



Build a smarter foundation for future investments

Rational Enterprise Modernization Solutions for System z





Agenda

08:40 - 09:40 - Build a smarter foundation for future investments

09:40 - 09:50 - Break (10 min)

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3:20 - 4:20 - Let's tie it all together and play in the sandbox

3:20 - 4:30 - Close



Businesses are facing an unparalleled rate of change



Successful businesses will be those that effectively deliver innovation while controlling cost & risk



Yet, many businesses are challenged to deliver innovation

80%



64%

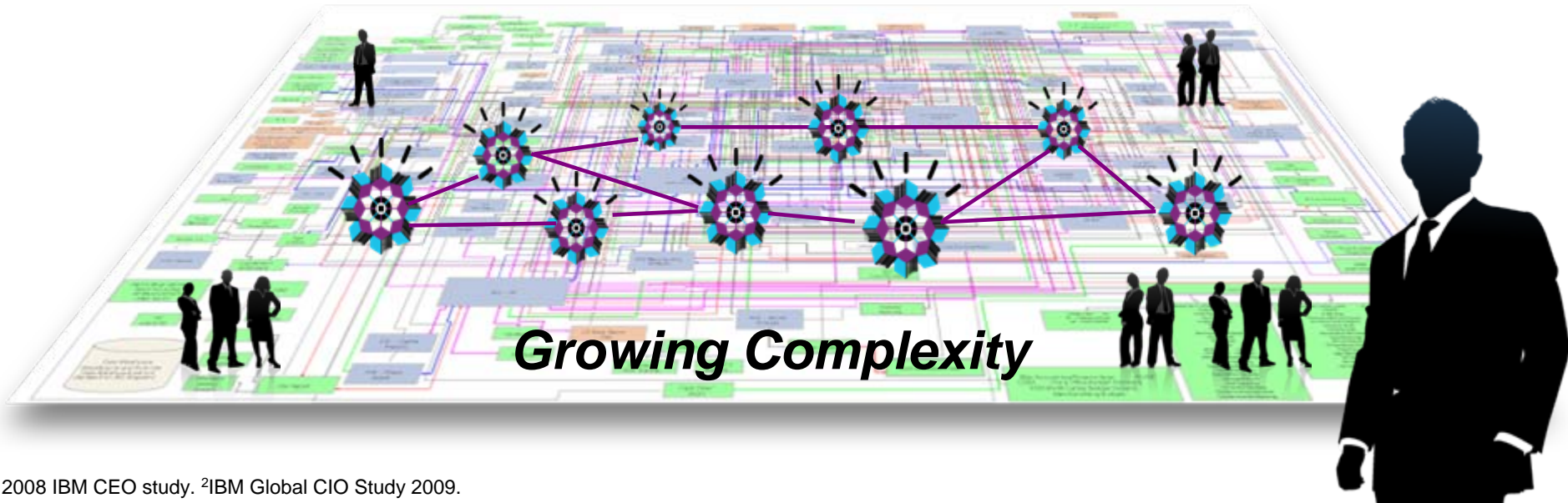


3x

CEOs anticipate turbulent change and bold moves.¹

of CIOs work with senior business executives to drive innovation.²

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



¹2008 IBM CEO study. ²IBM Global CIO Study 2009.

A focus on achieving greater value from software investments



Which is dependent on revolutionizing the economics of maintaining and leveraging existing applications



Four key challenges have emerged

IT Challenges

Applications

- Higher maintenance costs
- Lost application knowledge
- Architectural complexity
- Poor quality and performance

People

- Skills lock-in
- Plethora of new technologies
- Unattractive, low productivity tools
- Steep learning curve

Teams

- Poor communication
- Incompatible tools and processes
- Weak project oversight
- Lack of traceability across lifecycle

Infrastructure

- Expensive hardware upgrades
- Huge up front investments
- Development access on production mainframe
- Software licensing costs



“We don’t understand the effort, risk and impact of modernizing our legacy software portfolio.”



“Our skills gap just seems to keep growing. How do we stay current with all the language and technology changes?”



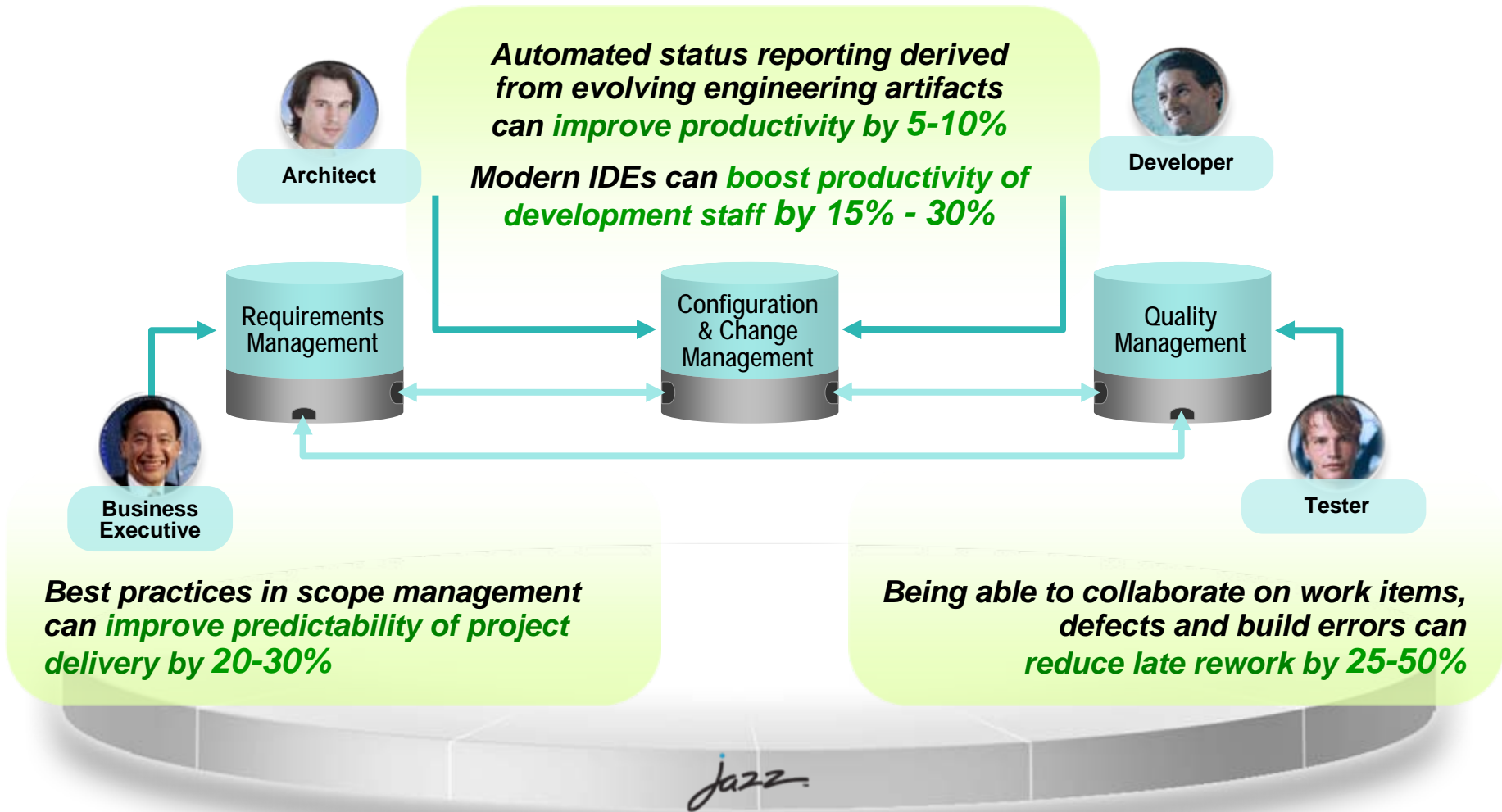
“Our architecture has evolved to be too complex and convoluted – we need to be flexible and agile.”

