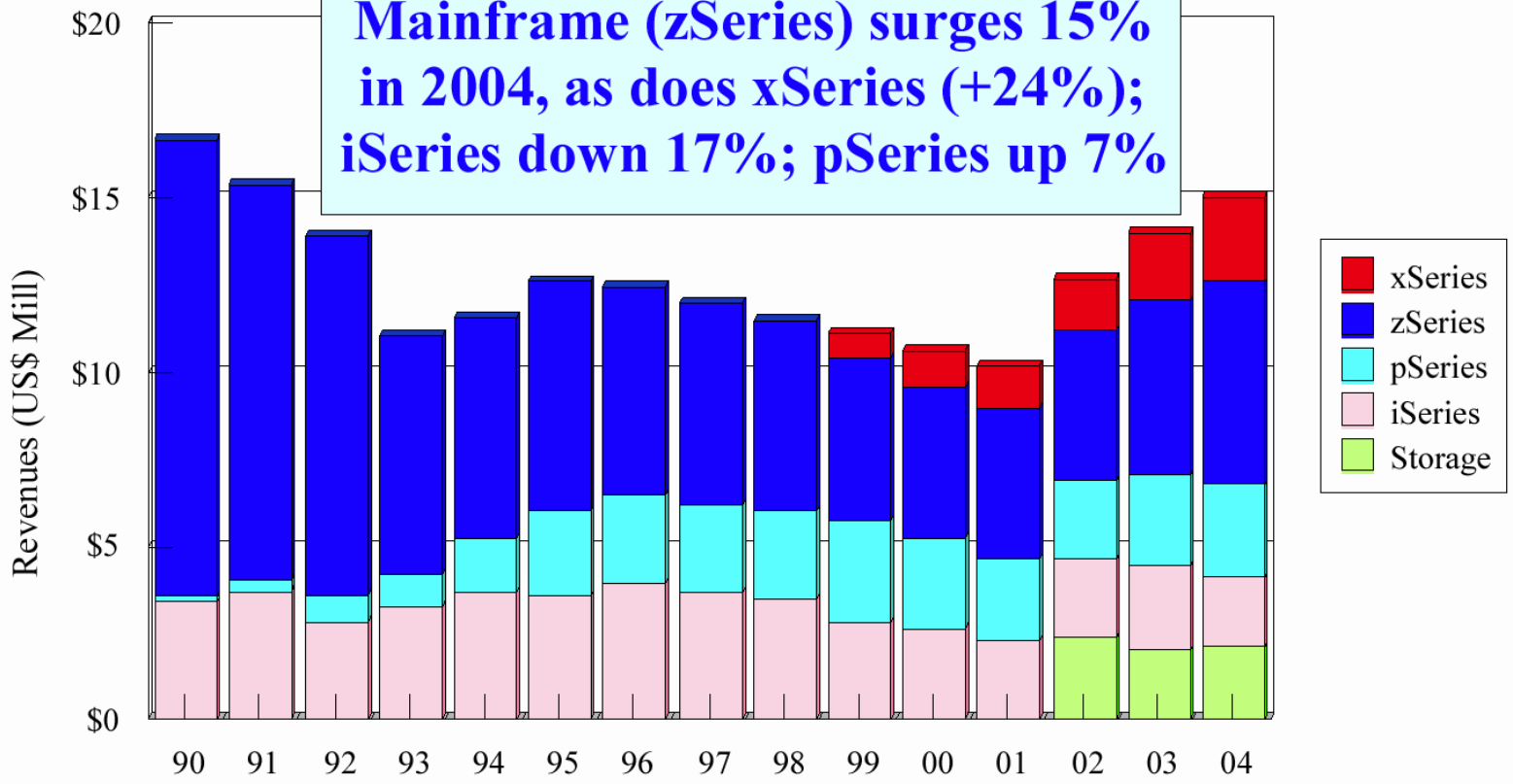
Market Share

Servers with a list price exceeding $ 250 000

IBM Systems Revenues

$229B product lines! (1994-2003); trough in 2001

