IBM®

The future runs on System z

Leveraging Service Oriented Architecture to Thrive in a Dynamic Market Place

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Enterprise Platform SW / SWG

Smarter Planet

Smarter	Planet
instrumented	people
interconnected	companies, institutions, industries
intelligent	man-made systems
	nature's systems

The need for change is clear – We must work Smarter

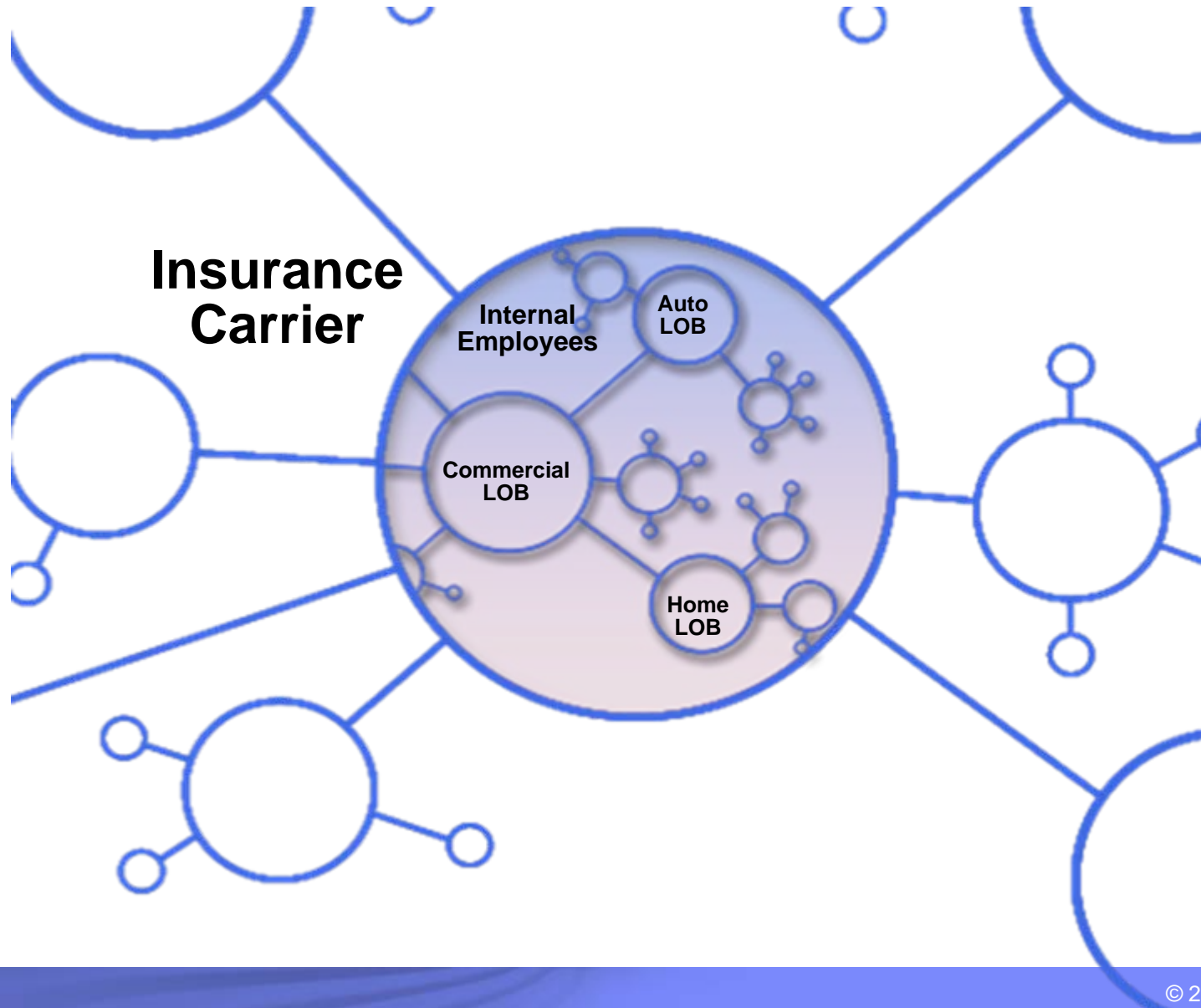The U.S. healthcare system loses more than $100 billion a year to fraud.

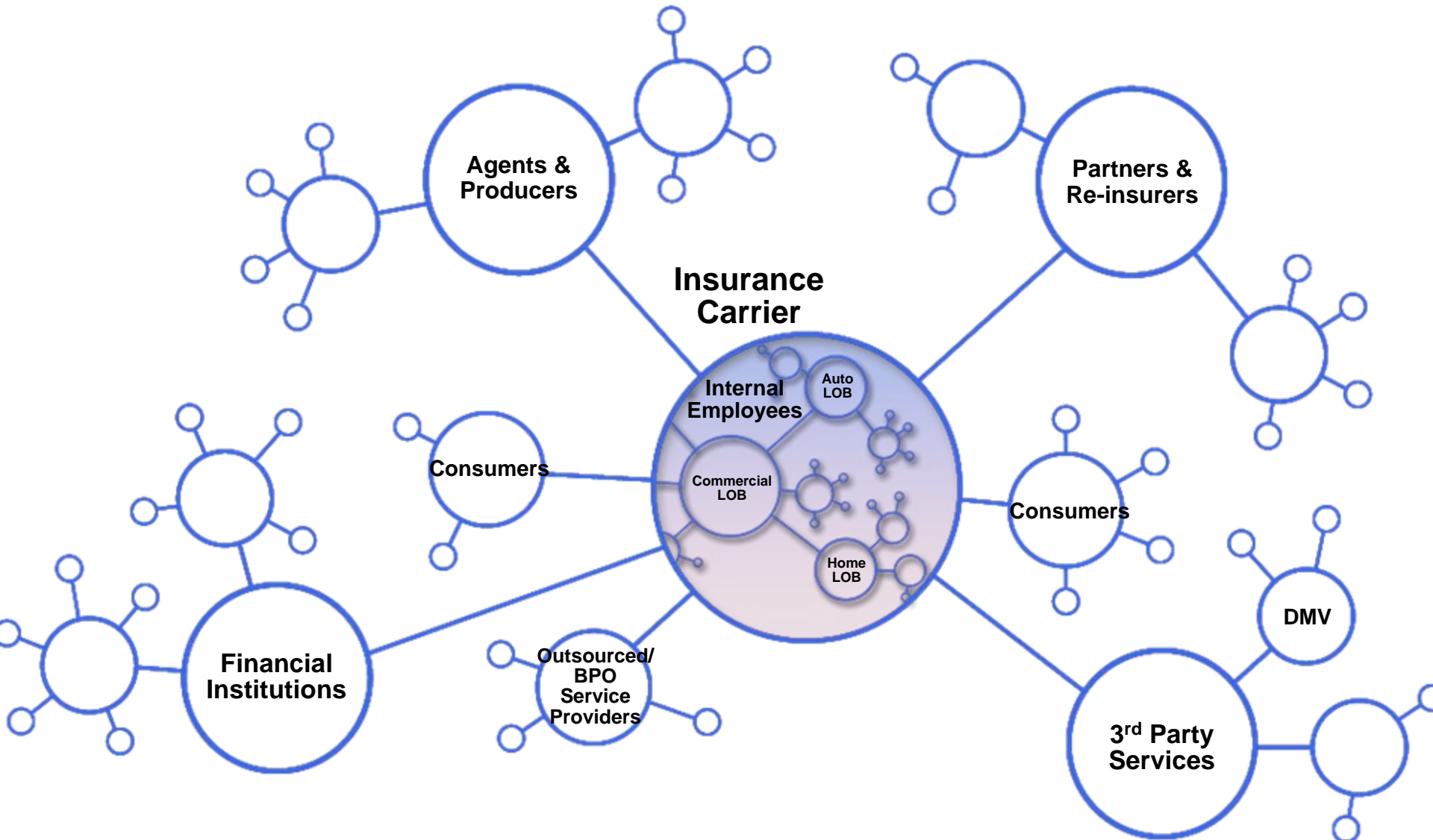$11.5B worth of produce is wasted in India because of outdated post-harvest infrastructure