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





A unified software delivery platform improves effectiveness



Ask IBM to come to your site to discuss your needs - and how to make this a reality for your organization



Modernization can help cut cost while maximizing ROI

Return on investments

Benefits customer are seeking from modernization

Immediate

- Reduce cost of developing and maintaining existing legacy applications
- Better respond to and align with business needs

Near Term

- Reduce the use of manual maintenance processes
- Reduce the complexity of the application portfolio
- Better leverage of less expensive programming skills
- Remove dependency on “difficult-to-train-and-retain” skills
- Make applications more flexible and reusable to better support business requirements

Long Term

- Remove constraints of design and technology
- Make applications easier and faster to change



Rational. software

Source: IBM Business Application Modernization Research Survey, November 2008.



IBM Rational Enterprise modernization solutions

Increase flexibility



Revitalize Applications

Boost productivity



Empower People

Maximize business agility



Unify Teams

Defer capital expense



Optimize Infrastructure

- **Increase flexibility** by revitalizing existing application portfolio
- **Boost productivity** and accelerate innovation with modern skills
- **Maximize business** agility by bridging organizational silos
- **Defer capital expense** by optimizing application infrastructure



Rational Software Delivery Platform *powered by*



Business intelligence for applications

Restore lost application knowledge via technical analysis



Application Artifacts

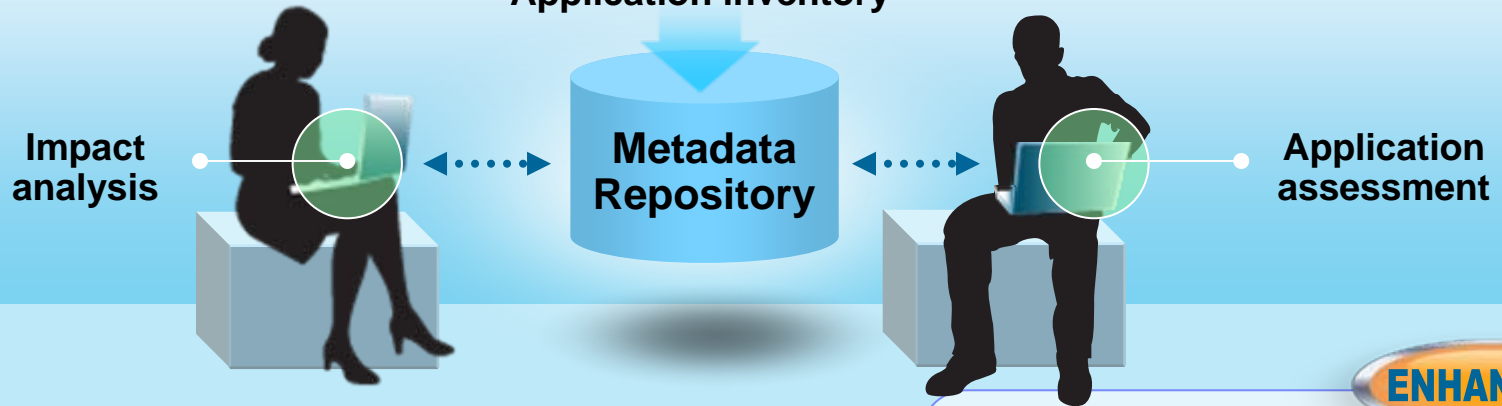
Mainframe

- COBOL
- PL/I
- DB2
- IMS/DC
- CICS
- Job Control Language
- High-level Assembler (HLASM)

