Deeper Dive on Collaboration and Connectivity

The future runs on System z

Rosalind Radcliffe

*STSM Chief Architect for Jazz for System z and Power Systems*

Lack of Cost Optimization

The Situation

- Ongoing integration costs preventing new IT projects

- New assets and skills required for new projects

- ROI not achieved to cover costs

Your Opportunity

- Cut integration costs up to 55%

- Leverage existing assets and skills for new IT projects

- Achieve ROI in six months

- Decouple connectivity and integration logic from application

I.T. Budget

100%

76%

50%

New IT projects

Maintenance and management of existing IT apps

Time
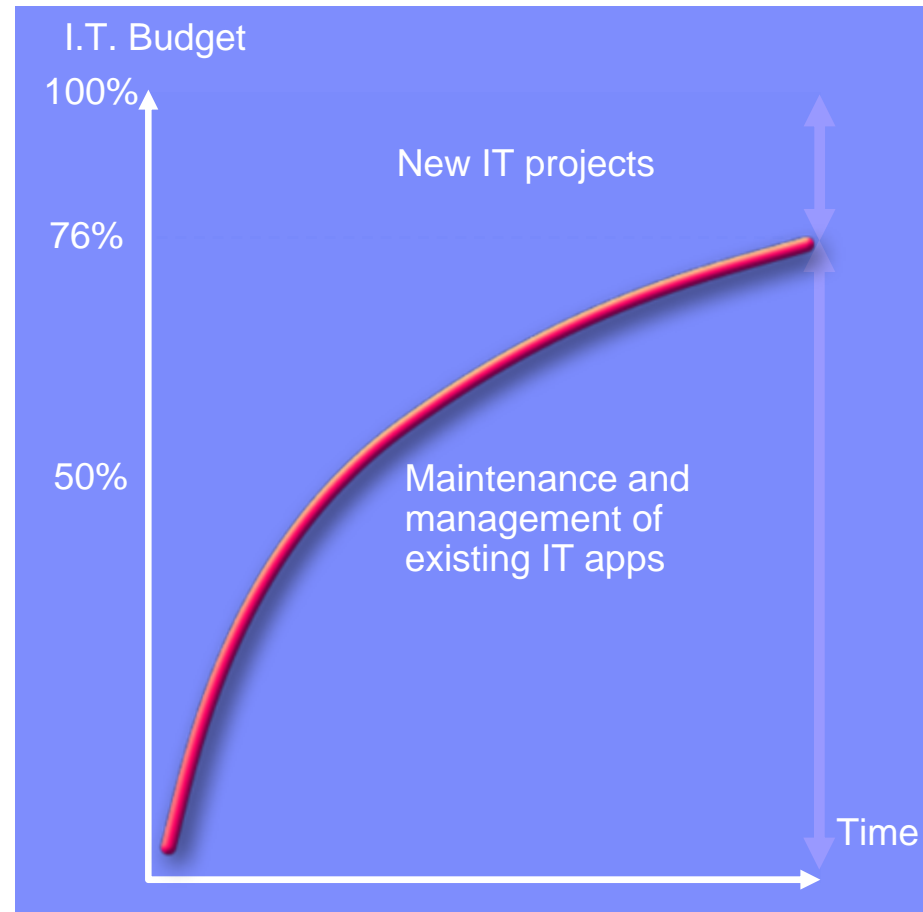
Integration can be Complex and Inflexible

The Situation

- Inflexible, "homegrown" applications don't integrate

- Variety of different platforms, networks, and devices

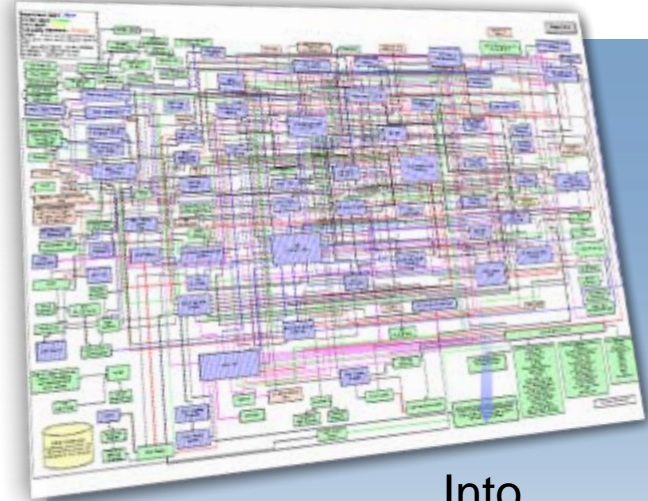- Changes to the business impact current IT environment

Your Opportunity

- Single integration hub to connect applications up to 80% faster

- Immediate access to virtually any system

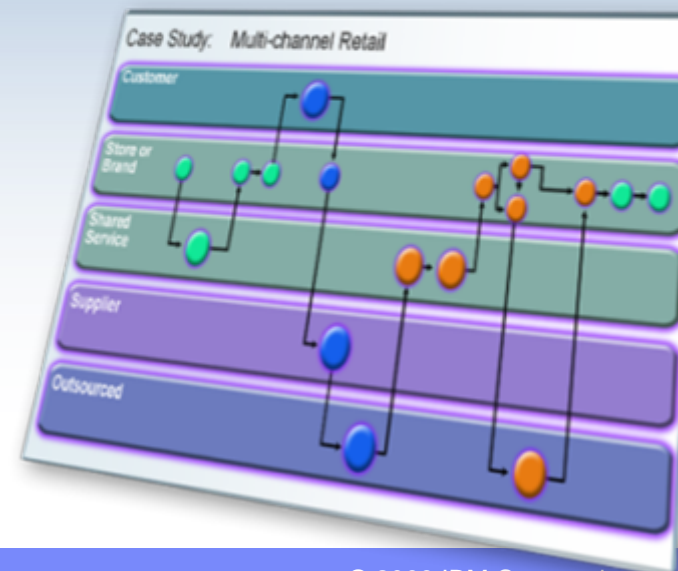- Improve performance more than 10x, with lower costs
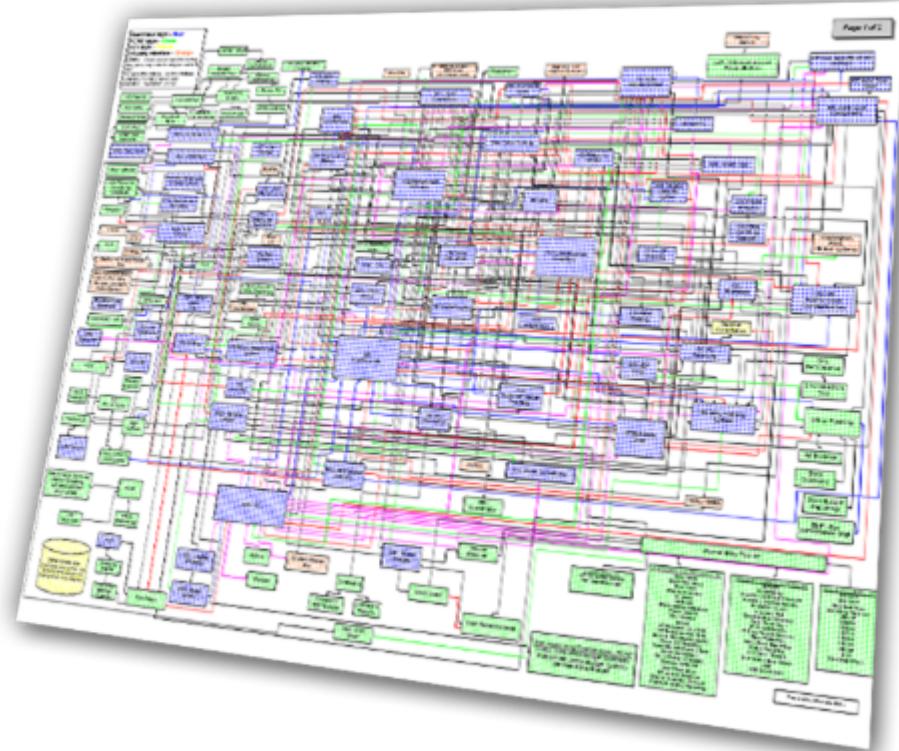
Unifying, Cross-enterprise Integration Hub

