



Institute of Computer Science - FORTH



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Contents of the presentation

- The DCS laboratory
- EGEE and HellasGrid projects
 - Preparation for the nodes
 - Support equipment
- The HG-05-FORTH 
- Delivery and set-up process
- First year of GR-04-FORTH-ICS
- Services running at FORTH
 - Monitoring services 
 - Accounting services
 - Network availability services

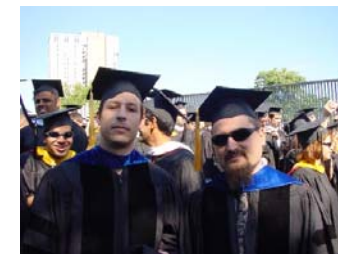
- Distributed Computing Systems Lab

- People

- 4 faculty and researchers
- 5 staff members (M.S.)
- 10 graduate students
- 5 undergraduate students

- Research Areas

- Security
- GRIDs and P2P systems
- Network Monitoring



EGEE and HellasGRID projects



The machine room: Room safety

Cluster Room

eGEE
Enabling Grids for
E-science in Europe



- Access to authorised persons only

The machine room: Support equipment



The power supply is provided through IC309 plugs and there is a dedicated switch just for the cluster

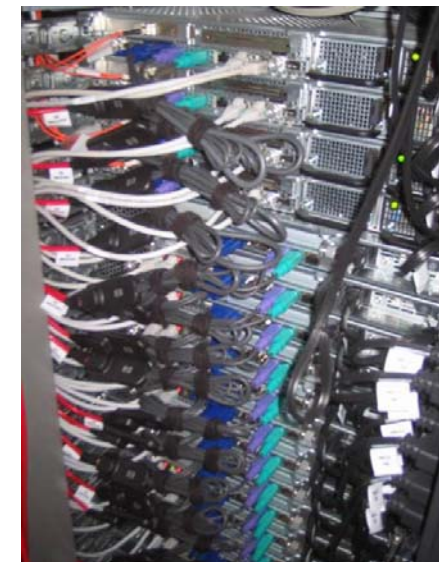


The total capacity of the two Air-conditioning units is 100.000 BTU

The new HG-05-FORTH site

HG-05-FORTH

eGEE
Enabling Grids for
E-science in Europe



3rd October 2005

Waiting...



PITCHING BARREL-BUNGS is a favorite game in Jack Daniel's Hollow. But it's only one of the unusual things we do.

We make whiskey with water from a pure limestone stream that springs from far underground. We burn 4-foot strips of hard maple in an open-air rickyard to get charcoal. And we mellow our whiskey through vats of this charcoal before aging. Nobody does any of these unusual things better than Jack Daniel's. And, we'll wager, nobody can top our barrelmen when it comes to pitching bungs.



CHARCOAL
MELLOWED
DROPS
BY DROP

Tennessee Whiskey - 90 Proof - Distilled and Bottled by Jack Daniel Distillery
Lem Motlow, Prop., Inc., Lynchburg (Pop. 361), Tennessee 37352
Placed in the National Register of Historic Places by the United States Government.

91

4th October 2005 The cluster arrived...

HG-05-FORTH

eGEE

Enabling Grids for
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13th October 2005 Hardware verification tests...

HG-05-FORTH



Verification of the hardware that was delivered to FORTH



Representatives from GRNET, FORTH and HP



Mark is sometimes asked how we make whiskey here in the States. The answer? Easy as pie. MOTHER NATURE and Father Time do most of the work aging Jack Daniel's. We just check in on them occasionally.

As the whiskey ages, temperature changes move it in and out of the wood, imparting a distinctive color and flavor. About halfway through the process, we take a small sample. (That's what Jimmy Bedford is doing here.) Tasting the whiskey at this point tells us how the aging is going. A sip of Jack Daniel's years later, we believe, will tell you that time and nature do a pretty good job.

SMOOTH SIPPIN'
TENNESSEE WHISKEY

Time, friends at Jack Daniel's, and a special place in the heart of Tennessee.

Tennessee Whiskey • 40-45% alc/vol (80-85 proof) • 100% Grain Neut. Spirits • Blended and Bottled by Jack Daniel Distillery, Inc. • 1800 • Lynchburg, TN • 3753 • Tennessee • 3753 • www.jackdaniels.com
Produced in the United States of America. © 2005 Jack Daniel's Distillery, Inc.



