Maximizing the Value of Your Applications and Data

Business Results Powered by SOA on System z

Yvonne Perkins
Vice President
Enterprise Platform SW / SWG

The future runs on System z

The Planet is Getting Smarter…

4 billion mobile phone subscribers

1 billion transistors for each person on the planet

1 billion people on the Internet

Smarter Planet

30 billion RFID tags by 2010

15 petabytes of new information per day

Over 200 billion emails sent per day
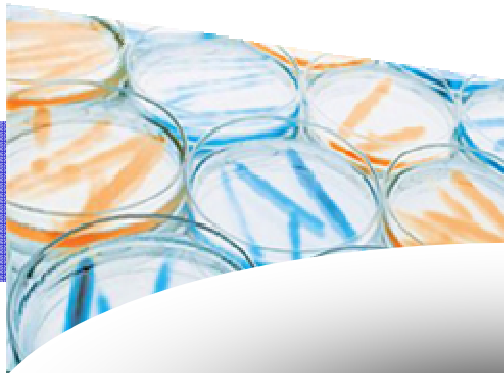
The Need for Progress is Clear

US Healthcare Fraud
$100 billion

Poor European retail document output control
EUR2 billion

LOST

Congested US roadways.
**4.2 billion hours
2.9 billion gallons**

$11.5B of produce

outdated India post-harvest infrastructure
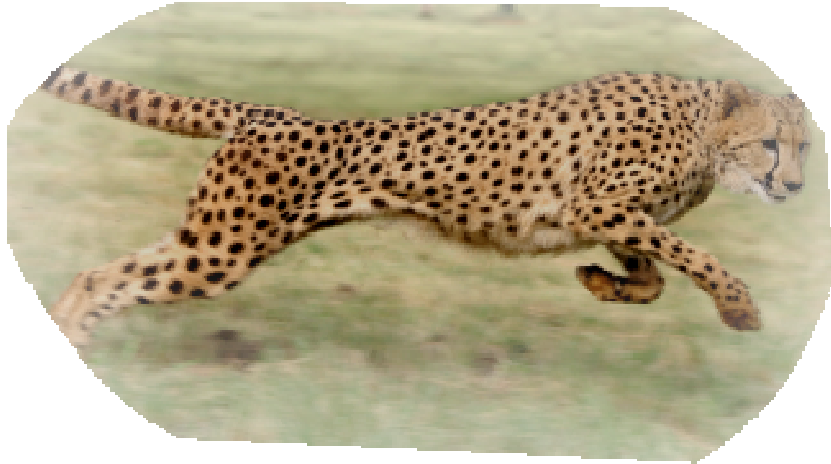
Especially in a Tough Economic Climate!

Position for Success, Not Just Survival

The Cheetah
Fastest Animal - 113 kph
Low genetic variability

- **Agility**

- **Cost Optimization**

Cheetah population has decreased
to 76% of their historic range in Africa

Is Your Company Agile Enough?

98%

Of CEOs plan business model changes

3X

Increase in gap between expected change and ability to handle change
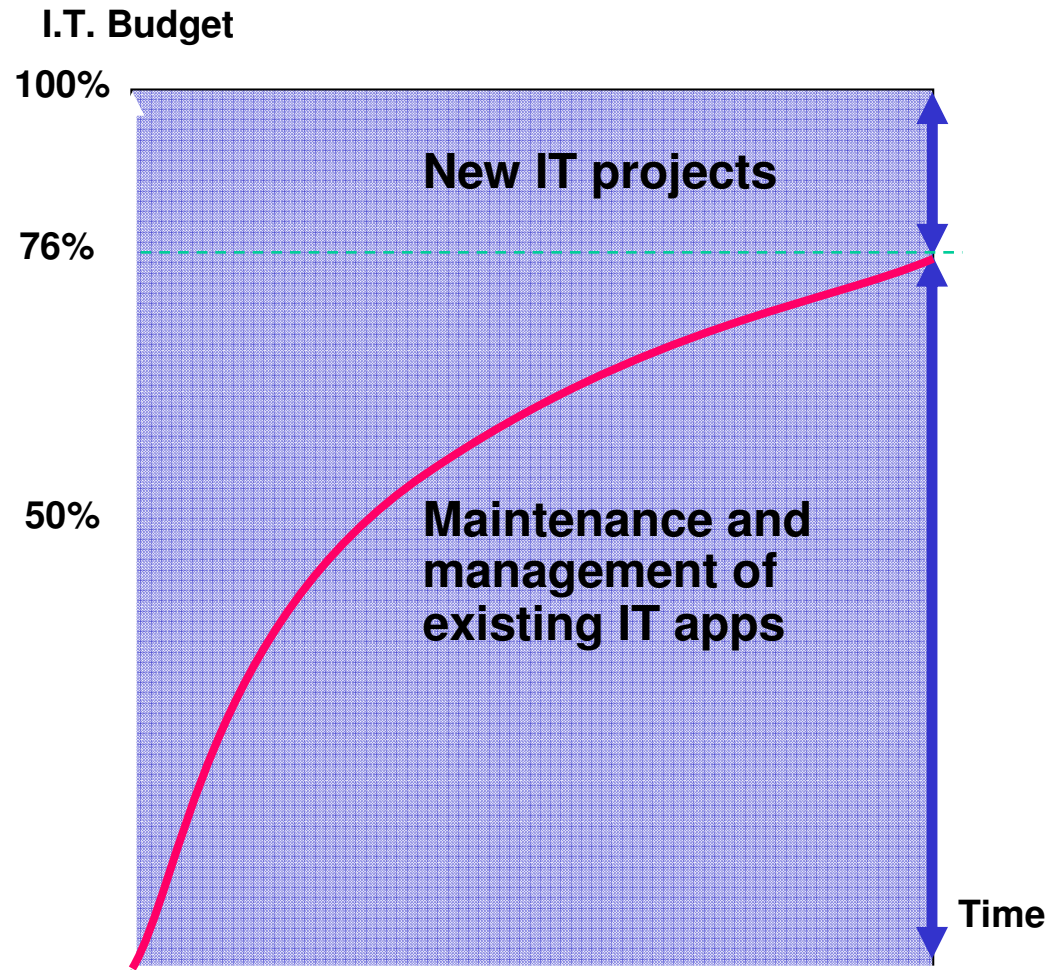

