Building a Better Infrastructure With IBM Middleware on IBM Power™ Systems

Introduction

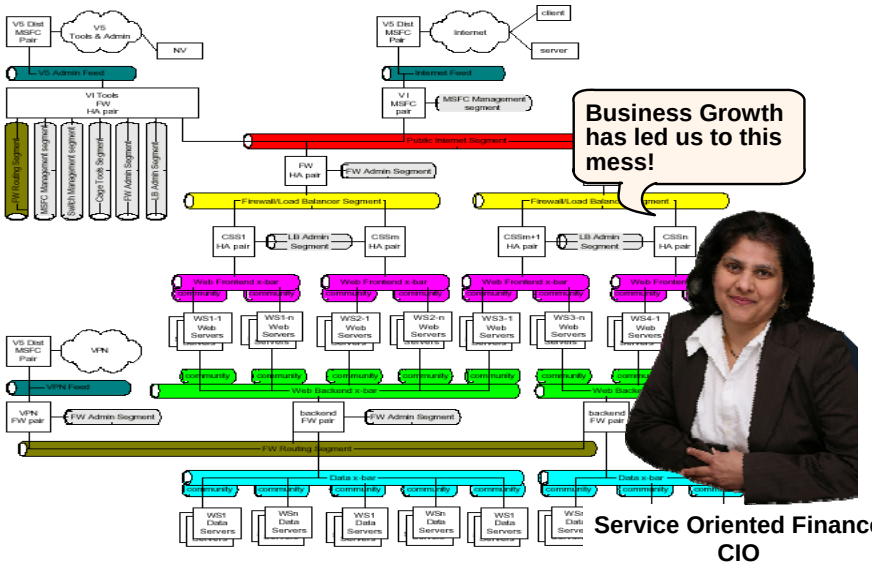
Introducing Service Oriented Finance

We are a successful business that has grown rapidly.

However, IT is now becoming a roadblock to our growth.

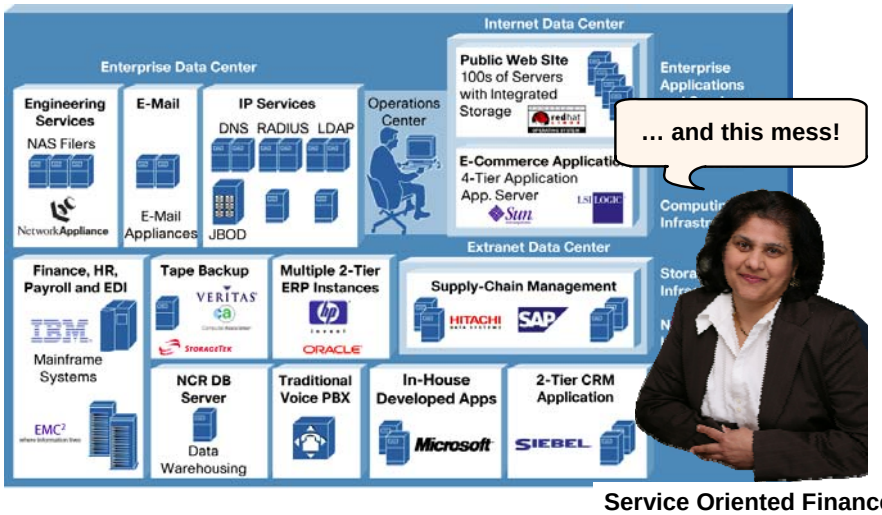
Service Oriented Finance CEO

Data Centers at Service Oriented Finance



Service Oriented Finance CIO

Data Centers at Service Oriented Finance



Service Oriented Finance CIO

Internal IBM Consolidation Project – Distributed Cost Per Server

Annual Operations Cost Per Server
(Averaged over 3917 Distributed Servers)

Power	$731
Floor Space	$987
Annual Server Maintenance	$777
Annual Connectivity Maintenance	$213
Annual Disk Maintenance	$203
Annual Software Support	$10,153
Annual Enterprise Network	$1,024
Annual System Administration	$20,359
Total Annual Costs	$34,447

