



Accelerating Innovation through Information Technology and Enterprise Modernization

Leigh Williamson, Chief Technology Officer Team
IBM Software, Rational

IBM Software

Innovate2011

The Premier Event for Software and Systems Innovation

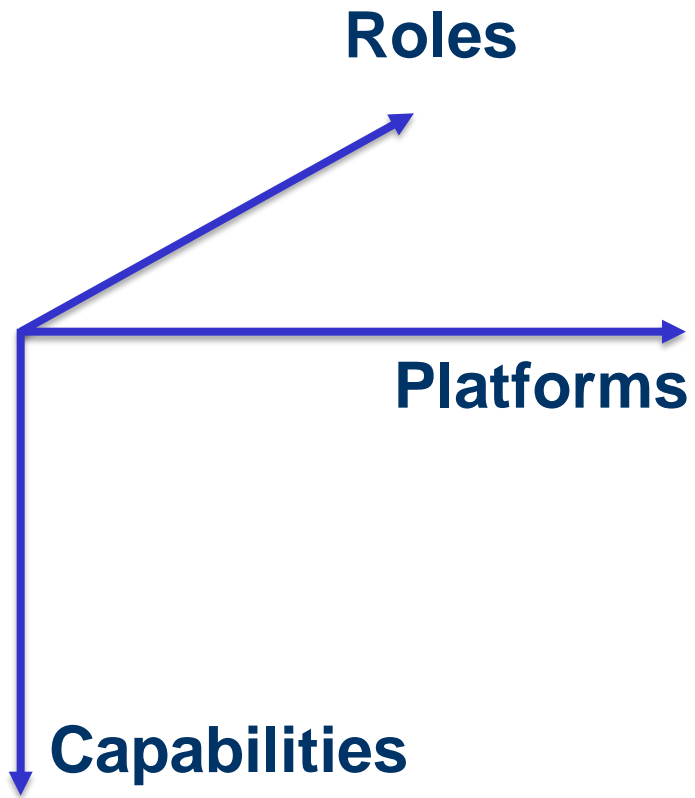
 **Software. Everywhere.** August 9-11, Bangalore | August 11, Delhi



What do teams need to improve their efficiency?



Integration Dimensions



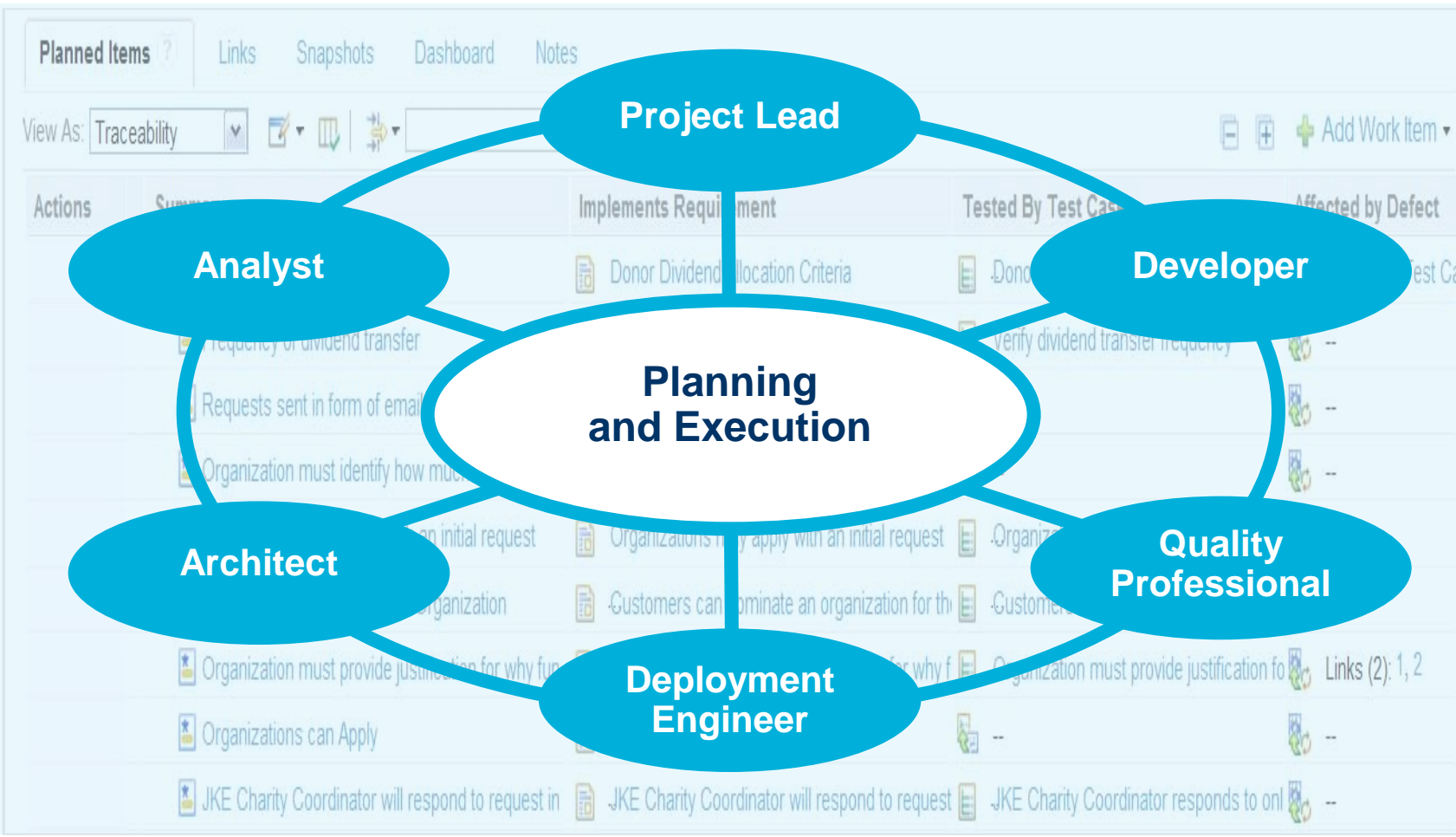
The Five Imperatives of Application Lifecycle Management

Improve productivity 4-6% annually

1. Accelerate **time to delivery** with real-time planning
2. Improve **quality** with lifecycle traceability
3. Maximize **time to value** with in-context collaboration
4. Refine **predictability** with development intelligence
5. Reduce **costs** with continuous improvement



Imperative 1: Real-Time Planning



Task Board

Change and Configuration Management (Jazz)

Rational Team Concert

Project Dashboards > Work Items > Plans > Builds > Reports

All Rational Team Concert Dashboards > Rational Team Concert > RTC Development >

Tracking and Planning

General Buildmeister Wallboard **Work Item Taskboard** Planning Taskboard

Work Item Taskboard

Taskboard for the Work Item team for the current sprint.

Story	Open	In Progress
<p>✓ Need a mechanism to automatically</p>	<p>Create tech note on the use of "comment" as a</p> <p>Article about contributing WEB UI presentations</p> <p>Improve Work Item web WorkItemProxy</p> <p>Update http://jazz.net/library</p>	<p>Restricted access presentations</p> <p>2 hours</p> <p>30 minutes</p> <p>1 hour</p> <p>2 hours</p> <p>4 hours</p> <p>1 day</p> <p>2 days</p> <p>3 days</p> <p>1 week</p> <p>Layout issues on "Link To Existing Defect" dialog</p> <p>Queries marked "changed" on opening or just</p>

Imperative 2: Lifecycle Traceability

Instant access to details from any point in the development process



Requirements – Development

Requirements Management (RM)

Rational Requirements Composer (RM)

Requirements Dashboard Artifacts Collections Reports

Rational Requirements Composer (RM) > Release Scope (DCP) >

483: User Requirements Planned for RRC v

Page size: 20

Previous | 1 2 | Next

ID	Name	Artifact Type	Implemented By
296	Common - Linking		
315	Common - User Dashboards		
		User Requirement	99047: Improve and deepen traceability links & views, add support impact/suspect links
		User Requirement	151399: RM - User Dashboard Layout Controls
		User Requirement	148456: RM - Audit Trail Change History and Audit Trail Change co
		User Requirement	151401: RM - Query/filter and sort based on Reqt. Attributes (quick
		User Requirement	148454: RM - Rich Text Editing for Requirements Elicitation and D
		User Requirement	151402: RM - Document Picture/Graphics Support
		User Requirement	141432: RM - Text and graphical embedding in a rich-text artifact
		User Requirement	151404: RM - Requirements Collections and Baselines
		User Requirement	148938: RM - Relationships for Traceability Structure
324	Common - Multi-level Traceability View	User Requirement	148455: RM - Multi-level Traceability View

Filter by Attribute

- Name
- Artifact type
- Last modified by
- Last modified on
- Limit by lifecycle status: Development
Items: Open
- More attributes
- Linked artifacts

Artifact Type Implemented By

User Requirement 99047: Improve and deepen traceability links & views, add support impact/suspect links

User Requirement 151399: RM - User Dashboard Layout Controls

Development – Test

CLM 3.0.1 * ?

