

# **Evolving the Jazz Platform to Integrate Heterogenous Environments**

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# Nature of the Industries today

- 1 Heterogeneous tools environments are the norm not the exception



Even the most Agile organizations use three or four team tools. Some use as many as fifteen. Adoption of many tool categories is growing by 10% a year<sup>1</sup>.

- 2 Many organizations use more than one tool even for a single task



For instance the majority of organizations have two or even three SCM systems<sup>2</sup>.

- 3 Cloud, Mobile, Social and DevOps are forcing organizations to work in new ways



*Our customer are starting to ask themselves: can we achieve agility at the level of the project or the organization without hampering the hard-won agility of teams?*

# Heterogeneous Tool Environments are Fragile

Heterogeneous, federated tool environments create unique challenges. In particular, there is often friction and waste at the interfaces between tools and teams

Executives  
Business Sponsor



Designers,  
System Engineers



SW Developers,  
Testers



Administrators



- ⊗ No real time insight into progress and/or impediments to progress
- ⊗ No on demand visibility into costs and risks
- ⊗ No early warning of potential dangers that prevent waste and rework.

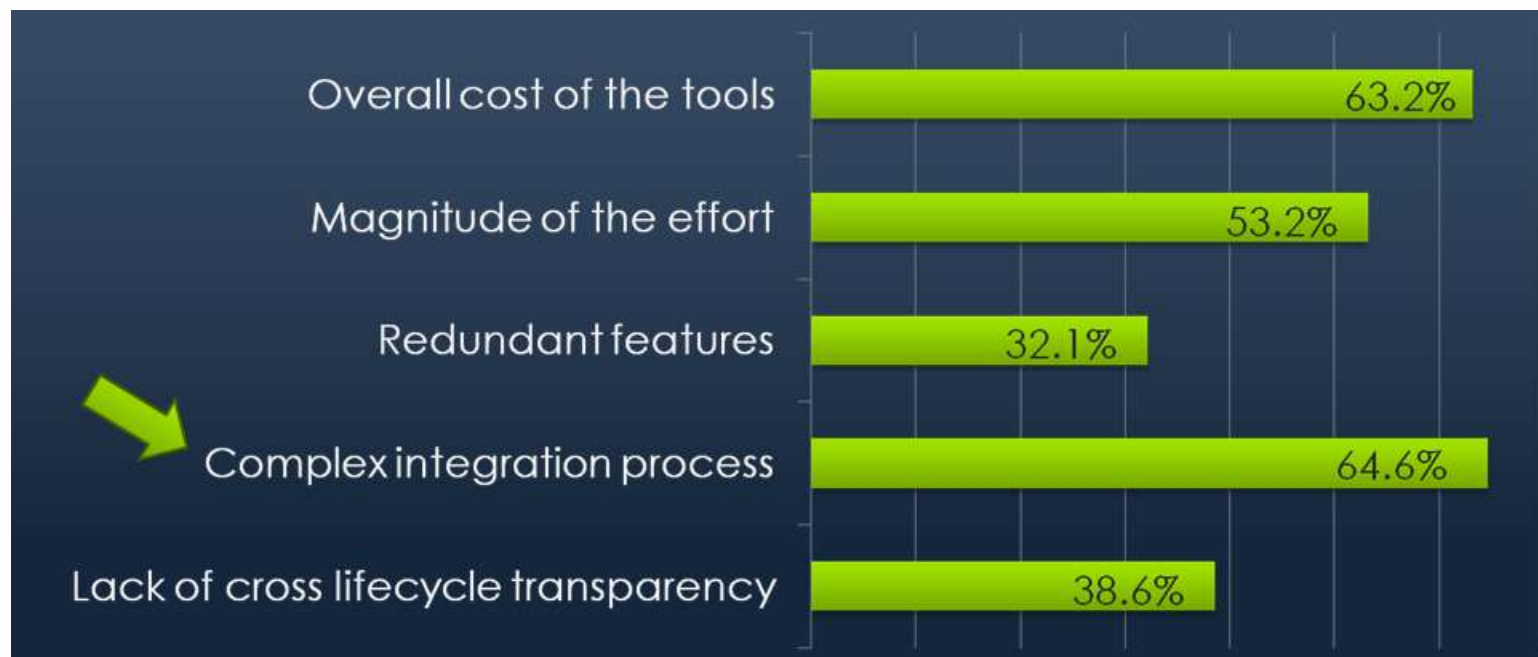
- ⊗ Difficulty in tracking versions, variants and configurations
- ⊗ No automated impact analysis across domains
- ⊗ No automated traceability across the entire lifecycle of a product

