



# GridLab and Progress

as the examples of cooperation  
between SUN  
and Grid research at PSNC

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Poznan Supercomputing and Networking Center

## Agenda

- ◆ History of the GridLab
- ◆ Formal issues
- ◆ Participants
- ◆ Main goals, architecture
- ◆ WPs
- ◆ SUN input



## History

*The Applications Research Group (ARG) of the former European Grid Forum (EGrid) has been addressing questions about users requirements, problems, and usage scenarios for several years now. In 2000 and 2001 the Group established international testbeds, based on the Globus Toolkit, for prototyping and experimenting with various application scenarios.*

*These testbed experiences inspired some members of the research group to submit a successful proposal for an application orientated project, called GridLab, to the European Commission.*




## The biggest Testbed



Global Grid Forum  
Applications Research Group

SC 2001 Testbed Demo



## Formal issues

- ◆ GridLab is funded by the European Commission under the 5th Framework Programme
- ◆ Its budget is about 5+ millions Euro
- ◆ Duration: 01.01.2002 – 31.12.2004


**GridLab has just started...**



## Participants

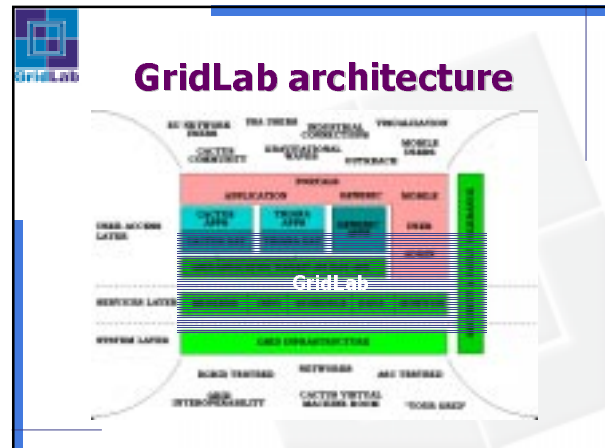
(9 Europe/ 3 USA/ 2 Vendors)


- ◆ **Project Manager** - Jarek Nabrzyski [naber@man.poznan.pl](mailto:naber@man.poznan.pl)  
Poznan Supercomputing and Networking Center, **Poland**
- ◆ Albert Einstein Institut, Potsdam, **Germany**
- ◆ Konrad Zuse Zentrum fuer Informationstechnik ZIB Berlin, **Germany**
- ◆ Masaryk University Brno, **Czech Republic**
- ◆ Computer and Automation Research Institute, Hungarian Academy of Sciences, **Hungary**
- ◆ Vrije Universiteit Amsterdam, **The Netherlands**
- ◆ Universita' Degli Studi di Lecce, **Italy**
- ◆ University of Wales, **UK**
- ◆ Institute of Communication and Computer Systems, **Greece**
- ◆ **Sun Microsystems Gridware GmbH, Germany**
- ◆ Compaq Computer EMEA BV, **France**
- ◆ Argonne National Laboratory, **USA**
- ◆ Informations Sciences Institute, **USA**
- ◆ University of Wisconsin, **USA**



## GridLab: main goals


- ◆ Provide users and application developers with a simple and robust environment
- ◆ Enabling them to produce applications that can exploit the full power and possibilities of the Grid (GAT-Grid Application Toolkit)





## GridLab's workpackages

- ◆ WP1 Grid Application Toolkit – **SUN has 3 PMs,**
- ◆ WP2 Cactus Grid Application Toolkit,
- ◆ WP3 Work-Flow Application Toolkit,
- ◆ WP4 Grid Portals – **SUN has 6 PMs,**
- ◆ WP5 Testbed Management,
- ◆ WP6 Security,
- ◆ WP7 Adaptive Application Components,
- ◆ WP8 Data handling and Visualization,
- ◆ WP9 Resource Management – **SUN has 4 PMs,**
- ◆ WP10 Information Services,
- ◆ WP11 Monitoring – **SUN has 1 PM,**
- ◆ WP12 Access for mobile users,
- ◆ WP13 Information Dissemination – **SUN has 7 PMs,**
- ◆ WP14 Project Management



## SUN input

- ◆ Sun Microsystems GmbH acts as a technology provider, expert, and dissemination partner for GridLab
- ◆ Components of Sun Grid Engine will be used to integrate, enhance, respectively develop the Grid resource management framework in GridLab
- ◆ Sun Microsystems GmbH intends to put the GridLab project within its Open Source and make the enhanced packages available to industrial and research end-users.



## Why we are here...

- ◆ 5 people from GridLab (Massimo, Jason, Oliver, Tomasz, me, ...)
- ◆ Learn more technical details about SGE (e.g. Available APIs)
- ◆ Realize the ways of further SGE development
- ◆ Establish and begin collaboration (contact people, mailing lists, etc.)
- ◆ Discuss GridLab/SUN WPs and tasks



## Progress

### Polish Research on Grid Environment for SUN Servers

Coordinated by  
Poznan Supercomputing and Networking Center



## **Participants** (all from Poland)

- **SUN Microsystems**
- **Poznan Supercomputing and Networking Center**
- **Cyfronet, Kraków**
- **University of Technology, Łódź**

## **Main goals**

- **Develop scientific portal and Grid environment for SUN Servers based on SUN technologies,**
- **Provide reliable web-based interfaces to scientific applications**
- **Support research community with many useful tools and services**

## **SUN Technologies**

- **SUN One**
- **SUN Grid Engine**
- **SUN Cluster Tools**
- **iPlanet**
- **Java/J2EE**
- **... and resources (SUN Fire's)**