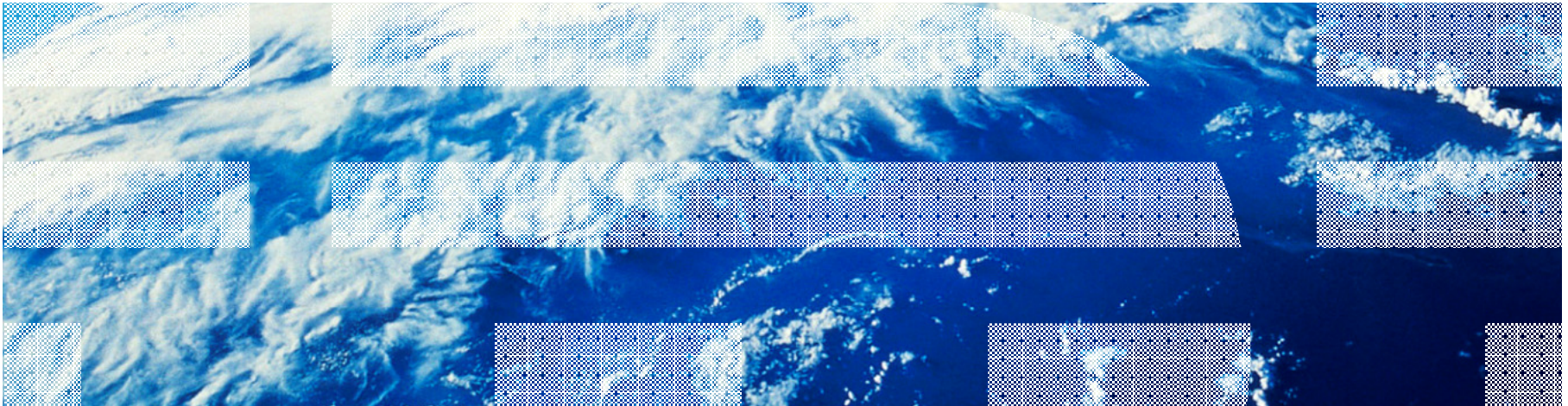

News to Development Environments and for RDz for z/VSE

Wilhelm Mild, IBM

mildw@de.ibm.com

Ingo Franzki, IBM

ifranzki@de.ibm.com



Software delivery is at the heart of today's top technology trends

Big Data

Insights on new products by more efficiently interpreting massive quantities of data



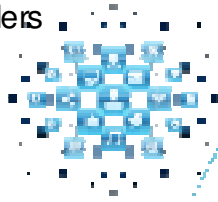
Cloud

Demand for apps requires fast, scalable environments for dev and test, as well as production



Social Business

Broader set of stakeholders collaborate to deliver continuous innovation and value



Instrumented Products

Industry requirements demand faster response to regulations and standards, with traceability and quality



Mobile

Modern workforce expects constantly updated software to connect to enterprise systems



Intelligent/Connected Systems

Software components in smart products driving increased value and differentiation

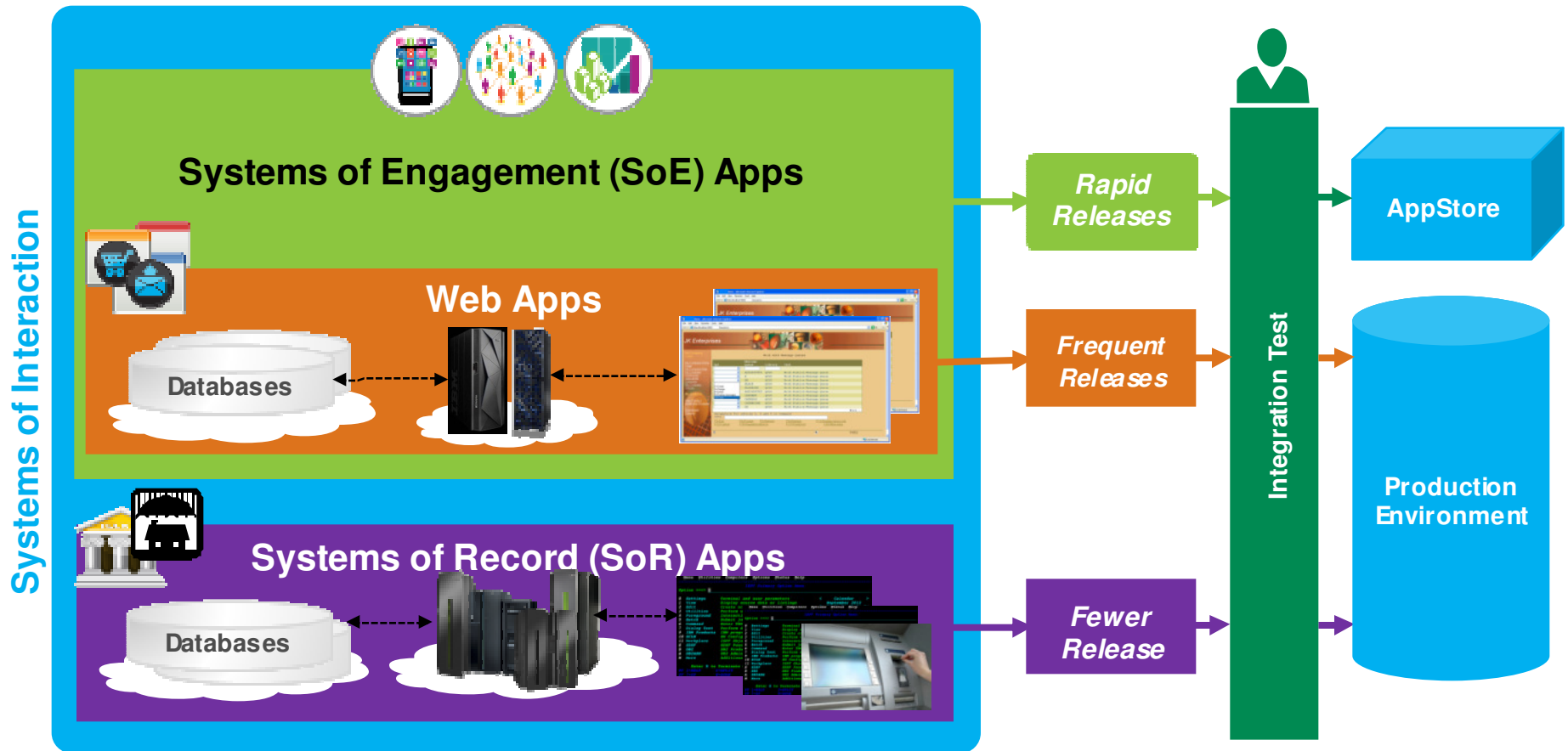


**Software
delivery**



The Systems of Interaction landscape

Bringing together the people, processes, and tools across the entire software delivery lifecycle – spanning mobile to mainframe platforms

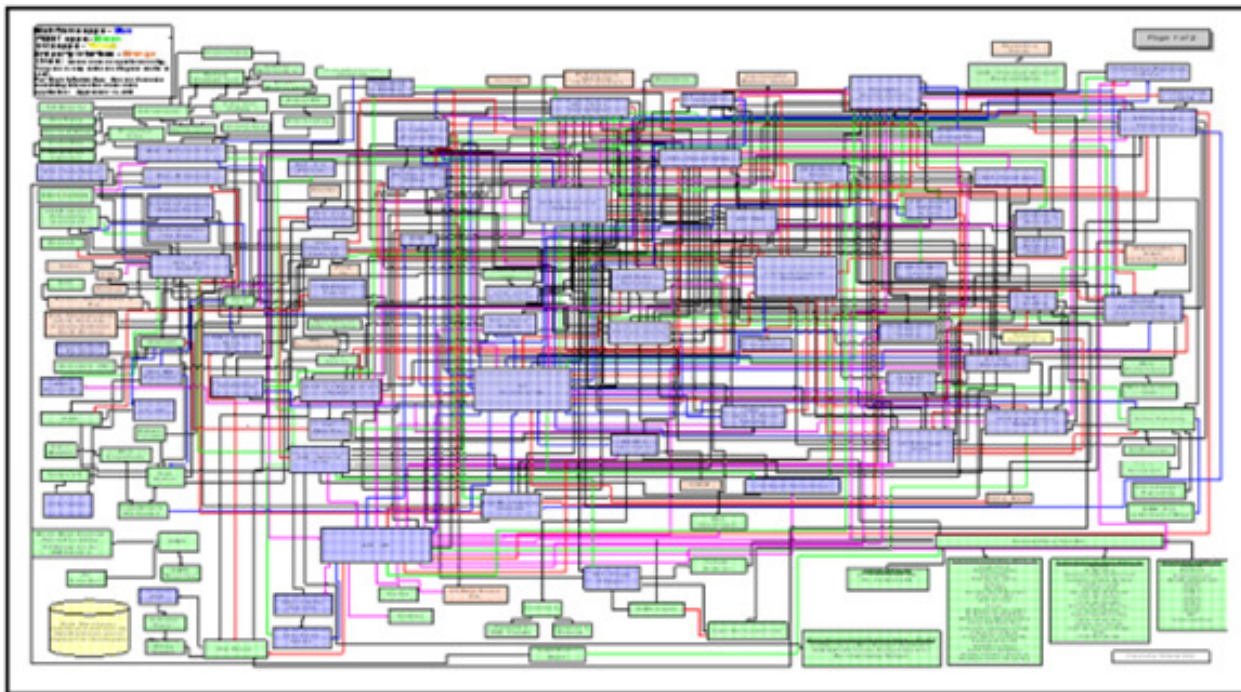


Systems of Interaction

System of records can be complex systems built on decades of continuous & incremental development

Change?

Improve response time?

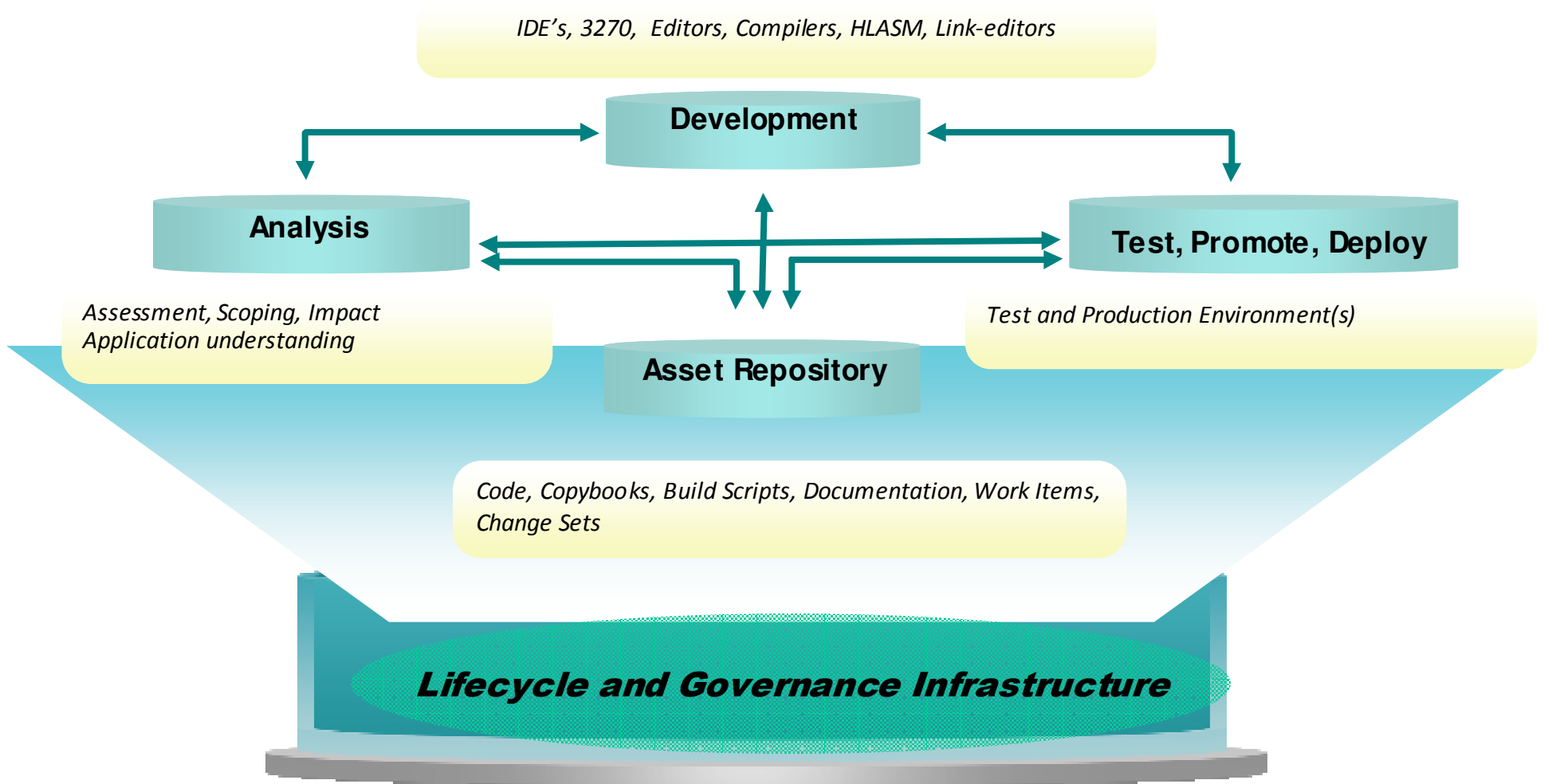


Modernization?

