IBM

UCS Solutions buys into On Demand Business with SAP and IBM.

Overview

■ *Challenge*

UCS Solutions provides SAP software solutions primarily for retail clients throughout South Africa. The company had reached a point where they wanted to create a scalable and leveragable platform on which they would be able to provide more cost-effective solutions to their existing and new customers. The challenge was to find an IT infrastructure that would offer the flexibility to meet customer demands while continuing to offer very high levels of reliability and performance.

■ *Why Become an On Demand Business?*

Adding fixed computing capacity for each new client was adding a fixed cost to the business. By switching to a model which delivers computing resources in very

» **On Demand Business defined**
An enterprise whose business processes—integrated end-to-end across the company and with key partners, suppliers and customers— can respond with speed to any customer demand, market opportunity or external threat.

small increments, UCS Solutions is able to match client needs more accurately, and reduce charges to customers—a winning combination for growing the business.

■ *Solution*

By taking advantage of the most current advances in virtu- alization technologies, UCS has transformed its ability to add new business without incre- mentally adding to business costs. Working with IBM Global Services, UCS Solutions created a new server infrastructure that enables fully flexible resource provisioning, where customers can immediately access additional resources, without over-committing to idle capacity.

■ *Key Benefits*

The key building blocks are now in place for UCS Solutions to build a virtualized solution and offer their customers a flexible solution whereby they are able to commit to and pay for their average SAP software usage, and be charged for additional usage as demand dictates. UCS Solutions is able to use advanced IBM technology to allocate proc- essing capacity to customers exactly as needed, without over- investing in IT infrastructure.

Providing an On Demand Business environment for clients

On Demand Business Benefits

• Allocates processing capacity
  as needed

• Virtualized solution allows
  variable pricing

• Flexible, cost-efficient system allows
  better customer service

"Most importantly, with IBM p5 servers our customers experience better SAP application performance at lower cost."

– Andrew Murray, Infrastructure Director,
UCS Solutions

UCS Solutions of South Africa provides IT services to companies in the retail industry. From offices in Cape Town, Durban and Johannesburg, UCS offers SAP software implementation, terrestrial and satellite network connectivity, and IT infrastructure provision. The company employs around 230 people, with sales of approximately ZAR 260 million (US$40 million).

UCS Solutions (www.ucs-solutions.co.za) was running its SAP software instances on HP Superdome systems, on which the leases were due to expire. Andrew Murray, Infrastructure Director, explains the options: "Maintenance costs were rising, and it was clear that it would be cheaper to buy newer systems with lower operational costs. Rather than implement a new server for each customer, our aim was to leverage equipment across multiple customers to provide a lower cost service, and this dictated our initial inquiries."

UCS Solutions in effect provides an On Demand Business environment for its clients, who need to be able to deal with peaks and troughs in workload. The challenge for UCS was to find a server infrastructure that could match this highly variable demand pattern and provide effective IT solutions at low total costs of operation.

Shopping around: choosing IBM solutions

UCS Solutions issued a Request for Proposal, and selected three IBM p5™ 550 servers running IBM AIX® to host its customers' SAP solutions, including SAP R/3 Enterprise, SAP Business Information Warehouse, SAP Human Resources and SAP Retail.

"Having run HP systems for more than five years, the migration was a major decision, and to learn more we visited IBM sites at San José, CA, Poughkeepsie, NY, and the Retail Centre of Excellence in London, England. We became convinced that the advanced Micro-Partitioning features of the IBM POWER5™ processor-based p5 servers offered UCS Solutions the flexibility and cost-efficiency that we needed," says Murray.

The Micro-Partitioning feature, exclusive to IBM POWER5 technology, allows UCS Solutions to run multiple instances of SAP solutions on one server. Each software instance runs in a virtual server, which is allocated system resources and processor capacity exactly as the workload requires.

Murray continues, "When a single customer has a dedicated server, the processor is mostly under-utilized. We were looking to maximize processor utilization by sharing workload from many customers while maintaining isolated SAP application environments – for example, separate release mixes – and for security reasons. The automated dynamic resource distribution capabilities of virtualized p5 servers allows UCS Solutions to achieve much greater processor utilization – which keeps our costs down because we are not over-investing in idle capacity. In addition, while other non-IBM systems do offer partitioning, the Micro-Partitioning features of the p5 servers offer finer granularity – we can allocate processor capacity in single percentage points – which gives us a closer match between client needs and the service we provide."

Christmas shopping season

Retailing is a highly seasonal business, and the mix of customers at UCS Solutions means that the workload peaks occur at different times of the year – Christmas, national holidays and summer. The three UCS Solutions p5 servers are sized for the average maximum workload. When the pre-Christmas workload rises, during late October, processor resources are allocated from those customers whose workload is lower at the time.

Stylish migration to new systems

UCS Solutions engaged IBM Global Services to migrate its SAP solutions to the IBM p5 servers running AIX. From delivery of the new servers to full production, the migration took around six weeks.

"The ability to consolidate servers produced immediate benefits," says Murray. "We can automatically allocate resources from the QA and test environments to the production systems for overnight batch jobs, which means these finish more quickly and more reliably.

Key Components

Software

• IBM DB2®

• IBM Informix®

• IBM Tivoli®

• SAP R/3 Enterprise

• SAP Customer Relationship Management

• SAP Human Resources

• SAP Business Information Warehouse

• SAP Retail

• MaxDB

Hardware

• IBM @server® p5 model 550 servers

• IBM @server BladeCenter® model HS20 servers

• IBM @server xSeries® models 346 and 365 servers

• IBM TotalStorage® DS8100, ESS800

Services

• IBM Global Services

"Most importantly, with IBM p5 servers our customers experience better SAP application performance at lower cost. Customers pay only for the workload processed, not for processor capacity lying idle. In our jargon, we are leveraging the p5 servers across more customers, providing a better service at lower overall costs of operation."

UCS Solutions also deploys IBM @**server** BladeCenter, IBM @**server** xSeries models 346 and 365 servers, and an IBM TotalStorage DS8100 and an ESS800. UCS Solutions runs several different databases to support its customers, including MaxDB, IBM Informix and IBM DB2 information management software.

Next year's fashion: storage virtualization
The next steps for UCS Solutions will be to consider virtualization of the data storage environment using IBM TotalStorage SAN Volume Controller (SVC). SVC allows multiple storage systems to be consolidated and treated as a single logical entity. Storage capacity provided to each system is no longer constrained by the physical limits of any one disk array or volume; SVC allows dynamic addition of logical capacity as the need arises.

UCS Solutions is also deploying IBM Tivoli software to provide enhanced systems management, backup and control, as part of an ongoing drive to reduce costs and provide a more reliable, flexible business service.

"The migration to IBM p5 servers running AIX has been very successful for UCS Solutions," says Murray. "We are starting to see the benefits of lower costs of operation combined with a more flexible way to meet our customers' needs, providing SAP solution excellence for retailers throughout South Africa."

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