

# Adopting Agile Approaches for the Enterprise

CollabNet Solutions

Presented by: Brian Zeichick, CollabNet Product Manager  
Email: [bzeichick@collab.net](mailto:bzeichick@collab.net)

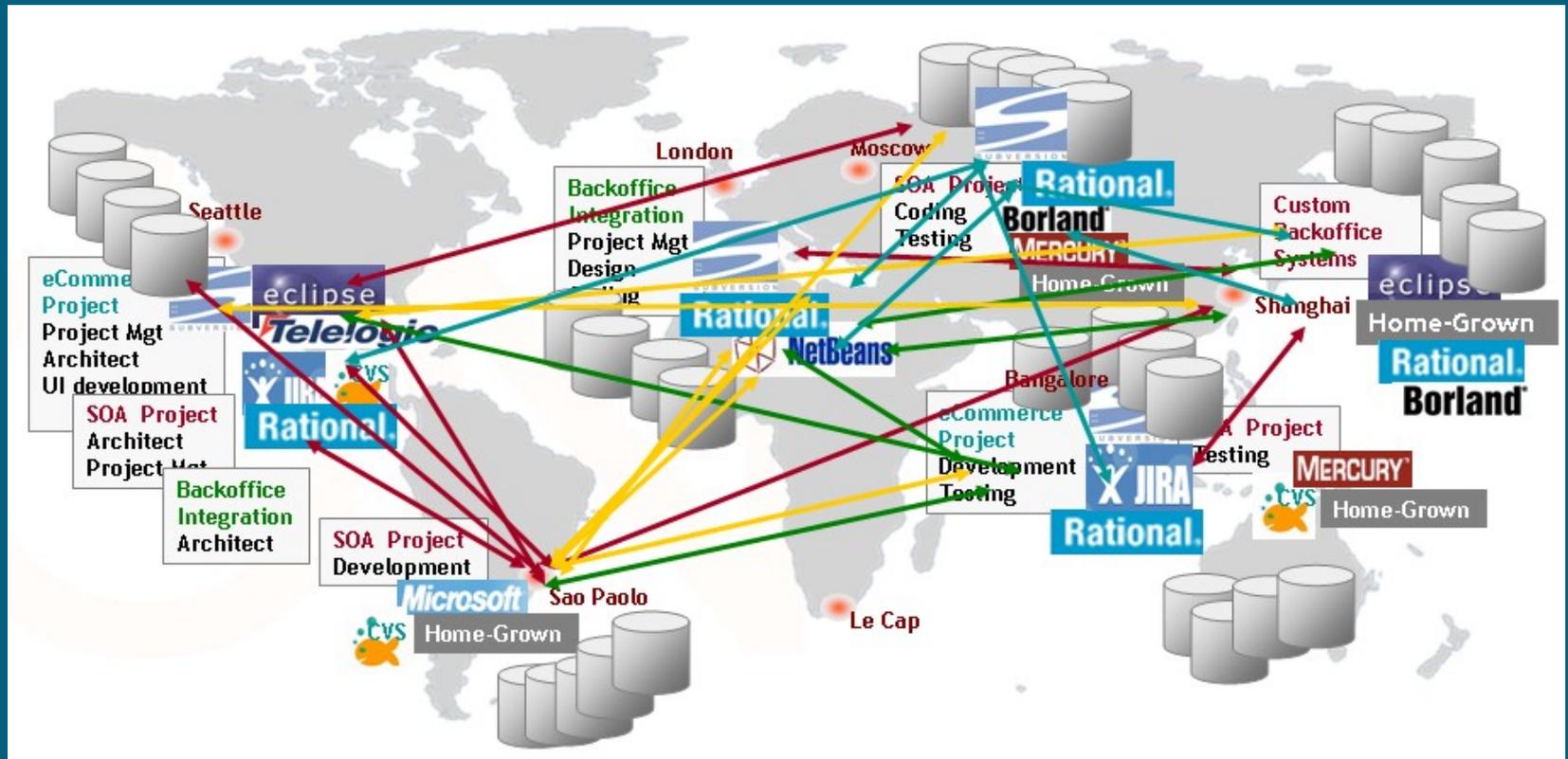
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# Today's Agenda

- Developing in the Cloud for Governance
- Distributed Development Challenges
- Agile Development Methods
- The real story of Agile Adoption
- Agile Development Challenges
- Agile Development Tools
- Continuous Integration
- Object “Traceability”
- Staying Up-to-Date on Everything
- Agile Training

