

March 3, 2011

Belle II Data Handling Meeting, KEK, Japan

# Status of Belle II Data Handling Group

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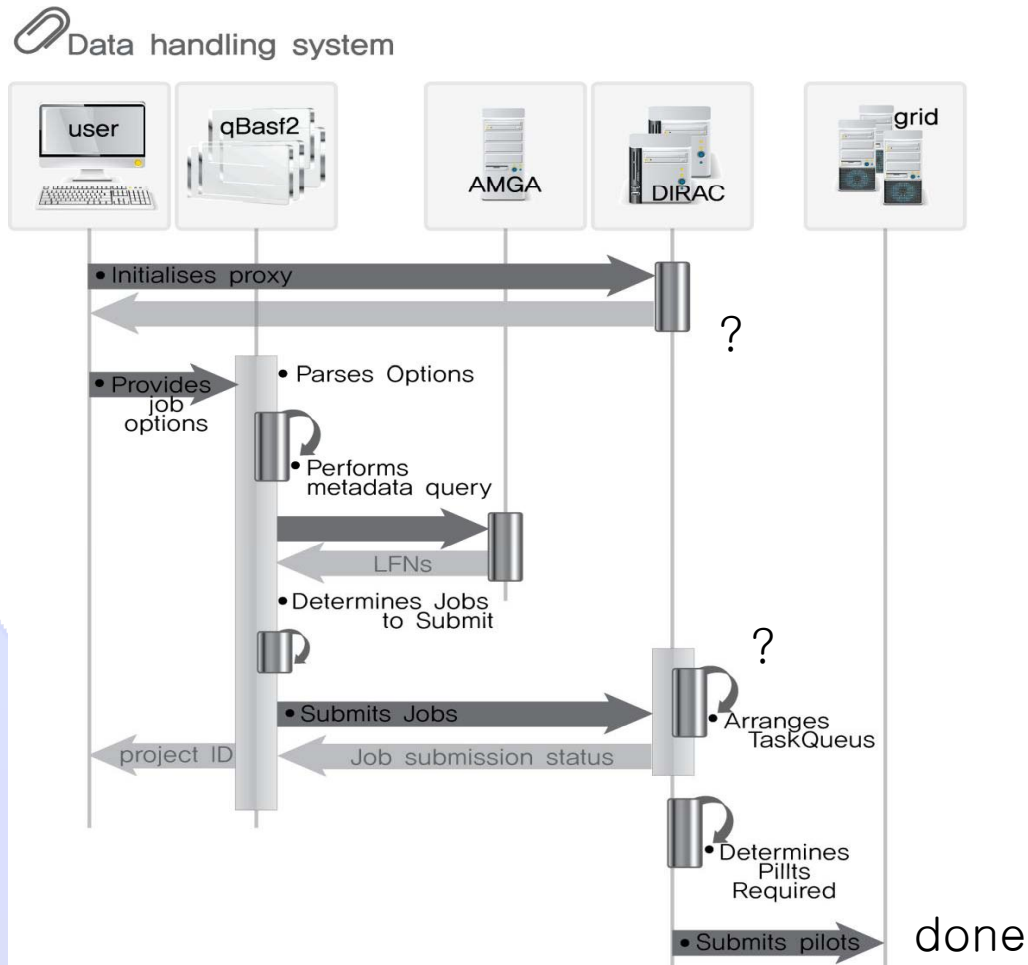
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- Status => done
- AMGA test at Grid
- Issue
- Plan

# Data Handling Scenario

- To improve the scalability and performance
- We apply AMGA which is middleware for g-Lite

