PerfSONAR-Lite TSS
(Troubleshooting)

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24 February 2009

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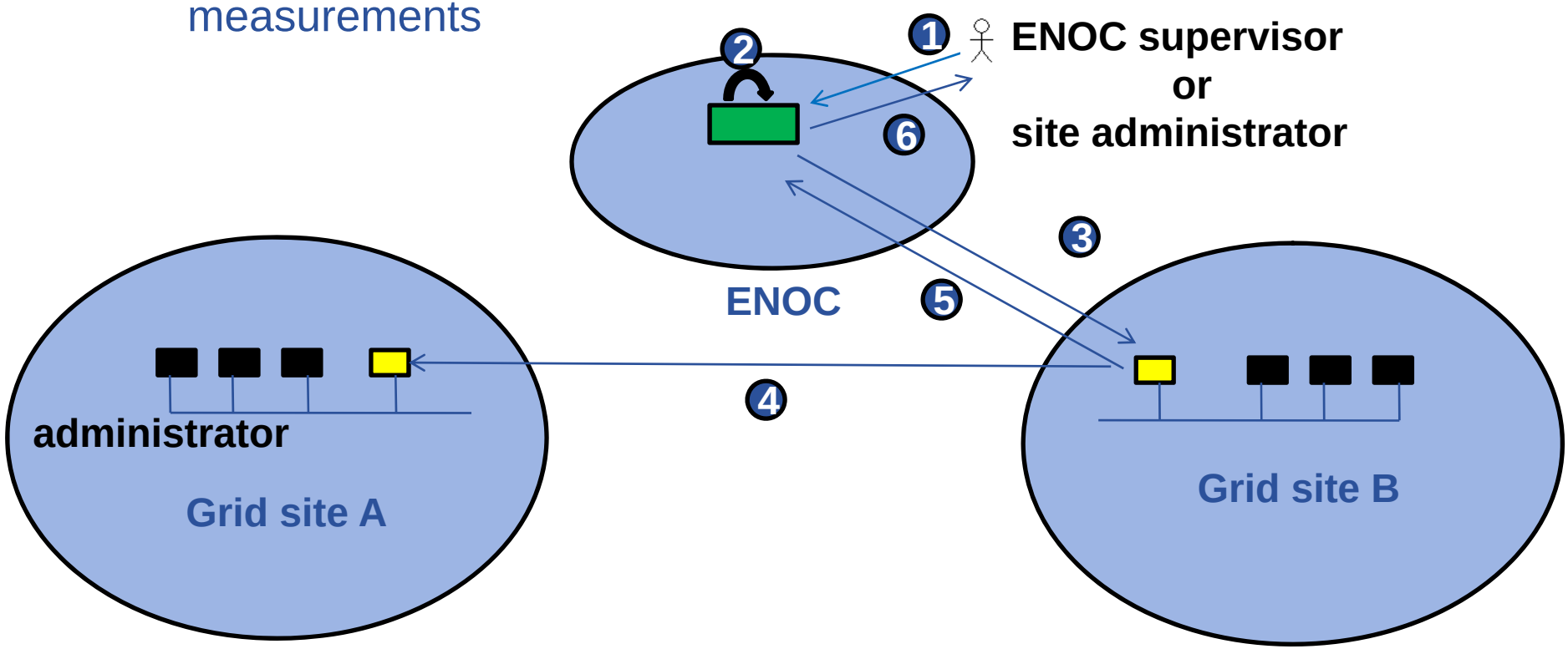
Overview of PerfSONAR-Lite TSS functioning

- **Network troubleshooting tool**
  - Launch test on demand from the Grid site under central server control: ping, traceroute, DNS lookup, nmap and bandwith measurements