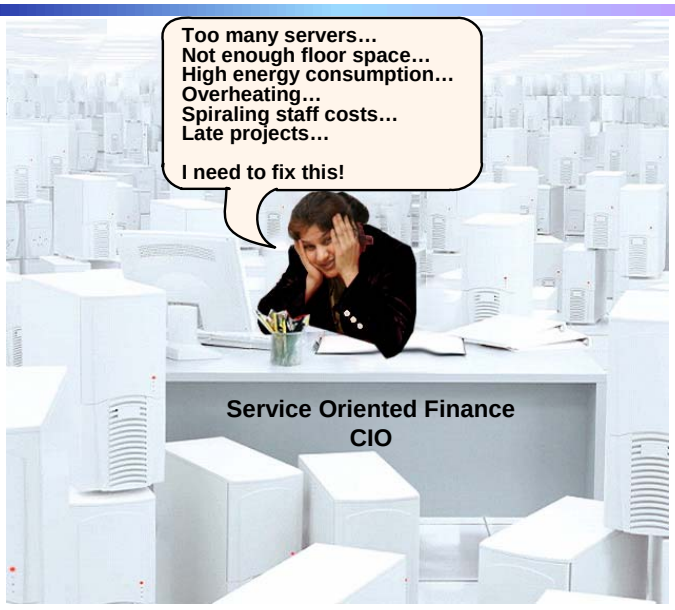
$34,447!

These annual operating costs are consuming my budget.

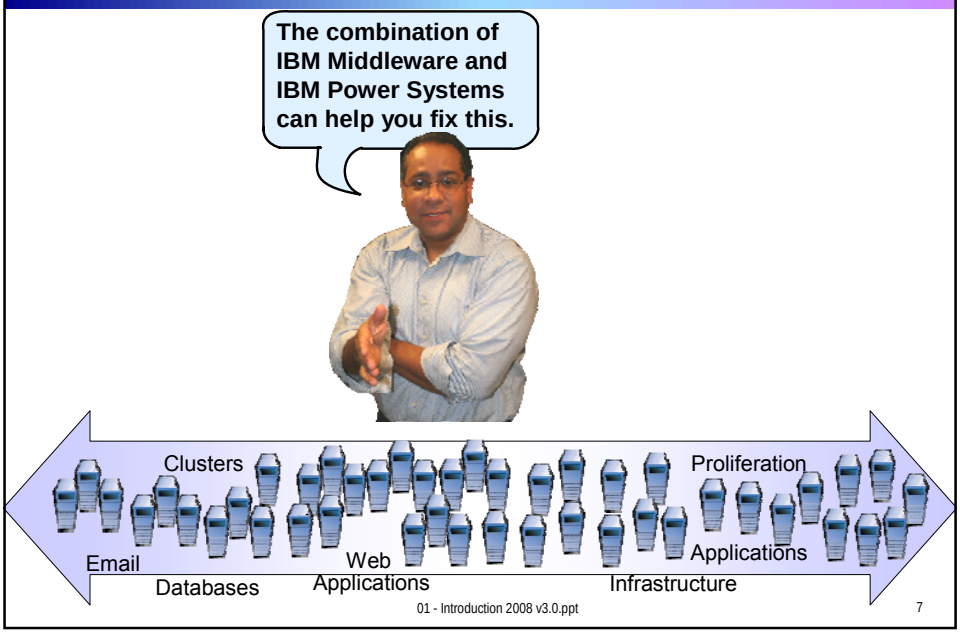
There's nothing left for new projects!

The largest cost component was labor for system administration - 7.8 servers per headcount @ $159,800/yr/headcount.

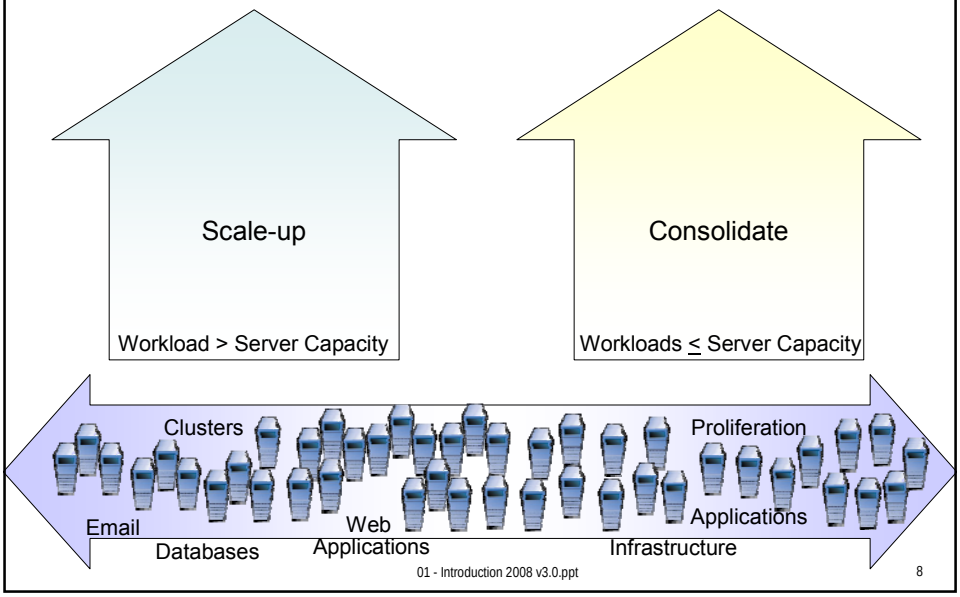
Data Centers at Service Oriented Finance



