

# Kuali Jenkins

## BACKGROUND

- Shared CI service forming the backbone of an automated, continuous delivery pipeline for Kuali software
- Highly focused on the removal of manual configuration, process, and steps in order to get Kuali applications, built, deployed, and running

## STABILITY UPGRADES

- Long term, stable, service running on the LTS version of Jenkins (currently 1.532.3)
- Automated process in place to enable keeping it upgraded to the latest Jenkins LTS release
- Long term stable version of Ubuntu (currently 12.04)
- Automated process to upgrade a stock Ubuntu 12.04 baseline AMI into a fully configured and operational Jenkins instance
- Automated process to easily spin up Jenkins instances in any Amazon region (Virginia, Portland, Northern California)
- All plugins pinned to a specific version known to be compatible with the LTS version of Jenkins

## PERFORMANCE UPGRADES

- Runs on [Amazon c3.xlarge](#) instances
  - 350% more CPU (14 ECU's vs 4 ECU's)
  - Double the number of CPU cores (4 instead of 2)
- SSD - All CI activity occurs on solid state drives
  - two 40gb drives configured as a single 80gb RAID 0 partition
  - roughly twice as fast as a single SSD
  - 4x-5x faster than a standard EBS volume for typical CI jobs (build, unit test, etc)

## FUNCTIONAL UPGRADES

- Unlimited nested views
  - Group and Organize jobs into views using regular expressions
  - Provides an easy way to avoid job "clutter" and keep things organized
- Dashboards and Pipelines
  - Provide a cohesive overall view of CI related activities
  - Code Health
  - Job Status
- Authorization & Authentication
  - Fully integrated with KIS and CAS
    - KIS groups manage authorization, CAS handles authentication
  - Wonderful thing about working with open source projects like Jenkins
    - Out of the box CAS plugin needed a very small patch in order to complete the integration with Kuali's CAS implementation
    - Able to patch the source and continue moving forward in a timely manner

## COMPONENT UPGRADES

- Firefox
  - Headless mode
  - Can select between multiple versions 14, 22, 27
  - Automation in place for safely adding new Firefox versions as they get released
- Maven
  - 3.0.5
  - 3.1.0
  - 3.2.1
  - Automation in place for safely adding new Maven versions as they get released
- Java
  - JDK 6
  - JDK 7
  - JDK 8
  - Automation in place for safely adding new java versions as they get released