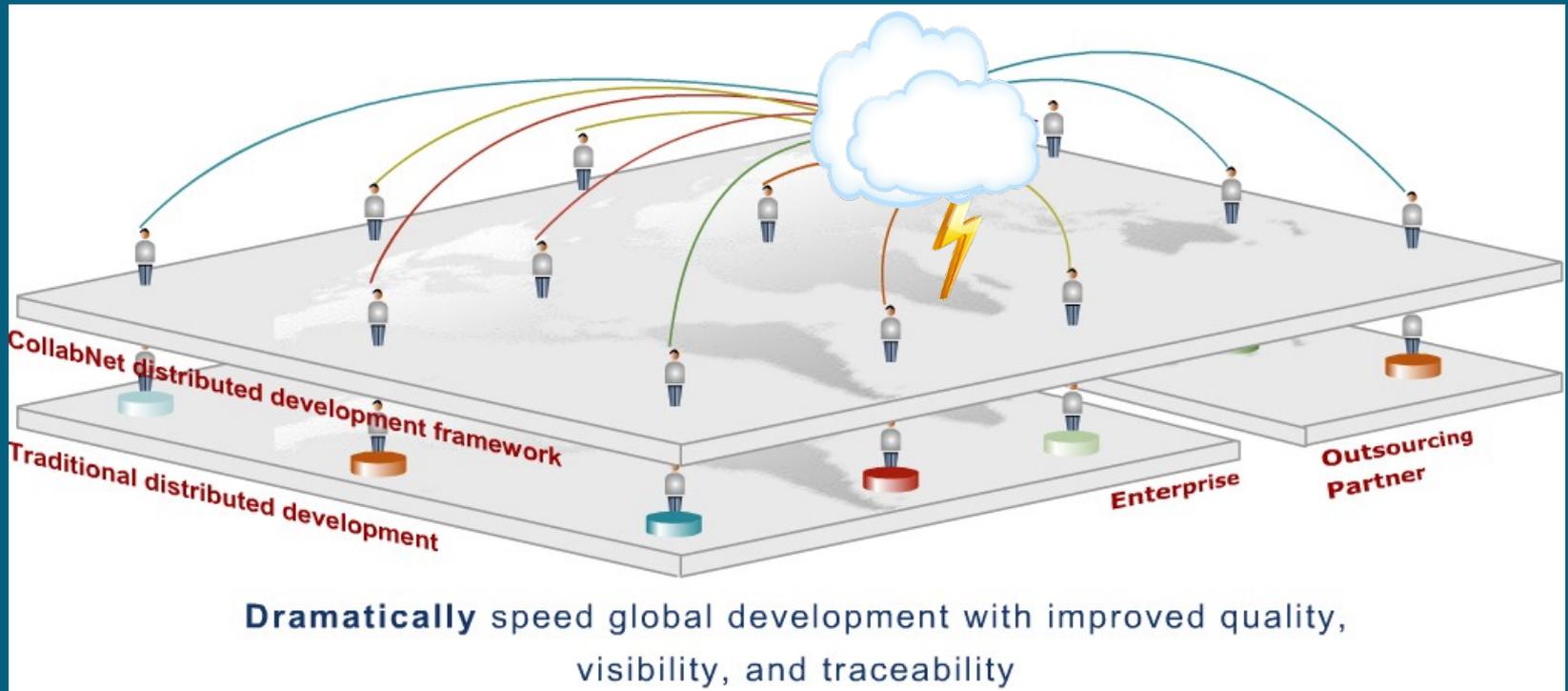
# Why is “Development in the Cloud” so important?

- Development tools are still a distributed mess in most enterprises



# Why is “Development in the Cloud” so important?

- The fix is simple... centralize all development assets in the cloud



***TRANSPARENCY breeds TRUST which drives REUSE***

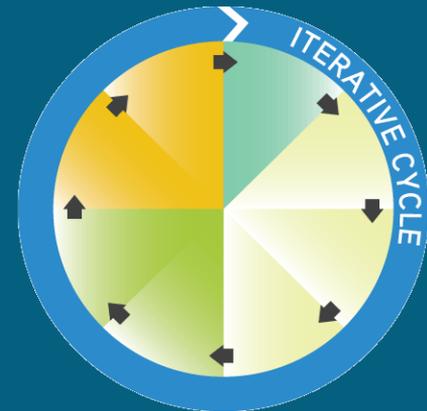
# Common Distributed Development Challenges

- Communication
- Collaboration
- “Throw it over the Fence” development
  - Siloed Waterfall Approach
- Different Development Tools

# The Appeal of Agile Development Methods

## Characteristics of Agile Methods:

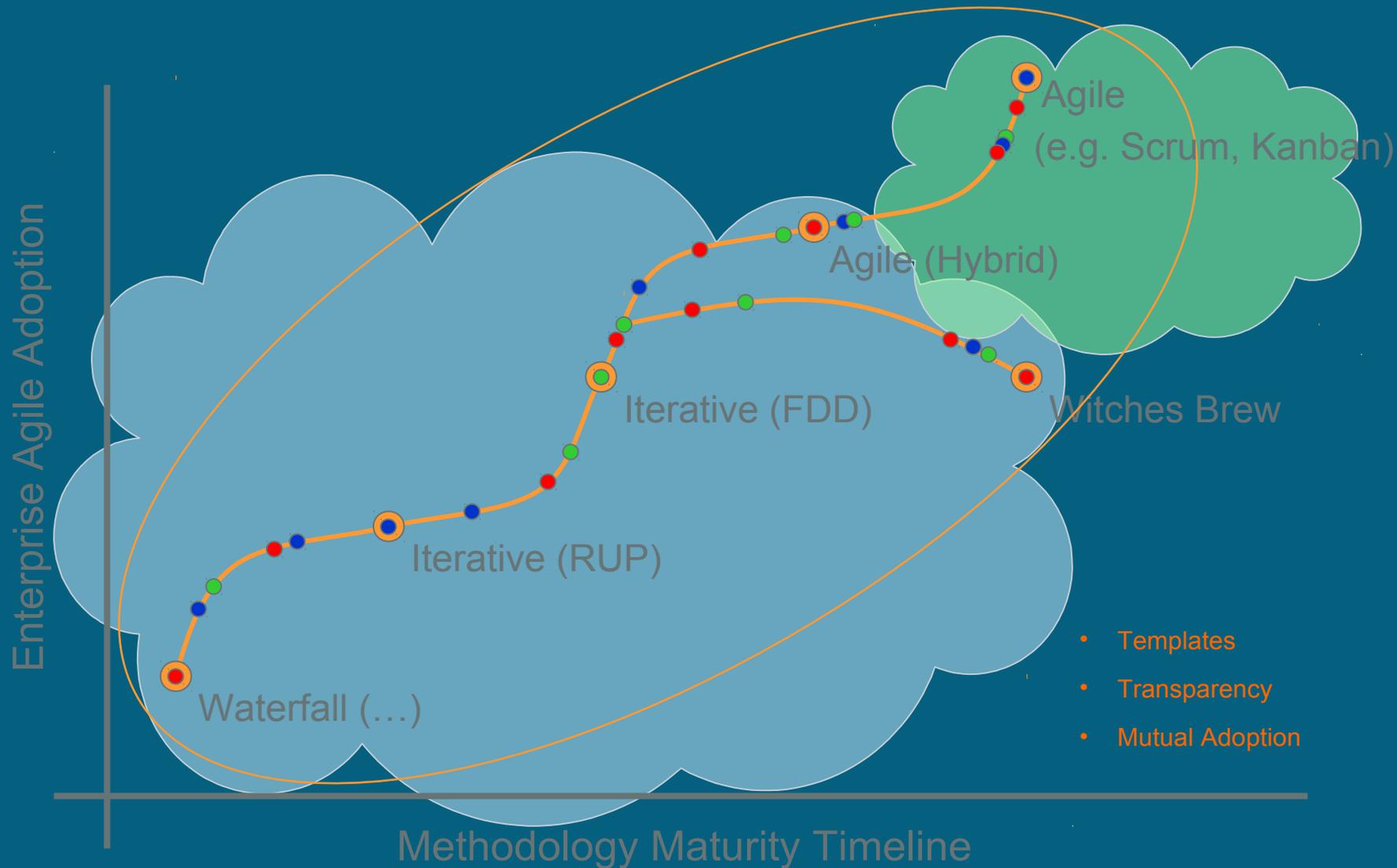
- **Shorter Planning Cycles**
  - Smaller set of requirements identified more often
- **Frequent Delivery**
  - Focus on working software for every iteration
  - “The only accurate measure of software development is the delivery of software”
- **Closer Working Relationship with the Business or Customer**
  - Constant feedback and frequent user acceptance testing