241 items: 170 open, 71 closed | Ends in: 52 days

Plan Details

Planned Items ? Links Snapshots Dashboard Definition of Done Executive Status Help Wanted Notes Planning Notes Schedule Wish list

View As: Coverage (131 items filtered)

Actions	Summary	Status	Tested By Test Case
	(Finish) CLM reporting	Testing	Links (26): 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23
	(Finish) Define and Implement C/ALM Reports	Testing	Links (14): 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14
	(Finish) Provide common install for Rational Workbench for CLM	Implementi	Links (7): 1, 2, 3, 4, 5, 6, 7
	Implement C/ALM 2009/2010 to C/ALM 2011 upgrade strategy a	Testing	Links (6): 1, 2, 3, 4, 5, 6
	(Finish) Implement uniform licensing model	Testing	Links (22): 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22
	(Finish) Common administration of a project	Testing	Links (5): 1, 2, 3, 4, 5
	(Finish) Support work items as a service	Ready to Tr	Links (3): 1, 2, 3
	Support RQM local Defect enhancements in C/ALM setup	Testing	Links (4): 1, 2, 3, 4
	Improve CLM Usability	Ready to Tr	Links (8): 1, 2, 3, 4, 5, 6, 7, 8
	Decouple built-in Requirements from RQM	Testing	Links (7): 1, 2, 3, 4, 5, 6, 7
	Improve and deepen traceability links & views, add support for c	Testing	Links (5): 1, 2, 3, 4, 5

Add Tested By Test Case...

Test Case? Complete OSLC v2 support "Must" specification level Ready to Tr

Jazz Collaborative ALM

Requirements Planning Construction Lab Management Builds Execution Reports

Quality Dashboard 20: CLM Smoke/BVT Test CLM Smoke/BVT Test E

Work Items > Queries > Search Results for CLM smoke >

Previous | 42 in 1 - 50 | Next

Defect 149938

Summary: Failing Test Case "CLM Smoke Test" when executing Test Execution Record "CLM Smoke Test" Resolved

Overview Links Approvals History

Attachments

Add File: Browse...

No Attachments.

Links

Add: Related

- Affects Test Result
 - 205: CLM Smoke Test_CLM Dev Test - Tomcat 5.5_Derby 10.5_Firefox 3.5_Windows XP
- Related Test Case
 - 20: CLM Smoke/BVT Test
- Related Test Plan
 - 7: CLM 3.0 Dev Test
- Affects Plan Item
 - 139485: Track CLM 2011 M12 (November 8 - January 14)

No Links.

.../Main
page at <https://clmwb:9443/admin>

... as name for the project
... ple USER playing all roles. Create a new
... /its/admin > User Management and

Add Comment

OK Cancel

Create New Defect

Type: Defect

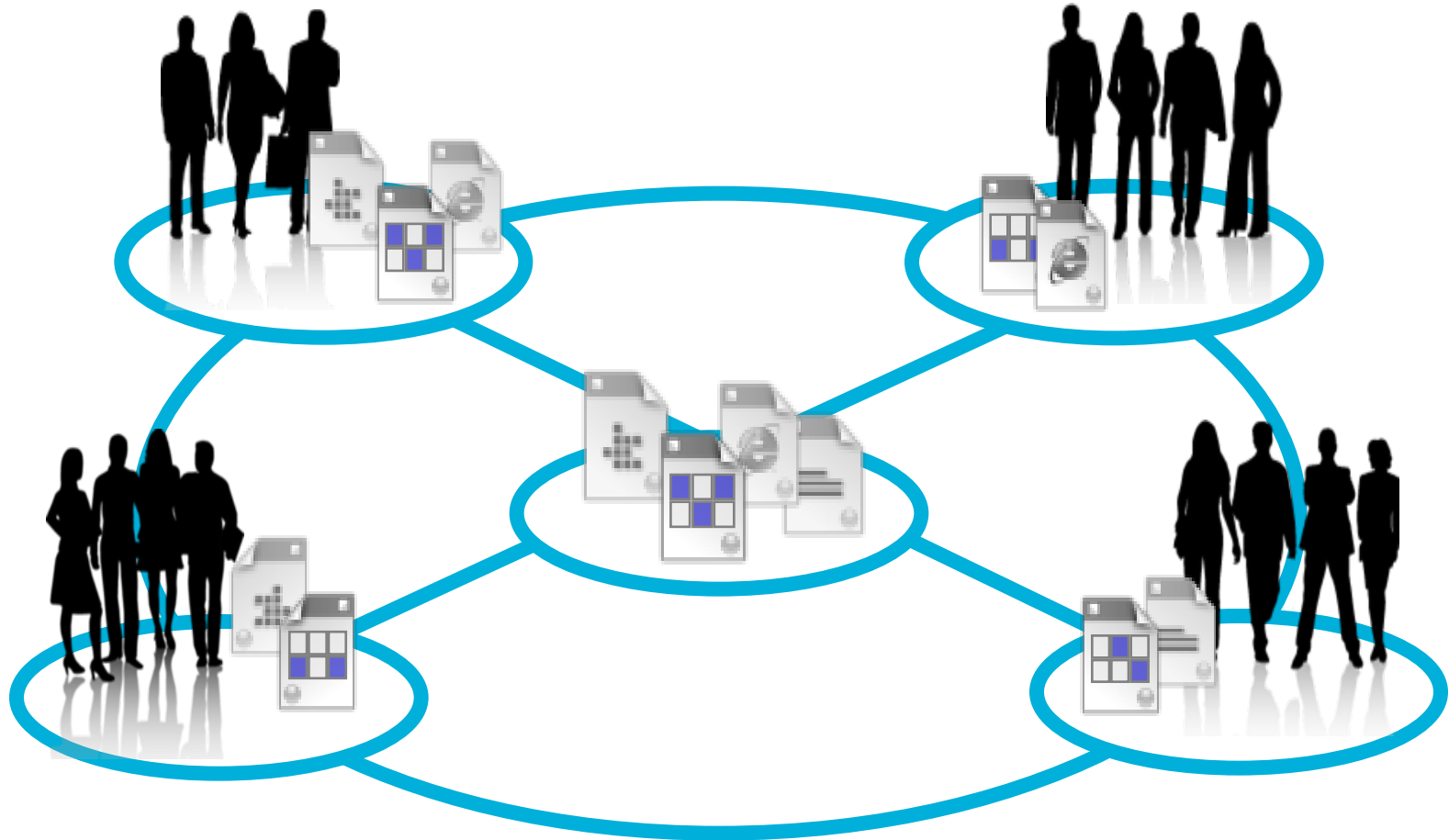
* Failing Test Case "CLM Smoke/BVT Test" when executing Test Execution Record "CLM Smoke Test"

We run the script as a single USER
new USER and assign it the correspond

User management

- Go to <https://clmwb:9443/jts/admin> > User Management and create a new user USER

Imperative 3: In-Context Collaboration



27. Sanket Jain May 26, 2011 3:57 PM

Build and Deploy Status -

- The latest build [rtc.jcb RTC-I20110525-2359](#) is RED due to Workitem JUnit Test failure - Defect 162255
- Manually promoted [rtc.jcb RTC-I20110525-2359](#) build
- [rtc.jcb RTC-I20110525-2359](#) build is based on [foundation.stable.jcb RJF-I20110525-2115](#)

28. Johannes Rieken May 26, 2011 6:02 PM

Rejected because we had two deliveries today

29. Sonia Dimitrov May 26, 2011 6:09 PM

Given the jazzdev outage scheduled for 8 pm ET this evening, I would like to move the 4:30 pm build up to 2 pm with the aim to get a CLM build based on this to allow testers in India to test a fix for [defect 167061](#).

