Deployment of NIST Pilots on NDS Labs

Alden Dima, Chandler Becker, Phillippe Dessauw, Marcus Newrock, Raymond Plante, Pierre-François Rigodiat, Xavier Schmitt, Guillaume Sousa Amaral, Sharief Youssef

Information Systems Group – Mary Brady, Group Leader

Office of Data and Informatics – Robert Hanisch, Director

Information Technology and Material Measurement Laboratories

National Institute of Standards and Technology (NIST)

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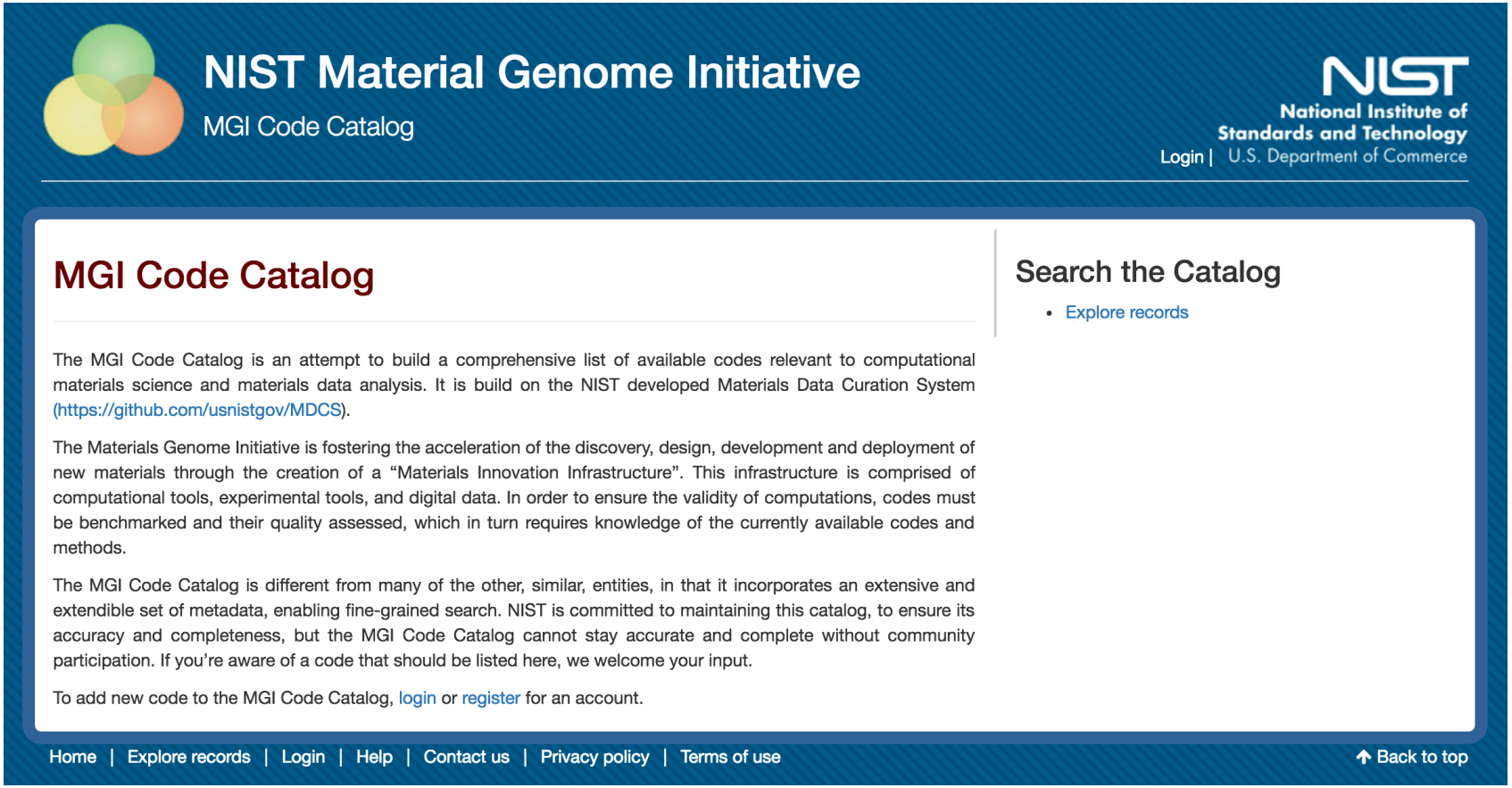
Pilots deployed (success stories):