## Agile Methods Allow Organizations to:

- **Innovate faster and shorten time to market**
- **Better respond to changing customer needs**
- **Reduce Costs**

# Enterprise Agile Adoption - The Real Story



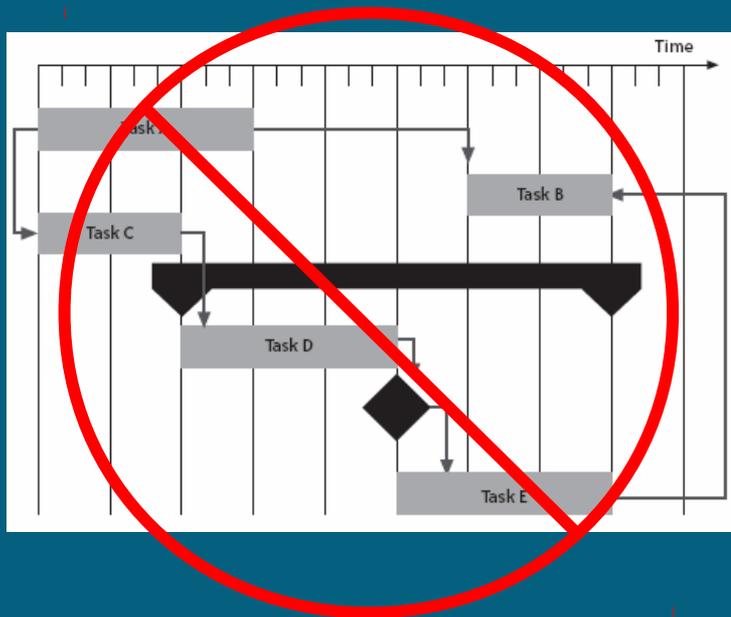
# Enterprise Agile Development Challenges

- Classic ALM practices and role definitions can seriously impede the pace (and ultimate success) of agile development



# Enterprise Agile Development Challenges

- Teams who set out to do agile development for the first time often get into hot water with project management and customers



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# Enterprise Agile Development Challenges

- Improving collaboration and managing more hand-offs within a single team, which is sometimes distributed.



# Enterprise Agile Development Challenges

- Agile is hard to distribute geographically when the development teams are not aligned with the application architecture



# Enterprise Agile Development Challenges

- Agile can be a developer's worst nightmare if they cannot get comfortable with people picking at their stuff

