



Thriving in Uncertain Times

Four Smart Ways to Reduce Costs and Deliver a Competitive Edge

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Dynamic Infrastructure: Reduce costs, while improving service and lowering risk

IMPROVE SERVICE

Not only ensuring high availability and quality of existing services, but also meeting customer expectations for real-time, dynamic access to innovative *new* services.

REDUCE COST

Not just containing operational cost and complexity, but achieving *breakthrough* productivity gains through virtualization, optimization, energy stewardship, and flexible sourcing.



Dynamic
Infrastructure

MANAGE RISK

Not only addressing today's security, resiliency, and compliance challenges, but also preparing for the new risks posed by an even more *connected* and *collaborative* world.

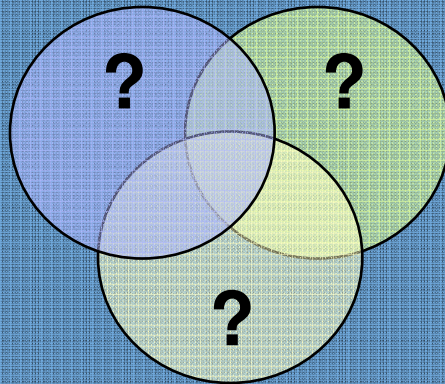
Dynamic Infrastructure:

Supporting multiple workload approaches.....

Transaction/data processing

- Scale
- Flexible workload management
- Fast transaction, I/O speeds
- High quality of service
- Security

Platforms



Basic web and collaboration

- Scale
- High throughput
- Varying quality of service
- Varying levels of security

Business applications (including web)

- Scale
- High quality of service
- High memory requirements
- Flexible infrastructure
- Security

Business Analytics

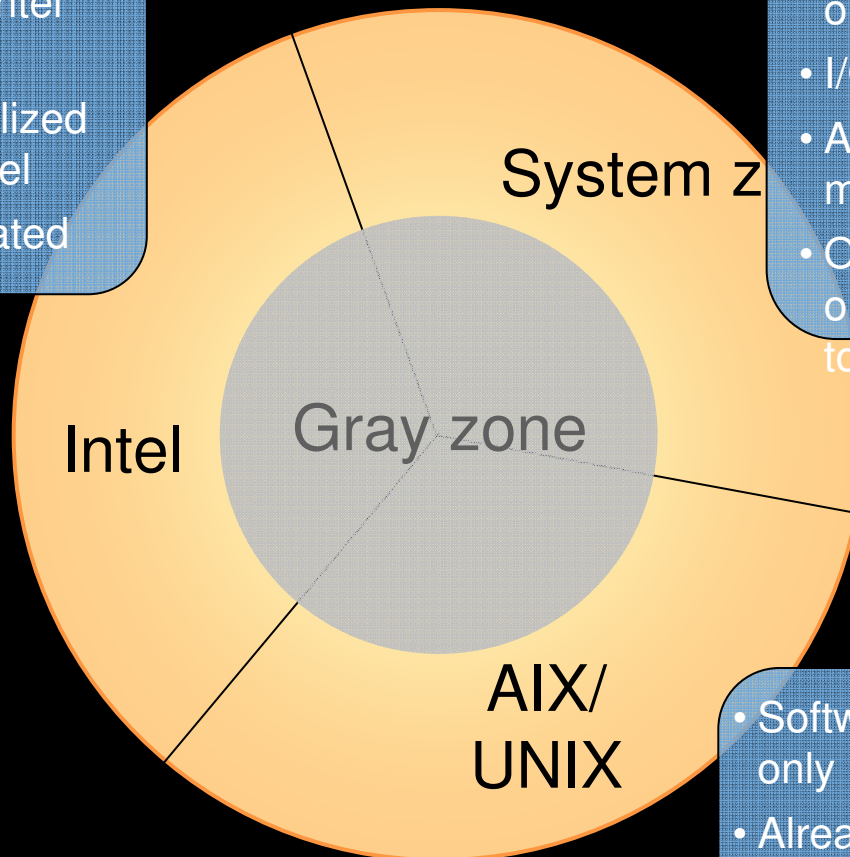
- Scale
- Compute intensive
- High I/O bandwidth
- High memory requirements
- Varying levels of security

Static simulation/modeling

- Compute intensive
- High memory requirements
- Lower QoS

Platform: Fit for purpose for today's applications & data

- Software works on Intel only
- Already/easily virtualized and managed on Intel
- Small counts of isolated images



- Software works on System z only
- I/O intensive apps
- Already/easily virtualized and managed on System z
- Other application components on System z or close proximity to data on System z

- Software works on UNIX only
- Already/easily virtualized and managed on UNIX
- Very high sustained CPU peaks and memory needs

Four smart ways to quickly reduce costs

Based on insights from working with hundreds of customers, here are four approaches to reducing costs