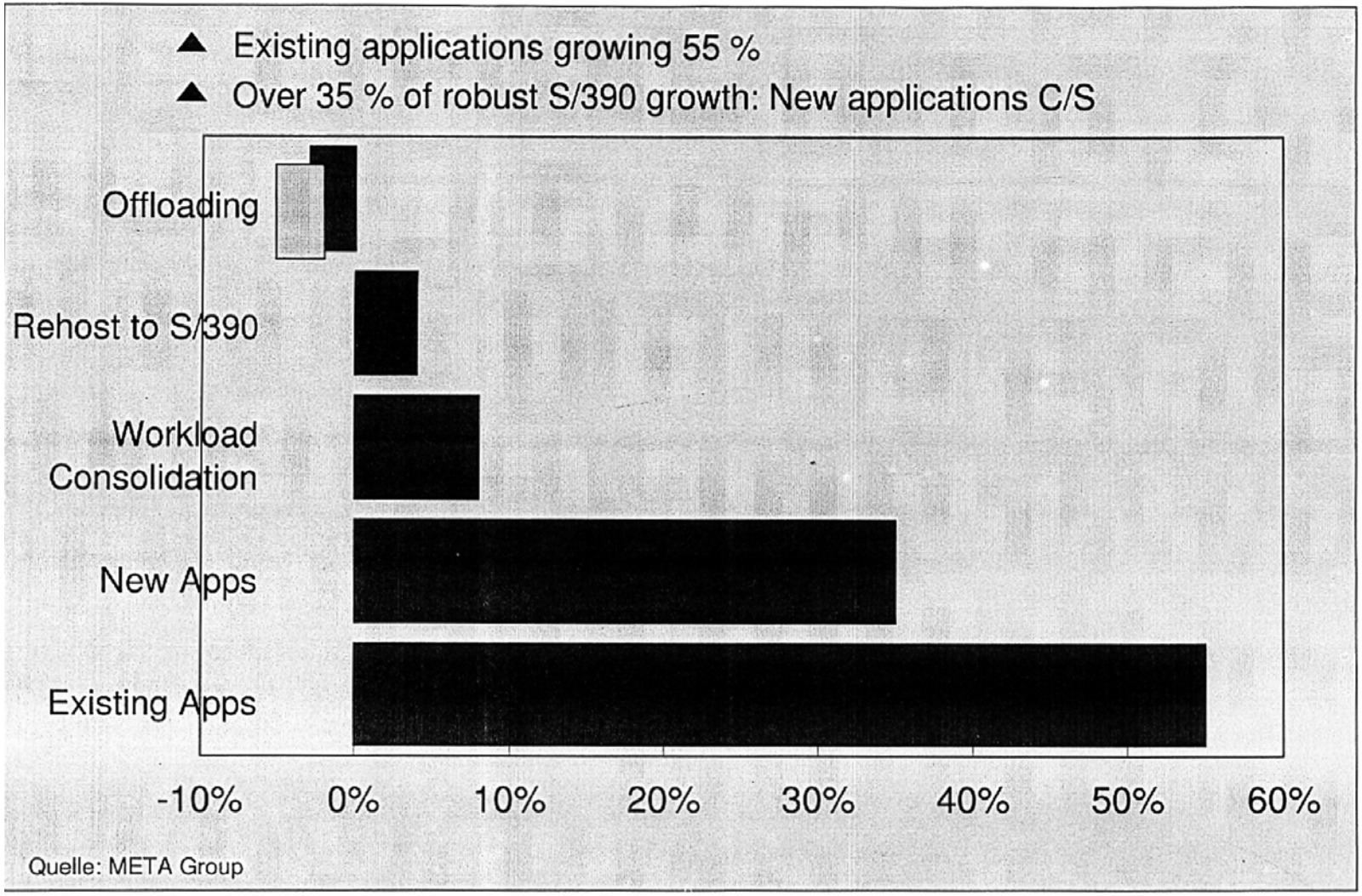
Mainframe (zSeries) surges 15% in 2004, as does xSeries (+24%); iSeries down 17%; pSeries up 7%