**Team-based  
Estimation**

**Daily Standup  
Meetings**

**User Acceptance  
Testing**



**Programming  
in Pairs**

**Progress  
Transparency**

**Test-Driven  
Development**

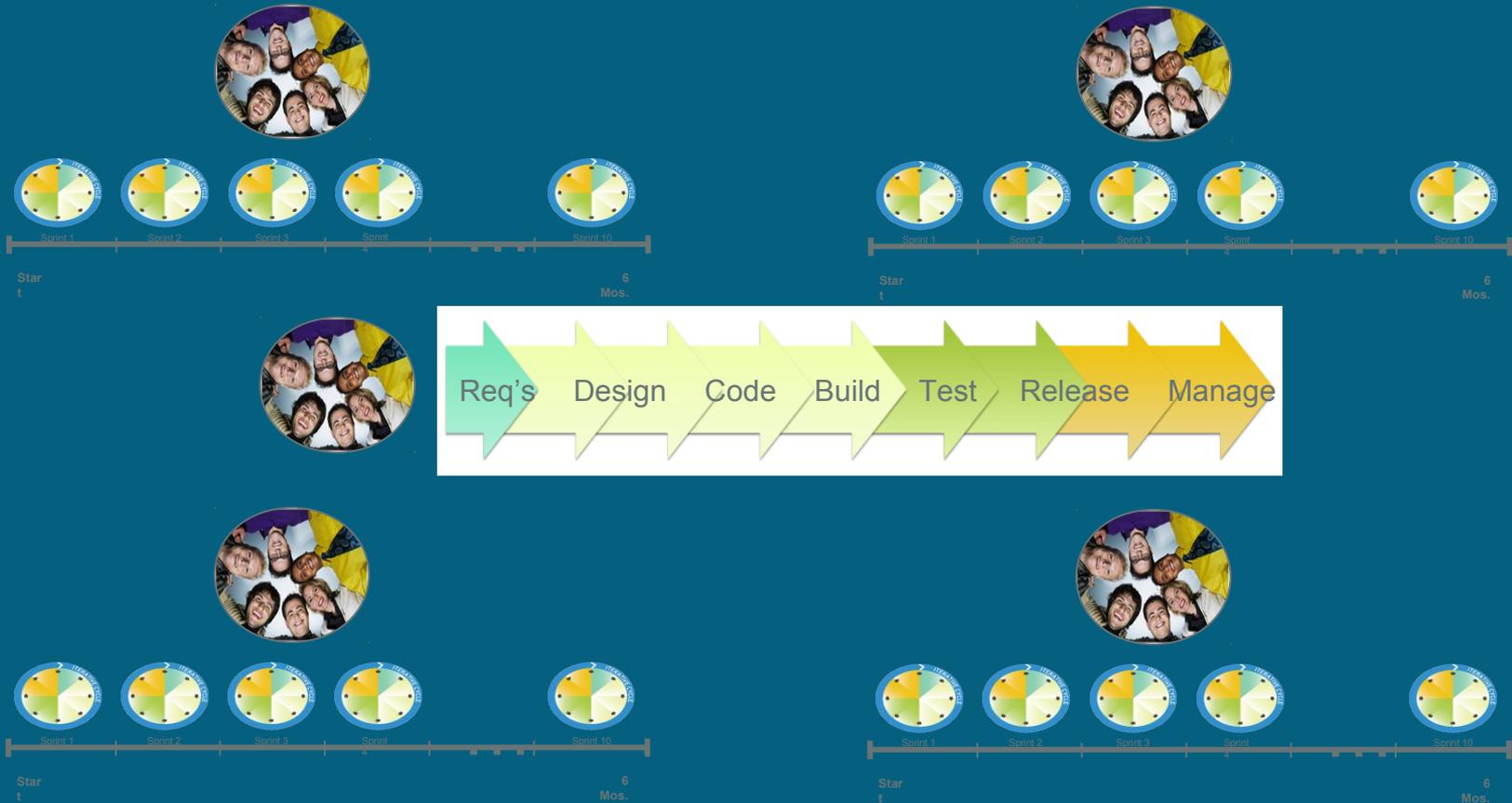
# Enterprise Agile Development Challenges

- Agile requires a skilled, experienced, and ultimately self-propelled development team (or it can backfire dramatically)

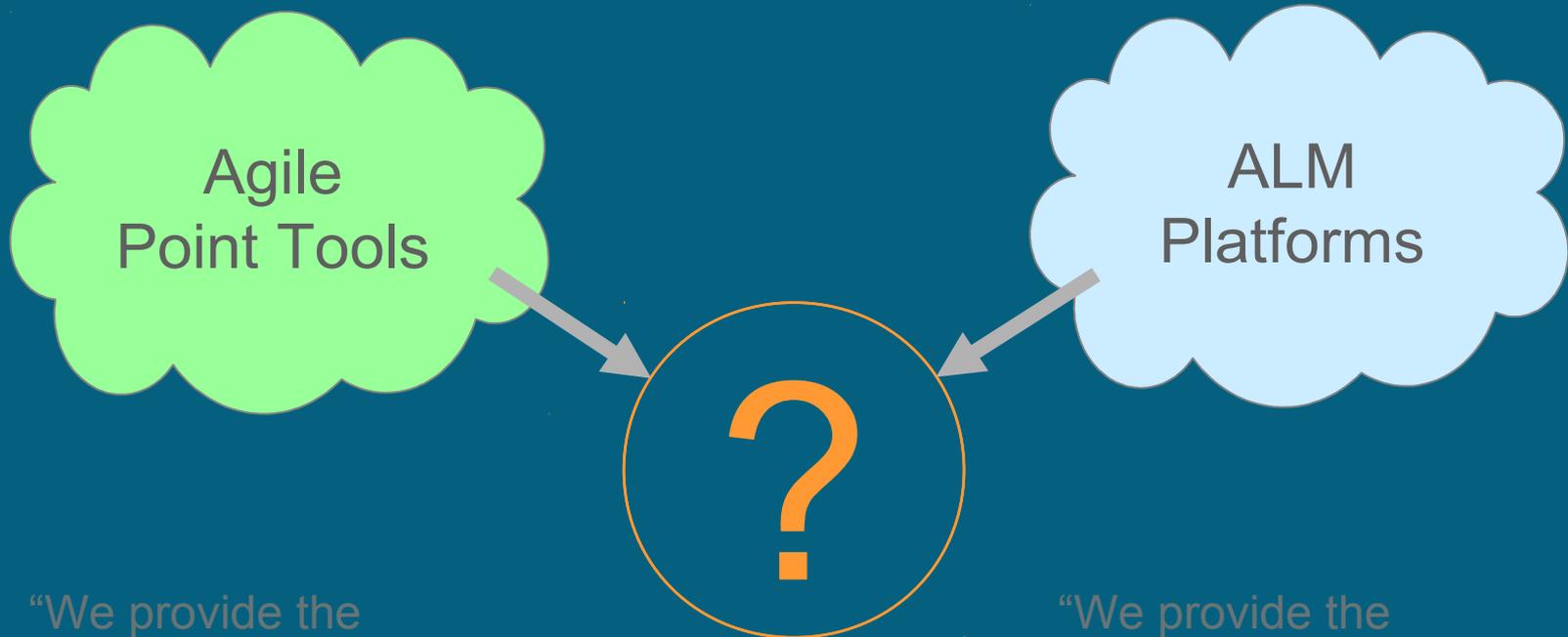


# Enterprise Agile Development Challenges

- Coordinating across teams – some of which may be doing Agile, some not
  - Especially important for SOA and other corporate “reuse” initiatives.