Distributed

- Java
- WebSphere
- HTML
- Enterprise Archive (EAR)
- Web Archive (WAR)
- C++

Application inventory



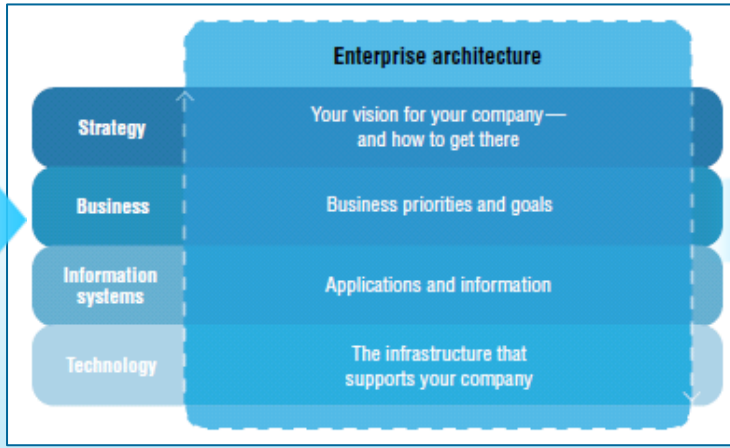
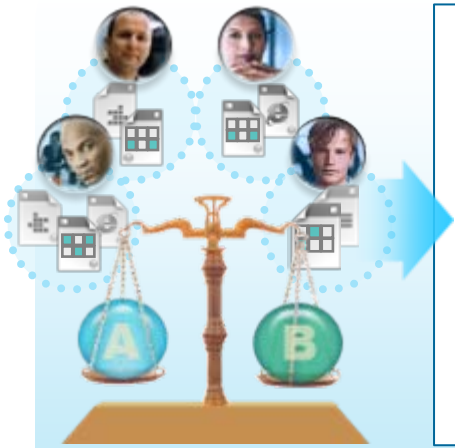
- Rational Asset Analyzer
- WebSphere Studio Asset Analyzer
- Application Health Assessment

- ✓ Reduce risk by quickly determining the full impact of proposed changes
- ✓ Lower maintenance costs by eliminating dead code
- ✓ Optimal project planning, focused testing and faster development



Enterprise architecture and portfolio management

Make enterprise IT planning actionable and traceable



ENHANCED!

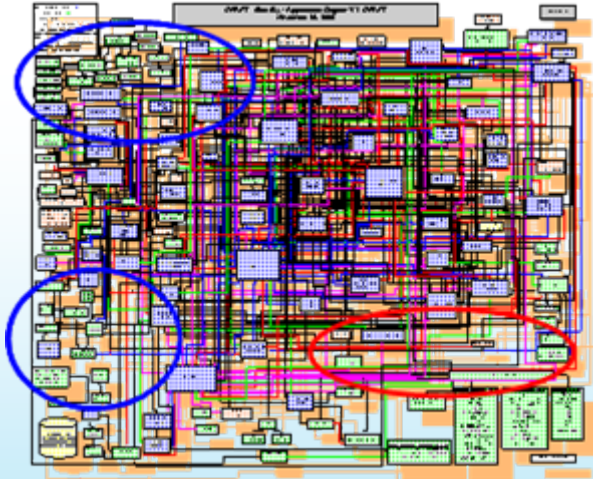
- Rational System Architect
- Rational Focal Point
- Rational Insight

- ✓ Understanding of current application infrastructure, prioritization of cost-cutting and consolidation candidates
- ✓ Impact analysis of portfolio decisions
- ✓ Central oversight of business and IT architectures, risks and investment management

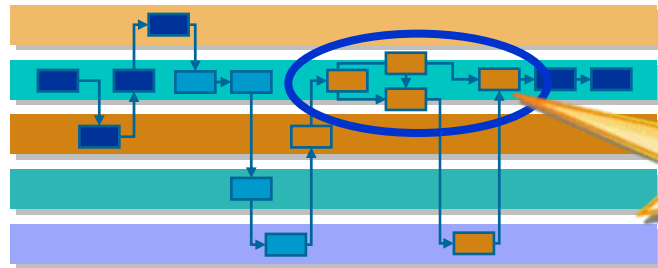


SOA tools for all platforms and languages

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



- EGL
- C/C++
- COBOL
- PL/I
- RPG
- SQL
- CICS, IMS
- Java applications
- Stored procedures



ENHANCED!

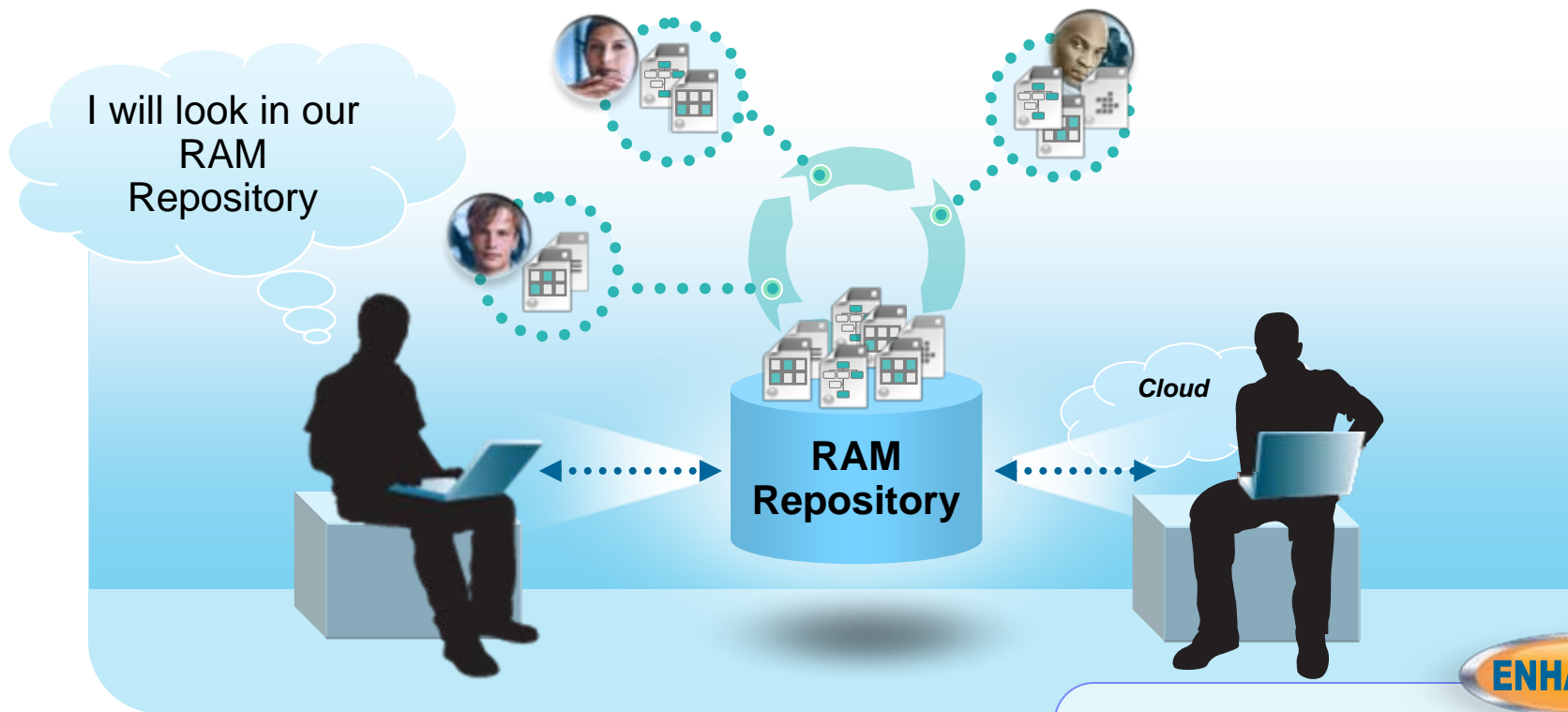
- Rational Developer for System z
- Rational Application Developer
- Rational Business Developer
- Host Access Transformation Services