- **Connect applications regardless of the platform, network, or device**

- **Connect people from the multiple application and platform areas**

- **Enable access to virtually any system through transformation of data**

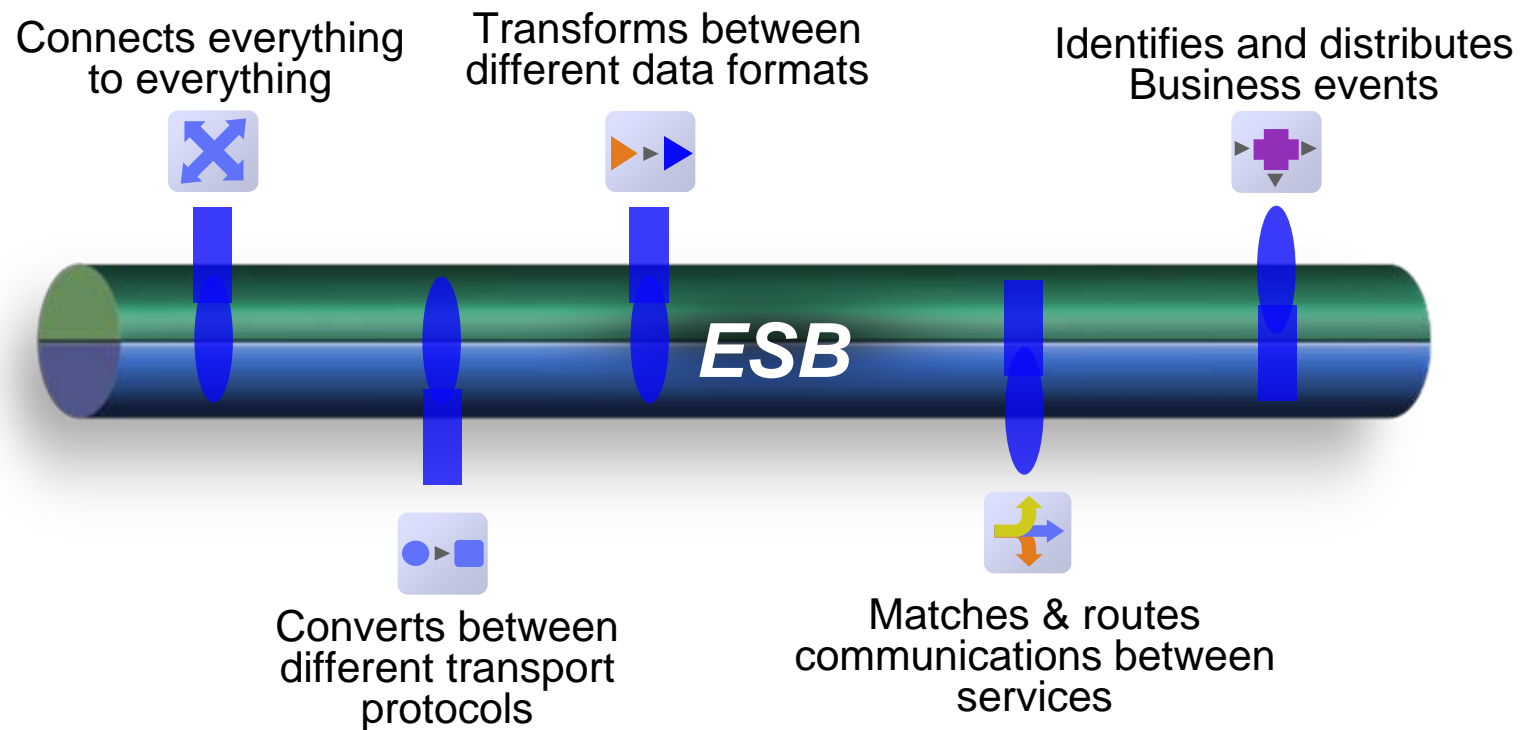- **Develop new business services from existing applications and data**

Into this…

Case Study: Multi-channel Retail

Agility and Savings Begin with Integration
The Enterprise Service Bus (ESB)

Connects everything to everything

Transforms between different data formats

Identifies and 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, Achieving full ROI within as few as 6 months, Leveraging existing skills and assets, and supporting business growth and agility*

The Power of ESB Messaging and Enrichment
Fast, flexible & reliable access to business information

Lower process disruptions with reliable data movement

Confirmed Flight Booking

Telephony Hub Save time and money by centralizing services

Telephony Hub

ESB

Prepare for regulatory compliance by preserving data integrity

Auditable Stock Trades

Adapt business faster by easily connecting services and creating new, low-cost Web 2.0 apps

Web-based Bank Transfer and Routing

Extreme Reliability & Assured Delivery

Message & Transaction Integrity
Prevent costly security breach exposures

Message & Transaction Delivery Assurance
Reduce costs and process disruptions from data loss

Ultra-low latency, time-sensitive data feeds
Enables real-time business decisions

Bridge to Next Generation Interconnectivity

IBM Protocols

WebSphere MQ (+ File Transfer Edition)
(Enterprise applications (+ managed file transfer))

WebSphere MQ Everyplace
(Mobile device applications)

WebSphere MQ Telemetry
(RFID, sensors & actuators)

WebSphere MQ Real-time
(Very low latency over WANs, and the Internet)

WebSphere MQ Multicast
(Reliable Multicast Messaging (RMM))
(Very low latency for LANs)