Where do I start?

Re-use?

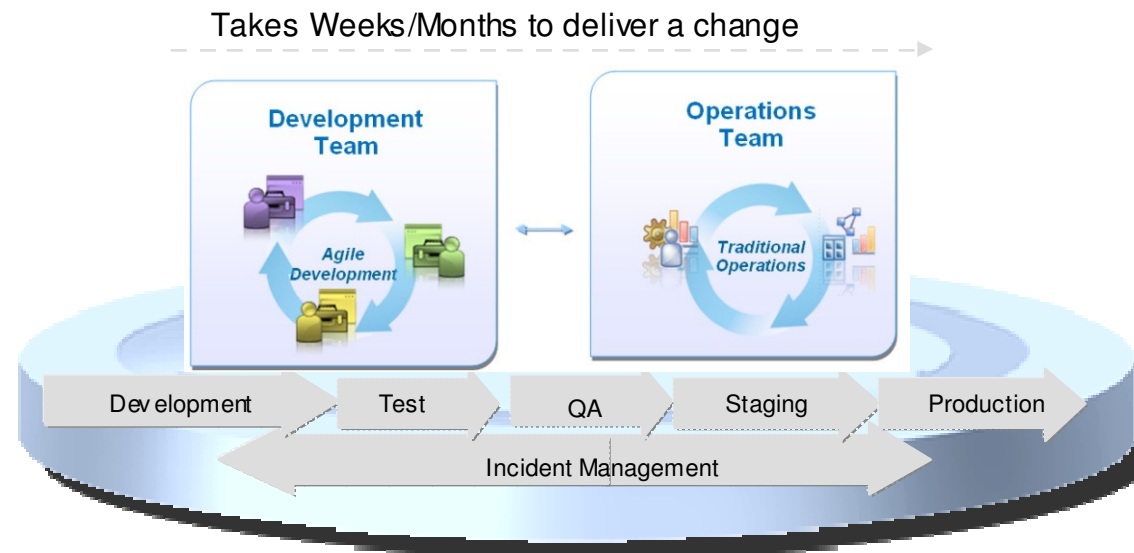
Infrastructure for Application Development on z



Software Delivery Challenges: what we hear from customers

Needs:

- Reduce cycle time and delays
- Improving software delivery efficiencies with standardization and automation
- Improving Quality of Delivery and reducing roll-backs



Quality Challenges

- Difficulties in reproducing production defects
- Long time to fix defects
- Poor Test coverage
- Lack of automated testing

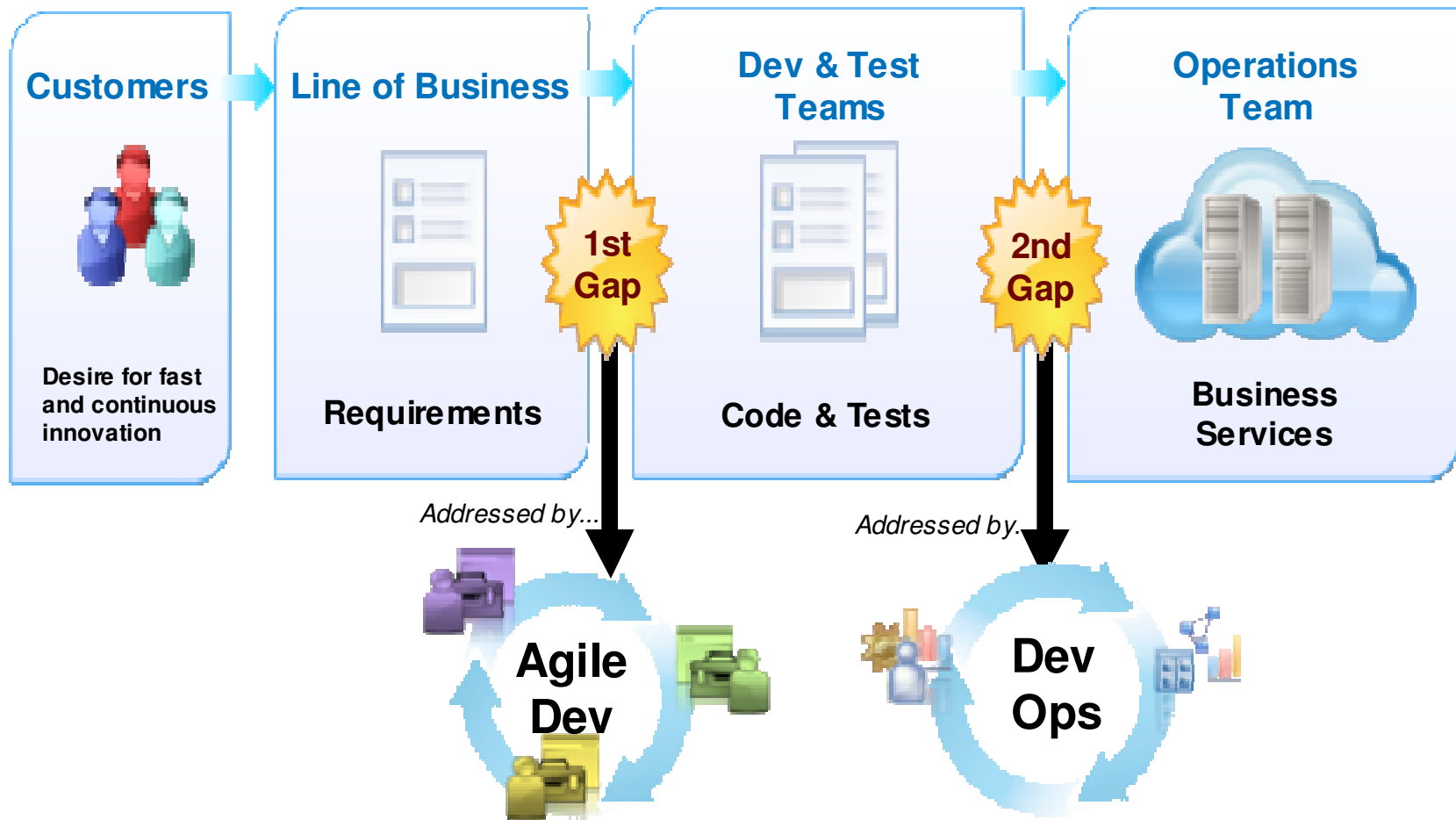
Release Challenges

- Differences in Dev/Ops environments
- Siloed / Limited automation
- Long set up time

Process and Cultural challenges

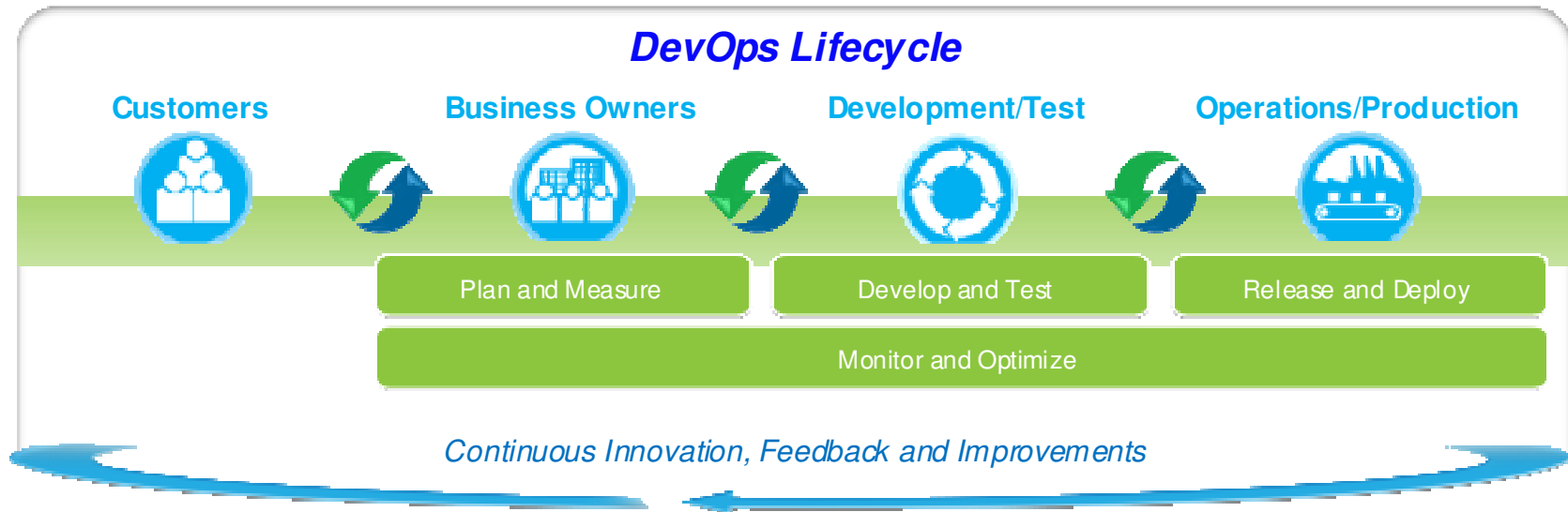
- Point-Point, adhoc and Fragile integration of tools
- Poor visibility, stability and extensibility
- Cultural barriers limiting collaboration
- Heavy-handed control of dev environments

Challenges delaying delivery of functionality to the business



What is “DevOps”? - close the Gap between Development & Operations

DevOps - Enterprise capability for continuous service delivery that enables clients to seize market opportunities and reduce time to customer feedback.