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



Asset reuse and management

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



- ✓ Increase asset reuse and development efficiency
- ✓ Speed project timelines and drive innovation
- ✓ Accelerate service delivery and improve overall governance

- Rational Asset Manager
- WebSphere Service Registry and Repository



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

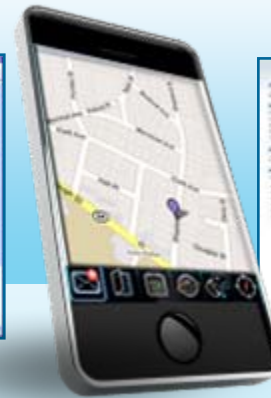
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Session A - (24 x 80)
File Edit View Communication Actions Window Help
Client Inquiry - calls LAB3P01 (LAB3BMS)

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
  
```



NEW!

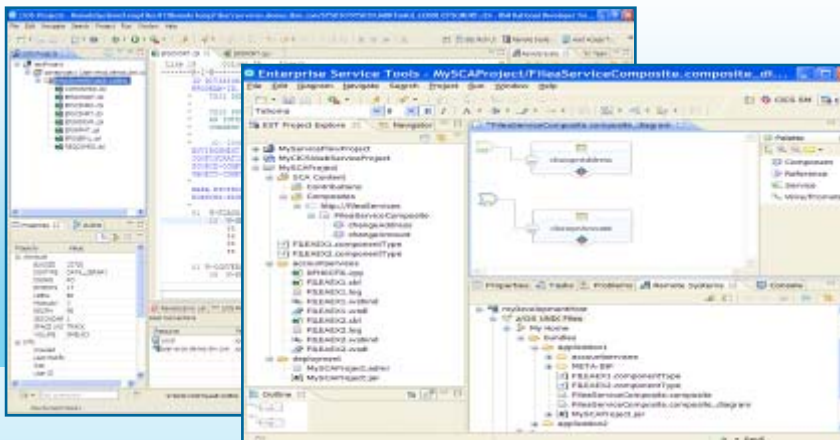
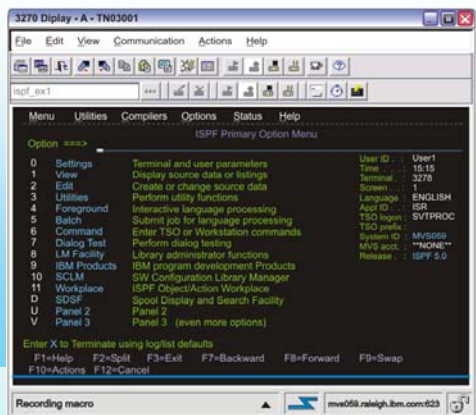
- Rational EGL Community Edition
- Rational Host Access Transformation Services
- Rational Developer for System z

- ✓ Greater customer satisfaction
- ✓ Lower employee training costs
- ✓ Fewer errors from more modern and compelling UIs



Modern application development for all platforms

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



ENHANCED!

- Rational Developer for System z
- Rational Application Developer
- Rational Business Developer

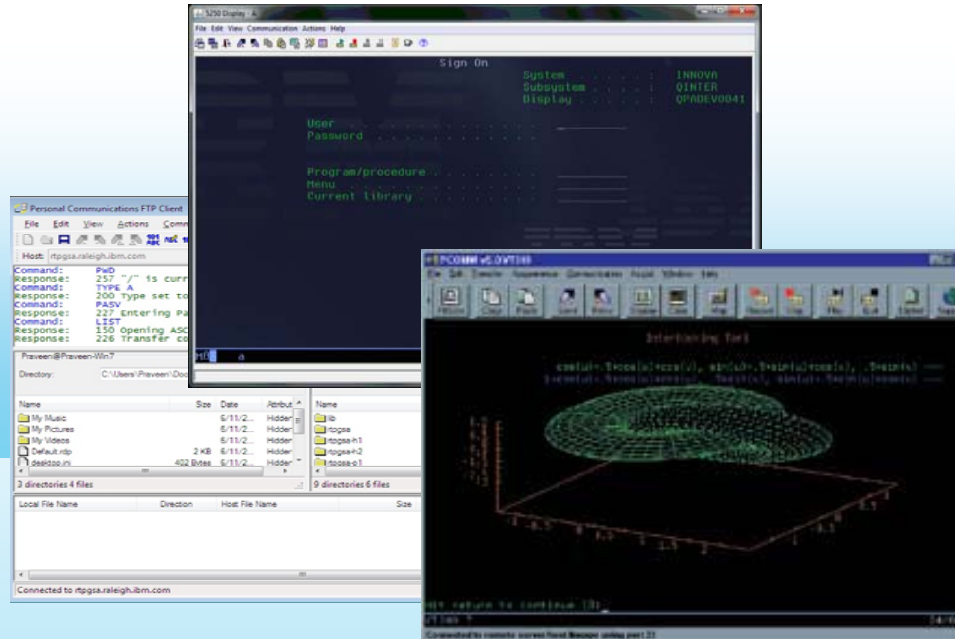
- ✓ 50%-80%¹ reduction in host CPU usage with workstation syntax checking
- ✓ 15% or more improvement in developer productivity¹
- ✓ Tools with which to attract new talent

¹ Aggregation of results from a productivity study conducted by IBM System z customers



Host connectivity solutions

Provides the flexibility to access host applications in ways that your workforce demands



ENHANCED!

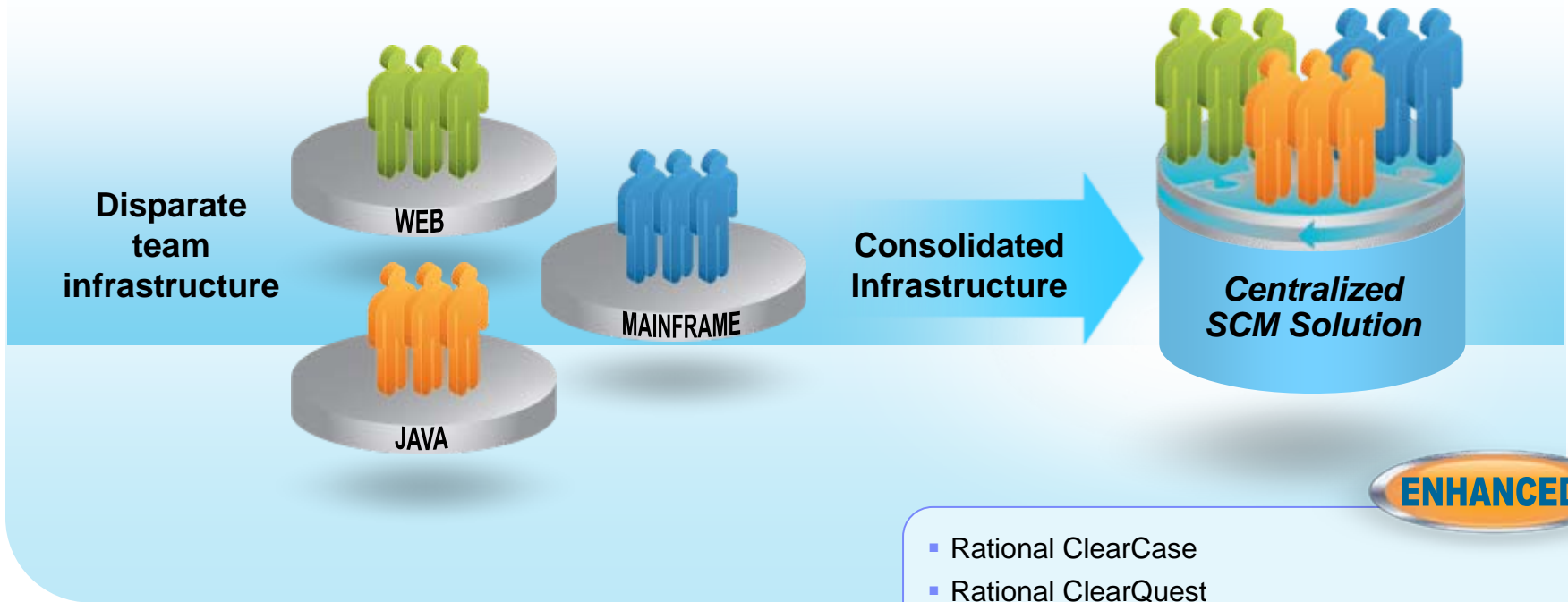
- Rational Host Access Client Package
- Rational Host Integration Solution

- ✓ Improve end user productivity
- ✓ Reduce costs through centralized deployment, maintenance, and administration
- ✓ Provide multiple security options for host access



Consolidated team infrastructure

Standardize, consolidate and simplify the team infrastructure for multi-platform projects including source code management, problem tracking, and build



- ✓ Cut license, maintenance, and administration costs
- ✓ Improve software release coordination
- ✓ Speed development cycles and increase team productivity
- ✓ Provide holistic view of the entire multi-platform development effort

Collaborative application lifecycle management

Deploy new team infrastructure that supports collaboration in context across all platforms and geographies, real-time, automated monitoring of project health, and built-in development workflows

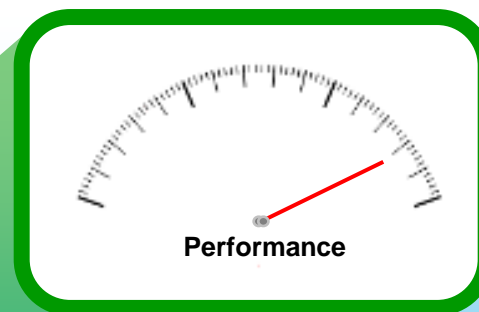


- ✓ Improve communication across disparate IT teams
- ✓ Detect and accelerate resolution of defects early
- ✓ Make Informed decisions
- ✓ Make software development more automated, transparent and predictable



Advanced compiler technology

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



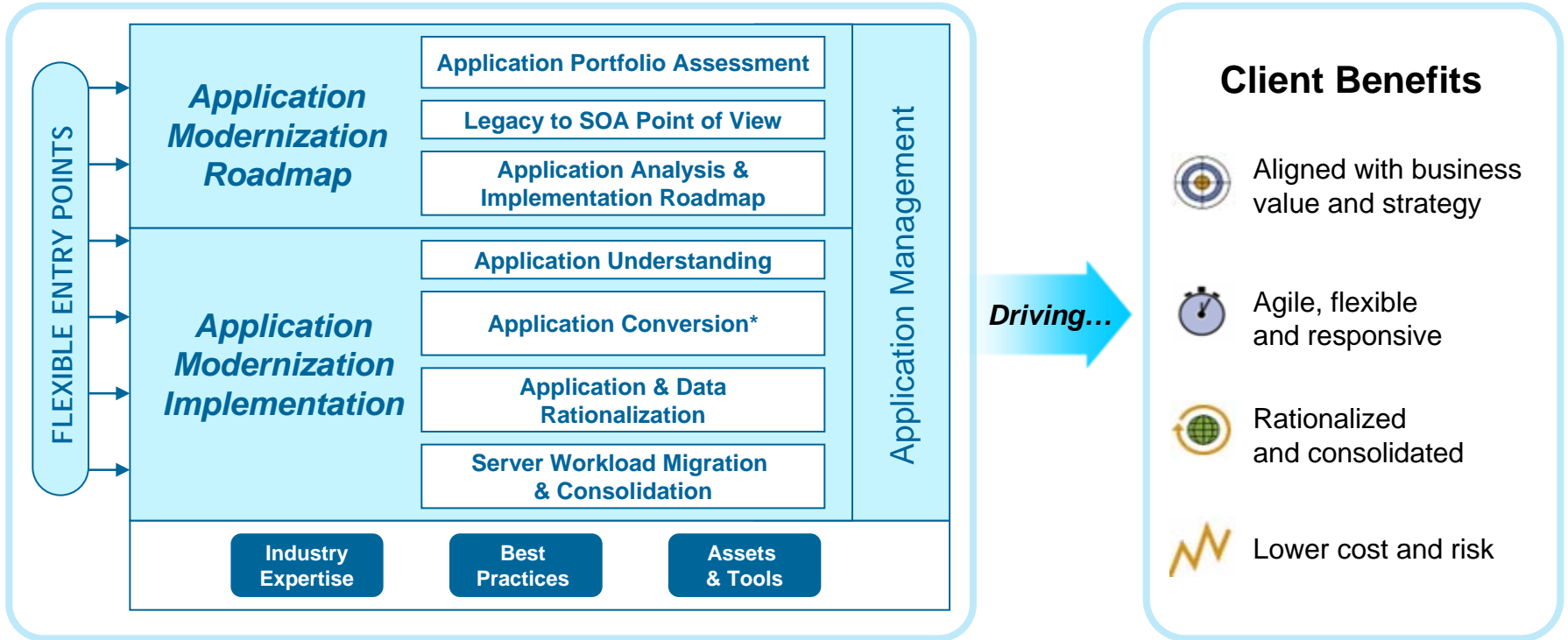
ENHANCED!

- Enterprise COBOL
- Enterprise PL/I
- z/OS XL C/C++

- ✓ Lower capital outlays by increasing capacity on existing hardware
- ✓ Improve performance of application suite
- ✓ Reduce CPU cycles and maximize ROI



IBM's Business Application Modernization services



* SOA enablement available

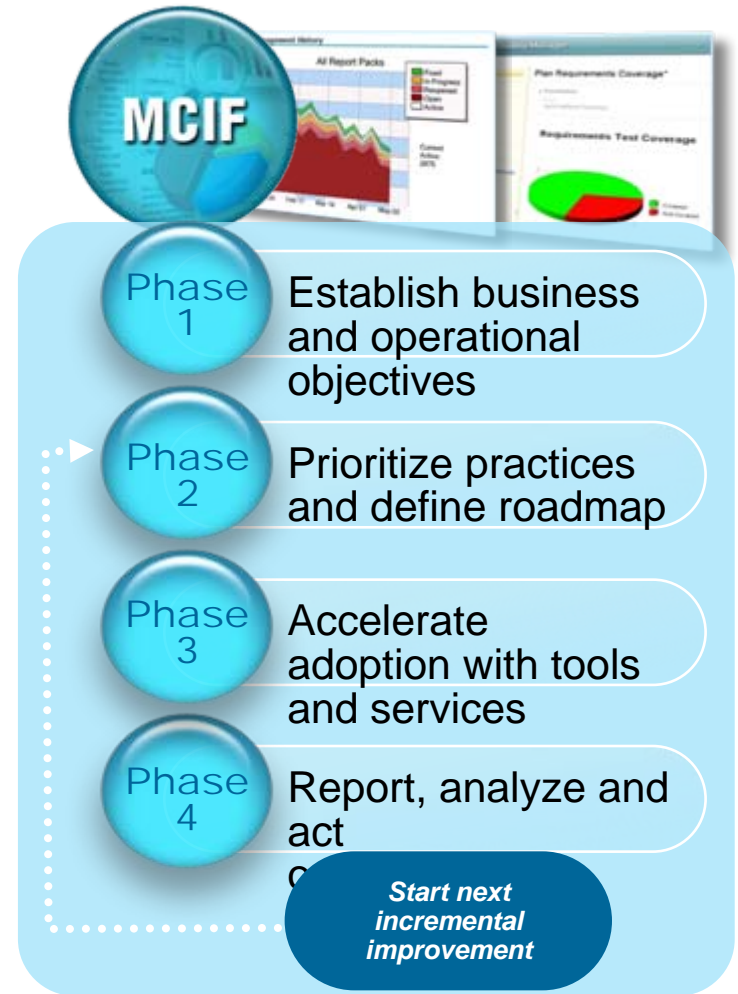
- ✓ Improve ability to respond and change more quickly and efficiently
- ✓ Flexible reuse and connectivity of core application assets