In a Time of Turbulent Change

Source: CIO Study conducted in 2008:   http://w3.ibm.com/articles/workingknowledge/2008/12/gbs_ceostudy.html

I.T. Budget

100%

New IT projects

76%

50%
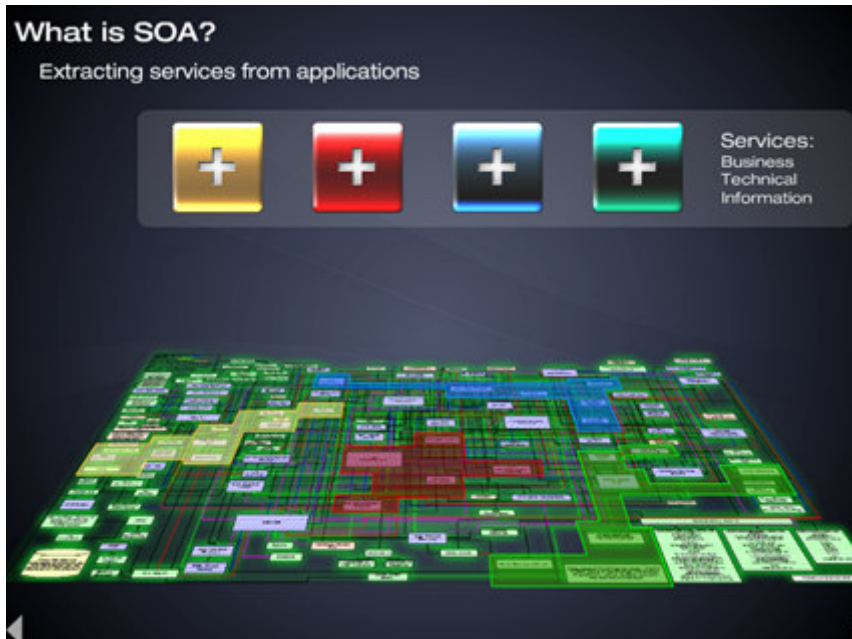
Maintenance and management of existing IT apps

Time

"76% of I.T budgets are spent on MAINTENANCE, leaving only 24% for NEW INVESTMENTS."
--- Forrester Research

Service-Orientation, Key to Agility and Cost Optimization

What is SOA?
Extracting services from applications

Services:
Business
Technical
Information

- Quickly shift direction to reflect economic realities

- Flexibly connect information and application

- Optimize reuse of existing assets

Unlock the value of your own…
…Business Resources
…Application Resources
…Infrastructure Resources

Three Ways SOA Projects Deliver Value

Business Needs   **Common Buying Scenarios**

"Ensure applications consistently deliver on business needs in all situations"

Application Infrastructure

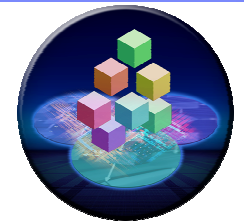"Adapt & respond to dynamic business situations"

Connectivity & Integration

"Quickly respond to changing customer expectations and business demands"
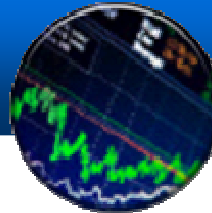
Dynamic Processes

The Power of a Smart SOA Application Infrastructure

Modernize Applications	Expand revenue opportunities and improve customer satisfaction with Web 2.0
Execute High Volume Transactions	Reduce costly business risks with high availability, secure business applications
Worldwide e-commerce Rollout	Increase utilization, lowering energy and maintenance costs
New Billing System	Quickly roll out new services and lower operational costs to increase revenue and market share

Delivers on Business Objectives and Reduces Cost

Healthcare

- Reduced $30 million in capital & operating costs
- 150% increase in processing capacity
- 40% reduction in IT infrastructure floor space requirements
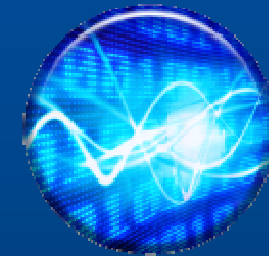- 67% reduction in number of physical servers

Government

- 80% reduction in time to build new systems
- Improved ability to coordinate operations amongst multiple organizations

Manufacturing

- New level of collaboration via Web 2.0
- Reduced Total Cost of Ownership by 40%

"Three years ago, we set out to build a shared enterprise IT infrastructure that would allow MetLife to grow with agility…we now have a solid framework for integrating the systems of the companies we acquire."

Bob Fratangelo, Vice President of Distributed Systems at Metlife

HUK-COBURG

HUK-COBURG
Aus Tradition günstig

Industry Pains

- Need to access more functionality and spread out its data processing load
- Reduce CPU usage to cut operating costs

Smarter Business Outcomes:

- Reduces CPU usage for CICS technology by 400 million instructions per second (MIPS), for savings of $320,000
- Cuts CPU usage in the internal coupling facility by 40%
- Achieve CPU savings through threadsafe functionality
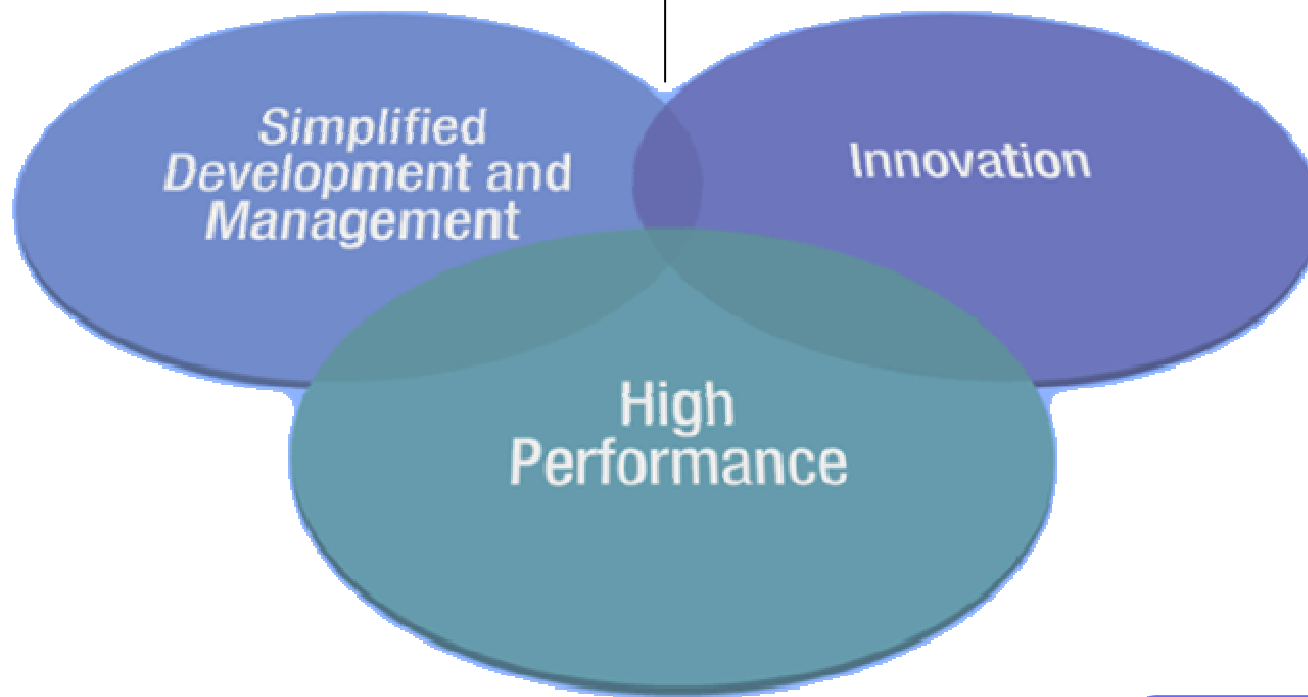
Why Smart SOA Infrastructure?

Deliver on business objectives and reduce operating costs

Building a Robust and Agile Application Foundation

Business
Applications

Simplified
Development and
Management

Innovation

High
Performance

IBM CICS Transaction Server

IBM CICS Explorer

IBM WebSphere Application Server for z/OS

Thriving in a Dynamic Marketplace

Intelligent Management of Applications

- Proactively Manage Application Health

- Virtualize Applications & Computing Environments

- Lower Operational & Energy Costs

- Increase Agility

**IBM WebSphere
Extended Deployment
Compute Grid for z/OS**

Enable Agility Required for Smart Business Outcomes

Get More Value from Applications & Expand Business Opportunities

- Service-enable existing packaged and existing apps
- Create new, reusable services
- Extend reusable services to the web
- Consume external reusable services

Large Packaged Apps	Small Package Apps	Homegrown Apps
Java	COBOL	email
FTP	CICS	IMS
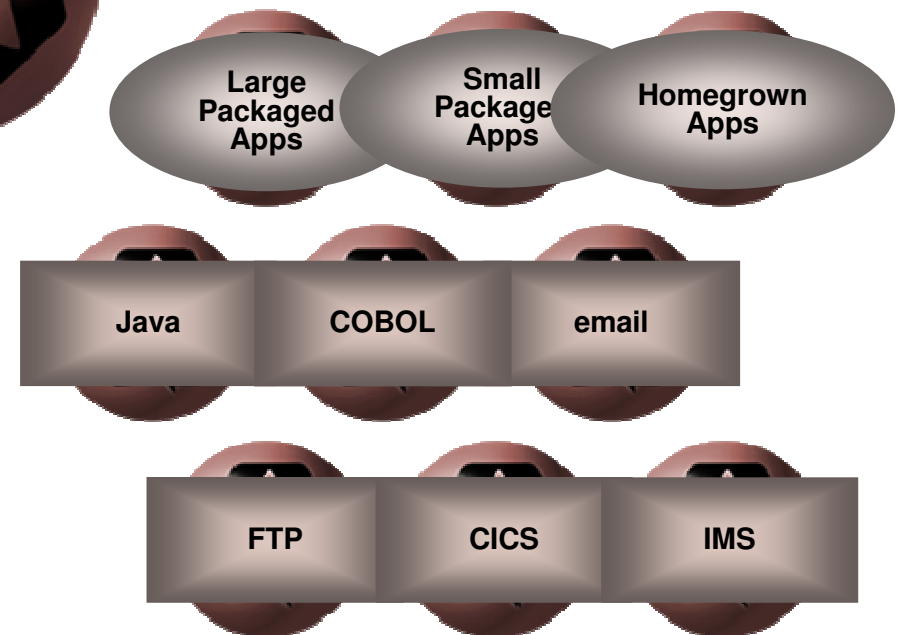
Benefits

- Extend ROI by reusing prior investments
- Reduce risk and costs by leveraging robust applications
- Speed time to market with faster development cycles