Accelerate Software Delivery

Expanding collaboration to include customers, LOB and others to eliminate organization silos

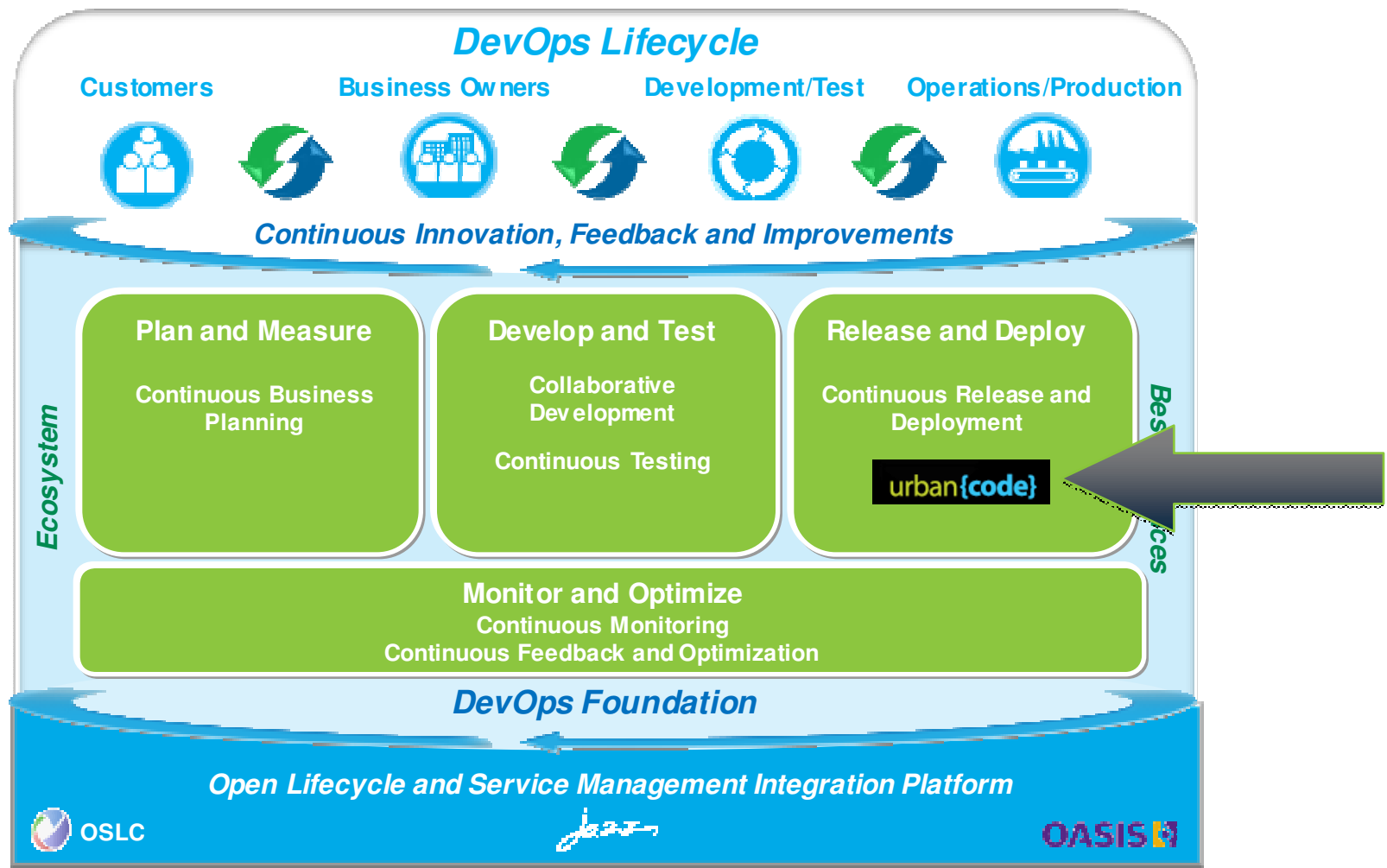
Balance speed, cost, quality and risk

Automating manual processes across delivery lifecycle to eliminate waste/delays and compliance tracking

Reduce time to customer feedback

Enabling a customer feedback loop for continuous improvement

Urbancode at the Heart of IBM's DevOps Architecture



UrbanCode, an IBM Company

- 11 Years Build, Release and Deployment Experience
- Global Customers
- Enterprise scalability, security, compliance and automation
- Training, consulting and implementation services
- Based in Cleveland, OH

“One key benefit of UrbanCode is how quickly it can be implemented and used for deployments.”

Gartner



Open Services for Lifecycle Collaboration

Simplifying collaboration across the software delivery lifecycle



Open Services for Lifecycle Collaboration

Open interfaces. Open possibilities.

- Write non proprietary integrations between CC / CQ integrated work items and other products
- Allows you to easily integrate tools that are OSLC compliant

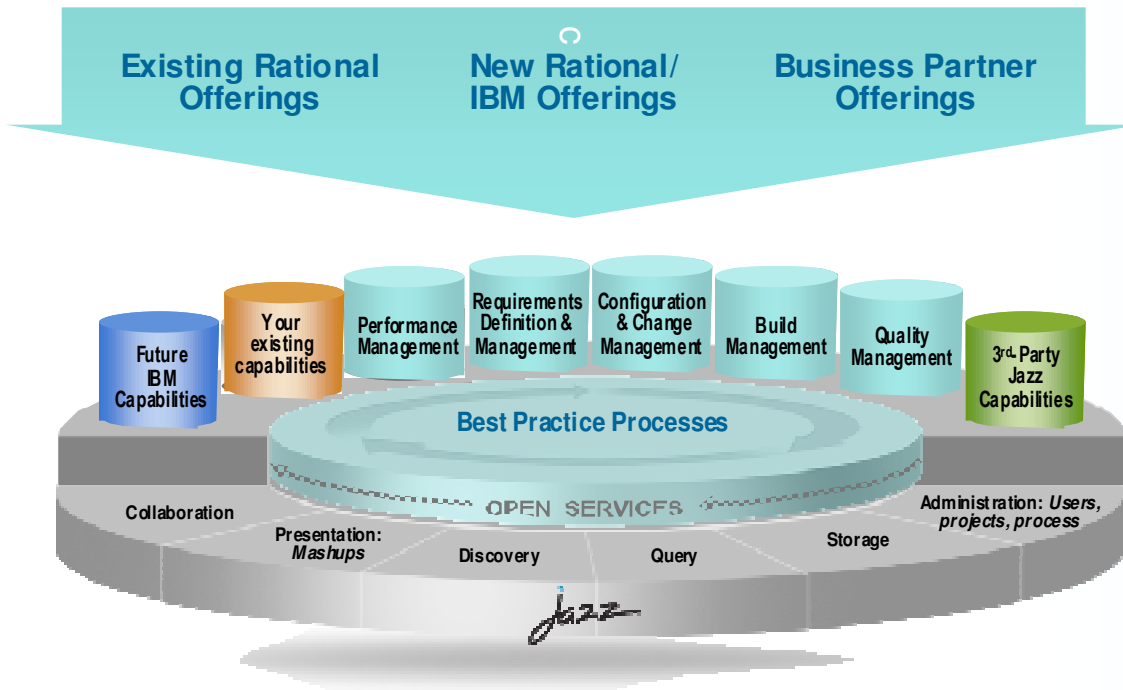
Barriers to sharing resources across the software lifecycle

- ▶ Multiple vendors, open source projects, and in-house tools
- ▶ Private vocabularies, formats and stores
- ▶ Entanglement of tools and data

▶ The Open Services initiative is

- **Building** a community of software vendors, open source projects, integrators, and corporate IT teams, operating at **open-services.net**
- **Creating** public specifications of resources and services for sharing the things that software teams rely on, like change requests, test cases, defects, requirements and user stories
- **Delivering** loosely coupled resource formats and services with “just enough” standardization

Envisioning a platform that can transform software delivery

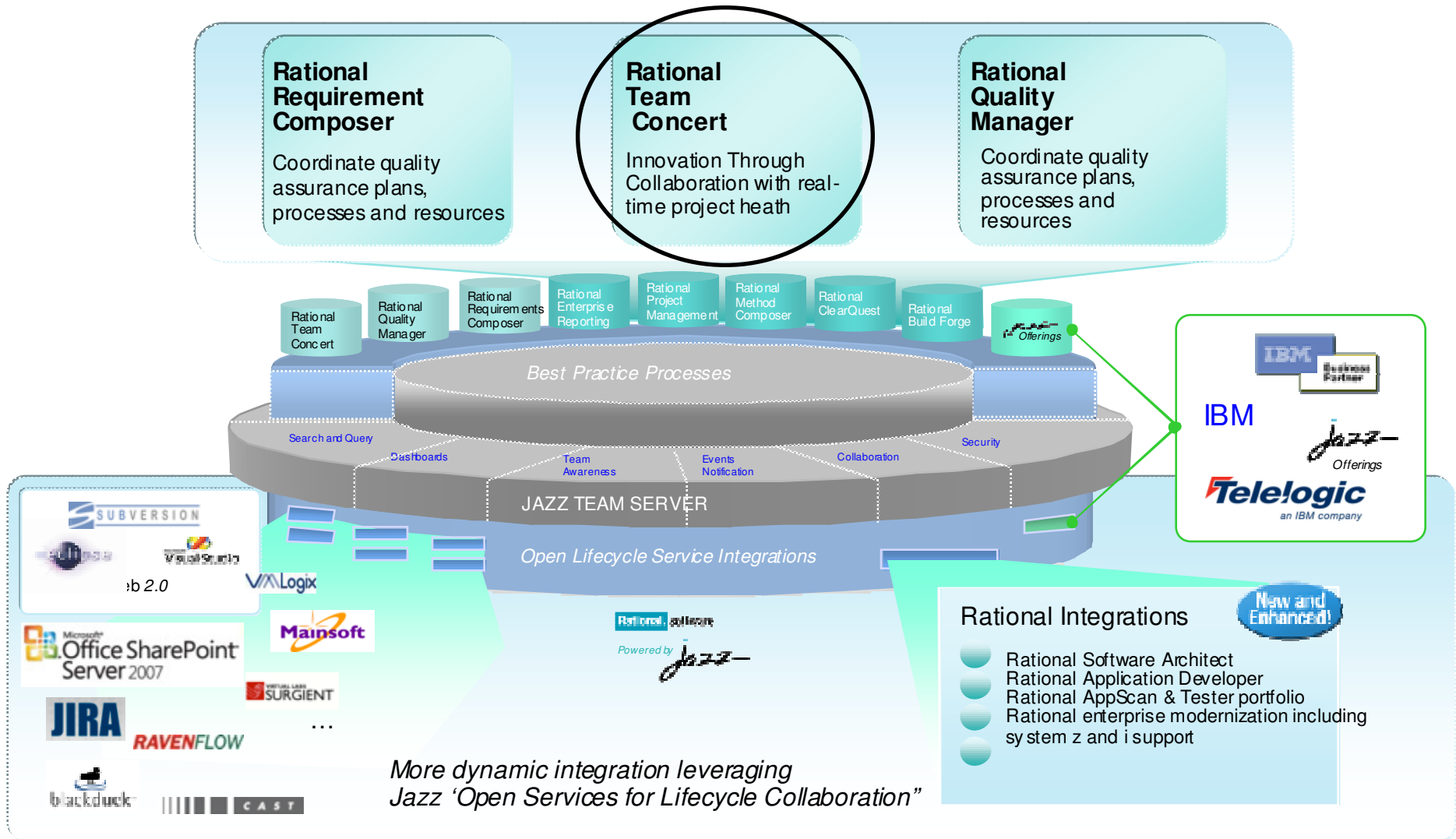


Jazz is a project and platform for *transforming* how people work together to deliver greater value and performance from their software investments.

Jazz is...

