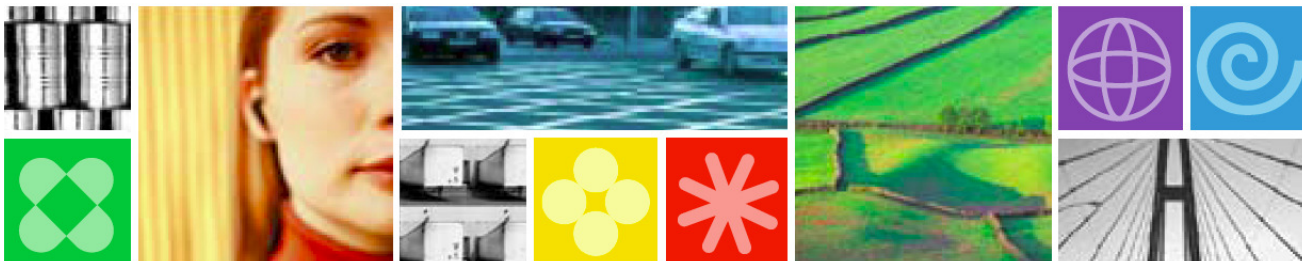




# Increase Productivity With Collaborative Application Lifecycle Management

*Hayden Lindsey  
Vice President, Enterprise Modernization  
& Compilers*





## Businesses are challenged to deliver innovation

**80%**

CEOs anticipate turbulent change and bold moves.<sup>1</sup>



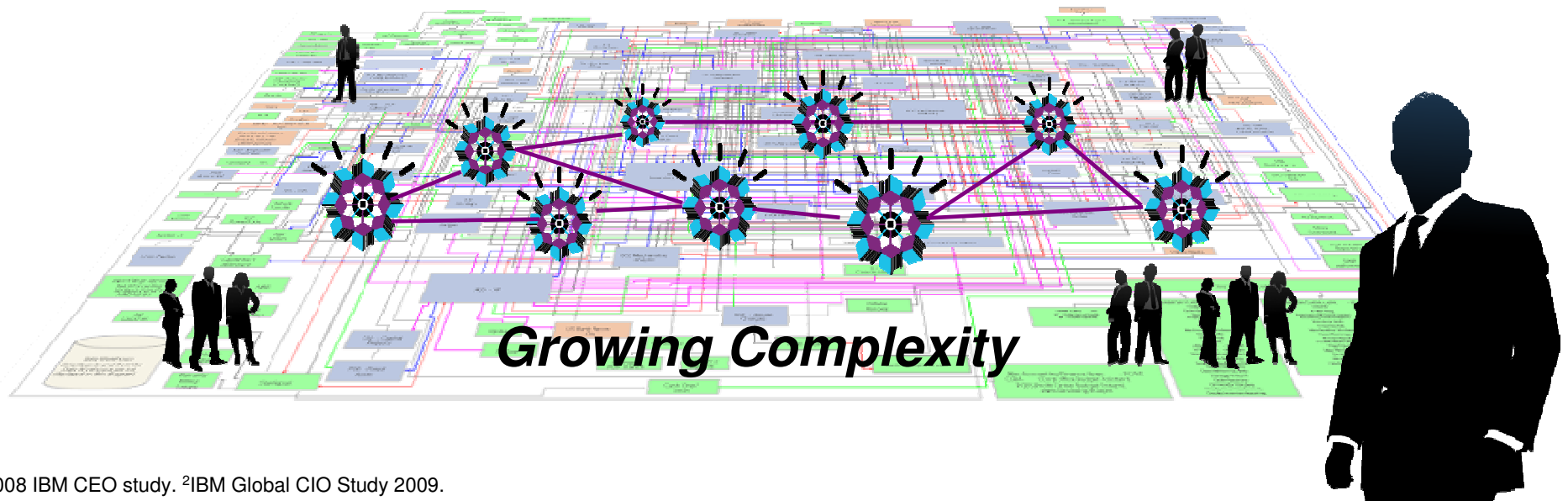
**64%**

of CIOs work with senior business executives to drive innovation.<sup>2</sup>



**3x**

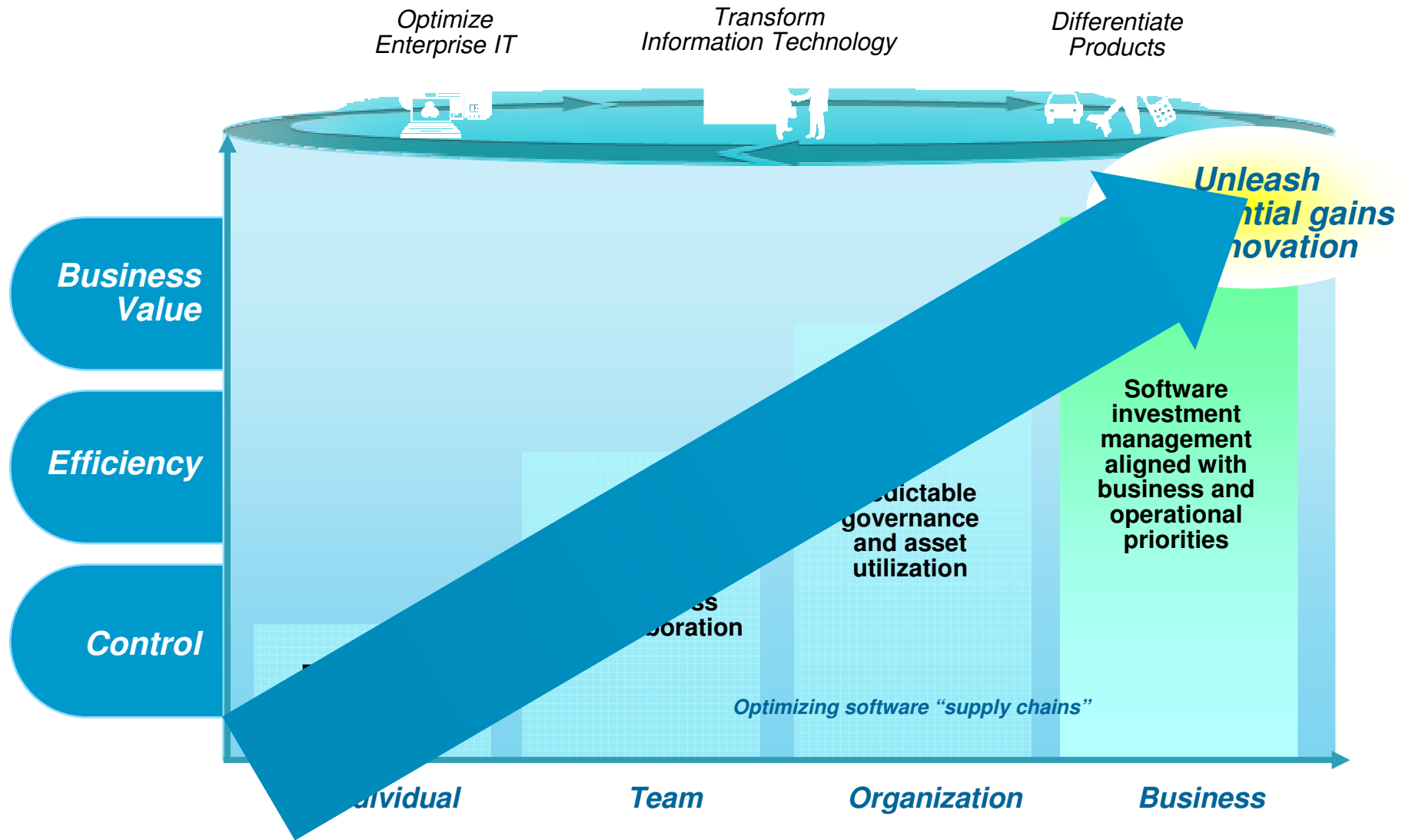
increase in the gap between leaders' need and their ability to deliver it.<sup>1</sup>



<sup>1</sup>2008 IBM CEO study. <sup>2</sup>IBM Global CIO Study 2009.