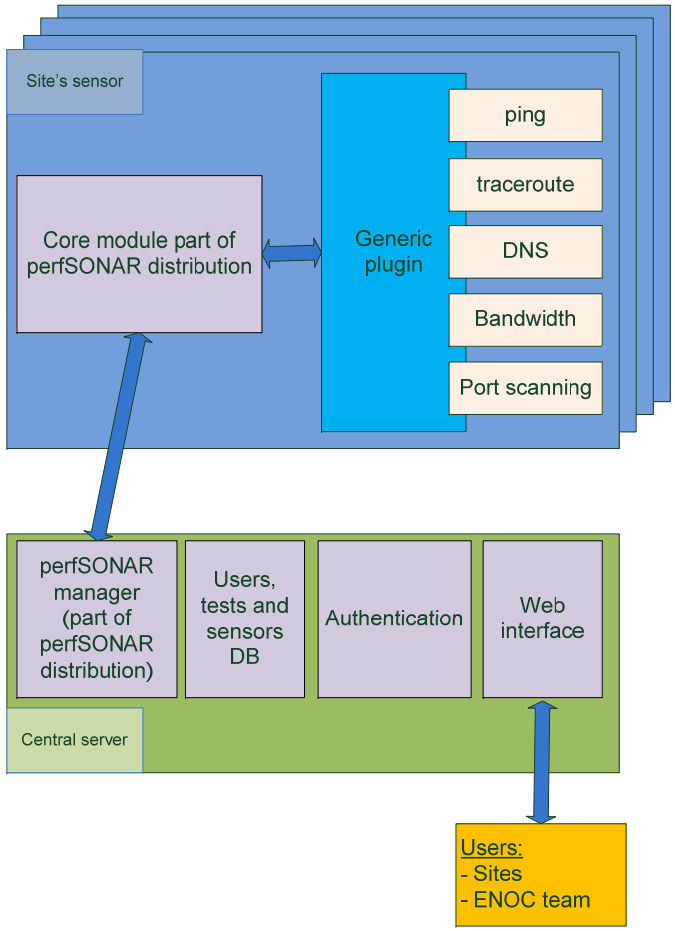


Requirements

- **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

PerfSONAR-Lite TSS

- **PerfSONAR-Lite TSS is an extension of PerfSONAR**
  - to enable light-weight *on-demand* measurements
  - to offer additional service tools ping, traceroute, DNS lookup and reverse lookup,BWCTL, port scan
  - web service extensions for ENOC platform
  - authorization / authentication for EGEE-III specifications
  - EGEE-III specific visualization and archiving
- **PerfSONAR protocol, via SOAP request/response**