@martina - can you get the fix for [defect 167061](#) delivered before 2 pm ET?

@dassarma - is it possible to get a CLM build based on a [rtc.jcb](#) build that will complete around 8 pm?

30. John Camelon May 26, 2011 7:15 PM

Rejected as we will be wanting to include [work item 167296](#).

31. Tim Mok May 26, 2011 7:43 PM

Delivered change for [work item 167296](#) to RTC Integration.

32. Martha DasSarma May 26, 2011 8:14 PM

@sdimitro re comment 29. The [rtc.jcb](#) build is taking around 6 hours and 30 minutes. Not sure if one will get done before the outage at 8PM and I don't see one running yet. I will keep an eye.

33. Sonia Dimitrov May 26, 2011 9:21 PM

Given the outage, the next complete [rtc.jcb](#) build should complete sometime around 5 am ET tomorrow (Fri). The 10:30 pm build has been pushed to 11:15 pm.

34. Jared Burns May 26, 2011 11:18 PM

Rejecting due to required CAL changes being tracked in [Update CLM CALs due to change of process authoring operation IDs \(167392\)](#)

35. Sanket Jain May 27, 2011 10:22 AM

Build and Deploy Status -

- The latest build [rtc.jcb RTC-I20110526-2015](#) is green and is based on [foundation.stable.jcb RJF-I20110526-1745](#)
- [rtc.jcb RTC-I20110526-2015](#) has been deployed to [jbslnxvh04](#).

36. Sonia Dimitrov May 27, 2011 1:44 PM

I have created a new approval item and moved some folks over based on new contributions between [rtc.jcb RTC-I20110526-2015](#) and [rtc.jcb RTC-I20110525-2359](#).

37. Guy Slade May 27, 2011 3:48 PM

[SVT_RC3_W2: Binary rebuild does not rebuild COBOL file if trust output is true \(165938\)](#) has just been reopened on us. Investigating now to see what the deal is and whether we can fix it today



Change and Configuration Management (Jazz)

Rational Team Concert

Julian Jones

Search Work Items

UX and Design 3.0.1

Auto-Save Save

Plan Details Edit

Planned Items Links Snapshots Dashboard Notes Plan - Enterprise Extensions

View As: Backlog (Legacy) (25 items filtered) Add Work Item

3.0.1 [11/15/10 - 6/3/11] Progress: 77.5 h Estimated: 63%
 Closed Items: 25 | Open Items: 8

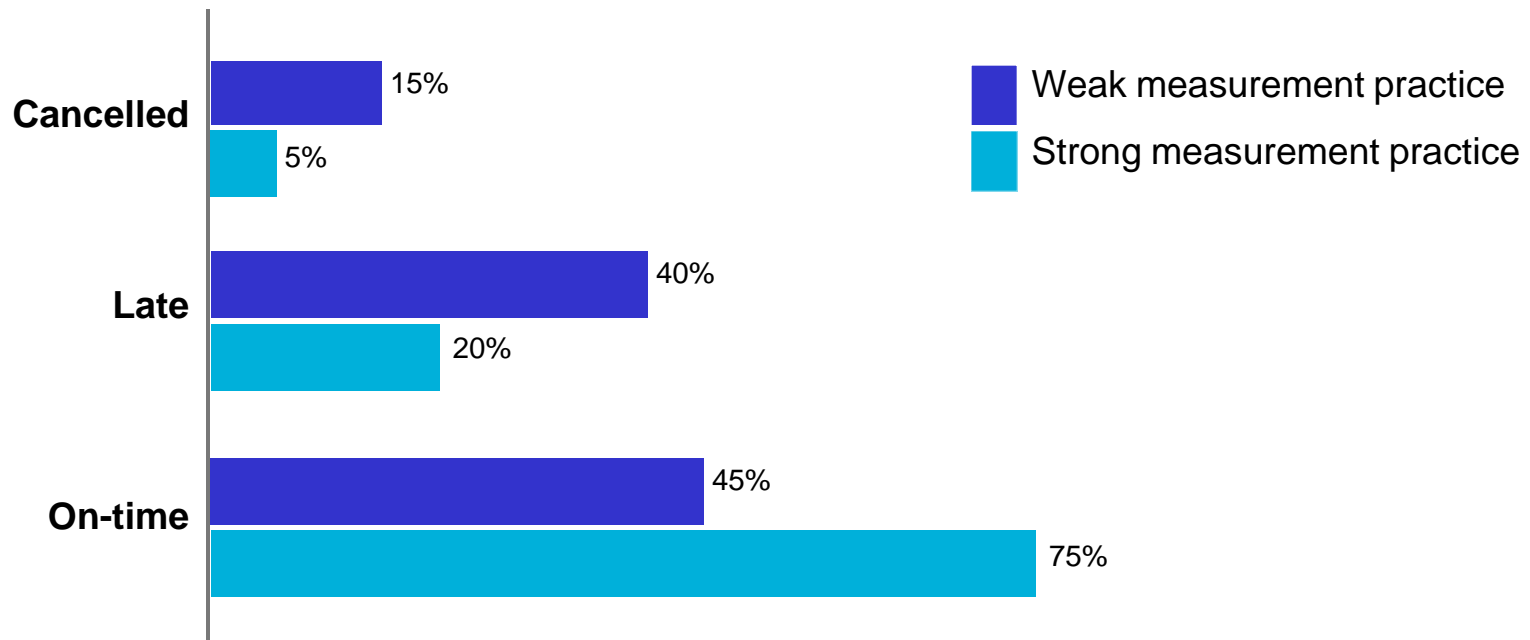
Actions	Summary	Priority	Progress
	Web UI: Required Input fields should be marked according to design specification	High	0/0 h
	[Work Items] Update Work Items web UI to 2010 common style	High	0/0 h
	Finish: UI Conformance updates for the RTC web client	Medium	0/0 pts 0/0
	User experience improvement items in RTC web and eclipse clients	High	0/0 pts 4/4
	UX reviews - RTC-EE GUIs and workflow design	Unassig	0/5 pts 2/2
	[oslc] Source Control: Design for the content of small and large previews of a change set	Medium	0/0 h

3.0.1 M12 [11/15/10 - 1/14/11] No Work Estimated: --
 Closed Items: 0 | Open Items: 0

3.0.1 M13D1 [1/17/11 - 2/4/11] Progress: 2/2 h Estimated: 100%
 Closed Items: 3 | Open Items: 1

Imperative 4: Development Intelligence

Measurement Practices Impact Project Success



Source: Capers Jones, Measurement, Metrics and Industry Leadership, 2009 and [Software Engineering Best Practices](#), McGraw Hill, 2010.



Release Burndown

Change and Configuration Management (Jazz)