- ✓ Lower support costs by reducing duplicate application components
- ✓ Reduce integration complexity and resolving skills and maintenance hot-spots



Reduce application maintenance costs through measured and continuous process improvement

Empower teams to measure, manage, and incrementally improve their software delivery capability

- **MCIF is a phased approach that helps teams**
 - Adopt an incremental, measured approach to improve application maintenance efficiency
 - Focus on the core practices that matter most
 - Accelerate adoption through out-of-the-box assets
 - Articulate capability improvements in terms of business value
 - Support any method optimized for Agile practices



What's new?

- Application Analysis and Architecture
 - Rational System Architect 11.3.1
 - Rational Asset Analyzer 5.5.1
- Application Development
 - Rational Developer for System z 7.6
 - Problem Determination Tools 10.1
 - System z Solution Edition for Application Development
 - Enterprise COBOL 4.2
 - Enterprise PL/I 3.9
 - z/OS XL C/C++ 1.11
 - Rational Host Access Client Package 7.0
- Application Lifecycle Management
 - Rational Team Concert for System z 2.0
 - Rational Asset Manager 7.2
 - Rational Automation Framework for WebSphere 7.1.1.2
- Services offerings
 - Rational Application Health Assessment
 - IBM's Business Application Modernization services



***Delivering greater value
from your investments in software***



Register by February 26 and Save.

Innovate2010

The Rational Software Conference

June 6-10 Orlando, Florida

Let's **build** a smarter planet.



The premier software and product delivery event of the year!

Top 5 Innovative Reasons to Attend

1. Learn how to reduce your application maintenance costs!
2. Over 350 Sessions with focus on IT, systems, security, customer stories and much more
3. New Solution Tracks: Agile, Cloud Computing, Jazz and Systems Development
4. 20+ hands-on technical workshops
5. Participate in the Innovation Jam and be there to hear the exciting results
6. Networking & innovating with 4,000 peers!

You do so much more than just build, deliver, and manage. You innovate. And since software is the invisible thread that speeds innovation and helps us design and build the smarter products and services we need to build a smarter planet, then you deserve a revamped, upgraded, 2.0 conference. One that sparks and celebrates innovation. Get ready for...

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Case Studies

in lowering
application maintenance costs



To learn more visit: ibm.com/software/rational/announce/modernization

United States | change

Home Solutions Services Products Support & downloads My IBM Welcome Saleem Padani [Not you?] [IBM Sign in]

Revolutionize the economics of application maintenance

An evolutionary approach to application development and delivery

→ Register for the webcast

Overview System z IBM i

Save today and build a stronger foundation for future innovation

Given economic conditions and tight budgets, every efficiency an enterprise can squeeze from its operations can make a big difference in its ability to position itself and to compete for growth as marketplace conditions improve.

The cost of maintaining applications absorbs much of the IT budget and resources, leaving too little for innovation. To continually improve your ability to respond to customer demands, marketplace pressures, and new business opportunities, you have to do something.