TEST launching and authentication/Authorization

Authenticate by certificate

1

5

ENOC

check the validity of scope of the test
• Targeted machines

2

Local DB

Can be
• ENOC Supervisor
• Network ROC
• Site user B

3

launch the test

Mutual authentication

4

Provide results

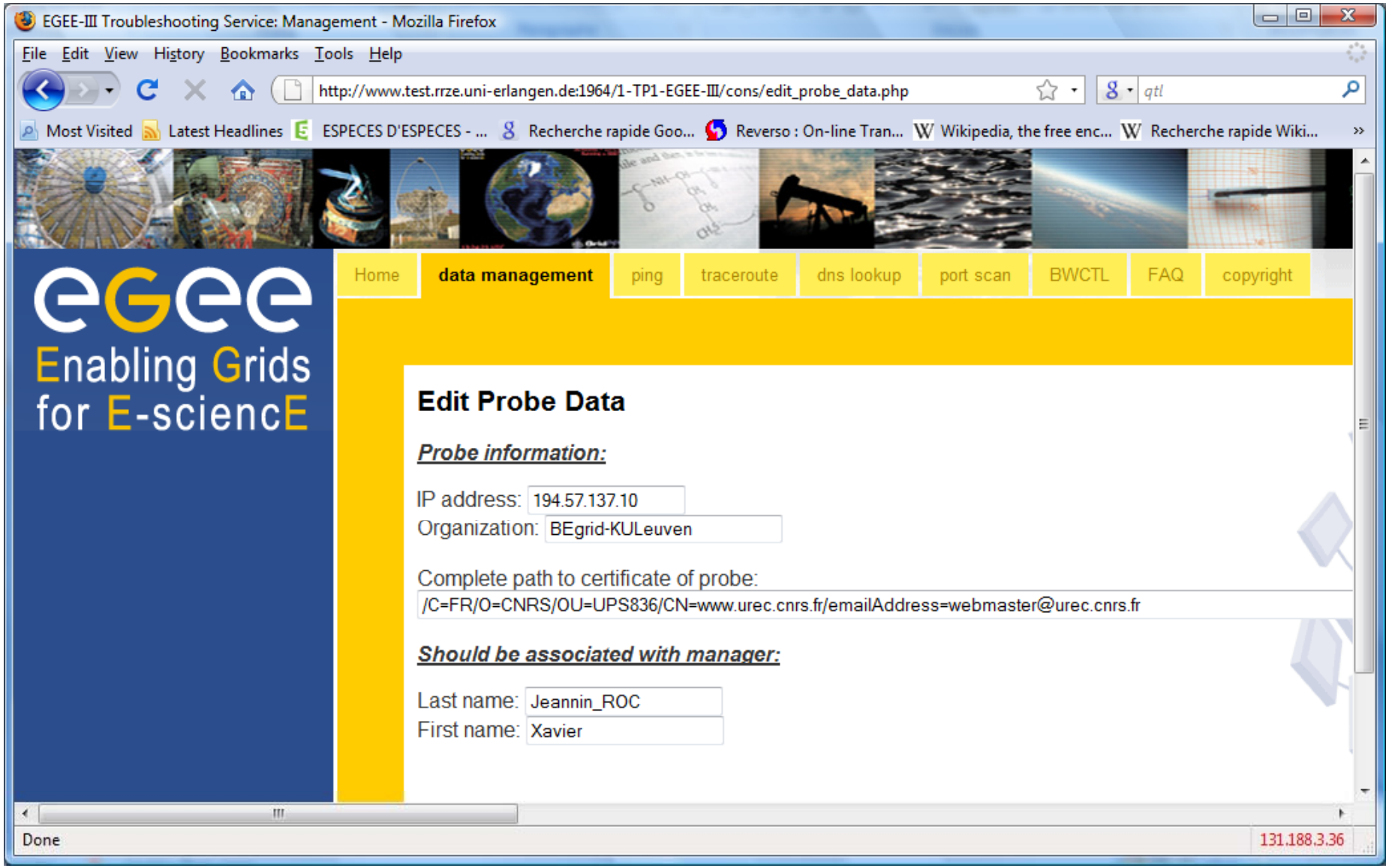
3

Machine Site B

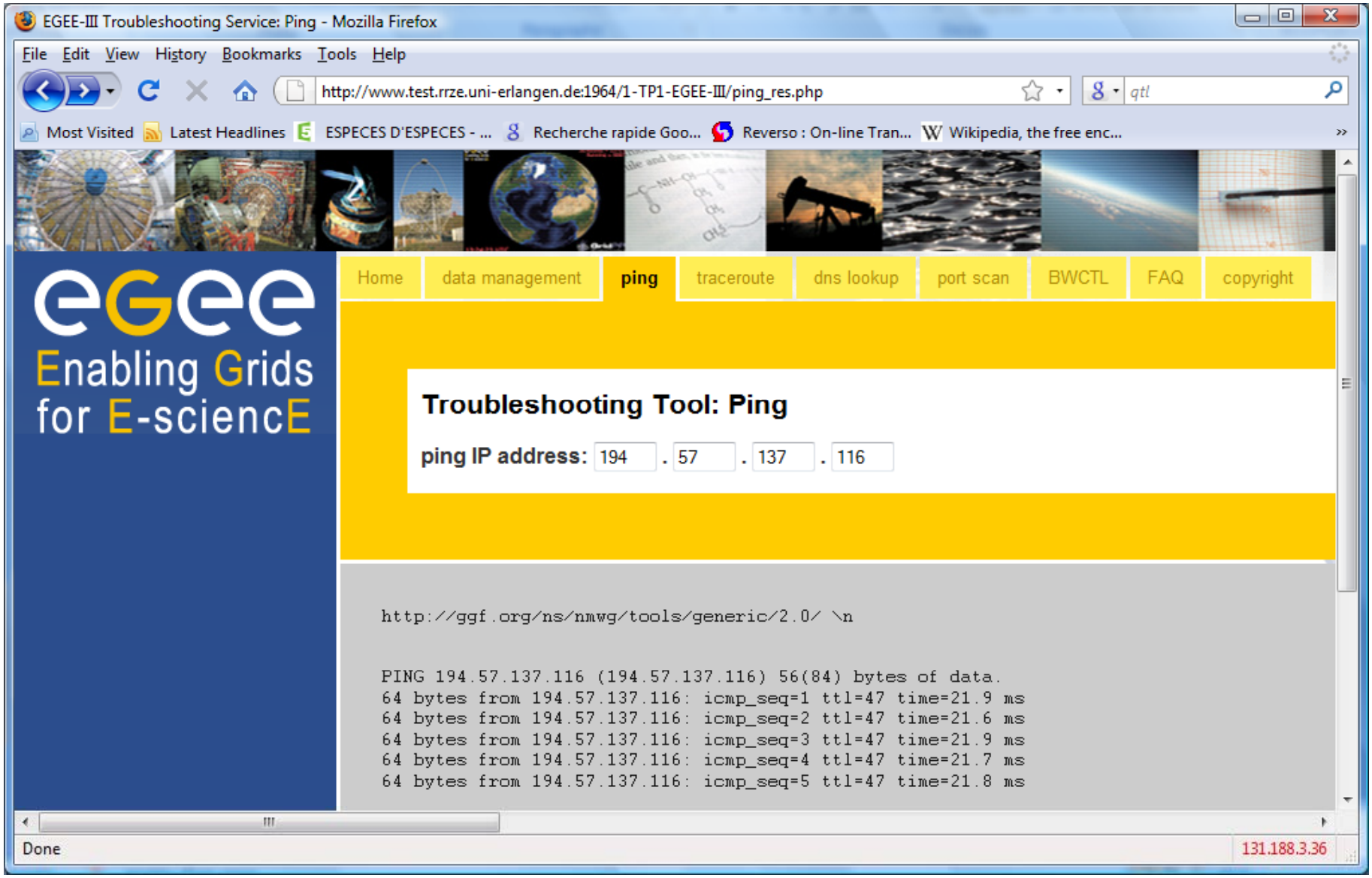
Machine Site A

Mutual authentication