1

Consolidate applications and data

2

Optimize deployment of applications and data

3

Reuse applications and data

4

Properly account for your costs

IT architecture is critical to success

1

Consolidate applications and data

2

Optimize deployment of applications and data

3

Reuse applications and data

4

Properly account for your costs

To achieve these cost savings quickly

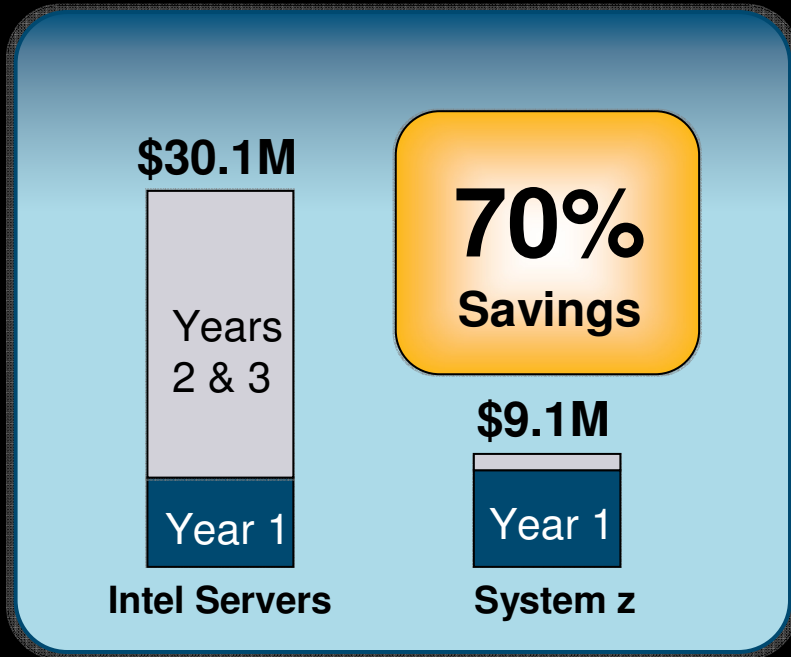
Customer Findings

- Strategic platform selection key to quick cost savings
- Platform strengths vary; one size does not fit all
- Leverage existing infrastructure
- Take advantage of recent technology advancements

In the right circumstances, System z has helped clients save enormous costs, while improving service, all at very low risk.

1. Consolidate applications and data

Drive down costs of hardware, software and management



Top three reasons for savings

- Consolidated 292 Oracle servers to one System z
- System administration costs 90% less on System z
- Subscription and support licenses were over 95% less on System z

A regional North American government organization

Additional benefits

Increased administrator productivity

Faster provisioning speed

Simpler Infrastructure

1. Consolidation

Datacenter on a truck

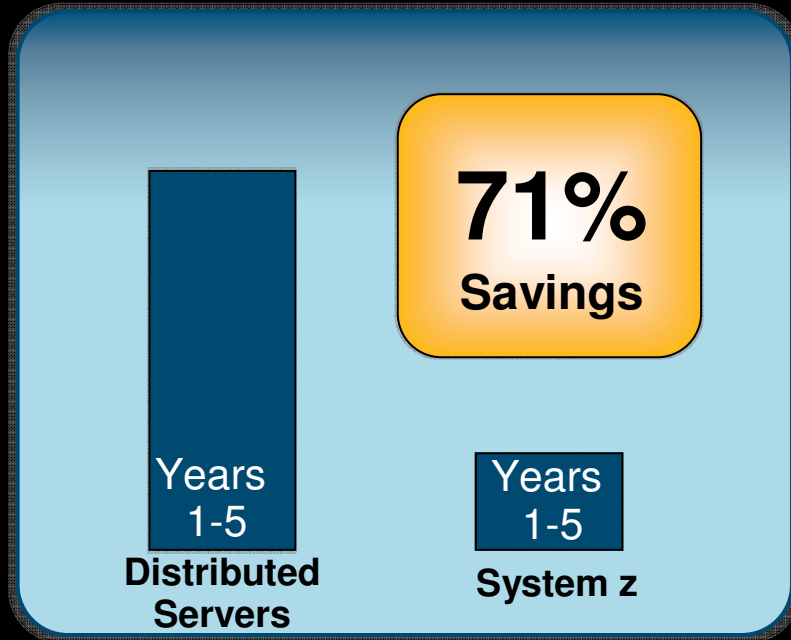


OR



2. Optimize deployment of applications and data

Deploying a portal application



A large technology organization

Top three reasons for savings

- 93% reduction in software licenses:
26,700 down to 1,800
- Greatly reduced labor costs due to less administration
- Hardware costs are dramatically less

