Resources Working Group Topics for Friday

- Report back from working group visitation.
  - Shava: Cyberlearning
  - Nadya: Biosciences
  - Jose': Telesciences
- PRAGMA-ENT - ~30 minutes
- John Hicks - PerfSONAR Configuration
- Persistence of infrastructure?
  - Snapshotting an existing "reservation"
- Better integration of overlay networking technologies with pragma-booted VMs to simplify/guarantee trusted access to DATA!
- PRAGMA Integration with Research Data Alliance

Report Back: Cyberlearning

- Ruth Lee was not there
- Distance Learning:
  - Repository of video tutorials
    - e.g. Making a VM
    - Running application X, Y or Z
    - Can be used as material for other courses (e.g. MOOCs)
- Invested in Edison
  - Baseline of Cyberlearning portals
  - NCHC beginning to understand Edison
    - How do you automate
    - Perhaps a 45 minute mini-tutorial on the inners of Edison
    - Trial accounts for Existing portals
- Bring Gaming community idea of Guilds to be software “Guilds” for mentoring developers
- Access to resources for student experimentation
- Maybe Cyberlearning group should do a reverse visit to other groups.

Report Back: Telescience/Geosciences

- Three talks
  - Geosciences applications in use Thailand.
    - ~100 sensors
  - Satellite image transfer using PRAGMA Ent (japan ←→ Taiwan)
    - In case of emergency, how does one keep the bandwidth
  - Distributed RPC/Hadoop to process sensors of river flow.
    - Do they want to run on a wide-area distributed environment
    - Can we use an overlay network/SDN to facilitate security
  - Use of STORM to deal with streaming data (instead of Hadoop/batch oriented)
  - Issues:
    - use of PRAGMA ENT (Breakable nature is an impediment)
      - Evolve into a persistent component + breakable component
        - AutoVFlow should be able to help.
        - Also flowspace firewall (Internet2) designed after flowvisor.
        - Phil's suggestion: in May virtual meeting to discuss technical details of OpenVFlow and FlowSpace Firewall.

ReportBack: Geoscience/Telescience 2

- Issues (cont'd)
  - what happens if a link fails, Can we test this in ENT? (Take advantage of breakable side of ENT). Under control of application developer.
  - Use of STORM/Hadoop. Fine-tuning of parameters (suggestion for a more complex testbed. Jose's homework).

Report Back: Biosciences

- Ly Le (HoChi Minh). Lot's of autodock vina virtual screening
  - Could use PRAGMA resources
  - Also GROMACS
  - OPAL with web services. (NBCR connection)
  - Follow up with Heru and Ly about running their apps on PRAGMA
- Would like to try the University of Indonesia interface with PRAGMA resources
- Multiple VMs

Action Items

- Mauricio to help Gabriel get Indiana connected to ENT
  - Process to be documented in Github
  - (Gabriel to visit UCSD for other system items)
- Nadya, Phil (Jose', Shava) to talk about biosciences VMs/VCs on PRAGMA
  - Heru, Ly Le, Jason Haga
  - This will continue to drive the redeployment of PRAGMA cloud
- Virtual Meeting (Once Ichikawa is settled in San Diego) to talk about
  - AutoVFlow and FlowSpace Firewall as core tech for semi-permanent section of PRAGMA-ENT
- Recipe for AutoVFlow installation to provided by NAIST (works well with TREMA controller, but other controllers are issues)
- Have a data type registry developer to give PRAGMA a worldwide virtual seminar (similar/identical to PRAGMA Students Seminar?). Larry Lannom. Gabriel will make sure PRAGMA Students arrange this.
- John Hicks to revisit perfSONAR mesh configuration.

DATA!

- Better integration of overlay networking technologies with pragma-booted VMs to simplify/guarantee trusted access to DATA!
  - Make a subset of Hathi Trust Data available at Indiana.
  - Biodiversity text/books?

- PRAGMA Integration with Research Data Alliance
  - First products coming out of RDA: Data type registry (application to Lifemapper, iDigBIO).
    - Install in Cloud and work with it.
    - Who would drive the reasons to data type registration?
    - Can we get a data type registry developer to give PRAGMA a worldwide virtual seminar (similar/identical to PRAGMA Students Seminar?). Larry Lannom.

perfSONAR

- maddash – Mesh testing among various sites.
- Data archive
  - can do central archiving.
  - Can we archive to multiple locations (one on each side of the Pacific)