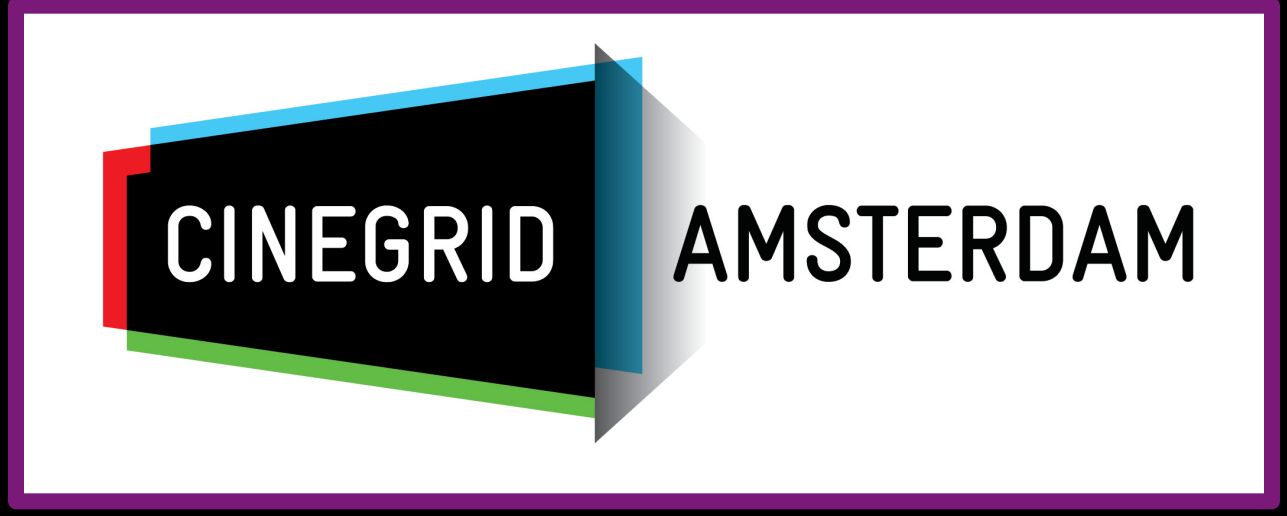

CineGrid Amsterdam

Cees de Laat

On behalf of the CineGrid Amsterdam Collaboration

→ please switch off phone! ←

SEEING IS BELIEVING
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153957 Photography
http://arne.delaat.net

Internet developments

... more data!

Speed

Volume

Deterministic

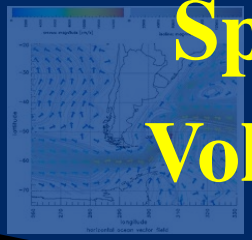
Real-time

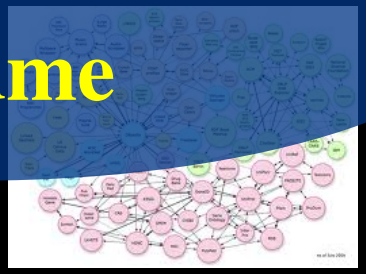
more realtime!