Additional benefits

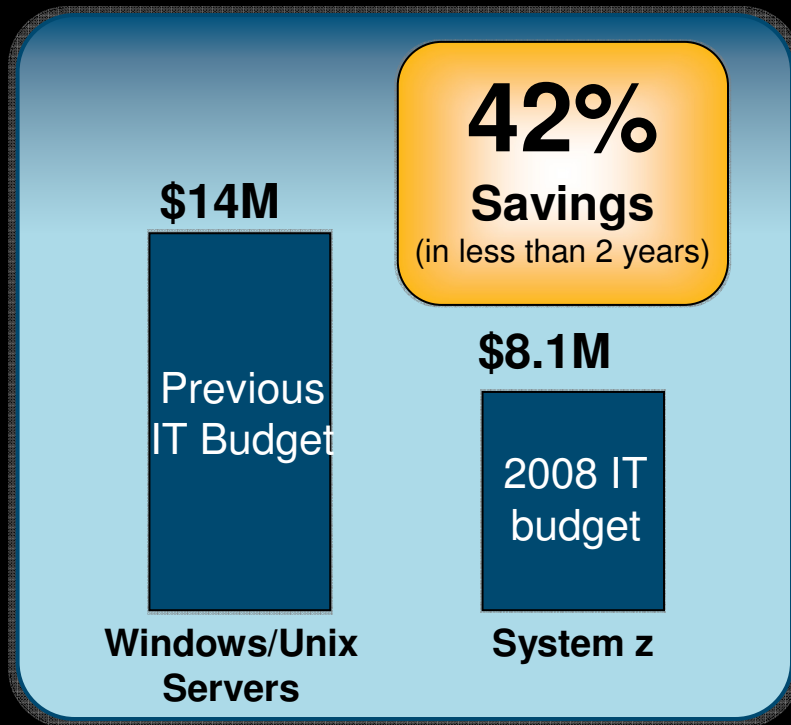
Far fewer ports

Dramatically less cabling

A fraction of prior physical network connections

2. Optimize deployment of applications and data

Deploying SAP database and application servers



Top three reasons for savings

- Software and hardware licensing costs dramatically reduced
- Software and hardware maintenance costs are significantly down
- Networking costs plunged, while infrastructure was drastically simplified



\$1.8 billion Electric motors manufacturer

Additional benefits

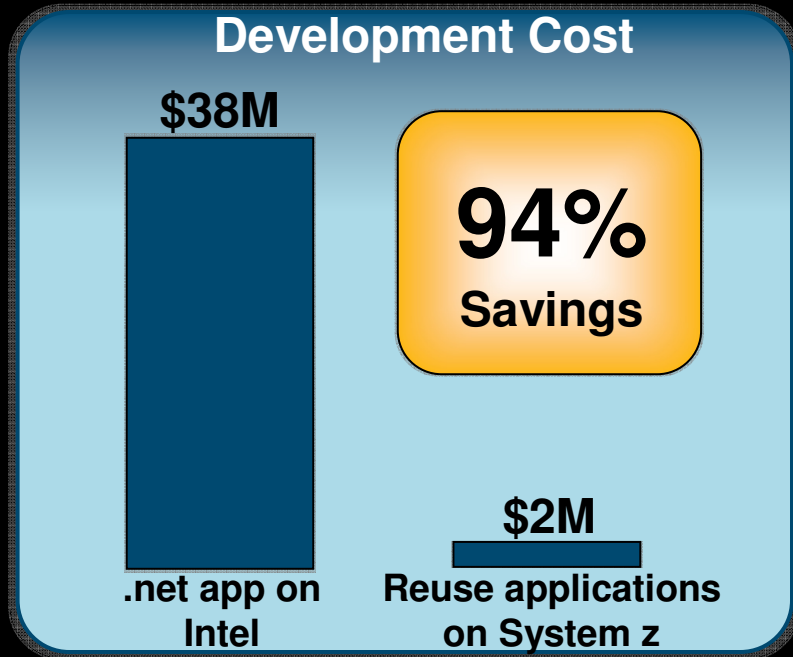
Space savings with System z: 85%

IT budget proportion to revenue less than half of industry average, 2.5%

Power consumption down over 60%

3. Reuse applications and data

Replacing existing legacy application with web-based customer facing application



Top three reasons for savings

- Complexity of recoding from scratch all the business processes into .net framework
- Speed of implementing System z solution was less than 29 days
- Additional employees to test and maintain .net application versus none for System z

A medium-sized financial services vendor

Additional benefits

Improved application functionality

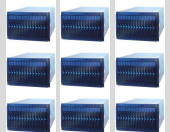


Faster time to market

Quick implementation and reduced risk

4. Properly account for your costs

**“False Economics”:
Over-allocation of Costs to System z**

Getting to “True Economics”