IBM Software and IBM Power Systems Can Reduce IT Clutter



Reduce Data Center Complexity by Scaling-up and Consolidating



Jebsen & Jessen Benefits From Scale-Up and Consolidation

Challenges

- Migrate business critical SAP environment to a new database
- Consolidate physical server infrastructure
- Drive down TCO

Solution

- Replaced seven HP-UX servers with three IBM Power Systems running IBM AIX
- Implemented SAP ERP on IBM DB2

Jebsen & Jessen SEA doubles performance and cuts 20 percent from TCO with DB2 on IBM Power Systems.

"We felt that the IBM hardware was technically superior."

- Roy Lim, Operations Manager – Jebsen & Jessen SEA

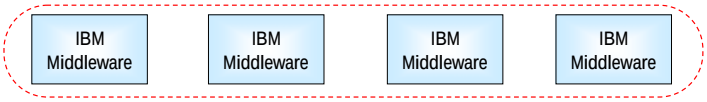
"The migration of our SAP ERP environment to IBM DB2 on IBM System p5 servers has delivered improved performance and availability."

- Gopal Varutharaju, Director – Information Technology Jebsen & Jessen SEA

IBM Middleware Runs on Many Platforms

IBM Software Efficiencies

- Software designed to save the business money
- Superior software performance benchmarks
- Better administrator productivity



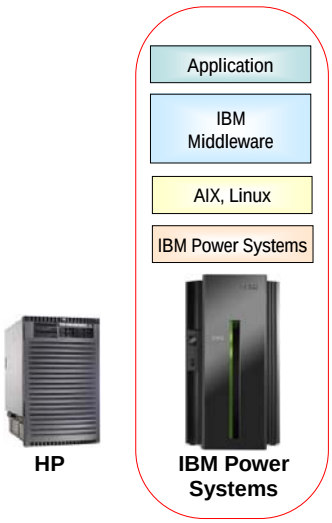
HP

IBM Power Systems

Dell

Sun

IBM Power Systems Have The Best Hardware Performance



IBM Power Systems
- Superior performance
- Scale-up capabilities
- Consolidation via PowerVM

HP

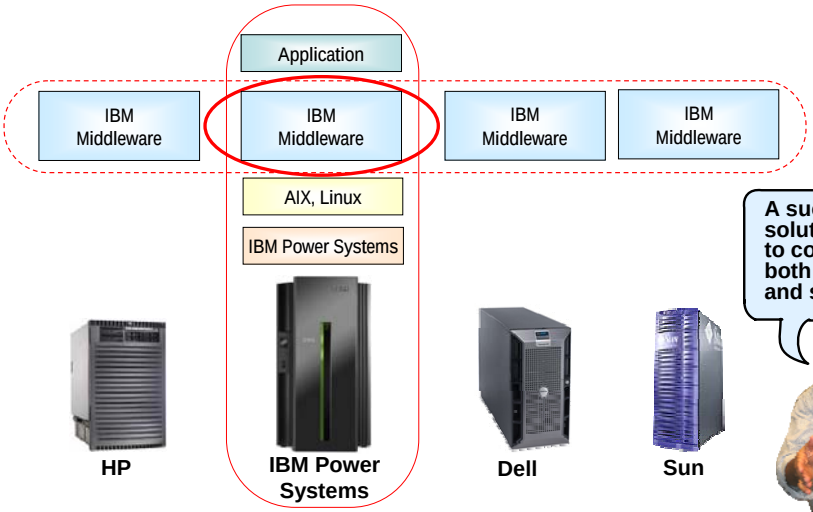
IBM Power Systems

Dell

Sun

An Unbeatable Combination for TCO

IBM Middleware plus IBM Power Systems – The best combination for optimized IT!



