



The government seeks individual input; attendees/participants may provide individual advice only.

Middleware and Grid Interagency Coordination (MAGIC) Meeting Minutes

December 6, 2017, 12-2 pm
NCO, 490 L'Enfant Plaza, Ste. 811
Washington, D.C. 20024

Participants (*In-Person Participants)

Bob Bonneau	DOD/USD
Rich Carlson	DOE/SC
Kaushik De	UTA
Phil Demar	FNAL
Dan Gunter	LBNL
Joyce Lee*	NCO
David Martin	ANL
Thomas Naughton	ORNL
Rajiv Ramnath	NSF
Adam Simpson	ORNL
Adam Soroka	Smithsonian
Kevin Thompson	NSF
Wenji Wu	FNAL

Action Items: Follow up with speaker suggestions and continue fleshing out Tasking.

Proceedings

This meeting was chaired by Rich Carlson (DOE/SC) and Rajiv Ramnath (NSF).

Speaker Suggestions

Task 1:

Explore containerization, virtualization technologies that allow the use of resources with a prescribed environment; i.e., an application environment that moves with the job.

Task 2:

Examine a broad range of challenges and current status of containerization and virtualization issues in the context of creating a federated, distributed cloud computing environment for science.

Task 3:

Explore data repositories and data oriented work groups worldwide. How do we constitute, compose and implement resources at the nation's cyberinfrastructure facilities to mesh well with emerging capabilities. Coordinate with Research Data Alliance and other relevant resources, as needed.

Potential Workshop

Develop and provide recommendations on how to provide a flexible, accessible cloud environment across applications, user groups, and cyberinfrastructure to support big science.

Discussion of Potential CY18 Speakers and Topics

Containerization

- Status report-
 - Shifter - Craig Tull (LBNL), Shane Canon (NERSC), Shreyas Cholia (CRD/NERSC)
 - NERSC's new system
 - SPIN (NERSC)- Cory Snavely, Katie Antypas
 - Docker
 - Singularity – (contact Kaushik De), Greg Kurtzer
 - Kubernetes – Google
 - Amazon AWS
 - Agave project
- Users: Explore usability for HPC applications.
 - Xsede (Jetstream/Rajiv Ramnath)
 - Atlas
 - LHC experiments
 - Light sources (Craig Tull, Ian Foster)
 - KBase- Steve Chan, Shane Canon, Adam Arkin
- Research Challenges: Joseph Stubbs (TACC)

Workflow environments

- Status
 - Jupyter (both status and research component)
 - Swift - Michael Wilde (ANL/Parallelworks), Dan Katz (NCSA)
 - Parallelworks –Michael Wilde (ANL/Parallelworks), Dan Katz
 - Pegasus Ewa Deelman (ISI)
 - Kepler (Rich Carlson)
 - Galaxy – James Taylor(JHU) (Adam Soroka)
 - Fireworks -Dan Gunter(LBNL),
 - Tigres - Lavanya Ramakrishnan (LBNL)
 - Nextflow (Dan Gunter)
 - Panda (contact: Kaushik De)
 - OSG - Frank Wuerthwein (UCSD)
- Users
 - SNS (ORNL), LIGO (Contact PIs for user communities)
- Research Challenges

Cyberphysical Resources (ongoing)

- DOE (usage and link to cyberphysical) – sensor rays, workflow management systems (check with Bob Bonneau)
- DevOps – (Bob Bonneau/CMS speakers)

Data and storage management:

- Status:
 - LSST
 - LHC
 - Google
 - bioinformatics community(KBase-what it would look like and needs)
 - IRODS consortium (Terrel Russel)
 - NCBI

- JGI (Joint Genome Institute)
- Advanced Photon Source (ANL)
- Users
- Research Challenges

Tabled:

- Possibly connect with DOE Exascale Computing Platform effort as it is a distributed platform

Roundtable

UCC and BDCAT 2017 Conferences

UCC 2017: <http://dl.acm.org/citation.cfm?id=3147213>

BDCAT'17: <http://dl.acm.org/citation.cfm?id=3148055>

UCC 2017 companion volume papers for the workshops are available here.

<https://dl.acm.org/citation.cfm?id=3147234>

Next MAGIC meeting

February 7, 2018 at the National Coordination Office, 490 L'Enfant Plaza, Suite 8001.