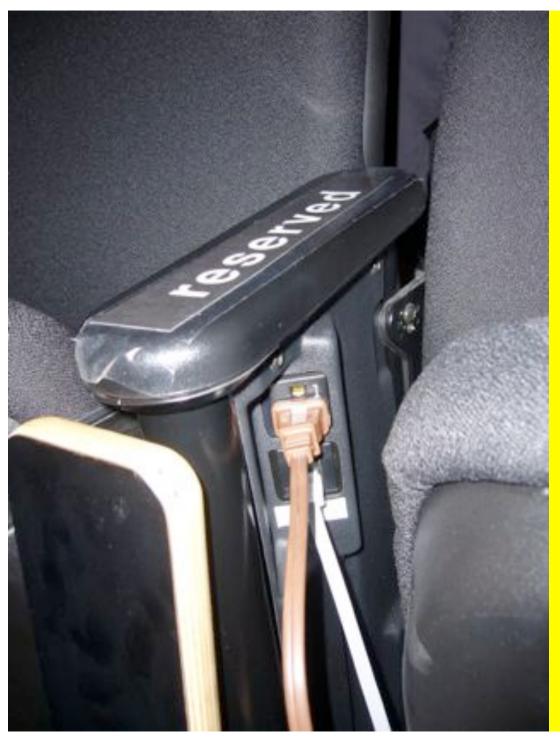# Lessons (not) Learned @ iGrid2005

Cees de Laat

University of Amsterdam

(although some say "are you local here" :-)

Check your seats!

You have a network connection of 1 Gigabit/s in your chair!

250 seats * 1 Gb/s -> 0.25 Tb/s

What do I want in this 15 minuts

- Lessons learned is about successes
- but even more about what was needed to get it working !
- and about the (near) failures!
- What did you not hear:
  - a fiber trunk burned out in New York
  - 2 minutes before 4k opening demo the network switch was not working
  - fibers were wrongly patched in LA
  - faulty interface in Chicago
  - customs did their best to put roadblocks up
  - etc.etc.etc.
  - p.s. Dead Cat got fried on arrival in Amsterdam....

Lessons - 1

- People do not know what they need or how to ask!
- Tell application people what they really need
- A really hybrid network service is needed, both routing and L1/L2 are essential!
- Applications were not NOC-independent
- manual v.s. automatic provisioning/scheduling
- Light path adaptation to application needed
- L2 difficult in multi-domain
- L3 easy in center, but needs lots of app tuning!

Lessons - 2

- on site vs after iGrid measurements!
  - don't underestimate the # of people which want to take the infrastructure down after the event!
- Everything was so fast that conveying the innovation was difficult!
- Do not expect the app to behave the same as when you were running locally @ home!
- Apps must be network aware
- get a test environment close to the real thing!

Lessons - 3

- meet in person needed to get app running!
- echo cancellation problematic
- LightPath RTT*BW + untuned TCP perceived negatively
- Cross grid interoperation not trivial
- setup not without social engineering
- persistent archiving of demonstrations needed
- Network does not stop at end of wire!
- Demonstrations were uni-directional
- Most demonstrators basically succeeded!

Questions, remarks ?