# Treat software development as a strategic business process





## Challenges to achieving greater value from your IT investments

### Applications



*"We don't understand the effort, risk and impact of modernizing our legacy applications."*



### People



*"Our skills gap keeps growing. How do we stay current with all the language and technology changes?"*



### Teams



*"Our teams on different platforms are struggling to communicate. How do we collaborate in the context of our work?"*

### Infrastructure

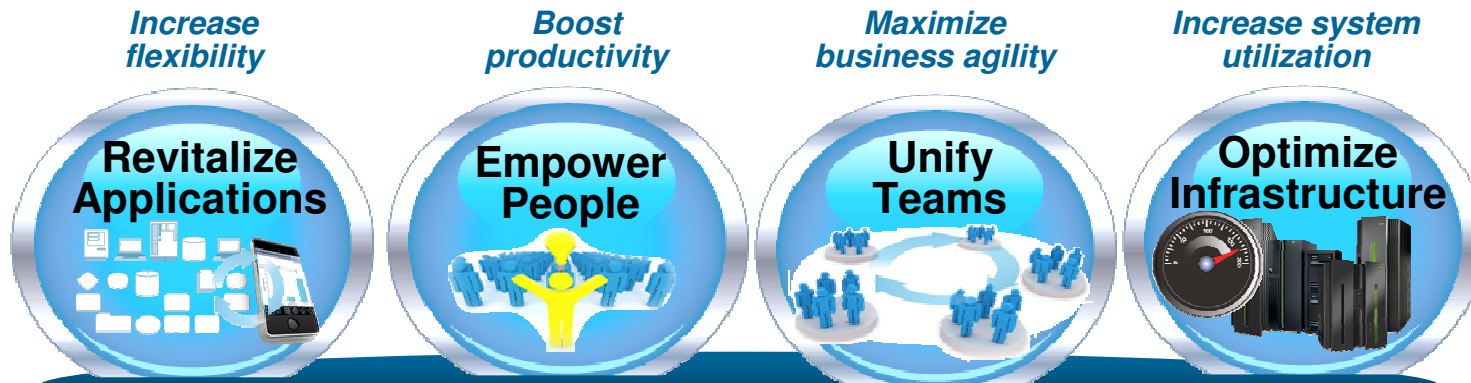


*"We are looking for a cost effective way to improve our infrastructure efficiency and free up capacity to handle more volume"*





IBM Rational Enterprise modernization solutions can help  
*Optimize your applications, people, team and infrastructure investments*

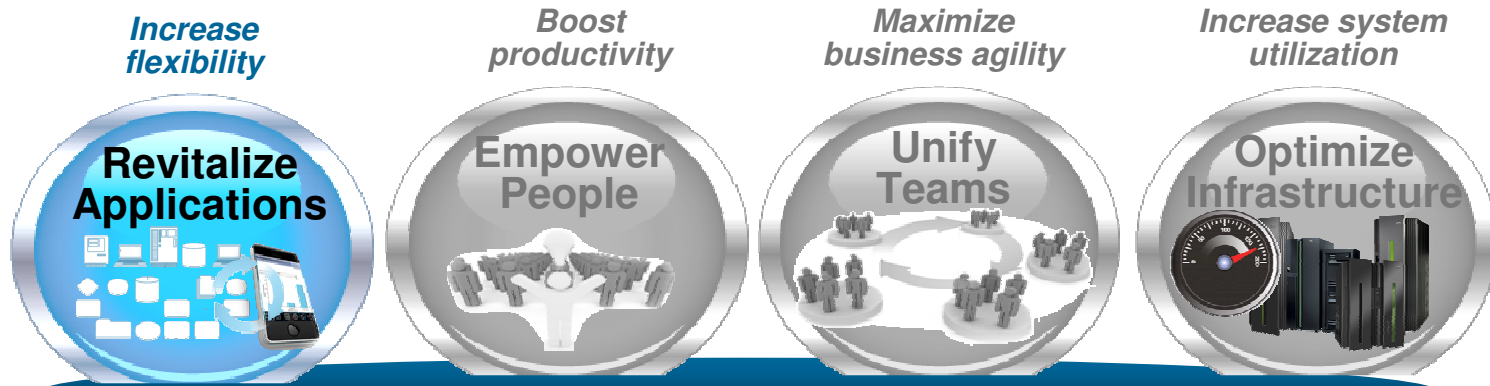


- **Increase flexibility** by revitalizing existing application portfolios
- **Boost productivity** and accelerate innovation with modern skills
- **Maximize business agility** by bridging organizational silos
- **Increase system utilization** by optimizing application infrastructure

Rational Software Delivery Platform *powered by jazz*



# Increase flexibility by revitalizing existing application portfolios



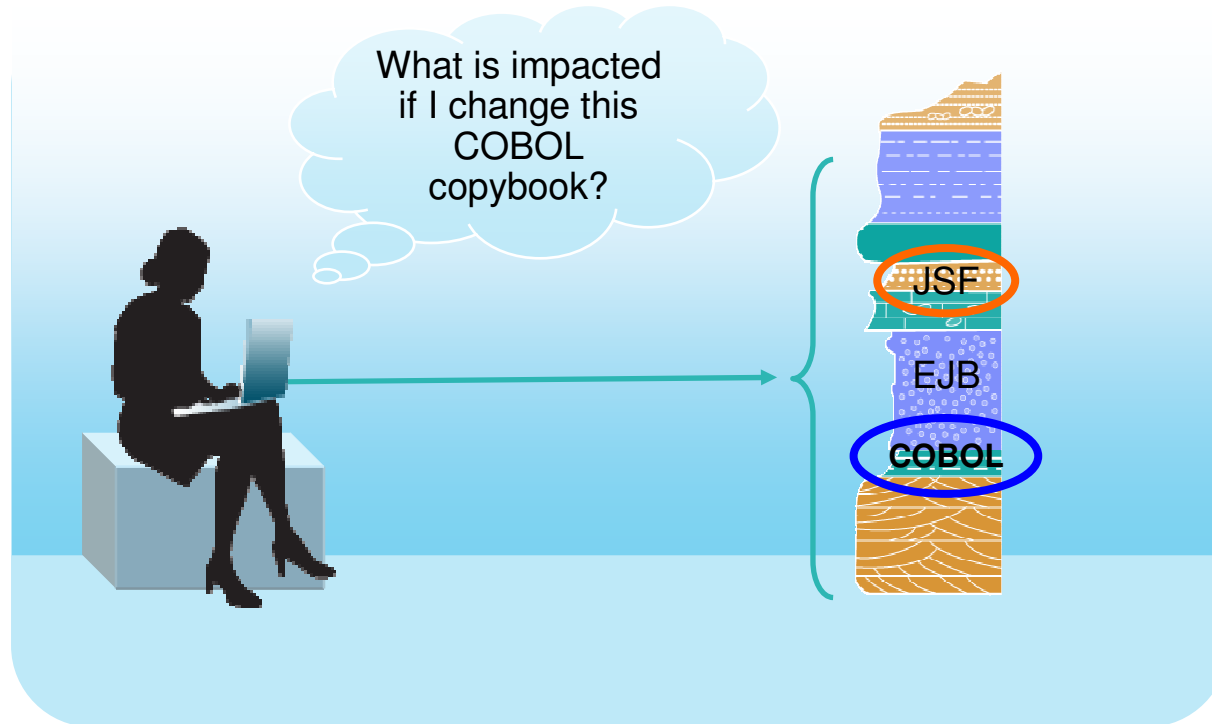
**Business intelligence for applications**  
**Enterprise architecture and portfolio management**  
**SOA tools for all platforms and languages**      **Operational reuse**  
**User interface modernization**

