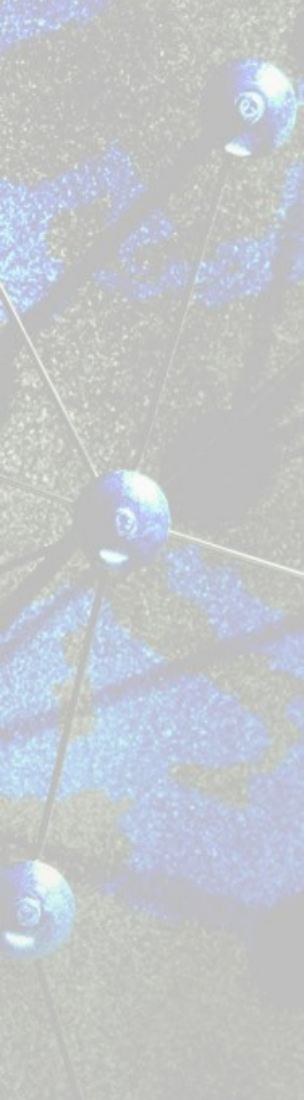


# One size does not fit all or making the grid more versatile

Ron Trompert



A photograph of a traditional pub interior. The scene is dominated by dark wood paneling and a long, polished wooden bar. Several wooden stools are lined up along the bar. In the background, a well-stocked bar area is visible with various bottles and glasses. The lighting is warm and ambient, with several pendant lamps hanging from the ceiling. The overall atmosphere is cozy and classic.

And now for some pub talk



- A bit of history
  - Grid infrastructure
  - EDG: s/w development
  - EGEE projects: operational infrastructure
  - EGI InSPIRE: sustainability

- Infrastructure
  - Very reliable: Availability/Reliability is about 95% on average for sites
  - Good solution to a particular problem
  - Rigid monolithic structure
  - Middleware, monitoring, accounting, ... is rather interlinked
  - New types of services or middleware requires task forces for integration. Looks very time consuming

- Grid Infrastructure
  - Largely used by HEP
    - Because they needed the resources
    - There was no alternative
  - Uptake by not-HEP falling behind
    - User experience
    - User requirements did not map well on the capabilities of the Grid
    - Lots of small national VOs that did not really need all these resources (enough)

- Technologies/hypes come and go. Considering new technologies is good.
- But since EGI is about sustainability, why not focus on the things that have expiration date further in the future?

- Achievements of EDG/EGEEs/EGI InSPIRE:
  - A pan european/global infrastructure where RCs and users are collaborating having:
    - User support
    - Resource registration
    - Monitoring/QoS/A&R
    - Resource discovery
    - Accounting
    - Security
  - If resources are the bricks, the stuff above is the cement
- These are all long-lived things which will outlive different technologies (grid computing, cloud computing, big fluffy turtle computing,...)

- How about offering this “cement” as a service to user communities. Grid ops as a service...
- Would it be possible to define a set of I/Fs so that user communities can plug the services they need in with a distributed computational environment as a result?
- Not occasional squeezing in new technologies into an existing infrastructure, but change as a day to day routine.



- This would eliminate the need for specialised task forces integrating services into a existing infrastructure
- Users can run the services they like and want.
- This would work on international as well as national scale

- A user community negotiates with resource owners (RCs/NGIs)
  - Resources
  - Services to be installed

- Standard set of I/Fs to:
  - Register your support group
  - Register your service
  - Provide probes to test your service
  - Provide information on which test should raise alarms, count for A/R calculation and the a/r calculation itself
  - Provide information on your service to be published
  - Provide db scheme to hold accounting data of your service

- EGI as a collaborative environment like skype, dropbox,.....



What do you [dr|th]ink?