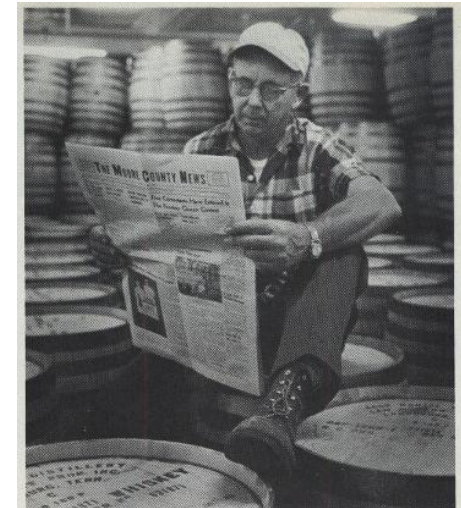
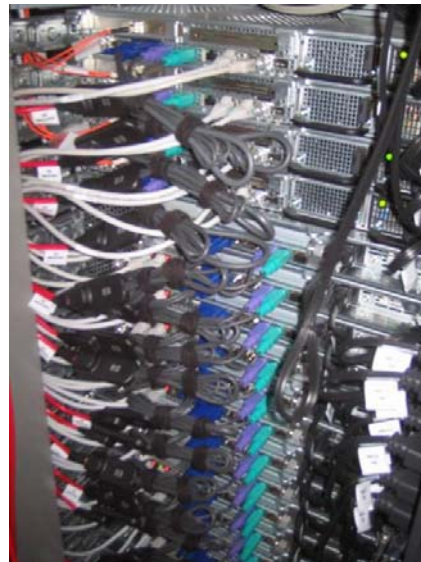
Nov/Dec 2005

installation procedure...

HG-05-FORTH

eGEE
Enabling Grids for
E-science in Europe

- HellasGRID Guide provided by GRNET
- LCG manuals
- Quattor manuals
- DHCP
- DNS
- CISCO manuals
- ...



If you'd like the latest copy of this 100% newspaper, drop us a line

THE MOORE COUNTY NEWS can be read in five minutes. That's all it takes to keep up with Moore County.

Occasionally, you'll see an article on Jack Daniel's Distillery. Like when Jack Bateman broke his arm unloading wood in the rickyard. Or when Frank Bobo (our head distiller) had his grandson born. But normally we don't make the paper much. You see, we've been charcoal mellowing whiskey here at Jack Daniel's since 1866. And according to the editor, there's no news in that anymore.



CHARCOAL MELLOWED DROP BY DROP

15

Jan 2006 The last minute refinements...

After the Christmas vacations the last refinements were done in order for the cluster to enter production mode

Most DNS and network problems were solved that period



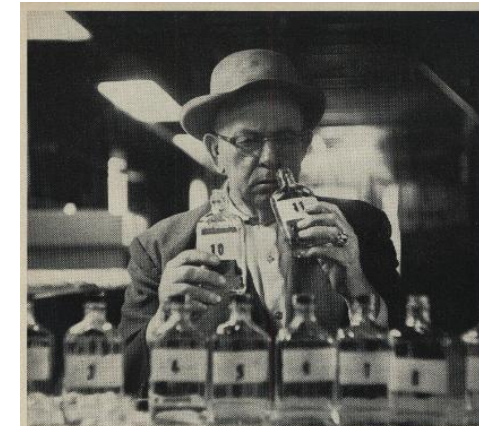
JACK DANIEL'S MILLER checks the grain as it comes to the Hollow, just to make sure he's buying the best.

Our miller meets each grain truck and inspects it by sticking a grain thief deep into the load. If there's any damp grain, he's sure to hit it. Then he checks sample kernels for quality. But he seldom has cause to turn back a load. The folks we buy from know how particular he is, and so they bring only their best. After a sip of Jack Daniel's, we believe, you'll be glad we have such good friends.



CHARCOAL
 MELLOWED
 DROP
 BY DROP

Tennessee Whiskey • 90 Proof • Distilled and Bottled by Jack Daniel Distillery
 Lem Motlow, Prop., Inc., Lynchburg (Pop. 361), Tennessee
 Placed in the National Register of Historic Places by the United States Government.



JACK DANIEL'S SEVEREST CRITIC is our whiskey taster who makes sure our whiskey is gentled to the proper sippin' smoothness.

This gentleman's word is law at Jack Daniel's small distillery. He tastes our whiskey just as it comes from the room-high Charcoal Mellowing vats. And if he should say "no," the whole batch would be rejected, and the charcoal replaced for the next run. You see, we're not taking any chances on changing the quality of Jack Daniel's. One sip, we believe, will tell you why.



THE
 TENNESSEE
 SIPPIN'
 WHISKEY

© 1988, Jack Daniel Distillery, Inc. Lynchburg, Tenn. TN
 TENNESSEE WHISKEY • 90 PROOF BY CHOICE • DISTILLED AND BOTTLED BY JACK DANIEL DISTILLERY • LYNCHBURG (POP. 361), TENN.