Industry and Vendor Protocols

Any 3rd-party JMS
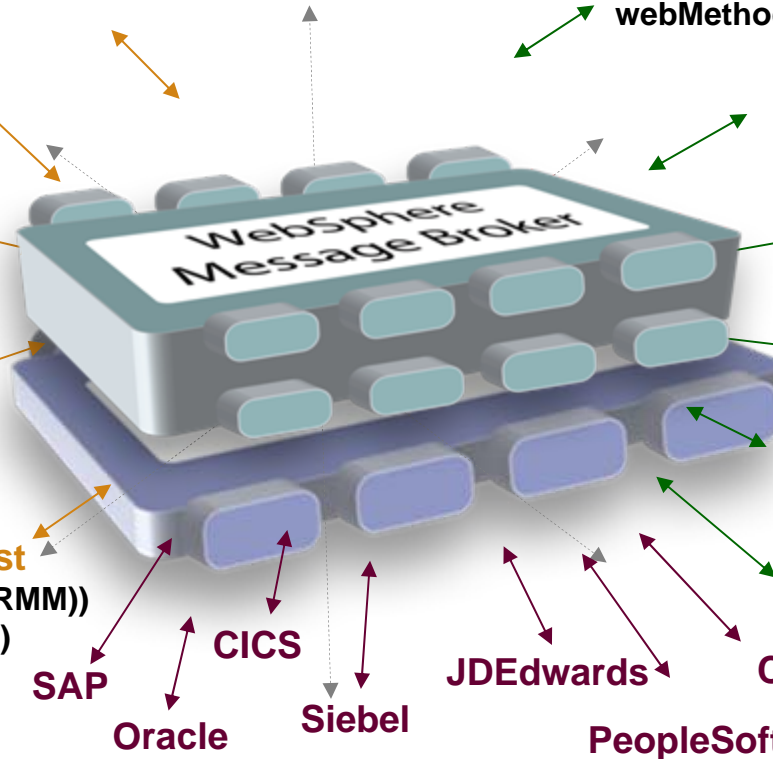**(TIBCO EMS, Sonic MQ, BEA JMS, webMethods, See Beyond, Vitria)**

TIBCO Rendezvous
(plug-in component)

HTTP and HTTP(S)

FTP and File

TCP/IP Sockets

SMTP

WebSphere Message Broker

SAP

CICS

Oracle

Siebel

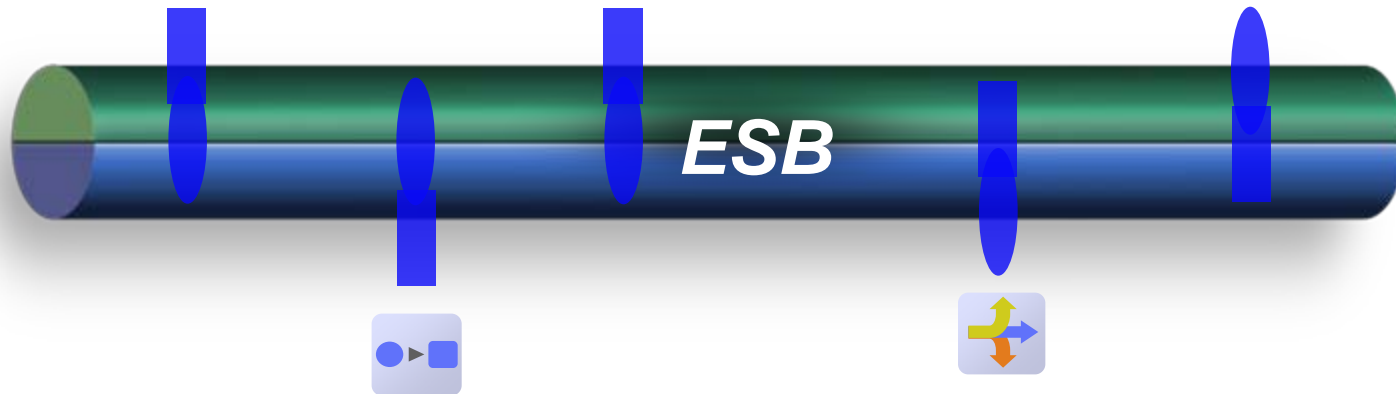**JDEdwards**
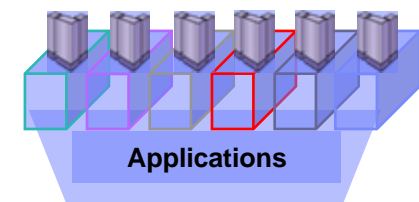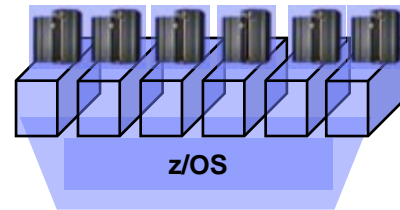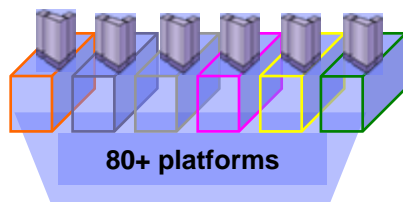
PeopleSoft

Custom

Enterprise Applications

Connect Applications regardless of platform, network, or device
WebSphere MQ for z/OS

Support for virtually every commercial IT System

Exploit System z for messaging powerhouse

Enable popular applications and environments

80+ platforms

z/OS

Applications

ESB

Free Up Costs and Personnel for IT Projects

- Decouple complex integration logic from each application

- Leverage existing assets and skills utilizing one integration hub

- Provide universal service delivery including messages, processes, files and events

Personnel   **Costs**

IT Systems
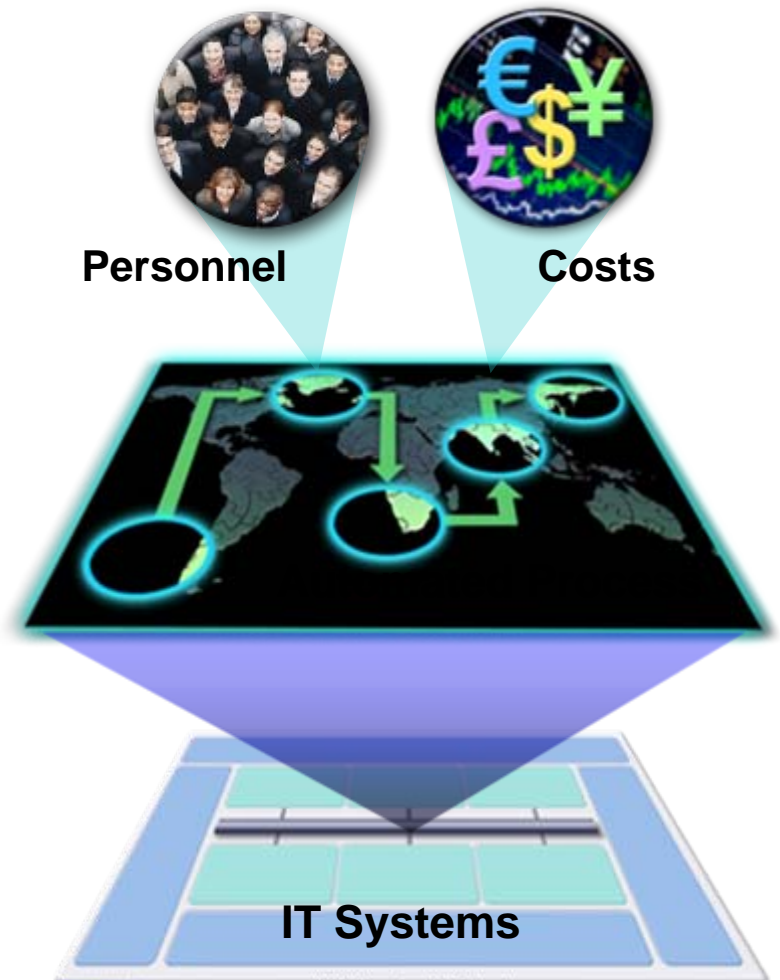
Leverage existing assets & Skills