Authorization management



Ping


EGEE-III Troubleshooting Service: Ping - Mozilla Firefox
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http://www.test.rrze.uni-erlangen.de:1964/1-TP1-EGEE-III/ping_res.php
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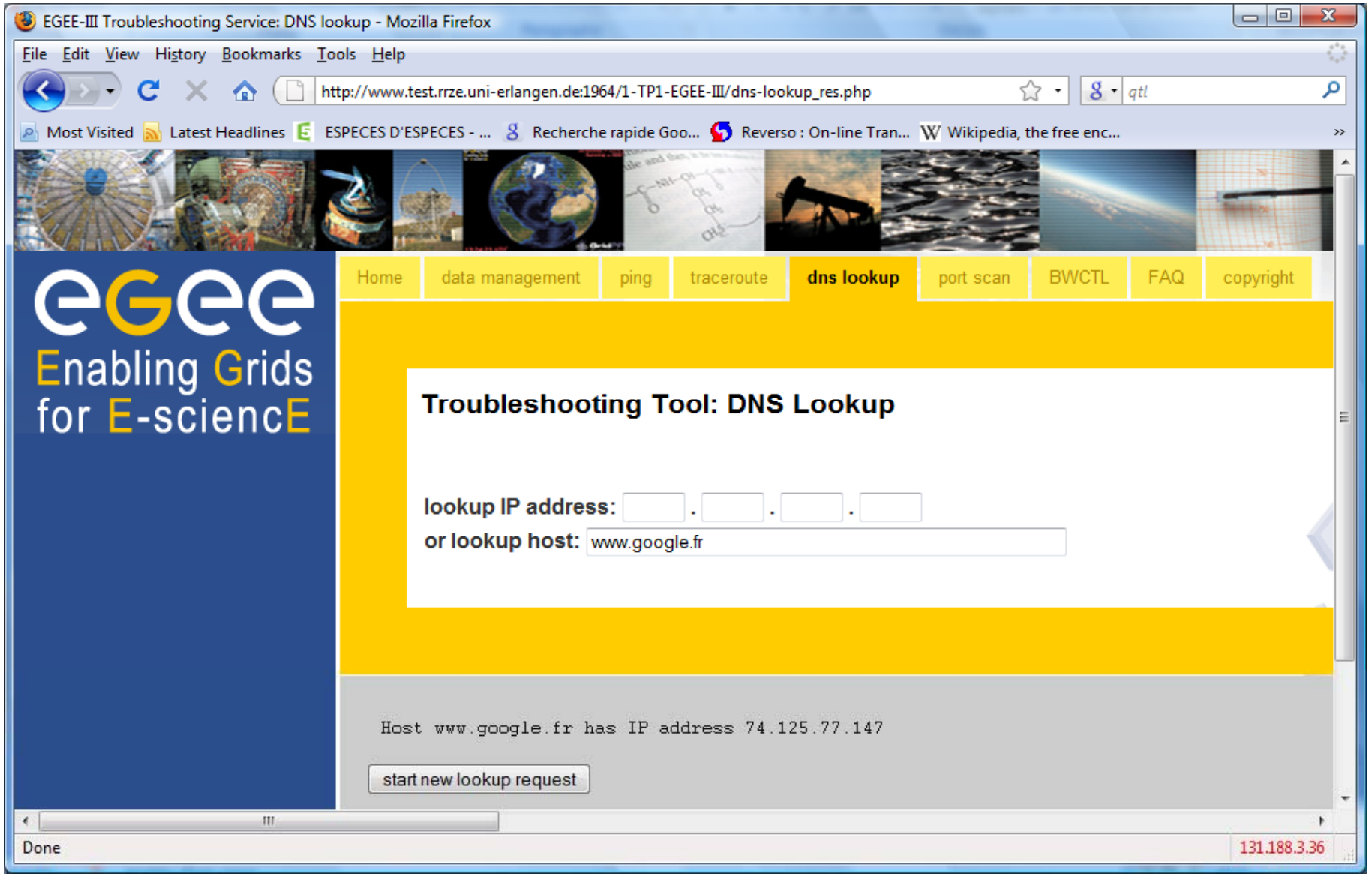
data management
ping
traceroute
dns lookup
port scan
BWCTL
FAQ
copyright
Troubleshooting Tool: Ping
ping IP address: 194 . 57 . 137 . 116
http://ggf.org/ns/nmwg/tools/generic/2.0/ \n
PING 194.57.137.116 (194.57.137.116) 56(84) bytes of data.
64 bytes from 194.57.137.116: icmp_seq=1 ttl=47 time=21.9 ms
64 bytes from 194.57.137.116: icmp_seq=2 ttl=47 time=21.6 ms
64 bytes from 194.57.137.116: icmp_seq=3 ttl=47 time=21.9 ms
64 bytes from 194.57.137.116: icmp_seq=4 ttl=47 time=21.7 ms
64 bytes from 194.57.137.116: icmp_seq=5 ttl=47 time=21.8 ms
Done
131.188.3.36