Jazz Collaborative ALM

Project Dashboards ▾ Work Items ▾ Plans ▾ Builds ▾ Reports ▾

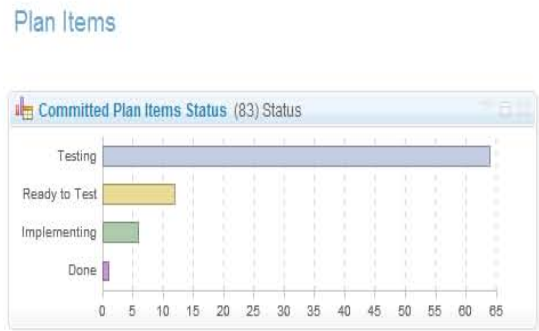
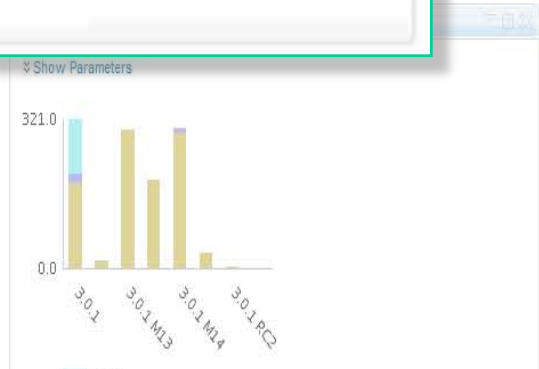
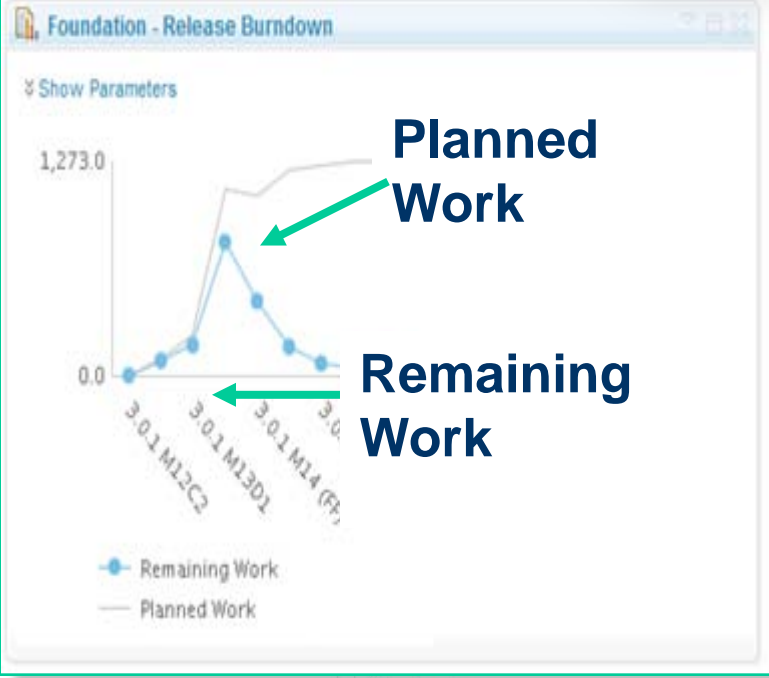
All Jazz Collaborative ALM Dashboards >

Jazz Collaborative ALM

General Commitments, Risk Plan Item Status Incomplete Stories **Release** ▾ Deferred Current Iteration RC

CLM Blockers Reporting CLM Must Fix Defects Defects Blocking SVT CLM May Fix Defects SVT Open Defects SVT Triage Foundation Adoption TVT Defects Accessibility Must Fix Defects Other Must Fix Defects

Other May Fix Defects CLM Defect Position Enhancements CLM BMC Resolved in Last 24 Hours BMC Wishlist Managed Releases Upgrade QCERT Requirements Coverage + Add Widget



- ### Application Dashboards
- CCM Iteration Burndown by Team
 - CCM Release Burndown by Team
 - JF Iteration Burndown by Team
 - JF Release Burndown by Team
 - QM Iteration Burndown by Team
 - QM Release Burndown by Team
 - RM Iteration Burndown by Team
 - RM Release Burndown by Team

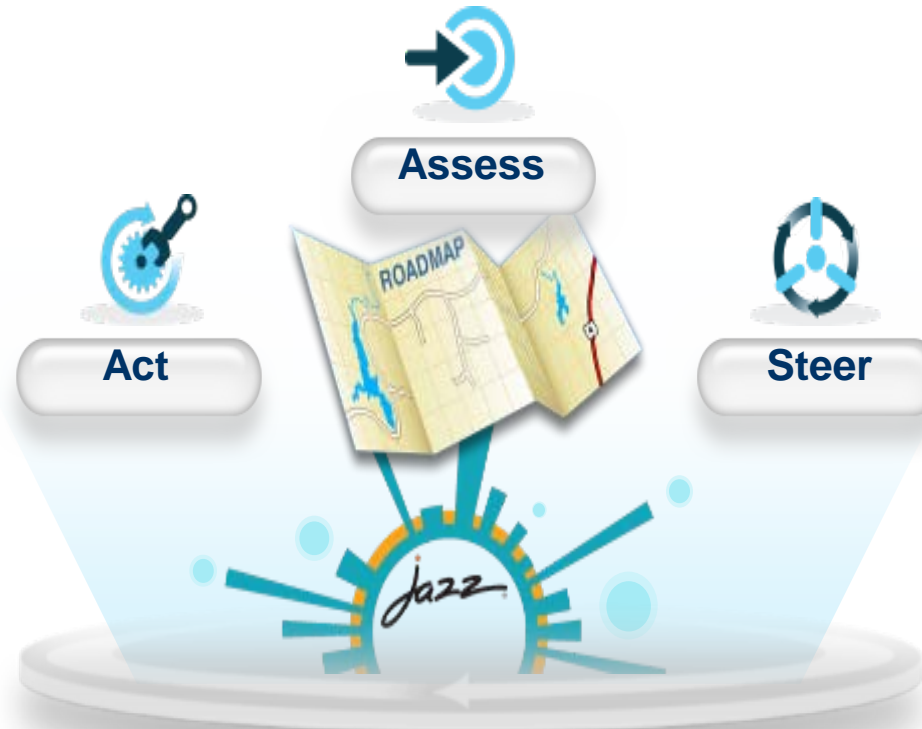
Information Radiators: *Wallboards*



Gummy bears



Imperative 5: Continuous Improvement



“Successful analytics requires taking it beyond software and reporting, and into the realm of management practices and operations improvement.”

Information Management Online, February 23, 2011

Plan Item 99050 ?

Summary: (Finish) CLM reporting

Overview Commitment Execution Done Criteria

Commitment

Testing: → Covered

Done Criteria

From the perspective of the Jazz Foundation SVT team, the Done Criteria is as follows:

-Consumability and procedure of running ETL jobs for generating report data is verified to function properly in an enterprise environment; can support complex topologies, dissimilar hardware and middleware, and long periods of time. Comfortably scores 3 or above on related consumability metrics, and no related high severity defects are unresolved.

-Consumability and procedure of creating report template is verified to function properly in an enterprise environment; can support complex topologies, dissimilar hardware and middleware, and is reliable over long periods of time. Comfortably scores 3 or above on related consumability metrics, and no related high severity defects are unresolved.

-Consumability and procedure of using report template for report creation and publishing is verified to function properly in an enterprise environment; can support complex topologies, dissimilar hardware and middleware, and is reliable over long periods of time. Comfortably scores 3 or above on related consumability metrics, and no related high severity defects are unresolved.

Coverage Description

CCM Reporting passed Sanity level testing;

Distributed Windows Environment, All ETL's are passing and RRDl reports all run without error. In SVT Final more comprehensive testing will be done, including customizing sample reports, running ETL's more extensively to verify accuracy.



Jazz Collaborative ALM

Dashboard Tuning

General | Commitments, Risk | Plan Item Status | Incomplete Stories | Release

M14 Iteration | CLM Defect Backlog | Enhancements | CLM PMC | Resolved in La

CLM May Fix | Requirements Coverage | Accessibility Must Fix Defects

CLM Defect |

Accessibility

- Select Category
- Select Category
- All
- Build
- Cognos
- Feeds
- General
- Help
- Process
- Project/T
- Quality M
- Rational
- Reports
- Source C
- Work Item
- Add External
- Add Op
- Add IBM

Executive Summary

Requirements: Permit staged upgrades of independent products to CLM 2011 topology with shared JTS, no ordering imposed (JTS at latest level of all app). No 2.x rich client backward compatibility; except for RTC 3.0 clients (Eclipse/VS) compatible with CCM 3.0.1. Upgrade steps crafted to optimize CLM system outage. RTC upgrade can perform in-place (addTable) or export/import (DB change). RQM and RRC both require export/import always, RRC doing some online upgrade. LPA requires CLM 2011 applications and JTS. Datamart -> Datawarehouse automated by ETL.

