



MICE Computing and Infrastructure

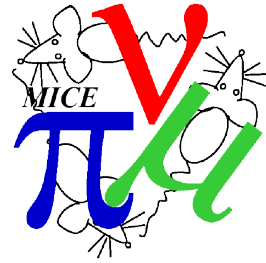


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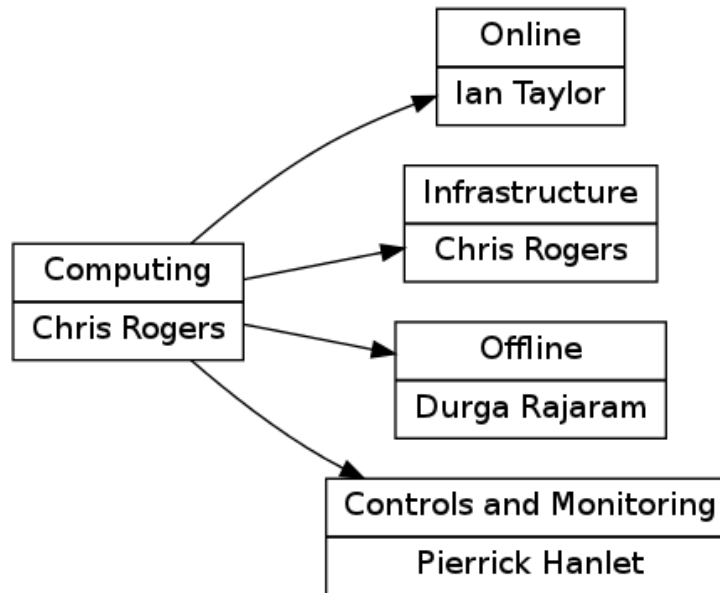
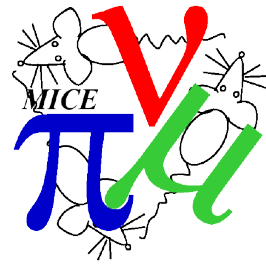


Overview



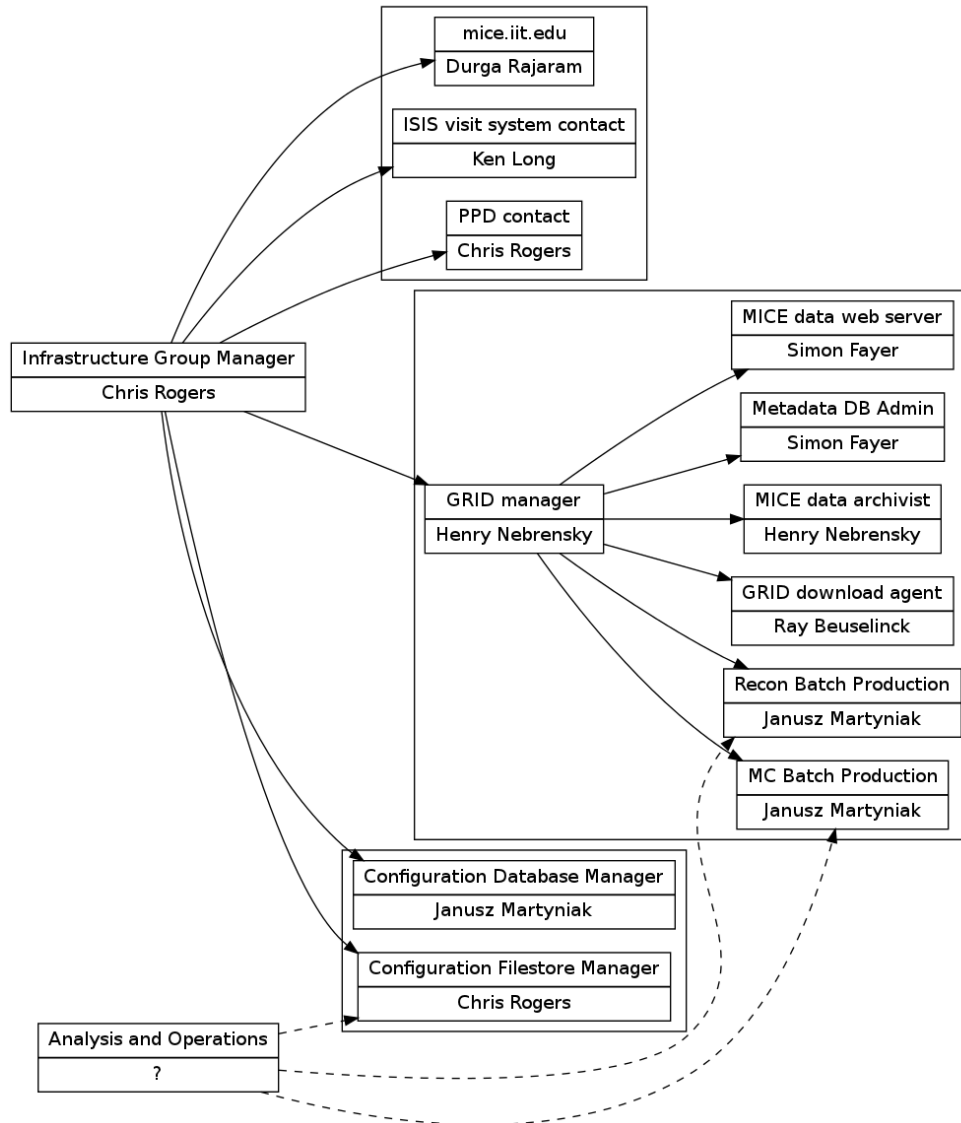
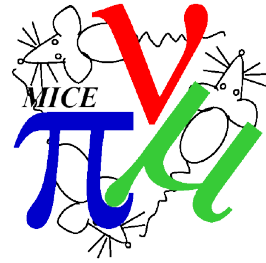
- Software and Computing organisation
- Infrastructure summary
 - Web services
 - GRID batch processing
 - Configuration management
 - Data mover

