



Developer Cloud Service – An Overview

Product Mangement – Oracle Development Tools
October, 2015

Safe Harbor Statement

The following is intended to outline our general product direction. It is intended for information purposes only, and may not be incorporated into any contract. It is not a commitment to deliver any material, code, or functionality, and should not be relied upon in making purchasing decisions. The development, release, and timing of any features or functionality described for Oracle's products remains at the sole discretion of Oracle.

Program Agenda

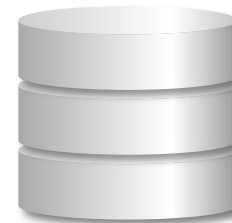
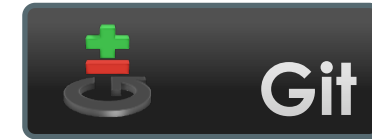
- 1 Challenges Facing Development Organizations
- 2 Developer Cloud Service Overview
- 3 Demo
- 4 Developer Cloud Service – A Use Case

Why Move to the Cloud?

Better applications
developed **faster**
cheaper


Development Organization Challenges - Costs

- Acquire hardware and software
- Setup and install components
- Connect components
- Configure IDEs
- Maintain and upgrade versions
- Connect to deployment platform




Development Organization Challenges - Process


- Achieving build process agility
- Producing better applications
- Streamlining deployment
- Managing teams and developers
 - Tracking and reporting
 - Team communication
 - Workload management and prioritization




TODAY


 **Alex Admin** crated **Task 61: Create a Project Tracking Wiki** 21 minutes ago


TUESDAY, APRIL 14


 Deployed **Contacts** at dcsdevteam/jcs1 null
Build: hw/#1 Artifact: target/helloworld.war Tuesday at 5:30 PM -0400


1 WEEK AGO

 Deployed **Contacts** at dcsdevteam/jcs1 null
Build: hw/#1 Artifact: target/helloworld.war April 9, 2015 6:08 PM -0400

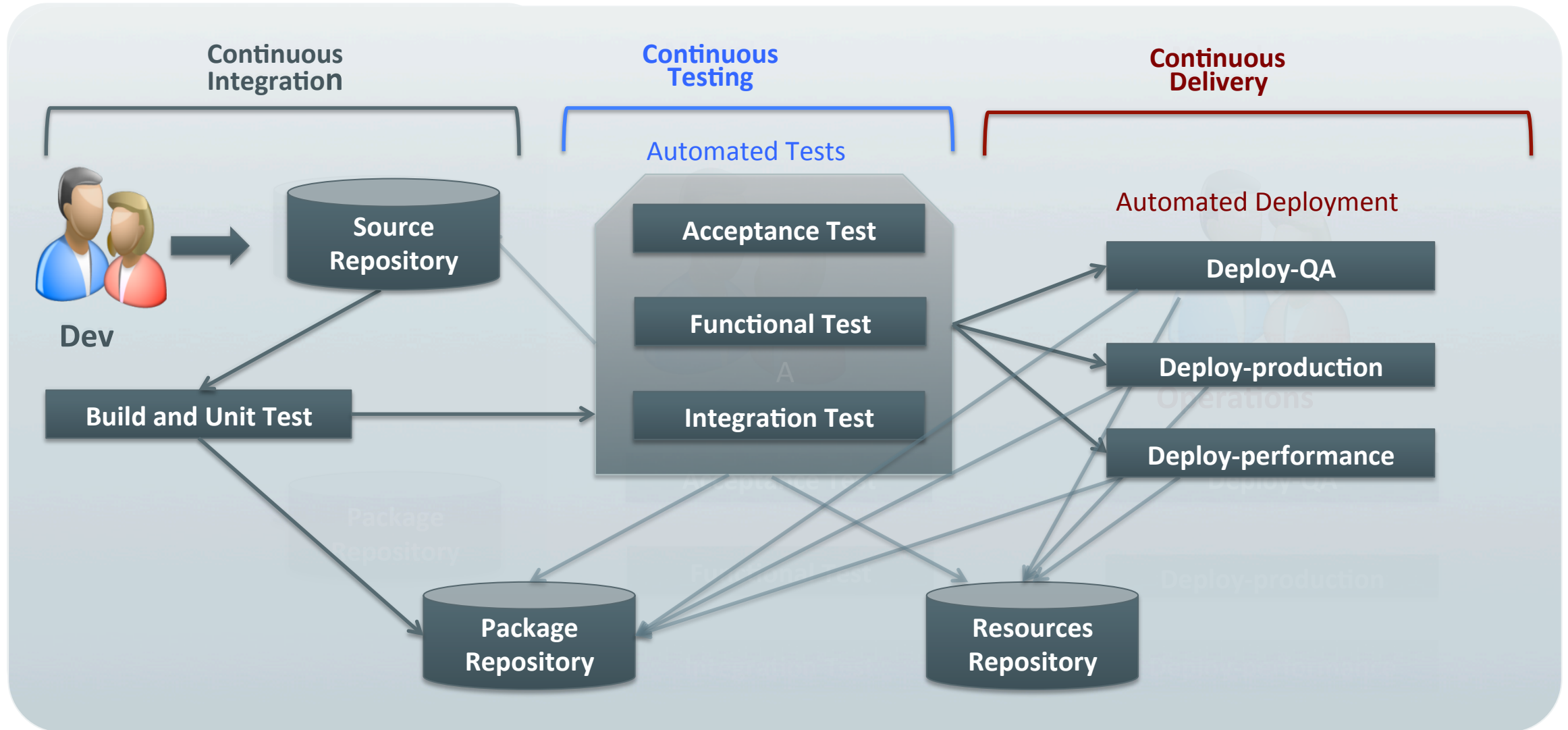
 **Alex Admin** commented **issues.tasktype.review 21: Sample merge request:**
Reviewer Alex Admin (alex.admin) approved your code changes. April 9, 2015 6:01 PM -0400