In North America, up to 22 percent of total port volume is empty containers.

There's a need to look closely at our Business Networks ....

Insurance Carrier

Internal Employees

Auto LOB

Commercial LOB

Home LOB

…which are becoming broader…and much more dynamic

Insurance Carrier

Agents & Producers

Partners & Re-insurers

Internal Employees

Auto LOB

Consumers

Commercial LOB

Consumers

Home LOB

Financial Institutions

Outsourced/ BPO Service Providers

DMV

3rd Party Services

Achieving a dynamic business network presents challenges

3%

of companies report they have achieved **"process excellence"**

68%

of executives report that **integration challenges** impede collaborative relationships with partners

85%

of CEOs require **more visibility** into their businesses

Businesses are restrained by organizational silos

…and tremendous opportunities

A large bank reduced redundant process activities by
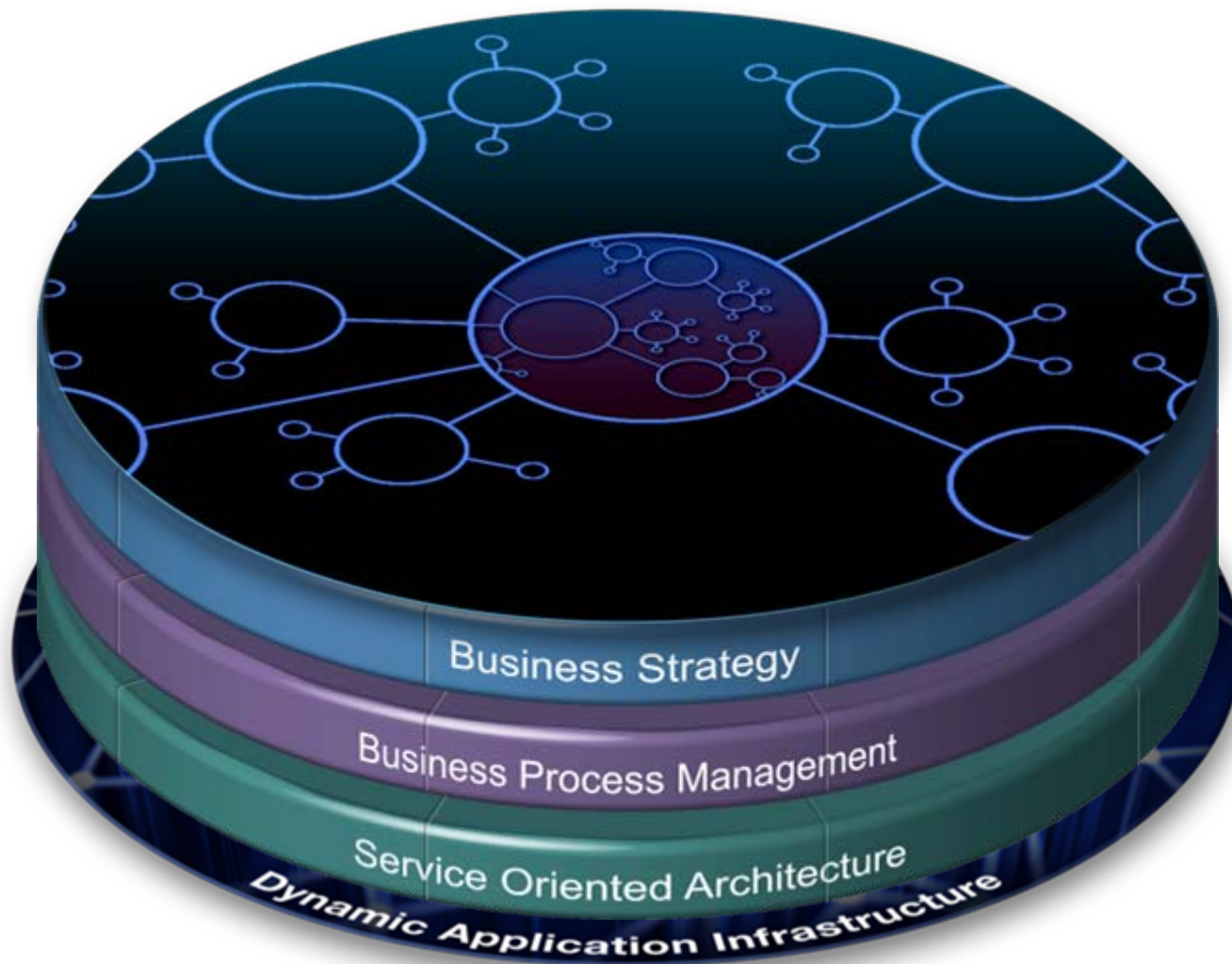
An air freight company reduced partner integration time by

A retailer gained real-time inventory visibility across 500+ outlets and reduced data integration costs by

60%

50%

20%

Break down silos to increase business agility and embrace the dynamic network

A dynamic network requires business agility…

Business Strategy

Business Process Management

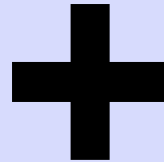Service Oriented Architecture

Dynamic Application Infrastructure

…supported by a Dynamic Application Infrastructure

But you must also be sensitive to costs

Business Agility

to take advantage of new revenue opportunities and address competitive threats

+

Cost Optimization

to slash operational and maintenance expense and maximize efficiency necessary for all economic climates

To Survive… To Succeed!