**Rational Software Delivery Platform** powered by *Jazz*



## Enterprises want to...

*Understand the impact and cost of change to their IT systems*



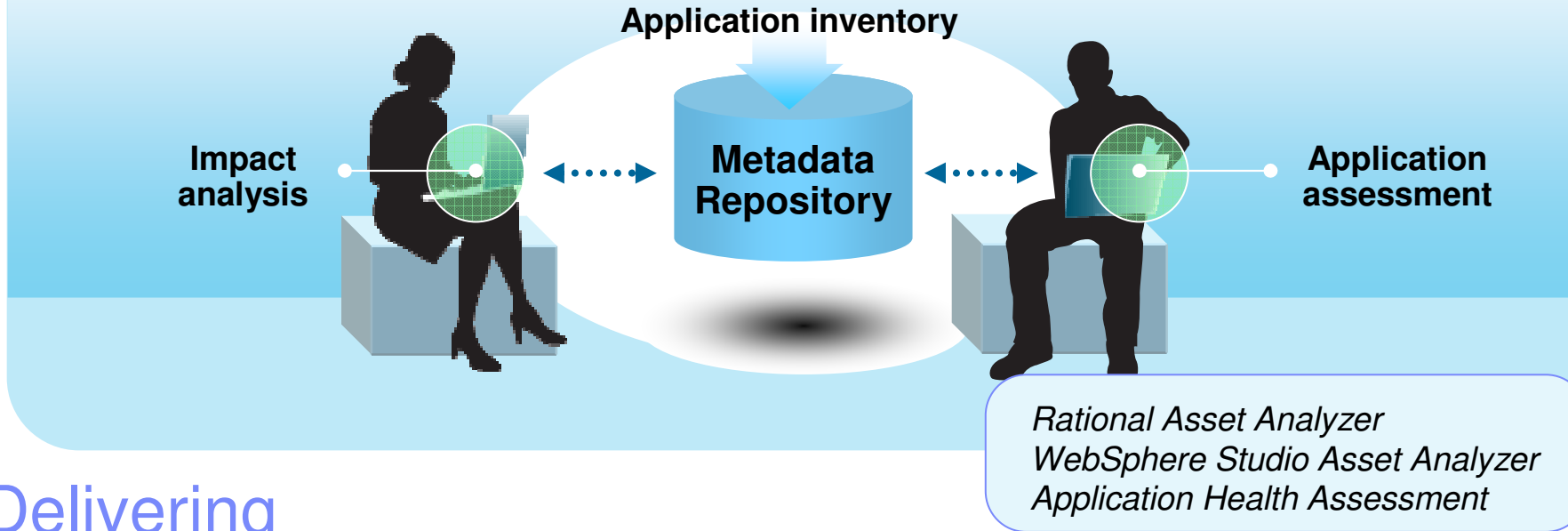
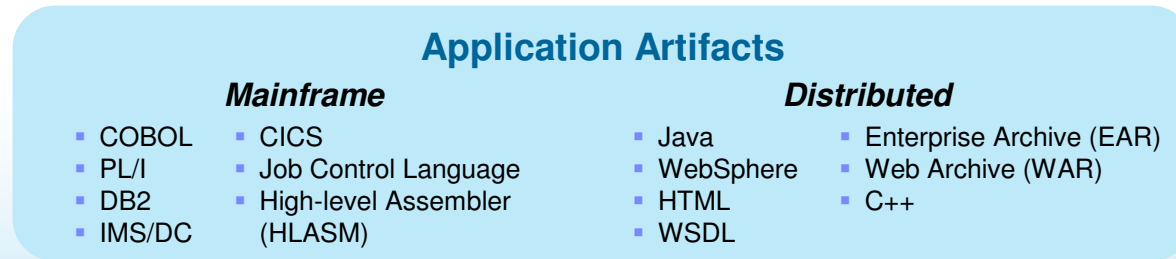
## But...

*They have no business intelligence inventory of their application assets, relying instead on manual and error-prone processes and incomplete knowledge. They must compensate with more extensive planning and extra testing.*



# Solution: Business intelligence for applications

*Restore lost application knowledge via technical analysis*



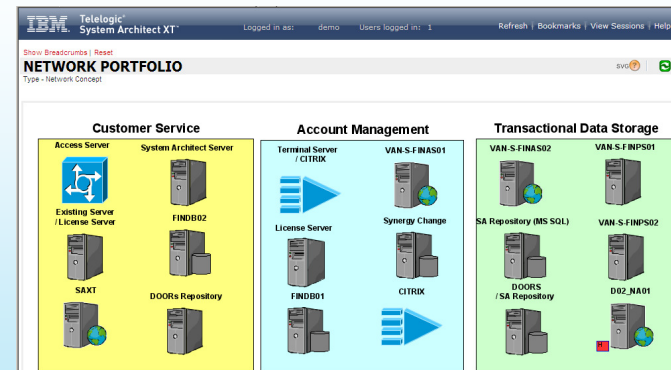
## Delivering

*Reduced risk by quickly determining the full impact of proposed changes and lowered costs via dead code elimination, optimal planning, focused testing and faster development*



## Enterprises want to...

*Better align IT activities and investments with their business goals and objectives*



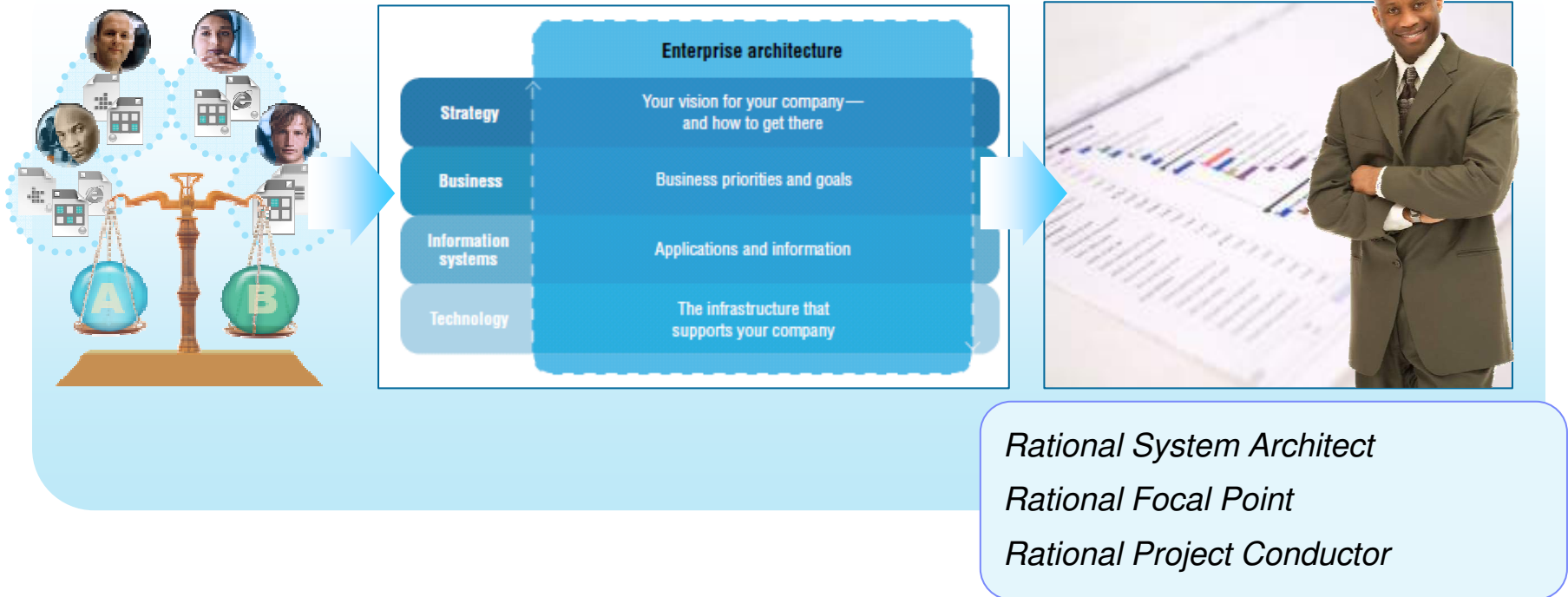
## But...

*They do not have a tool or process for capturing business goals or prioritizing projects, nor for linking them to the associated IT efforts. They rely instead upon less rigorous verbal discussions and difficult-to-maintain documents.*



# Solution: Enterprise architecture and portfolio management

*Make enterprise IT planning actionable and traceable*



## Delivering

*Understanding of current application infrastructure, prioritization of cost-cutting and consolidation candidates, impact analysis of portfolio decisions, and central oversight of architecture, risks, demands, and investment management*





## Enterprises want to...

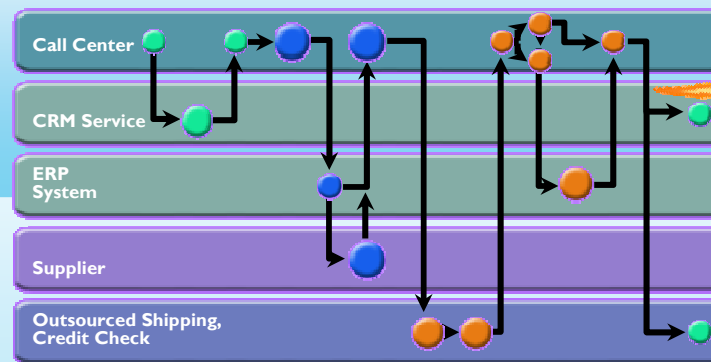
*Have a nimble IT organization that leverages SOA to respond more quickly to the needs of the business*



### Customer Order & Fulfillment



### Customer Order & Fulfillment



## But...

*They have application architectures that were built incrementally over the last 20-30 years and are no longer flexible or agile.*



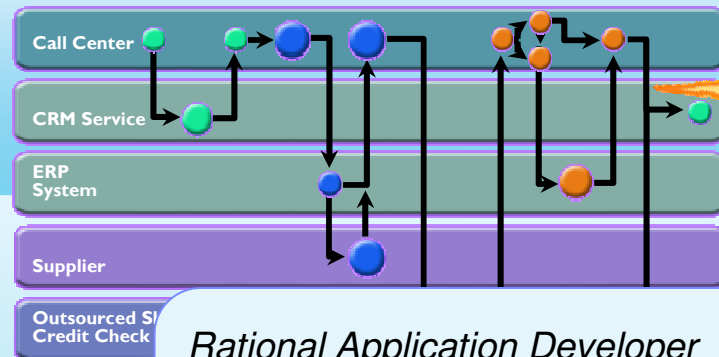
# Solution: SOA tools for all platforms and languages