- ⊗ Productivity decimated due to tools silos
- ⊗ No single view of themselves and people working on the same projects
- ⊗ No easy ways to work across tools without switching context/tools

- ⊗ No centralized view of tools that teams are using to create projects/products
- ⊗ No easy way to configure and then monitor a complex system of interconnected tools
- ⊗ No notification, prediction of failures across a set of connected tools

*In surveys, over 90% of organizations report that they didn't achieve all of the integrations they desired<sup>1</sup>.*

# Lifecycle integration is becoming the bounding factor for software delivery success...



Source: Forrester, "Which of the following would you consider as major roadblocks of ALM solutions?"  
N=280

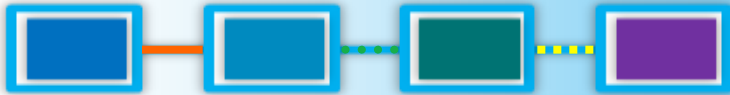
... but practitioners are best motivated when allowed to use best-of-breed tools

- *Autonomy*
- *Mastery*
- *Purpose*

# The cost that comes with poor integrations

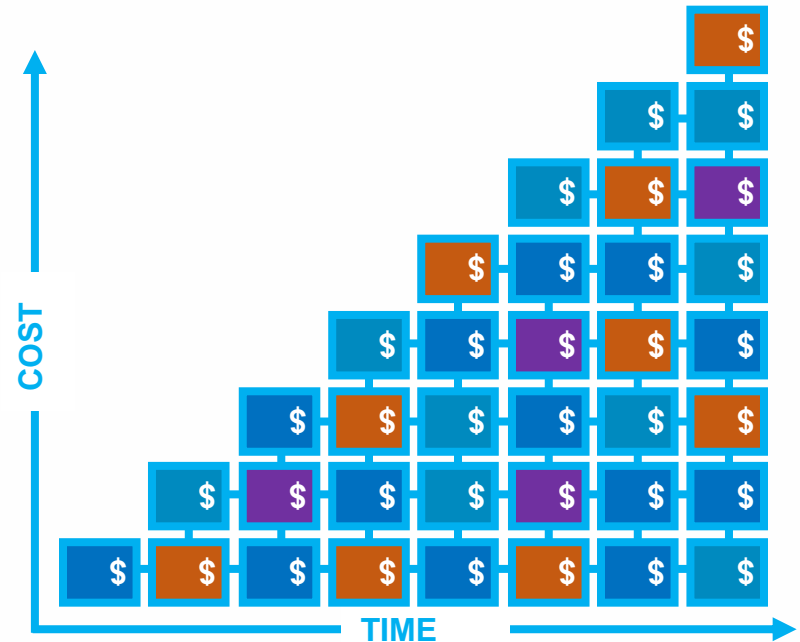
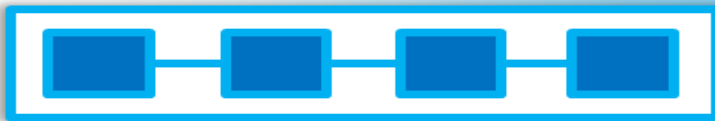
## Ad hoc integrations

- ❌ Inconsistent integration technologies & methods don't scale well



## Vendor-unique integrations

- ❌ Locks in solution with no flexibility



- ❌ Over time, cost of maintaining integrations can exceed cost of the tools!