S/w & Computing Organisation

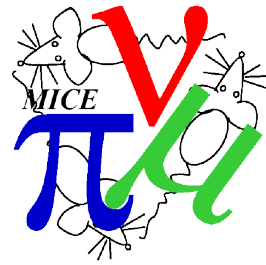


- Online
 - control room systems, principally DAQ
- Infrastructure
 - configuration database, GRID stuff, web services
- Offline
 - MAUS MC and reconstruction software
- Controls and Monitoring
 - controls computing elements
 - Note C+M has been promoted up one level from being an online task

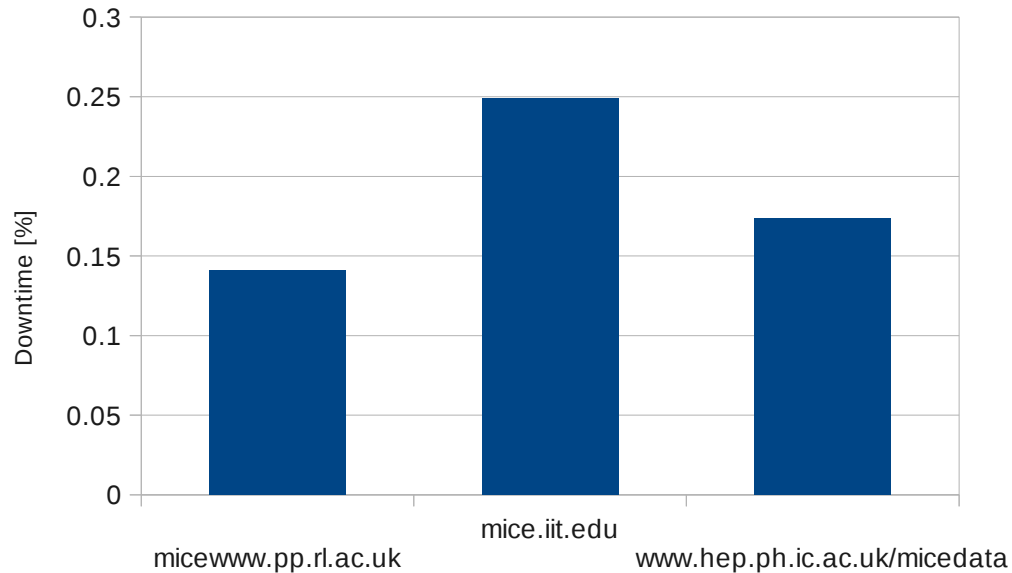
Infrastructure



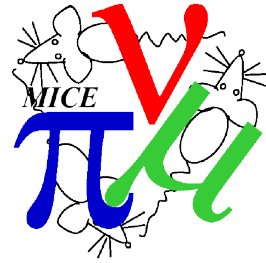
Web Services - status



- Web services have been stable
- Downtimes < 0.25% since last collaboration meeting
 - Corresponds to ~ few hours of downtime
 - Sufficient for our needs

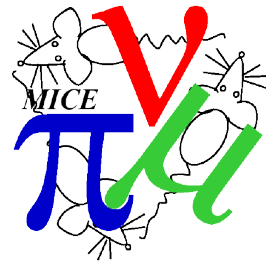


Web Services - plans



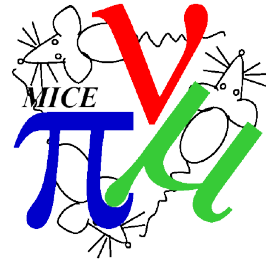
- Some networking noise at RAL is likely in coming months
 - RAL firewall upgrade will involve a lot of movement of RAL site infrastructure
 - Planned at-risk on 6th March for PPD services move
 - Planned at-risk in week beginning 10th March (date TBC)
 - Will likely affect remote access to e.g. Monitoring
 - MICENet will move onto the new firewall infrastructure in May (date TBC)
- Plan to replace heplnm069 in the autumn
 - Main file storage node
 - Offline CDB data
 - Backup server for micewww
 - 5 years old, time to replace it
- Plan to clean up mice.iit.edu website is in formation
 - Lots of old/wrong/broken information
 - Some duplication between micemine and mice.iit.edu

GRID batch production



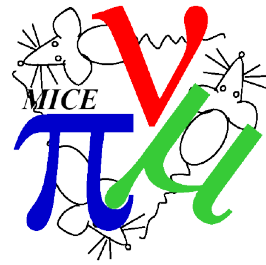
- Currently progressing a batch reconstruction against latest version of MAUS
 - Some problems with installation on the GRID due to configuration changes on GRID side
 - Issues resolved and reconstruction should begin soon
