



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

Middleware and Grid Interagency Coordination (MAGIC) Meeting Minutes¹
October 6, 2021, 12-2 pm ET

Virtual

Participants

Alan Sill (Texas Tech)	Katherine Austin
Arjun Shankar (ORNL)	Ludovico Bianchi (LBL)
Cheryl Martin	Mallory Hinks (NCO)
Dan Gunter (LBL)	Miron Livny (OSG)
Donald Petravick (Illinois)	Saswata Hier-Majumder (DOE-ASCR)
H Birali Runesha (U of Chicago)	Terrill Frantz (Harrisburg Univ)
Jack Wells (NVIDIA)	Tevfik Kosar (NSF)

Introductions: This meeting was chaired by Tevfik Kosar (NSF)

Potential Discussion Topics:

Tevfik introduced the topics and said that we are looking for the group's inputs on the topics.

1. Multi-month (Virtual Workshop) topics
 - a. Continue discussion on Sustainable Research Software issues
 - i. Long-term sustainability models for research software projects
(Suggested speakers: Victor Chang, Kevin Crowston, Jim Herbsleb, James Howison)
 - Alan Sill asked if Dan Katz had spoken at MAGIC before. Someone said that he had.
 - Saswata Hier-Majumder (Sash) said that one of the things they are interested in at ASCR is understanding career challenges – mid to senior transition
 - Jack Wells said that the topic that's on his mind is integration and cooperation between vendor software and academic software. Suggestions from the group for this topic were:
 - AMD HPC user forum (Alan Sill) Dell – HPC community, NVIDIA – GTC conference
 - Cocos and Raja teams (Sash)
 - Arm community (Alan Sill) – user group – contact GA Tech
 - What are the key elements of sustainability that we want to take on?
 - Spack – application building packaging tool – Todd Gamblin (LLNL)
<https://computing.llnl.gov/projects/spack-hpc-package-manager> (Alan Sill)

¹ Any opinions, findings, conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the Networking and Information Technology Research and Development Program.

- Easy Build - Kenneth Hoste (Alan Sill)
 - Rajiv Thakur (ANL) and Katie Antypas (LBNL) - (Sash)
 - Maintenance challenges for software – Center for Trustworthy Cyber Infrastructure – Von Welch
- b. AI/ML to advance GRID and Cloud computing
 - Aditya Akella – UT Austin (Miron)
- b. Use of GRID and Cloud computing to advance AI/ML
 - AI institute at Ohio State (Tevfik)
 - Ian Foster – Chicago (Biral Runesha)
- c. New AI Architectures
 - Wafer scale – Cerebras (Don)
 - NVIDIA – Jack Wells will find speaker (Arjun)
 - CXL coming (Alan Sill)
 - Samba Nova – vendors Marshall Choy (Arjun)
- c. Creating a computing continuum – making edge to supercomputers work as a holistic system
 - Manish Parashar (Alan Sill) - NITRD Document <https://www.whitehouse.gov/wp-content/uploads/2021/10/National-Strategic-Computing-Reserve-Blueprint-Oct2021.pdf> - Bit different from computing continuum, but overlaps
 - Geoffrey Fox – UVA (Tevfik)
 - Rama V. – CNMS (Arjun)
 - Internet2 (Alan Sill) – CLASS training – Dana Brunson (Alan Sill)
 - Pete Beckman - NW – Argonne – edge computing (Jack Wells)
 - Polar Program (Biral) – Patrick Heimbach from the University of Texas at Austin would be a good person to talk about CI related challenges of current Polar Program projects
- d. Emerging workloads – real-time/near-real-time instrument data analysis
 - Light Source UK Diamond (Alan Sill) – Jens Jensen (RAL)
 - Patrick Brady (Don) – Simma
 - Integrated Research Infrastructure (Sash) – Ben Brown – Share Video
 - Advanced Photon Source at Argonne (Biral)
 - Biral said he could talk to Valerie Taylor to find a speaker
 - Nicholas Swartz – APS (Jack Wells)
 - FABRIC (Don)
 - ECP Technologies – Sollve (Alan Sill) – Sunita Chandrasekaran (UD)
- e. Community suggestions

2) Single month topics

- a. Federated Identity Management (current status – individuals or projects)
 - Jim Basney NCSa (Tevfik)

- Brian Bockelman or Jim Basney (Miron, Alan)
 - SciTOkens (Don)
 - LCG migration (Miron)
- b. Vision for advanced facilities (integrating instruments, processing, storage, and viz in a distributed environment.
- Lavanya Ramakrishnan, Data Facility (Dan Gunter, Jack Wells)
 - HPC facilities (Dan Gunter, Birali) - Katie Antypas + others
- c. Community suggestions
- Renewable energy
 - Alan Sill - Using renewable energy to power data centers for scientific distributed computing (Alan Sill)
 - Miron Livny – missing million (Miron) Alan Blatecky, Research Triangle Institute - The Missing Millions & Democratizing Computing
 - Andrew Chien - How university centers can use renewable energy (Birali)

Plans for November Meeting

- Tefvik asked the group about SC21 and if we should plan to host the November meeting in person at SC or if we should plan to host a virtual meeting at the normal time.
- The majority of the group will not be attending SC21 in person, so it was decided that we would have a regular virtual meeting in November.

Round Table

- Sash said that ASCR has been working on a software sustainability task force.
https://science.osti.gov/-/media/ascr/ascac/pdf/meetings/202109/20210929_ASCAC_Presentation_Helland.pdf?la=en&hash=2ACE74D69C64D752409F9B665828B1E132D25290
 - He said an RFI is going to come out in the Federal Register, seeking input from the community on future sustainability mode of software with a focus on the post ECP transition. More info to come.
- Tefvik mentioned the CSSI Information Webinar
 - October 15, 2021 1:00 – 2:30 PM (Eastern Time)
 - Register in advance for this webinar:
 - https://nsf.zoomgov.com/webinar/register/WN_TUyKP8qHQQee1Imk6Zsxxg

Next Meeting

November 3 (12 pm ET)