# So, you are looking for Agile development tools?



“We provide the features necessary to manage your new Agile projects really well”

- Typical Agile Vendor

“We provide the features necessary to manage all of your software projects”

- Typical ALM Vendor

# Why start with Continuous Integration?

- There are lots of uses for private clouds in software development
- Why is *Continuous Integration* a compelling place to start?
  - Continuous Integration (CI) is a huge Agile trend. As development teams get leaner and meaner, they need to cast bigger safety nets.
  - To do CI right, you need servers... lots of them. If your software runs in multiple environments, you need even more, of different types.
  - Developers want to *orchestrate* their own environments, on demand, with minimal fuss. They need to develop, not rack & administer.
  - As *cloud-based* production environments increase, so then will the need for *cloud-based* continuous integration environments.

# Full Lifecycle Continuous Integration in the Cloud

The screenshot displays the CollabNet TeamForge interface for a project named "TerreMark Integration". The user is logged in as Chris Clarke (CollabNet) (chris). The interface includes a navigation bar with tabs for Projects, My Workspace, Admin, Search, History, Google, CollabNet, and openCollabNet. Below this, there are project-specific navigation tabs: Project Home, Tracker (highlighted with a red circle and the number 1), Documents, Tasks, Source Code, Discussions, Reports, File Releases, Wiki, Build & Test, Project Admin, and TerreMark. The main content area shows the "List Artifacts" view for "Release 1" of "Product 1".

**plan3444 : Release 1 Summary**

Name: Release 1  
Description: The release backlog for the first release of Product 1.  
Effort: 70 Est, 70 Rem, 0 Act  
Story Points: 0 Open, 0 Total      Status: None

**Open by priority**

P1: 2
P2: 1
P3: 2
P4: 2
P5: 0
None: 0

**Open Vs Closed**

Open: 7
Closed: 2

**Release 1** Open only

Priority	Artifact ID	Title	Assigned To	Status	Planned For	Est	Rem	Act
3	artf12148	[Sample] Story Three	None	Under Consideration	Product 1 > Release 1	10	10	0
1	artf12143	[Sample] Epic One	None	Under Consideration	Product 1 > Release 1	60	60	0
2	artf12150	[Sample] Story Two	None	Under Consideration	Product 1 > Release 1 > Iteration 2	20	20	0
4	artf12154	[Sample] Task Four	None	Not Started	Product 1 > Release 1 > Iteration 2	10	10	0
3	artf12155	[Sample] Task Three	None	In Progress	Product 1 > Release 1 > Iteration 2	10	10	0
1	artf12149	[Sample] Story One	None	Under Consideration	Product 1 > Release 1 > Iteration 1	40	40	0

Buttons: Monitor, Export, Cut, Delete, Edit, Mass Update, Plan For, Submit New Artifact in: Defects

1. Requirements and tasks (i.e. development work items) are created and tracked using CollabNet's unique Dynamic Planning capability
2. When the work is ready to start, a developer picks up the next available work item and uses it to track his activities through the application lifecycle

# Full Lifecycle Continuous Integration in the Cloud

COLLABNET. TeamForge™

Logged in as: Chris Clarke (CollabNet) (chris) | LOGOUT | ? HELP

Projects ▾ My Workspace Admin Search History ▾ Google CollabNet openCollabNet

Project: TerreMark Integration Jump to ID: artf12154 GO

Project Home Tracker Documents Tasks Source Code Discussions Reports File Releases Wiki Build & Test Project Admin TerreMark

Trackers > Tasks > View Artifact Search Tracker

**Artifact artf12154 : [Sample] Task Four**

Tracker: Tasks  
Title: [Sample] Task Four  
Description: Steps for completion:  
1) Mock it up  
2) Write the tests/code  
3) Commit and execute the tests

Submitted By: Chris Clarke (CollabNet)  
Submitted On: 07/29/2010 3:09 PM PDT  
Last Modified: 08/26/2010 1:16 PM PDT

Edit

Status / Comments Change Log Associations (4) Dependencies (1) Attachments

Date	Association	Posted By	Comment	Association Type
08/26/2010	cmmt2429:Commit by Kohsuke K. (kohsuke)	Chris Clarke (CollabNet)	Initial commit of the first stab implementation	SCM Commit
08/26/2010	wiki1833:InterestingWikiTricks	Chris Clarke (CollabNet)	The developer wiki page (coding standards, etc.)	Wiki Page
08/26/2010	doc2433:Story Interaction Design Mockup	Chris Clarke (CollabNet)	The mockup that describes the required behavior	Document
08/26/2010	topc1299:What programming language shall we use?	Chris Clarke (CollabNet)	Our programming language discussion	Discussion Topic

Remove Add

3. As each work item progresses, it can be associated with any number of documents, discussions, Wikis, releases, etc. for complete traceability
4. When it finally comes time for the developer to commit changes on behalf of his work item, the ultimate association occurs between work item and code

# Full Lifecycle Continuous Integration in the Cloud

The screenshot shows the Hudson web interface within the TeamForge environment. The top navigation bar includes 'COLLABNET TeamForge' and user information 'Logged in as: Chris Clarke (CollabNet) (chris)'. Below this is a project navigation bar for 'Project: TerreMark Integration' with various tool icons like Project Home, Tracker, Documents, Tasks, Source Code, Discussions, Reports, File Releases, Wiki, Build & Test, Project Admin, and TerreMark. The main content area is titled 'Hudson' and features a search bar and 'ENABLE AUTO REFRESH' option. On the left, there is a sidebar with navigation links: 'New Job', 'Manage Hudson', 'People', 'Build History', 'Build Queue', and 'Build Executor Status'. The 'Build Queue' section is highlighted with a red circle containing the number '6'. The 'Build Executor Status' section shows a single executor '1' in 'Idle' status, building 'Cross platform tests #20'. The main area displays a table of build jobs with columns for 'S' (Success), 'W' (Warning), 'Job', 'Last Success', 'Last Failure', and 'Last Duration'. The 'Cross platform tests' job is highlighted with a red circle containing the number '5'. Below the table, there are links for 'Icon: S M L' and a legend for RSS feeds: 'for all', 'for failures', and 'for just latest builds'.