# A single, system wide perspective

*Transparency across the projects, with fast and simple access to the data, tools, and people that each stakeholder cares about in their work*

*Simplicity and consistency in extending the platform environment with the tools used in my organization*

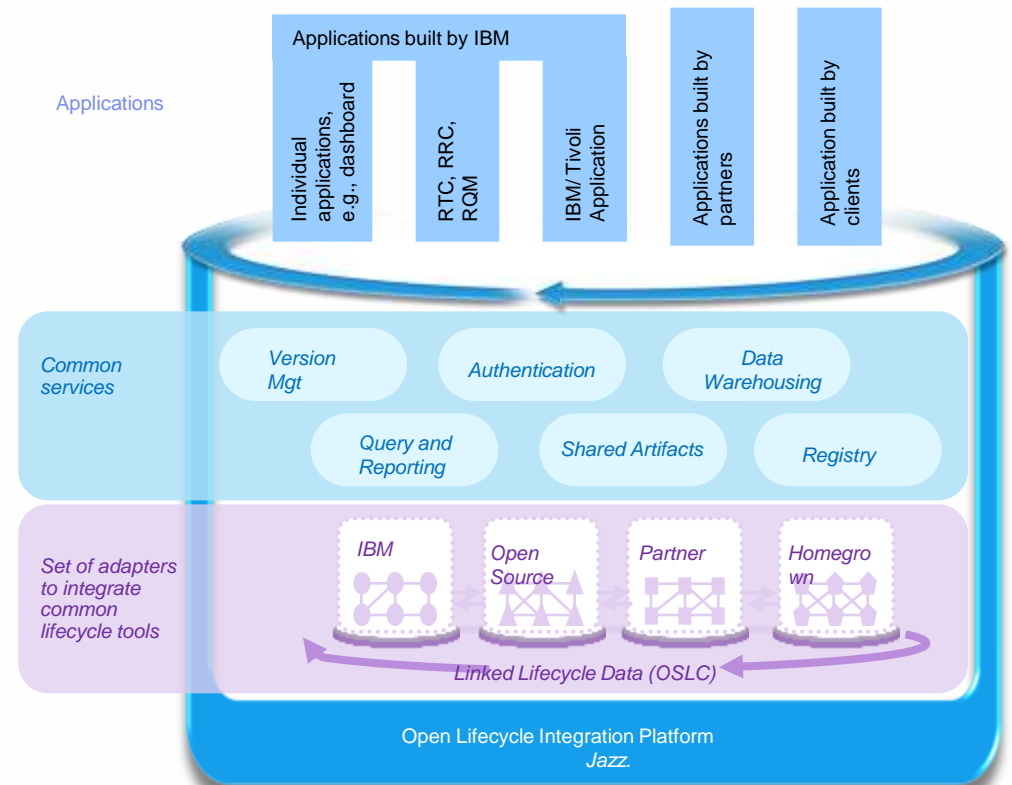
- From the executive's perspective:
  - Quickly gather insight on progress across my product portfolio
  - Use a centralized place to report across my business
  - Reduce overall operational and capital costs by quickly integrating home grown tools
- From the practitioner's perspective:
  - Use a centralized place to aggregate and access my work and my peers
  - Get the insights I need about, and across, my work contexts
  - Traverse tool boundaries with single sign-on or stay in the tool I and still have the benefits across tools
- From the administrator's perspective:
  - Register and monitor status and health across the system
  - Enable my organization to quickly benefit through easy install and configuration of the platform
- From the community's perspective (vendor, business partner, customer, open source):
  - Contribute my data/people to make my tool more valuable to my customers
  - Take advantage of the capabilities of the platform to enhance my tools for my customers
  - Increase my market reach by either creating new adapters or contributing capabilities



# Jazz Platform vision

The Jazz platform **permeates** an organization's environment to **quickly** connect **people** through their **processes** and **data** so that everyone involved gets the **insights** needed to make **informed decisions** and take **prompt actions**.

