AAA from HEP* Perspective

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***) the world according to Ingo**

Cartoonist View of the World

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Totally unrealistic!

Cartoonist View of the World

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Actually it's 2 years and 10 months…

Our Perspective

1) Deploy AAA
2) Monitor behavior of the Grid(s)
3) Identify problems (usage, rights, privileges)
4) Apply policy changes (or issue bug reports, if needed functionality is not available)
5) goto 1).

Nobody has seen a real Grid up to now….

Authentication

- Certificates work in general
- CA response times are fine (~ 1 day)
- VO response times are fine (~ 1 day)
- Time to be in the gridmap file (~ 1 week in case of LCG)
- CERT management requires too much manual intervention

Authorization

- HEP Use Cases require dynamic system (daily changes)
- Coordination of local and global authorizations? (Site vs. VO)
- Access rights to files and resources?
  - Granularity
  - Transfer of rights
- Monitoring
- Priorities must be changeable during execution of jobs

UC “Hotspot”

QCD studies require a lot of data to be crunched, so the *'QCD Analysis Coordinator'* role in VOMS is granted a lot of access to resources at high priority. Then someone in the *'EGamma Analysis Coordinator'* role announces a hint of the Higgs™ has been found, but they need more studies to find it. The experiment policy shifts overnight, the *'QCD Analysis Coordinator'* is told to take a holiday and the *'EGamma Analysis Coordinator'* is given sweeping access to everything in sight.

UC “Delegation”

'Professor X' may have significant access to resources, because he’s important. His student, 'Student Y', has minimal access. The Professor wants an important piece of work done, and delegates to the student. 'Student Y' then must be given access to resources available to 'Professor X' for the duration of 'Task T'. How do we determine who can delegate which rights to whom?

UC “Priority Enforcement”

VOMS should be able to influence the existing state of a grid. If 'Student Z' is running jobs for the 'QCD Analysis Coordinator' when 'Student Y' starts running the Higgs search for 'Professor X' then maybe 'Student Y' should have the rights to cause jobs belonging to 'Student Z' to be killed or rescheduled to make way for his own jobs.

UC “Scheduled Changes”

Analysis groups A and B meet once every two weeks, in rotation, (as done in CMS!). Immediately after group A meets we want to give higher priority to group B, so they can finish last minute things before their next meeting. After the group meeting, group A takes higher priority again. Think of it as passing a 'my-turn-now token' around the groups.

UC “Conferences”

Analyses due to be presented at conferences are a special case of UC “Scheduled Changes”.The people preparing papers for the conference get higher priority in the last few weeks leading up to the conference.

Use Cases In Reasonable State

- VO Management Use Cases
- VO User/Group Uses Cases
- VO User/Group Information Uses Cases

See our memo….

Accounting

- Today: zilch, zero, nada
- Not in the near future
- But: monitoring is needed even more than accounting.

Quotas

- VO space of SE (assigned by local policy?)
- Management of the VO space itself
  - Individual quotas
- Networking
- Number of jobs (concurrent)
- Percentage of Global resources of a VO
- Space management policies on resources (CE, WN)

Indefinite possibilities, but without a starting point we have no clue about feasibility, desirability and other …ilities

Conclusion

- We want to know what's going on on the Grid (Monitoring)!
- We want something that is flexible!
- We want to have control of the use of our resources!

In short: We need a running system to explore the possibilities…