Web 2.0

HTTP bridging for AJAX applications with simple RESTful interface

Java Message Service (JMS)

Industry standard Java interface for point-to-point and pub-sub msg

MQ Interface

IBM interface providing full function MQ access for Java, C, C++, COBOL, .NET, PL/1…

Multi-Language Message Service

IBM interface offering JMS behaviours in more languages than Java

- Support the broadest range of interfaces, languages and skills
- Leverage the skills you already have
- Draw IT skills from a larger pool
- Choose the right interface for the application

Windows Communications Framework

Seamless experience for .NET (Indigo) Developer

SAM / PHP

Open source extension for PHP Web Scripting

Business pressure
To drive innovation, while controlling risk/costs & focusing on quality

Market Pressures

- **93%** Senior business executives say **innovation** is a top strategic priority.[1]

- **3X** Increase in the gap between leaders' need and their ability to **deliver** innovation.[2]

Sources: 1. Forrester Report on Innovation Management Tools, 2008. 2. 2008 IBM CEO study.

Execution Mandates

- **Innovation:** new business models = new requirements
  - Customer centric models, e.g. financial market rewards
  - Requirements change faster than IT can implement

- **Efficiency:** reduce cost of software delivery & operations
  - Rethink software delivery processes

- **Quality & speed to market**: looking for new methods
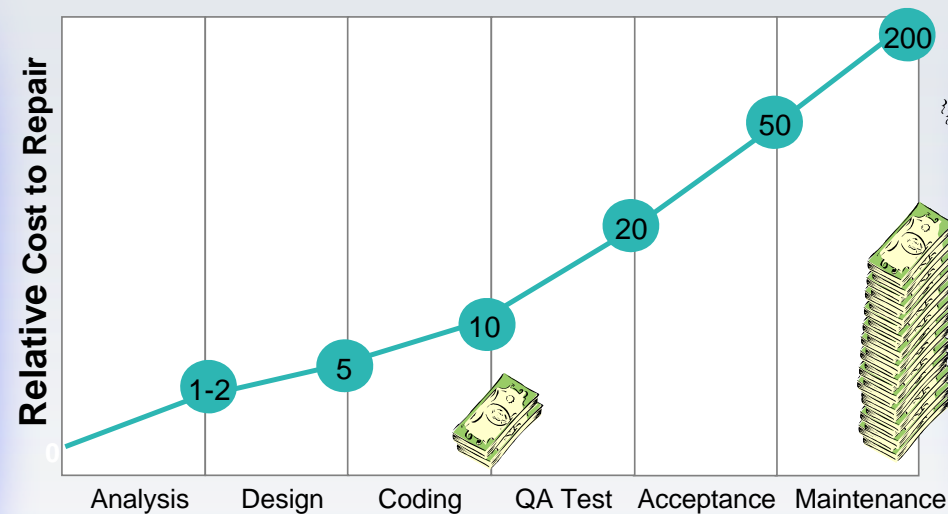 - While measuring business risk of software & systems failures

Improve lifecycle processes
Traditional methods yield excess rework, delays & poor quality

Business Risk

- **41%** of projects fail to deliver expected business ROI

- **2/3 of executives** make more than half of their **decisions based on 'gut feel'** rather than verifiable information

Chart: Relative Cost to Repair across lifecycle phases:
- Analysis: 1-2
- Design: 5
- Coding: 10
- QA Test: 20
- Acceptance: 50
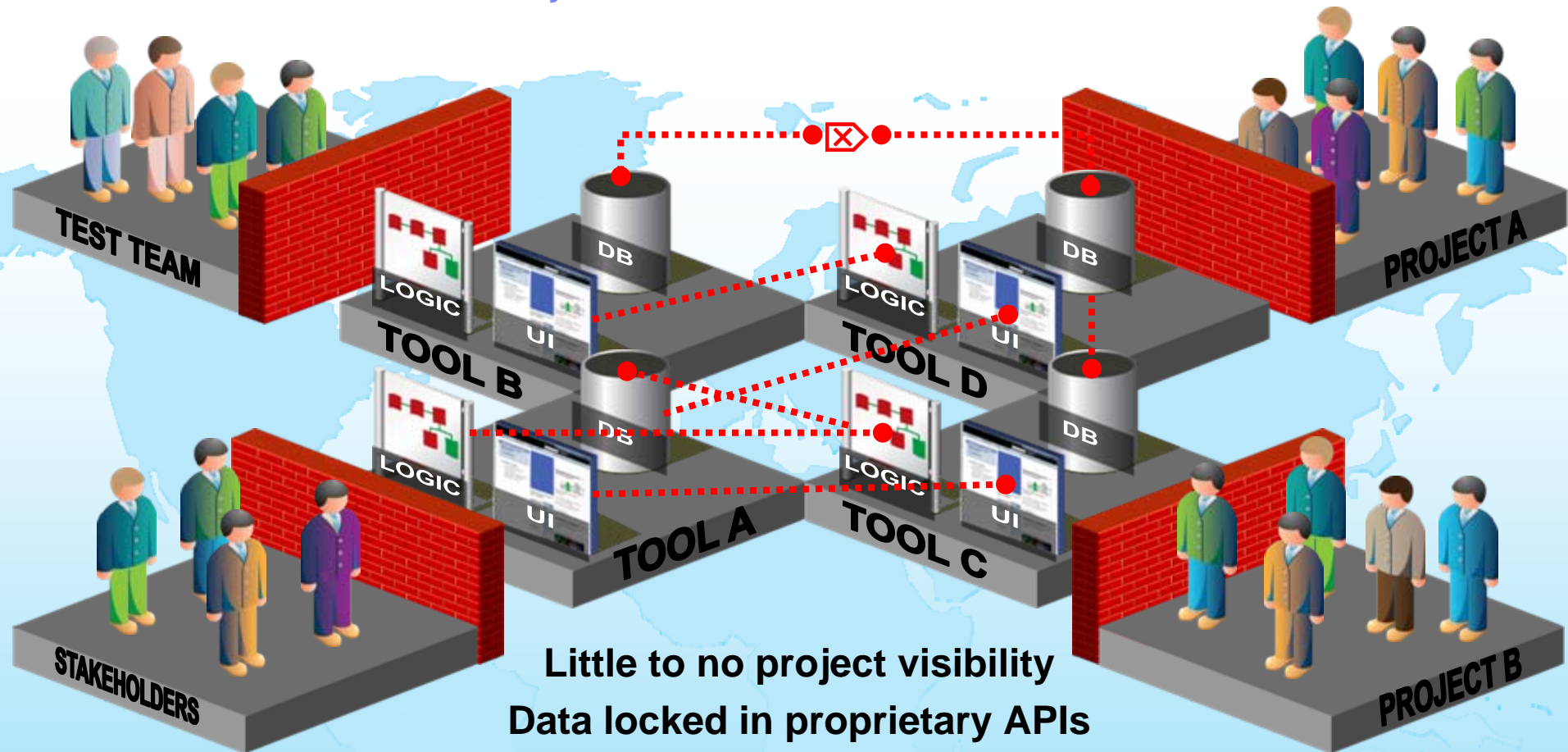- Maintenance: 200