Is your company ready to work smarter?

98%
Of CEOs plan business
model changes

3X
Increase in gap between
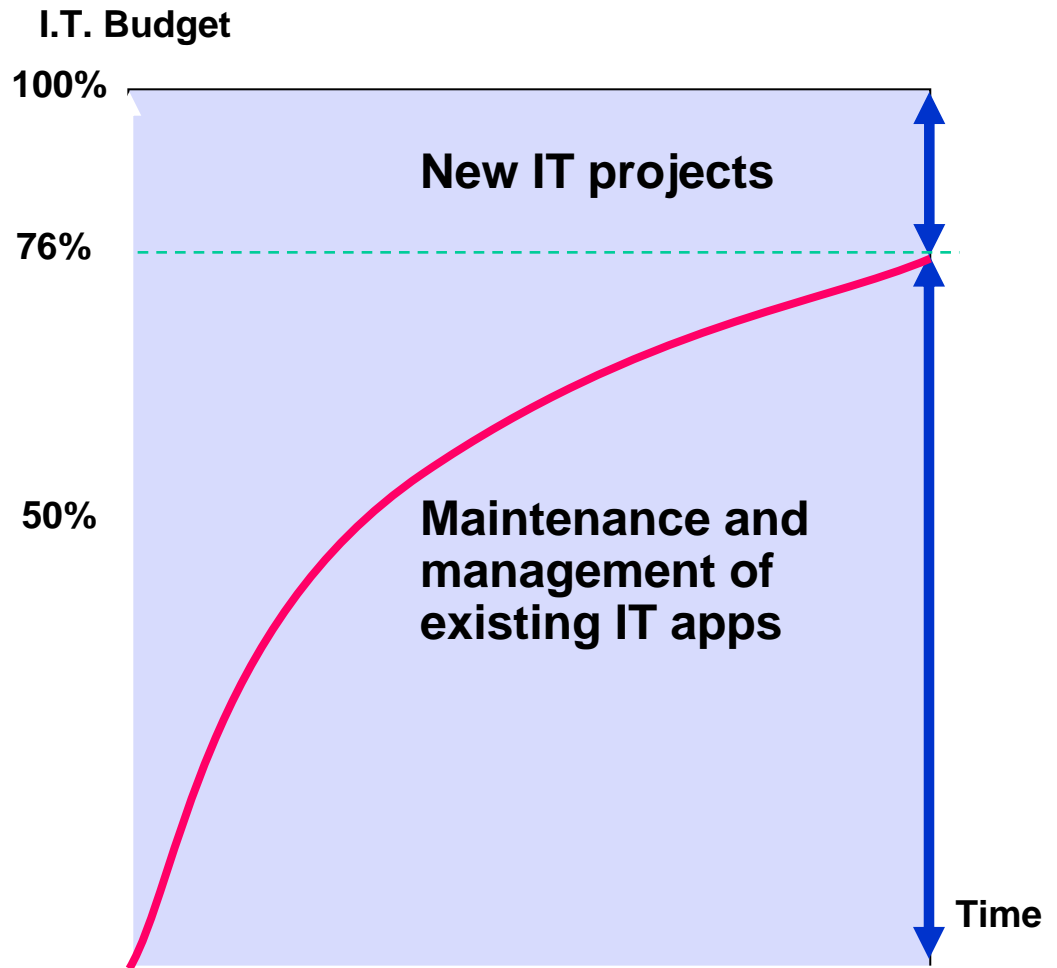expected change and
ability to handle change

In a Time of Turbulent Change

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

How IT Budgets are being spent are an inhibitor?

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

I.T. Budget

100%

New IT projects

76%

50%

Maintenance and management of existing IT apps

Time

Three ways to drive Agility while Optimizing Costs

Business Needs

Common Buying Scenarios

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

Dynamic Application Infrastructure

"Adapt & respond to dynamic business situations"

SOA Connectivity & Integration

"Quickly respond to changing customer expectations and business demands"

Business Process Management

The power of a Dynamic Application Infrastructure

Modernize Applications

Expand client offerings using existing business data with Web 2.0

Execute High Volume Transactions

Reduce business risks with highly available, secure applications

Capitalize on dynamic situations

Timely insight with low cost situational applications

Manage worldwide operations

Rapidly introduce new capabilities throughout the business with centralized administration

Dynamic Application Infrastructure
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
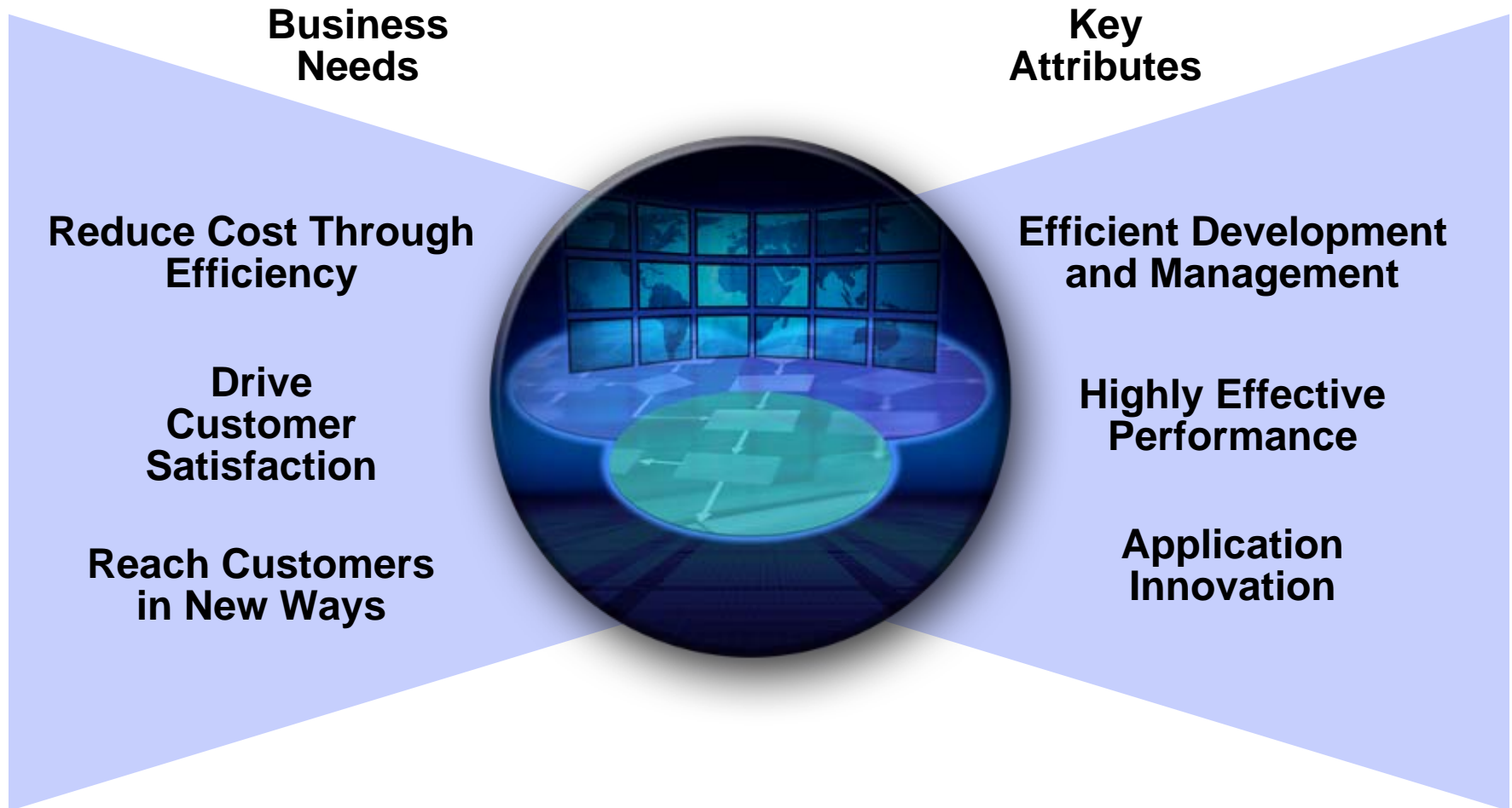- Reduce CPU usage to cut operating costs