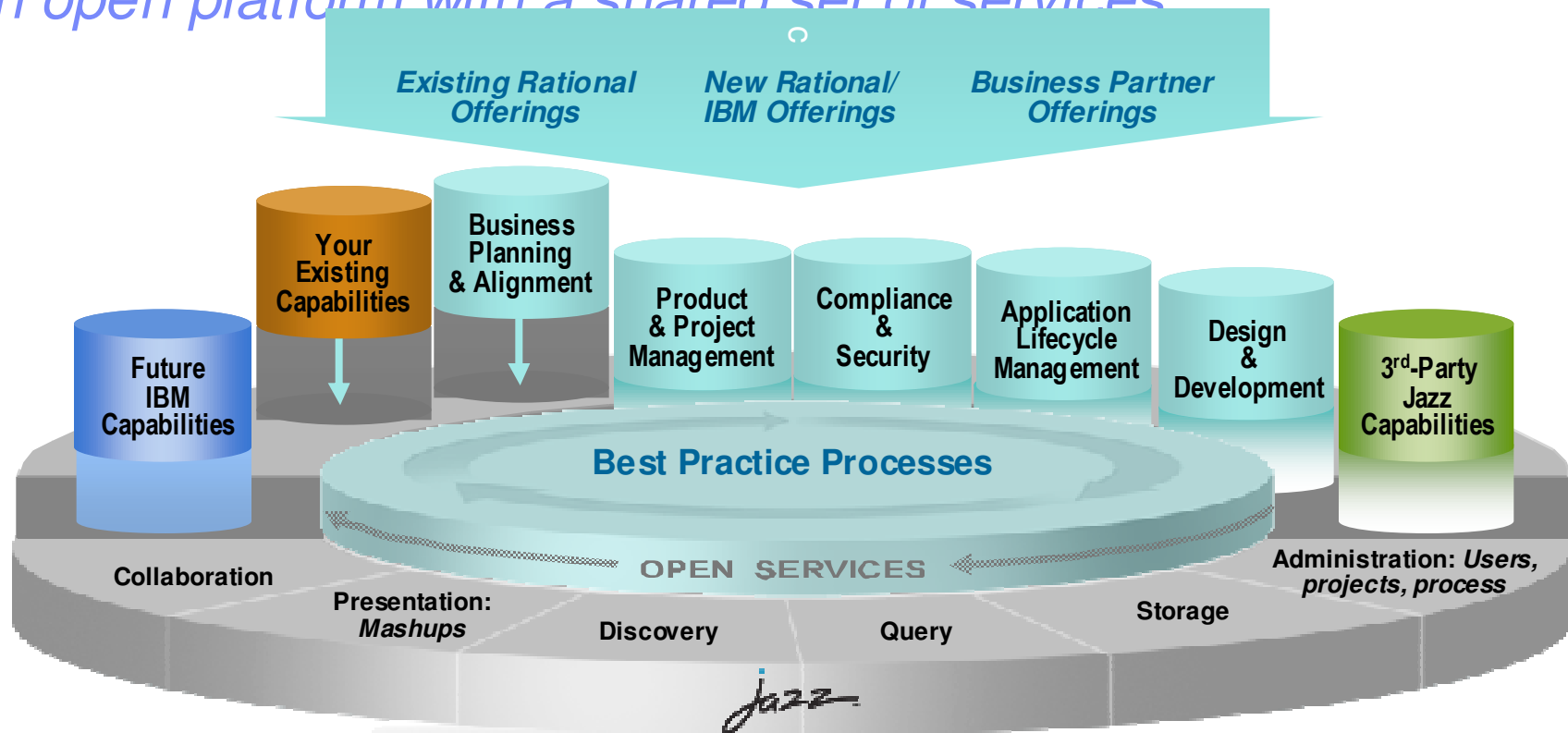
- A scalable, extensible team collaboration platform
- A community at Jazz.net where you can see Jazz-based products being built
- Our vision of the future of systems and software delivery, supporting globally distributed teams
- An integration architecture enabling mashups and non-Jazz based products to participate
- An evolution of our portfolio which will evolve to leverage Jazz technology over time

IBM Rational Jazz Platform



Rational Team Concert (RTC) is based on Jazz

An open platform with a shared set of services

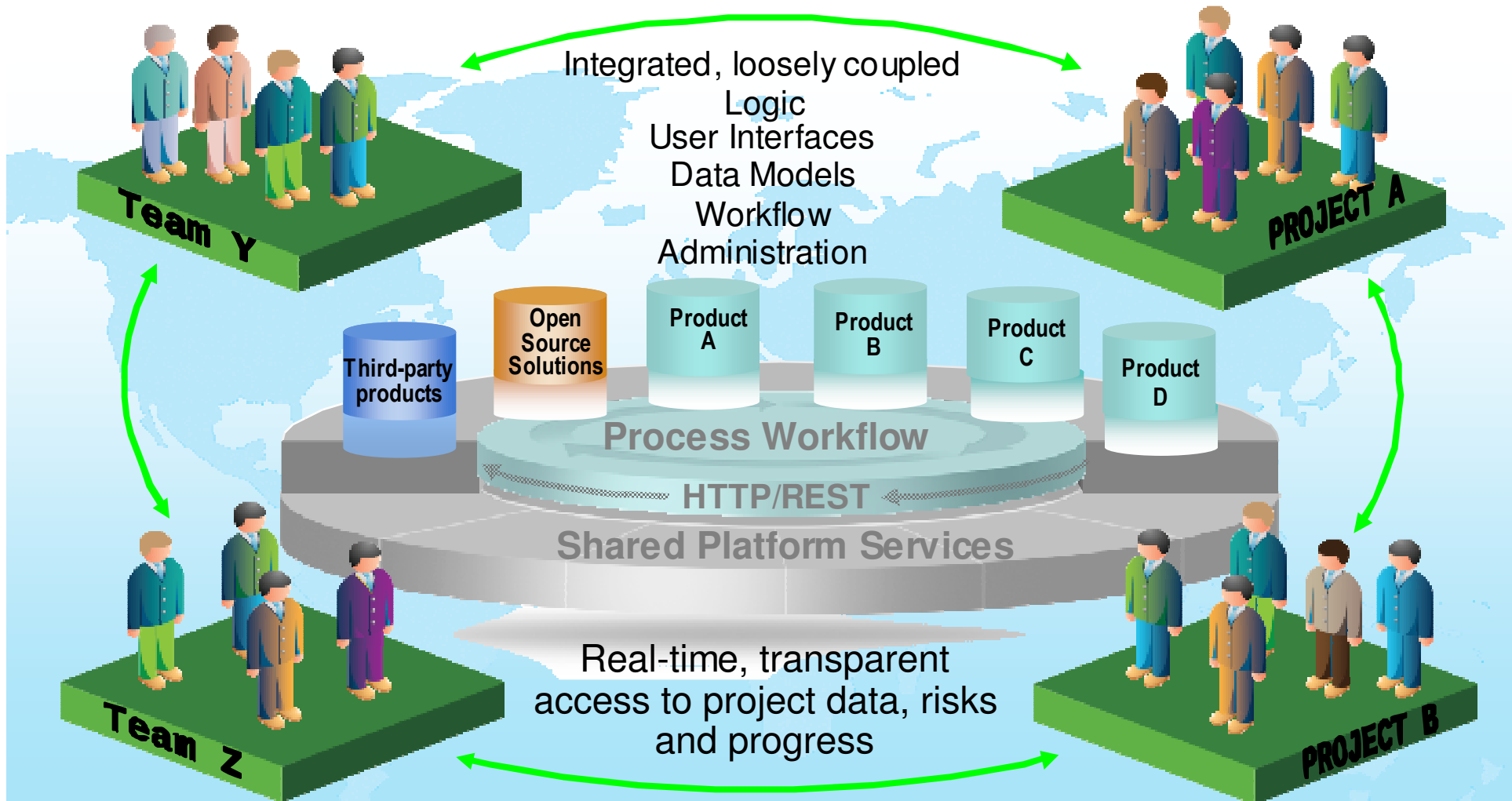


Jazz is...

- A scalable, extensible team collaboration platform
- A community at Jazz.net, where you can see Jazz-based products built in the open
- An open architecture for lifecycle integration (OSLC - www.open-services.net)

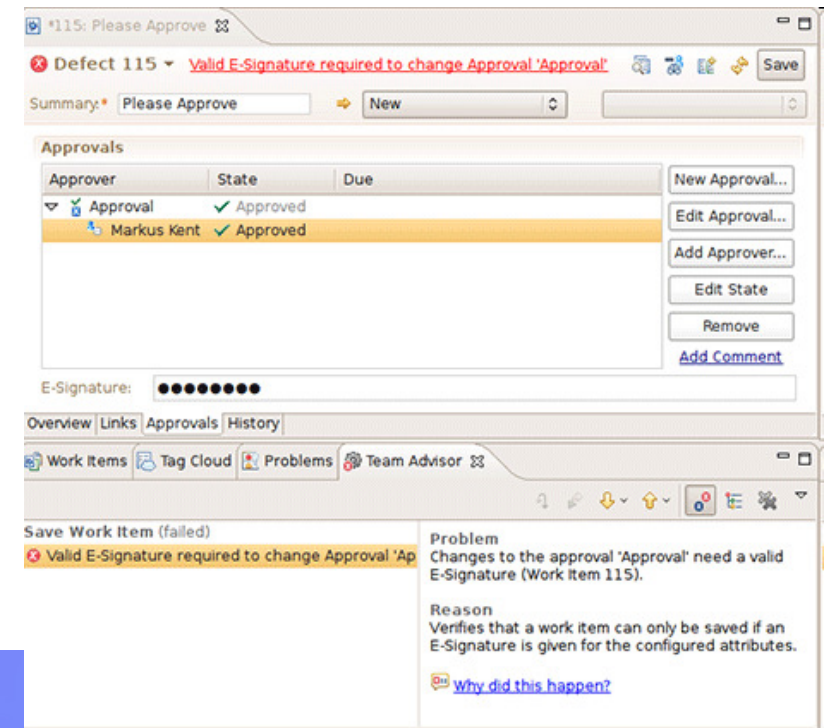
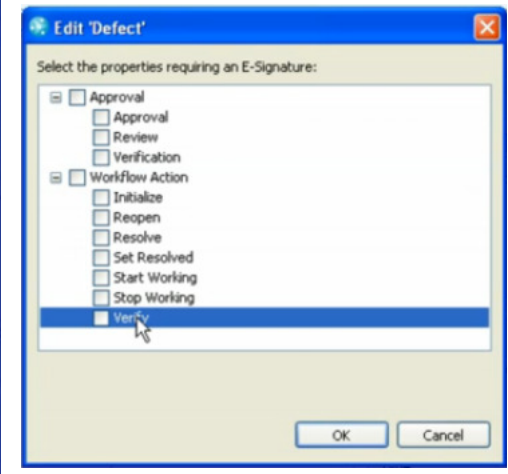
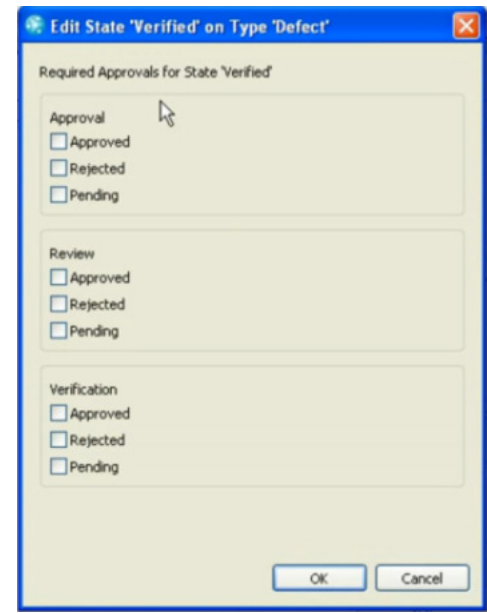
Jazz:

A platform for development integration and collaboration



Govern change-mgmt

- Establish and enforce approval and review checkpoints in your change workflow
- Require approvals and reviews before a workflow state change
 - Example: Rejecting a submitted workitem, moving a defect from submitted to planned, moving an enhancement from resolved to implemented
- Establish multiple approvals and reviews integrating comments and discussion
- Require an electronic signature when changing the state
 - Example: As part of an approval, when moving an enhancement or defect from submitted to rejected or accepted.



Transparency and Status for Everyone

Every stakeholder knows project status without having to ask

Jazz Project Description

Process enabled team collaboration platform

The goal of the Jazz project is to build a scalable, extensible team collaboration platform for seamlessly integrating tasks across the software lifecycle. The new technology is called the Jazz Platform. The Jazz project is defining the overall architecture of the Jazz Platform, and building an initial set of Jazz components that plug in to the Jazz Platform.

The work in the Jazz project is divided into development work and maintenance work. Development work produces a consecutive line of releases. Maintenance work produces bug fix releases of the released produced by the development work.

Development as well as maintenance work is overseen by the PMC. The team members listed in this project area constitute the PMC.