- MGI Code Catalog (December 2015)
- NIST Materials Resource Registry (January 2016)
- Materials Data Curation System (February 2016)

NDS Labs technologies used:

- OpenStack GUI (required account setup)
- SSH terminal window (using public and private keys)

MGI Code Catalog

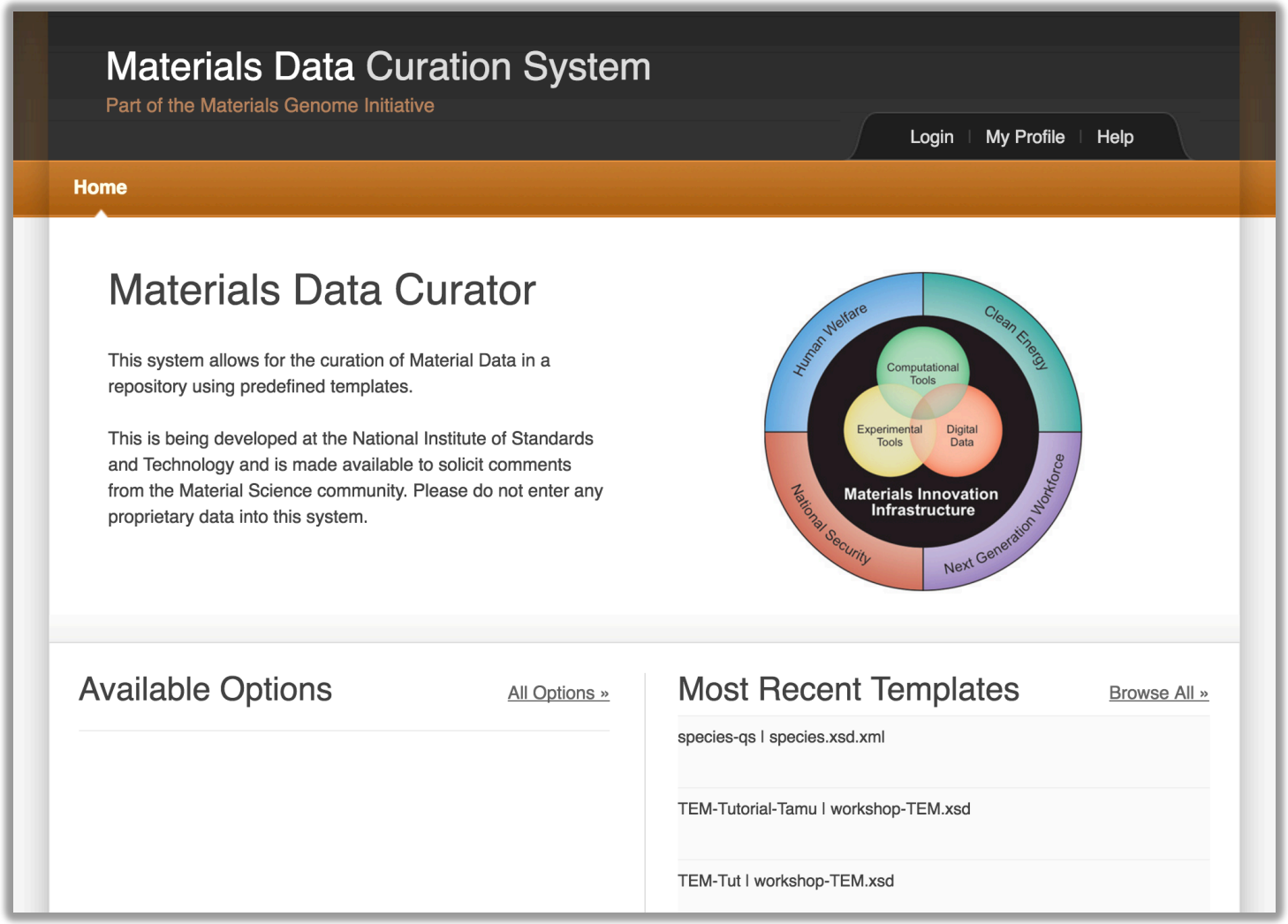


Success Story #1 – http://bit.ly/MGICodeCatalog

NIST Materials Resource Registry

Success Story #2 – http://bit.ly/MaterialsResourceRegistry

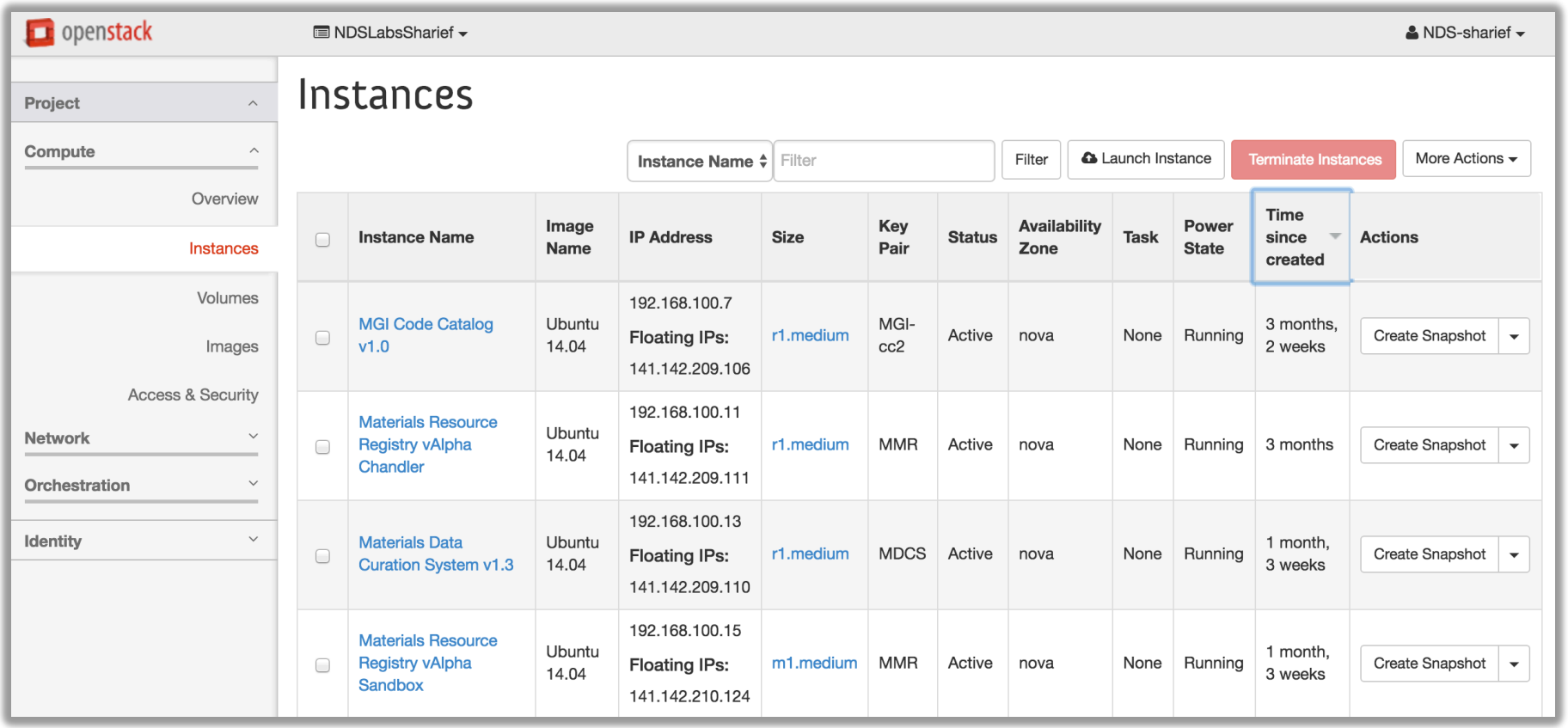
Materials Data Curation System



Success Story #3 – http://bit.ly/MaterialsDataCurationSystem

Current NDS Labs

Instantiate VM → SSH to VM → Deploy