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 Dynamic Application Infrastructure?

Deliver on business objectives and reduce operating costs

The right foundation for business applications

Business Needs

Reduce Cost Through Efficiency

Drive Customer Satisfaction

Reach Customers in New Ways

Key Attributes

Efficient Development and Management

Highly Effective Performance

Application Innovation

The right platform for any situation
WebSphere Application Foundation

Mission-critical applications
on IBM System z

**IBM WebSphere
Application Server
for z/OS**

**IBM CICS Transaction
Server**

Modernize and
transform your
environment

Practical reuse of on-
line Java assets in
Batch

**IBM Problem Determination
Tools for z/OS**

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

Thriving in a Dynamic Marketplace
Intelligent Management of Applications

Understanding, Optimization
and Control

IBM CICS Tools

Modernize and
transform your
environment

Improve visibility,
control and automation

**IBM Problem Determination
Tools for z/OS**

**IBM Tivoli
Integrated Service Management**

CICS is at the heart of smart business

Revitalize Business

Revitalize Infrastructure

Revitalize Applications

CICS TS 4.1

"CICS is probably the most successful piece of software of all time . . . It is the mainstay of business computing throughout the world . . . Millions of users unknowingly activate CICS every day, and if it were to disappear the world economy would grind to a halt." *Phil Manchester, Personal Computer Magazine*

Efficiently Develop Innovative Applications
Application Foundation

New and Enhanced!

IBM Problem Determination Tools V10

- Additional integration with IBM Rational Developer for System z, particularly with the File Manager Base

- Currency support for IBM CICS Transaction Server V4.1 and IBM IMS™ V11

- Further support for service oriented architecture (SOA) and Web service applications

New and enhanced feature packs for Websphere Application Server for z/OS

- Easily add communication features with new Communications Enabled Application (CEA) Feature Pack V1

- More efficient development of apps that use XML with new XML Feature Pack V1

- Simplified composite application development with enhanced Service Component Architecture (SCA) Feature Pack V1.0.1
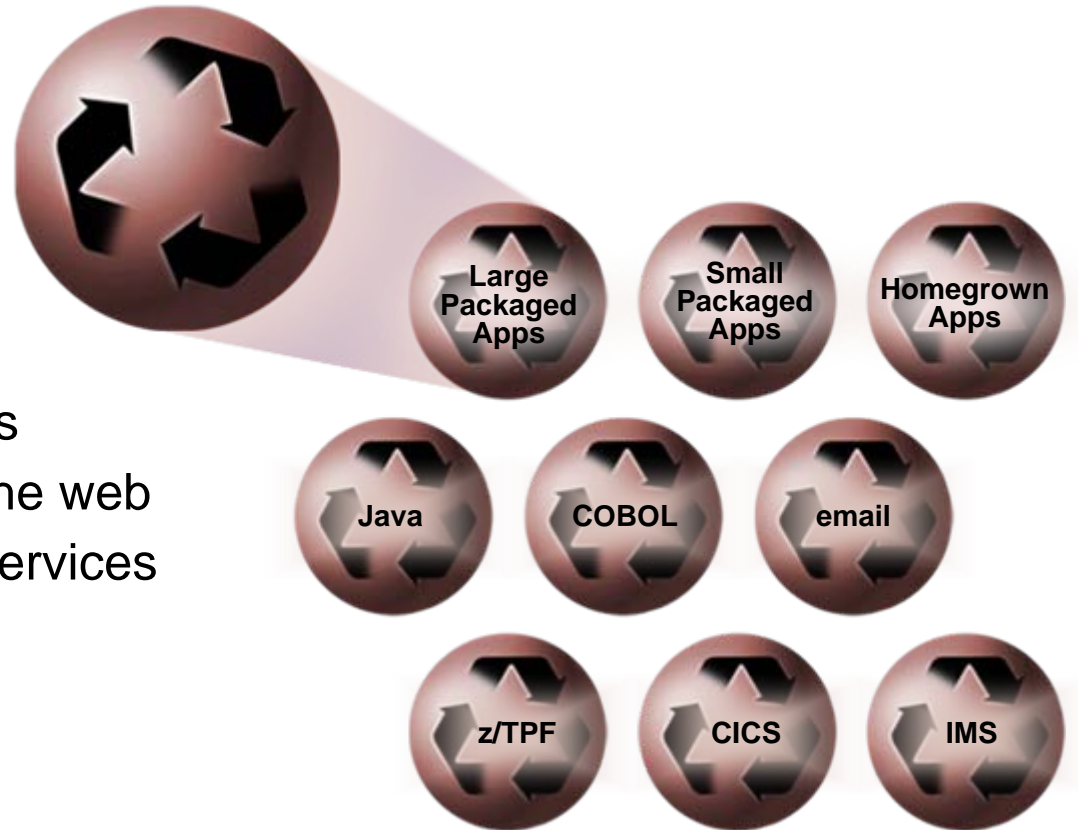
Reuse Business Applications
Enable Agility Required for Smart Business Outcomes