- The Jazz Platform comprises
  - A set of adapters
  - A set of common services
  - A set of applications
  - A marketplace
- Empowers an ecosystem of partners and practitioners to extend the platform
- Enables integration of 3<sup>rd</sup> party tools
- Offers flexible delivery and access models
  - On premise/hosted SaaS
  - Mobile access





# Jazz Platform development principles

- Design-driven, test-driven
- Well-defined, open specifications
- Consumable, usable, documented
- Transparent development and communication

## **The Lean Startup** – apply useful concepts:

- Minimum Viable Product (MVP)
- Build Measure Learn cycle
- Rapid, iterative, fast turnaround – test the market

## Early market validation is crucial

- Early market experimentations
- Design Partner Programs
- 1:1 Customer design workshop
- Tech previews

# 2013-2014 Goals : Day 1 productivity and fast time to value

- **Goal 1:** *Transparency across the projects, with fast and simple access to the data, tools, and people that each stakeholder cares about in their work*
  - Export to data from a variety of 3<sup>rd</sup> party tools to Excel and generate a report
  - Provide pre-created queries that tell me how my projects are progressing without having to create, learn or know the underlying technology for reporting.
  - Provide a single predictable personal home to access my stuff (projects, activities, people) – include access from different device channels
  - Provide a project home that aggregates information relevant to me (associated resource containers, activities, and people) – include access from different device channels
  - Provide me quick access to activity streams on my laptop or mobile device
  - Enjoy the virtues of Single Sign-On (SSO) (this should be invisible to me in the UI)
- **Goal 2:** *Simplicity and consistency in extending the platform environment with the tools used in my organization*
  - Access a marketplace of assets to improve my experience with platform capabilities
  - Contribute assets (trials, etc) to promote my platform compliant capabilities and other assets
  - Leverage the Platform Adoption guide and associated SDK to build service implementations

# Transparency across the projects

## –Transparency across my projects:

- Export to data from a variety of 3<sup>rd</sup> party tools to Excel and generate a report
- Provide pre-created queries that tell me how my projects are progressing without having to create, learn or know the underlying technology for reporting.

## –Access the data, tools, and people that are important to me:

- Provide a single predictable personal home to access my stuff (projects, activities, people) – include access from different device channels
- Provide a project home that aggregates information relevant to me (associated resource containers, activities, and people) – include access from different device channels
- Provide me quick access to activity streams on my laptop or mobile device

## –Enjoy the virtues of Single Sign-On (SSO) (this should be invisible to me in the UI)

# Transparency across my projects

Export to data from a variety of 3<sup>rd</sup> party tools to Excel and generate a report



## Queries

### Export Query

Export the query results and the query definition for a variety of purposes

#### Export as Excel workbook

Create a new Excel workbook with the query as a data source, and load the results.

#### Use in document-style report template

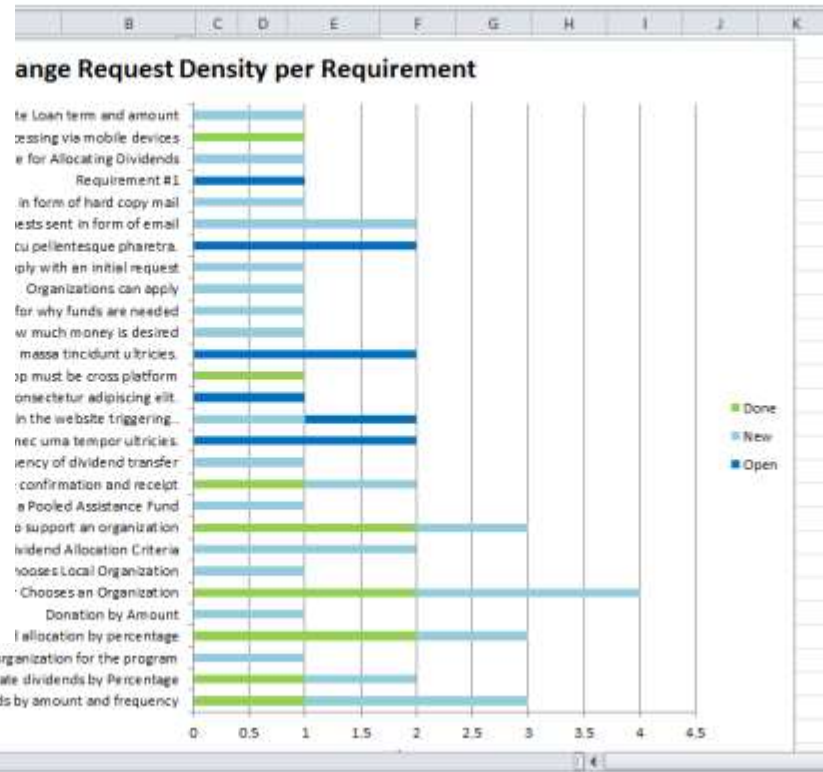
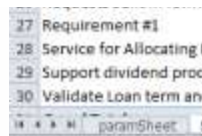
Use this query in Rational Publishing Engine to create a document template with the results.