- ✓ Integration with Existing Assets

- ✓ High performance

- ✓ Server consolidation

- ✓ Dynamic scalability

- ✓ 99.999% Availability

- ✓ Exploitation of Java/J2EE

- ✓ Uninterrupted support
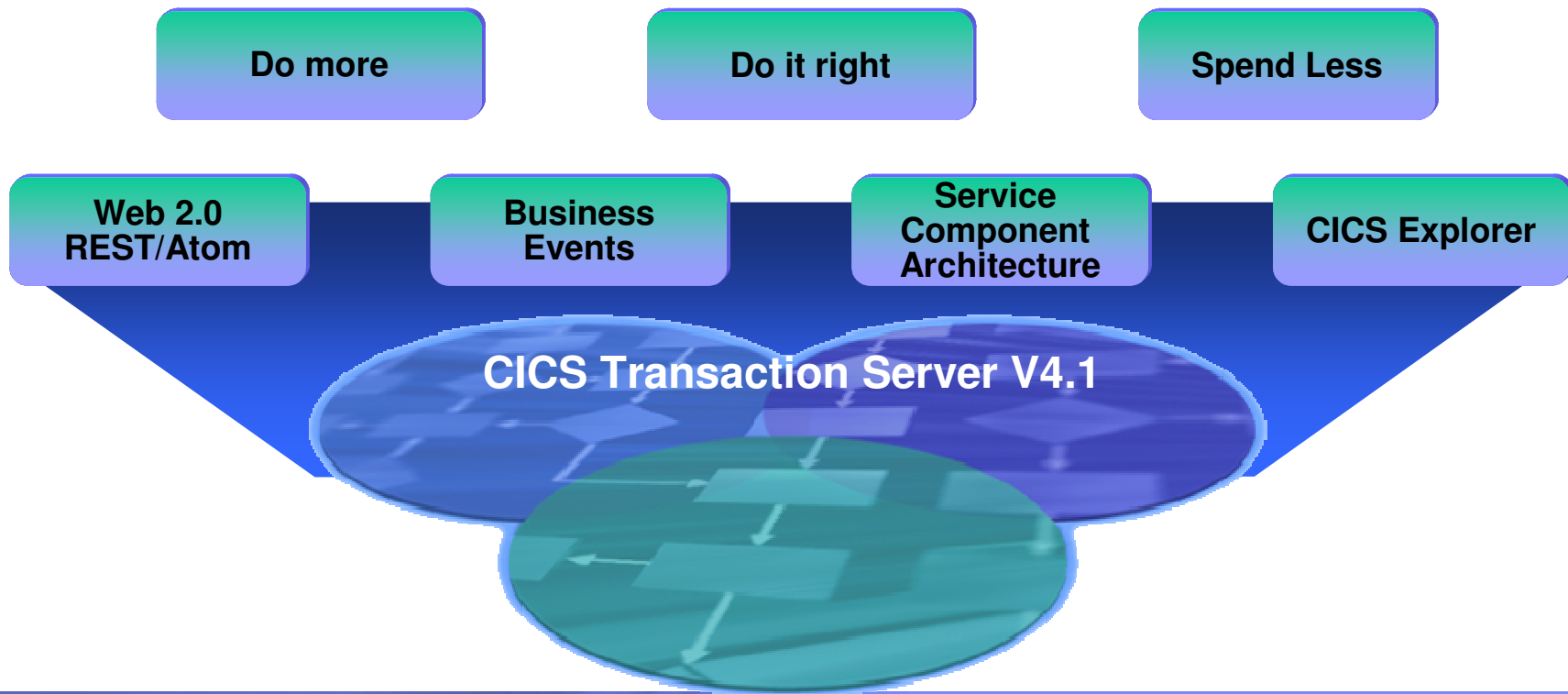
- ✓ Low TCO of applications

Spotlight: CICS Transaction Server V4.1

- **Compete** with insight into business processes and modify business applications quickly
- **Comply** with corporate, industry, and government policies to manage business risk
- **Control** costs by simplifying IT infrastructure and productivity through easier-to-use interfaces & functions

Do more	Do it right	Spend Less

Web 2.0 REST/Atom	Business Events	Service Component Architecture	CICS Explorer

CICS Transaction Server V4.1

An Edge in the Market - Smart Connectivity & Integration

|		
Confirmed Flight Booking		Lower process disruptions with reliable data movement
Central Airport Checkpoint		Create new revenue-generating services from current core business applications
Routing Bank Transactions		Adapt business faster by easily connecting services & apps
Centralized Information Source		Reduce cost & duplication by leveraging existing assets

Enrichment
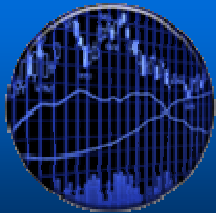
Financial Markets

- Delivering $1 trillion transactions per day
- Exchanging £400B+ in messages

Government

- Agency sends 675m messages per day
- ~ 7,500 agency users & 50,000 citizen transactions daily
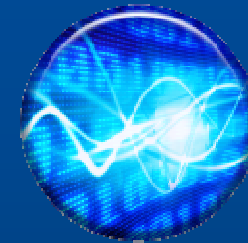
Banking

- $7-$35 trillion messaging traffic per day
- 213+ million messages daily

Insurance

- 95% of the top global insurances firms use ESB enrichment
- Single firm improved transactional elapsed time by over 39%

" We needed a single integration platform that would allow all our applications to access and share information and enable them to collaboratively process transactions based on common business rules."

