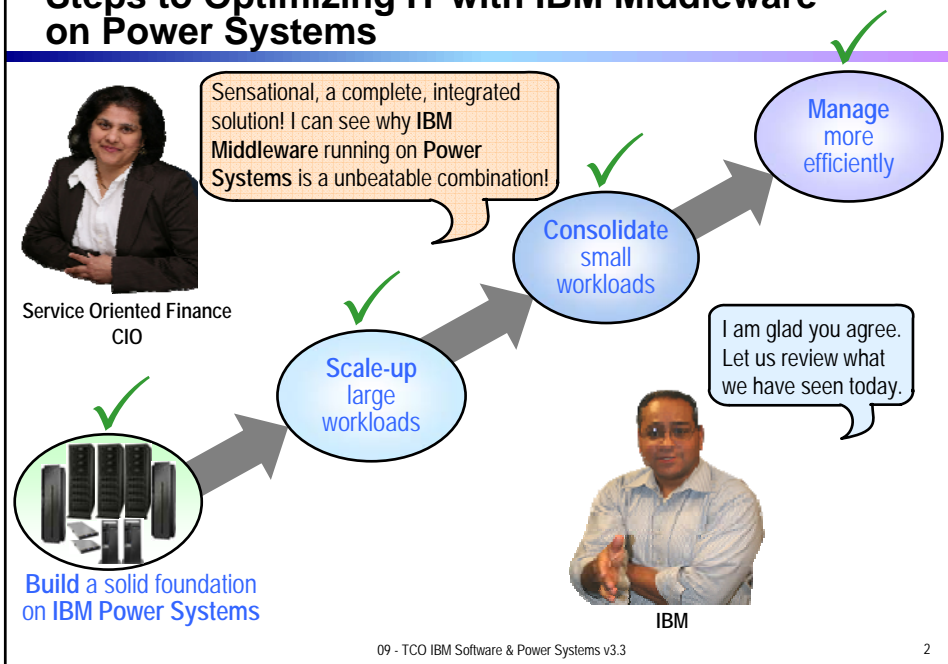


# Building a Better Infrastructure With IBM Middleware on IBM Power Systems

IBM Middleware on Power Systems –  
An Unbeatable Combination for Low TCO

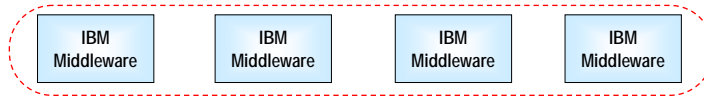
## Steps to Optimizing IT with IBM Middleware on Power Systems



# 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

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# Power Systems Have Clear Performance Advantages Over Their Hardware Competitors

## IBM Power Systems

Superior performance  
Scale-up capabilities  
Consolidation via PowerVM  
Simplify and optimize  
Dynamic relocation of partitions

Application

IBM Middleware

AIX, Linux

IBM Power Systems



HP



IBM Power Systems



Dell



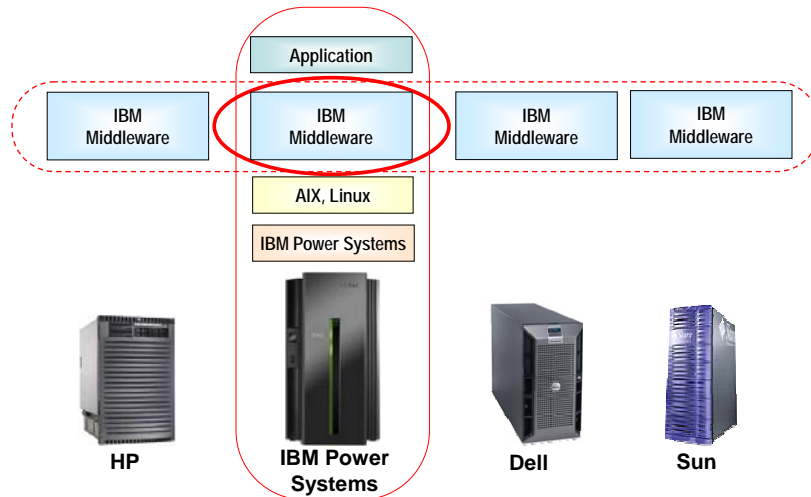
Sun

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## An Unbeatable Combination for TCO

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



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## Reduce The Elements In Your Total Cost

- Total Cost of Ownership =
  - ▶ Cost of hardware +
  - ▶ Cost of software +
  - ▶ Cost of System Management +
  - ▶ Environmentals
  - ▶ Downtime

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## The IBM Financial Advantage

Let's review what we saw today...