 **Alex Admin** commented **issues.tasktype.review 21: Sample merge request:**
Approved April 9, 2015 6:01 PM -0400

 **Alex Admin** commented **issues.tasktype.review 21: Sample merge request:**
Waiting for feedback from the team April 9, 2015 6:01 PM -0400

 **Alex Admin** crated **Task 41: Create web methods for CRUD** April 9, 2015 5:42 PM -0400

Modern DevOps

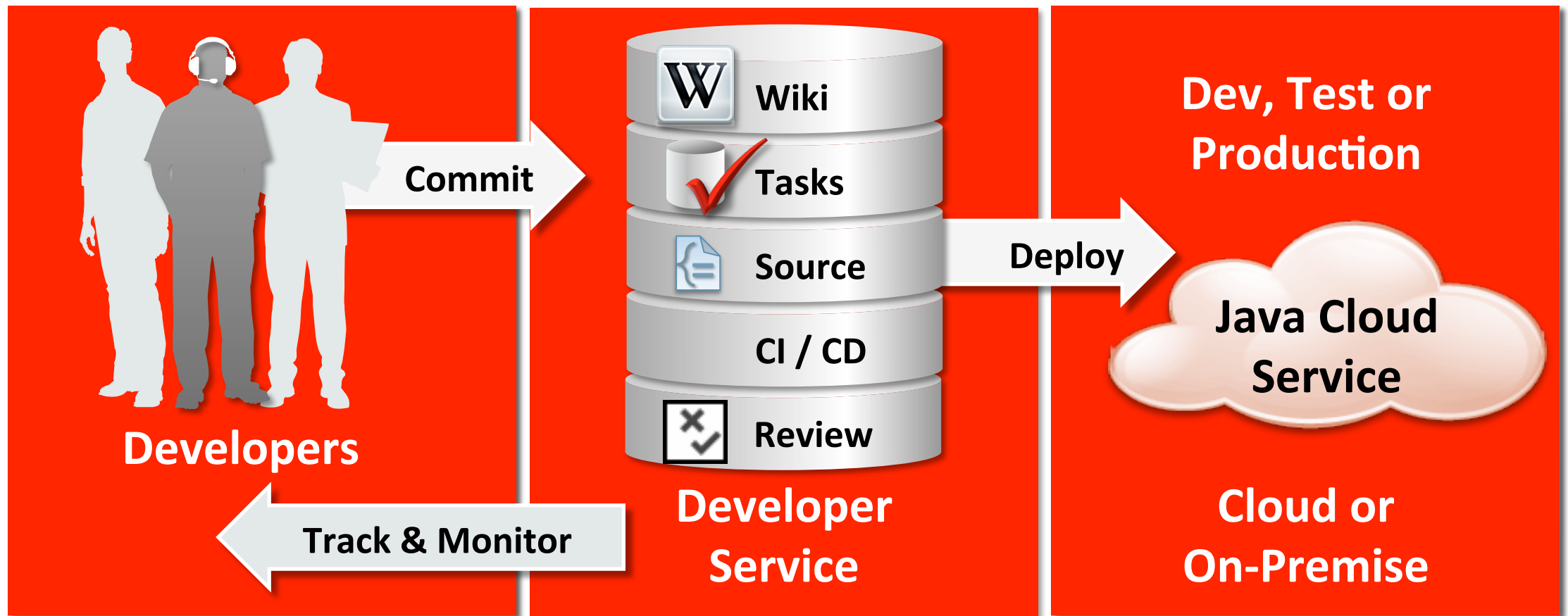


The Ideal Solution

- Integrated DevOps solution
- Quick startup time and easy provisioning
- Minimal maintenance costs
- Informative tracking of development activities
- Seamless deployment
- Flexible - cloud or on-premise