HP

IBM Power Systems

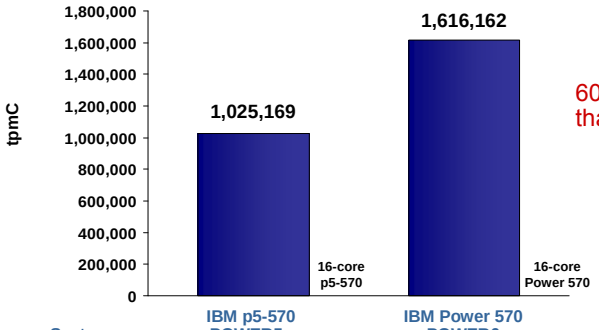
Dell

Sun

Why is IBM Middleware + IBM Power Systems the Best Solution to Simplify Your IT Environment?

- Fast and powerful IBM Power Systems servers can handle several workloads
- Software designed to lower cost and improve flexibility
  - Designed with business costs in mind
  - Integrated software environment
  - Software designed to take advantage of a fast server
    - DB2, Lotus, WebSphere, Tivoli, Rational
  - Software designed to easily consolidate workloads
- Software management to simplify and contain labor costs
- Net result - great price/performance and reduced complexity

New POWER6™ Breakthrough Performance!



60% more throughput than POWER5+™

System	IBM p5-570 POWER5+	IBM Power 570 POWER6
Processor	POWER5+	POWER6
Chips	8	8
Cores	16 @ 2.2GHz	16 @ 4.7GHz
Threads	32	32
tpmC	1,025,169	1,616,162
$/tpmC	$4.43	$3.54
Availability Date	5/31/06	5/21/2007

Breaks the 4 GHz milestone

20% reduction in cost

Source: www.tpc.org

IBM Power Systems Are Designed to Easily Scale-Up or to Consolidate

- **Scale-up Features**
  - Up to a 64-core SMP server
  - Simultaneous Multi-threading
  - Larger page sizes
  - Hardware decimal floating point
  - Dynamic reconfiguration to deliver capacity on-demand
- **Consolidation Features**
  - Hardware virtualization with hypervisor support
  - Dynamic resource allocation
  - Up to 10 logical partitions per core
  - Storage protection keys
  - Virtual I/O
  - Linux support
  - PowerVM Lx86
  - Live Partition Mobility

IBM Middleware Is Designed to Save the Business Money

WebSphere.

Extend the value of applications and business processes with SOA

Build Business Capability Faster

Information Management

Integrate data and enterprise content to leverage information on demand

Better Business Decisions

Lotus.

Enables businesses to communicate, collaborate and increase productivity

Employees Respond to Business Challenges Effectively

Rational.

Govern software and systems delivery

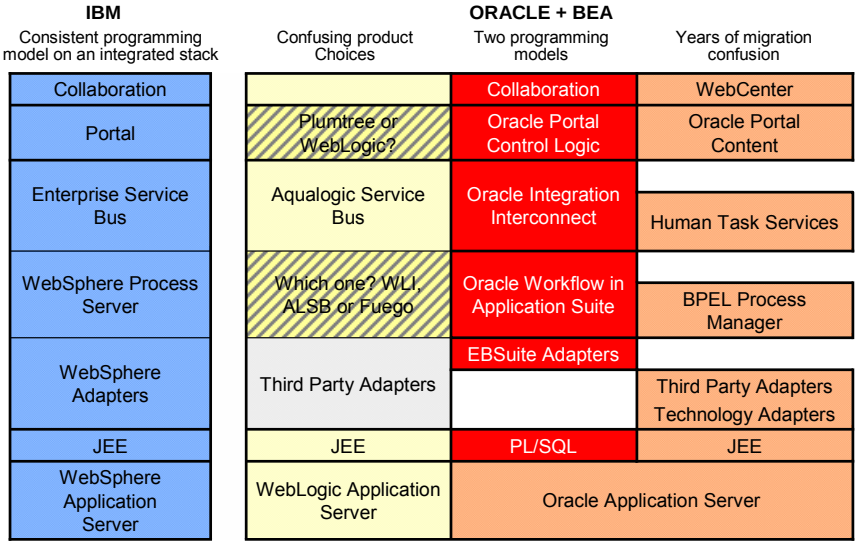
Development Efficiency and Project Success

Tivoli.