S	W	Job ↓	Last Success	Last Failure	Last Duration
		<a href="#">CI_build</a>	8 min 36 sec (#27)	9 min 27 sec (#26)	10 sec
		<a href="#">Cross platform tests</a>	8 min 20 sec (#19)	1 day 19 hr (#12)	4 min 48 sec
		<a href="#">some-long-build</a>	1 day 23 hr (#10)	2 days 3 hr (#5)	2 min 4 sec

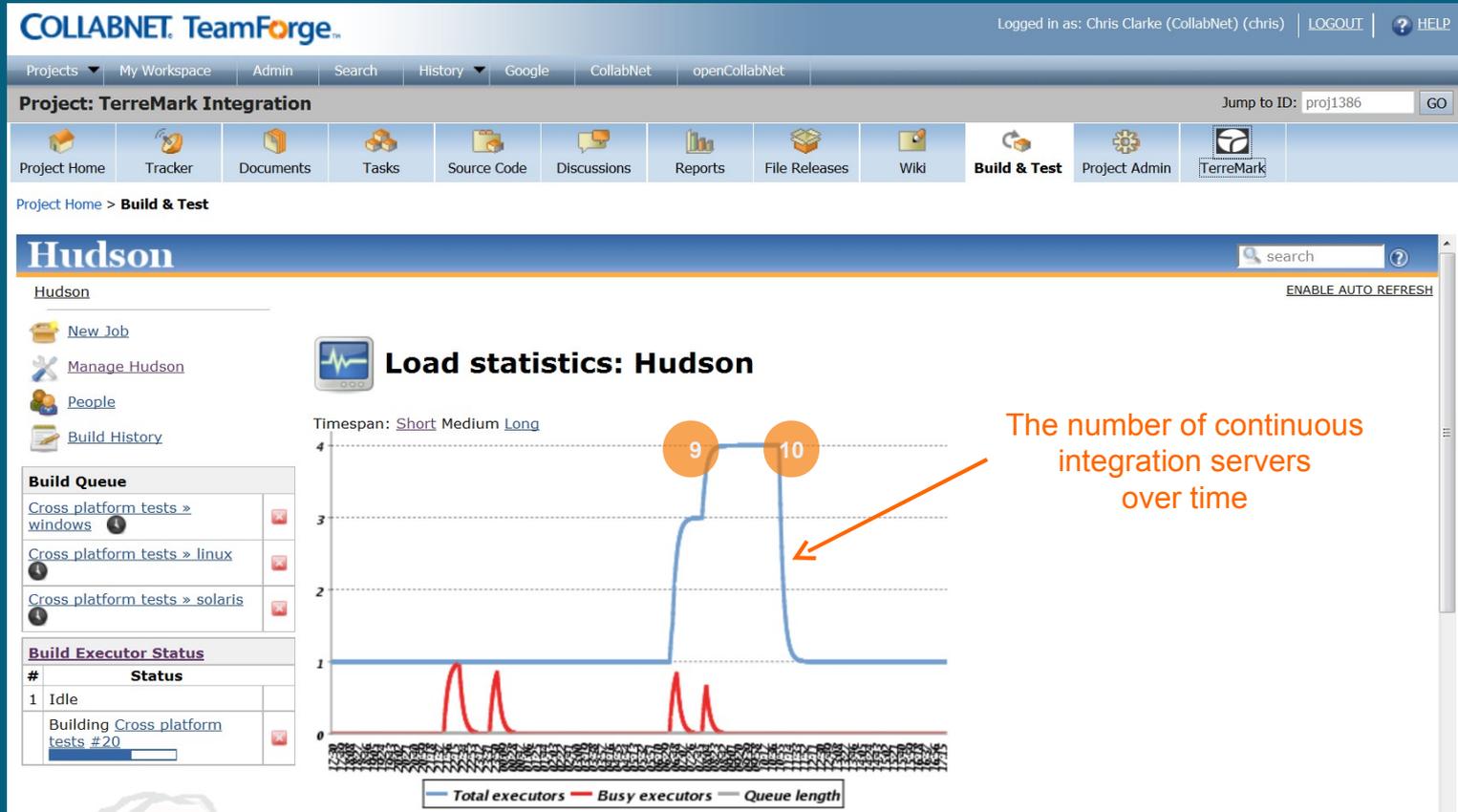
5. After the developer commits his code, the Hudson server wakes up and prepares to run the test suite, known as a “job” in the Hudson console
6. Before running the tests, Hudson requests several build and test servers from the TerreMark cloud, one for each supported application platform

# Full Lifecycle Continuous Integration in the Cloud

The screenshot displays the TerreMark Enterprise Cloud management console. At the top, the user is identified as 'Kohsuke Kawaguchi - CollabNet'. The navigation bar includes 'ENVIRONMENTS', 'MY ACCOUNT', 'HELP', and 'SIGN OUT'. The main header shows 'Enterprise Cloud' and the TerreMark logo. Below this, there are tabs for 'Resources', 'Devices', and 'Network', with 'Devices' selected. A dropdown menu for 'My Environments' is set to 'Collabnet'. The main content area shows a list of servers under the 'Kohsuke Sandbox' environment. The servers are: 'golden-linux', 'golden-solaris', 'golden-windows', 'hudson1', 'hudson2', 'slave1', 'slave2', and 'slave3'. The 'slave1', 'slave2', and 'slave3' servers are highlighted with orange circles containing the number '7'. Below the server list, a 'Selected: Deployed > Kohsuke Sandbox > slave1' breadcrumb is shown. A toolbar contains actions: 'Rename...', 'Configure...', 'Manage IPs...', 'Move...', 'Shut Down...', 'Power On', 'Delete', and 'Copy...'. Below the toolbar, there are 'Connect...' and 'View Tasks...' options. A status message reads: 'Creation of the server is in progress. This may take up to 30-45 minutes depending on the configuration and your connection. Check back in a few minutes.' An orange circle with the number '8' is positioned next to this message.