Jazz Project Members (11)

- CQ Connector Account connector
- Dejan Glozic dashboardadmin
- Erich Gamma dashboardadmin, projectadmin, PMC, contributor
- Jean-Michel Lemieux dashboardadmin, projectadmin, PMC, contributor
- John Vasta connectoradmin
- Kai-Uwe Maetzel PMC, contributor
- Kevin Haaland PMC, contributor
- Kim Moir projectadmin
- Peter Klenk PMC, contributor
- Scott Rich PMC, contributor

Page 1 of 2

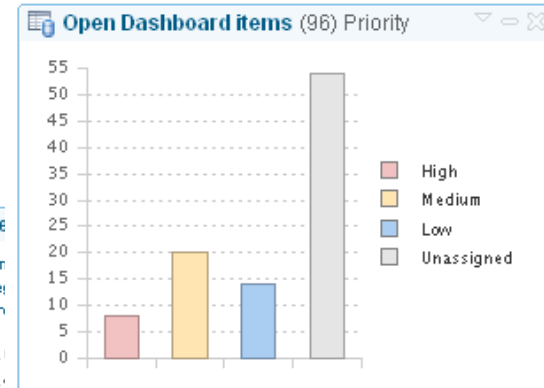
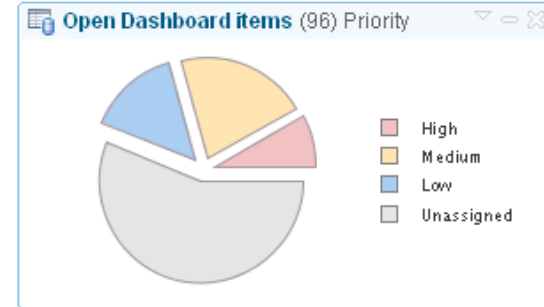
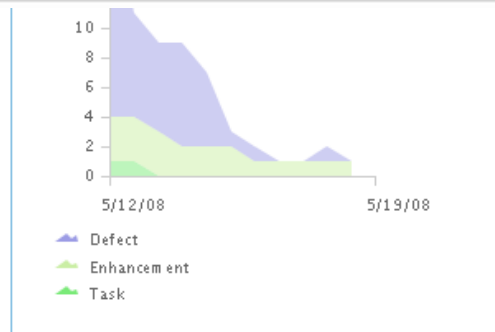
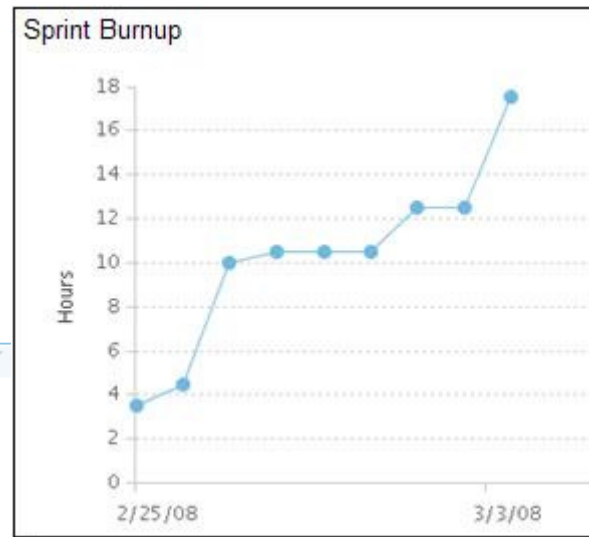
Jazz Project

Team Area: /Jazz Development/Dashboard
 Category: Dashboards
 Interval: 0.6 RC3

5/12/08 5/19/08

Open Closed

- Agile P
- Build
- ClearC
- ClearQ
- Comm
- Dashb
- Develo
- Improv
- Incubat
- Install
- Jumps'
- Proces
- Releas
- Report
- Reposi
- Source
- System
- UI Des
- User As
- Web UI
- Work It
- X-Team
- Jazz Maint



Open Dashboard items (96) Priority

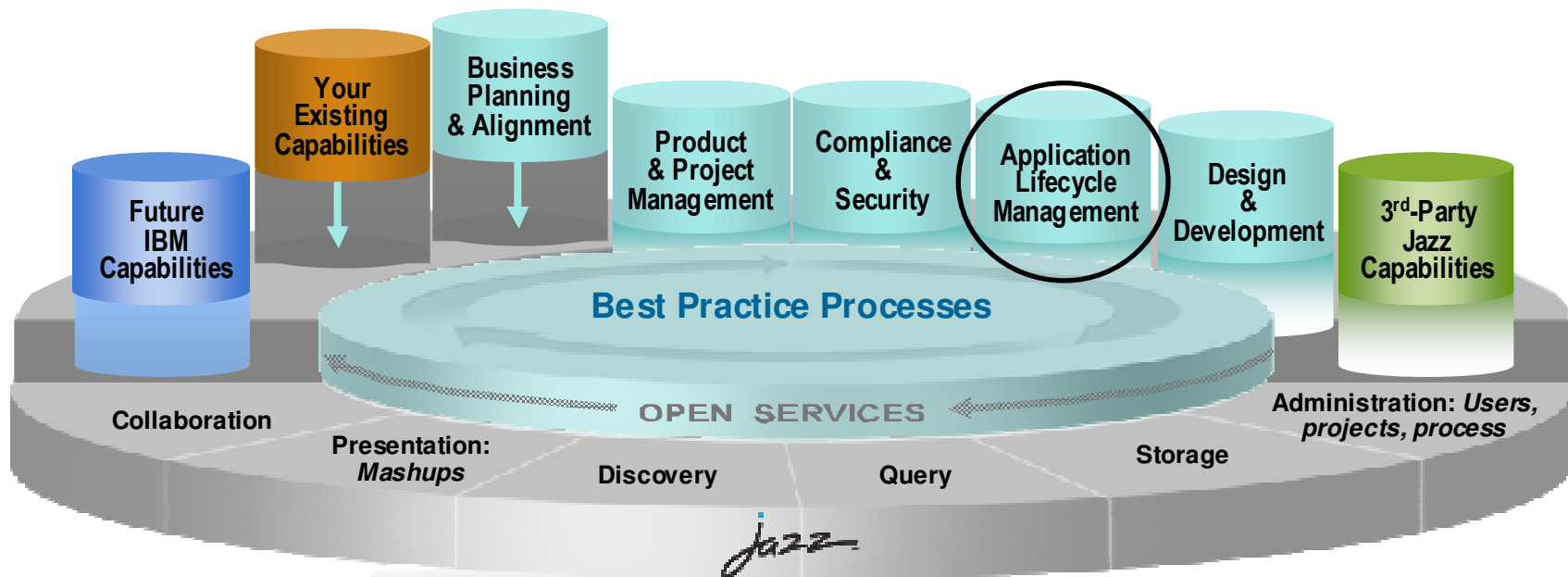
High(8) Medium(20) Low(14)
Unassigned(54)

Open Dashboard items (96) Priority

Priority	Count
High	8
Medium	20
Low	14
Unassigned	54

Rational Developer – for development life cycle

An open platform with a shared set of services



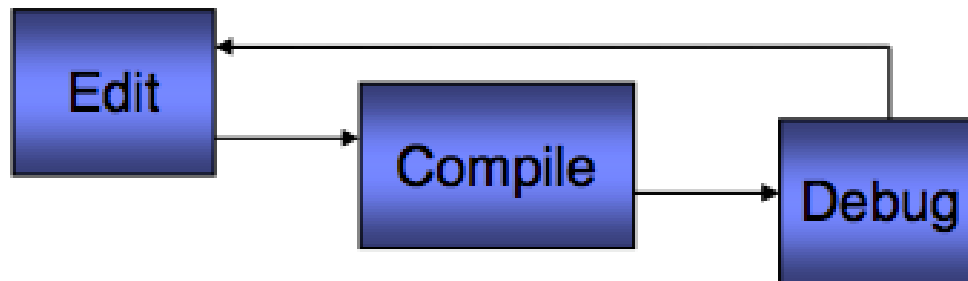
Jazz is...

- A scalable, extensible team collaboration platform
- A community at Jazz.net, where you can see Jazz-based products built in the open
- An open architecture for lifecycle integration (OSLC - www.open-services.net)

IBM Rational Developer for System z

An integrated development environment to boost your E/C/D productivity:

- ✓ Rich source editing and navigation
- ✓ Code review for code governance
- ✓ Integration with the platform's latest compiler technology
- ✓ ... and a new RDz Integrated Debugger to provide a seamlessly integrated & complete Edit/Compile/Debug solution out-of-the-box



Integrates with Rational Team Concert for System z

- **Rational Developer for System z projects in Rational Team Concert for System z**
 - Rational Developer for System z projects are a view into the Rational Team Concert for System z project
 - Rational Developer for System z projects provide a working set for the developer
 - Rational Developer for System z projects are not shared in the SCM

- **Rational Developer for System z augments the development productivity & experience**
 - files act as if on the host
 - Appropriate editors (COBOL, maps, etc.) and functions (content assist, syntax check, etc.)
 - High value functions (XML enablement, SFM, code generation from models, from UML, etc)

- **Rational Team Concert for System z provides**
 - Agility, collaboration and process
 - SCM and Build functions for multiple platforms

IBM Rational Team Concert for System z

transparent wikis integrated chat presence documents Web 2.0 custom dashboards automated data gathering
EXTENSIBILITY Eclipse plug-ins services architecture **FREEDOM TO CREATE**

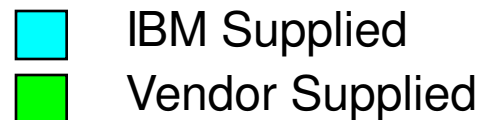
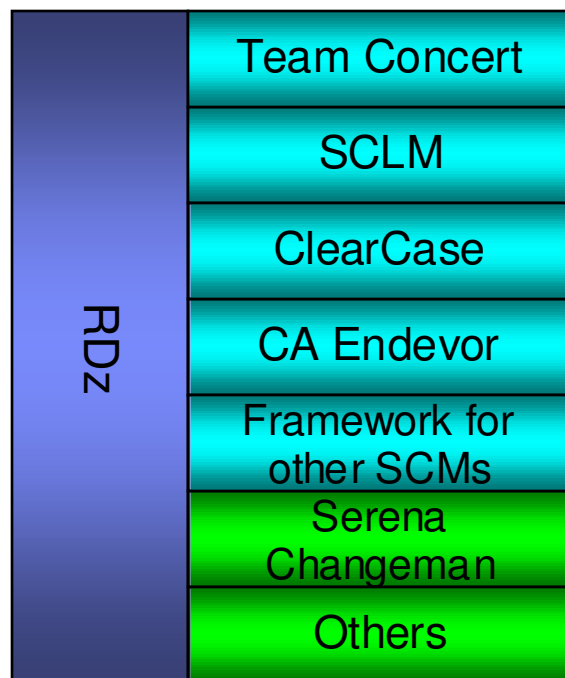
JAZZ TEAM SERVER

Open and extensible on *jazz*

- ✓ Collaborate
- ✓ Automate
- ✓ Report

Access source code...

- Rational Developer for System z offers integration into a variety of Source Code Management (SCM) tools as well as a framework for creating SCM integration on your own
- Variety of vendors supply plug-ins to Rational Developer for System z to provide easy access to processes and source code controlled by their products



Development objectives !!!