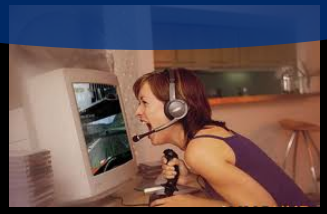
Scalable

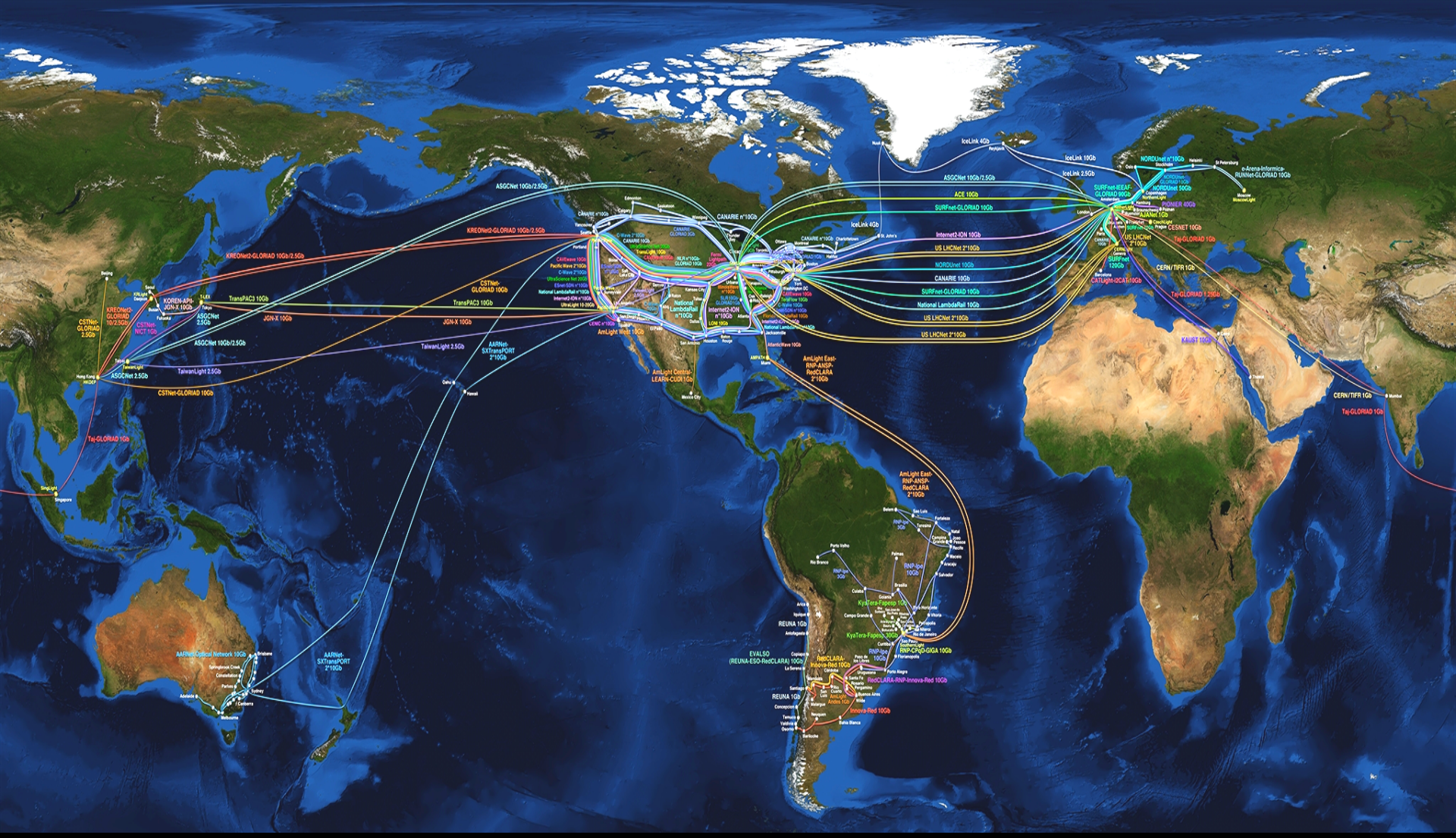
Secure

... more users!