Manage infrastructure, operations and IT processes, to more effectively deliver services aligned to business goals

Continuous Business Operation

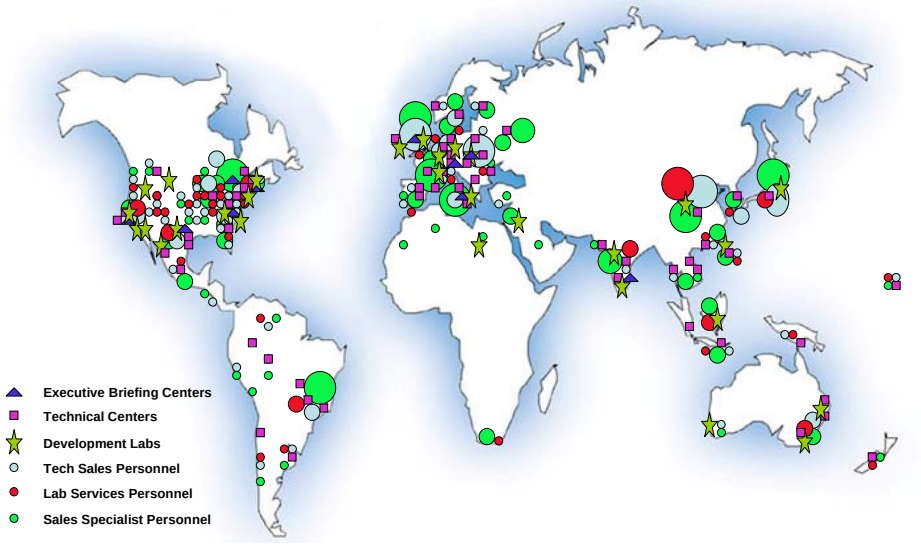
IBM Provides a Simplified, Integrated and Open Middleware Stack



IBM Middleware – Designed to Work Best on IBM Power Systems

- DB2
  - Optimizations to exploit large page sizes, decimal floating point, Simultaneous Multi-threading, storage protection keys
  - Recovery integration, first failure data capture
- Lotus
  - Integrated collaboration environment that can support more than 15,000 users on a single IBM Power Systems server
  - The internal mail system at IBM is deployed with Domino on IBM Power Systems
- WebSphere
  - Takes advantage of IBM Power Systems 64-bit architecture and large memory to provide enhanced performance by caching, just-in-time compilation, etc.
  - WebSphere provides flexible deployment options that can take advantage of IBM Power Systems virtualization and partitioning

IBM Has Skilled People Near You



IBM Power Systems Worldwide Ecosystem

2,400 Regional System Integrators

1,300 PartnerWorld® Industry Networks ISVs

IBM PowerNet Partner Program 350 ISVs

AIX L
7,500 applications
3,000 ISVs

2,600 applications
1,200 ISVs

Power.ORG MEMBER

33 IBM Innovation Centers

IBM Virtual Loaner Program
New reservations up 80% YTY

IBM Global Financing
System p5 to POWER6 Exchange

IBM Global Technology Services
Infrastructure Management Services
for IBM Power Systems

Three Steps to Optimizing IT

Service Oriented Finance CIO

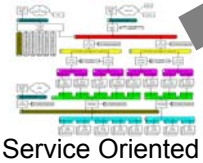
Scale-up large workloads

Consolidate small workloads

Manage more efficiently

Here's our roadmap to eliminate your IT clutter.

IBM



Service Oriented Finance Data Center

IBM Outperforms the Competition

What about other platforms?