Developer Cloud Service: Bringing it All Together





Developer Cloud Service: What It Is

- Development Platform provided as a Service
- Application Lifecycle Management
- Team Collaboration & Management
- Delivery Management



**Source Control
Management**



Issue Tracking



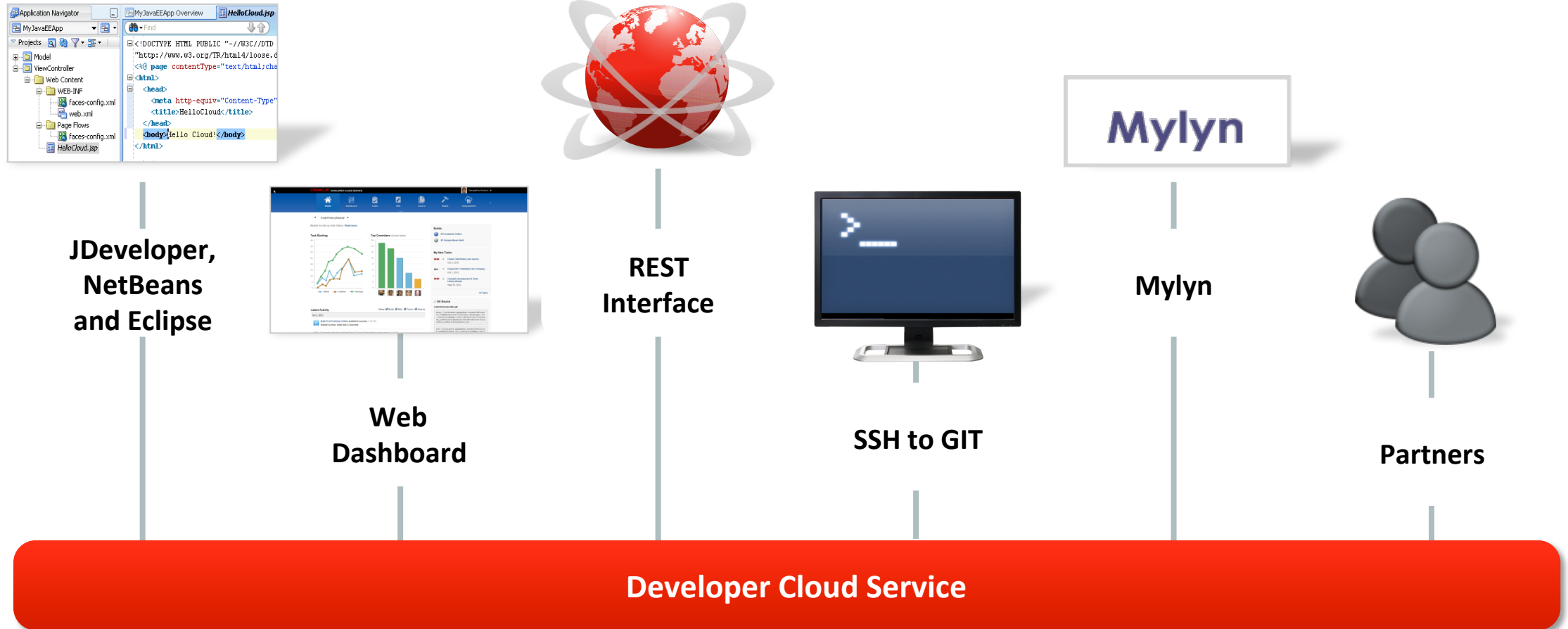
**Continuous
Integration**



Wiki Collaboration

bit.ly/HOL10381
cloud.oracle.com
Launch Eclipse

Developer Cloud Service - Interfaces



Manage Your Projects

- Activity Stream
- Git Repositories
- Maven Repository
- Team Members

The screenshot displays the Oracle Developer Cloud Service interface. At the top, the header reads "ORACLE Developer Cloud Service" with a user profile "alex.admin" in the top right. Below the header is a blue navigation bar with the "Contacts" tab selected. A search bar on the right of the navigation bar contains the text "Search Not Available".

