LHCONE Whitepaper

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LHCONE Workshop

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- History of LHCOPN
- Ideas that lead up to LHCONE
- Technology advancements, e.g. NSI v2.0

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- High-level vision for LHCONE P2P Service
- Ambition to have a more performant and more predictable service for the WLCG
- While at the same time lower the chances that WLCG traffic streams are interfering with regular R&E traffic
- NSI v2.0 is coming mature
- ScienceDMZ is an important development

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- Observations from Bill J.:
    - Data access software is complex, GridFTP is at bottom of this stack and this is where P2P services will have to interface
    - Broad shift to remote I/O-usage, will GridFTP remain?
    - An emerging ecosystem (FAX, RIO, ScienceDMZ, DYNES-like, BGP overlay)
    - Others: TeraPaths and LambdaStation
    - Monitoring = key!

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- Inventory of requirements
- How can this work improve science?
- What can be engineered by NRENs?
- Future use cases

- What is the direction and status of the work with the LHC experiments' software systems?

- What is the direction and status of the work with the NRENs w.r.t. P2P Services?

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- Putting is all together
- Work to be done on Service Defintions (managing expectations)

- Next steps to take
- Start of a pilot, zooming into fault handling, monitoring, equipping sites, etc.

- End of White Paper, next slide: Ideas for 2013

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- Form a group to continue to draft White Paper (done)

- Form a group to experiment with GridFTP (or any other choice we make) over AutoGOLE

- Ambition for 2013: Have a small (five sites on 3 continents) testbed running

- Next step after 2013: Evaluate testbed, adjust and enlarge (or kill)