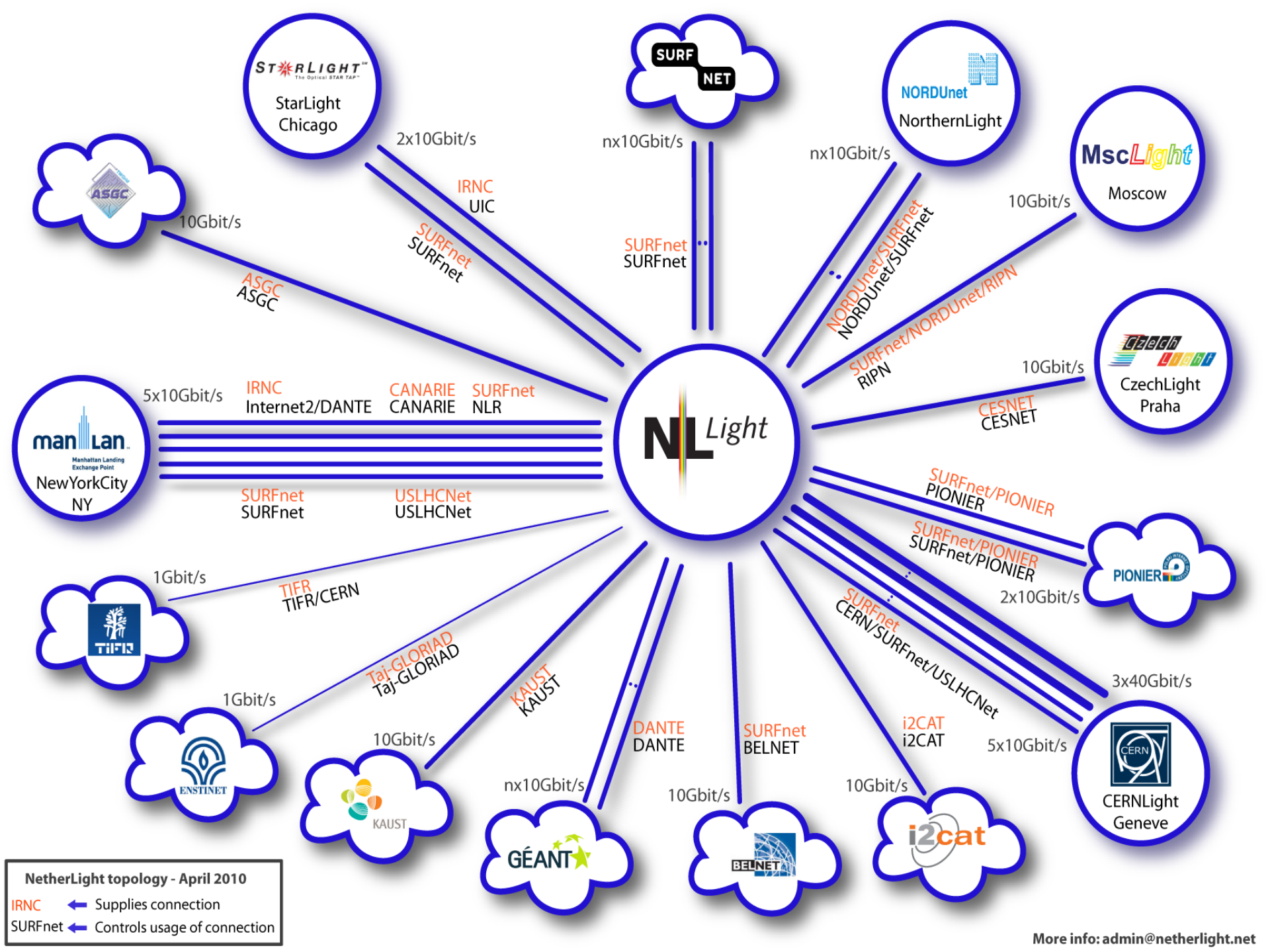




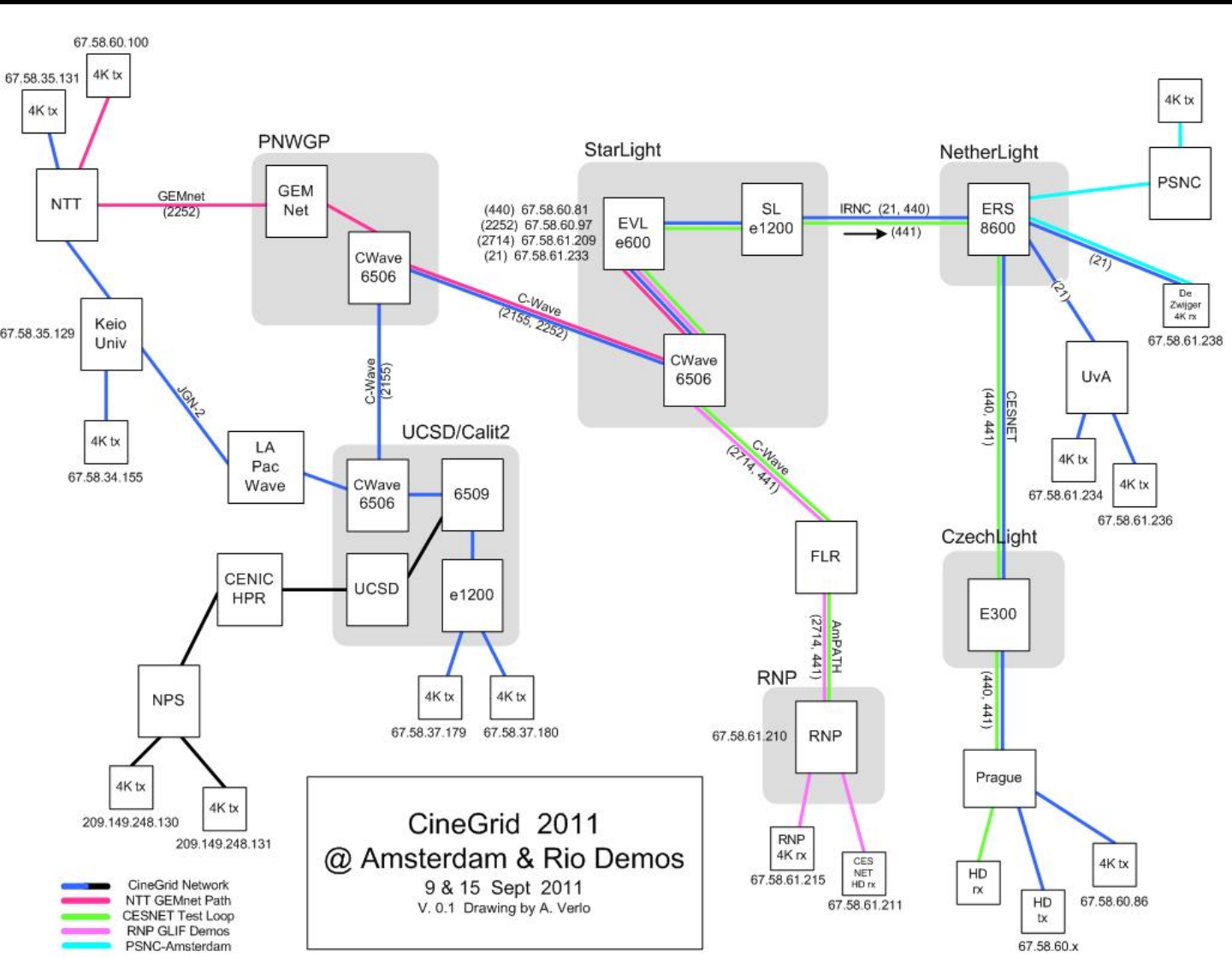




We investigate: TOMTOM for complex networks!