Chief Architect,
Health Insurance

Ball State University

Industry Pains

- The need to streamline administrative systems and ensure integrity
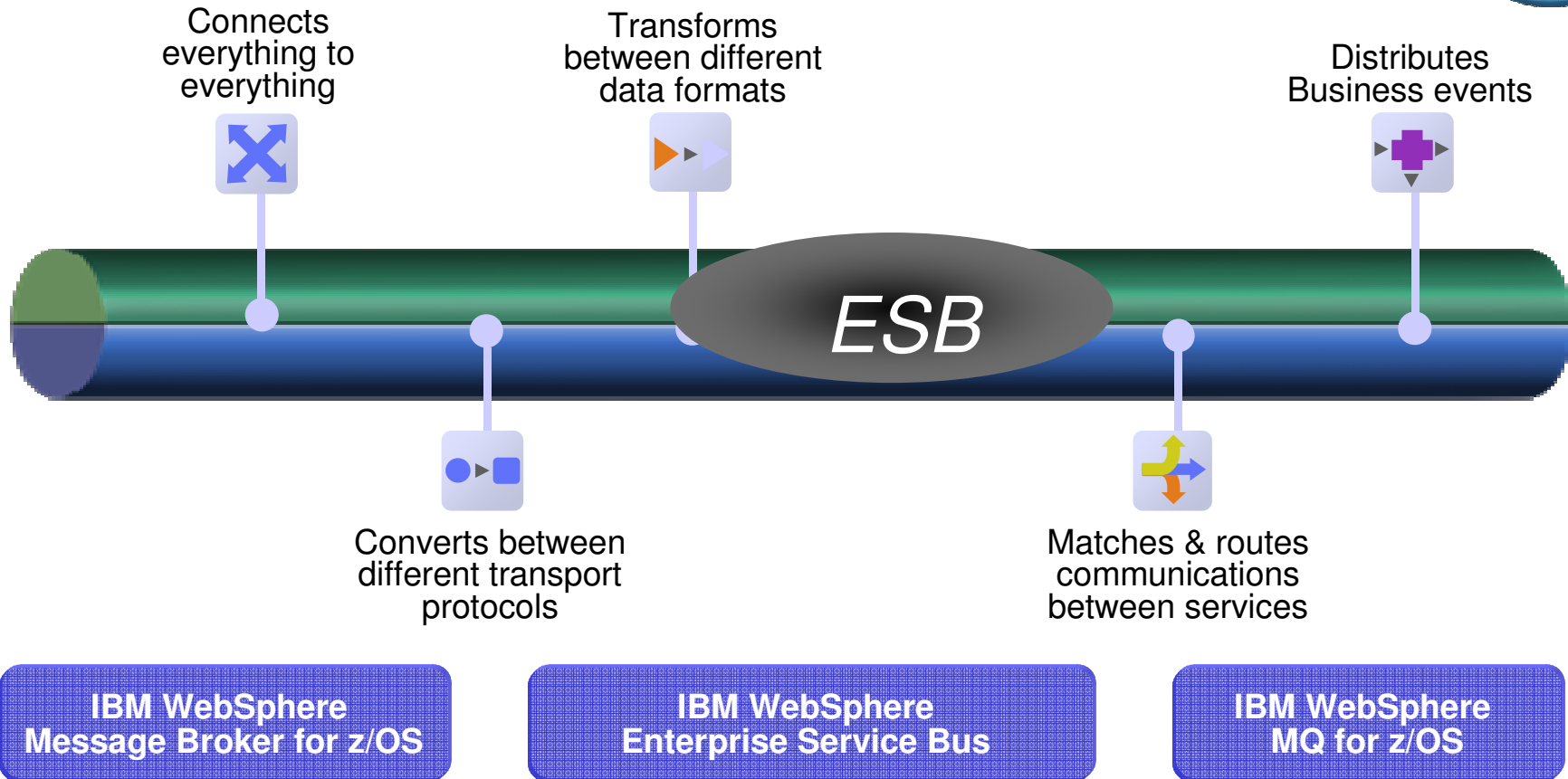
Smarter Business Outcomes:

- SOA with Enterprise Service Bus to connect siloed applications without hand-coding individual API calls
- Resolve name and address discrepancies in 10 months, as opposed to several years

Why Smart SOA Connectivity & Integration?

Communication between decoupled back and front ends, choosing the destination for a message, and transforming it into the correct format

The Enterprise Service Bus (ESB)

Connects everything to everything

Transforms between different data formats

Distributes Business events

ESB

Converts between different transport protocols

Matches & routes communications between services

IBM WebSphere Message Broker for z/OS

IBM WebSphere Enterprise Service Bus

IBM WebSphere MQ for z/OS

An ESB enables flexible SOA connectivity for integrating business applications, services and processes

Service Visibility & Governance

- **Publish & find Your Services** to extend business applications

- **Manage & govern your ESB** messaging & services

- **Ensure consistent policy** enforcement

IBM WebSphere MQ File Transfer Edition for z/OS

IBM WebSphere Service Registry & Repository for z/OS

When to use System z for Connectivity & Integration

Virtualization
- High resource utilization
- Massive consolidation and simplification

Performance
- Improvements when co-locating with z/OS data

WebSphere ESB

Efficient growth
- Pay for what you use
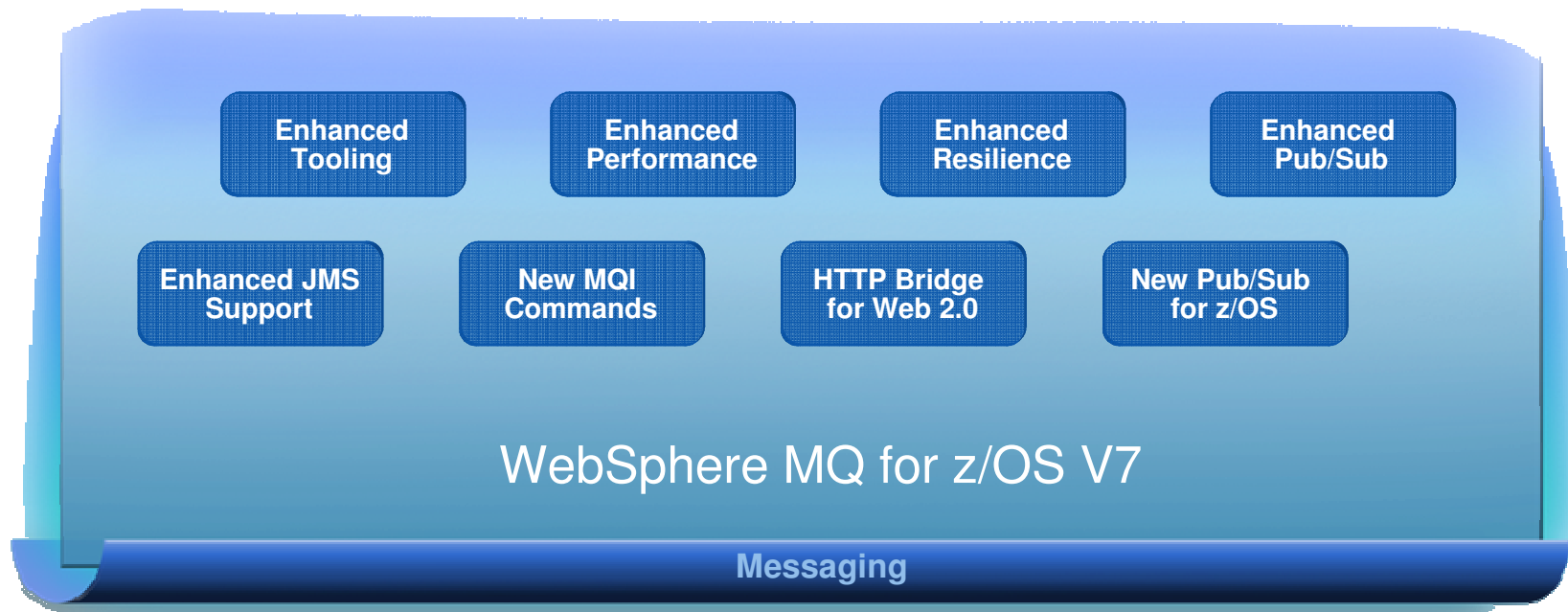
Business critical workloads
- Automated recovery from failures
- Dynamic workload balancing