Status (27/05/2011)

- RC4 FVT testing assignments in progress with concurrent doc reviews - no blockers but a lot of doc feedback to process.
- 1 QM issue (51745) impacting CLM upgrade success (rich hovers) other than that, just RM product-specific upgrade issues

Upgrade defects should be tagged with "clm30migration"

CLM 2011 Plan Items (7)

- 99043: (Finish) Support work items as a service
- 99282: (Finish) Provide common install for Rational Workbench for CLM products
- 107921: Implement C/ALM 2009/2010 to C/ALM 2011 upgrade strategy across products
- 140783: Improve CLM upgrade and deployment support
- 141069: RM - Support upgrading RRC 2.x to 3.0
- 107963: Decouple built-in Requirements from RQM
- 105103: Define C/ALM 2010 topologies and enable transition of C/ALM products to those topologies

CLM Pending Issues (14)

- 166643: Help the user know when their migration is complete
- 167281: Command line syntax in documentation
- 167285: Inconsistency in repotools documentation
- 160608: Migration documentation does not cover migrating the data warehouse to a different DB
- 158881: Beta doc review: installation and

CCM Pending Issues (2)

- 153523: RTC 3.0 doc on Upgrading Rational Team Concert should include switching machines
- 139412: Add instructions for a manual "feel good" method of verifying successful migration of the RTC2.X public url to RTC3.0

RM Pending Issues (22)

- 42901: Link to documentation after failed migration is not helpful
- 42637: Determine why revisions of SavedFilters are not being migrated
- 42926: Document the upgrade of project archives to RRC3x ProjectTemplates
- 42957: Add more details on -oldApplicationHome parameter in rm_upgrade.bat -help
- 43060: Migration counter is off when upgrading a large data set
- 43386: RRC Upgrade Documentation - consistency between IUG and base doc - add reminder to 'RRC manual upgrade' for Tomcat secure port
- 43545: Invalid char in resource causes Sax Parser exception
- 43570: Remove the System.out.println in ReviewXMLFilter
- 43677: Migrating Links never appears to



CLM 3.0.1

244 items: 164 open, 80 closed | Ends in: 43 days

Plan Details

Planned Items Links Snapshots Dashboard Definition of Done Executive Status Help Wanted

View As: Coverage (119 items filtered)

Coverage

Options Columns

Sorting Ranking

Filter Expression type:Enhancement

Filter Expression type:Story

Filter Expression type:"Adoption Item"

Filter Expression type:Task

Colors Coverage? boca:"Base Content" blocks:svtCoverag

Colors

Colors

Colors

Colors

Failed failingTestCases:set

Set this view as default OK Cancel

Shared with: Jazz Collaborative ALM

Actions	Summary	DCP Boca	SVT Cov	Status	Tested By Test Case	Implements R
	(Finish) CLM reporting	Base Cont	Cover	Testir	Links (26): 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17,	346: Com
	(Finish) Define and Implement C/ALM Reports	Base Cont	Cover	Testir	Links (14): 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14	--

Plan Tuning

ALM Imperatives in Action

1. Real-time planning
2. Lifecycle traceability
3. In-context collaboration
4. Development intelligence
5. Continuous process improvement



Extending Integration to Traditional Platforms



COBOL Fun Facts

200x more COBOL transactions/day than **Google searches**

5 billion new COBOL LOC yearly

250 billion LOC of COBOL in existence

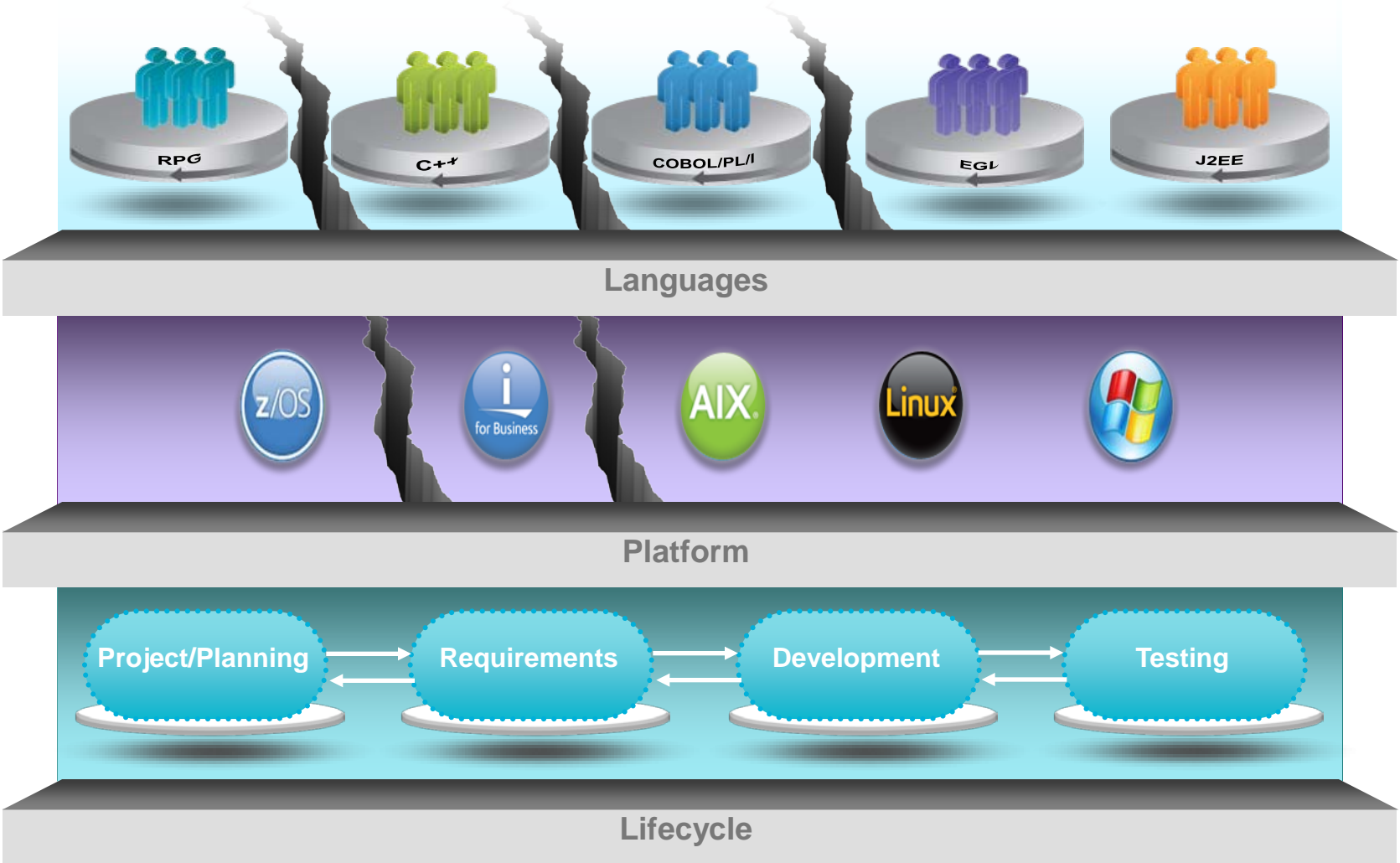
COBOL training **no longer offered** at most universities