The main content area is divided into two sections. The left section, titled "TUESDAY, APRIL 14", shows an activity stream. The first entry is a deployment success message: "Contacts deployment to dcsdevteam/jcs1 SUCCEEDED", with configuration details "Configuration: Contacts started by Alex Admin" and "hw / 1 / target/helloworld.war". The second entry is a comment from "Alex Admin" on a review, stating "Approved". The right section, titled "REPOSITORIES", shows a list of repositories. It includes a "Filter Repositories" search bar and a "+ New Repository" button. The repositories listed are "contacts.git" and "hw.git", both with "Hosted Repository" links. Below these, the "Maven" repository is shown with its URL: "http://ucf2c-dcs-callahan-hub1.opcdeveloper.oracleinternalucf2c.oraclecorp.dev/s/qa-dev_contacts/maven/".

Version Your Code With Git

- Automatically provisioned
- Connect from any IDE
- Command line accessible
- Integrate with GitHub

The screenshot displays the Oracle Developer Cloud Service interface. At the top, the header reads "ORACLE Developer Cloud Service" with a user profile "alex.admin". Below this is a navigation bar with tabs: Home, Code (selected), Merge Requests, Issues, Develop, Build, Deploy, Wiki, and Administration. A search bar labeled "Search Code" is on the right. The main content area shows a repository named "contacts.git" with a "NewBranch" button. A context menu is open, showing options for "Branch" (Create, Rename, Delete) and "Tag" (Create, Rename, Delete). Below the menu, there are tabs for "Files" and "Commits". The file list includes:

File	Commit	Author	Date
.settings	Initial Commit	Alex	2015 12:36 AM -0500
src / main	Removed the method	Don	2015 1:55 AM -0500
.gitignore	Initial Commit	Alex	January 12, 2015 12:36 AM -0500
nb-configuration.xml	Initial Commit	Alex	January 12, 2015 12:36 AM -0500
pom.xml	Initial Commit	Alex	January 12, 2015 12:36 AM -0500

Review Peers Code

- Create Code Reviews
- Invite Team Members
- Collaborate on Reviews
- Accept / Reject / Iterate Reviews
- Comment on Code
- Merge Code
- Merge Conflict Resolution

The screenshot displays the Oracle Developer Cloud Service interface. At the top, the header includes the Oracle logo, the text "Developer Cloud Service", and a user profile "alex.admin". Below the header is a navigation bar with a "Contacts" button and a search bar labeled "Search Requests". The main navigation menu includes links for Home, Code, Merge Requests (highlighted), Issues, Develop, Build, Deploy, Wiki, and Administration.

The "Merge Requests" section is active, showing a table of requests. The table has columns for ID, Summary, and Status. The first row shows ID 21, Summary "Sample merge request", and Status "OPEN". The second row shows ID 3, Summary "Review the code", and Status "COMPLETED". Below the table is a pagination control showing "Page 1 (0-0)" and navigation buttons.

On the right, a modal window titled "Sample merge request" is open. It shows the request details: "OPEN Alex Admin wants to merge 0+ commits to master from 006". Below this, there are checkboxes for "Close after merge is complete" and "Squash commits", both of which are checked. The modal also has tabs for "Write", "Preview", and "Markdown Reference". The "Write" tab is active, showing a text area with the text "Merge to master". At the bottom right of the modal are "OK" and "Cancel" buttons.

Track Project Issues

- Track Requirements/Bugs/ERs
- Assign to team members
- Integration with MyLyn in IDEs

The screenshot displays the Oracle Developer Cloud Service interface for a project named 'Contacts'. The 'Issues' tab is selected in the top navigation bar. On the left, under 'Standard Searches', the 'Recently changed' filter is highlighted. The main area shows a table of issues with columns for ID, Summary, Component, Status, and Owner. The table lists three issues: ID 41 (Create web methods for CRUD), ID 2 (Update the index.jsp file and ad), and ID 1 (Create a branch and push all ind). Below the table, it indicates 'Page 1 of 1 (1-3 of 3 items)'. On the right, an Eclipse IDE window is shown with the 'Outline' view active, displaying a project structure for 'qa-dev [Contacts]'. The outline includes a folder 'Open' and a file '41: Create web methods for CRUD', which is highlighted in green.