Use powerful tools to quickly begin SOA evolution by harvesting and repurposing proven assets

## Customer Order & Fulfillment



## Customer Order & Fulfillment



- Rational Application Developer
- Rational Developer for System z
- Rational Developer for Power Systems
- Rational Business Developer
- Host Access Transformation Services



## Delivering

5x lower costs and reduced risk through reuse of existing assets, higher productivity, and platform portability of new services



## Enterprises want to...

*Reuse existing assets to reduce duplication and speed time to market*



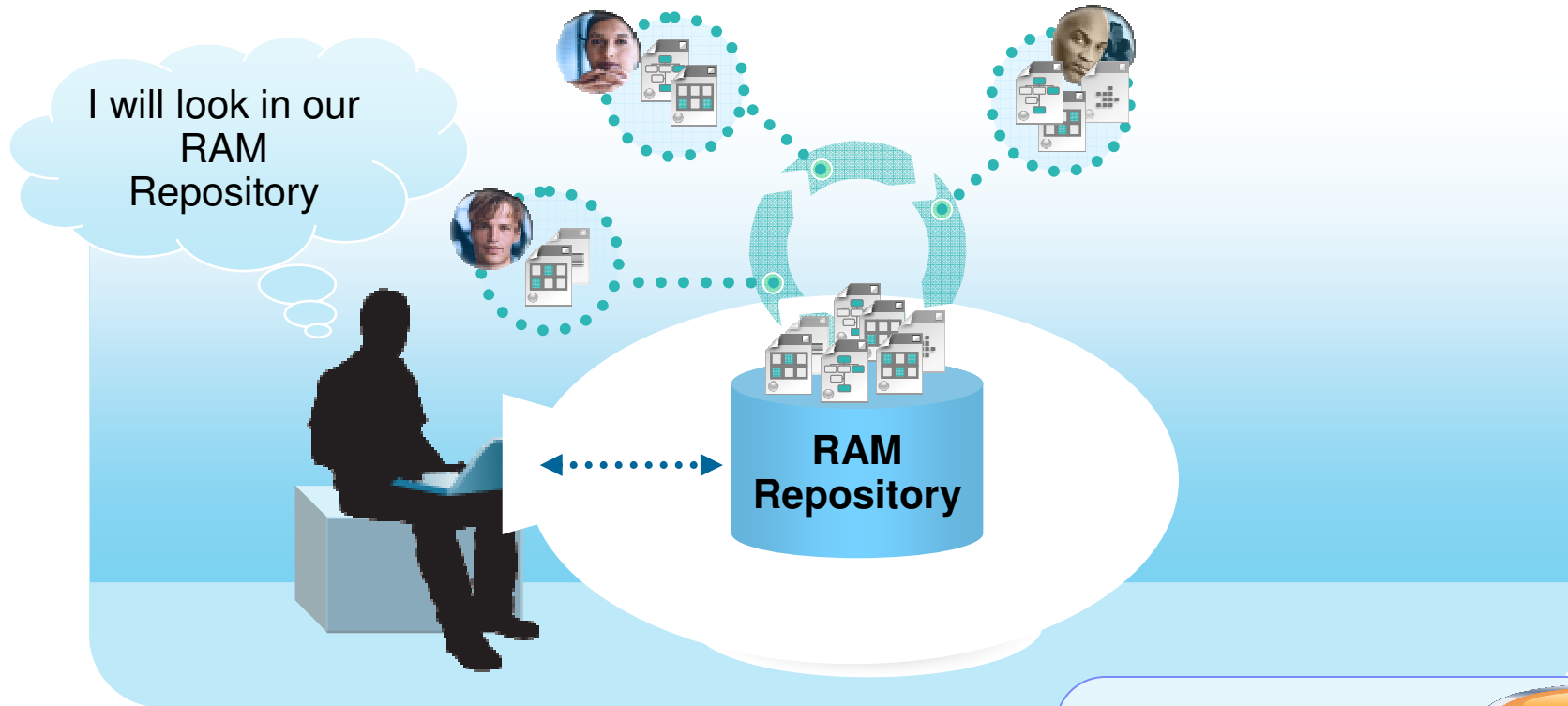
## But...

*They do not have the infrastructure to establish a reuse culture.*



## Solution: Operational reuse

*Instill proactive asset management of all IT artifacts into the organization's processes and culture by deploying a reuse infrastructure*



*Rational Asset Manager* **ENHANCED!**  
*WebSphere Service Registry and Repository*

## Delivering

*Greater reuse, development efficiency, faster time-to-market, and higher quality*



## Enterprises want to...

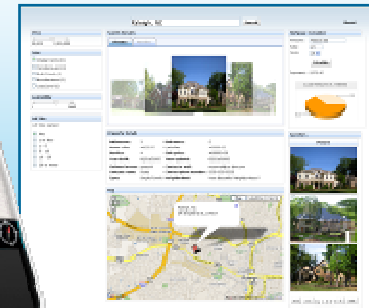
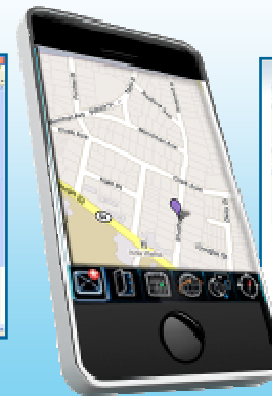
*Provide a range of appealing, more intuitive user interfaces to increase employee productivity and boost customer satisfaction*

```
Session A - [24 x 80]
File Edit View Communication Actions Window Help
Client Inquiry - calls LAB3POT (LAB3BMS)

Customer number: 004
Last name: Silva
First: Lula da
Address: Palacio do Planalto
City: Brasilia
State: DF
Country: BRAZI

Type customer Number Between 1 and 10 or 99 to END

Customer retrieved sucessfully
```



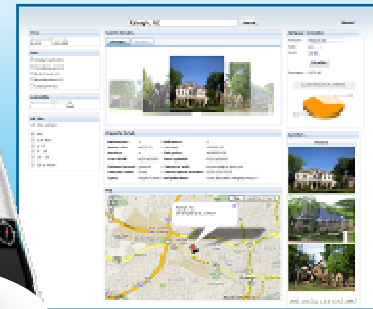
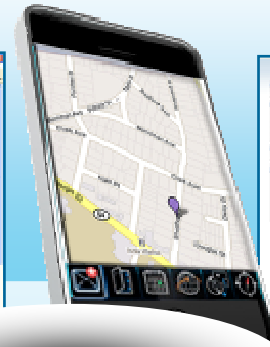
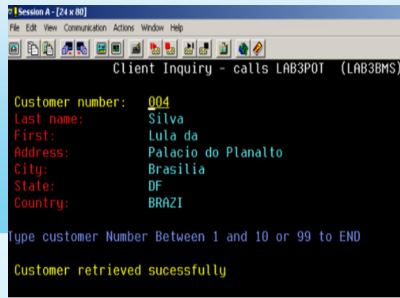
## But...

*The cost of replacing or re-writing these applications is prohibitive, and they may not have the necessary web and UI technology skills.*



## Solution: User interface modernization

*Deploy the ideal UI for your application, from quickly creating a modern Web UI out of an existing green screen application to customizing a highly interactive, graphical Web 2.0 UI*



*Rational EGL Community Edition  
Host Access Transformation Services  
Rational Developer for System z  
Rational Developer for Power Systems  
Rational Business Developer*



