Session 4: DTN & Data Movement

- Participants:
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DTN is a gateway node to transfer data between multiple HPC centers with keeping security.
There is no good solution so far. So we want to share knowledge and conduct experiment from small-scale.

Whoever has interest in this activity, please join us.

- Members
  - ABCI (AIST with internship student(s))
  - UCSD
  - Thammasat U
  - NAIST
- Use cases
  - Zebrafish brain image data (10TB first set)
  - Satellite image data (PB class)
- Gateway node can be a DTN
  - Currently at ABCI gateway node has 10G connection
    - Auto-scaling by using multiple nodes?
  - How to connect gateway node to ABCI storage
- Available mechanisms/tools
  - GridFTP
  - FDT
  - SCP
  - Rsync
  - etc...
- Relationship with PRP/Asian PRP
  - How to set up DTN and Kubernetes and make sure that can do data transfers and if there is a way to do automation with Kubernetes
  - How to manage user accounts on DTN node and integrate with back storage accounts, for example with ABCI
  - How to monitor data transfers to/from DTN and provide information to the users
  - Is it possible to change perfsonar port numbers?
  - Intrusion detection and profiling
- Setup
  - Security
  - Info about server specs
  - Info about server setup (tools, perfSONAR, etc)
  - Measure performance and set monitoring dashboards
  - We need to have 3-4 DTNs
  - We may need to create local accounts on DTNs for DTN team.
- Blueprint document
- Milestone

- PRAGMA37
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