Source: Annex Research

CAG 1994-2004: 3%

Workload-Bilanz der S/390-Plattform



KMD's Simple Migration From an HP Cluster to an IBM Mainframe

June 11, 2009

Hewlett-Packard (HP) has dead-ended several of its server architectures over the past five years, including the HP 3000 and HP 9000 architectures, as well as its AlphaServers. HP customers with these systems, and those that require more capacity, have only a few options. They can either buy used HP servers (Dec. 31, 2008 was the last day you could order a new HP 9000 from HP) or migrate to another systems architecture.

KMD, Denmark's largest locally owned IT service provider, was facing these choices; it chose to migrate a homegrown application, called Perspektiv, from an HP 9000 cluster to an onsite IBM mainframe.

Background Information

KMD has close to 3,000 employees and annual revenues of approximately DKK 3 billion (about $570 million or €402 million). KMD operates seven distinct data centers, with approximately 3,000 Windows servers and 250 UNIX/Linux servers. KMD also runs two IBM System z mainframes that process 270 million CICS transactions per month and handle batch jobs. The company's primary charter is to provide IT and consultancy services (hosted services) to public and private markets.

As a hosted service provider, KMD runs IT services on back-end servers for its clients. But KMD is also an Application Service Provider (ASP) and an Independent Software Vendor (ISV), and markets its own payroll and human resources application suite (Perspektiv) to government organizations and small, medium, and large enterprises. KMD also sells its Perspektiv independently, so some of its customers host Perspektiv on their own equipment.

From the outset, Perspektiv was designed to run on HP's UNIX operating environment, HP-UX. It was initially deployed on an HP 9000 server, but this environment ultimately grew to four HP 9000s in a clustered environment.

HP announced it was planning to discontinue its HP 9000 a few years ago. It wasn't long after this announcement that KMD determined it would need more capacity on its HP 9000 server cluster if it was going to continue to meet demand for its Perspektiv program.

KMD had four technology options to address its need for more computing capacity:

- **Upgrade to an HP Itanium-based Integrity server (because HP has ended development and manufacture of its HP 9000 servers, leaving KMD with no future upgrade path)**
- **Move to a competing UNIX server environment**
- **Move to Linux on distributed x86 servers or blades (an option KMD didn't see as viable)**

- **Get creative and find a way to exploit existing computing capacity elsewhere in its information systems environment.**

KMD chose to get creative: Migrating From HP to an IBM Mainframe

KMD migrated its Perspektiv payroll/human resource applications environment from the HP-UX operating environment to Linux partitions running on an IBM mainframe. By doing so, KMD greatly increased its application processing capacity and demonstrated significant cost-of acquisition savings over a five-year period.

KMD projected it would run into capacity problems on its HP 9000s as far back as 2004. During that year, KMD systems engineers attended an IBM workshop in Amsterdam and explored Linux implementations on IBM's S/390 architecture. At that seminar, KMD learned it might be possible to cleanly migrate its existing applications from HP's PA-RISC architecture to a mainframe running Linux.

At first, this idea went nowhere. Other priorities were in play, so the idea came to life and died out several times. But as the capacity problem became more acute on HP's 9000 systems cluster, KMD needed to take action. KMD studied the feasibility of moving applications to Linux on a mainframe and concurrently studied the financial implications of doing so:

- **With respect to porting to Linux, KMD determined that the way its Perspektiv program had been written was consistent with Linux conventions, so porting would be straightforward. According to KMD, "programs migrated and compiled without difficulties."**
- **As for the financial implications, KMD considered only three factors: hardware costs, software costs, and the benefits of virtualization on a mainframe. The mainframe alternative won on these criteria.**

In June 2006, the business case for moving Perspektiv from HP 9000s to an IBM z9 mainframe was approved. Seven months later, KMD had five of its Perspektiv customers up and running in Linux partitions on a mainframe; the remainder of its customers were migrated in November 2007.