Get More Value from Applications & Expand Business Opportunities

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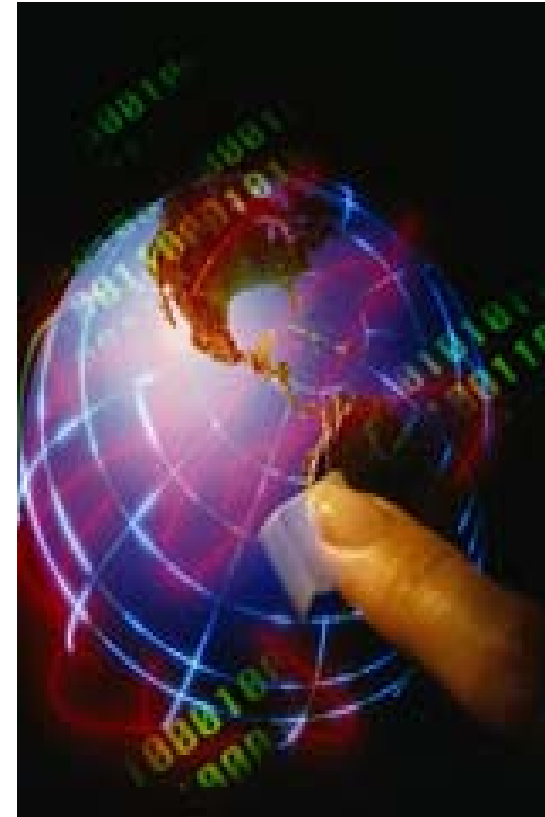- Extend reusable services to the web
- Consume external reusable services

Large Packaged Apps

Small Packaged Apps

Homegrown Apps

Java

COBOL

email

z/TPF

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

Benefits of a Dynamic Infrastructure on System z

- Integration with Existing Assets

- High performance

- Server consolidation

- Dynamic scalability

- 99.999% Availability

- Exploitation of Java/J2EE

- Uninterrupted support

- Low TCO of applications

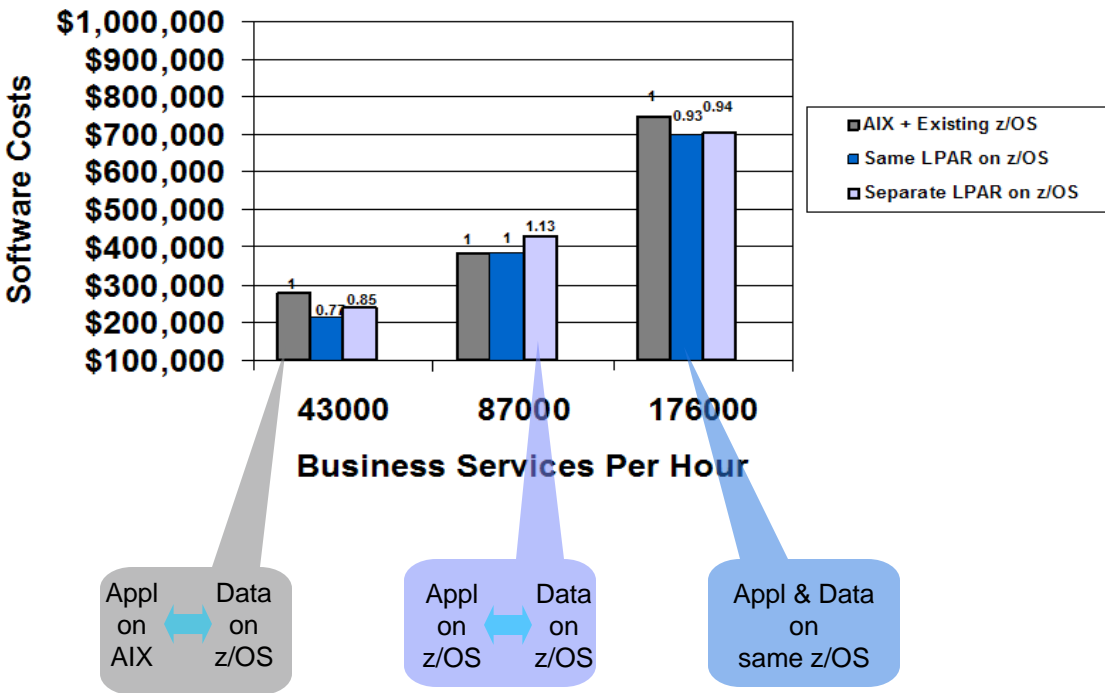- Performance Optimization through collocation

When location matters, why not z/OS?
Performance Optimization through collocation

- Up to 34% overall CPU savings with WebSphere Application Server and DB2 on the same LPAR

- 52% more throughput when WAS for z/OS is collocated with DB2 in the same LPAR

- 3-year TCO shows WAS and WPS are price neutral when compared to running equivalent workload on distributed servers

3-Year Total Software Cost Comparison Summary

	AIX + Existing z/OS	Same LPAR on z/OS	Separate LPAR on z/OS
43000	1	0.77	0.85
87000	1	1	1.13
176000	1	0.93	0.94

Software Costs — Business Services Per Hour

Appl on AIX ↔ Data on z/OS	Appl on z/OS ↔ Data on z/OS	Appl & Data on same z/OS

Deploying application servers, data sub systems and application sub systems

An edge in the market – SOA 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

