

# ASGC PanDA Work Plan

## April 22, 2014 V0.1

PanDA/Rucio workshop at ASGC action item : propose topics for ASGC software developers to work on core PanDA components together with BNL and UTA teams (Action on : J-W. Huang, K.De, A.Klimentov)

We identified the following possible topics

1. ATLAS
  - a. PanDA/Rucio integration
    - i. Integrate new ATLAS DDM system with PanDA
    - ii. Time estimation : 6-9 months
    - iii. Preferable location : CERN
2. Big PanDA
  - a. PanDA LightWeight Pilot Factory
    - i. Develop a pilot factory for PanDA to be used outside of ATLAS for non-HEP experiments
    - ii. Time estimation : 4-6 months
    - iii. Preferable location : UTA
  - b. PanDA LightWeight data transfer component
    - B1. Develop files (or/and dataset) mover and integrate it with PanDA core SW
    - B2. Evaluate CERN WebFTS and integrate it with PanDA

B1 or/and B2 are absolutely vital for non-LHC experiments, especially to support non-Grid storage

    - i. Time estimation : 8-12 months
    - ii. Preferable location :
      1. B1 : Taipei/BNL-UTA
      2. B2 : CERN
  - c. Potentially this could be a long-term project if the first phase will be successful
  - c. PanDA pilot for super-computers
    - i. Develop PanDA pilot module for super-computers and integrate it with PanDA pilot code
    - ii. Time estimation : 6-8 months
    - iii. Preferable location : UTA
  - d. PanDA noSQL database backend development to store Logging info

- i. Develop new database backed using Hadoop (or similar technology) to store PanDA jobs logging info and integrate it with Oracle/MySQL PanDA database
  - ii. Time estimation : 6-8 months
  - iii. Preferred location : ASGC/BNL-UTA
- e. PanDA release validation, verification and packaging
    - i. Develop validation and verification procedure for new PanDA releases
    - ii. Develop installation, validation and verification SW kit for PanDA releases
    - iii. Time estimation : 6-8 months
    - iv. Preferable location : UTA
- It is also assumed that ASGC team can take responsibility for V&V within BigPanDA later

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