Cost

- More than **40%** of IT development budget will be consumed by poor requirements

Traditional QA Testing
- *25 – 30 % delivery time in testing (IBM Study)*
- *Poor upstream quality yields rework*
- *Compressed schedules make it worse*

Islands of people, process & information
Collaboration is fundamentally difficult

Little to no project visibility

Data locked in proprietary APIs

Poor process and workflow integration

High maintenance and administration costs

**Persistent functional, geographic and organizational silos**

What is Application Lifecycle Management (ALM)?

- **In its simplest form, ALM is really just the integration and coordination of** people, tools, information, **and** process.
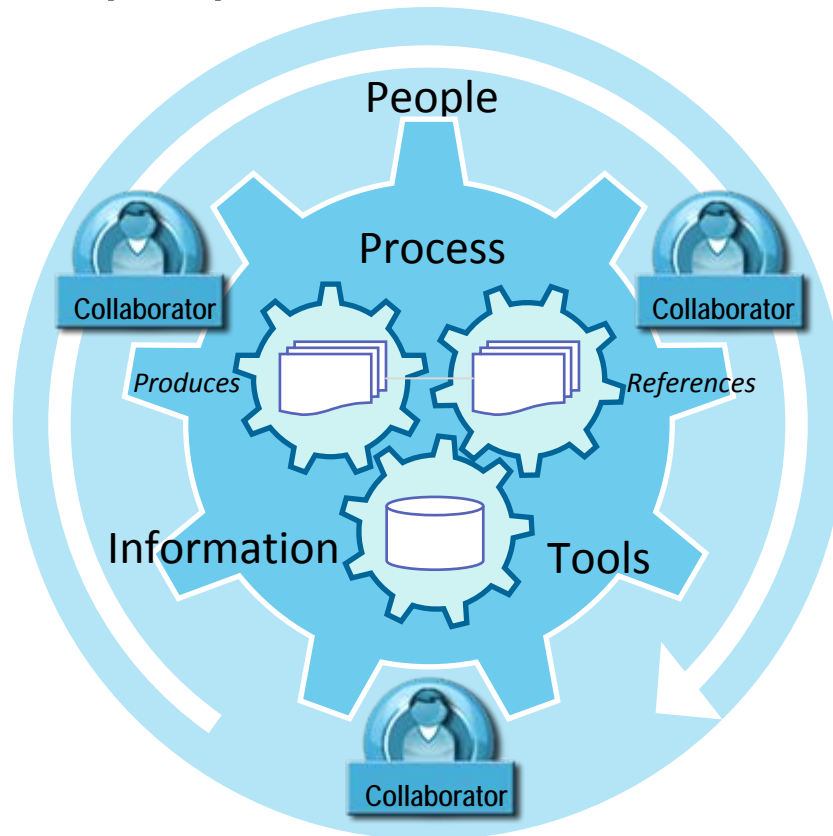
ALM is no longer just about S/W development
Composed of purchased, outsourced and in-house built software assets
That are ever-evolving and increasingly interdependent
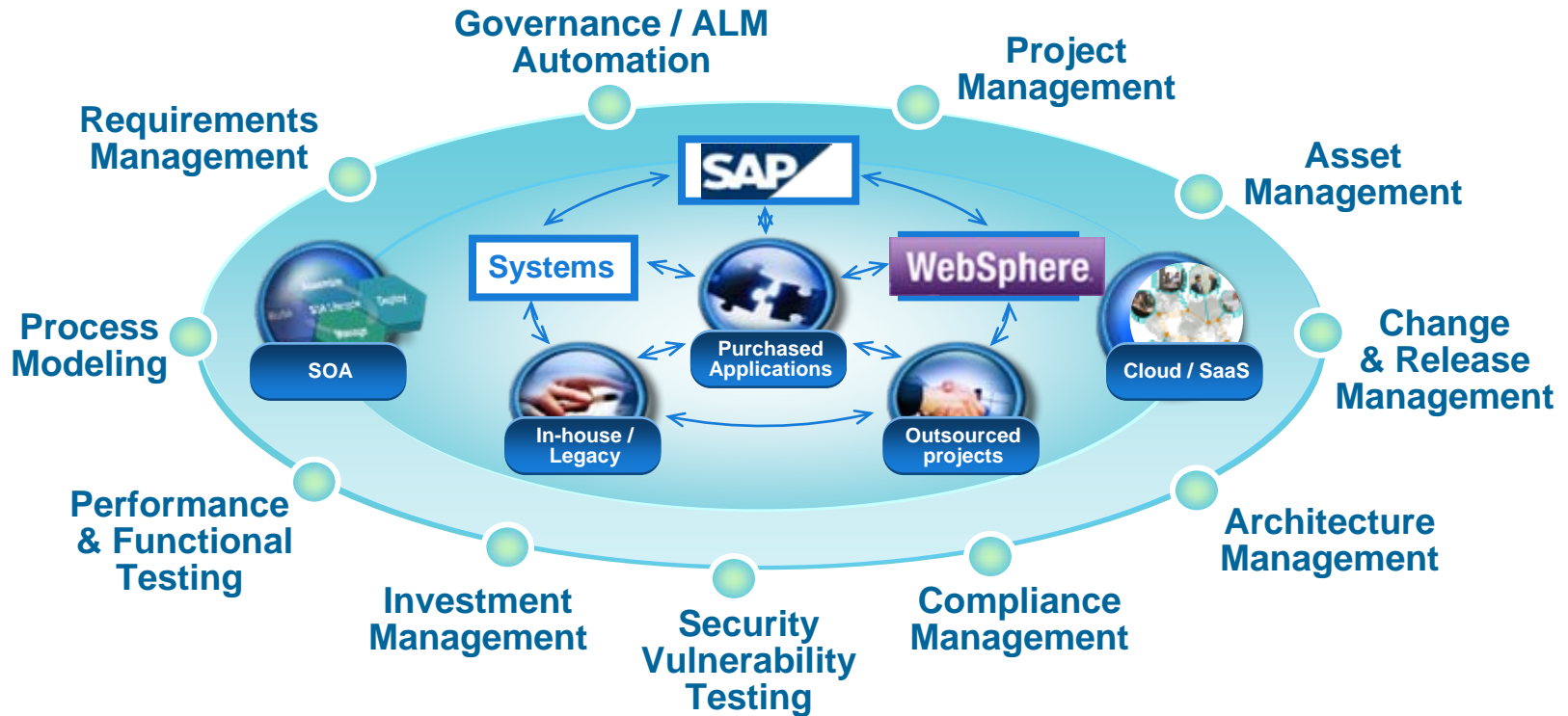
With Rational customers can break down organizational, functional and geographic barriers thru collaboration, automation and reporting