StarLight
Chicago
2x10Gbit/s
IRNC
UIC
SURFnet
SURFnet
SURF NET
nx10Gbit/s
SURFnet
SURFnet
NORDUnet
NorthernLight
nx10Gbit/s
NORDUnet/SURFnet
NORDUnet/SURFnet
MscLight
Moscow
10Gbit/s
SURFnet/NORDUnet/RIPN
RIPN
ASGC
10Gbit/s
ASGC
ASGC
CzechLight
Praha
10Gbit/s
CESNET
CESNET
NL Light
5x10Gbit/s
IRNC
Internet2/DANTE
CANARIE
CANARIE
SURFnet
NLR
manLan
Manhattan Landing Exchange Point
NewYorkCity
NY
SURFnet
SURFnet
USLHCNet
USLHCNet
SURFnet/PIONIER
PIONIER
SURFnet/PIONIER
SURFnet/PIONIER
PIONIER
2x10Gbit/s
1Gbit/s
TIFR
TIFR/CERN
TIFR
SURFnet
CERN/SURFnet/USLHCNet
3x40Gbit/s
5x10Gbit/s
1Gbit/s
Taj-GLORIAD
Taj-GLORIAD
ENSTINET
10Gbit/s
KAUST
KAUST
KAUST
nx10Gbit/s
DANTE
DANTE
GÉANT
10Gbit/s
SURFnet
BELNET
BELNET
10Gbit/s
i2CAT
i2CAT
i2cat
CERN
CERNLight
Geneve
NetherLight topology - April 2010
IRNC Supplies connection
SURFnet Controls usage of connection
More info: admin@netherlight.net

The Network @ CG-AMS 9/9/11



CineGrid Sept'11

Prague
67.58.60.80 /29 (vlan 440)
gateway: 67.58.60.81
server: 67.58.60.86

UvA
67.58.61.232 /29 (vlan 21)
gateway: 67.58.61.233
server: 67.58.61.234
codec: 67.58.61.236
venue: 67.58.61.238

NPS
209.129.248.128 /28 (CENIC HPR?)
gateway: 209.129.248.129
server: 209.129.248.130
server: 209.129.248.131

Rio/RNP
67.58.61.208 /28 (vlan 2714)
gateway: 67.58.61.209
RNP sw: 67.58.61.210
server: 67.58.61.214
CESNET: 67.58.61.215

test 2714 10.0.14.1 RNP
test 2714 10.0.14.50 FLR/AmPATH
test 2714 10.0.14.100 StarLight

test 441 10.0.41.1 RNP
test 441 10.0.41.50 FLR/AmPATH
test 441 10.0.41.100 StarLight