#### Use in Excel workbook

Use this query in an existing Excel workbook by creating a data source.

#### Export query for sharing

Save a copy of the query definition to import into another system, or upload to the Marketplace.



# Transparency across my projects

Provide pre-created queries that tell me how my projects are progressing without having to create, learn or know the underlying technology for reporting.

Jazz Platform My Home Activities Dashboard **Queries** People Administration

My Queries All Queries Create a Query

Use queries to aggregate data from your integrated tools and projects. You can create, import, and export queries, and add them to dashboards. View the results in a browser or export the results to another format.

Showing 1-31 of 31

Actions	Name	Description	Owner
	All Change Request - id and title	Describe your query	andy
	All Change Requests	All Change Requests from all available projects	marco
	All testcases	Describe your query	andy
	Average Change Request Duration Per Status	Compute the average hour duration of change requests per status for selected projects and users. If a change request is still open, then elapsed time since creation is assumed.	marco
	Average Change Request Duration Per User	Compute the average hour duration of change requests per user for selected projects and users. If a change request is still open, then elapsed time since creation is assumed.	marco
	Change Requests Associated to a Requirement	All Change Requests directly / indirectly associated to a requirement	marco
	Change Requests affecting Tests	All open change requests which affect the execution of test cases.	alison
	Change Requests affecting Tests	All open change requests which affect the execution of test cases.	alison
	Change Requests affecting/blocking Requirements (Statistics)	All open change requests which affect or block a requirement. (Dashboard Statistics query)	alison

Jazz Platform My Home Activities Dashboard **Queries** People

### Marco's Dashboard

General **Requirements** Development Dev. Testing SVT Testing JIRA Test

#### Change Requests per Requirement (31)

Requirement Name	Count
Allocate dividen...	1
Customers can no...	1
Donor Chooses a...	1
Donor Dividend Al...	1
Mobile app must ...	1
Requests sent in ...	1
Allocate dividen...	1
Dividend Contribu...	1
Dividend allocati...	1
Donation by Am...	1
Donor Chooses L...	1
Donor Chooses Mu...	1
Donors Deposit M...	1
Donors can choos...	1
Donors will recei...	1
Frequency of divi...	1
JKE Charity Coordi...	1
Organization mus...	1
Organization must...	1
Organizations ca...	1
Organizations mav...	1

#### Change Requests blocking Requirements (1)

cr

- 93: Failing Test Case "Customers can Nominate an Organization" when executing Test Execution Record

#### Change Requests affecting Requirements (5)

Change Request

- 38: Organization selection list is empty
- 93: Failing Test Case "Customers can Nominate an Organization" when executing Test Execution Record
- 39: Failing Test Case "Pay Bills Online"
- 94: test123
- 98: Testing association

#### Changes Requests affecting Requirements (11)

Requirement Name	Count
Mobile app must ...	1
Allocate dividen...	1
Allocate dividen...	1
Customers can no...	1
Dividend allocati...	1
Donor Chooses a...	1
Donor Dividend Al...	1
Donors can choos...	1