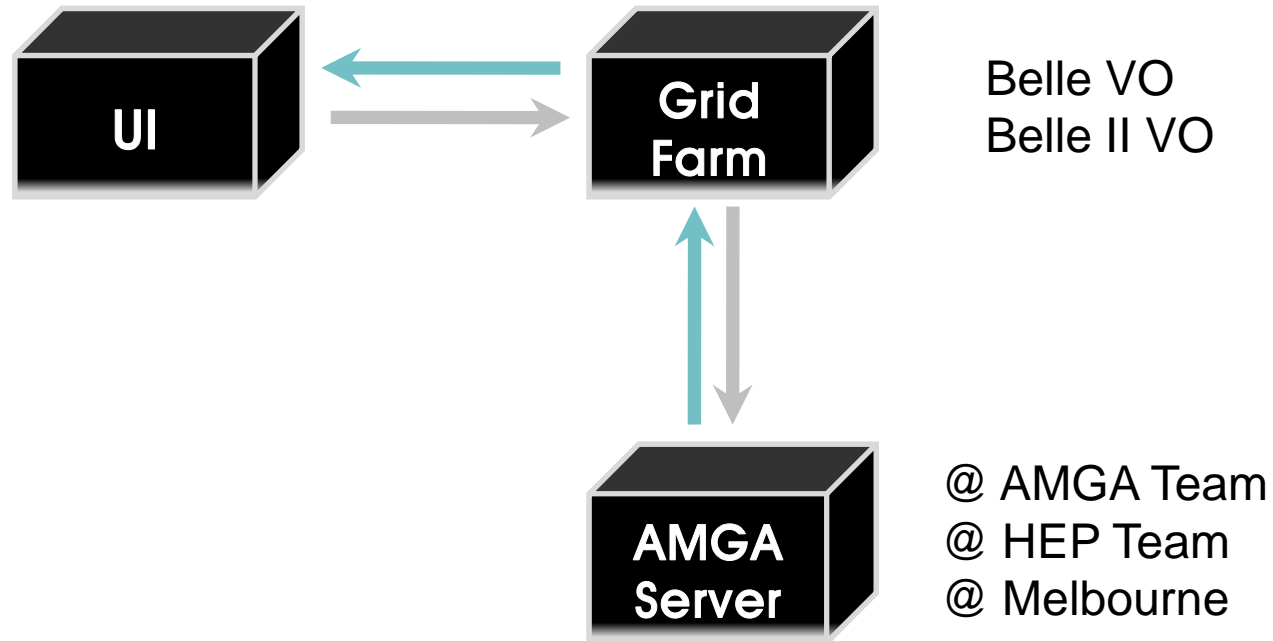


# Status => done



- Constructed Belle II Data Handling System
  - Data Handling and Job Management for Belle II Grid => done
  - To test Large Scale Data Handling
    - Belle Data at NSDC farm at KISTI => done
      - Around 125 TB for Belle data
    - Belle II Data (Random data) =>
      - Realistic test (file level) => done
- Based on TDR  
Raw data: 100 M files  
Real : 4.3 M files  
MC: 12.5 M files
- To test High Frequency Test => done

# AMGA test at Grid Farm (since January)



Farm	Belle VO	Belle II VO
KISTI Grid farm (sdfarm.kr)	OK (By Sunil )	N/A
KEK Grid farm (kek2-cd05.cc.kek.jp)	OK (By Tom)	OK (By Sunil)

- Sunil has written documentation of how to submit grid jobs.
- We had tested AMGA Sever at HEP team(150.183.246.196).
- AMGA Server at Melbourne is in Grid.
- To test AMGA server at KEK

*Kihyeon Cho*

# AMGA servers @ KEK



## ● Spec@KISTI

- Dell PowerEdge 1950 Quad-core 2.66GHz\*2
- 8GB RAM

## ● Will be Installed by AMGA team

- Step 1. Data generation => big storage
  - No Grid
- Step 2. Master of Metadata Catalog => 10TB enough
  - On Grid

=> We are still waiting from Hara & Iwai San

# Issues & Plan (2011.01)



## ● Issues

- Query vs. Snap shot => Snap shot (1.5 TB)
  - Junghyun is making new idea since it increases meta-data size due to duplication  
=> to make documentation
- Transfer Error => Solved (Firewall port)

## ● Plan (2011.01)

- To do metadata test on Grid with Belle Data  
=> done
- To modify metadata schema => done
- To extract Metadata from Belle Data at KEK  
=> working

# To do list

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1. To Plug AMGA system(KISTI) into Grid farm
2. Snap-shot style => snap-shot like style  
for user created data  
(stores queries which are not duplicated)  
(keeps the metadata for old data)
3. To Restart event level R&D
4. To move master node to KEK for making meta  
system for Belle II



# Plan 2014



- To do Metadata system on Grid  
=> Full Service
- To do Realization facility for production
- To continue supporting and upgrade

**Thank you.**