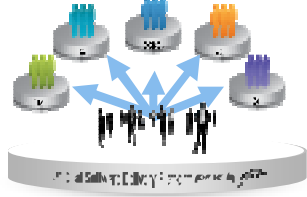
- Tools for managing existing z/VSE source code and changes
 - COBOL, ASM, PL/I, C, 4GL Languages
 - increased productivity for changes and new development
 - flexibility in versioning
 - effective group development control

- Develop for multiple platforms
 - common framework for the enterprise instead of multiple unique platform dependent tools
 - same basic tool set for open systems and mainframe

- Open source based technology
 - tools that students know from school and university communities
 - help new developers adapt to the mainframe

Rational Developer for System z - a complete tools set with capabilities from Mobile Development to

Integration with Team Concert for Lifecycle and Source Management



Access to typical System z sub-system functionality in z/OS, CICS, IMS, DB2, WAS



- Built on Eclipse
- Common tool set for end to end development
- Build, preview, and deploy within the IDE
- Mobile simulator (for unit test)
- End-to-end debug
- Integrate with third-party SDKs (e.g. Android Development Tools)

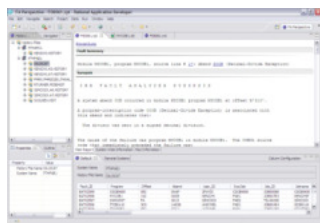
Integration with RD&T for flexible access to System z environment



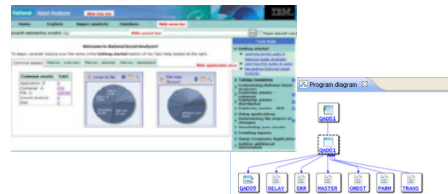
Robust Mobile Development in conjunction with Worklight



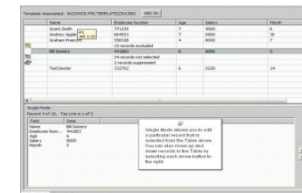
Integration with Fault Analyzer for Dump Analysis



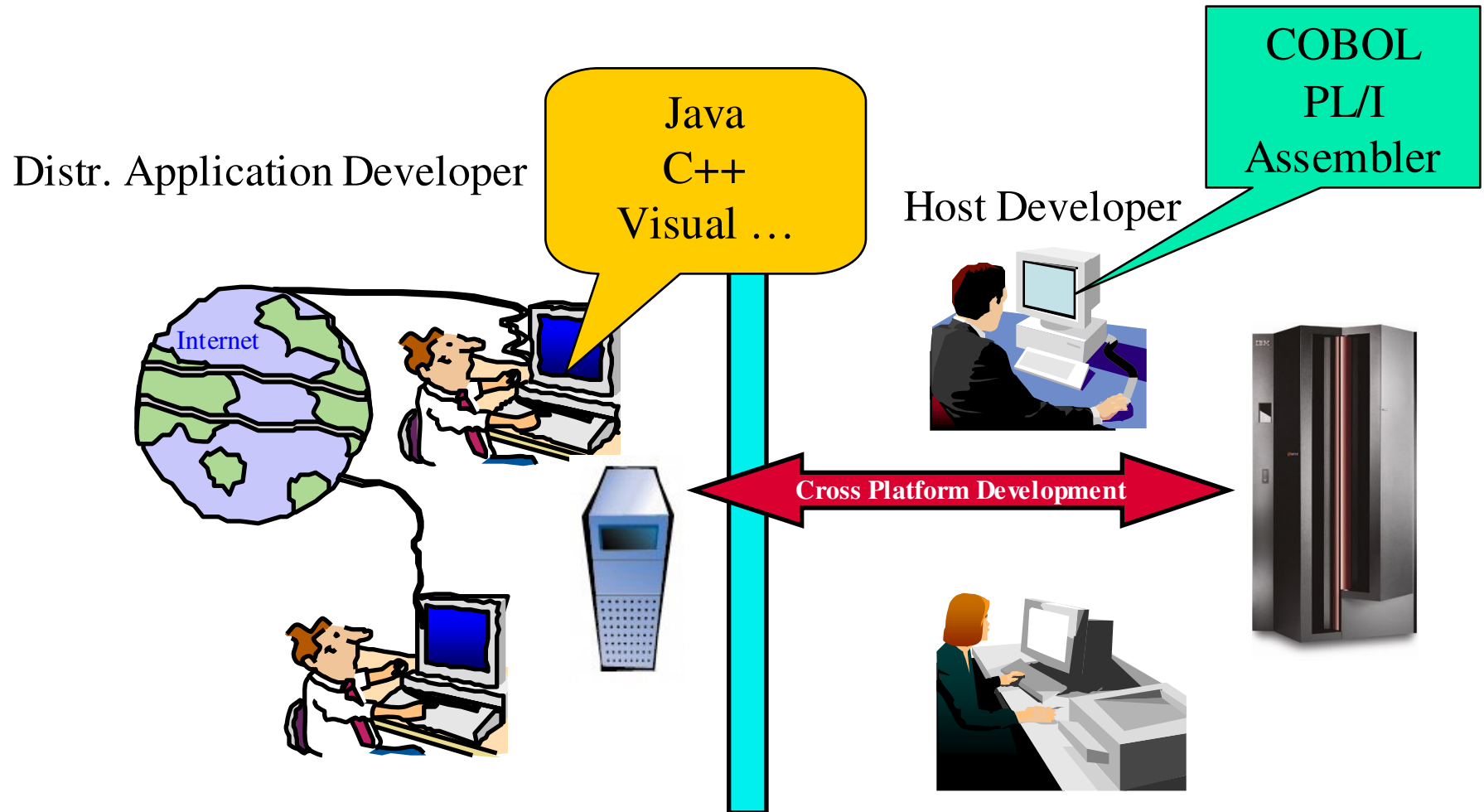
Integration with Asset Analyzer for Application Understanding and Impact Analysis



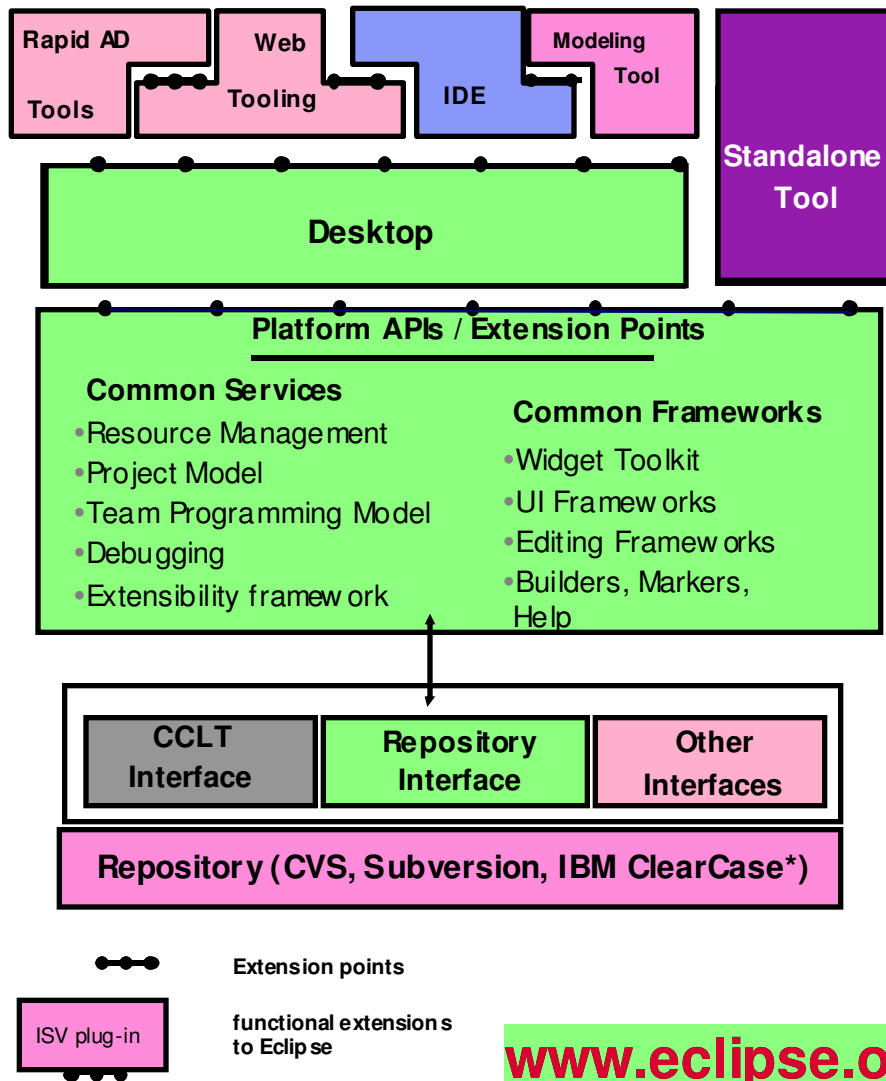
Integration with File Manager and Fault Analyzer for file and test data handling and Dump Analysis



'Distributed' Development Landscape...



Eclipse – the open Standard for application development

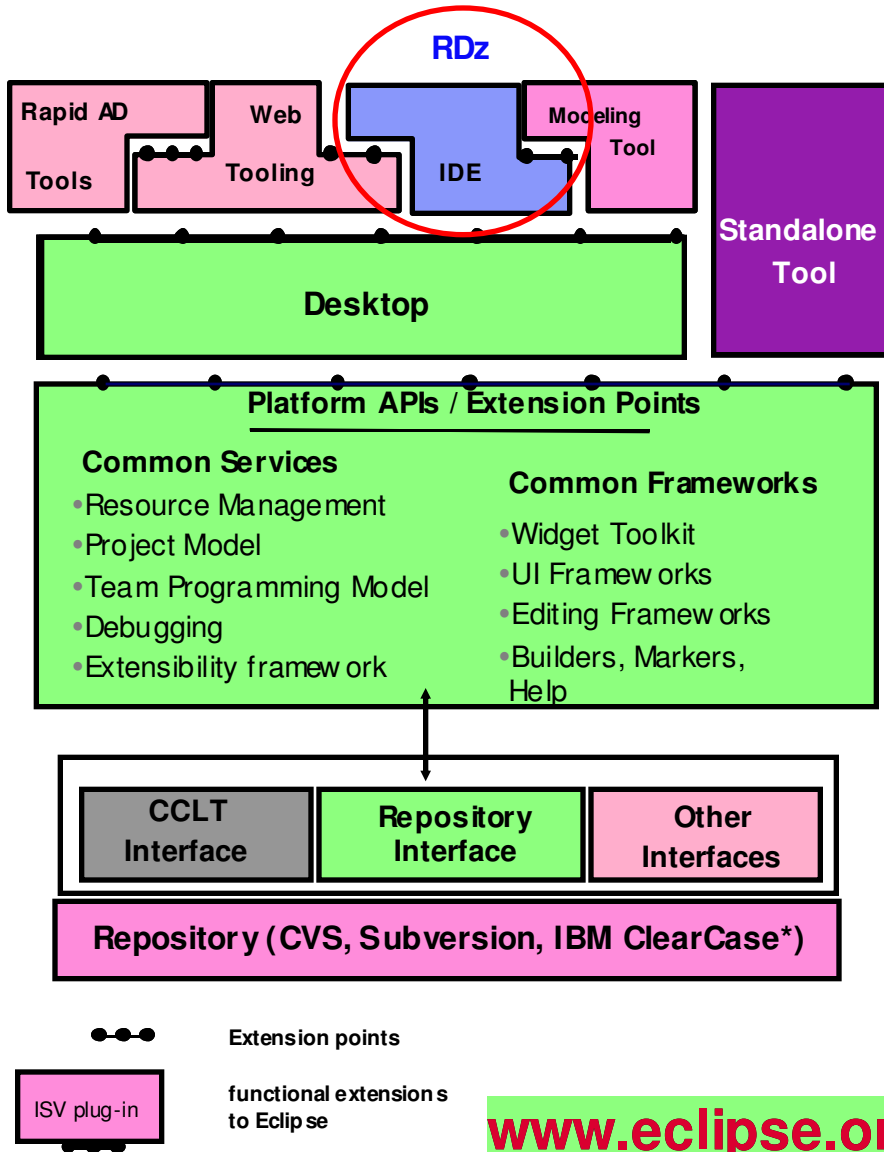


www.eclipse.org

What is Eclipse about:

- **Open source development framework**
 - with modern Editors
 - syntax help & check
 - semantic check
- **Centralized source code maintenance**
 - entire source code in central Repository
 - cross platform project administration
- **Versioning software interface**
 - CVS, Subversion, or IBM ClearCase
 - automatic Workgroup-control
 - i.e. development groups, system group
- **Open for ISVs development Plug-Ins**
 - **Integrated Development Environments (IDE)**
 - for System z (RDz)
 - for Java, COBOL, PL/I, ASM,C
 - **Application analysis and optimization**
 - Analyze the applications and workflows with graphical correlations
 - **IBM HATS Development Plug-In**
 - develop new front-ends to 3270 applications
 - **IBM EGL development for z/VSE (RBD)**
 - follow-on to Visual Age Generator