7. Based on the details of Hudson's request, TerreMark provisions several servers on the fly, cloned from "masters" for each supported platform
8. When the servers are ready for Hudson's use, TerreMark notifies Hudson so that it can begin executing tests in the continuous integration suite

# Full Lifecycle Continuous Integration in the Cloud



9. After being notified by TerreMark that the requested server resources are available, Hudson executes the tests and records the results
10. After the tests are finished, Hudson notifies TerreMark that the test resources can be relinquished (until the next continuous integration test run)

# Full Lifecycle Continuous Integration in the Cloud

The screenshot shows the EnterpriseCloud interface for user Kohsuke Kawaguchi - CollabNet. The top navigation bar includes 'ENVIRONMENTS', 'MY ACCOUNT', 'HELP', and 'SIGN OUT'. The main header displays 'EnterpriseCloud' and the 'terremark' logo. Below the header, there are tabs for 'Resources', 'Devices', and 'Network', and a dropdown menu for 'My Environments: Collabnet'. The main content area features a toolbar with actions like 'Create Row...', 'Create Group...', 'Create Server...', 'Create Blank Server...', and 'VPN Connect...'. A list of resources is shown under the heading 'Kohsuke Sandbox', including 'golden-linux', 'golden-solaris', 'golden-windows', 'hudson1', 'hudson2', 'slave1', 'slave2', and 'slave3'. A 'Selected:' section below the list contains the instruction: 'Select a row, group or device above to view details and other options.'

11. After being notified by Hudson that the provisioned resources are no longer required, TerreMark makes the resources available for other uses

# Full Lifecycle Continuous Integration in the Cloud

The screenshot shows the TeamForge web interface for a project named 'TerreMark Integration'. The user is logged in as Chris Clarke. The interface includes a navigation bar with options like 'Projects', 'My Workspace', 'Admin', 'Search', 'History', 'Google', 'CollabNet', and 'openCollabNet'. Below this, there's a breadcrumb trail: 'File Releases > Product 1 > Release 1 > View Release'. The main content area displays details for 'Release: rel1483', including its name, description, status (Active), maturity, and related planning folders. A table below lists several file releases, each 2.37 MB in size, created on 08/27/2010. The last row, 'sample-build\_6.zip', is highlighted with a red circle containing the number 12. At the bottom right, there are buttons for 'Download Release', 'Download Selected', 'Delete', 'Update', and 'Add'.

COLLABNET TeamForge™

Logged in as: Chris Clarke (CollabNet) (chris) | LOGOUT | ? HELP

Projects ▾ My Workspace Admin Search History ▾ Google CollabNet openCollabNet

Project: TerreMark Integration Jump to ID: rel1483 GO

Project Home Tracker Documents Tasks Source Code Discussions Reports **File Releases** Wiki Build & Test Project Admin TerreMark

File Releases > Product 1 > Release 1 > View Release

**Release: rel1483**

Name: Release 1 Status: Active  
Description: File Release for Product 1 > Release 1 Maturity:  
Related Planning Folders: Product 1 > Release 1

Edit

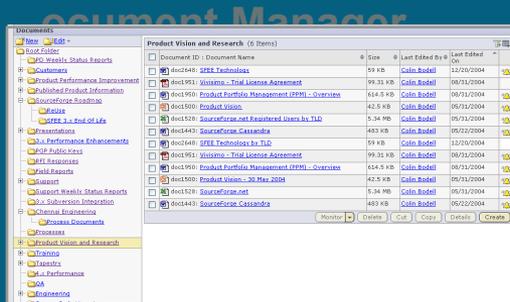
Files Reported Tracker Artifacts Fixed Tracker Artifacts Planned Tracker Artifacts Associations

File Name	Size	Created On	Last Modified On
sample-build.zip	2.37 MB	08/27/2010 2:28 PM	08/27/2010 2:28 PM
sample-build_1.zip	2.37 MB	08/27/2010 2:30 PM	08/27/2010 2:30 PM
sample-build_2.zip	2.37 MB	08/27/2010 2:30 PM	08/27/2010 2:30 PM
sample-build_3.zip	2.37 MB	08/27/2010 2:32 PM	08/27/2010 2:32 PM
sample-build_4.zip	2.37 MB	08/27/2010 2:33 PM	08/27/2010 2:33 PM
sample-build_5.zip	2.37 MB	08/27/2010 2:33 PM	08/27/2010 2:33 PM
sample-build_6.zip	2.37 MB	08/27/2010 2:35 PM	08/27/2010 2:35 PM

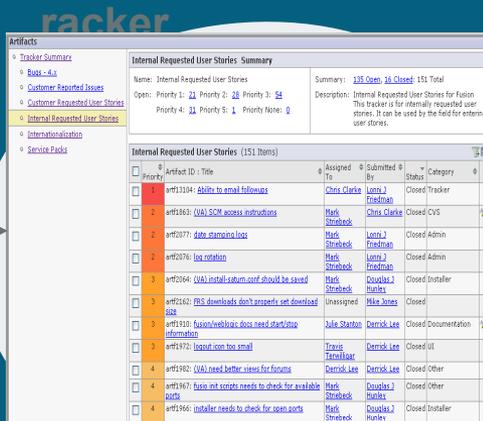
Download Release Download Selected Delete Update Add

12. With Hudson's successful execution of the continuous integration test suite, the software build is deposited into the TeamForge file release system