	Intel/UNIX Servers 	Mainframes 
Direct Costs Hardware, Software, Admin	\$ Correct allocation	\$ Correct allocation
Shared Costs Power, Facilities, Network, Mgmt overhead, etc.	 Incorrect, zero allocated	\$ Correct allocation
All of Intel/UNIX incurred costs are moved to mainframe		+\$

Core problem

- Difficult to assign shared costs to platforms
- Shared costs lumped in with mainframe costs
- Thus, mainframe costs tend to be overstated
- Platform decisions are made that waste cash

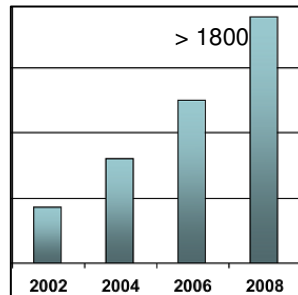
Pragmatic quick-return remedy

- Meter basic usage
- Identify largest cost distortions
- Incorporate information in decision making

System z – Thriving environment for today’s and traditional applications

System z Linux: fastest growing server platform

- 77% increase in System z Linux MIPS in 2008
- Approximately 1,300 System z customers are now using Linux on z
- Linux is ~15% of the customer System z install base (MIPS)
- Linux engines sold per year →



Thousands of ISVs investing in System z platform

- Over 1,000 new applications and more than 150 new ISVs in 2008
- Over 2,800 LINUX applications are supported on System z; 18% growth in 2008
- Over 1,500 ISVs building applications for System z
- Recent ISV investment includes:



Chordiant.
Optimizing the Customer Experience



TEMENOS
The Banking Software Company



90% growth in mainframe education

Students educated:

- Over 50,000 worldwide, 5,000 more students in China by 2010

University adoption:

- 600 schools enrolled globally as of May 2009
- 90% growth in 2 years; 2,000% since 2003; continued flow of schools adding curricula
- 50%+ outside of US

Over 15 New York schools involved:

MARIST

COLUMBIA UNIVERSITY
IN THE CITY OF NEW YORK

SYRACUSE UNIVERSITY



System z – Thriving environment for today’s and traditional applications

IBM key announcements: increasing benefits to today’s and traditional applications

Improves query response times by a factor of 5 – 10, with a significant decrease in operating cost: **Smart Analytics Optimizer (tech preview)**

A vastly scalable, highly resilient, low-cost way to optimize DB2 for z/OS data: **InfoSphere Warehouse for System z**

Simplifies the integration of mainframe applications and data into modern applications: **CICS v4.1**

Simplifies cross-platform development and deployment: **Multiple product releases from Rational**

Further reduce short term costs for new workloads: **System z Solution Edition Series**



System z Strategy

Continue capitalizing on traditional system z strengths

- Transaction processing, batch processing, messaging, quality of service, data serving

Continue extending advantages of System z for new and mixed workloads

- Systematic re-engineering of the software stack for SOA
- Deliver extensive data management services
- Leverage the wave of workload consolidation by extending its lead in virtualization capabilities
- Simplify platform further, providing even greater cost advantages
 - New faces of z
 - More end-to-end management capability from a z center point of control
 - Simplified labor intensive tasks
 - Request-driven provisioning

Continue expanding the System z ecosystem

- Attracting new System z customers and ISV application workloads
- Making System z relevant to the new IT generation



System z: Free Offers to help you to reduce costs



Cost and risk analysis: use of mainframe vs. alternatives

- Off-site preparation and on-site information gathering
- Analysis developed over two weeks, concluding with a findings summary



Application change and configuration improvement

- Two day on-site review of change and configuration environments
- Analysis over one week with summary of potential cost savings



True economics cost allocation assessment

- Analysis of IT infrastructure costs and current cost associations
- Recommended steps for improvement provided within 10 business days



Any Questions?



Typical Utilization for Servers

Windows: 5-10% Unix: 10-20% **System z: 85-100%**

System z can help **reduce** your floor space
up to **75%-85%** in the data center



Thank You



System z can lower your total cost of ownership, requiring **as little as 30%**
of the power of a distributed server farm running equivalent workloads

The cost of storage is typically **three times more** in
distributed environments



Reference

More detail on offers

Offer description	Offer IBM name	Some specifics
Cost and risk analysis: use of mainframe vs. alternatives	Total Cost of Ownership Analysis	<ul style="list-style-type: none"> ▪ One day on site for information gathering ▪ Report prepared in two weeks ▪ Report presentation
Application change and configuration improvement	Team Infrastructure Assessment	<ul style="list-style-type: none"> ▪ Two day on site review ▪ Focuses on quick cost savings via improved application change and configuration management
True economics cost allocation assessment	IT Cost Assessment	<ul style="list-style-type: none"> ▪ One day event ▪ Establish solution for enhanced IT cost efficiency ▪ Presentation and formal recommendation