

# PerfSONAR-Lite TSS (*Troubleshooting*)

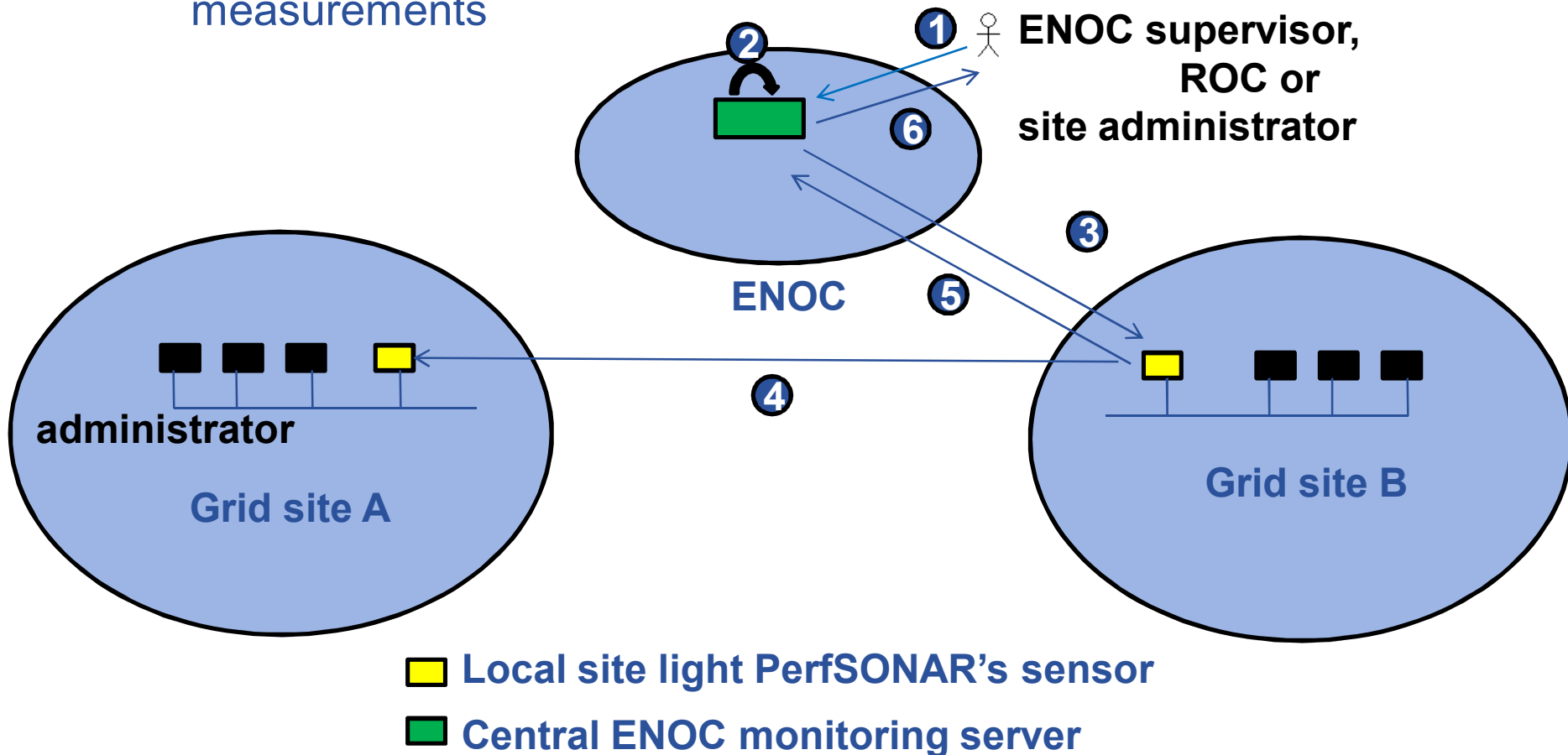
*Xavier Jeannin (CNRS/UREC Paris, FR)*

*3 July 2009*

- **PerfSONAR-Lite TSS overview**
- **PerfSONAR-Lite TSS review of the situation**
- **Work plan**