# Potential pre-created Reporting Metrics

- **Iteration Velocity:** This metric tracks the rate at which a team completes work across iterations, thereby helping the team improve project predictability.
- **Iteration Burndown:** This metric tracks remaining estimated effort hours in an iteration. It is calculated and graphed daily in an Iteration Burndown chart to help a team monitor their progress for a given iteration
- **Release Burndown:** This metric tracks the estimated functionality yet to be implemented for the current release
- **Test Execution Status:** This metric tracks the number of tests planned, implemented, attempted, passed, failed, and blocked
- **Test Coverage of Reqs:** This metric tracks the percentage of requirements that are covered by tests, and the percentage that have no associated tests
- **Defect Density:** This metric tracks the number of defects found, closed, and remaining over time
- **Defect Trends:** This metric tracks the rate of defect arrival and closure (fixing) over the project duration
- **Customer Satisfaction:** This metric tracks the customer's overall level of satisfaction with the project
- **Enhancement Request Trend:** This metric tracks the number of enhancement requests that are received, approved, and closed over time, as well as the number of outstanding enhancement requests
- **Cost Per Unit of Work:** This metric tracks the cost of delivering a single unit of work (such as a user story point or use case point) across iterations
- **Planned vs Actual Effort:** This metric tracks estimated effort against actual effort

# Access the data, tools, and people that are important to me

Provide a single predictable personal home to access my stuff (projects, activities, people)

Jazz Platform My Home Activities Dashboard Queries People Search Marco IBM

My Stuff Everything Task Guide Create Project

**View your projects**  
You have 9 projects and 9 tool projects.

**Set up your dashboard**  
Browse the dashboard catalog for a variety of widgets you can add to help manage your work.

**View queries**  
View your library of queries to see information across your projects.

**Collaborate with people in your network**  
See who's in your network, how they are connected to you, and the projects they are working on.

Group By: Associations Showing 1 - 18 of 18

## Projects (9)

 **Business Recovery Matters**  
Type: Project

 **Mobility Matters**  
Type: Project



# Access the data, tools, and people that are important to me

Provide me quick access to activity streams on my laptop or mobile device

**All Activities** ▾

ADMIN updated 98: Testing association - Rational Team Concert  
2 months ago

ADMIN changed:

Status	New → In Progress
Affects Requirement Link	added: 144: Mobile app must be cross platform

⌘ Show less

ADMIN created 98: Testing association - Rational Team Concert  
2 months ago

⌘ Show more

ADMIN created 97: add code - Rational Team Concert  
2 months ago

ADMIN created:

Summary	add code
Status	New
Type	Task
Project Area	Project X
Owned By	ADMIN
Priority	Medium
Planned For	Release 1.0/Sprint 1
Id	97
Subscribed By	added: ADMIN
Created By	ADMIN
Creation Date	Jun 26, 2013
Restricted Access	Project X

⌘ Show less

**Marco's Dashboard**\*

General ▾ Requirements Development Dev. Testing SVT Testing JIRA Test

**Activities** ▾ ✕

ADMIN updated 98: Testing association - Rational Team Concert  
2 months ago

⌘ Show more

ADMIN created 98: Testing association - Rational Team Concert  
2 months ago

⌘ Show more

⏪ Previous | 1 - 2 of 20 | Next ⏩

**Set up your dashboard** ▾ ⌵ ✕

**Add widgets to your dashboard**  
Click on the "Widget Catalog" button in the upper right corner of the dashboard to expand to see a variety of widgets you can add to your dashboard.

**Move widgets around**  
To move widgets, grab the widget anywhere in the header area, you should see a cursor change, and drop it in any desirable location on your dashboard.