Eclipse – the open Standard for application development

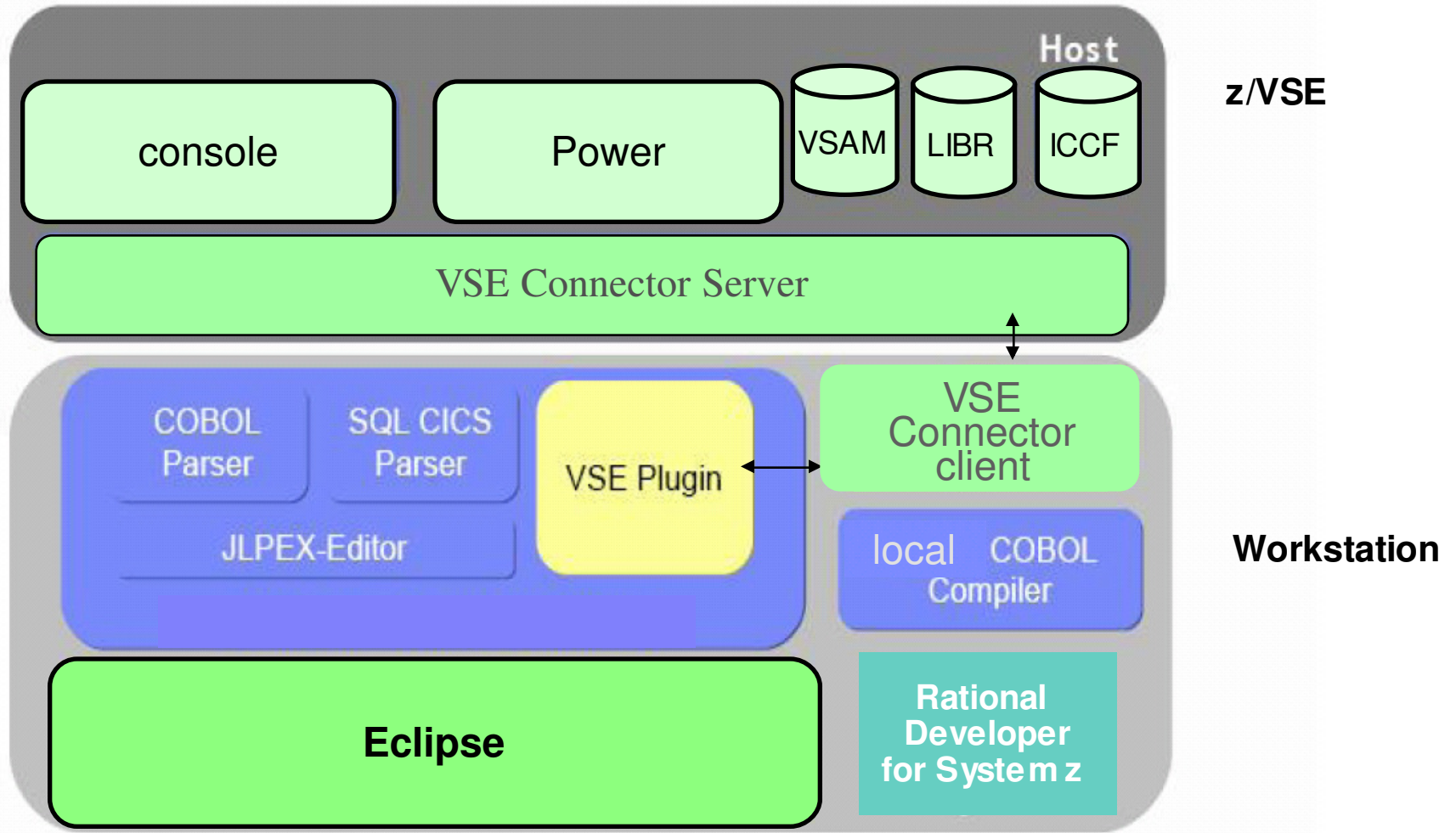


www.eclipse.org

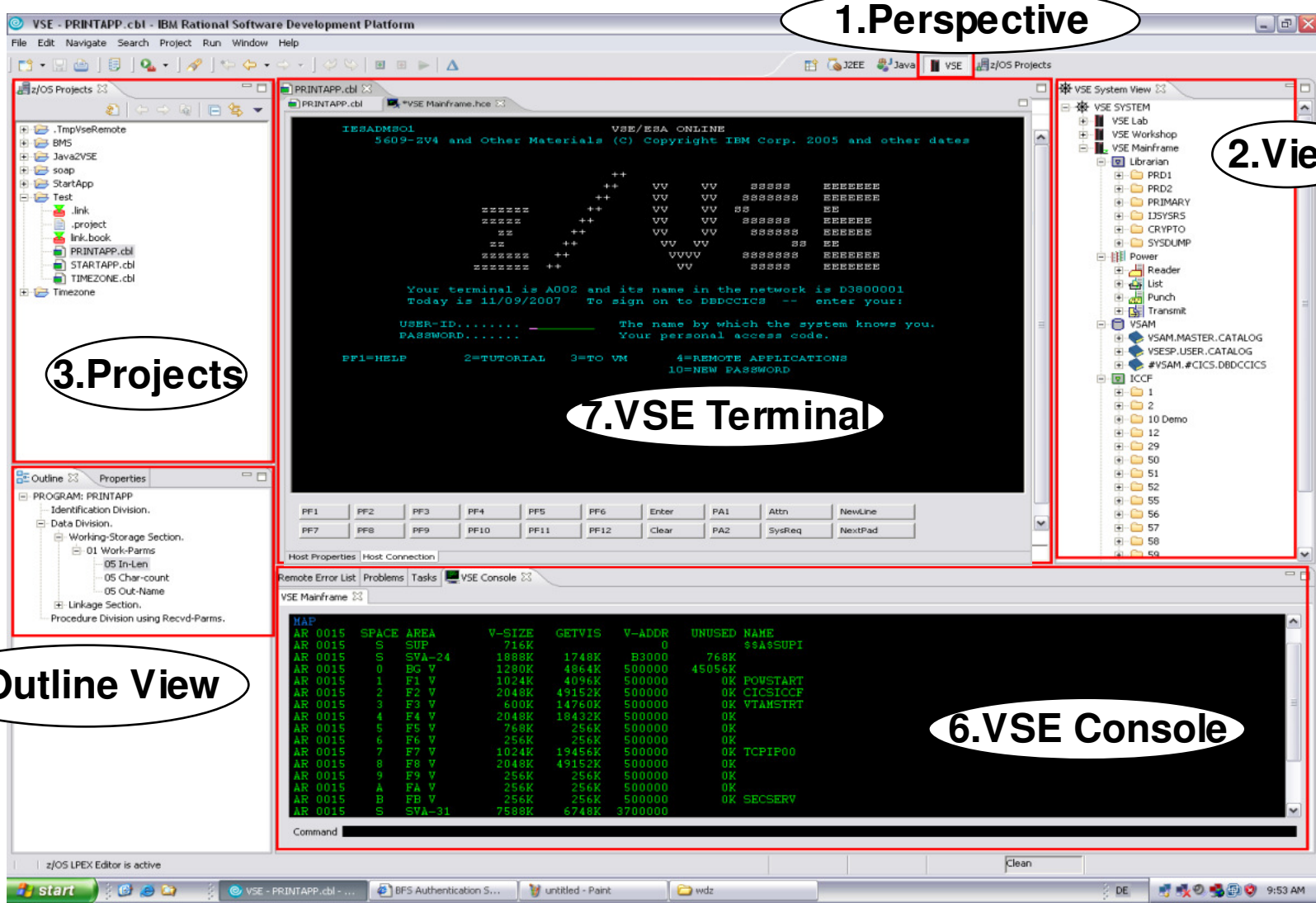
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- Open for ISVs development Plug-Ins
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 - for Java, COBOL, PL/I, ASM,C
 - **Application analysis and optimization**
 - RTW – Rational Trasformation Workbench
 - Analyze applications with graphical correlations**
 - IBM HATS Development Plug-In
 - develop new front-ends to 3270 appls.
 - **IBM EGL development for z/VSE (RBD)**
 - follow-on to Visual Age Generator

The IBM Development environment for the enterprise
Rational Developer for System z (RDz)
 with z/VSE Development Plug-in for RDz – from QGroup