- Network troubleshooting tool**

- Launch test on demand from the Grid site under central server control: ping, traceroute, DNS lookup, nmap and bandwidth measurements



- **Constraints from Grid Sites:**
  - A lightweight product
  - A well known product
  - No continuous measurement, but on-demand (to support troubleshooting)
  - An access to the measure and to the tools
- **Constraints from the project:**
  - Sustainability of the software
  - A minimum of software development

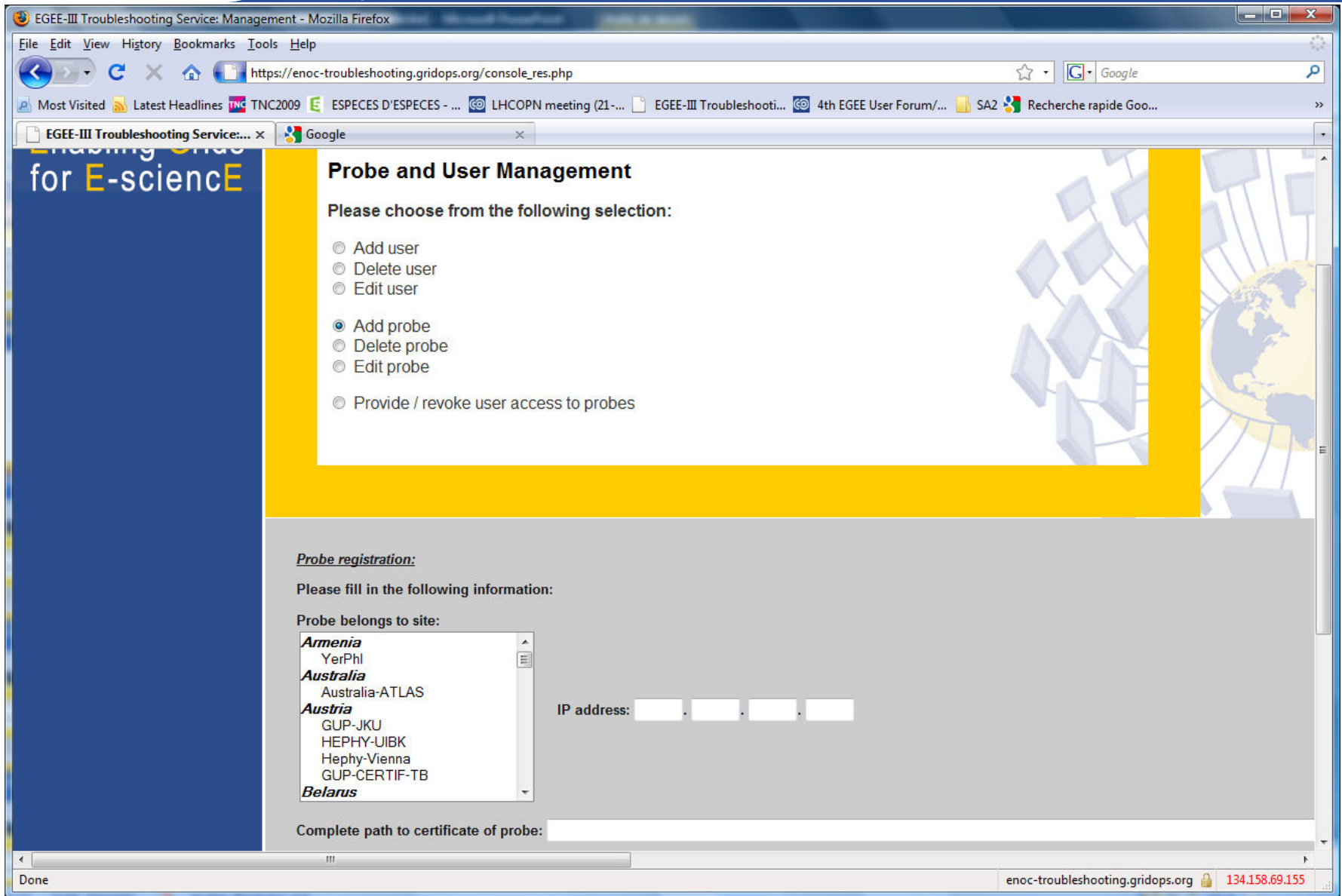
- **Authorization management**

- Usage of certificate for user
- Access from ROC → transition to EGI-NGI
- Reduce the number of features concerning authorization
- User login procedure
- User login procedure and restriction of measurements:
  1. user currently needs login and password to reach site (for test convenient) and certificate of user is checked on entry; must be valid Grid certificate
  2. user can work on data management platform (add user, add probe, provide access of users to probes, etc., ....) if user is listed in local database (which was initialized with GOC-DB data) as a manager or as a member of ENOC with valid DN
  3. use of measurements: user can start measurements from source to destination only if user has rights listed for that site (either for the source or the destination site) in the local DB; these access rights have been initialized with data from the GOC-DB. Only ENOC members can start measurements to and from any location.
  4. local database will later be automatically synchronized with GOC-DB (part of advanced package).

- **DNS Lookup feature should be changed**

- Work already in progress





EGEE-III Troubleshooting Service: Management - Mozilla Firefox

File Edit View History Bookmarks Tools Help

https://enoc-troubleshooting.gridops.org/console\_res.php

Most Visited Latest Headlines TNC TNC2009 ESPECES D'ESPECES - ... LHCOPN meeting (21-... EGEE-III Troubleshooti... 4th EGEE User Forum/... SA2 Recherche rapide Goo...

EGEE-III Troubleshooting Service: Management x Google

## Enabling Grids for E-science

### Probe and User Management

Please choose from the following selection:

- Add user
- Delete user
- Edit user
- Add probe
- Delete probe
- Edit probe
- Provide / revoke user access to probes

**Probe registration:**

Please fill in the following information:

Probe belongs to site:

- Armenia**
- YerPhl
- Australia**
- Australia-ATLAS
- Austria**
- GUP-JKU
- HEPHY-UIBK
- Hephy-Vienna
- GUP-CERTIF-TB
- Belarus**

IP address:  .  .  .

Complete path to certificate of probe:

Done

enoc-troubleshooting.gridops.org 134.158.69.155

The screenshot shows a Mozilla Firefox browser window displaying the 'EGEE-III Troubleshooting Service' interface. The interface includes a navigation menu with 'Home' and 'data management' options. The main content area is titled 'Troubleshooting' and contains a section for 'tracert (destination) IP address from source node:'. This section features two side-by-side lists of nodes:

source node:	destination node:
Australia-ATLAS 192.168.3.4	Australia-ATLAS 192.168.3.4
HEPHY-UIBK 192.168.5.6	HEPHY-UIBK 192.168.5.6
IN2P3-CC 1.1.1.1	IN2P3-CC 1.1.1.1
134.158.69.159	134.158.69.159
LRZ-LMU 131.188.81.91	LRZ-LMU 131.188.81.91
YerPhi	YerPhi

Below the node lists, a status message reads: 'destination 134.158.69.159 has been informed about request.' This message is circled in red. An email notification window is overlaid on the top right, with its subject line 'current EGEE troubleshooting (traceroute request from 192.168.5.6) involving your site - T...' also circled in red. The email content includes:

Subject: current EGEE troubleshooting (traceroute request from 192.168.5.6) involving your site  
 From: egee-troubleshooting@ccnec.in2p3.fr  
 Date: 15:55  
 To: XavierJeannin@urec.cnrs.fr

The main body of the email states: 'Site 192.168.5.6 has sent a traceroute request to 134.158.69.159.'



EGEE-III Troubleshooting Service: Port-scan - Mozilla Firefox

File Edit View History Bookmarks Tools Help

https://enoc-troubleshooting.gridops.org/port-scan.php

Most Visited Latest Headlines TNC TNC2009 ESPECES D'ESPECES - ... LHCOPN meeting (21-... EGEE-III Troubleshooti... 4th EGEE User Forum/... SA2 Recherche rapide Goo...