How can you get more from your IT investments? Modernize.

IBM Rational enterprise modernization solutions

Learn how IBM Rational® software can help you:

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

New and enhanced solutions for lowering the total cost of application development and maintenance

- [Business intelligence for applications](#)
- [Enterprise architecture and portfolio management](#)
- [Modern IDE for all platforms and languages](#)
- [Collaborative application lifecycle management](#)
- [Consolidated team infrastructure](#)
- [Advanced Compiler Technology \(ZIP, 14.6MB\)](#)
- [System z Solution Edition for Application Development](#)

Additional resources to get you started

- [IBM Rational software delivery platform for System z®](#)
- [IBM Rational software delivery platform for IBM i](#)
- [IBM Enterprise Modernization Sandbox for developers](#)
- [IBM Rational Cast Community for COBOL, RPG, C/C++, and EGL Developers](#)

We're here to help

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- Call me
- Request a quote
- E-mail IBM

Or call us at: 877-426-3774
Priority code: 04CBW61

Enterprise modernization

Lowering TCO for multiplatform applications

→ Learn more

System z webcast
An evolutionary approach to application development & delivery.
→ Register for the webcast

System z e-Kit
IBM System z can do it.
→ Register for the e-Kit

Online Trial
IBM System z Sandbox
→ Register or sign in to get started



A global auto manufacturer

Reduces maintenance costs and improves productivity by recovering lost application knowledge



The challenge

- High application maintenance costs are consuming significant IT budgets and resources
- Changes take too long to implement and test

Business value

- Estimation of the scope and impact of changes in a more rapid fashion
- Application documented based on today's code
- Improved developer productivity
- Reduction in operational and maintenance costs
- Ultimately, move to SOA is supported

Solution

- WebSphere Studio Asset Analyzer positioned to perform enterprise asset discovery and impact analysis
- Additional improvements in testing environment were realized as WSAA was used to identify test data for complete coverage

Think Rational
One of many ways Rational enables a smarter planet.

Customer realized 10% or more productivity and/or cost savings



World-class communications services provider

Reduces cost of current application portfolio by validating business linkage



The challenge

- Global communications services provider was overrun by the cost of maintaining existing application inventory

Business value

- Attainment of quick ROI, while executing a long-term strategy to deliver broadened corporate-wide application reduction
- Confidence that current investments are aligned with key business strategies

Solution

- Leveraging IBM software solutions, including Rational System Architect, the communications services provider deployed an enterprise architecture approach to revitalize the effectiveness of its current IT inventory

Think Rational
One of many ways Rational enables a smarter planet.

“We reduced our application inventory by nearly 40% over three years.”



Railway company in Spain

Boosts profitability and gains competitive edge by modernizing mainframe applications with SOA



The challenge

- Siloed LOBs with disparate IT systems led to inflexibility
- Aging capabilities difficult to improve across the business