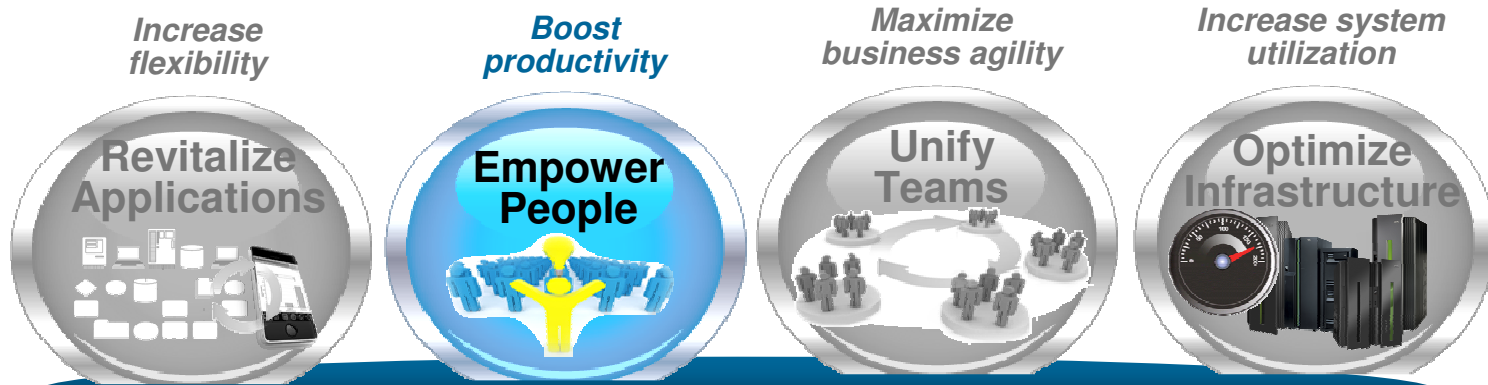
## Delivering

*Greater customer satisfaction, lower employee training costs, and fewer errors from more modern and compelling UIs*





## Boost productivity and accelerate innovation with modern skills



**Modern IDEs for all platforms and languages**

**Modern business language**

**Application transformation tools and services**

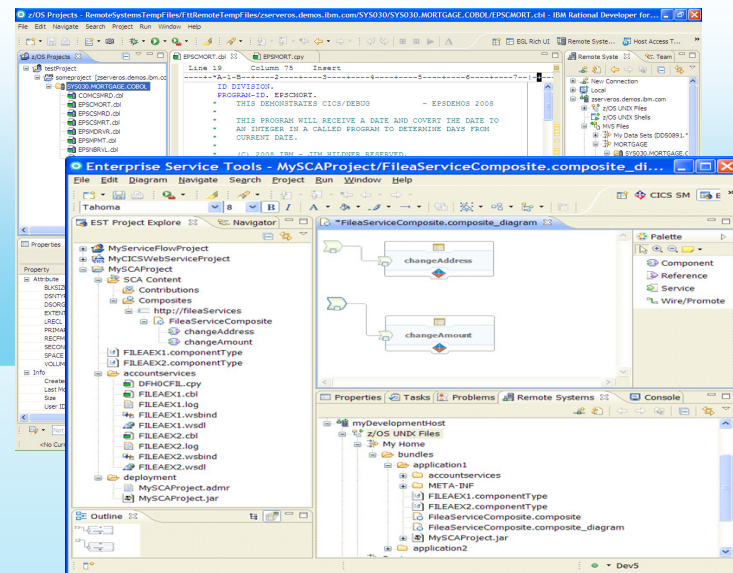
**Enterprise training programs, communities and resources**

**Rational Software Delivery Platform powered by *Jazz***



## Enterprises want to...

*Increase productivity of their “backend” development staff,  
as well as attract new employees to this work*



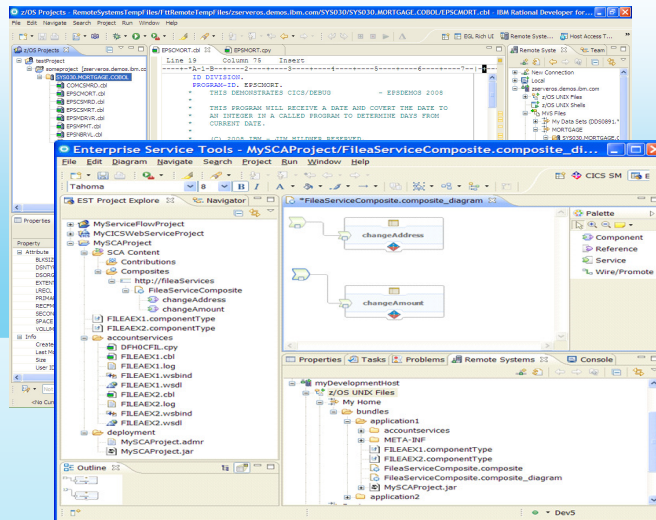
## But...

*They have antiquated development tools which deliver low productivity  
and are repulsive to younger staff.*



# Solution: Modern IDEs for all platforms and languages

*Upgrade to modern Eclipse-based tools to develop and maintain enterprise applications spanning multiple platforms and languages*



*Rational Developer for System z  
Rational Developer for Power Systems  
Rational Application Developer  
Rational Business Developer*



## Delivering

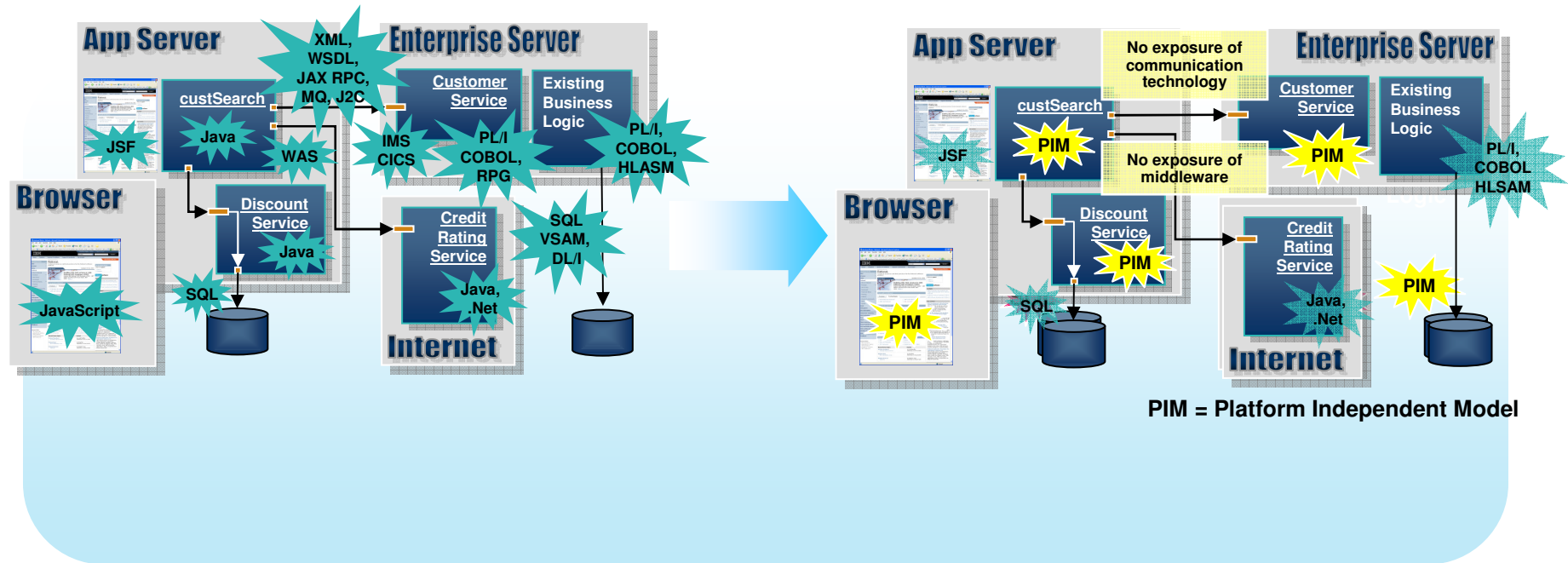
*50%-80%<sup>1</sup> reduction in host CPU usage with workstation syntax checking, ~15% improvement in developer productivity<sup>1</sup>, and tools with which to attract new talent*

<sup>1</sup> Aggregation of results from a productivity study conducted by IBM System z customers



# Enterprises want to...

*Build modern, multi-platform applications with existing and new staff*



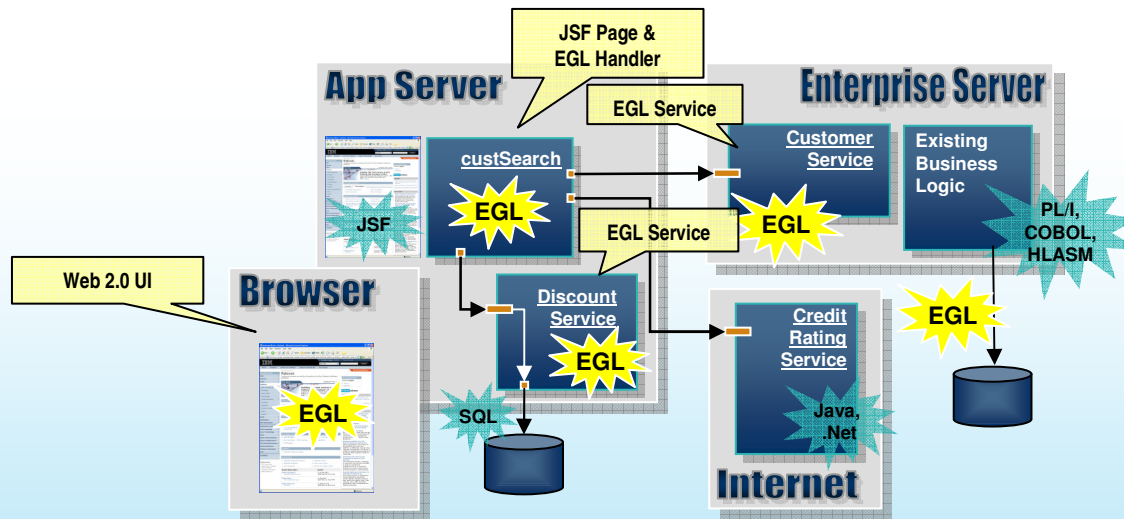
# But...