Proven and trusted messaging and 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
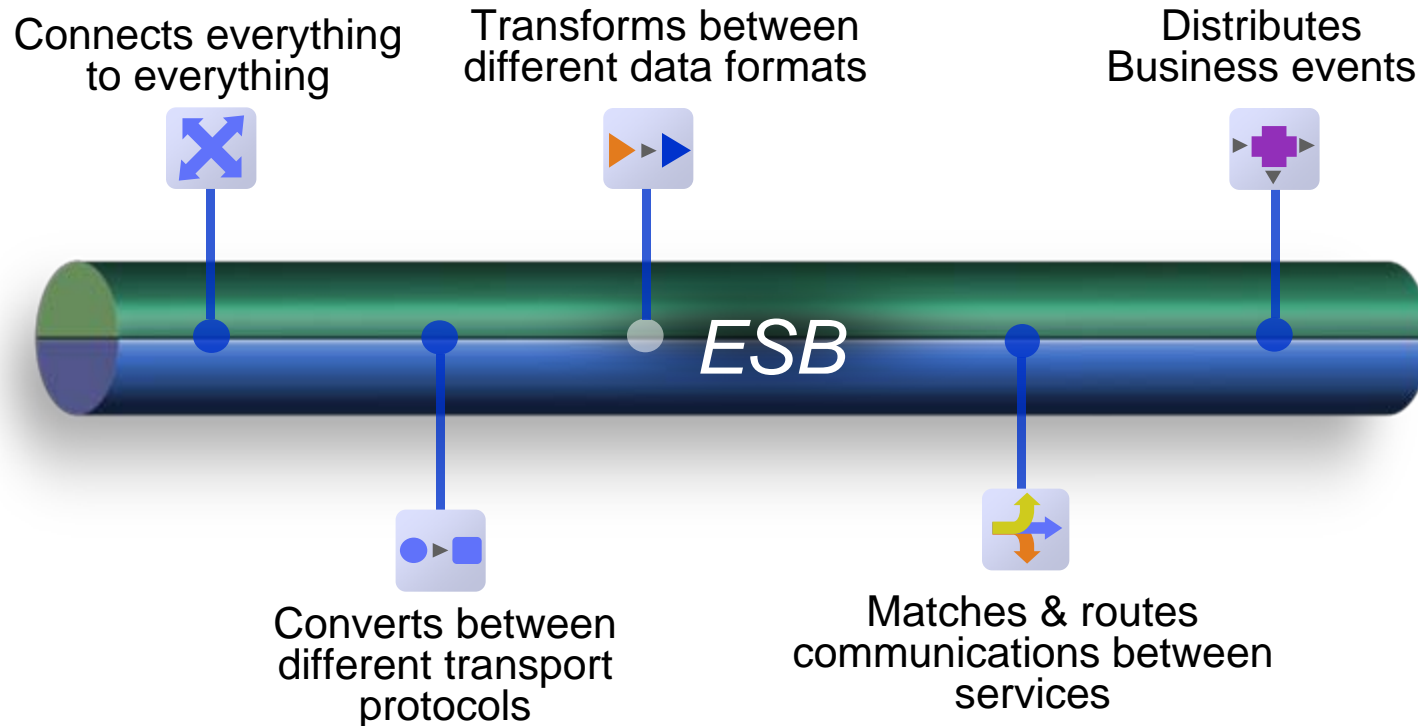- Resolve name and address discrepancies in 10 months, as opposed to several years

Why SOA Connectivity & Integration?

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

Agility and savings begin with Integration
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

Optimize Costs by: *Integrating new customers and partners up to 80% faster, Improving performance more than 10x - with lower costs, and Achieving full ROI within as few as 6 months*

IBM WebSphere Message Broker for z/OS

IBM WebSphere Enterprise Service Bus

IBM WebSphere MQ for z/OS

Service Visibility & Governance

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

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

- **Secure**: Ensure consistent policy enforcement

IBM WebSphere MQ File Transfer Edition for z/OS

IBM WebSphere Service Registry & Repository for z/OS

Access rich information and applications

WebSphere MQ for z/OS V7.0.1

- Increase availability

- Increased ROI of z/OS with 64-bit storage and increased performance

- Reduced TCO and accelerate ROI with new options for high availability messaging

WebSphere MQ File Transfer Edition for z/OS V7.0.2

- Reliable, managed file transfer solution for moving files - regardless of size

- Enhanced security features

- Able to take control of managed file transfers with SOA governance

WebSphere Message Broker for z/OS V7.0

- Easier to install and configure

- Universal connectivity for SOA

- Dynamic operational management

When to use System z for SOA 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 power of Business Process Management

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

Business Process Management
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 Dynamic Business Processes?

WebSphere Process Server improved the reuse and efficiency of service components to reach the independent mortgage broker market
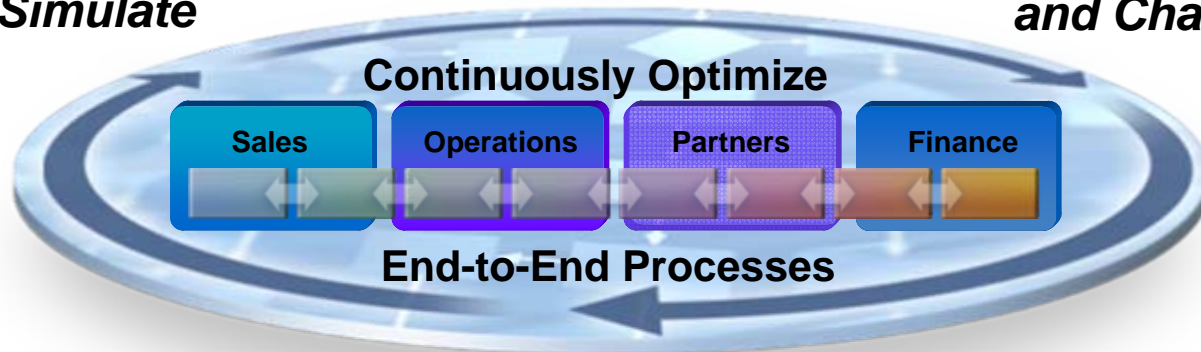
Insight contained in business events all around us

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
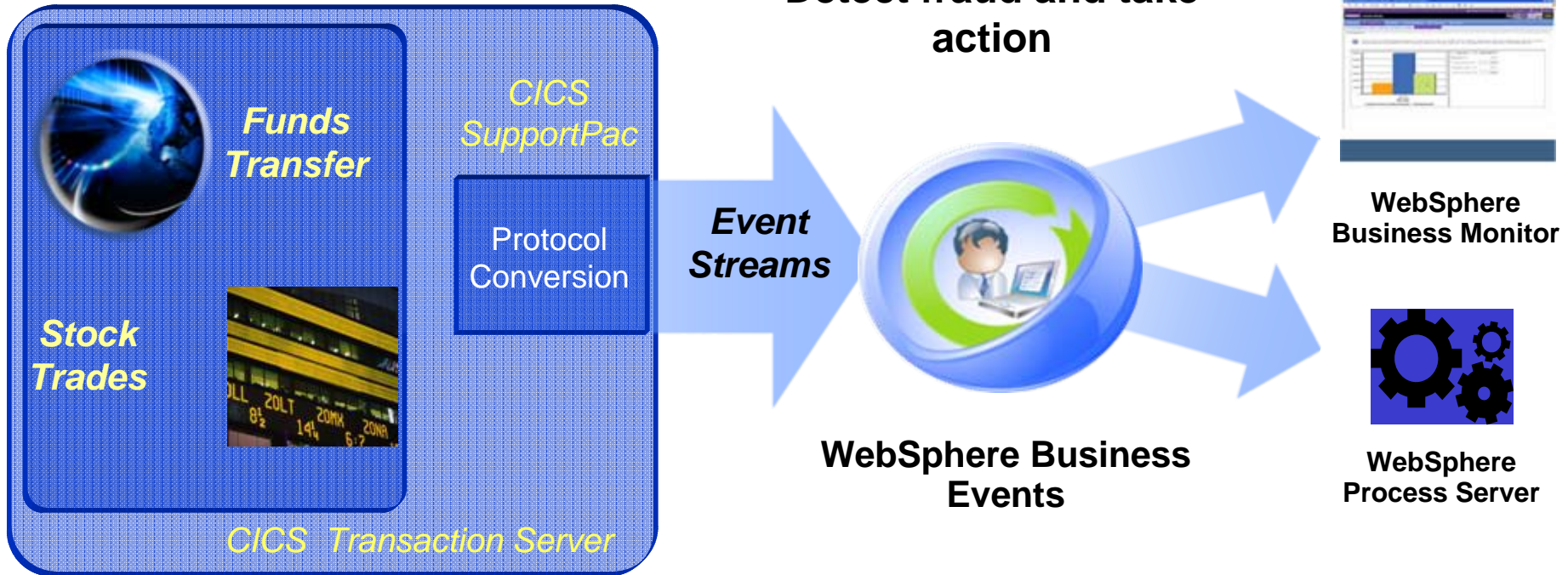
Over **190 Billion** emails are sent daily