Source: https://nebula.ncsa.illinois.edu/dashboard/project/instances/

Current NDS Labs

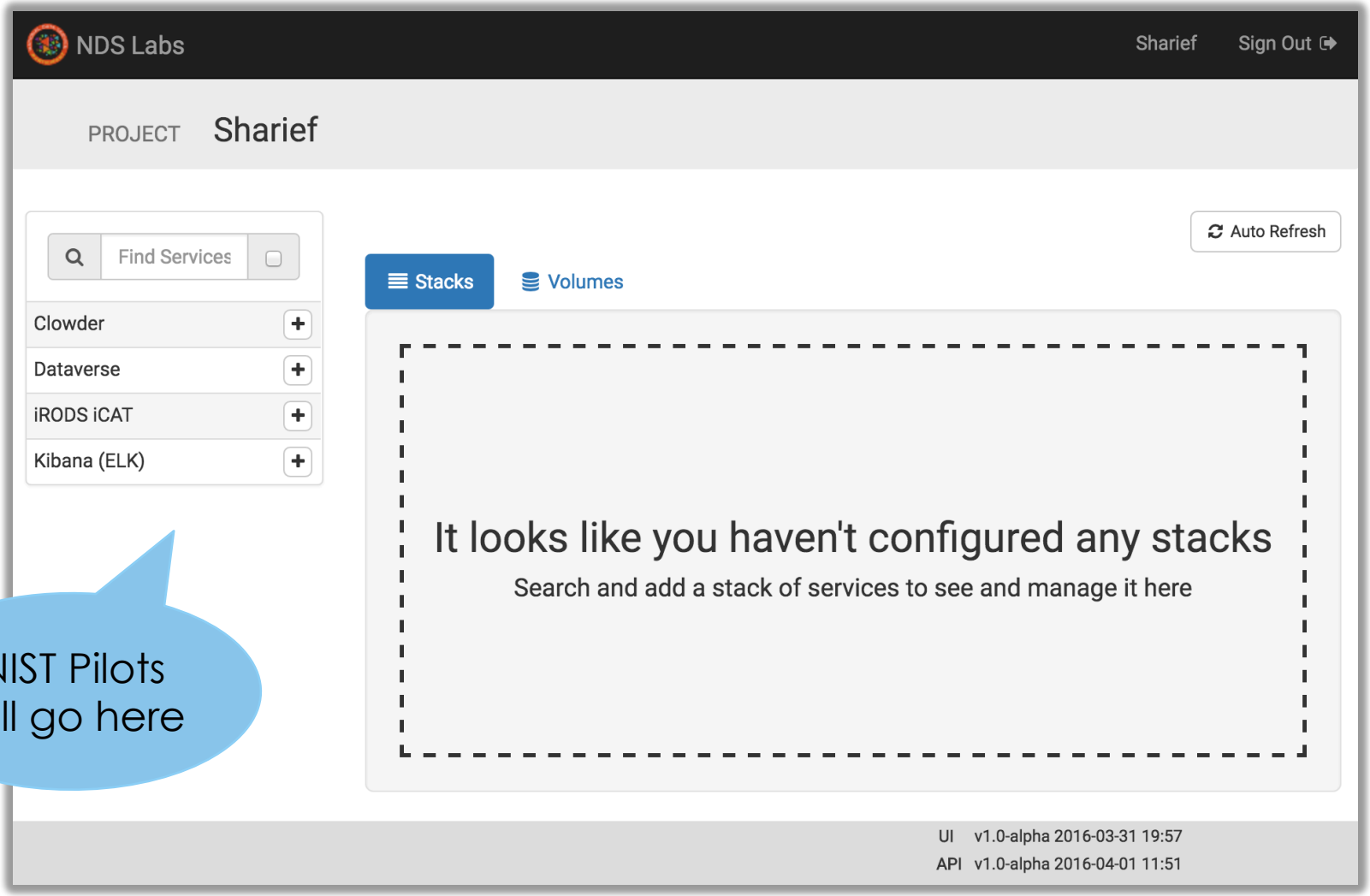
To add a new pilot to NDS Labs, we do the following:

1. Instantiate a VM using the OpenStack GUI
2. Specify security policy and associate a public floating IP
3. SSH into the new VM
4. Install the pilot software and Deploy

NDS Labs technologies used:

- OpenStack GUI (required account setup)
- SSH terminal window (using public and private keys)

Future NDS Labs (alpha)



NIST Pilots will go here

Source: 5th National Data Service Consortium Workshop Tutorials

Future NDS Labs (alpha)

To add a new pilot to NDS Labs, we now do the following:

1. Find or create a Docker image (NIST pilot projects)
2. Create an NDS Labs service specification (via JSON service spec)
3. Add our specification to the service catalog (via ndslabsctl command)
4. Launch the service (view the NDS Labs GUI)

NDS Labs technologies used:

- Docker (https://www.docker.com/) and Docker Hub
- Kubernetes (http://kubernetes.io/)

Thank You – Questions?

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MGI Code Catalog
http://bit.ly/MGICodeCatalog
NIST Materials Resource Registry
http://bit.ly/MaterialsResourceRegistry
Materials Data Curation System
http://bit.ly/MaterialsDataCurationSystem

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Sharief Youssef (NIST)
Email: sharief.youssef@nist.gov