ID	Summary	Component	Status	Owner
41	Create web methods for CRUD			
2	Update the index.jsp file and ad			
1	Create a branch and push all ind			

Eclipse Issue View →

Automate Project Builds

- Maven
- Ant
- Event based automation
 - Code check-in

Build Triggers
Trigger a build:
☐ When these jobs are built
☐ Based on remote trigger
☐ Based on this schedule
☐ Based on SCM polling schedule
☐ When Maven dependencies have been updated by Maven 3 integration

Build Environment
☐ Start Xvfb before the build, and shut it down after
☐ Abort the build if it's stuck

Build
Build steps
Invoke Ant

Targets

deploy

Build File

build.xml

Properties

Add Build Step

Execute shell
Invoke Ant
Invoke Maven 2 (Legacy)
Invoke Maven 3

ORACLE Developer Cloud Service shay.shmeltzer@oracle.com

BasicADF Search Not Available

[Home](#) [Code](#) [Merge Requests](#) [Issues](#) **Build** [Deploy](#) [Wiki](#) [Administration](#)

[< Jobs Overview](#) **ADFSampleBuild** [Build Now](#) [Configure](#) [Disable](#) [Delete](#)

Description
No description available

Permalinks
[Last](#) | [Successful](#) | [Failed](#) | [Completed](#) | [Unsuccessful](#) | [Stable](#)

Notifications [On](#) [Off](#) [CC me](#)

Build History

Status	Build	Time	Duration	Console
✓	#8	Yesterday at 7:36 PM -0700	40 s 139 ms	➤
✓	#7	February 20 2015 2:15 PM -0800	53 s 286 ms	➤
✓	#6	February 5 2015 2:37 PM -0800	52 s 772 ms	➤
✓	#5	February 5 2015 2:32 PM -0800	34 s 688 ms	➤
✗	#4	January 30 2015 2:35 PM -0800	34 s 351 ms	➤
✗	#3	January 30 2015 2:30 PM -0800	31 s 128 ms	➤
✗	#2	January 30 2015 12:08 PM -0800	33 s 210 ms	➤

Artifacts of Last Successful Build
[ojdeploy-build.xml](#)
[ojdeploy-statuslog.xml](#)
[sampleADF_ViewController_webapp1.war](#)
[\(all files in zip\)](#)

Build Trend

Build	Duration (s)	Status
#8	40.2	Success
#7	53.5	Success
#6	52.1	Success
#5	34.8	Success
#4	34.6	Failure
#3	31.2	Failure
#2	33.4	Failure

Continuous Integration / Continuous Delivery

- Build status by job
- Create new jobs
- View build history
- Save views
- Executor active view

ORACLE Developer Cloud Service alex.admin

Contacts

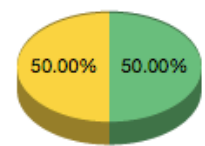
Search Jobs...

Home Code Merge Requests Issues Develop **Build** Deploy Wiki Administration

Jobs Overview

Build Queue

[View Build History](#)

Job Statistics

Success
Pending

[New Job](#) **All Jobs** All Successful Jobs All Failed Jobs All Unstable Jobs

Status	Weather	Job	Last Success	Last Failure	Duration	Actions
✓	☀	hw	January 21, 2015 12:42 AM -0500	N/A	1 min 38 s	🔍 ⚙️ ✉️
🕒		Sample_Maven_Build	N/A	N/A	N/A	🔍 ⚙️ ✉️

Simplified Application Deployment

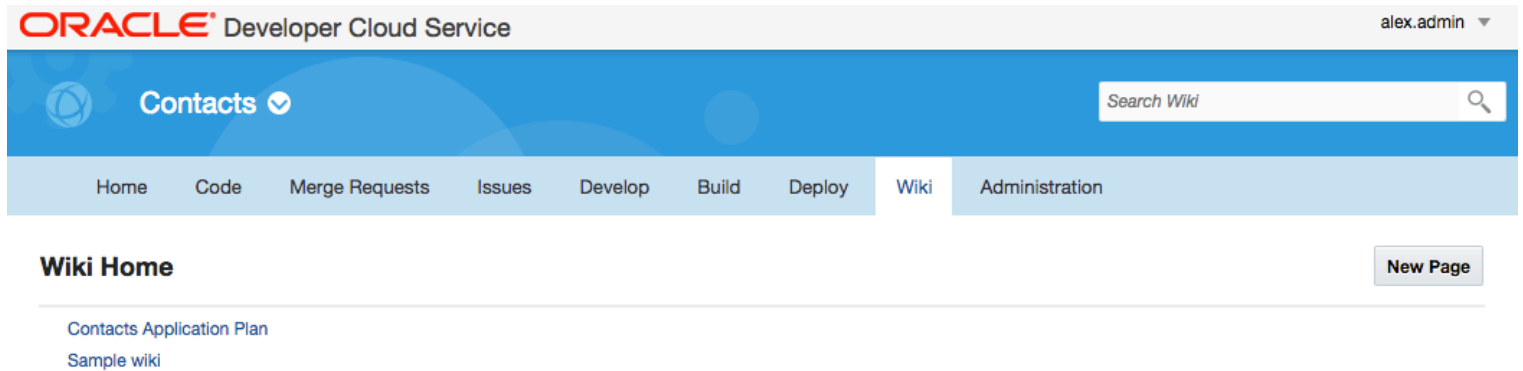
- Create deployment configurations
- Start/Stop a deployment
- Redeploy/Un-deploy applications
- In the cloud or on-premise deployment