# Simplicity and consistency in extending the platform environment with the tools used in my organization

- **Leverage an ecosystem of platform users to exchange assets and knowledge**
  - Access a marketplace of assets to improve my experience with platform capabilities
  - Contribute assets (trials, etc) to promote my platform compliant capabilities and other assets
- **Extend the platform environment with the tools I use**
  - Leverage the Platform Adoption guide and associated SDK to build service implementations

# Leverage an ecosystem of platform users to exchange assets and knowledge

Access a marketplace of assets to improve my experience with platform capabilities

The screenshot displays the Jazz Marketplace interface. At the top, the Jazz logo and tagline "Building better software" are visible. The navigation bar includes links for Products, Downloads, Community, and Our Story. The main content area is titled "Marketplace" and features a search bar and a "View" button. Below this, there are several asset cards, each with a magnifying glass icon and a star rating. The assets include "Requirements with no Test Cases", "Average duration of Change Requests (Statistics)", "Change Requests blocking Tests", "Robotic Adapter for GIT", "Density Report Spreadsheet", "Requirements affected by", "Test Case count per", "Change Requests blocking", "Change Request Charts", and "Inspection by Pest Control".

On the right side, there is a detailed view of an asset titled "Change Requests blocking Tests". It includes a "My Assets" section, a "Develop an asset" button, and a "Submit" button. The asset details show a version of 0.5.00, a last update of May 21, 2013, and a last tried status of "Not yet tried". The asset type is "Query" and it works with "En" and "A". The description states: "Returns a list of Test Cases and the Change Requests blocking each. Only Test Cases that are blocking are shown." There are two preview images showing diagrams of defects affecting requirements. Below the preview, there is a search bar and a "Click image(s) for larger preview in slideshow" link.

At the bottom left, there is a "Work in Progress (EXPLORATION ONLY)" section with a "Search" button. It contains a "My Queries" section with a "Create a Query" button and a table of queries. The table has columns for "Actions", "Name", "Description", and "Owner". The queries listed are:

Actions	Name	Description	Owner
	All Change Requests - list and title	Describe your query	andy
	All Change Requests	All Change Requests from all available projects	marco
	All testcases	Describe your query	andy
	Average Change Request Duration Per Status	Compute the average hour duration of change requests per status for selected projects and users. If a change request is still open, then elapsed time since creation is	marco

On the right side of the bottom section, there is a "Discover from the Marketplace" section with a list of queries to add to what you have already integrated. The queries listed are:

- Change Requests affecting Tests Resources: Work Item, Test Case (3 items)
- Defect density by Requirement Resources: Work Item, Requirement (3 items)
- Test Case count per Requirement Resources: Test Case, Requirement (3 items)