Approximately all active code is **80% COBOL**

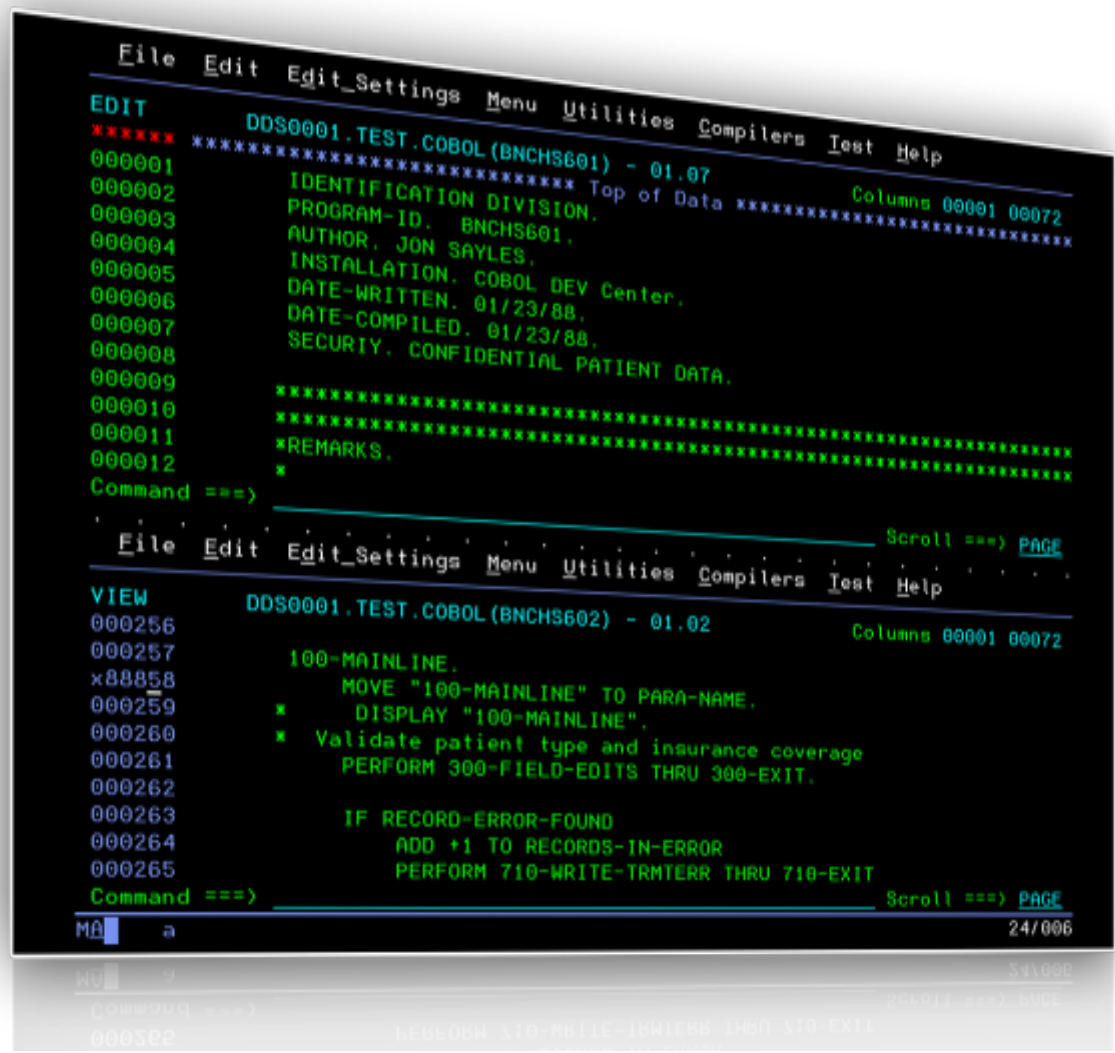
One million COBOL programs currently active



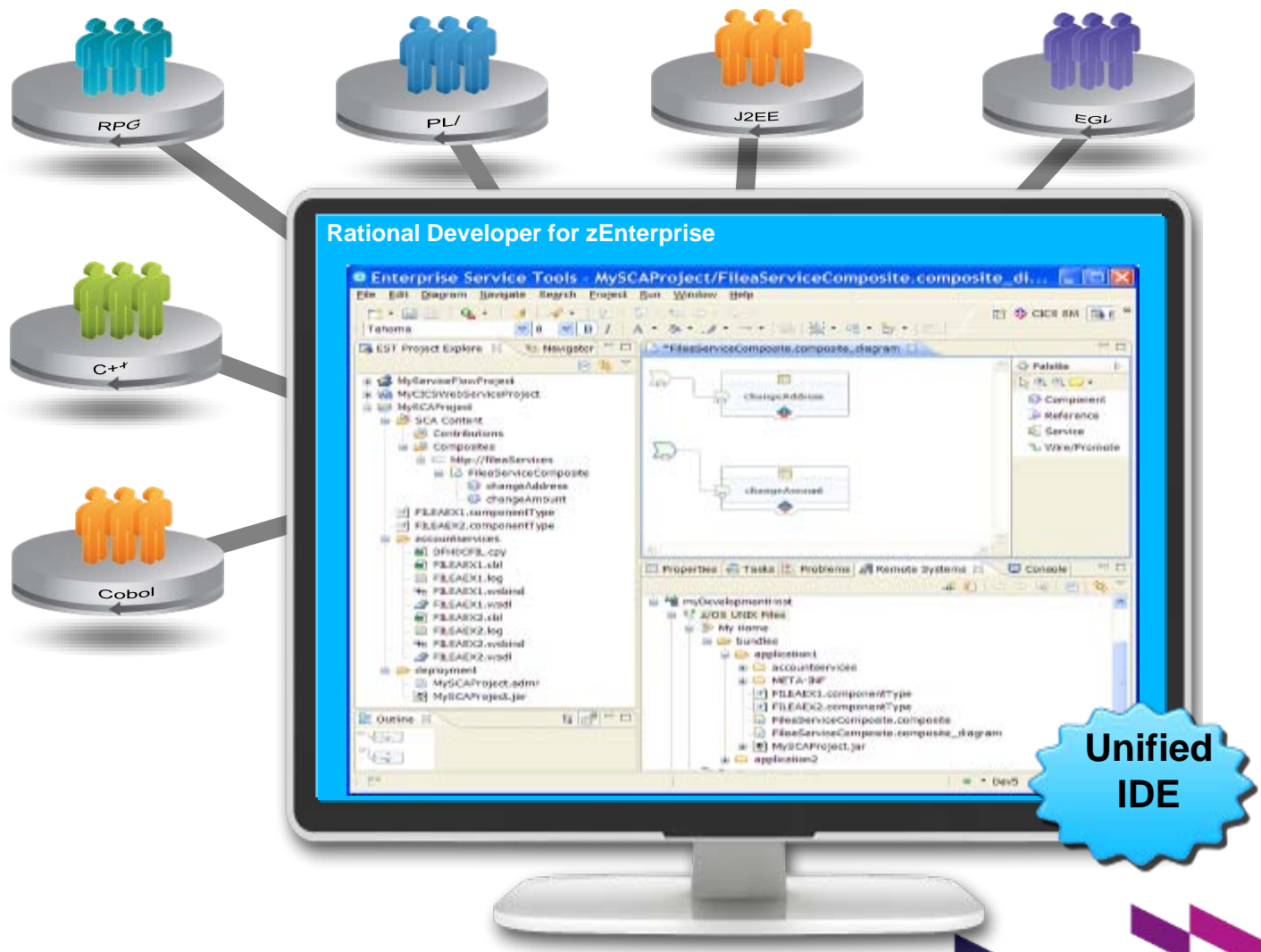
Remaining Enterprise Integration Barriers



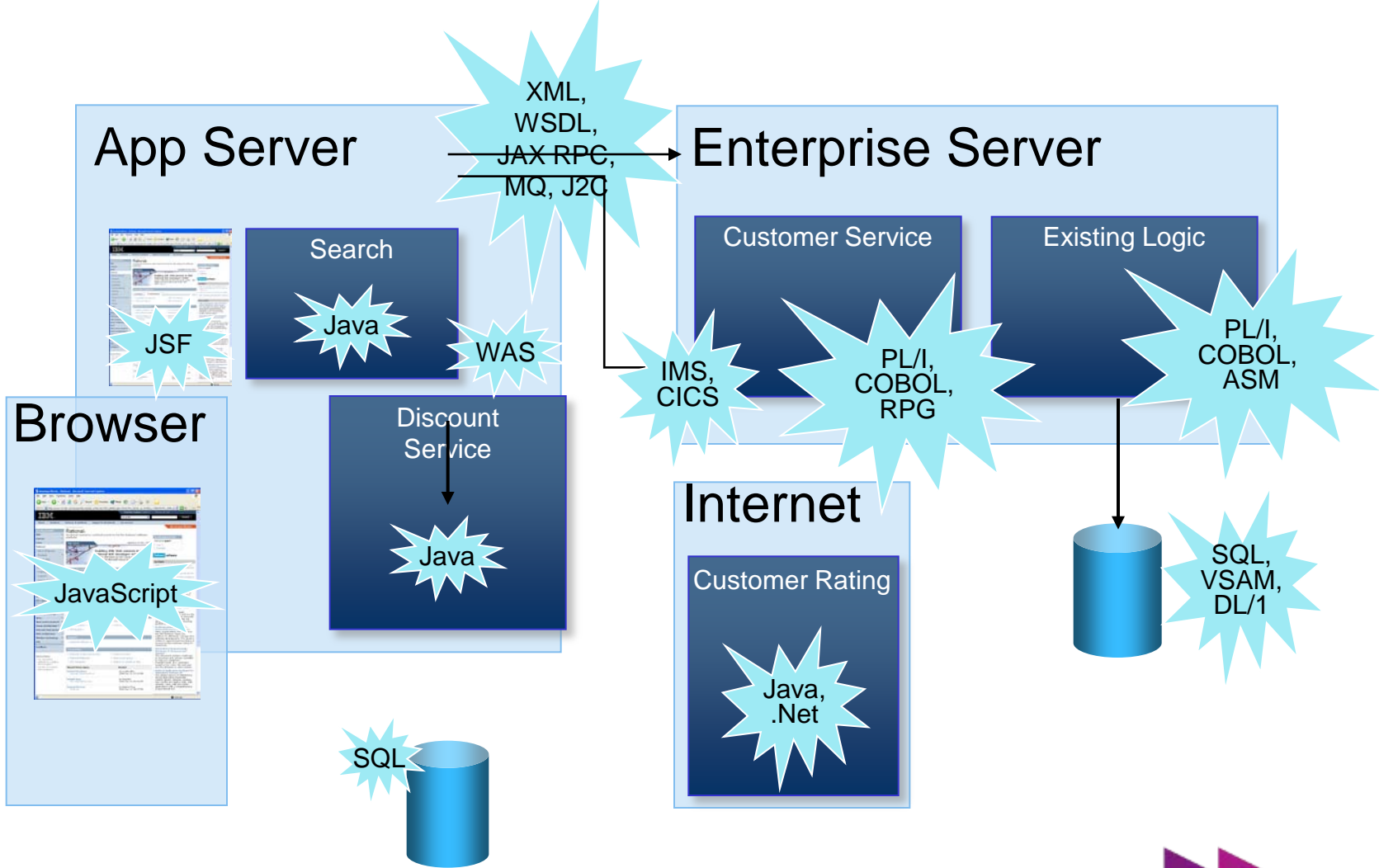
ISPF...Modern? Productive?