Real-time, transparent access to project data, risks and progress

TEST TEAM

PROJECT A

ARCHITECTURE

PROJECT B

Third-party products

Open Source Solutions

Product A

Product B

Product C

Product D

Process Workflow

HTTP/REST

Shared Platform Services

Jazz

Integrated, loosely coupled Logic, User Interfaces Data Models, Workflow Administration
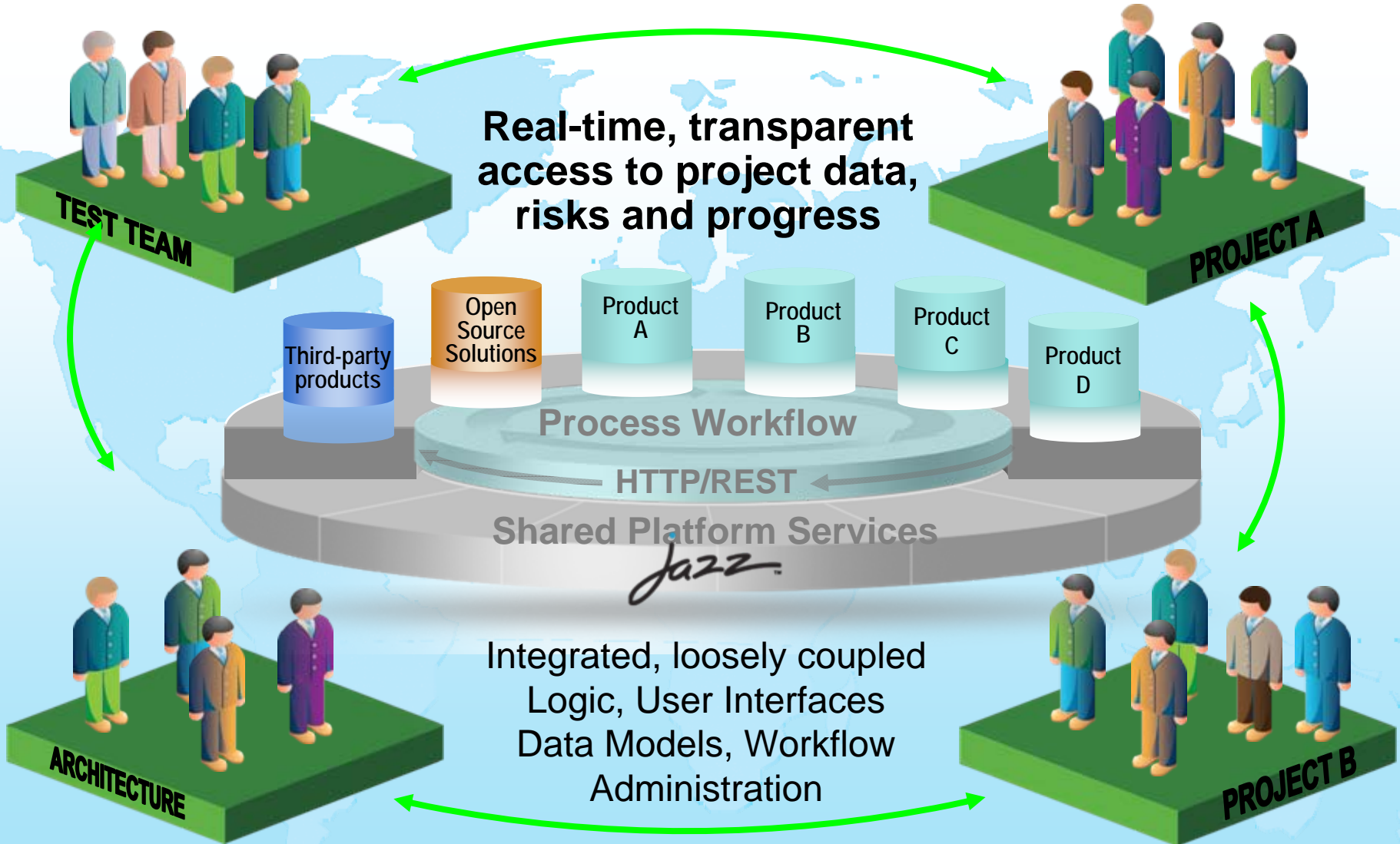
Jazz-based Collaborative ALM platform
Transform software & systems delivery

Collaboration   Automation   Reporting

Additional IBM Capabilities | Your existing capabilities | Rational Requirements Composer | Rational Team Concert | Rational Quality Manager | Rational Insight | Rational Asset Manager | 3rd-Party Jazz Capabilities