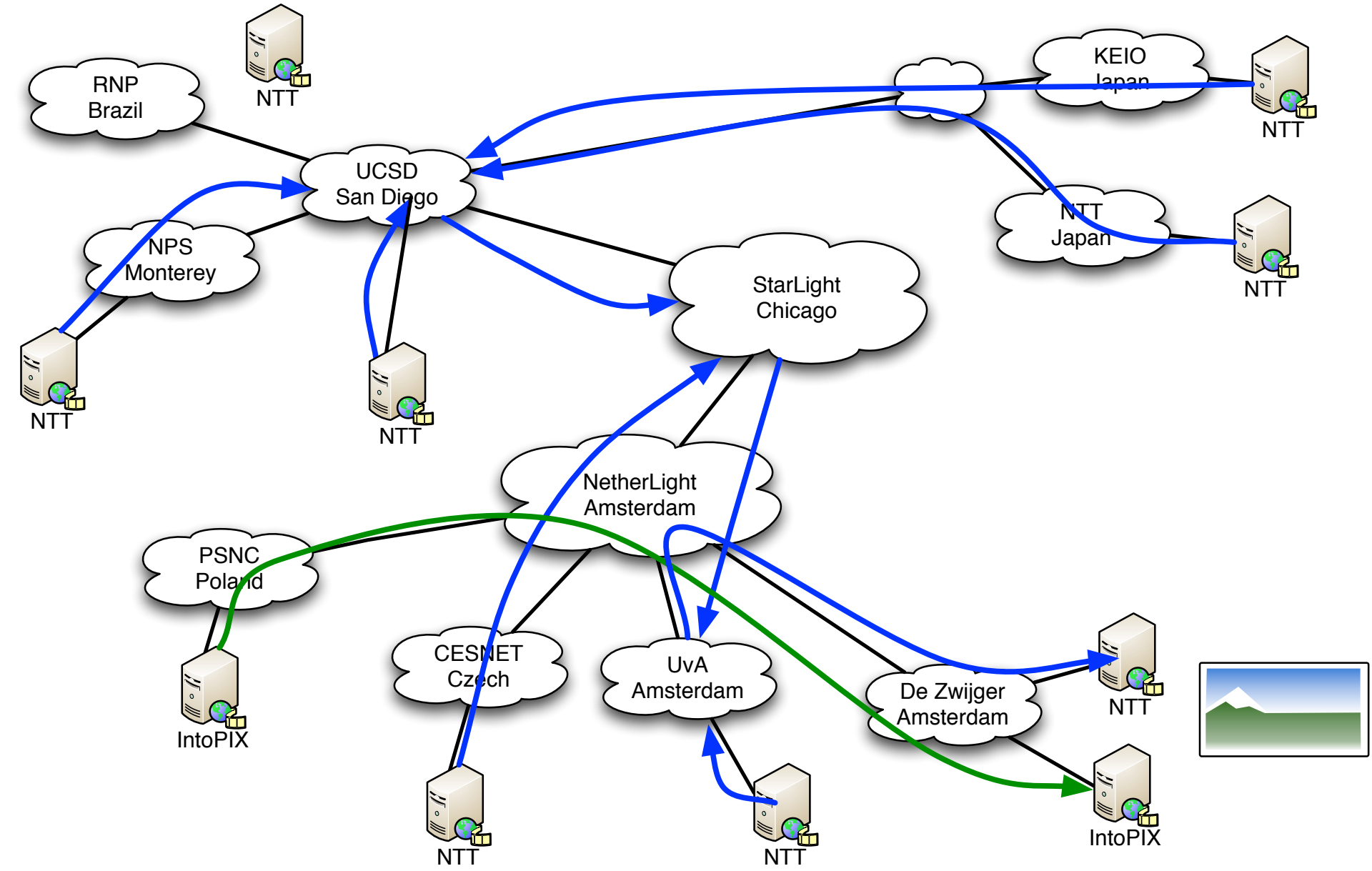
Keio
server: 67.58.34.155

UCSD
server: 67.58.37.180
67.58.37.179

NTT
67.58.35.128 /27
gateway: 67.58.35.129
server: 67.58.35.131
67.58.35.141

changed 8-sep-11 to 67.58.60.96 /28 (vlan 2252)
gateway: 67.58.60.97
server: 67.58.60.100

The Network @ CG-AMS 9/9/11



CINEGRID AMSTERDAM GOALS

Assemble technology, science, art and education to create new concepts, pilots & business models that result in:

- New forms of storytelling
- New domains for scientific exploration
- Transformation of workflows in creative media production
- Better education
- Enhanced economic growth

PROJECTORS

Sony's First Ever 4K Home Theater Projector Shoots Super Resolution for Super Cash

4K video might be our inevitable future, but for now it's prohibitively expensive and rarely available. Sony's taking care of the latter part with its new VPL-VW1000ES projector—four times the resolution of 1080p (!) for mega,

BY SAM BIDDLE SEP 8, 2011 12:48 PM

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Vind ik leuk
272,092 mensen vinden Gizmodo leuk.
Jim Amanda Monika Jennifer Baz

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153957 Photography
http://arne.delaat.net

CINEGRID AMSTERDAM

Research-, development- and outreach facility for production, transport and projection of digital cinema:

- Digital projection and sound in very high quality
- Editing and capture facilities
- Rendering & disk space
- Extremely high quality networks