**Service Oriented Finance  
CIO**



**IBM**

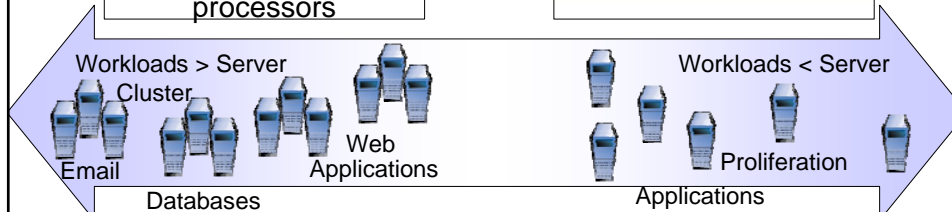
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## Hardware Cost Summary

Powers Systems servers are 2 to 3 times faster than the competition  
This means you can scale-up and need only 1/2 to 1/3 the processors

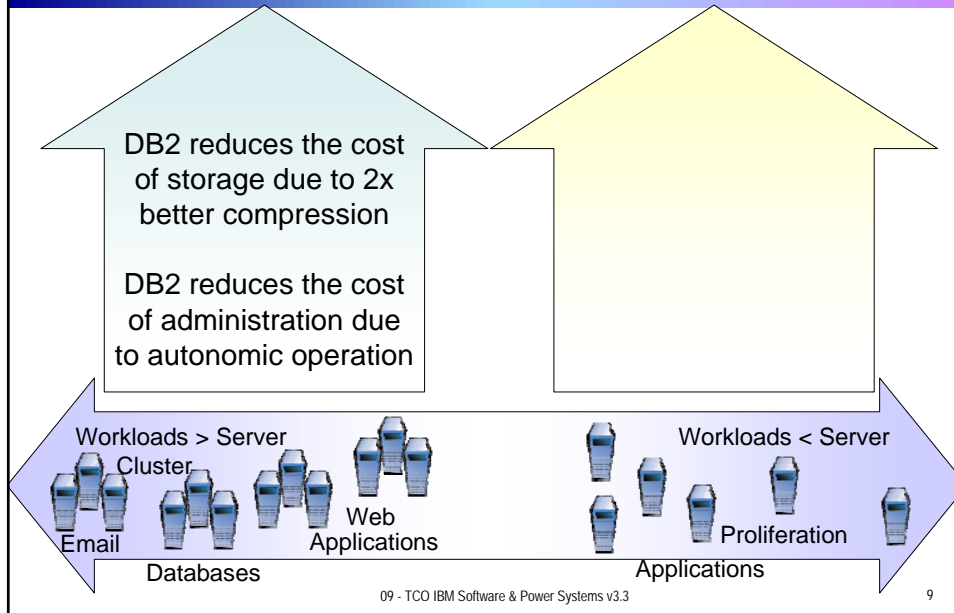
Power Systems can consolidate 50 servers with low utilization onto 1 Power Systems server with PowerVM