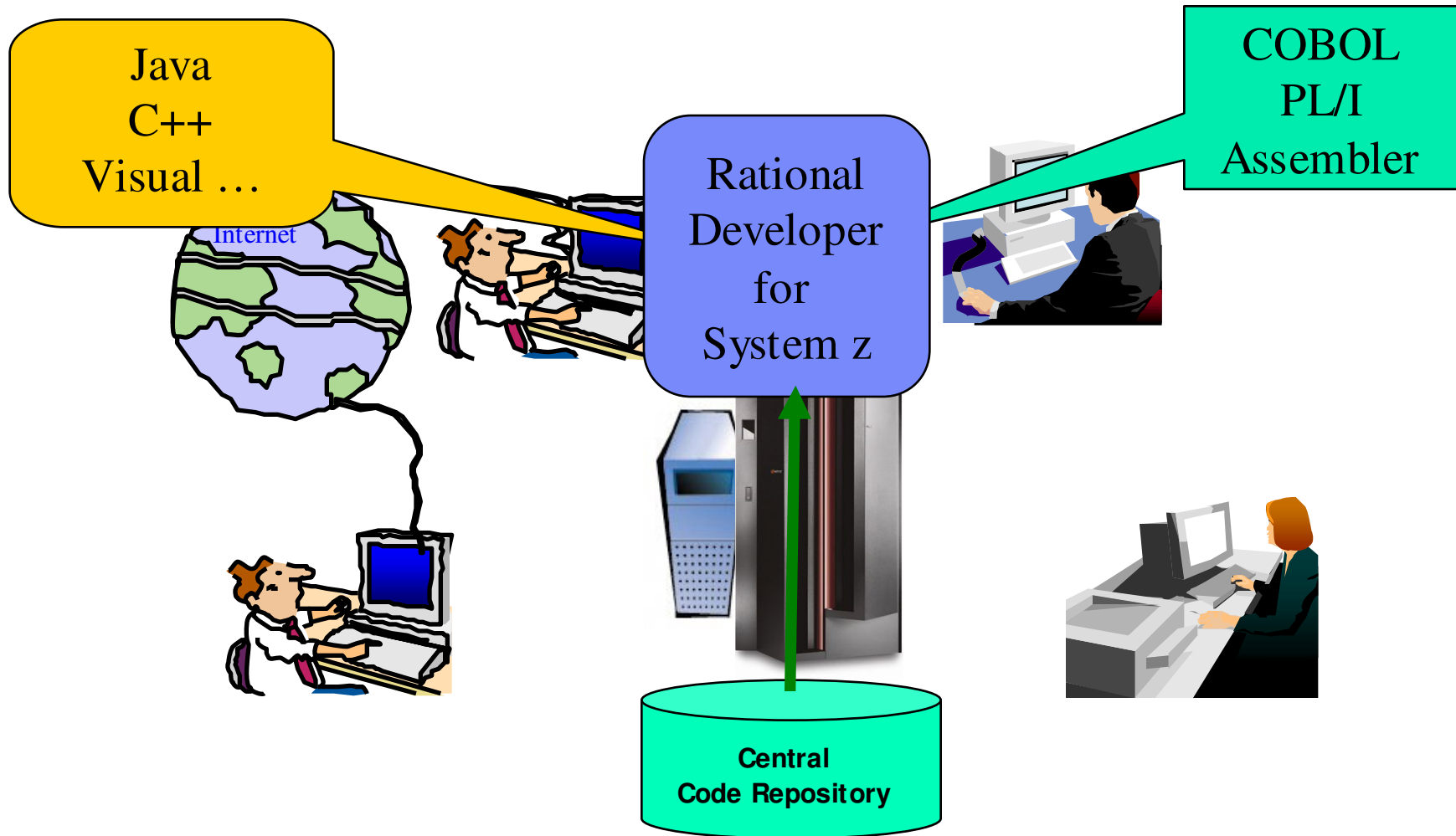


Rational Developer (RDz) in z/VSE perspective

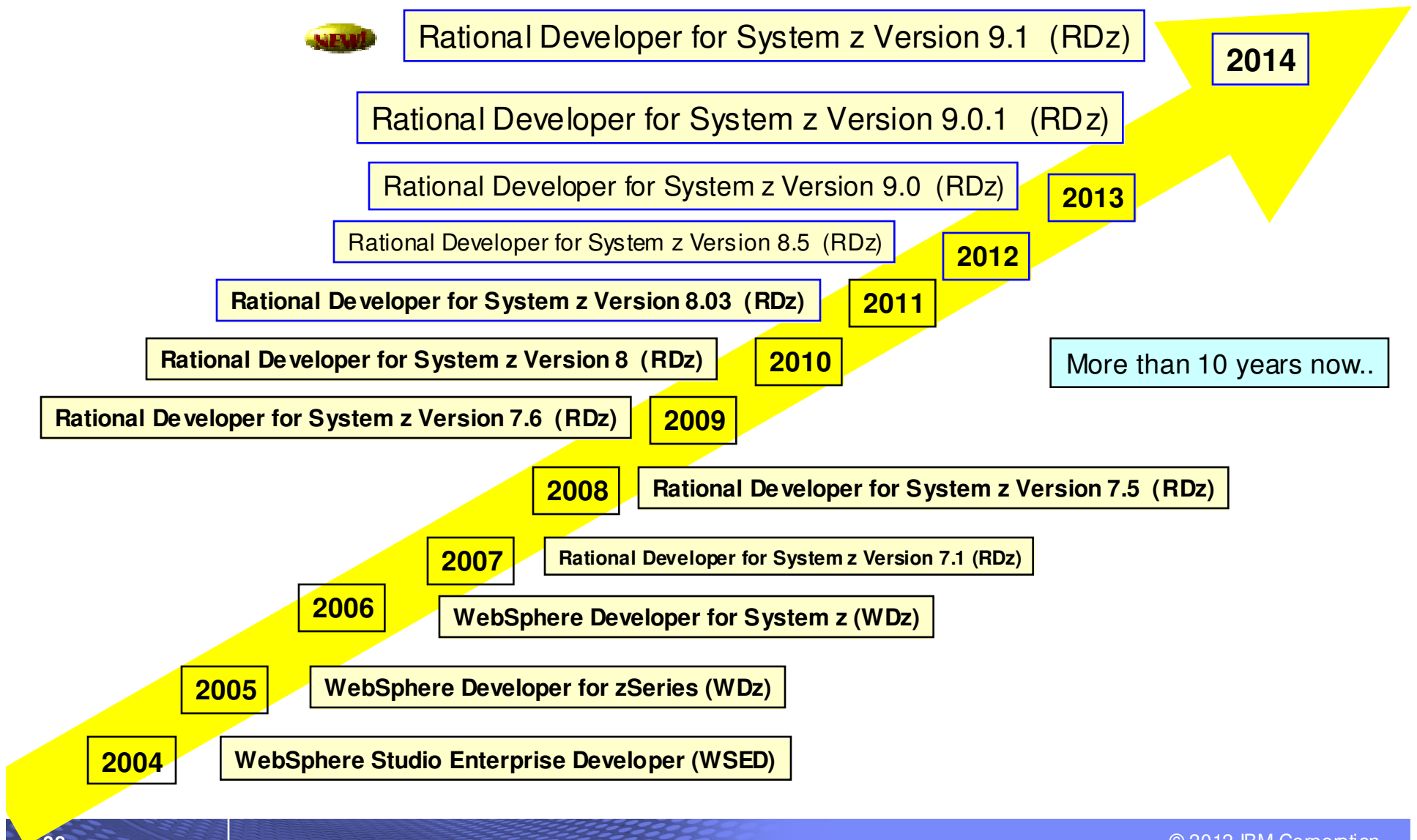


Summary

Eclipse – an open Integrated Development Environment for the enterprise

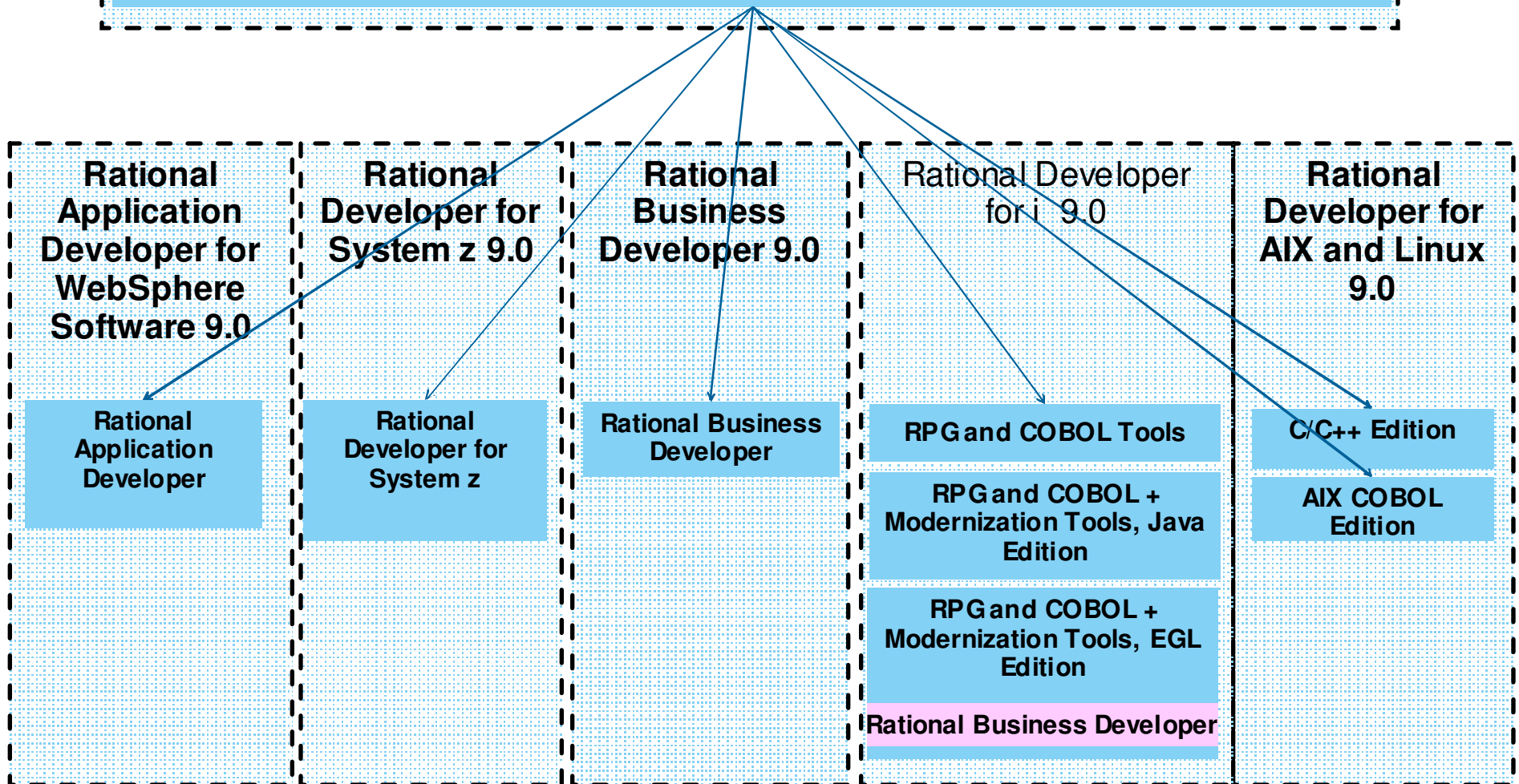


History of Rational Developer for System z



Rational Developer for the Enterprise 9.0

Rational Developer for the Enterprise



http://www.ibm.com/developerworks/downloads/emsandbox_systemz/index.html

IBM English Sign in (or register)

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Enterprise Modernization Sandbox for System z

NEW Manage the CICS ecosystem with CICS Explorer
Learn how to manage transaction resources using IBM CICS Explorer, a new graphical CICS interface tool, which enables you to create customizable, task-oriented views of your CICS environment. [More >](#)

Update My dW interests (Log in | What's this?)
Analyst report: IBM problem determination tools lead

IBM products available in this sandbox

- Business planning and alignment**
 - Rational System Architect
- Project and portfolio management**
 - Rational Focal Point
 - Rational Asset Analyzer
- Design and development**
 - Rational Developer for System z
 - Rational Developer for zEnterprise
 - Rational Host Access Transformation Services
 - Rational Business Developer
 - Rational Application Developer for WebSphere Software
 - Rational Software Architect for WebSphere Software
 - WebSphere ILOG Rules for COBOL
 - Optim Development Studio
 - z/OS Problem Determination Tools
 - CICS Explorer
- Collaborative application lifecycle management**
 - Rational Team Concert
 - Rational Requirements Composer
 - Rational Quality Manager
- Middleware**
 - CICS
 - CICS Transaction Gateway
 - DB2
 - DB2 Enterprise Server Edition
 - IMS
 - IMS Enterprise Suite SOAP Gateway
 - IMS Message Format Service (MFS) Web Solutions
 - IMS TM Resource Adapter
 - IMS Web 2.0 solutions
 - TXSeries for Multipatforms
 - WebSphere Application Server
 - WebSphere MQ
- Connectivity**
 - IBM System z

Try new IBM Enterprise modernization products, hands-on, with no install
Try out IBM mainframe and enterprise modernization products running in environment. Hands-on exercises step you through real-world scenario installation required! Here for the first time? [Set up your system](#) and ac help information to get the most out of your experience.
[Start your trial now](#)

Set up your system to access the trial
If you're here for the first time, follow these steps to get up and running quickly.

- Download and install the Citrix client. (Click the Back button on your browser this page.)
- Select a product or an exercise from the table below and print the exercise instructions.

Scripted, hands-on exercises you can try in the Sandbox

Exercise instructions (in pdf)	Products used in the
Manage application portfolio and business rules • Analyze mainframe applications	• Rational Asset Analy.

Related links
• IBM software downloads
• IBM software product finder

Open Services for Lifecycle Collaboration (OSLC)



Open Services for Lifecycle Collaboration

Open interfaces. Open possibilities.

*An industry initiative
for making it easier to use
software delivery tools in
combination.*

Barriers to sharing resources
across the software lifecycle

- ▶ Multiple vendors, open source projects, and in-house tools
- ▶ Private vocabularies, formats and stores
- ▶ Entanglement of tools and data

▶ **The Open Services initiative is**

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- **Delivering** loosely coupled resource formats and services with “just enough” standardization

SIEMENS

dbMAESTRO



iTKO LISA™

ascendant



BSD GROUP
Better Software Development

Tasktop



ORACLE®

Customer feedback



"By helping us to make project deliveries more repeatable and predictable, we anticipate that Rational Team Concert will **reduce project overrun costs by 20%**."

--Matt Pomroy - Executive, Software Engineering, Ascendant Technology

"Its automated project management dashboards are transparent to everyone – not just managers. This immediate and **automated feedback helps keeps teams on track and motivated** to achieve project goals."

--Han Jie - Senior Consultant, Siemens

"Where we previously used separate systems, with Rational Team Concert we now have well integrated functionality. **Our developers are more efficient because they are better able to focus on important issues**. Our project managers greatly value the ability to customize these dashboards and **instantly provide status** on their milestones!"

--Mika Koivuluoma - Production Manager, TietoEnator



"Having a **unified and extensible environment is very compelling for us**. Rational Team Concert provides **the team transparency and visibility needed to keep work progressing** so everyone knows what's going on without finger-pointing."

--Carson Holmes - Unified ALM Services Manager, Noblestar



"With IBM Rational Team Concert we've seen a **30% productivity gain** on our global projects. The ability to **easily suspend and resume work, along with advanced SCM features**, helps team members juggle multiple tasks and priorities without missing a beat."

--Alain Bergeron - VP Consulting Services, CGI

Questions?



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IBM Executive IT Architect



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& Development GmbH
Schönaicher Strasse 220
71032 Böblingen, Germany*

*Office: +49 (0)7031-16-3796
wilhelm.mild@de.ibm.com*