

# Computing Infrastructure – Minos 2008/01

- Analysis CPU
- Condor Cluster / Condor Analysis Farm
- /minos file server
- AFS instability
- FNALU plans
- SAM metadata for MC
- MySQL upgrades
- Plans/outages in the near future

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## Analysis Cpu deployment

- Hardware
  - 8 x Dell PowerEdge 1950 – each 8 x 2.66 Ghz
- Deployment
  - Arrived mid October, accepted around Thanksgiving
  - Deploying in GPFarm
    - AFS available, readonly
    - Submit from fnpcsrv1, or Condor glidein

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## AFS on Condor Analysis Farm

- Need this for the base releases
- Initially deploying AFS client on our 8 nodes
  - Maintenance problem, not scaleable to rest of Grid
- AFS to NFS translator – Sun only, not scaleable
- Rsync AFS into /grid/app – symlinks, maintenance
- Move from AFS to /grid/app – remote sites, desktops ?
- Parrot – provides image of AFS via web
  - Scale via Squid servers – CDF deploying - testingnow

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## CONDOR deployment

- Condor queue on Minos Cluster being heavily used
  - Have AFS available for read (and write via kcron)
- GlideinWMS
  - Technique used for years by CDF, and CMS
  - Allows submission to GPFARM from minos25/Cluster
  - Tested at level of 100 processes
  - Can regulate number of running jobs !
  - Need to test/improve reliability
  - Need to set up 'queues' ( time limits )

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## /minos NFS fileserver

- NexSAN SataBeast, connected to BlueArc via FC SAN
- NexSAN array has been dropping off the FC SAN
  - Offline 24-26 Dec for fsck
- This is also happening to CMS.
- New firmware is in hand, being tested
  - CMS will probably deploy next week
  - Then we should schedule a downtime

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## AFS instability

- AFS servers have been going offline since Nov
  - All servers are affected, depending on load
  - Due to FC SAN resets/recovery
- New AFS server code is being tested
- Initial tests looked good in December
- Adapter hardware failed in test stand, being replaced
  - Should have a verdict next week
  - Then can schedule downtime for an upgrade

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## FNALU plans

- CD wants to shut down Suns ( fsui02 etc )
  - Still needed, to build/test Web CGI programs
    - We'd prefer a Linux web server
- Need to retire LSF batch by Sep 08 ( license )
  - Looking into Condor as replacement

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## SAM MC metadata

- Declared in production, and being kept up
- Parameters selectable by sam (taken from file name)
  - mc.vtxregion ( 1/2/3/4 == det/rock/both/fiducial )
  - mc.flavor ( 0/1/2/3 == beam/nue/numu/nutau )
  - mc.bfield ( split set number )
  - mc.beam ( like L010185 )

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## MYSQL

- Need to upgrade to 5.x
- Should be built with 2 weeks
- Testing/deployment
  - Test migration of existing database files
  - Test file locking
  - Test file defragmentation

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## PLANS / OUTAGES

- AFS and NexSAN upgrades – to be scheduled