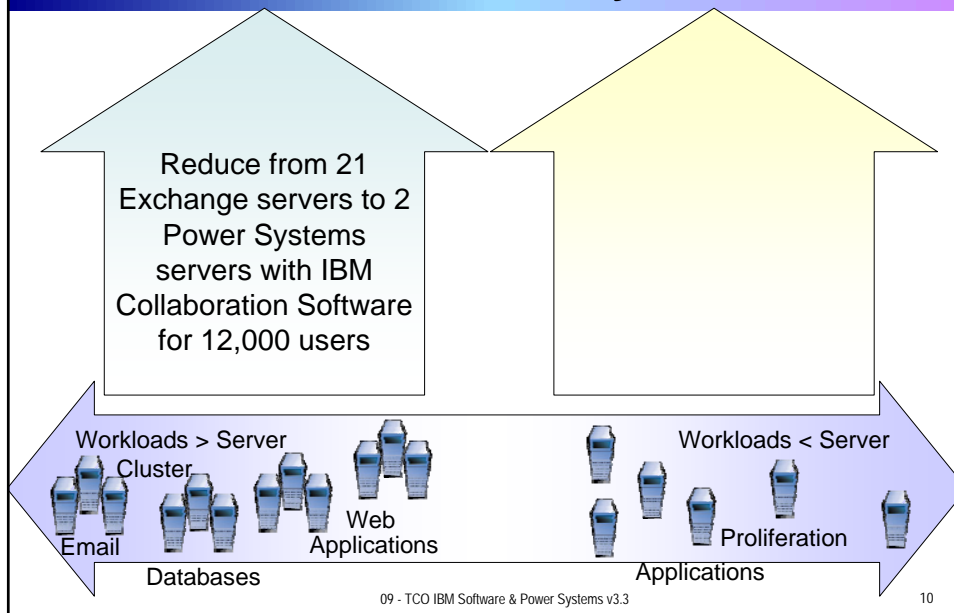
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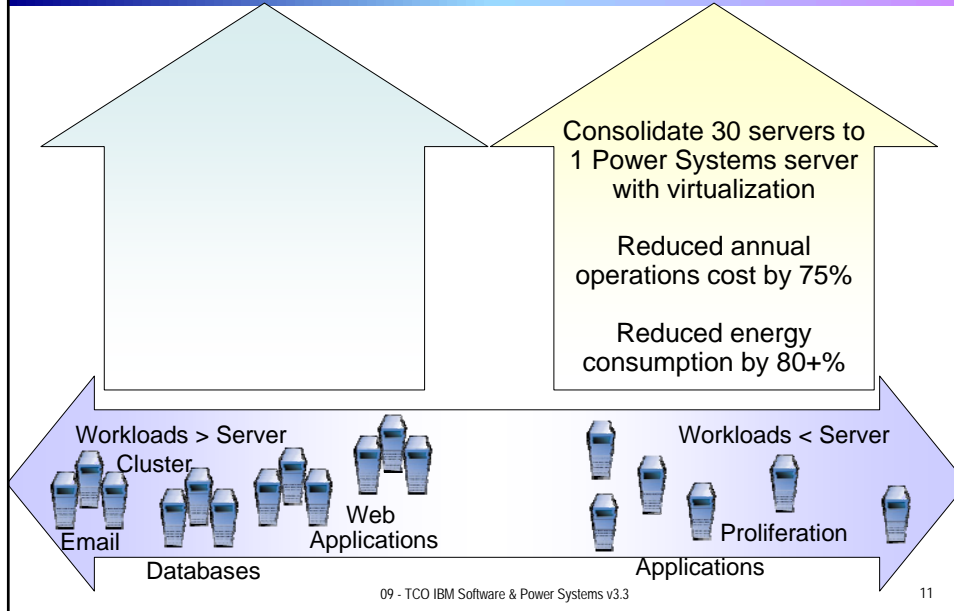
## Database Cost Summary



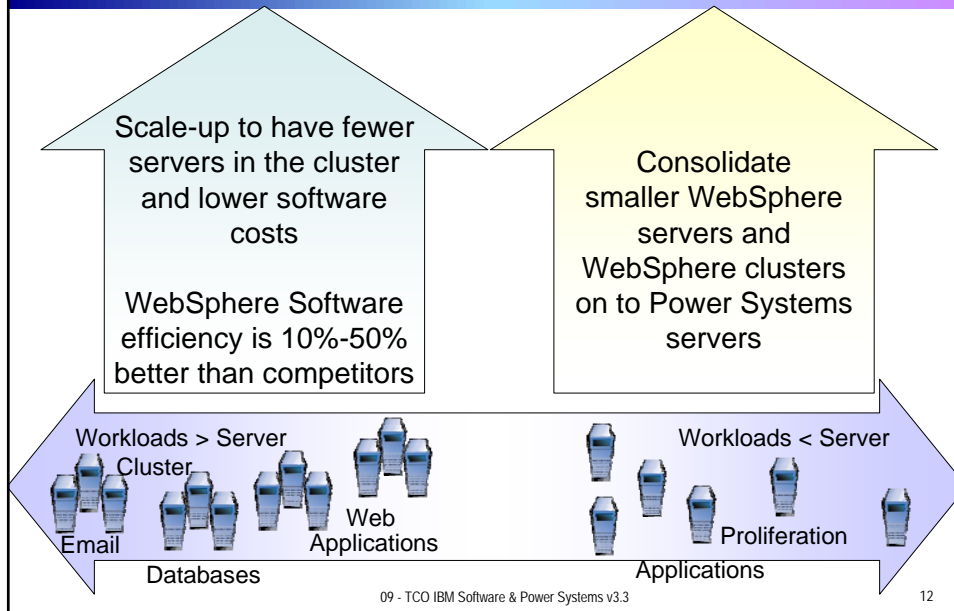
## Collaboration Cost Summary



## Consolidation Environmental Cost Savings



## WebSphere Cost Savings



## Service Management Cost Savings



First Citizens uses IBM service management and puts money in the bank

### Value drivers:

- Solve and prevent problems before customers and branch staff are affected

### Solution

- IBM Tivoli Provisioning Manager
- IBM Tivoli Monitoring
- IBM Tivoli Enterprise Console
- IBM Tivoli NetView