The screenshot displays the Oracle Developer Cloud Service web interface. At the top, the header includes the Oracle logo and 'Developer Cloud Service' text, with a user profile 'alex.admin' on the right. Below the header is a navigation bar with tabs: Home, Code, Merge Requests, Issues, Develop, Build, Deploy (selected), Wiki, and Administration. A search bar labeled 'Search Deployments' is located on the right side of the navigation bar. The main content area is titled 'Deployments' and features a 'New Configuration' button. On the left, a 'Contacts' sidebar lists details for a Java Service: 'dcsdevteam / jcs1', 'Configuration: Contacts', 'Job / Build: hw / On Demand', and 'Artifact: target/helloworld.war'. It also shows a status message: 'Last deployment succeeded -- Tuesday at 5:30 PM -0400.' The right pane, titled 'Contacts: History', shows a list of deployment events:

- Deployment Succeeded**
hw / 1 / target/helloworld.war
Logs: virus-scan, whitelist, wls-appc, cloud-appc, redeploy
Tuesday at 5:30 PM -0400 by Alex Admin
- Deployment Succeeded**
hw / 1 / target/helloworld.war
Logs: whitelist, wls-appc, cloud-appc, deploy, virus-scan
April 9, 2015 6:08 PM -0400 by Alex Admin
- Create Succeeded**
hw / 1 / target/helloworld.war
April 9, 2015 6:06 PM -0400 by Alex Admin