DNS Lookup


EGEE-III Troubleshooting Service: DNS lookup - Mozilla Firefox
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http://www.test.rrze.uni-erlangen.de:1964/1-TP1-EGEE-III/dns-lookup_res.php
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dns lookup
port scan
BWCTL
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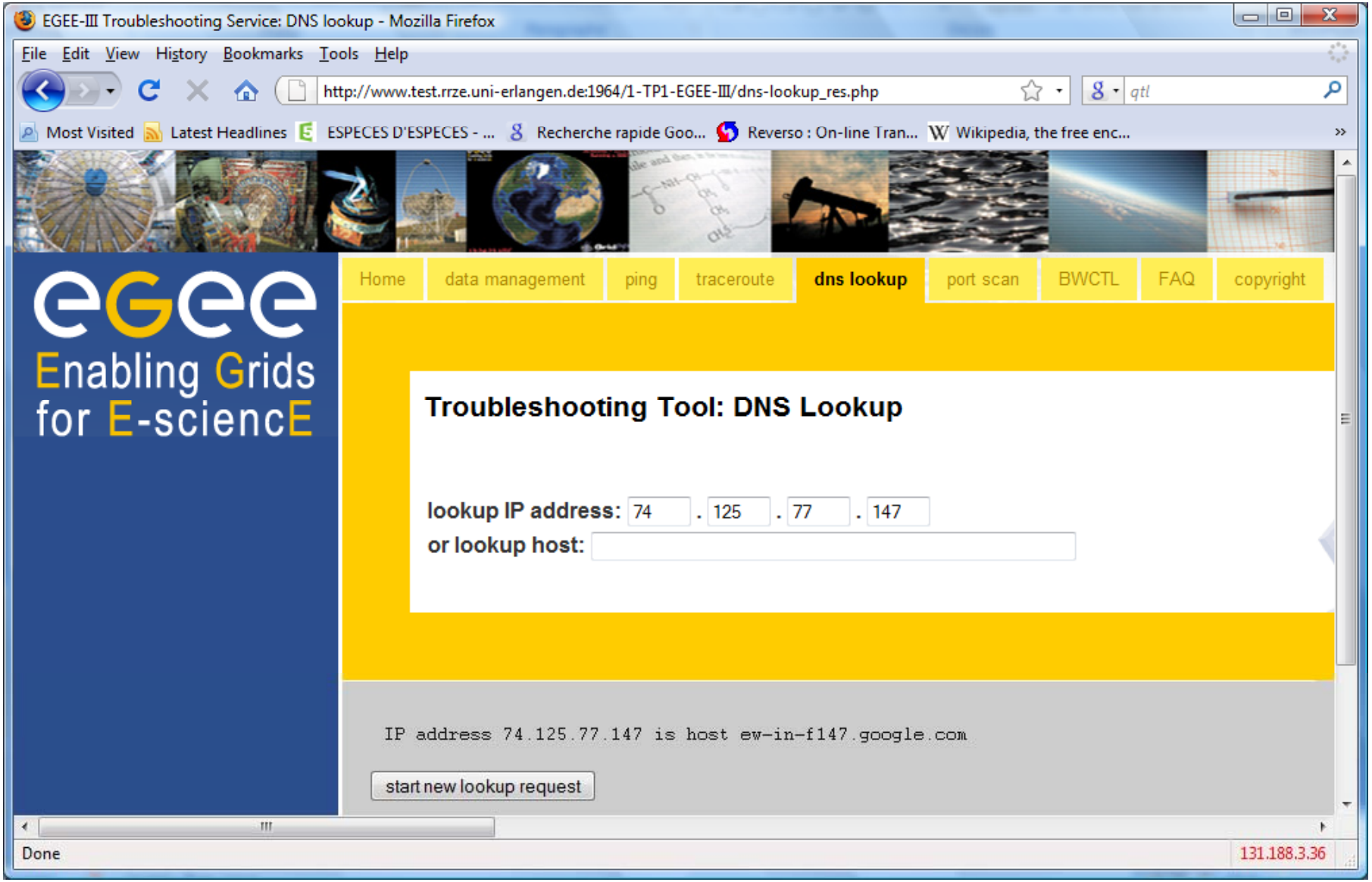
copyright
Troubleshooting Tool: DNS Lookup
lookup IP address:
or lookup host: www.google.fr
Host www.google.fr has IP address 74.125.77.147
start new lookup request
Done
131.188.3.36

Reverse Lookup



Work plan

- **Testphase 1 (End of January 2009 ongoing)**
  - 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
  - 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

Work plan

- **Testphase 2**
  - Installed software:
  - Client software is implemented on ENOC web server with MySQL database
  - Tests include Apache ssl handling
  - Software will be tested by SA2
- **Tested modules:**
  - Proper handling of certificate/authentication issues and authorization
  - Proper handling of ENOC local DB processing

Work plan

- **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