

WEB006 : MyEd Continuous Improvement - Overview

Overview

Background

This project is intended to reduce time & resource effort required to deploy new releases of uPortal software to live environment, and to lessen the risk of error in deployments and impact on the service to users.

Achieved by establishing a continuous integration and deployment environment for MyEd builds. The aim being that:

- New releases of uPortal software can be easily merged with local customisations
- Automated build and testing are applied to merged code
- Static test accounts are created and used for the testing process
- Including testing of integrations with test instances of co-dependent services
- Automated deployment through the various staging environments to live
- Investigation into simplifying the movement of channel configuration between Dev, Test and Live

Scope

- Move uPortal codebase to Git for better alignment with the open source project in Github
- Create Bamboo plans for deploying MyEd, java portlets, and supporting web files to Beta, Dev, Test and Live
- Add increased testing automation for validating the MyEd build
- Open API for data production/consumption
- Investigation of managing channel configuration for Beta/Dev/Test/Live MyEd environments
- Provide rollback of deployments for any environment

Objectives

- Easy to upgrade MyEd to a new release of uPortal, including clean-separation and simple-merging of local customisations
- One-step deployment of new builds of MyEd to any environment : Beta, Dev, TEST and LIVE
- Easier to work on MyEd code and quickly see impact of changes, including continuous integration of codes changes with build server
- Automated testing of key data integrations and key channel content
- Use open APIs for key data integrations
- Research and write-up of approach and effort for managing channel configuration for Beta/Dev/Test/Live MyEd environments.

Deliverables

- Automated deployment solution (M)
- Write-up of procedures for rollback (M)
- Unit test framework, including client-side testing (M)
- Ongoing research environment (M)
- Write up and effort estimation for solution to multi-environment configuration (M)
- Common set of representative test users, across Beta, Dev, Test, Live (M)
 - Students (M)
 - Applicants (M)
 - Staff (S)
 - Alumni (C)
- Consistent sample data maintained in key systems for representative users:
 - IDM (M)
 - SITS (S)
 - Timetabling (S)
 - Learn (S)
 - Library (S)
 - Programme of Study (S)
 - Courses (S)
 - Announcements (C)
 - Notifications (C)
- Open data-integration framework including REST/JSON/AJAX (M)

- Open data implementations for key channels:
 - Timetabling (M)
 - SITS (Student Details, PoSm Courses) (1xS, 2xC)
 - Learn (S)
 - Library (S)
 - Announcements (C)
 - Notifications (C)
- Minor-version upgrade of uPortal using new development framework (S)
- Local build package (S)
- Seamless multi-environment configuration (C)
- Automate interaction with load-balancer during deployment (W)

Benefits

End Benefit A more up to date MyEd, with fewer bugs and security risks

Beneficiaries (stakeholders) all users of MyEd

Intermediate Benefits (outcome from deliverables of the project)

- Reduction in effort for MyEd deployments
- Greater consistency across environments
- Reduction in effort for testing of MyEd (through greater testing automation)
- Easier upgrade path to newer versions of uPortal
- Easier to upgrade individual components such as Web Files and Portlets

Beneficiaries (stakeholders) IS Applications and Service Management

- Fewer calls to Helpdesk due to problems in Deployments

Beneficiaries (stakeholders) HelpDesk, All users

Success Criteria

- All uPortal deployments on Beta, Dev, Test and Live delivered through Bamboo
- Automated test suite delivered via Bamboo for key channels
- Key channels moved to open API

Project Milestones

Target Date	Title	Stage	Complete
15-Sep-2014	Start of Project	Initiate	Yes
14-Nov-2014	Planning	Plan	Yes
03-Dec-2014	Design	Design	Yes
03-Dec-2014	Further Milestones during Build	Execute	Withdrawn
	TBC after System Design - Not Required		
06-Feb-2015	Build	Build	Yes
04-Mar-2015	Acceptance sign-off	Accept	No
12-Mar-2015	Delivery of Bamboo Deployment	Deliver	No
	Functionality		
26-Mar-2015	Delivery of Minor Version	Deliver	No
	Upgrade		
08-Apr-2015	DSOR	Deliver	No
15-Apr-2015	Closure	Close	No

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