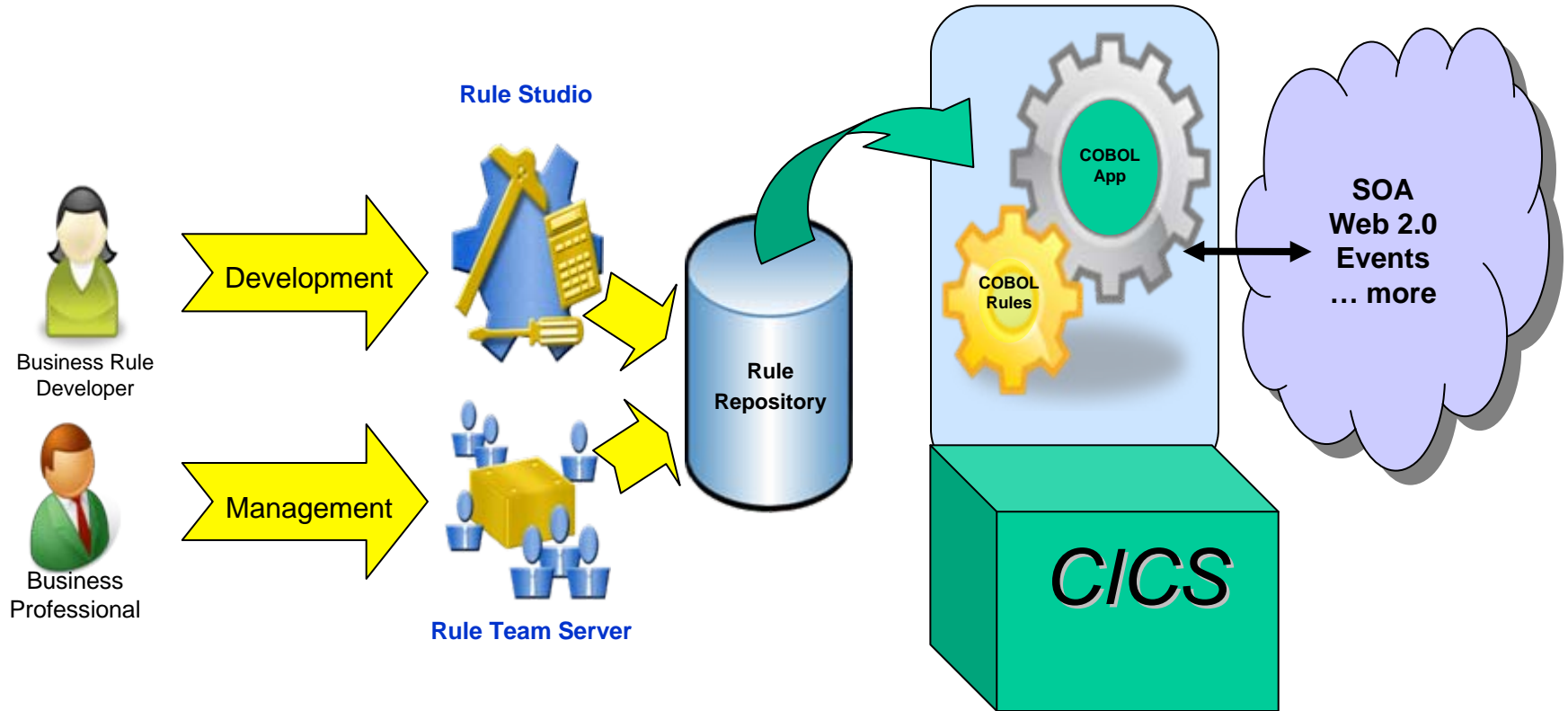# Capture mainframe events
for smarter business outcomes

CICS Event Sources

Detect fraud and take action

Funds Transfer

CICS SupportPac

Protocol Conversion

Stock Trades

Event Streams

WebSphere Business Monitor

WebSphere Business Events

WebSphere Process Server

CICS Transaction Server

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

CICS with ILOG Rules for COBOL
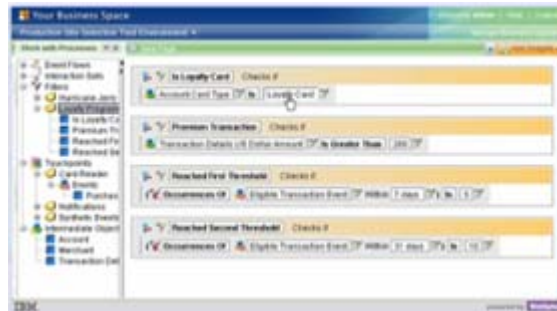
Automate and govern processes

WebSphere Process Server for z/OS V7.0

- **Empowers users and accelerates productivity**

- **Accelerate Time to Value**

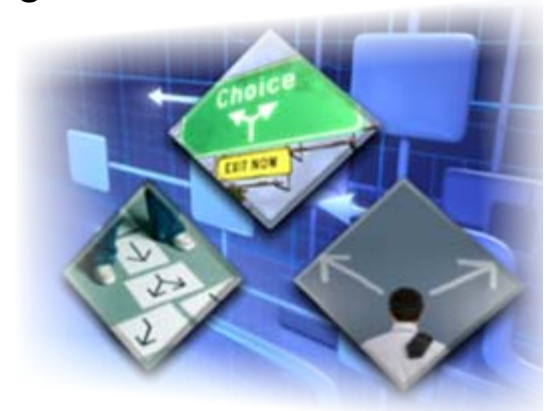- **Enhanced capabilities for creating, working with and administering human workflow**

