

Life Science Grid Community

EGI User Sustainability Meeting
24-26 January 2012
Amsterdam

About the LSGC

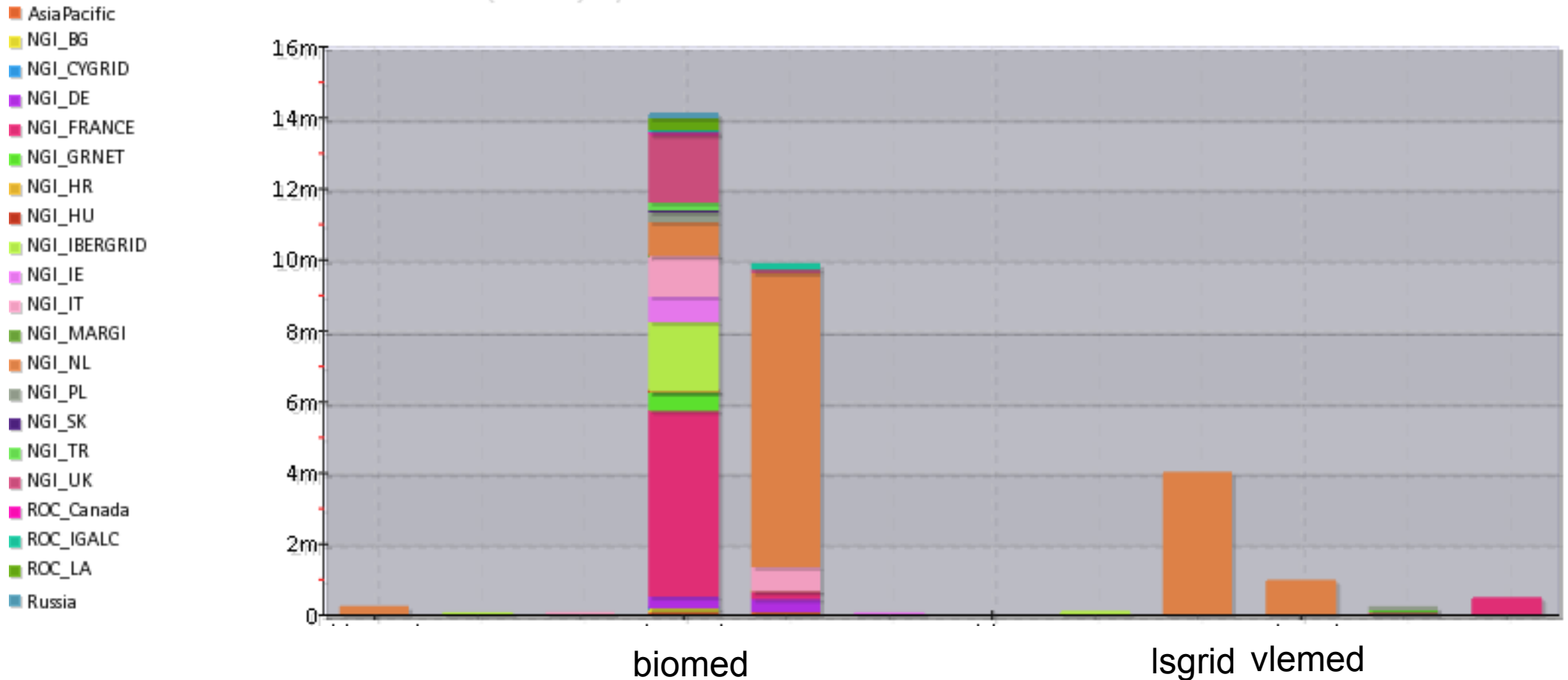
- LSGC is a federation of Virtual Organizations
- ~500 users
- Organization
 - Open community of grid users (not a project)
 - No formal organization anymore
 - Previously: HealthGrid Association
- Timeline
 - 2004-2010: active life-science cluster in EGEE projects
 - June 2010: open workshop at the HealthGrid conference, Paris
 - Summer 2010: agreed on a statement of goals and missions
 - June 2011: MoU signed with European Grid Initiative

Research areas

- biomed VO (~20 countries):
 - bioinformatics, medical imaging, drug discovery
- Isgrid VO (NL):
 - bioinformatics
- medigrid VO (DE):
 - neuroimaging, image and biosignal processing, surgery support, bioinformatics
- pneumogrid VO (DE):
 - chronic obstructive pulmonary disease
- vlemmed VO (NL):
 - bioinformatics and neuroimaging