### Value realization:

- Increased service availability by monitoring and managing all facets of the operating environment
- Saved approximately \$800,000 with virus protection; \$400,000 in U.S. compliance regulations
- Distributed software to 3,500+ desktops across 340 branches in 2 days with 99.5% accuracy
- **Saves \$200,000 for each new service deployed**

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## Alinean Case Study on TCO: Overview



### Business problem: Multiple servers, high costs

- ▶ 47 IBM, Sun and HP servers hosting Insurance claims processing, CRM, e-Commerce, BI, database, and web portal workloads
- ▶ 19% average utilization, managed by 8 operations and administration staff



### Solution: Consolidate on Power Systems Servers

- ▶ Consolidated **47** servers to **2** Power Systems p5-590 servers with PowerVM
- ▶ Migrated SUN and HP servers to Power Systems
- ▶ Increased average server utilization to nearly 60%



### Result: Reduced TCO by over 56%

- ▶ 77.8% lower support, maintenance and server costs
- ▶ 62.1% lower server operations and admin labor costs
- ▶ 85.7% lower facilities costs
- ▶ 85.5% lower downtime costs

Source: "IBM System p5: Lower TCO Through Server Consolidation" whitepaper by Alinean Inc., September 2006

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## Alinean Case Study: Original Environment

Primary Server Function	Server Type	Number of Servers	Processors per Server
Web e-Commerce Portal	IBM pSeries® 660 Mod 6H1	16	4
Agent CRM Application	IBM pSeries 630 Mod 6C4	20	4
Database Servers	Sun Fire 12K	4	32
Claims Processing Application	HP Integrity Superdome	1	32
Departmental Servers	Sun Fire 6800	6	16
<b>Total</b>		<b>47</b>	<b>400</b>

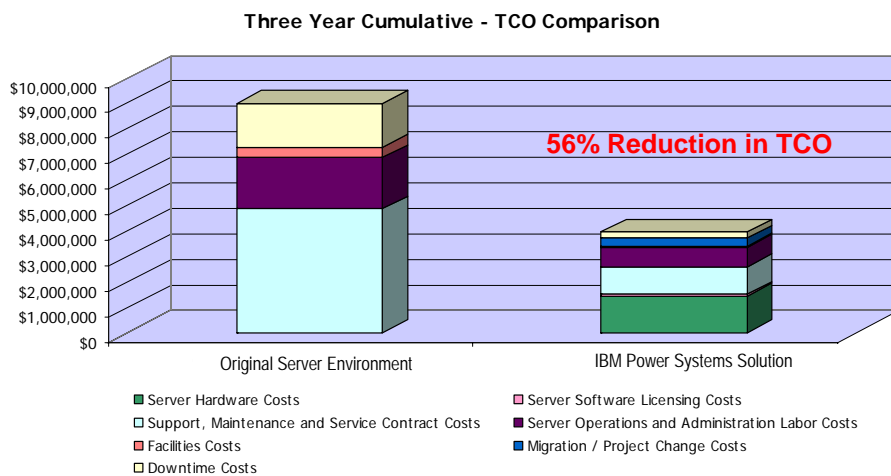
**All workloads consolidated onto two Power Systems p5-590 servers (32 processors, 128GB; 16 processors, 64GB)**

Source: "IBM System p5: Lower TCO Through Server Consolidation" whitepaper by Alinean Inc., September 2006

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## Alinean Case Study: 3-year Cost Comparison



Source: "IBM System p5: Lower TCO Through Server Consolidation" whitepaper by Alinean Inc., September 2006

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## Unbeatable Combination

- Efficient IBM Software That Reduces Cost
  - ▶ Most Efficient Data Base and Data Warehouse
  - ▶ Most Efficient Application Server and SOA Components
  - ▶ Most Efficient Collaboration Solutions
  - ▶ Most Productive SOA Tools
  - ▶ Support for I/T Service Management Best Practices
  
- Plus Powerful Power Systems hardware
  - ▶ Top Performance on Industry Standard Benchmarks
  - ▶ Leading Price/Performance
  - ▶ Virtualization Technology to Support Consolidation
  
- Equals an Unbeatable Combination for TCO!

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## Business Problem Solved

IBM helped us consolidate a messy data center into a manageable, cost effective, agile and flexible business asset



CIO



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