*They have different teams of developers for each platform, and re-training them to all the new technologies would be costly, time consuming, and often impractical.*



# Solution: EGL – next gen business language

*Build new or extend existing multi-platform enterprise applications leveraging EGL with its middleware abstractions and high productivity language and development environment*



*Rational Business Developer  
 Rational Developer for System z with EGL  
 Rational Developer for Power Systems*



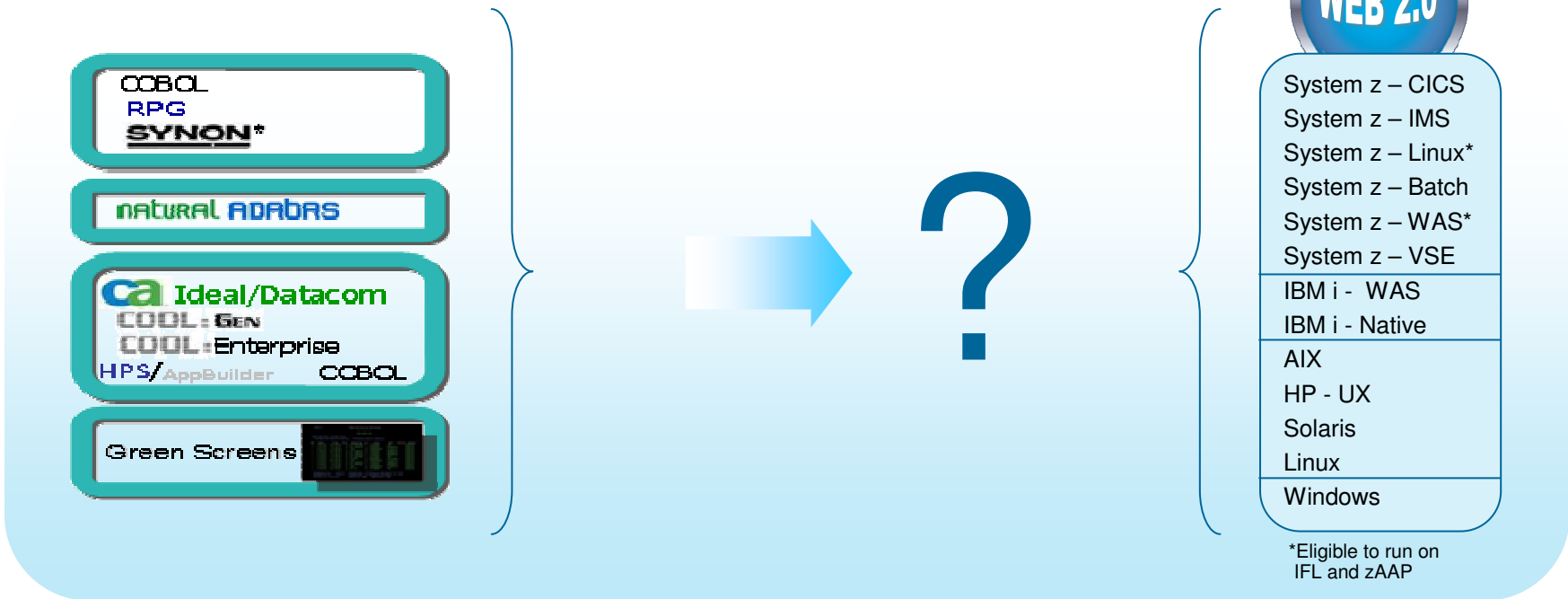
## Delivering

*Skills flexibility, high productivity and platform portability for existing and new developers when building all types of modern enterprise applications*



# Enterprises want to...

*Reduce tool support costs and move to modern platforms, languages, and tools for their multi-platform application development*



# But...

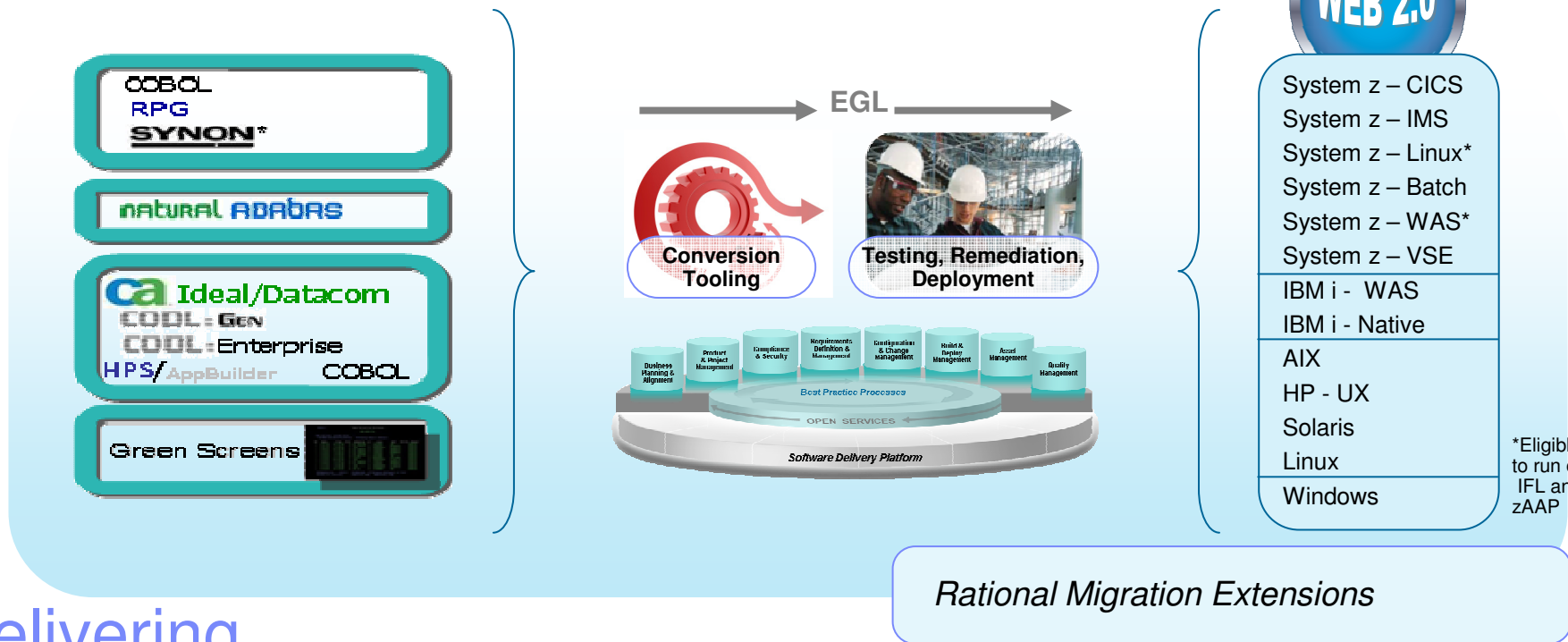
*They are stuck on poorly supported, expensive, legacy development platforms.*





# Solution: Application transformation tools and services

*Migrate from older languages and stagnant platforms to modern development platforms, languages and tools*