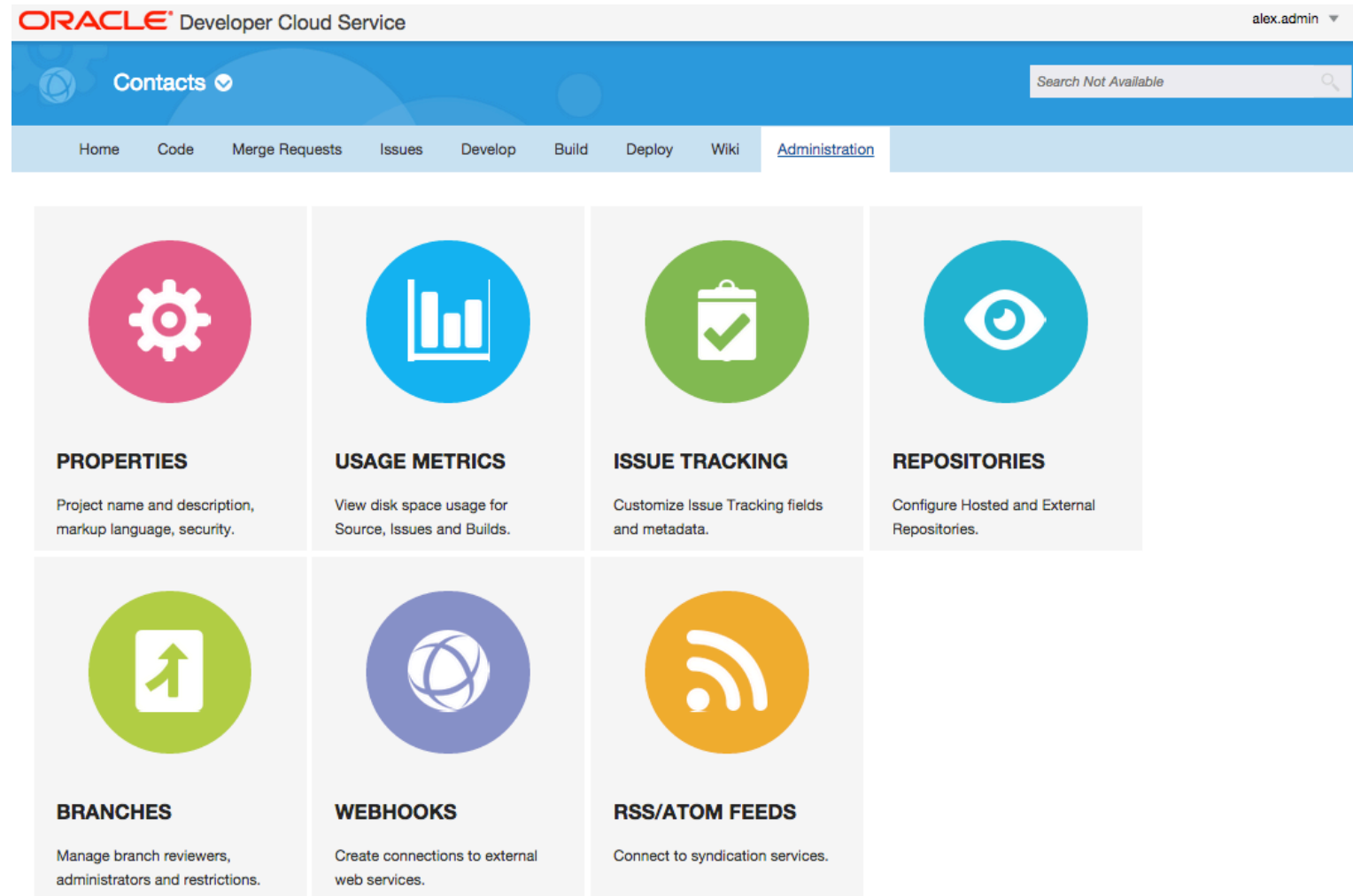
Share Information Through Wikis

- Create a new project wiki
- Collaboration through project specific wiki
- Content management
- Wiki markup of choice



Administer Your Projects

- Manage Project Properties
- Analyze Usage Data
- Customize Issue Tracking
- Configure Git Repositories
 - Hosted & External
- Manage Branches
 - Administrators & Restrictions
- Create Connections to External Web Services
- Connect to Syndication Services



Developer Cloud Service

Simplify Development

- Automated Provisioned Env
- Preconfigured & Integrated
- Automated Builds & Deployments
- Web based administration

Collaborate & Manage

- Integrated team source repository
- Continuous integration with breakage notifications
- Task/Defect tracking with activity stream and notifications

Deploy Automatically

- Deploy into Java Cloud Service automatically
- Workflow ensures build & test

Integrated With IDEs

- JDeveloper
- Eclipse
- NetBeans

Developer Cloud Service

DEMO



**Source Control
Management**



Issue Tracking



**Continuous
Integration**



Wiki Collaboration

A woman with long dark hair, wearing glasses and a blue denim shirt, is sitting at a desk and looking at a large computer monitor. Her hands are on the keyboard. The background is a blurred office environment with shelves and a desk lamp.

Case Study

Team Overview – DevCS Development Team

- Distributed team of > 145 developers
- Thousands of lines of code
- Scrum methodology running 2 week sprints
 - Each sprint delivers production ready builds
- Uses Developer Cloud Service to manage all Development Operations (DevOps)

Source Management

- 27 Git repositories
- 1 Project for Developer Cloud Service
 - Represents many Git repositories for each product component and/or sub-component
 - Issue tracking spans project
- Logically separate code represents a component and has it's own Git repository
 - Versioned and branched independently

Merge Process – Merge Requests

- New features / bug fixes occur on a feature branch created by a developer
- Once feature / bug fixes are complete, merge request is created with target of master on component repository
- Default reviewers on a component repository feature branch
- Developer can add additional reviewers
- Code is reviewed
 - Iterated over based on reviewer comments -> Approved/Rejected
- Merge is initiated on Approved code
 - Every check-in that's merged initiates a build

Build Process

- Builds (In addition to check-in builds) – Development
 - 2 times a day an integration build is initiated
 - Builds all Git repositories for a consistent stripe in time
 - Build is deployed to VMs running in Cloud (Development Staging Env.)
 - Downstream job is initiated running functional test (selenium suite tests) against env.
- Builds – Production Candidates
 - Master is branched every 2 weeks and a Build is initiated
 - Deployed to a Production Candidate VM in Cloud
 - Selenium Tests run against Production Candidate VM in Cloud
 - Manual QA against Production Candidate VM
 - If all tests pass, branch may be deployed to customer production environment

Metrics Overview

- Many feature branch builds occur on every developer merge
- 2 integration builds/day
- 2 Week Development Sprint
 - 1 automated production release build every 2 weeks
- ~1,000 transactions/day
 - Transactions include commits, builds, code review activity, merges, tasks, etc...
- 145 Developers
- 27 Git repositories
- 1 Maven repository

A woman with long dark hair in a braid, wearing glasses and a blue denim shirt over a black top and a pink beaded necklace, is sitting at a desk and looking at a large computer monitor. Her hands are on the keyboard. The background is a blurred office environment with shelves and a desk lamp.