The Latest Evolution of SOA Messaging

WebSphere MQ for z/OS V7

- Highly consumable & easy to use for faster time to market

- Turbo-charged performance to do more with less

- More dynamic & scalable Pub/Sub features

Enhanced Tooling	Enhanced Performance	Enhanced Resilience	Enhanced Pub/Sub
Enhanced JMS Support	New MQI Commands	HTTP Bridge for Web 2.0	New Pub/Sub for z/OS

WebSphere MQ for z/OS V7

Messaging

The Power of Dynamic Business Processes

Supply Chain Management
Automatically adjust forecasts and shipments to increase accuracy and reduce costs

Retail Inventory
Detect and respond to inventory changes in real-time to meet customer demands

Telecom Services
Quickly deliver more compelling and profitable service bundles to increase customer retention

Insurance Claims Processing
Improve productivity and customer satisfaction by automatically routing claims to the right knowledge worker

Dynamic Business Processes
Deliver Real Results

Supply Chain

- Reduced costs by 63%
- Reduced staffing requirements for manual tasks by 85%
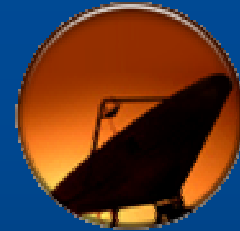- Reduced compliance penalties by 75%

Government

- 80% reduction in tax return exception backlogs
- 80% reduction in average age of work queue, avoiding extra interest costs

Insurance

- Decreased costs by 30%
- Increased revenues by 15%

"...in this era, flexibility and the optimal operation is really needed. We are in the recession time, so optimization is something which is a must for all of us...this is something which is not found in other vendors...Fabric (and the Telco Pack)...gives us a possibility to dynamically select the service based on the policy. ...one of the strong points of IBM BPM SOA solution is that it covers the complete lifecycle of the process, so starting from modeling and ending at monitoring and operating."

Mitja Stular. CTO for Mobitel

"*European Bank*"

European Bank

Industry Pains

- The market for home loans has been transformed by a new breed of independent mortgage brokers who now account for 40 percent of the market.
- To respond to this marketplace change they needed a channel to reach these brokers.

Smarter Business Outcomes:

- Mortgage application processed in just hours compared with 2-3 days taken by competitors; independent mortgage broker channel now accounts for substantial portion of their business after only 6 months, far exceeding expectations; new channel added without significantly increasing staff levels

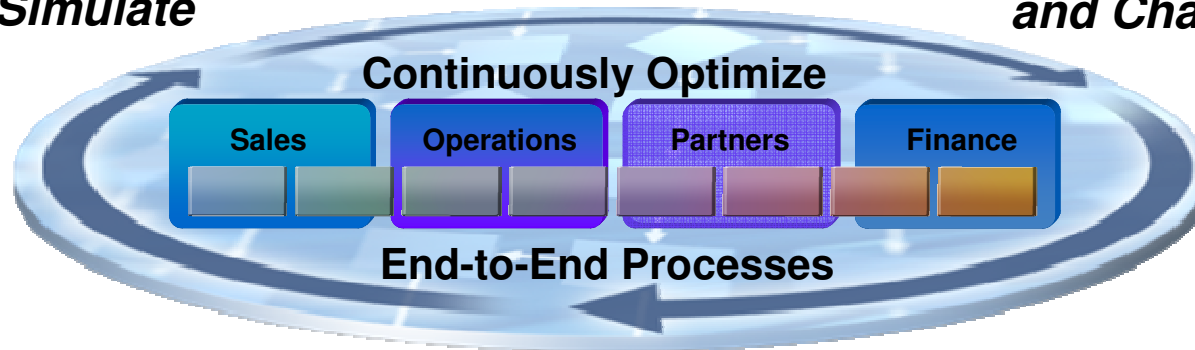## Why Smart SOA Business Process Management?

WebSphere Process Server improved the reuse and efficiency of service components to reach the independent mortgage broker market

Improves Operating Efficiency and Reduce Costs

Model and Simulate

Rapidly Deploy and Change

Continuously Optimize

| Sales | Operations | Partners | Finance |

End-to-End Processes

Monitor, Predict and Act

Streamline business activities

Complement and extend existing applications

Leverages reusable process components

Lower Costs

Reduce cycle time

Easier to Manage

IBM WebSphere Process Server for z/OS

IBM WebSphere Business Monitor

IBM WebSphere Business Modeler

Insight contained in business events all around us

| **What is a Business Event?** | An action that has occurred, or the absence of it occurring, which has relevance to the business |