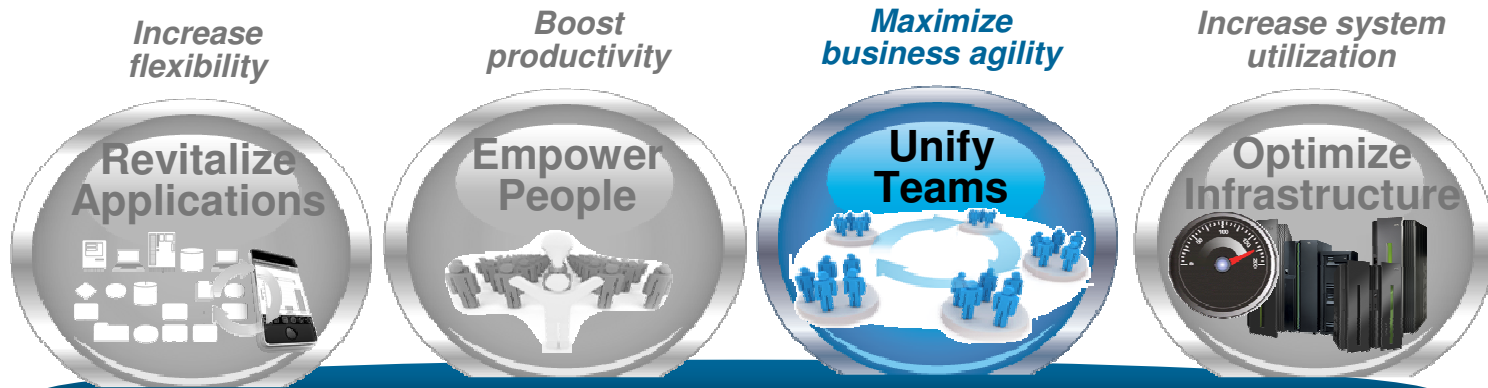
\*Eligible to run on IFL and zAAP

## Delivering

*Greatly reduced development platform support costs, and more flexible, integrated development environment for making future application enhancements (e.g. SOA and web 2.0)*



# Maximize organizational agility by bridging organizational silos



*Increase flexibility*

**Revitalize Applications**

*Boost productivity*

**Empower People**

*Maximize business agility*

**Unify Teams**

*Increase system utilization*

**Optimize Infrastructure**

**Consolidated team infrastructure**

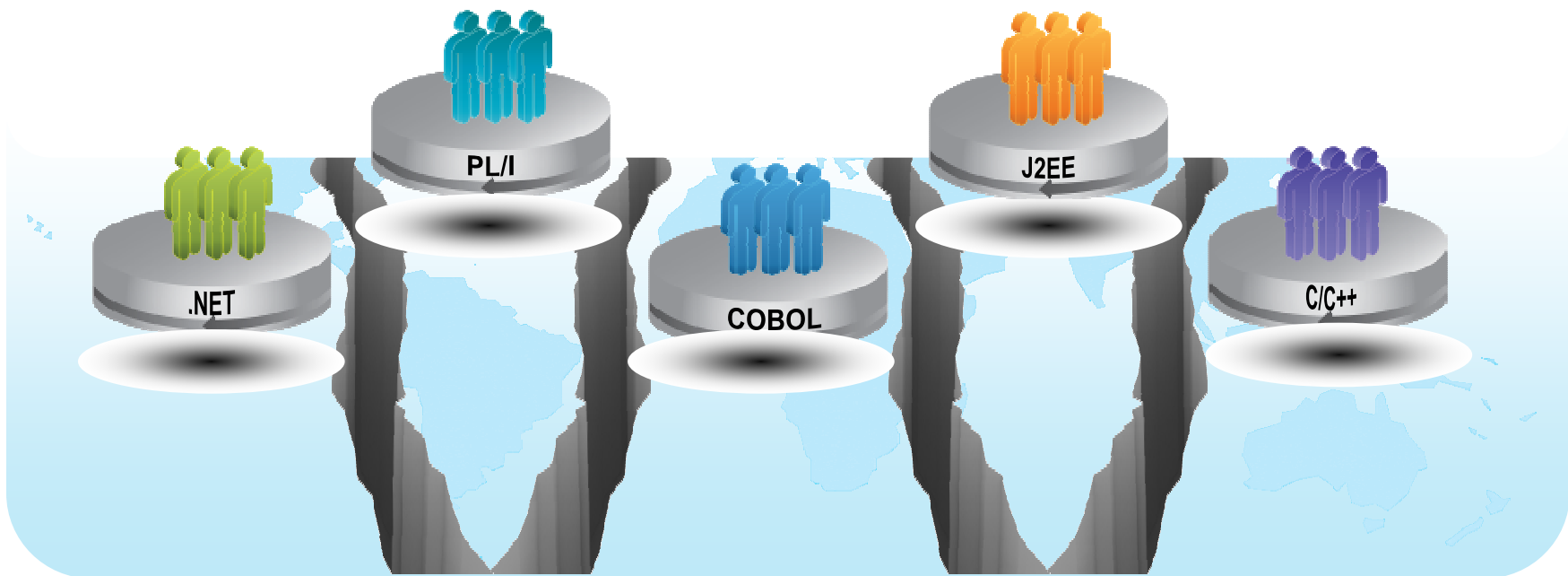
**Agile team infrastructure**

**Rational Software Delivery Platform** powered by *Jazz*



## Enterprises want to...

*Enable agile, multi-platform and cross-geo collaboration and governance while reducing their team infrastructure costs*



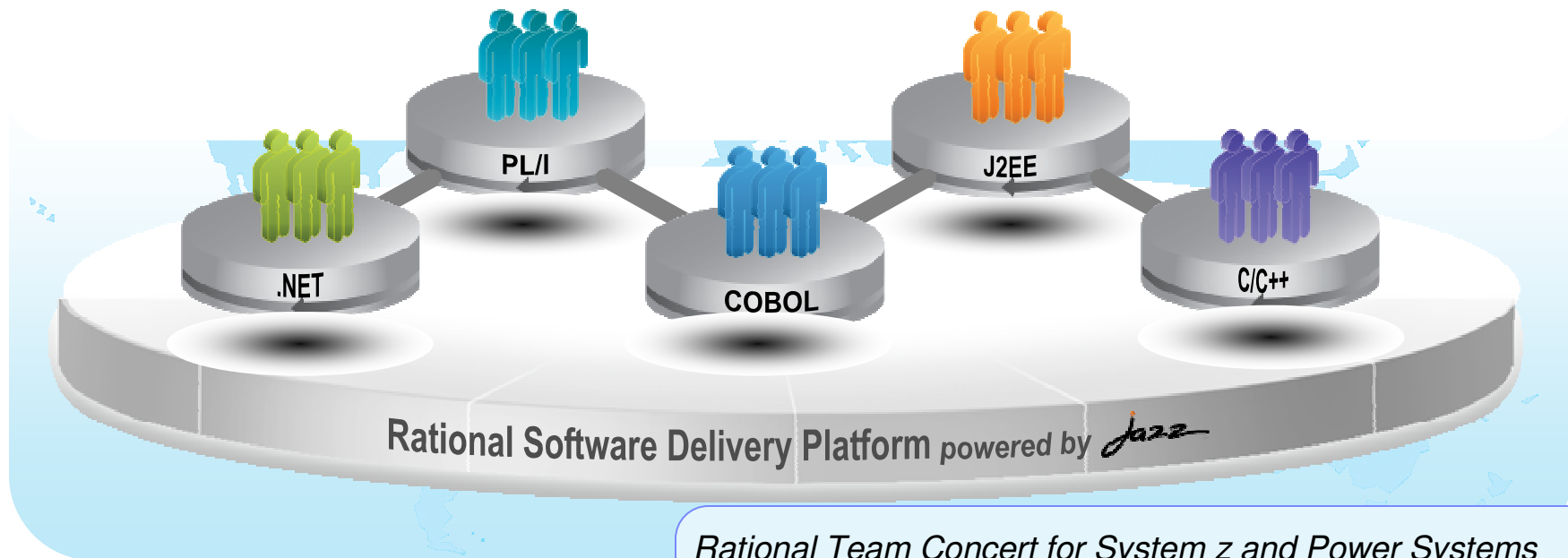
## But...