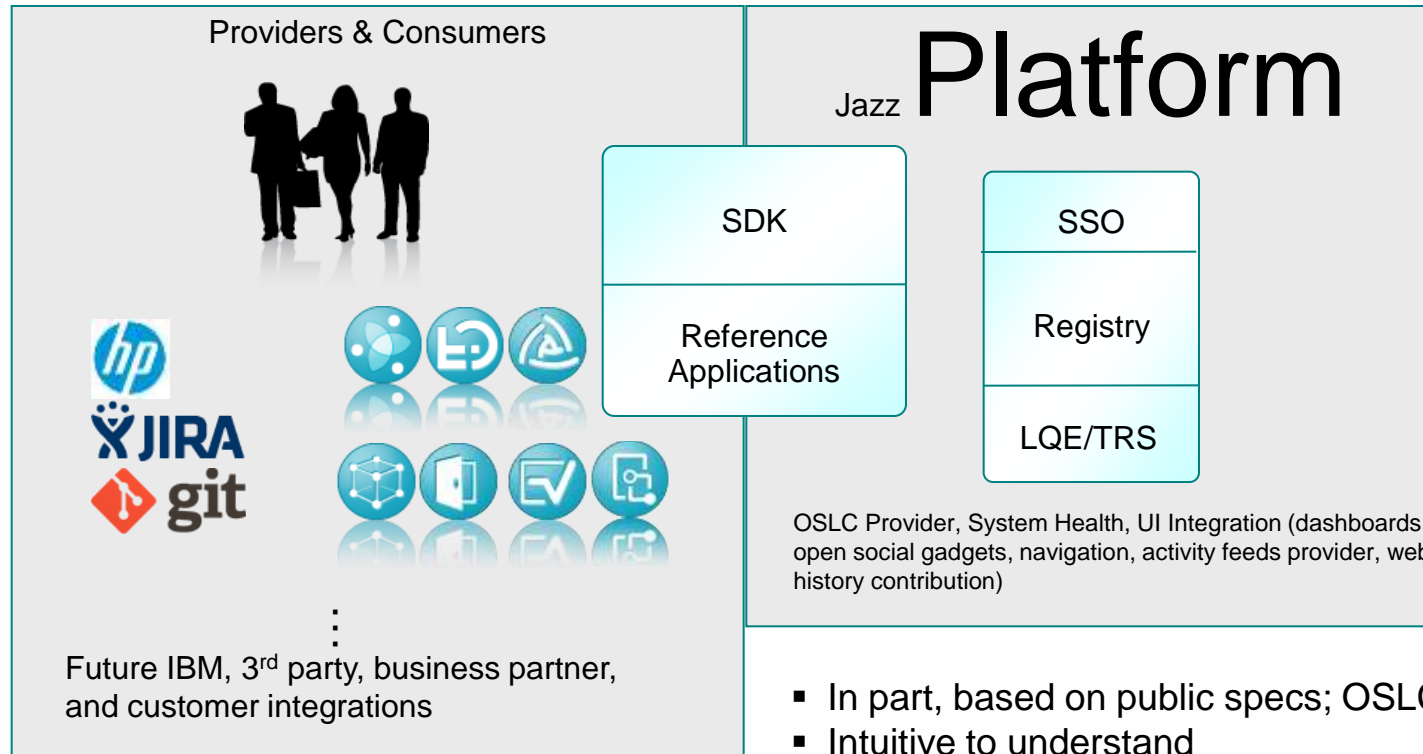
At the bottom right, there is a "Contributed by (1)" section with a profile picture of a woman and a "View" button. Below this, there is a "Changelog" section with "No logs found." and a "Disclaimer" section.

# Leverage an ecosystem of platform users to exchange assets and knowledge

Contribute assets (trials, etc) to promote my platform compliant capabilities

The image displays two views of the IBM Jazz Marketplace interface. The left view is the 'Type Your Asset Name' form, which includes fields for 'Type Your Asset Name', 'Type version here', and 'Type'. Below these are 'Works with' icons and a text area for a description. At the bottom, there are image upload boxes and a 'Versions' section. The right view shows the 'Rational Adapter for JIRA' asset page. It features a title, version information (1.0 Trial), last update (Apr 24, 2013), and last tried status (Not yet tried). The page includes a description, a 'Versions' list, and a 'More about this asset...' section with a link to an article titled 'Using the Rational Adapter for JIRA 60-day trial with the Rational solution for Collaborative Lifecycle Management'. The article text describes the trial version and its intended use. The right sidebar contains utility buttons like 'Edit it', 'Create new version', 'Try it', and 'Email it', along with a 'Contributed by (2)' section showing user avatars and a 'Changelog' section.

# Jazz Platform – Expanding our ecosystem



- **SDK:** Toolkits and Test suites to facilitate Jazz Platform services adoption and implementation
- **Ref Applications:** Best practices for implementation; baseline code, exemplary code

- In part, based on public specs; OSLC, TRS
- Intuitive to understand
  - Follow design patterns
  - Clean formatting of code
- Hard to misuse
  - Naming conventions, Consistent parameter ordering, Symmetric methods, Anticipatable
- Documentation focused
  - Usage examples, Class, Method, Parameter commenting

# Get Involved

- Do you want to influence how our LIA and Jazz Platform evolves?
- Do you have challenges in your organization that you'd like to see our solutions address?

## *Join the Jazz Platform & LIA Design Partner Program*

- Meet regularly throughout the year to preview our ongoing development efforts
- Solicit input and validation to our direction
- Email us at [ratldpp@us.ibm.com](mailto:ratldpp@us.ibm.com) if you would like to participate

# Questions



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