Nearly **4 Trillion** RFID events are emitted each day

Large companies can experience up to **800 Billion** business events (shipments, weather, customer contacts, delays) daily
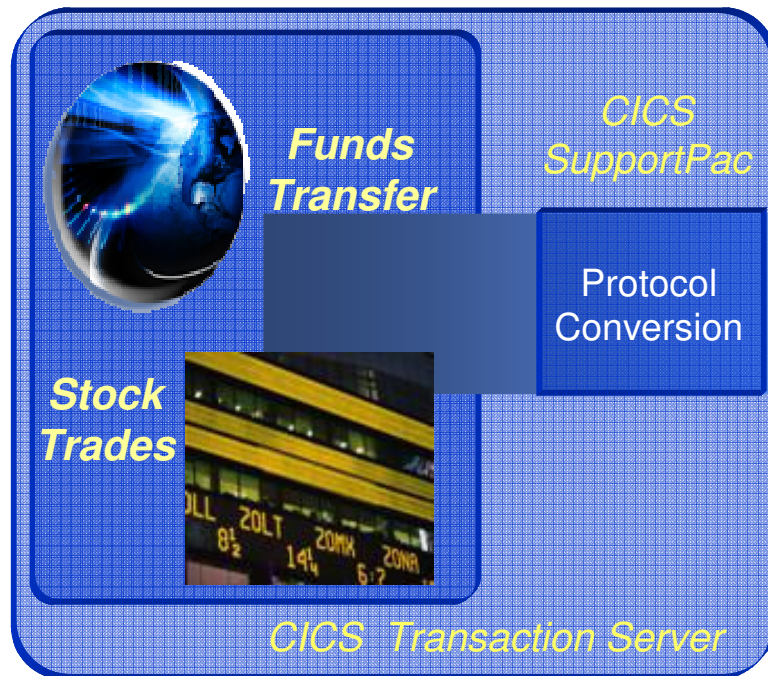
Over **190 Billion** emails are sent daily

Capture mainframe events for smarter business outcomes

CICS Event Sources

Detect fraud and take action

Funds Transfer

Stock Trades

CICS SupportPac

Protocol Conversion

Event Streams

CICS Transaction Server

WebSphere Business Events
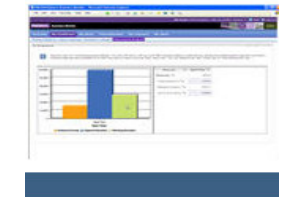
WebSphere Business Monitor

WebSphere Process Server

New and Enhanced!

WebSphere Business Events integration with WebSphere Business Monitor, Tivoli NetCool and CICS Transaction Server

ILOG Lines of Business

Expanded Value for IBM clients

Powerful Business Rule Management System

Adapt and respond dynamically, automating process-based decisions with business rule management

Advanced Suite of Optimization Tools

Produce better action plans & schedules, enhancing abilities to explore alternatives, understand trade-offs, and respond to changes in business operations

Efficient Supply Chain Management

Optimize supply chains, design & planning tools for improved efficiency and productivity

Innovative Visualization Tools

Transform insight into action, enhancing collaboration for smarter role-based business decisions
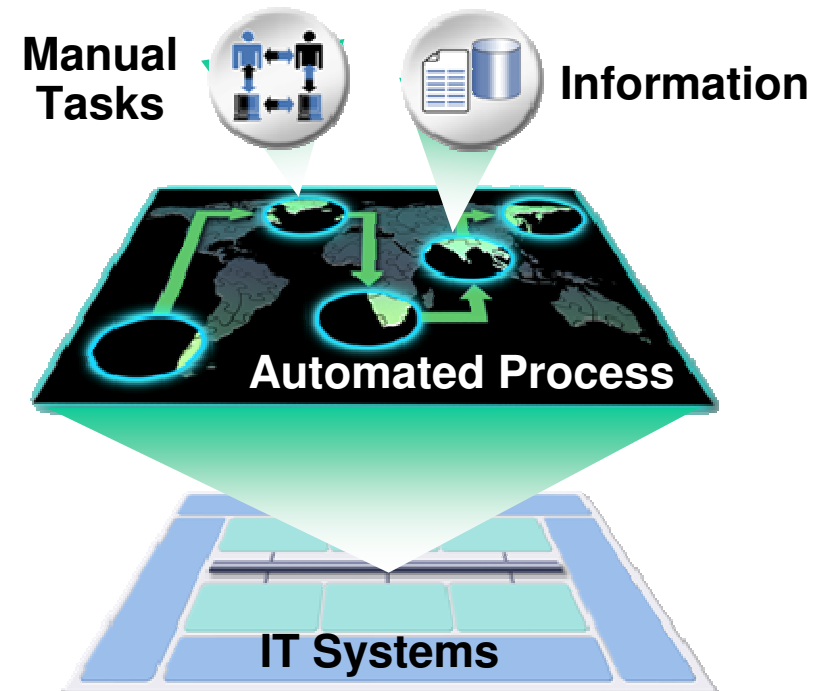
Success Story

Hotwire expands revenue opportunities and improves business response times, with greater scalability and flexibility through rules management