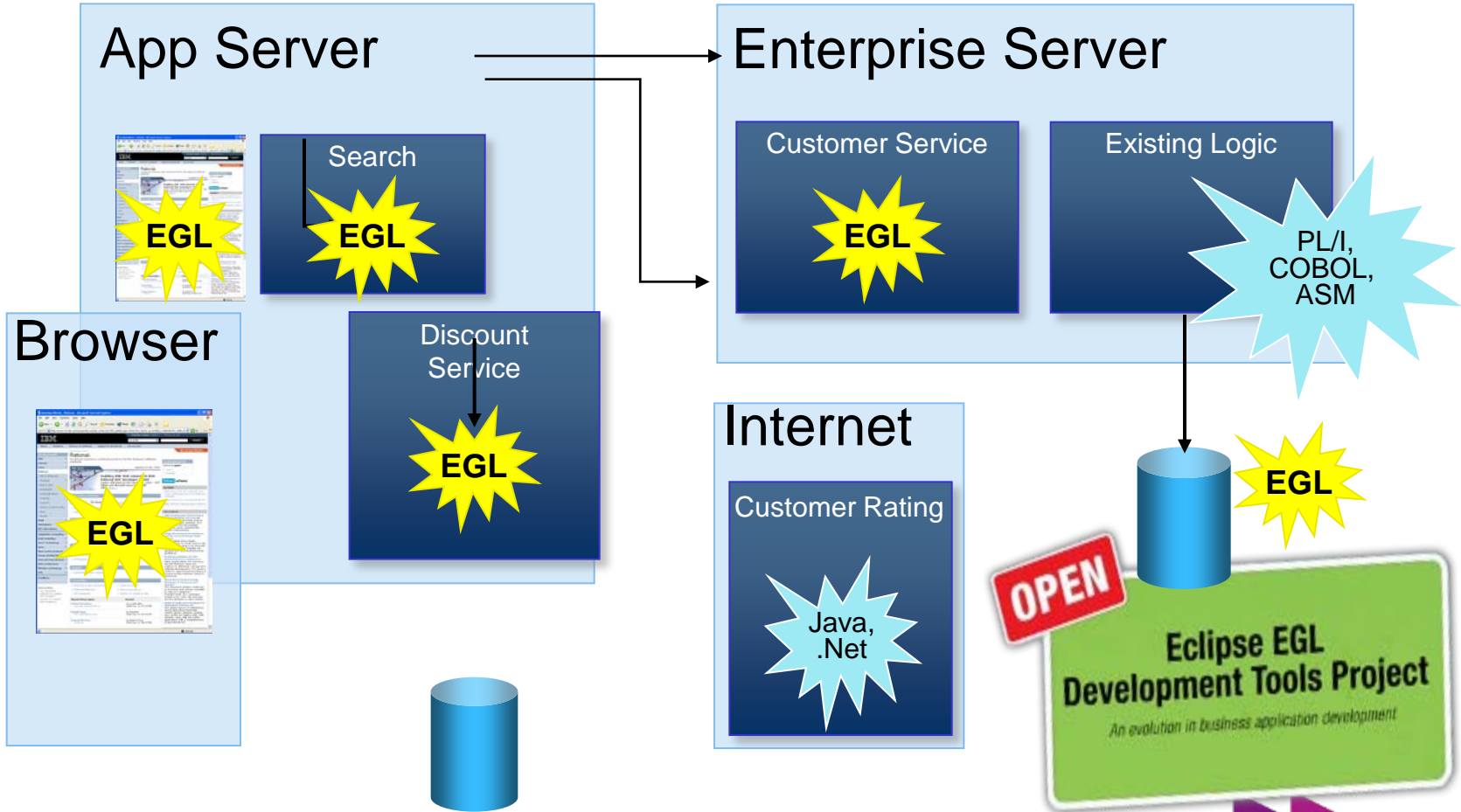
Modern and Productive!