WebSphere Business Events V7

- **Manage events from a wide variety of sources**

- **Detect, evaluate, and respond to real time events and patterns**

- **Provide business user authoring tools**
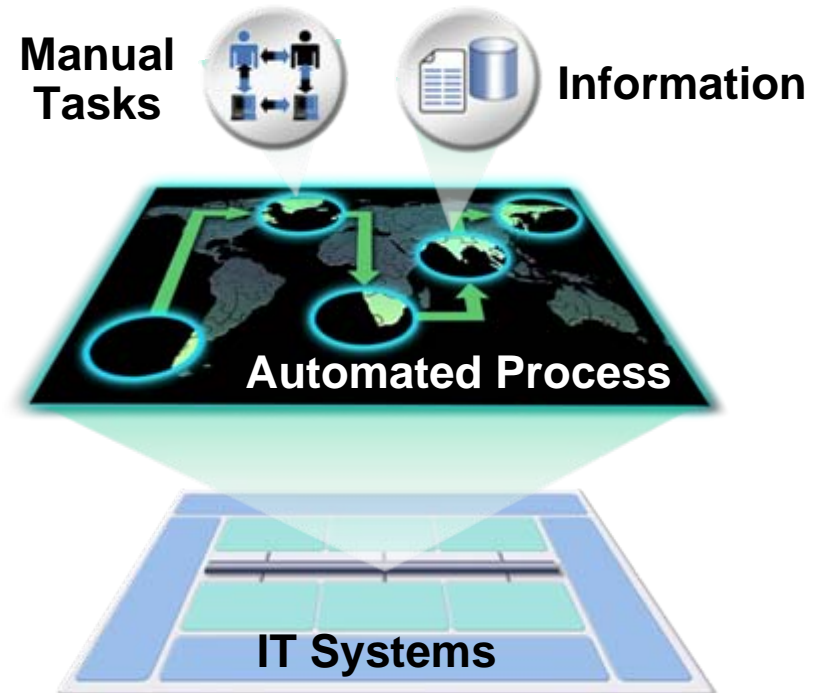
WebSphere ILOG Business Rule Management Systems V7

- **Rapidly deploy changes and extend rule authoring**

- **Improved integration with System z applications supporting CICS**

- **Provides Rule management and governance**

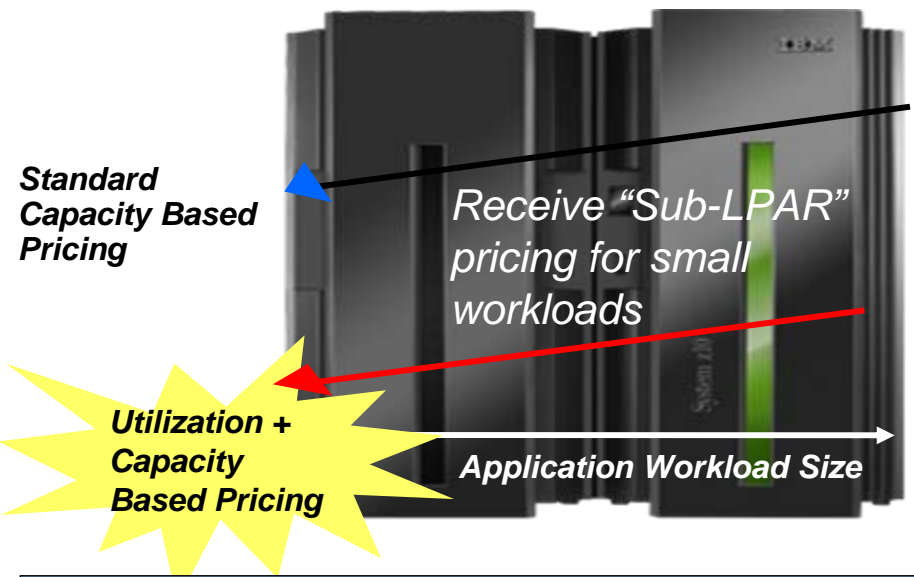# When to use System z for Business Process Management?

- Process Efficiency

- Improve Integration
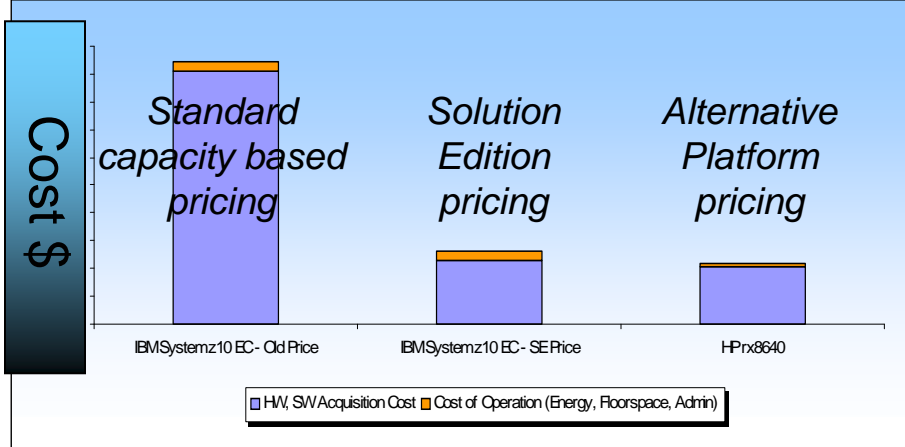
- Reduce Human Processes

- Workload Management

Manual Tasks

Information

Automated Process

IT Systems

WebSphere Application Server on z/OS
New options to lower the cost for emerging workloads

Standard Capacity Based Pricing

Receive "Sub-LPAR" pricing for small workloads

Utilization + Capacity Based Pricing

Application Workload Size

Cost $

Standard capacity based pricing

Solution Edition pricing

Alternative Platform pricing

IBM System z10 EC - Old Price

IBM System z10 EC - SE Price

HP rx8640

■ HW, SW Acquisition Cost ■ Cost of Operation (Energy, Floorspace, Admin)

- Getting Started Sub-capacity Pricing

  - Start and grow your projects on z/OS

  - Improve alignment of software use & charges

  - Change LPAR capacity without changing software charges

- System z Solution Editions for WebSphere and Application Development

  - Modern platform for mission critical workloads

  - Designed to be affordable

  - Secure, reliable, scalable

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Let's Build a Smarter Planet on System z