NT1

Facts

Partners

- High Performance Computing Center North, Umeå University
- National Supercomputer Centre, Linköping University
- Niels Bohr Institutet - Københavns Universitet
- CSC - IT Center For Science Ltd
- University of Oslo
- University of Bergen
- IJS - Institut “Jozef Stefan”, Slovenia
- CERN, Conseil Européen pour la Recherche Nucléaire
- Nordic e-Infrastructure Collaboration

Project duration (start, end)

- 1.6.2006 - 31.12.2046 (est)

Project budget (# of FTEs)

- 6.85 per year (NeIC share)

References

- Slack #ndgf
- public wiki
- internal wiki
- 2016 NT1 evaluation

Achievements

What is the project / activity about?

Provide a significant part of the e-infrastructure to do science on data from the Large Hadron Collider experiments by joining the Nordic effort into a common Tier-1 site

What specific problems are addressed?

- custodial datakeeping of raw data
- online storage for active data
- network capacity for data transfers
- our share of globally distributed computing
- doing this in a distributed way

What lessons were learned?

- common chat channel for distributed team essential
- distributed teams work better after you’ve met
- pretty happy with wiki for documentation
- distributed large-scale storage with uniform namespace works well
- status meetings where everyone pre-fills agenda and we only talk about things that need talking
- serious contributions to open source projects ensure they meet your needs
- x.509 client certificates are much more user-friendly than federated logins
- fear the phrasing “it has been decided that. . .”
- prepare for change

Alignment with NeIC 2016-2020 strategy?

FA1 - Pool Competencies

- distributed team formed from nordic pool of competences, site admin experience exchange at NDGF AHMs

FA2 - Share Resources

- large-scale storage and computing, shared both within the nordics and globally

FA3 - Secure Long-Term Funding

- MoU signed by funding agencies (or above) for long-term activity (LHC lifetime + 15 years)

FA4 - Strengthen Stakeholder Dialogue

- ongoing involvement with stakeholders on multiple levels

Plans

Open issues & future plans

- adopt to ever changing user requirements
- scale to the needs of upcoming instrument improvements
- navigate challenging and diverse funding situations

What would the project like to learn from other projects?

- improvements to collaboration forms, meetings, etc
- effective stakeholder engagement
- state of the art software development techniques

Major milestones (in 6, 12, 24 months)

M06

– get new distributed storage expert up to speed
– round of major software upgrades (ganeti, postgresql, ubuntu)

M12

– get back on the leading edge of storage development
– reliability and scalability improvements to ARC

M24

– provide good input to computing evolution for HL-LHC needs