- Require more focus on validation of reconstructed data
 - Reconstruction efficiencies of detectors will be used for most data
 - More detailed tests will be used for reference runs
 - E.g. check we can reproduce the correct beam shape compared with reference data sets
 - Detailed plan is in formation

Data Movement

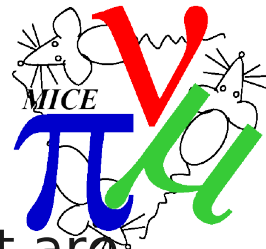


- No new features since last collaboration meeting
- Plan to upgrade data mover for compatibility with SL6
 - GRID moved to SL6 in 2013
- Plan to upgrade certificate management

Configuration Database



- Janusz is now up to speed on CDB and beginning development
- 4 new tables are planned
 - Batch reconstruction controller
 - Batch Monte Carlo controller
 - Tracker configuration management (David Adey)
 - Metadata information storage
 - e.g. reconstruction validation information
- Additionally
 - Replace hepInm069
 - Add a csv interface to the client API for cooling channel magnets
- Preliminary estimate that we will have this done by February
- I don't feel that we have a full job list
 - It is difficult to plan in this context



- **PROVISIONAL** manpower requirements for development are
 - *with assumed effort on infrastructure project*
 - **Martyniak: 51 weeks assuming 50 % effort**
 - Nebrensky: 18 weeks assuming 50 % effort
 - Rajaram: 9 weeks assuming 50 % effort
 - Adey: 7 weeks assuming 100 % effort
 - Rogers: 1 week assuming 70 % effort
- Including overheads for
 - server maintenance
 - GRID reconstruction “stroking”
 - weekends
 - Holidays
- We are stressed at Martyniak
 - Expect we have not yet captured full requirements
- Experience will improve error bars (guess 50 % right now)