When to Use System z for Process Management

✓Process Efficiency

✓Improve Integration

✓Reduce Human Processes

✓Workload Management

Manual Tasks

Information

Automated Process

IT Systems

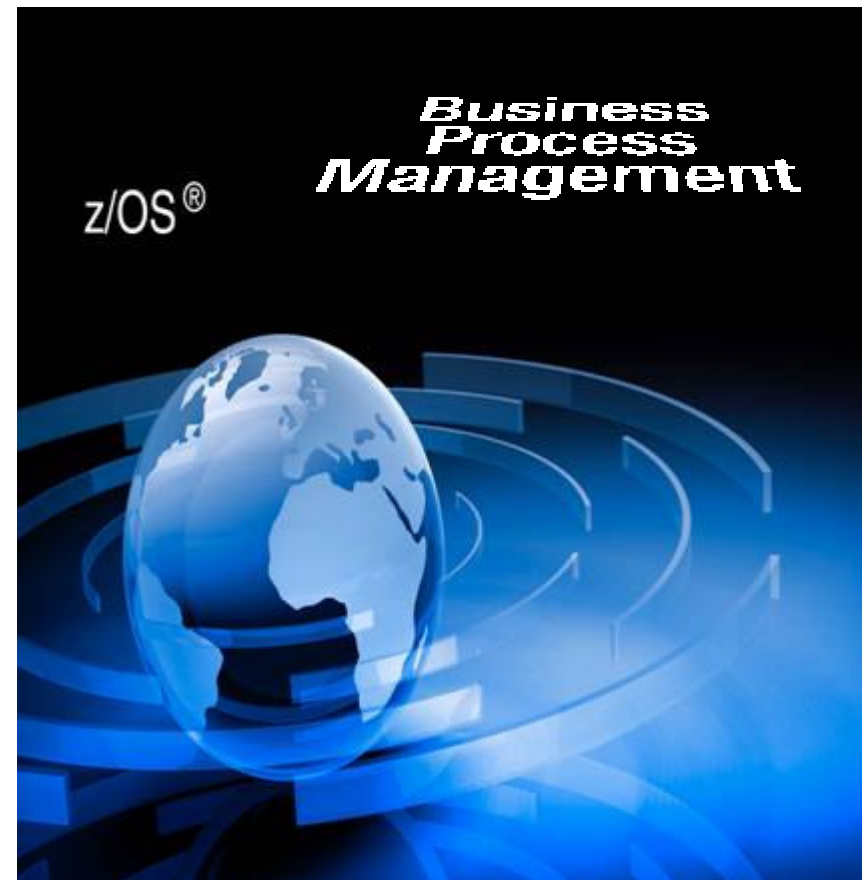# *Application Robust platform that is easy to deploy*

Leveraging a strong SOA foundation on z/OS for process flexibility, responsiveness and access to information assets

New with Version 6.2

- Web 2.0 business user interface to manage human tasks, timetables & orchestrated processes

- Lotus Forms integration for human tasks

- Greater flexibility and control for business rules, ad-hoc tasks & process execution
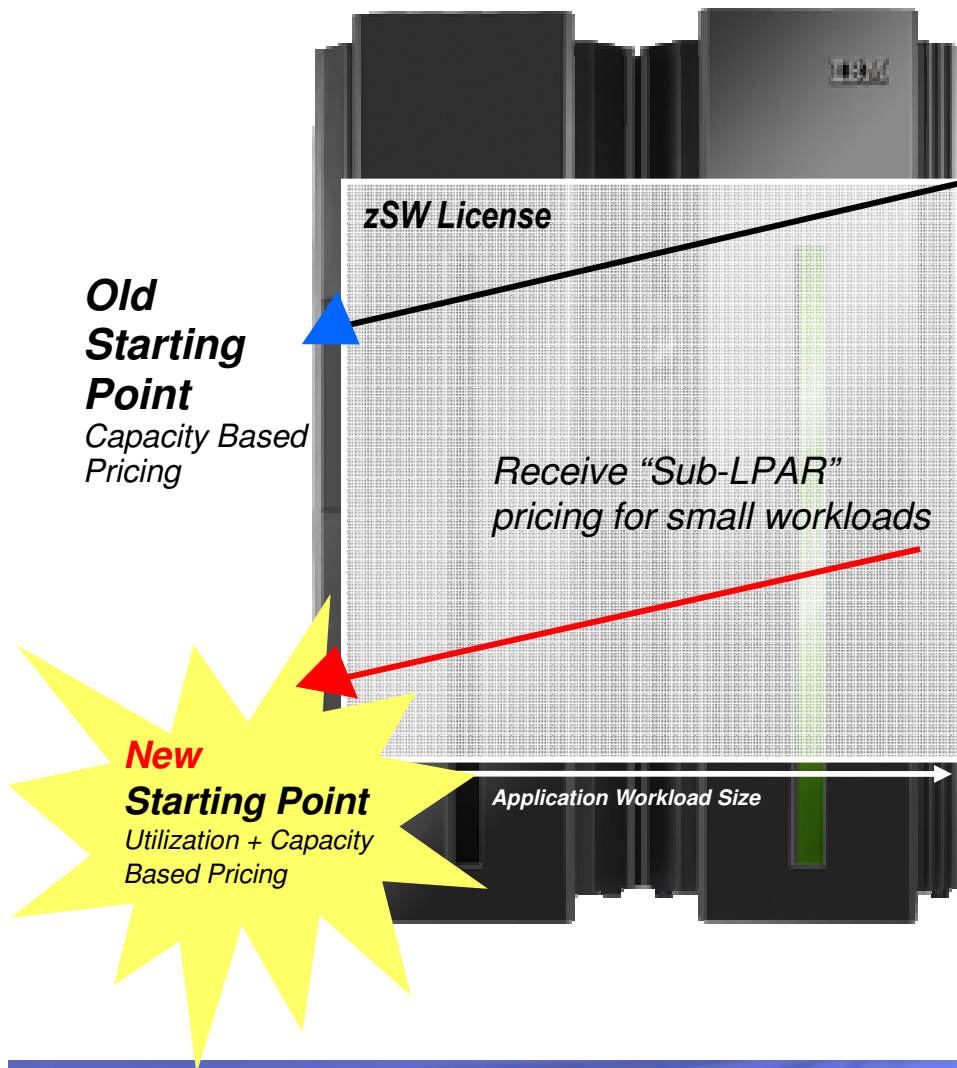
Integration with CICS

- CICS applications can be part of business processes

- CICS events feeding WebSphere Business Events to identify patterns of interest

z/OS®   Business Process Management

Helping to Make It Easier To Deploy New Projects on z/OS Software

zSW License

Old Starting Point
Capacity Based Pricing

Receive "Sub-LPAR" pricing for small workloads

New Starting Point
Utilization + Capacity Based Pricing

Application Workload Size

- ✓ Help customers start their projects

- ✓ Improve alignment between software use and software charges

- ✓ Enable greater flexibility with software licensing

- ✓ Change LPAR capacity without changing software charges

- ✓ Improve price / performance

Smarter Planet on System z