*They have “islands” of development, each with different tools, processes and team infrastructure, and they do not support real-time collaboration or integrated, comprehensive oversight.*



# Solution: Collaborative application lifecycle management

*Deploy new, common team infrastructure for source control management and build that empowers your team with integrated collaboration, process automation, and reporting*



*Rational Team Concert for System z and Power Systems  
 Rational ClearCase / Rational ClearQuest  
 Rational Buildforge*

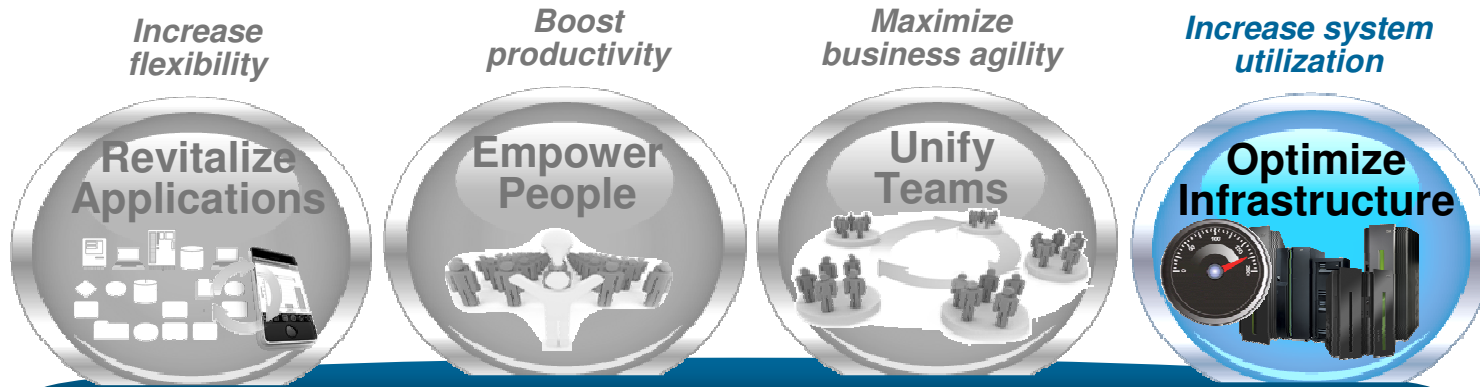


## Delivering

*Improved communication, higher quality, informed decision-making, and more automated, transparent and predictable software development*



# Increase system utilization by optimizing application infrastructure



**Advanced compiler technology**

**Rational Software Delivery Platform** powered by *Jazz*



## Enterprises want to...

*Maximize application performance on existing hardware  
to reduce capital expenses*



## But...

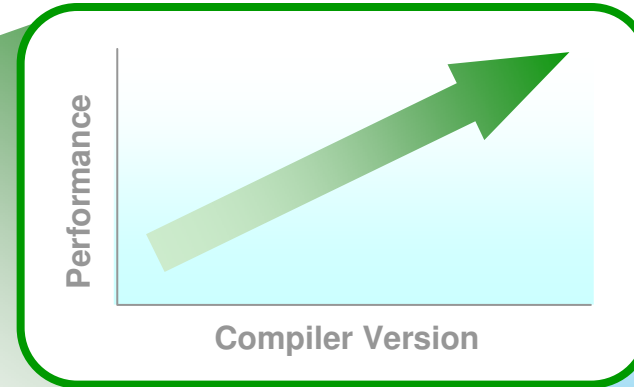
*They have back-level compilers or are not fully using optimization.*





## Solution: Advanced compiler technology

Exploit new advanced optimization technology in C/C++, Java, COBOL, PL/I and Fortran compilers



Same hardware + **NEW** compiler  
= Increased Performance

**NEW** hardware + **NEW** compiler  
= Maximum Performance



- IBM XL C/C++ for AIX and Linux
- IBM XL Fortran for AIX and Linux
- IBM COBOL for z/OS, AIX
- IBM PL/I for z/OS, AIX
- IBM WebSphere® Development Studio (IBM i compilers)

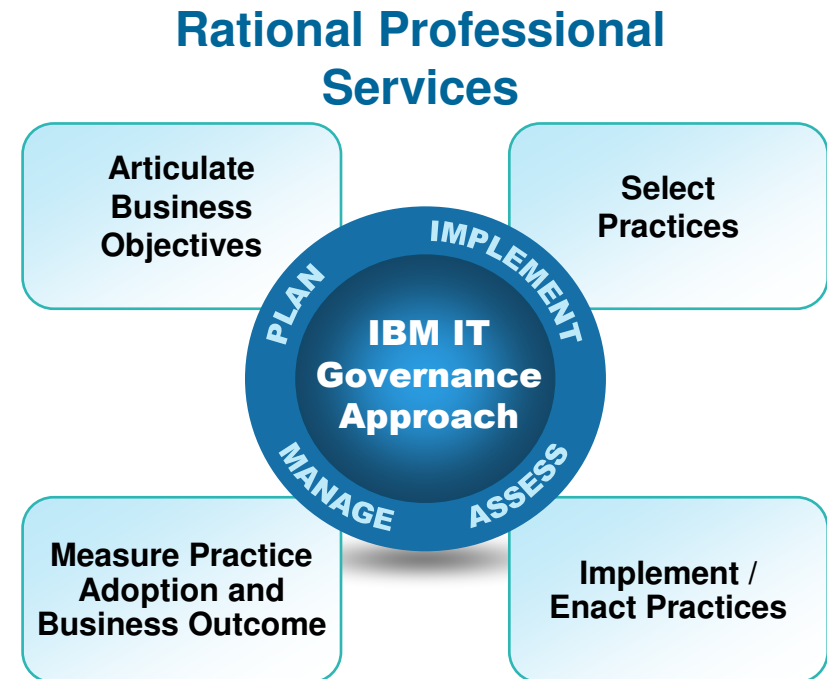
## Delivering

Lower capital outlays by increasing capacity,  
and improved performance of application suite



## Leverage IBM Services to get started today

- **Executive Services**
  - ▶ Schedule an *Enterprise Modernization Executive Planning Session* to define modernization strategies
- **Application Modernization Services**
  - ▶ Application Assessments to:
    - Develop Modernization roadmaps to resolve specific business issues
    - Improve Application Quality & Performance
    - Identify opportunities for business software delivery improvements
- **People and Team Modernization Services**
  - ▶ Provide Implementation Services for Rational Enterprise Modernization tools
  - ▶ Provide SCM migration assistance
  - ▶ SDLC Assessments to:
    - Improve Software Delivery performance
    - Implement Software Delivery Metrics to more effectively manage the software development environment

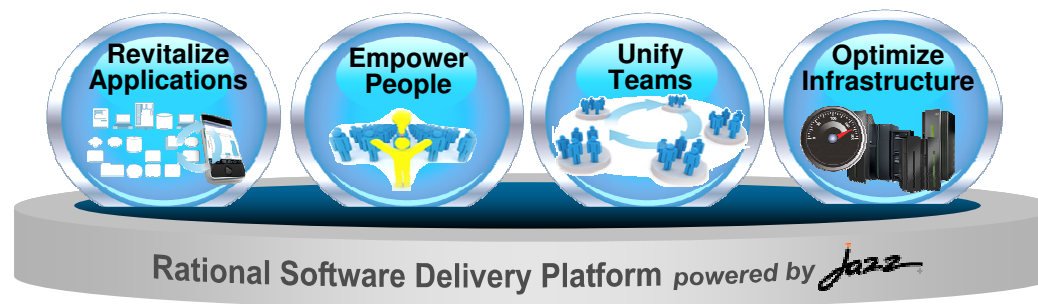




## IBM Rational Enterprise Modernization solutions

*Optimizing your applications, people, team and infrastructure investments*

- **Difficult times present opportunities for businesses to gain efficiencies in the short term while making strategic IT investments for future growth**
- **But application complexity, limited staff productivity, poor team collaboration, and constrained infrastructure limits IT flexibility**
- **Rational Enterprise modernization solutions can help:**
  - ✓ **Increase flexibility** by revitalizing existing application portfolio
  - ✓ **Boost productivity** and accelerate innovation with modern skills
  - ✓ **Maximize organizational agility** by bridging development silos
  - ✓ **Increase system utilization** by optimizing application infrastructure



To learn more visit: [ibm.com/software/rational/modernization/](http://ibm.com/software/rational/modernization/)



Register by February 26 and Save.

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June 6-10 Orlando, Florida

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3. Over twenty hands-on technical workshops
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5. Networking and innovating with 4,000 peers!

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The premier software and product delivery event. A smarter conference. For a smarter planet. The place to expand and deepen skills you need to keep innovating...

- Software and product development, delivery, and management
- How to seize business opportunities... execute with reduced risk and cost... and achieve precision in desired business outcomes
- And better ways to collaborate, automate, and report

It's your conference, so register now and save!

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To learn more visit: [ibm.com/software/rational/modernization/](http://ibm.com/software/rational/modernization/)

The screenshot shows the IBM website for Enterprise Modernization. At the top, there's a navigation bar with 'Home', 'Solutions', 'Services', 'Products', 'Support & downloads', and 'My IBM'. A search bar is also present. The main content area is titled 'Enterprise modernization' with the subtitle 'Lower total cost of multiplatform application development'. It features two main images: one with green leaves and one with gears. Below these are two columns of text: 'Power your innovation' and 'Revolutionize the economics of application maintenance'. A 'What we offer' section follows, detailing the benefits of IBM's solutions. To the right, there's a 'Rational software' sidebar with a 'We're here to help' section containing contact information and a 'Spotlight' section with various announcements. At the bottom, there are three boxes for 'System z Sandbox', 'IBM I Sandbox', and 'Rational Cafe', each with a 'Try our latest products in a virtual online environment' link. A 'Demos' section at the bottom right lists video and demo links.