Cloud & DevOps Program
March Big Group

March 29, 2016
Tuesday
2:00-3:00 p.m.
Northwest Building, Room B103
**Agenda**

- Program Status Update  (15 min)
  - Progress Against the Plan: FY16 Goals
  - Progress Against the Plan: Accomplishments
- Future Plans: FY17 Goals  (10 min)
- Spotlight: Campus Services Lift & Replatform 42  (15 min)
- Architecture: What’s New  (10 min)
- Upcoming Events  (5 min)
- Questions  (5 min)
Program Status Update
Progress Against the Plan: FY16 Goals

Since we met in January, we’ve been working toward FY16 goals.

60 apps have been migrated to the cloud, exceeding our FY16 Goal of 50
- Remaining applications for FY16 have been identified and/or scheduled

We have made big strides in advancing our DR goals
- All applications migrated to the cloud have some level of DR

Develop Self-Service Provisioning for Crimson Cloud
- Created a vision for Service
- Created a PaaS vendor scorecard
- Further work has been de-prioritized

Developed a proposed strategy for Cloud Storage
- Proposed services will include Cloud Fileshare and Cloud Backup
- Defined a solution to improve the ability to create and distribute video content
Progress Against the Plan: Accomplishments

And we have program news and other accomplishments to share!

We have a pipeline that extends out to Q1 of FY17

- Replatform
- Greenfield
- DR Only
- Advisory
- Lift & Replatform

Held new AWS training programs, with plans for more in the near future

- AWS System Operations - April 12-14
- AWS System Operations - May 17-19
- Developing on AWS - May 3-5
- Security Operations - May 10-12
- AWS System Operations - June 14-16
- Architecting on AWS - June 28-30

Our team is growing

- Cloud Migration Manager
- DevOps Engineer (2 Openings)
Progress Against the Plan: Accomplishments

Cloud Firewall is in progress

Since we met in January…

- Major progress has been accomplished
  - Data center space and connectivity contracted
  - All project equipment purchased

What is happening now?

- Configuration and equipment testing
- Automation code in development
- Communication and cutover plans being developed

What is coming up next?

- Installation in Ashburn, VA of equipment
- Setting up connectivity between Ashburn and Harvard
- Final configuration and testing of both sites
Progress Against the Plan: Accomplishments

Cloud Connect Soars!

- What is next:
  - We’re still learning
  - We’re working to bring Gartner back
  - We’re developing a communication medium
    - Generic Cloud Questions
    - Architectural Advice
  - We’ve created public confluence sites focusing on:
    - Architecture documents
    - Planning documents
    - Statistics about applications in the cloud
  - We’ve uploaded all the documents from Cloud Connect to our website

- How can you get involved:
  - Attend a training session
  - Lead or participate in a Special Interest Group
  - Participate in the new communication medium (coming soon)

http://cloud.huit.harvard.edu/
Future Plans: FY17
Future Plans: FY17

- One Roadmap: Across All Work
  - All Migrations: L&S, Replatform, and Greenfield
  - Advisory
  - Disaster Recovery
  - Consolidation & Decommissions

- One Roadmap: Across All Business Partners
  - Infrastructure
  - AcTS
  - ATS
  - LTS
  - UC
  - Campus Services
  - TLT

- One Roadmap: 2 Quarters

http://cloud.huit.harvard.edu/resources/big-group
Spotlight: Campus Services L&S Project
Impressive!
Spotlight: Campus Services L&S Project

- Project Highlights:
  - One month - start to finish
  - Development environment - delivered in under a week
  - Project organized and well managed (Agile)

- Team:
  - Dedicated
  - Collaborative
  - Communicative
  - Co-located

*It’s easy to be successful with good project management, the right team, and dedication.*
Spotlight: Campus Services L&S Project

- Collaboration personified
- Process Improvements identified
- Gaining velocity moving forward
Architecture: What’s New
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Cloud Architecture has been very busy...

- To date we have created for use (in collaboration with our colleagues):
  - CloudFormation Templates
  - Code Examples
  - Shared Services
  - Automation Code
  - User Scripts

- To date we are actively:
  - Advising on 9 application projects
  - Advising on 9 infrastructure projects
  - Participating in many other inquiries from schools at Harvard and beyond
Architecture: What’s New

What can you use today?

● Ansible:
  ○ Postfix for AWS Hosts - (v1.2)
  ○ SplunkForwarder for AWS Hosts - (v1.0)

● Cloud Formations:
  ○ VPC - (v1.1)
  ○ NAT - (v1.0)
  ○ Loosely coupled stacks with Lambda - (v0.9)

● Python Boto:
  ○ IAM users, roles, groups, & policies - (v1.8)

● Shared Services:
  ○ Common Asset Repository - (v1.5)

● User Scripts:
  ○ AWS CLI with MFA - (v1.0)
Architecture: What’s New

What’s coming up?

● Q&A Forum with Experts:
  ○ An open Harvard forum for Q&A about the Cloud
  ○ Responses from HUIT Cloud Team and AWS Cloud experts
  ○ Responses from your fellow HUIT colleagues

● Tenets & Principles for Cloud Infrastructure and Software

● More automation for AWS IAM resources

● Creation, update, and change automation and approval workflows for Security Groups in consultation with InfoSec and RMAS

● More granular information about your usage through tools like ICE
Architecture: What’s New

Where can you find more information or the artifacts?

● On Confluence at (requires HarvardKey):
  ○ https://confluence.huit.harvard.edu/display/CLA

● Find our shared code at:
  ○ https://bitbucket.org/account/user/huitcloudservices/projects/Pub

● Find our Docs at (requires Harvard IP Address):
  ○ http://docs.cloudservices.huit.harvard.edu

● Coming Soon! - Q&A Forum with the Experts:
  ○ Launch to be announced on the cloud.huit.harvard.edu website
Upcoming Events
Upcoming Events

April Big Group will be on April 27th.

Training:

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- AWS System Operations - May 17-19
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We look forward to seeing you again in April for our next Big Group!

As always, don’t forget to watch our Web site: http://cloud.huit.harvard.edu
Questions?
Tweet Your Questions

#HCDOQuestions
Thank you!