Best Practice Processes

OPEN SERVICES

Collaboration | Presentation: Meshups | Discovery | Query | Storage | Administration: Users, projects, process
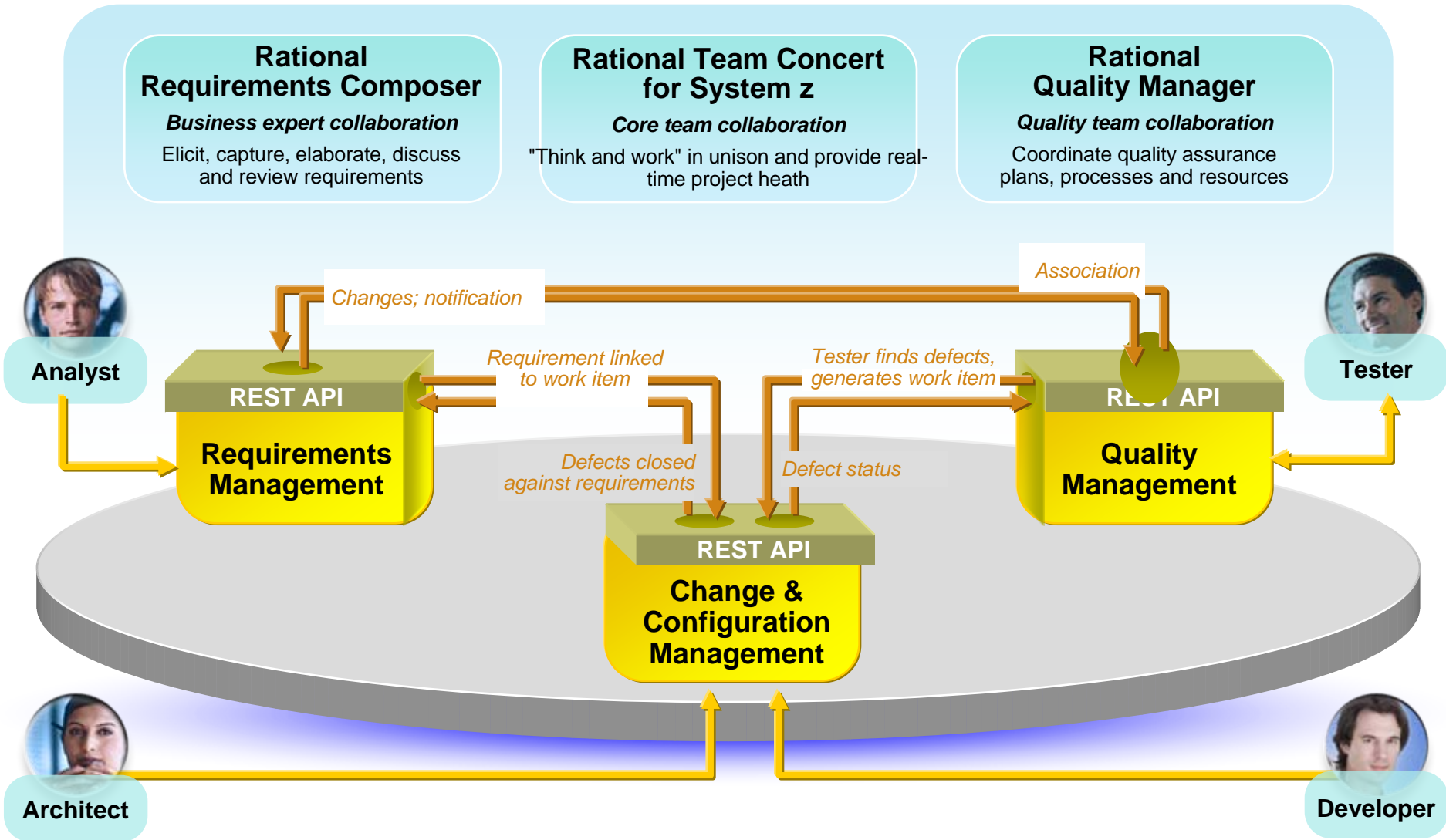
jazz

Jazz is a project & software delivery platform for *transforming how people work together* to deliver greater value & performance from software investments.

Provides

- A scalable, extensible team collaboration platform

- Role-based support for entire project team

- End-to-end, asset traceability and enforceable process workflows

- Makes software asset reuse practical with integrated asset management

- Predictable software release management & measurable improvement through full lifecycle reporting

The Foundation of Collaborative ALM

Rational Requirements Composer

Business expert collaboration

Elicit, capture, elaborate, discuss and review requirements

Rational Team Concert for System z

Core team collaboration

"Think and work" in unison and provide real-time project heath

Rational Quality Manager

Quality team collaboration

Coordinate quality assurance plans, processes and resources

Analyst

Tester

Architect

Developer

Association

Changes; notification

REST API

Requirement linked to work item

Tester finds defects, generates work item

REST API

Requirements Management

Quality Management

Defects closed against requirements

Defect status

REST API

Change & Configuration Management

Rational Team Concert

Iteration Planning

Project Transparency

SCM

Work Items

Build

**Jazz Team Server**

Individual Developer

What is RDz

- Eclipse-based IDE speeding modern composite (SOA) application development

RDz supports Enterprise Modernization

- Links WAS and core system z processing

- Supports common IDE for COBOL, PL/I, C, C++, HLASM, Java, EGL and web services

- Transforms UML to COBOL source code

- Provides interactive access to z/OS for development, debug, job generation, submission, monitoring, command execution

- Supports new and existing runtimes (CICS, IMS, Batch, USS, DB2 SP, WAS)

RDz supports SOA

- Enables CICS and IMS applications for web services and SOA

- Supports for J2EE, JCA, XML, web services
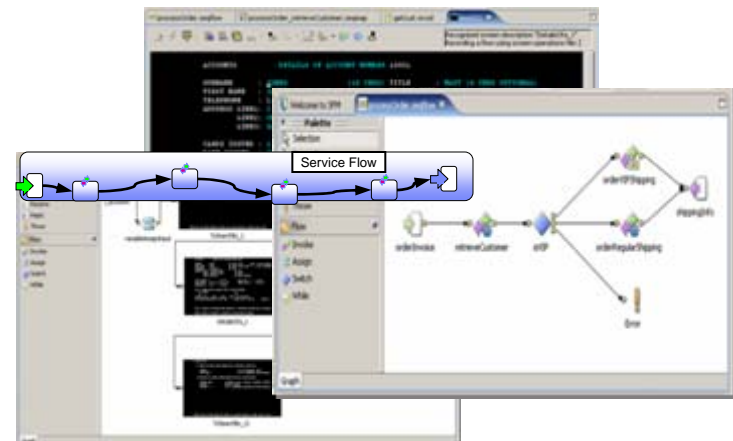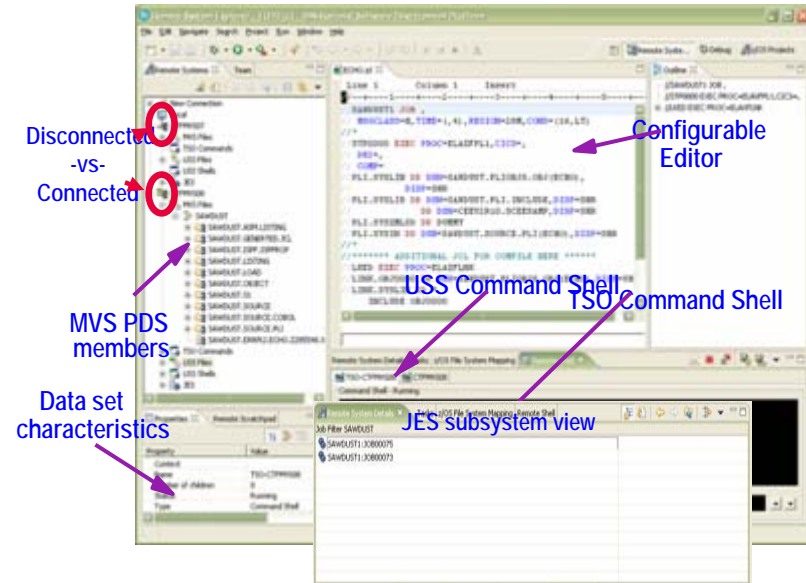
Upcoming Events