Business value

- Evolve IT infrastructure from a heterogeneous environment to a standardized one
- Reduce maintenance costs
- Accelerate time to market

Solution

- Combined cross-brand SOA solution, including Rational Application Developer for WebSphere and Rational Developer for System z to align IT more closely to the needs of the business
- The solution enabled the company to leverage existing mainframe applications that provide the requirements for high availability, performance and scalability



The company saw an increase of 200% in sales, confirming that the new system had enabled them to immediately gain market share.



A large European financial services institution

Modernized IT development environment to support more flexible, demanding business needs



The challenge

- Experienced significant business growth
- IT needed to support more flexible and demanding business needs

Business value

- Improved communications with its software providers
- Tracking for thousands of unique software assets
- Organization-wide reuse of IT components and services

Solution

- Rational software: Rational Asset Manager, Rational Functional Tester, Rational Team Concert Standard

Think Rational
One of many ways Rational enables a smarter planet.

- One of Spain's largest retail savings banks and financial services institutions
- More than 5000 branch locations
- Employing over 20,000 people

“Rational Asset Manager software promoted a service-oriented approach to asset reuse possibilities.”



A medium-sized financial services vendor

Modernizes a 20+ year old credit card management application in less than four months

The challenge

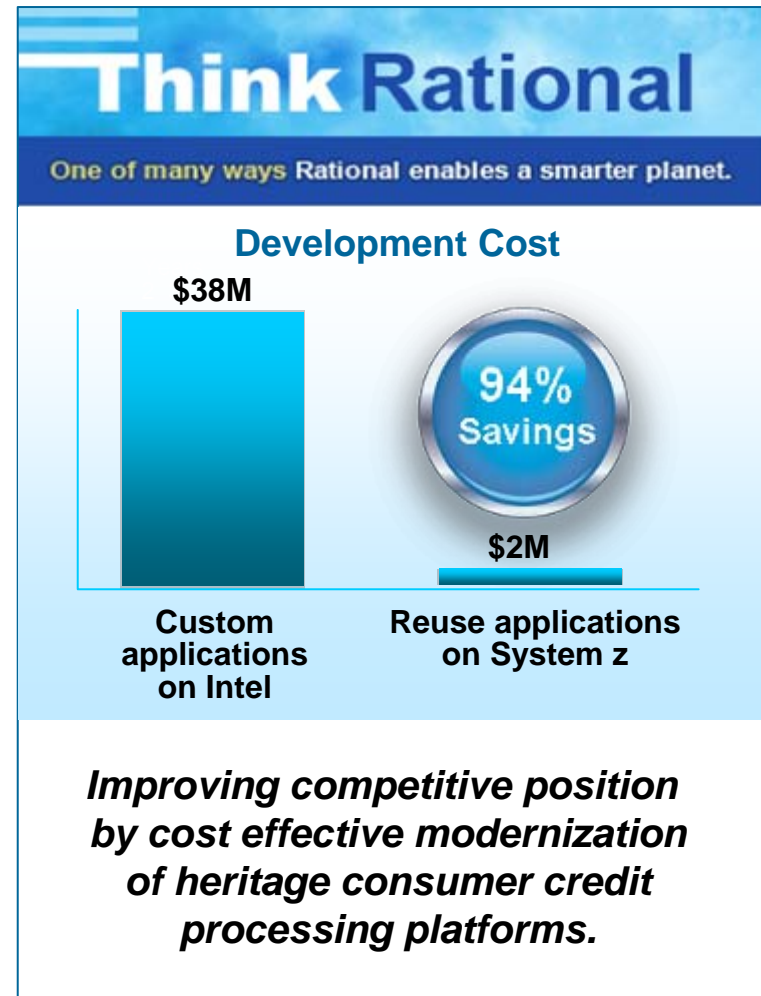
- Losing customers to competition offerings with Web or Rich UI
- High training costs and time to train new employees
- Replaced with a custom solution which handled 20-25% of the original application with approx \$30M of initial development costs

Business value

- Low risk solution requiring NO changes to existing applications
- User interface modernization with HATS saves an estimated 90% over custom windows-based solution
- Estimated 75% savings in training time

Solution

- Host Access Transformation Services for Multiplatforms 7.1
- WebSphere Application Server ND 6.1
- IBM HTTP Server
- Cisco Load Balancers
- Rational Application Developer





UniCredit

Improves developer productivity and testing efficiency for mainframe development



The challenge

- Modernize its development platform for core financial business software
- Development and testing efficiency for new and existing applications
- Make COBOL development more attractive to younger programmers

Business value

- Similar development environment for COBOL and Web applications — attractive to younger developers
- Estimated 15% increase in development and 10% increase in testing productivity

Solution

- More than 200 developers began using IBM Rational Developer for System z software to develop applications for IBM System z servers with IBM DB2 and IBM Information Management Systems software

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One of many ways Rational enables a smarter planet.

UniCredit HVB Group

- One of Europe's largest financial services organizations
- 9,000 branch locations
- 40 million customers
- Employing over 170,000 people

"Our team now develops, debugs and tests with more confidence, and it is clear that more and more people here will be using Rational Developer for System z."