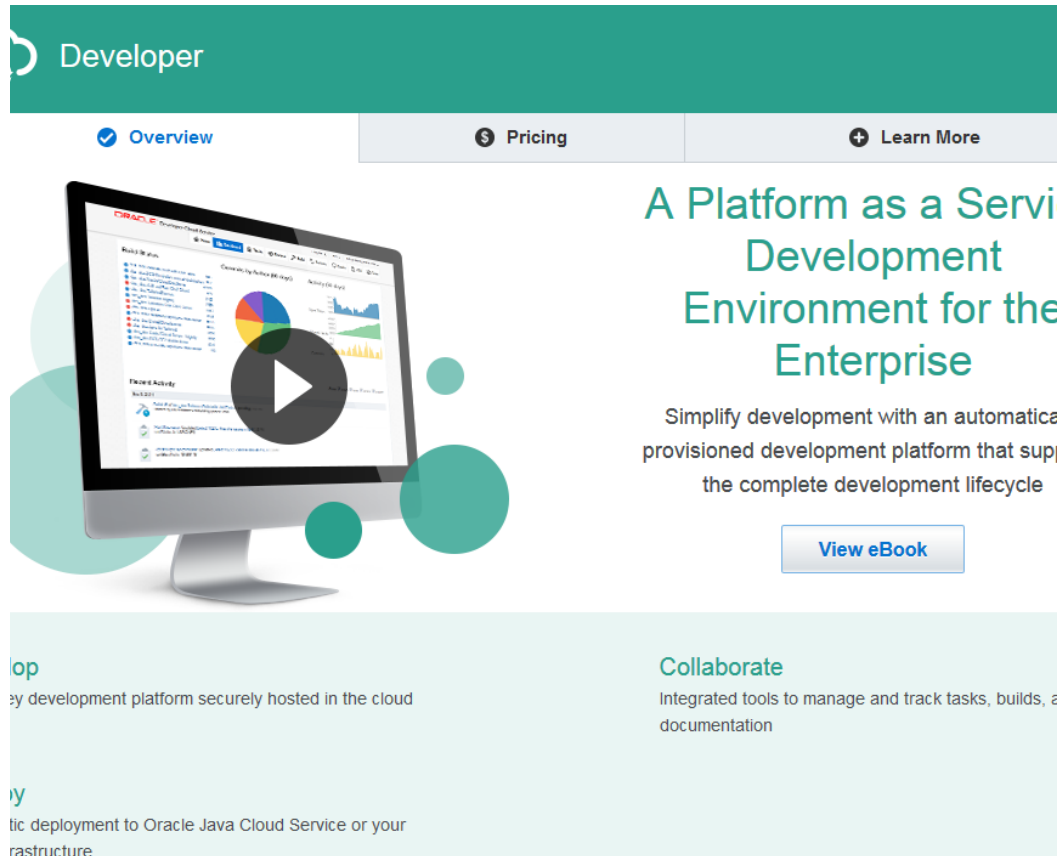
Summary

Developer Cloud Service Value Proposition

- Eliminate setup and startup time
- Reduce maintenance costs
- Leverage integrated ALM solution
- Extend code accessibility
- Improve team collaboration
- Simplify team management
- Streamline cloud deployment
- Produce better applications faster

Get Started Today

cloud.oracle.com/developer_service



Developer

Overview Pricing Learn More

A Platform as a Service Development Environment for the Enterprise

Simplify development with an automatically provisioned development platform that supports the complete development lifecycle

View eBook

Deploy

Collaborate

- Tutorials
- Videos
- eBook
- Whitepapers
- Documentation
- Forums

Learn More

What	When	Where
HOL - Improved Development Lifecycle, Team Collaboration, and DevOps in the Cloud	Mon, 5:00	Hotel Nikko – Mendocino I/II
Oracle Cloud Platform for Rapid Applications Development and Integration in the Cloud	Tue, 12:15	Moscone South 302
Development Operations in the Cloud: A Use Case and Best Practices	Tue, 5:30	Parc 55 – Powell I/II
HOL - Improved Development Lifecycle, Team Collaboration, and DevOps in the Cloud	Wed, 2:45	Hotel Nikko – Mendocino I/II
DevOps for Mobile in the Cloud	Thu, 12:00	Moscone South 304