Register now at: www.share.org

Register now at: www.ibm.com/software/websphere/events/impact/

Register now at: http://www-01.ibm.com/software/rational/innovate/

- ***Learn more at:***
- *[IBM Rational software](#)*
- *[IBM Rational Software Delivery Platform](#)*
- *[Process and portfolio management](#)*
- *[Change and release management](#)*
- *[Quality management](#)*
- *[Architecture management](#)*

- *[Rational trial downloads](#)*
- *[Leading Innovation Web site](#)*
- *[developerWorks Rational](#)*
- *[IBM Rational TV](#)*
- *[IBM Business Partners](#)*
- *[IBM Rational Case Studies](#)*

Learn More…

More information on the value of ESBs can be found here:

Considerations for making System z your ESB deployment platform

http://www-01.ibm.com/software/integration/wmq/library/libraryallversions.html

More information on WebSphere Message Broker can be found on DeveloperWorks:

The value of WebSphere Message Broker V6 on z/OS

http://www.ibm.com/developerworks/websphere/library/techarticles/0604_odowd/0604_odowd.html

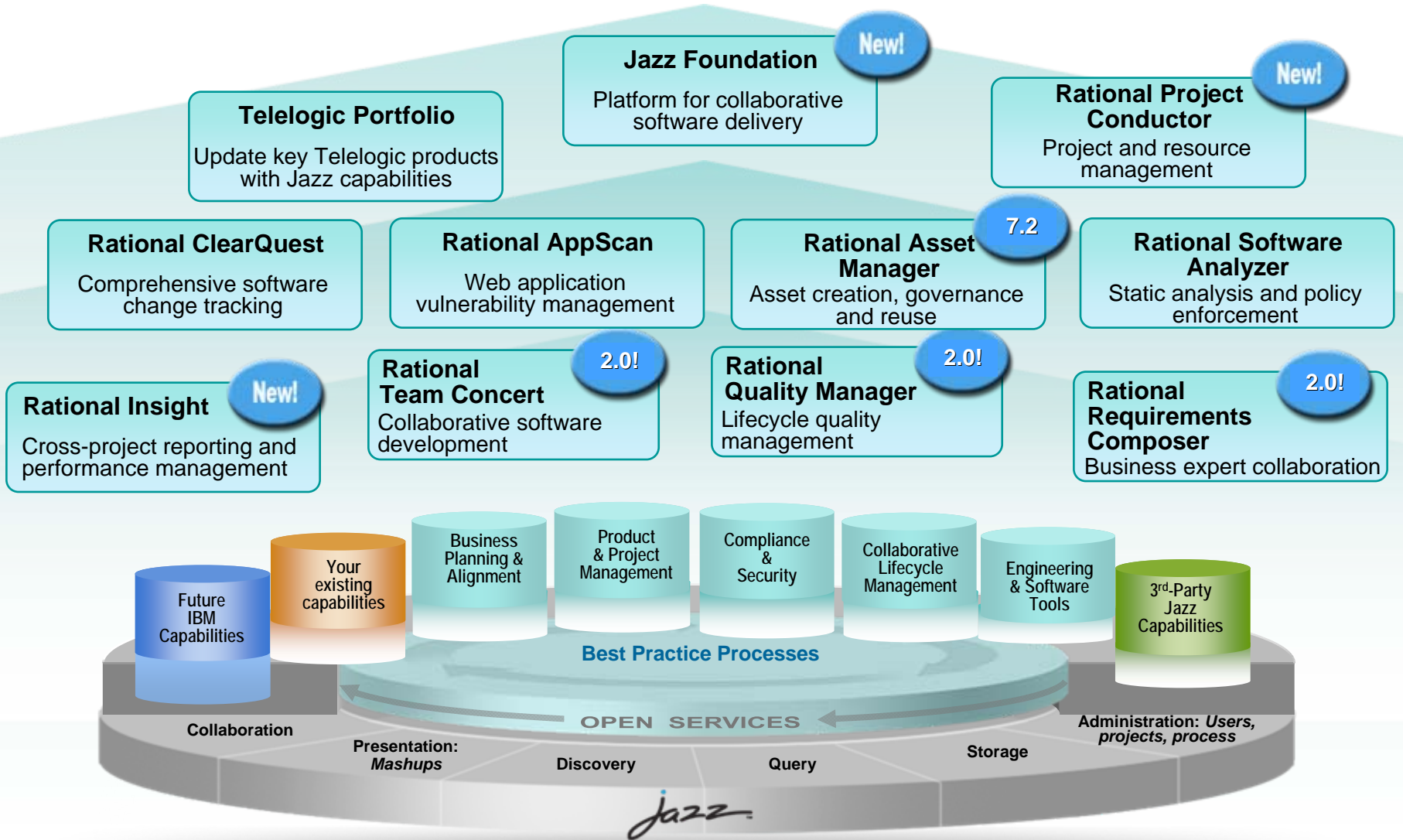**More information on WebSphere MQ can be found on the WebSphere MQ library:**

WebSphere MQ - IBM application integration software on IBM System z technology

http://www-01.ibm.com/software/integration/wmq/library/libraryallversions.html

Additional Jazz Related Announcements 2009

Jazz Foundation *New!*
Platform for collaborative software delivery

Telelogic Portfolio
Update key Telelogic products with Jazz capabilities

Rational Project Conductor *New!*
Project and resource management

Rational ClearQuest
Comprehensive software change tracking

Rational AppScan
Web application vulnerability management

Rational Asset Manager *7.2*
Asset creation, governance and reuse

Rational Software Analyzer
Static analysis and policy enforcement

Rational Insight *New!*
Cross-project reporting and performance management

Rational Team Concert *2.0!*
Collaborative software development

Rational Quality Manager *2.0!*
Lifecycle quality management

Rational Requirements Composer *2.0!*
Business expert collaboration

Future IBM Capabilities

Your existing capabilities

Business Planning & Alignment

Product & Project Management

Compliance & Security

Collaborative Lifecycle Management

Engineering & Software Tools

3rd-Party Jazz Capabilities

Best Practice Processes

OPEN SERVICES

Collaboration

Presentation: *Mashups*

Discovery

Query

Storage

Administration: *Users, projects, process*

jazz

Execute efficiently through global collaboration & agility

Reduce costs, improve governance, and assess risk as a unified team

- Unify globally diverse teams of all sizes
  - Support developers, stakeholders and partners on multiple projects
  - Deliver enhanced scalability, security, availability and performance

- Enable teams to adapt rapidly
  - Provide enhanced agile planning and schedule risk assessment

- Integrate existing tool and infrastructure investments
  - Consolidate and reduce costs
  - Support a diversity of programming models, platforms and tooling