Almut Geiger, Product Specialist, HVB



Grocery retailer

Lowers cost of upgrade by transitioning to cost-effective SCM solution



The challenge

- A grocery retailer's was faced with steep cost of renewal fees for a third-party Mainframe-based source code management system
- The company sought an end-to-end change and configuration management solution

Business value

- Significant cost savings with an approximate 6-month return on investment
- Flexible environment allows the retailer to evolve its development process for future growth

Solution

- The retailer deployed both Rational ClearCase software configuration management and Rational ClearQuest change management software on the mainframe



Grocery retailer lowers cost of upgrade by transitioning to cost-effective IBM Rational configuration and change management.



Sodifrance SA, an IT services company

Boosts development team productivity, minimizes errors and rework



The challenge

- For Sodifrance’s many complex mainframe modernization projects, the company’s staff often required a disparate tools for each phase, including requirements, change management, agile development process management, builds which increased their development costs and time

Business value

- Decreases development time by 15-20%
- Improves development quality and minimizes errors and rework

Solution

- Sodifrance evaluated IBM Rational Team Concert for System z and Rational Developer for System z software on an IBM System z9 Enterprise Class server running IBM z/OS® 1.10 at IBM’s Montpellier zTech center

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One of many ways Rational enables a smarter planet.

SODIFRANCE

- Sodifrance SA is an IT services company
- Provides IT modernization services principally in France and Benelux

“Building an agile development team requires a multiplatform approach. Rational on System z offers a powerful and valuable combination for any company that wants to boost its development team’s productivity.”
Hugh Smith, Project Manager, Sodifrance



Progress | DataDirect

Improves performance and reduces TCO with METAL C



The challenge

- Progress | DataDirect needs a solution that can save them time and development resources but also has the capability to fully take advantage of the larger and more powerful instruction set.

Business value

- Reduce development cost
- Promote code reuse for new System z architectures
- Enable porting of C applications to System z
- Integrates well with applications developed in assembler
- Produces highly optimized code

Solution

- Progress | DataDirect chose the Metal C feature of z/OS XL C/C++ to develop applications for their System z customer base.
- They can now concentrate on building compelling software for their customers and leverage IBM compilation technology and METAL C to take advantage of new System z architectural improvements

ThinkRational

One of many ways Rational enables a smarter planet.

Progress | DataDirect.

- Progress | DataDirect is an ISV and a leader in data connectivity and mainframe integration technologies

“We are able to deliver better products, faster, while improving performance and reducing TCO by using METAL C. In the future, we simply will only need to recompile with METAL C to take advantage of new System z architectural improvements. It’s a no-brainer”
Greg Willhiot, Chief Software Architect,
Progress | DataDirect