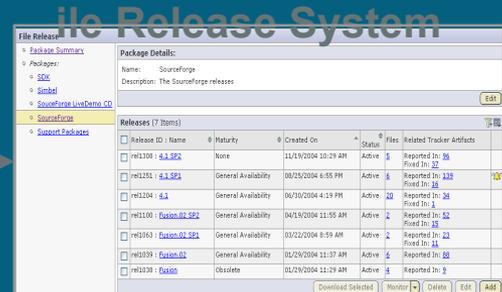
# "Object" Traceability



Upload, download, and share versioned documents with the distributed project team



Manage "artifacts" (defects, requirements, user stories, story tasks, risks, tests, and more)

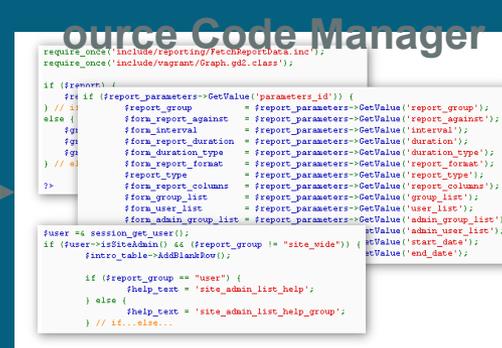


Upload, download, and share software release packages with your customer community



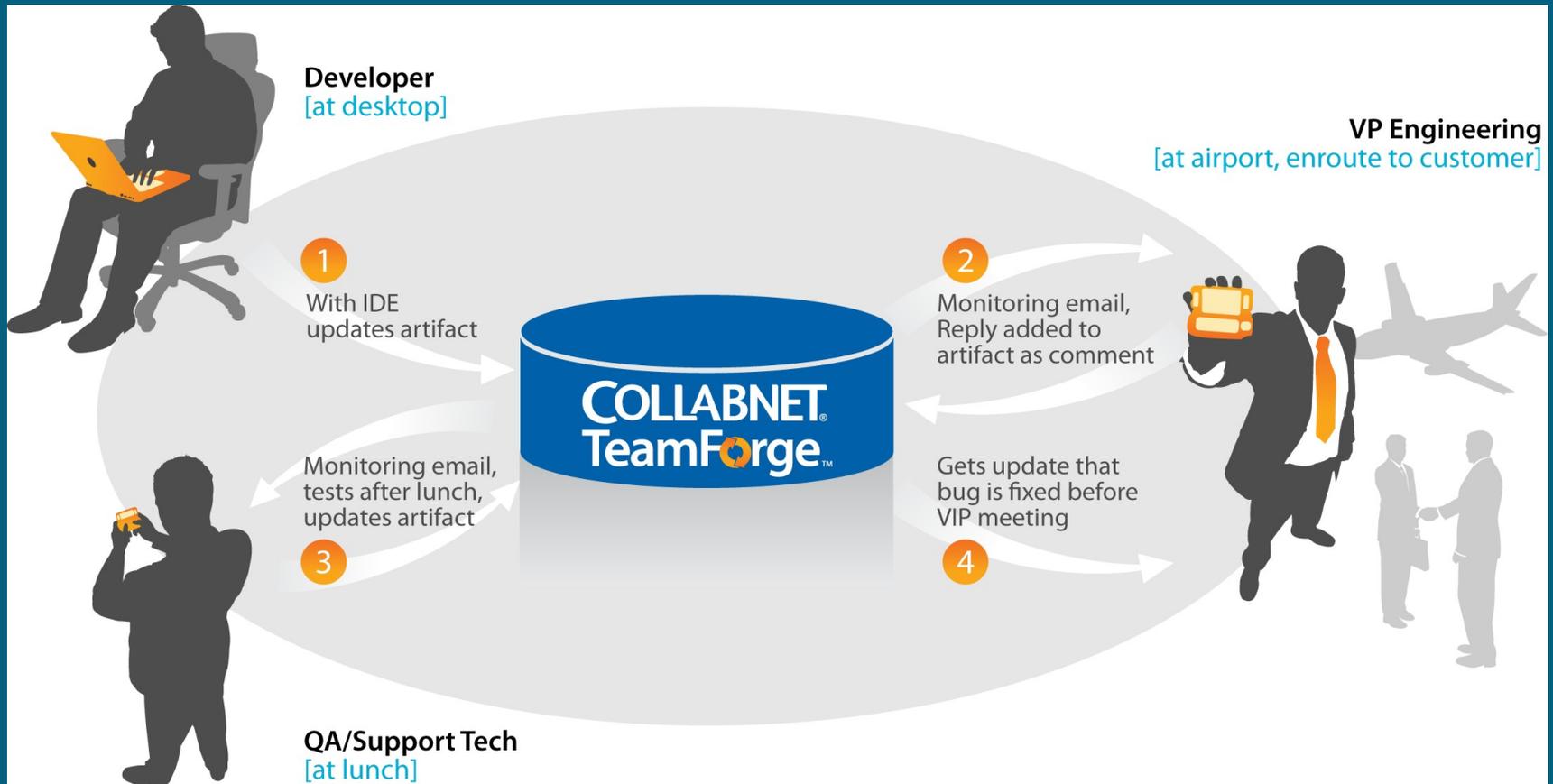
Upload a MS Project plan to the system and allow participants to update progress in real time

- Every asset is a uniquely identifiable "object"
- Any object can be associated with any other
- Associations are easy to find in the user interface
- Associations provide end-to-end asset traceability!



Connect and manage multiple version control repositories for storing project code, etc.

# Stay Up-to-Date on Everything



# New to Agile? We can show you the ropes!

- Certified Scrum Courses
  - Public courses throughout N. America and Europe
  - Private courses on demand for organizations moving to Scrum
- Coaching
  - Our team possesses deep experience leading organizations — from small businesses to multi-national enterprises — through Scrum transformations
- Free Webinars
  - Led by our experts on a range of topics
- Find out more
  - [Scrum Core Training](#)



