Commons Credit Model: Update to the BD2K AHM

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The Commons

Cloud Provider A

Cloud Provider B

Cloud Provider C

Investigator Institution

[OPTIONAL] Approves Credit Request

Investigator

Requests Credits

Distributes

Distributes

Uses credits

Directs reseller to distribute credits

CMS FFRDC

NIH

Review & Selection

Delivers Funding Recommendation

Review & Approval

6

7

8

1

2

3

4

5

CMS FFRDC

NIH
How do credits work from the point of view of an investigator?

- Investigators receive credits worth a certain amount (in dollars) that can be used at the conformant provider(s) of their choice.
- Credits are pre-purchased and applied to the account of the investigator with the relevant provider(s).
- As the investigator uses services with a conformant provider, the provider debits the value of the investigators usage against the pre-loaded credits.
- INVESTIGATORS ARE NOT BILLED BY PROVIDERS AS LONG AS THEY DO NOT EXCEED THEIR CREDIT ALLOCATION.
Who can provide cloud resources?

“Conformant Providers”

Can be IaaS, PaaS, SaaS

Meet standards promulgated by NIH for:

- Capacity
- Accessibility
- Interfaces
- Identifiers and Metadata
- Networking
- Authentication/Authorization
- Information Assurance
Pilot of the Commons Credits Model

• 3 year pilot to test this business model to facilitate researcher use of cloud resources (enhance data sharing and potentially reduce costs).

• Contract with the CMS Alliance to Modernize Healthcare (CAMH) Federally Funded Research and Development Center (FFRDC) managed by the MITRE corporation
  – FFRDCs are special purpose, government-owned but contractor-managed entities that meet R&D needs that can’t be well managed by traditional grants and contracts
  – Examples: National Labs and organizations like RAND

• Pilot **will not directly interact with the existing grant system.**
  – Instead is modeled on the mechanisms being used to gain access to NSF and DOE national resources (HPC, light sources, etc.)

• The only required qualification for applying for credits will be that the investigator **must have an existing NIH grant**
How Does an Investigator Get Credits?

• PI completes a brief application with the CAMH FFRDC
  – describes project, preferred cloud provider(s) and budget
  – FFRDC and NIH screen applications and decide on awards

• Selected PIs are notified

• Investigators set up business relationship (i.e. accounts) with cloud provider(s) of their choice

• CAMH FFRDC pre-purchases credits and applies to investigator designated accounts

• Investigator begins using cloud services
• Current List of Approved Vendors
  – DLT = Amazon Web Services Reseller
  – IBM
  – Onix = Google Reseller
  – Broad and ISB NCI Cloud Pilots accessible via Google
  – Two more approved but negotiating participation agreement

• First batch of credits issued Sep 29, 2016
  – 8 Investigators (cohort 1) that are part of an ‘alpha test’
  – Only IBM/AWS at the time
  – 93% AWS, 7% IBM
  – First credits have been used, usage information coming
• Problems identified with portal that made applications more difficult than necessary
  – Generally these have been remediated and should not be an issue for the first regular applications

• Onboarding issues
  – Delays caused by university process to obtain accounts with providers
  – Secondary surety issues – providers generally preferred credit cards, universities prefer PO’s
  – Resolution: Guidance to new applicants to start account provisioning before selection for credit receipt, vendors being encouraged to accept PO’s. All current vendors accept PO’s now
• Business Associate Agreements (BAA’s)
  – BAA’s generally between university and actual cloud provider (i.e. AWS rather than DLT).
  – Concern about whether BAA required with reseller
  – Status: Resellers have no access to data in cloud provider. Single case where this has been an issue (UCSD/DLT), provider feels should be able to resolve in weeks

• High Performance Computing
  – Certain characteristics are fundamentally different than conventional clouds
  – Would require a modification of conformance requirements
Next Steps

• Cohort 2
  – K25 + BISTI grant holders (about 100 eligible investigators)
  – Planned Announcement: 1 DEC 2016
  – Planned Close: 15 JAN 2017
  – Meant to bias to smaller amounts (< $10,000)

• Cohort 3
  – K25 + BISTI + K99/R00 (1,120 additional eligible investigators)
  – Planned Announce: 15 JAN 2017
  – Planned Close: 31 MAR 2017
  – Meant to bias to smaller amounts (< $10,000)

• Cohorts 4 and 5
  – Dates TBD based on timelines of Cohorts 2 and 3
  – By cohort 5 should be all NIH investigators
  – Ideally we will identify most of the investigators for FY 2018 by the end of FY 2017
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