EGEE-III Troubleshooting Service:... x Google x

## Enabling Grids for E-science

### Troubleshooting Tool: Port scan

Port scan (*destination*) IP address from *source* node:

<p><b>source node:</b></p> <ul style="list-style-type: none"> <li>Australia-ATLAS 192.168.3.4</li> <li>HEPHY-UIBK 192.168.5.6</li> <li>IN2P3-CC 1.1.1.1 134.158.69.159</li> <li>LRZ-LMU 131.188.81.91</li> <li>YerPhil</li> </ul>	<p><b>destination node:</b></p> <ul style="list-style-type: none"> <li>Australia-ATLAS 192.168.3.4</li> <li>HEPHY-UIBK 192.168.5.6</li> <li>IN2P3-CC 1.1.1.1 134.158.69.159</li> <li>LRZ-LMU 131.188.81.91</li> <li>YerPhil</li> </ul>
---	--

Please indicate the port(s) you would like to scan on the destination host:

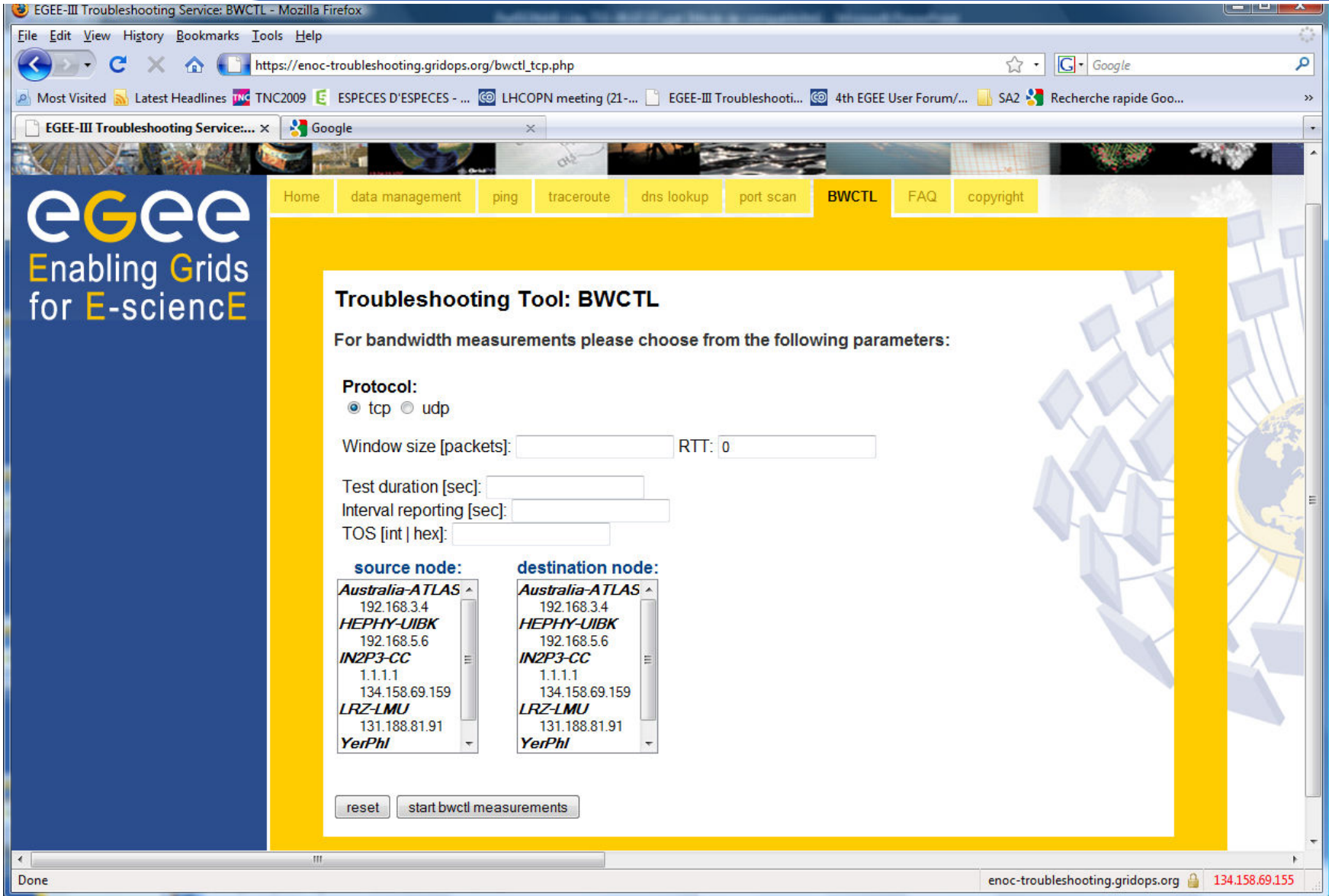
single port number:

or ports ranging from:  to

Done

enoc-troubleshooting.gridops.org 134.158.69.155





EGEE-III Troubleshooting Service: BWCTL - Mozilla Firefox

File Edit View History Bookmarks Tools Help

https://enoc-troubleshooting.gridops.org/bwctl\_tcp.php

Most Visited Latest Headlines TNC2009 ESPECES D'ESPECES - ... LHCOPN meeting (21-... EGEE-III Troubleshooti... 4th EGEE User Forum/... SA2 Recherche rapide Goo...

EGEE-III Troubleshooting Service:... x Google x

Home data management ping traceroute dns lookup port scan **BWCTL** FAQ copyright

**EGEE**  
Enabling Grids  
for E-science

### Troubleshooting Tool: BWCTL

For bandwidth measurements please choose from the following parameters:

**Protocol:**  
 tcp  udp

Window size [packets]:  RTT:

Test duration [sec]:

Interval reporting [sec]:

TOS [int | hex]:

<b>source node:</b>	<b>destination node:</b>
<ul style="list-style-type: none"> <li>Australia-ATLAS ^</li> <li>192.168.3.4</li> <li>HEPHY-UIBK</li> <li>192.168.5.6</li> <li>IN2P3-CC</li> <li>1.1.1.1</li> <li>134.158.69.159</li> <li>LRZ-LMU</li> <li>131.188.81.91</li> <li>YerPhl v</li> </ul>	<ul style="list-style-type: none"> <li>Australia-ATLAS ^</li> <li>192.168.3.4</li> <li>HEPHY-UIBK</li> <li>192.168.5.6</li> <li>IN2P3-CC</li> <li>1.1.1.1</li> <li>134.158.69.159</li> <li>LRZ-LMU</li> <li>131.188.81.91</li> <li>YerPhl v</li> </ul>

reset start bwctl measurements

Done enoc-troubleshooting.gridops.org 134.158.69.155

- **Testphase 1 (Feb./March 2009)**
  - Installed software:
    - Client software is implemented on a web server in Erlangen with local MySQL database
    - Test does not include Apache ssl handling
  - Software will be tested by SA2 management and ENOC
  - Tested modules:
    - User management, Administrative web pages, Various tool web pages, Proper connection to perfSONAR core module
    - Test feedback: Will be used for FAQ web page

- **Testphase 2 (May/June 2009)**
  - Installation of the master part of the software on the ENOC web server
  - MySQL database installed on ENOC web server
  - initial synchronization of MySQL database with GOC-DB data
  - Client software was delivered to SA1 for distribution
  - Tests include Apache SSL handling
  - Software is currently tested by SA2
- **Tested modules:**
  - All modules
- **Software distribution**
  - Delivery of software and client source were on time, but testing of the software is delayed until client package made available in final distribution format from SA1
  - It is crucial that the software is reliable before the deployment

- **Testphase 3**
  - Installed software (Beta version / basic package):
  - Client software will be installed by users
  - Software will be tested by:
    - RedIRIS, GARR, Nordic Data Grid Facility
    - Open to all other interested partners
- **Tested modules:**
  - All modules
  - Installation procedure