In the center of Amsterdam

International context

RESOURCES

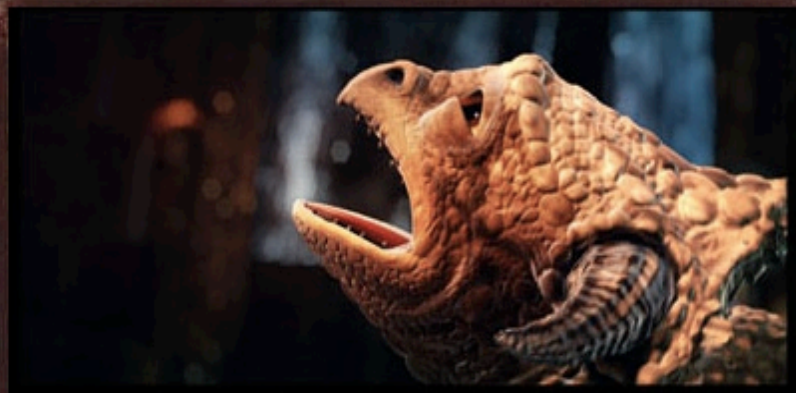
- CineGrid Studio for 4K postproduction
- 100 TB of Highly Connected Storage Space
- High Performance Render Cluster
- 3 * 4K Screens and
- 1 - 10 Gb/s light path connections

- Expertise in
- - production
- - encoding
- - transmission
- - screening

SO FAR
Mediapark Jaarcongres ’08 ’09 ’10
Holland Animation Film Festival
Holland Festival ’07 & ’10
Content, content content..
Educational contest
4K How to Cookbook
PICNIC’08 & ’09
SURFnet GigaPort
Workshops 4K
ICT Delta ’09
BeamLab
2009 ANIMATION FILM FESTIVAL HOLLAND UTRECHT

Handelingen
Maarten de Heer

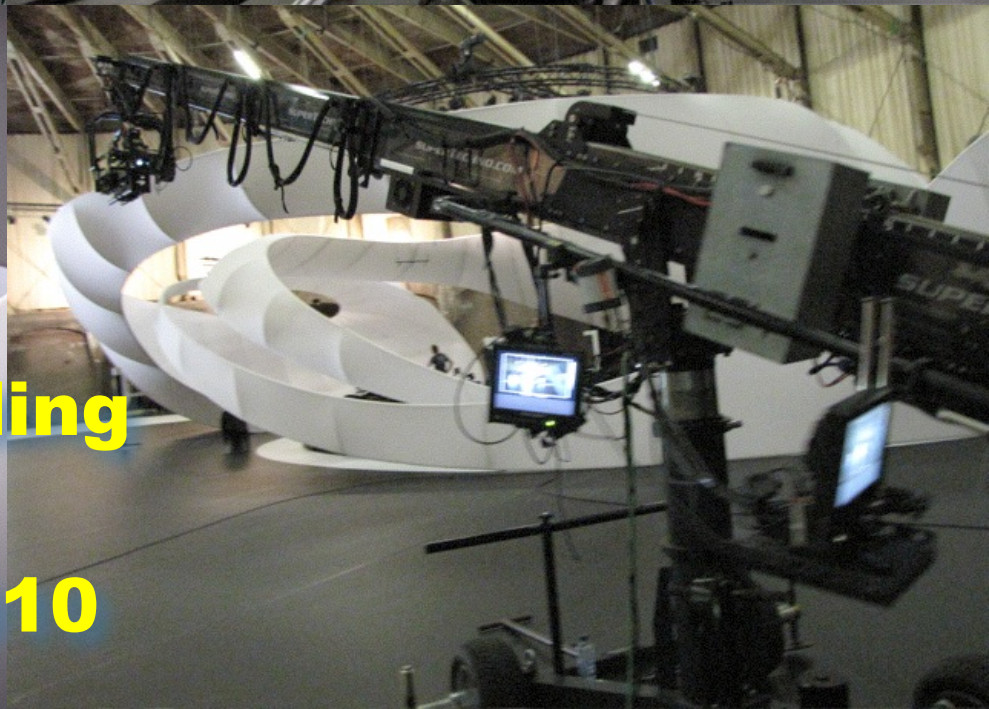
Red End
Robin Noorda & Bethany de Forest



Hey, sit still.

We're almost done. Shhh...