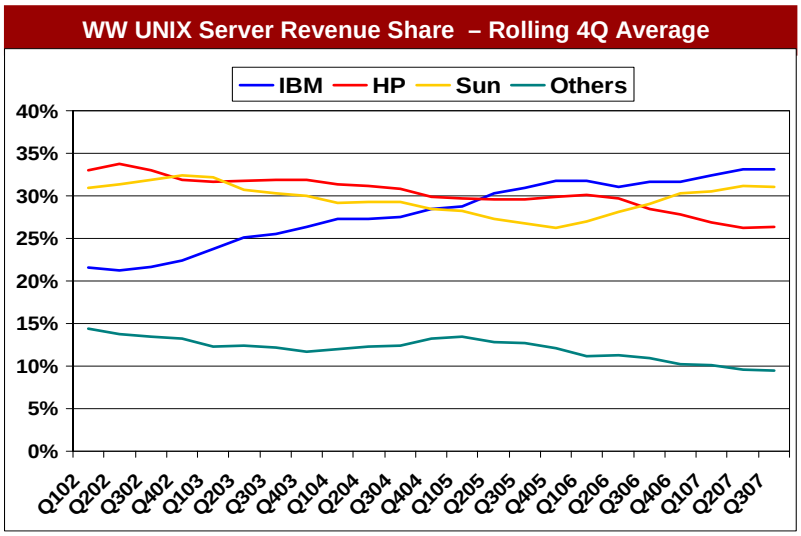
Service Oriented Finance Data Center Manager

IBM Middleware and IBM Power Systems are superior to Sun and HP with 3rd party middleware.

Let the market speak for itself!

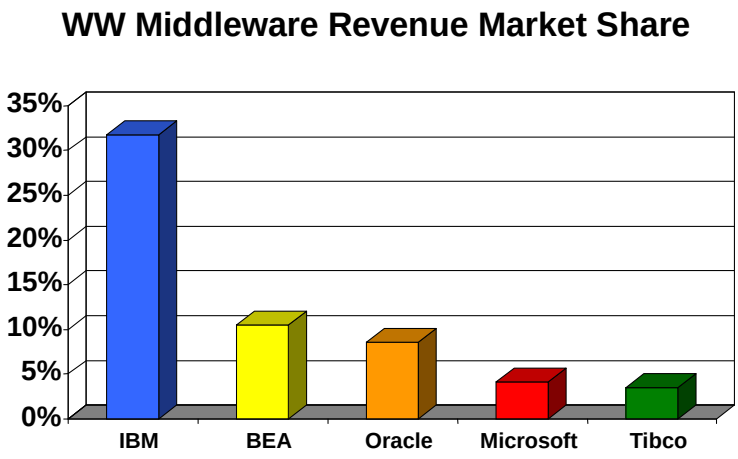
IBM

Unix Server Rolling Four Quarter Average Revenue Share



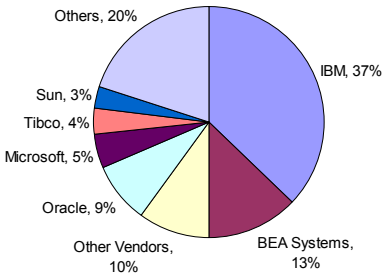
Source: Worldwide Quarterly Server Tracker, IDC, November 2007.

IBM Is the World's Largest Middleware Vendor



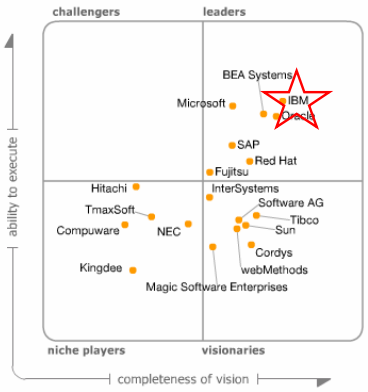
Source: Market Share: Portal, Process and Middleware Software, Worldwide, 2004-2006, Gartner, June 27, 2007.

IBM Middleware Leads in Key Indicators



Highest Application Integration Middleware Market Share

Source: Worldwide AIM and Portal Software, Gartner, 2005.



Best Middleware Vendor

Source: Gartner Magic Quadrant on Application Infrastructure, Gartner, May 2007.

SHOW ME MORE!

Service Oriented Finance
CIO

Agenda

- Introduction
- POWER Hardware Improves Utilization and Reduces Costs
- Break
- Reduce Database Complexity and Improve Performance with DB2
- Simplify Collaboration Services with Lotus Domino
- Lunch
- Consolidation Through Virtualization Saves Space, Energy and Costs
- Simplify Sprawling Web Tiers To Scalable WebSphere Servers
- Break
- Manage Datacenter Services With Best Practices
- IT Accounting in a Virtualized Environment
- IBM Middleware on Power Systems - An Unbeatable Combination for TCO