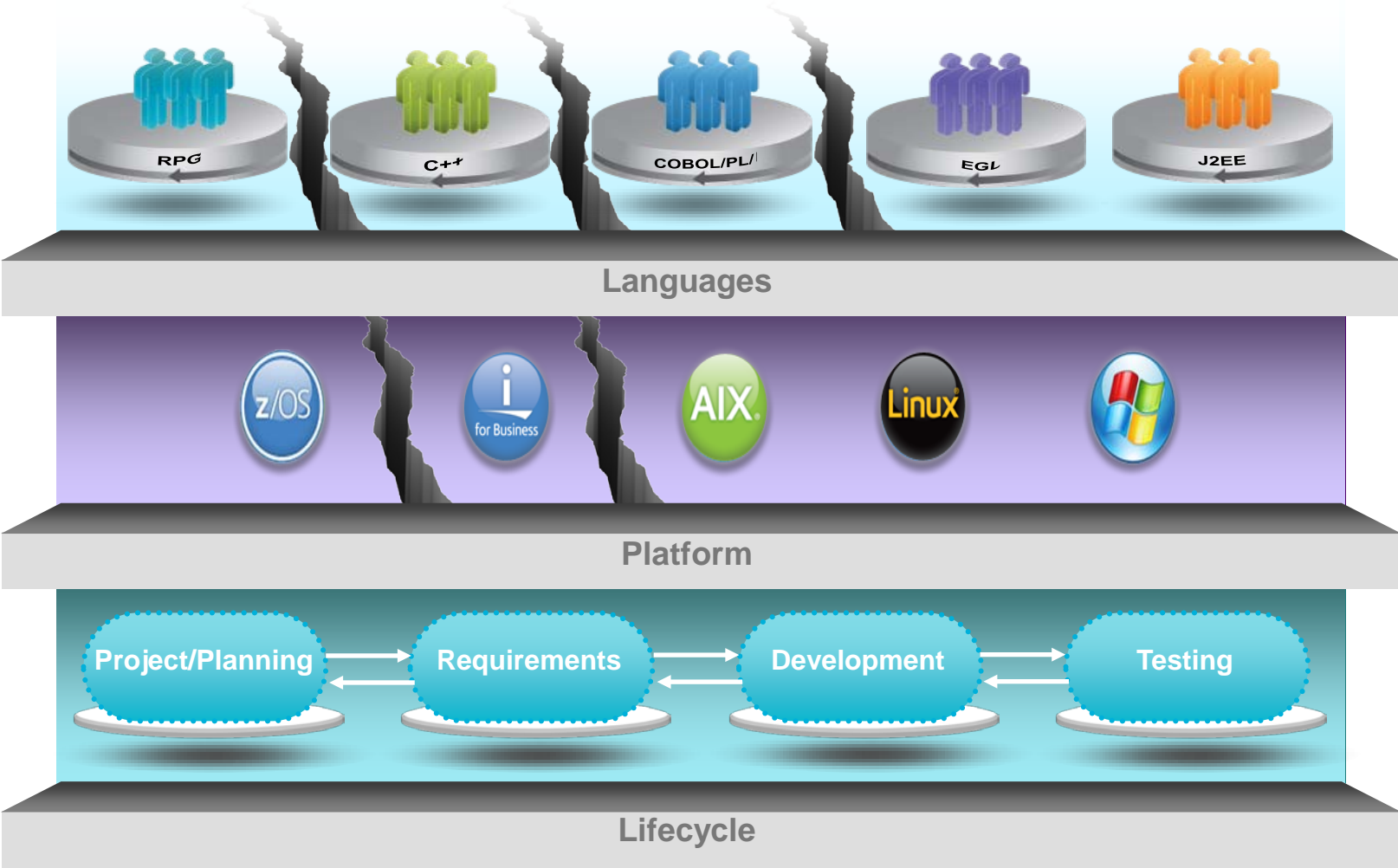
Middleware Complexities Exposed



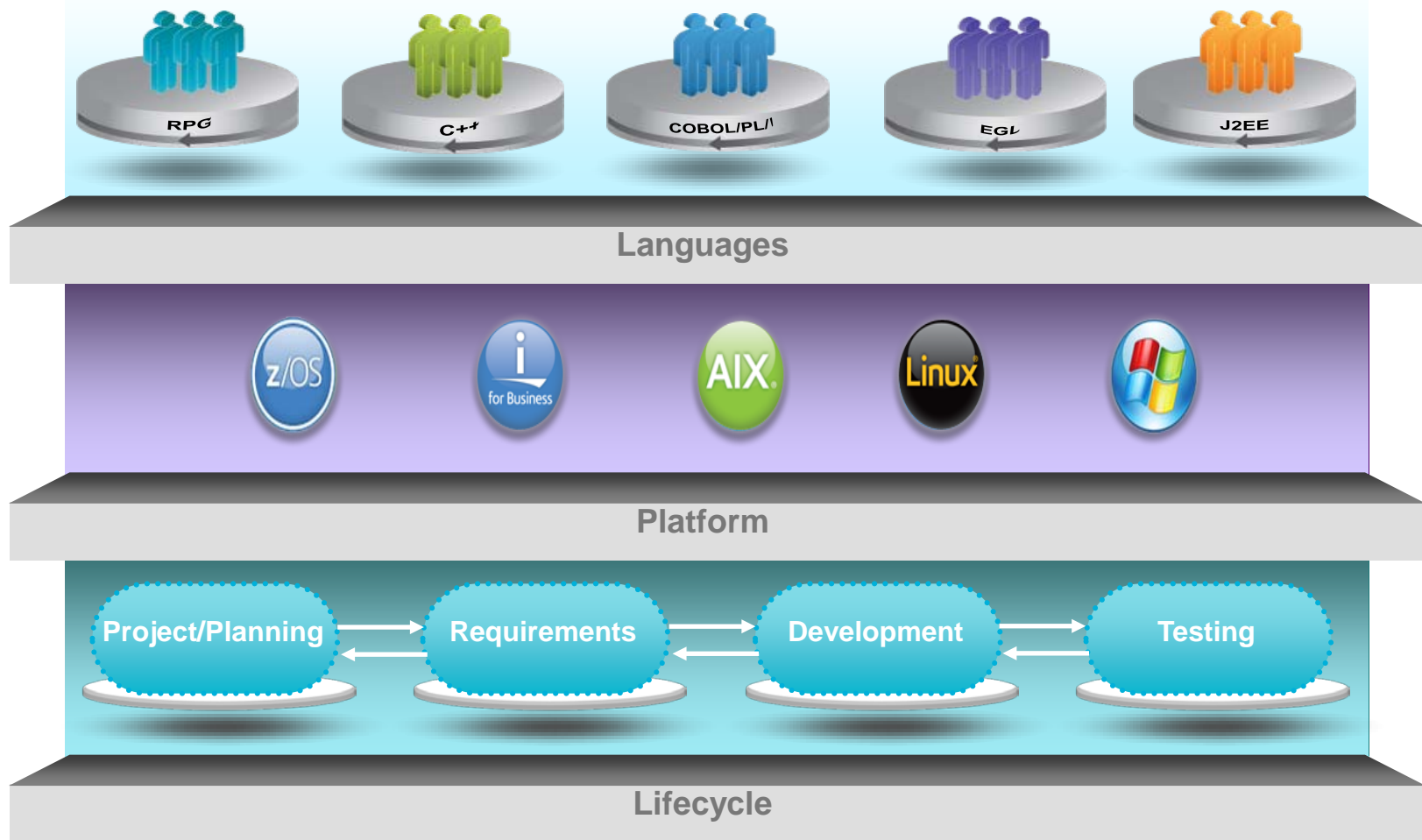
Middleware Complexities Hidden



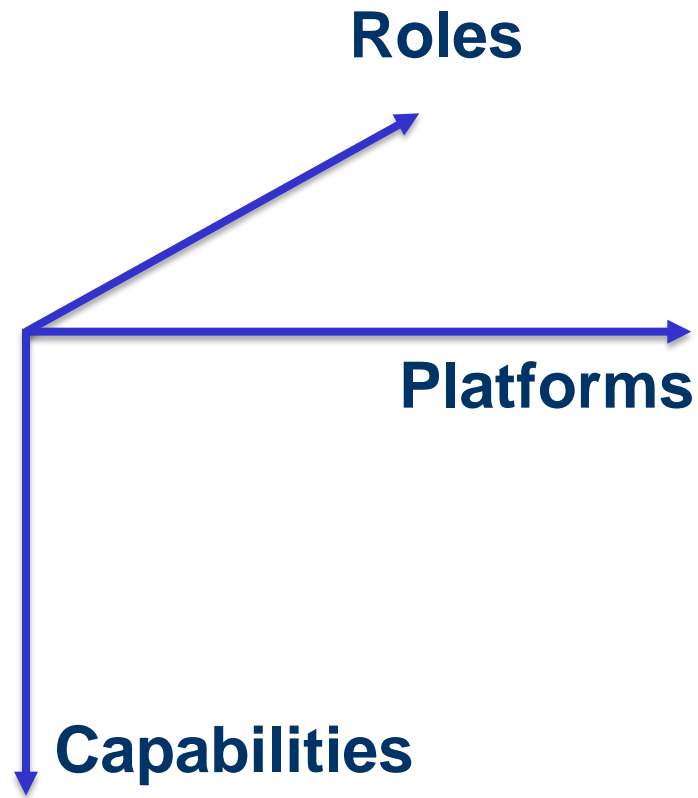
Disconnected Teams and Infrastructure



Integrated Teams and Infrastructure



Integration Matters



www.jazz.net

The screenshot shows the Jazz Community Site homepage. At the top, there's a navigation menu with links like Home, About Jazz, Roles, Projects, Downloads, Forums, Library, Development, and Community. Below the navigation is the site logo and a tagline: "We're building a new generation of products to make software and systems development more collaborative, productive, and enjoyable." A main banner features the text "CLM 2011 is coming June 14!" with a calendar icon showing June 6th and a note that says "8 more sleeps...". To the left of the banner are three sidebar items: "CLM is coming soon!", "Jazz Guide to Innovate 2011", and "Bets 3 now available". Below the banner is a "Jazz Team Blog" section with two entries: "Announcing the CLM 2011 release..." and "Countdown to CLM 2011: Part 4...". On the right side of the page, there are several utility buttons: "Learn about Jazz", "Take a tour of Jazz.net", "Explore development projects", and "Download products". At the bottom right, there's an "Events" section listing "IBM Innovate 2011 June 5-9" and "Jazz/RTC Open Mic Series: CLM web 3.0".





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QUESTIONS

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