STEREO 4K Recording
Viktoria Mullova
Holland Festival 2010

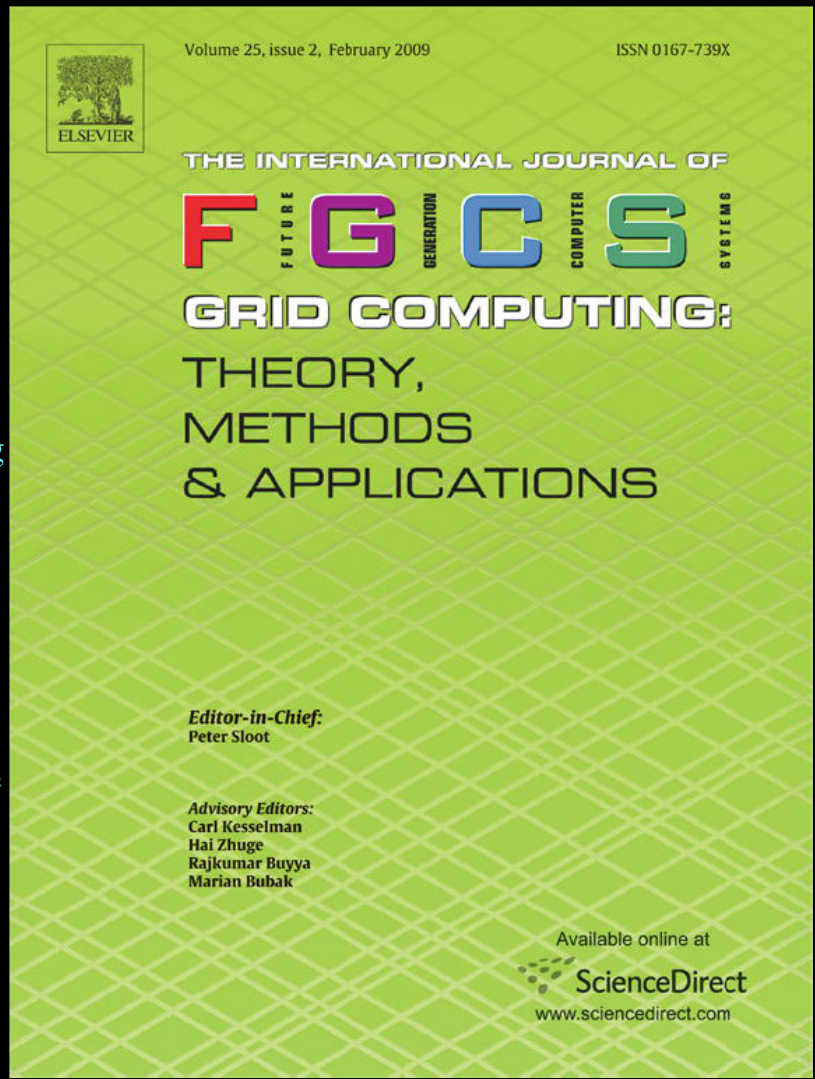


Scientific Publications: FGCS Special Issue on CineGrid!

Volume 27, Issue 7,june 2011

Guest Editors: Naohisa Ohta & Paul Hearty & Cees de Laat

1. Real-time long-distance transfer of uncompressed 4K video for remote collaboration.
2. Media Network (HPDMnet): An advanced international research initiative and global experimental testbed.
3. Producing and streaming high resolution digital movies of microscopic subjects.
4. Enabling multi-user interaction in large high-resolution distributed environments
5. Tri-continental premiere of 4K feature movie via network streaming at FILE 2009
6. A collaborative computing model for audio post-production
7. Design and implementation of live image file feeding to dome theaters
8. Beyond 4K: 8K 60p live video streaming to multiple sites
9. Using ontologies for resource description in the CineGrid Exchange
10. CineGrid Exchange: A workflow-based peta-scale distributed storage platform on a high-speed network
11. CSTP: A parallel data transfer protocol using cross-stream coding
12. Multi-point 4K/2K layered video streaming for remote collaboration



CINEGRID IS SUPPORTED BY

City of Amsterdam, Pieken in de Delta

EFRO / Kansen voor West, Province of Noord-Holland

www.cinegrid.nl