The Financial Case

When comparing mainframe costs to costs for distributed servers, IT buyers are often advised to consider the cost to acquire hardware, software, and networking components, system operations costs (such as power and cooling costs, floor space, etc.) and human-related management costs. But, because KMD already had mainframe capacity available, its business case was simpler and less involved. KMD compared:

- **The incremental hardware cost for running Linux on specialized processors in its mainframes (these specialized processors are called Integrated Facility for Linux [IFLs])**
- **The licensing costs for running multiple instances of software on its distributed HP 9000 servers to the single license costs for running applications in a self-contained, singular mainframe environment; and then KMD**
- **Calculated the virtualization benefit delivered by the mainframe, which can consistently run at 100 percent utilization vs. an average of 15 to 30 percent utilization on distributed servers.**

Using just these three metrics, the mainframe trumped the HP 9000 cluster in terms of projected cost savings. Of particular interest in KMD's analysis:

- **KMD didn't weigh network cost savings, nor did it measure other potential data center cost savings (in power, cooling, real estate, maintenance, and the like). The savings would have been even more substantial if these costs were tallied.**
- **The vastly superior virtualization capabilities available on IBM's mainframe played a huge role in this comparison. HP-UX can be virtualized, but HP has no further commitment to the virtualization of its HP 9000 servers.**
- **Staffing costs weren't weighed. IT salaries are high in Denmark, so reducing people costs can have a huge benefit. Distributed environments generally require more people to manage resources than centralized architectures. Accordingly, this is another example of where KMD's actual savings will exceed the figures it used in its analysis.**

The Deployment

KMD was forthcoming in its discussion of the actual porting and deployment processes. Although no substantial issues were reported in the porting of Perspektiv from HP-UX to Linux, KMD did encounter a few performancerelated problems in its initial deployment. KMD indicated that IBM engineers were rapidly dispatched from France to their site to examine the actual Linux installation and deployment parameters, and the performance issues were rapidly overcome after tuning and adjustments.

Further, KMD did report that it "took some getting used to" when describing running the Linux operating environment from inside IBM's z/VM operating environment. z/VM manages Linux instances in virtualized partitions on the mainframe, so both operating environments run simultaneously on the mainframe. KMD is now, however, used to running Linux in this manner.

The Management Environment

KMD pointed out they prefer to run their organization's systems/network management environment using HP's OpenView product line—but OpenView doesn't run on mainframes. To bypass this issue, KMD long ago deployed IBM's Tivoli management environment on its mainframes, and with a few extensions, Tivoli can collect Linux activity data and report it through Tivoli to OpenView.

From a monitoring and control perspective, Tivoli can monitor free space in a file system, CPU overload (for instance, if problem looping is occurring), trashing (extensive swap usage) and more, and report these instances to OpenView using a Java-based Linux Agent. Should any of these conditions occur, incidents are automatically registered with OpenView. KMD reports that Tivoli Monitoring, like most management products, does carry some detectable CPU overhead, but this overhead is minor and well worth it in KMD's opinion to ensure systems are properly running.

- **Conclusion• Proves that mainframes can run Linux (and Linux applications) in exactly the same way other platforms run Linux**
- **Demonstrates a viable way to rehost applications from other architectures on a highly reliable, highly scalable, highly secure platform (the mainframe)**
- **Provides a viable alternative to HP customers that have run out of capacity on their HP 9000s**
- **Demonstrates that mainframes are viable platforms for the deployment and servicing of Software as a Service (SaaS) applications.**

KMD’s Linux on the mainframe implementation is significant because :

- **KMD sells Perspektiv as an independently available software product, but also makes it available as a hosted product. There’s no reason KMD can’t also sell this as a SaaS application.**
- **KMD could have replaced its HP 9000 with HP Integrity servers running HP-UX, but moving to an IBM mainframe server made more sense—both from economic and capacity expansion perspectives. KMD found a creative way to expand capacity without having to purchase another, completely different architecture in the form of HP’s Integrity, which is an Itanium-based server environment. This saved KMD and its stockholders a lot of money.**