LSGC Activity in 2011 (only for EGI VOs)

Life Sciences Normalised CPU time (kSI2K) by REGION and VO



Source: <http://accounting.egi.eu>

Used Software and Services

- **Authentication &, security**
 - Myproxy servers
 - Hydra file encryption
 - Robot certificate services
- **VO management and operations**
 - VO admin dashboard
 - VOMS
 - Monitoring services
 - Application database
- **User & application support**
 - GGUS
 - WS-GRASS (UK)
 - GASUC (HU)
- **File management**
 - LFC + LCG utils
 - VBrowser and VLET API
 - iRODS
- **Workflow engines**
 - GWES
 - MOTEUR
 - P-Grade
 - Taverna
- **Pilot-job systems**
 - DIANE
 - DIRAC
 - ToPoS

Supporting NGIs

- Official:
 - Dutch, French, Italian, Spanish-Portuguese (Ibergrid) and Swiss
- Additionally:
 - numerous resource providers worldwide
 - See <http://wiki.healthgrid.org/LSVRC:Index>

- AsiaPacific
- NGI_BG
- NGI_CYGRID
- NGI_DE
- NGI_FRANCE
- NGI_GRNET
- NGI_HR
- NGI_HU
- NGI_IBERGRID
- NGI_IE
- NGI_IT
- NGI_MARGI
- NGI_NL
- NGI_PL
- NGI_SK
- NGI_TR
- NGI_UK
- ROC_Canada
- ROC_IGALC
- ROC_LA
- Russia 6

Supporting resources

(EGI VOs only)

- **Computing elements**
 - biomed: 255
 - Isgrid: 37
 - vlemmed: 37
- **Storage elements (disk)**
 - biomed: 122 (3.3 PB)
 - Isgrid: 21 (270 TB)
 - vlemmed: 21 (280 TB)
- **Meta schedulers (WMS)**
 - biomed: 37
 - Isgrid: 4
 - Vlemmed: 4
- **File catalogs**
 - biomed: 1
 - Isgrid: 1
 - vlemmed: 1

Source: BDII (cclcgtopbdii02.in2p3.fr)

NGIs and Supporting Services

- **French NGI**
 - hosts central services (VOMS, myproxy, LFC) for biomed VO;
 - the Lyon IN2P3 Computing Center plays an important role in supporting the biomed international VO.
- **Dutch NGI**
 - hosts central services for Isgrid and vlemmed VOs
 - Hosts robot certificate services
 - the Amsterdam NIKHEF and SARA also provide tailored user support for vlemmed and Isgrid VOs
- **German NGI**
 - hosts central services for medigrid and pneumogrid VOs
- **Westminster Grid Application Support Service (UK)**
- **Grid Application Support Centre (HU)**

Future Needs (1)

- Maintenance and support for central supporting services
- Lighter VO operations
 - Most of the VO management effort is currently invested in technical issues.
 - Domain-specific VO management should be the priority
- see also requirements on our wiki

Future Needs (2)

- Easier, more automated use of the infrastructure
 - Data management
 - automated replica placement, cleanup, grid-wide storage management, etc.
 - Error detection, handling and notification
 - Guaranteed performance (QoS)
 - Redundant services with auto fallback (e.g. LFC, VOMS, Hydra, etc)
 - Higher level well defined and stable APIs (standards)
 - Debugging facilities
- see also requirements on our wiki

Community contribution (1)

- The community is spending most of its effort in the technical support
- It also hosts many experiment-specific environments
- With easier-to-use infrastructure, it is expected that **the support team can focus less on basic technical problems and more on real application support** in the future.

Community contribution (2)

- Tools, procedures, and documentation are continuously being developed by dispersed user groups.
- This requires expertise and manpower to invest in application deployment and operations.
- The contribution of the LSGC would be to federate these efforts to make these tools and knowledge available more widely and liaise with EMI

Community contribution (3)

- Deployment of experiment support environments at the LSGC community sites, for example
 - MyProxy servers at I3S and CREATIS community laboratories,
 - DIRAC pilot jobs service in collaboration with French NGL...)

Contact and more information

- Wiki
- <http://wiki.healthgrid.org/LSVRC:Index>
- Mailing list
- lsvrc@healthgrid.org

This presentation was prepared primarily by Tristan Glatard and Johan Montagnat