Jan. 23rd 2006 HG-05-FORTH site (Hardware)

HG-05-FORTH

eGEE
Enabling Grids for
E-science in Europe



- **HG-05-FORTH hardware**
 - 60 nodes with dual Intel xeon processors
 - 3.4GHz each
 - SATA disk 80GB

- 4 nodes with dual Intel xeon processors
- 3.4GHz each
- 2 SCSI disks RAID (80GB each)
- 4.2TB of storage (300GBx12disks)
- 6 CISCO 3750 switches



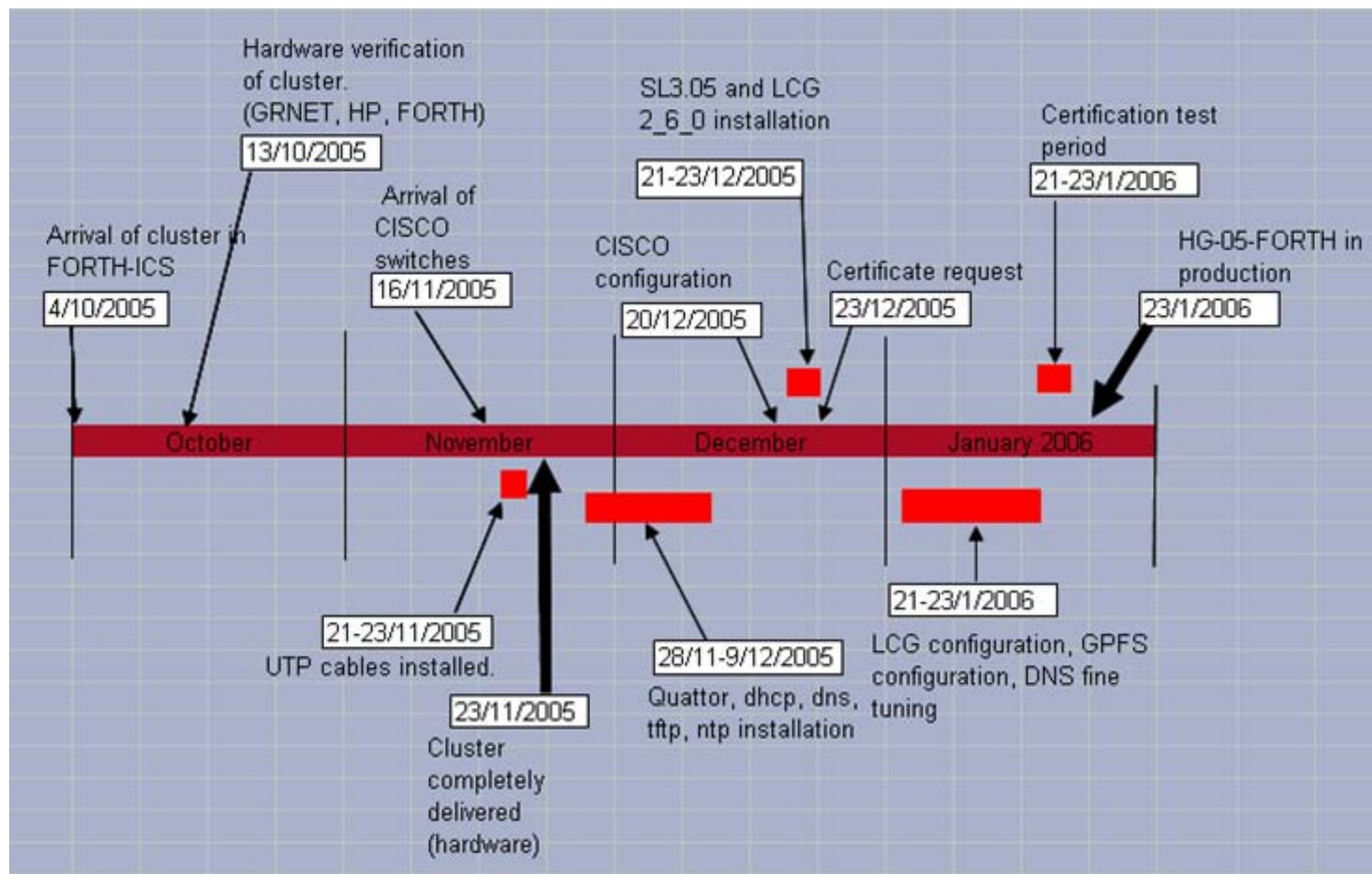
If you'd like to taste Jack Daniel's Lynchburg Lemonade, look for the display and a recipe in a liquor store near you.

AFTER A DAY'S WORK in Jack Daniel's Country, folks unwind with checkers and lemonade. Our oldtime distillery is located here in Lynchburg, Tennessee, a country town that's legally dry. So even folks who make Jack Daniel's whiskey—like Bill Durr and Foote Scott here—aren't allowed to buy a single drop! It's an unusual law, that's for sure. But we've never complained about it much. You see, as long as the law lets us go on making Jack Daniel's, we don't mind going someplace else to order it.



CHARCOAL MELLOWED FOR SMOOTHNESS

The timetable and the tasks



HG-05-FORTH site (Software)

- **HG-05-FORTH software**

- 1 CE
- 1 SE (SE_dpm_mysql)
- 1 MON BOX
- 1 Quattor
- 60 WNs
- GPFS on SE and quattor (storage)

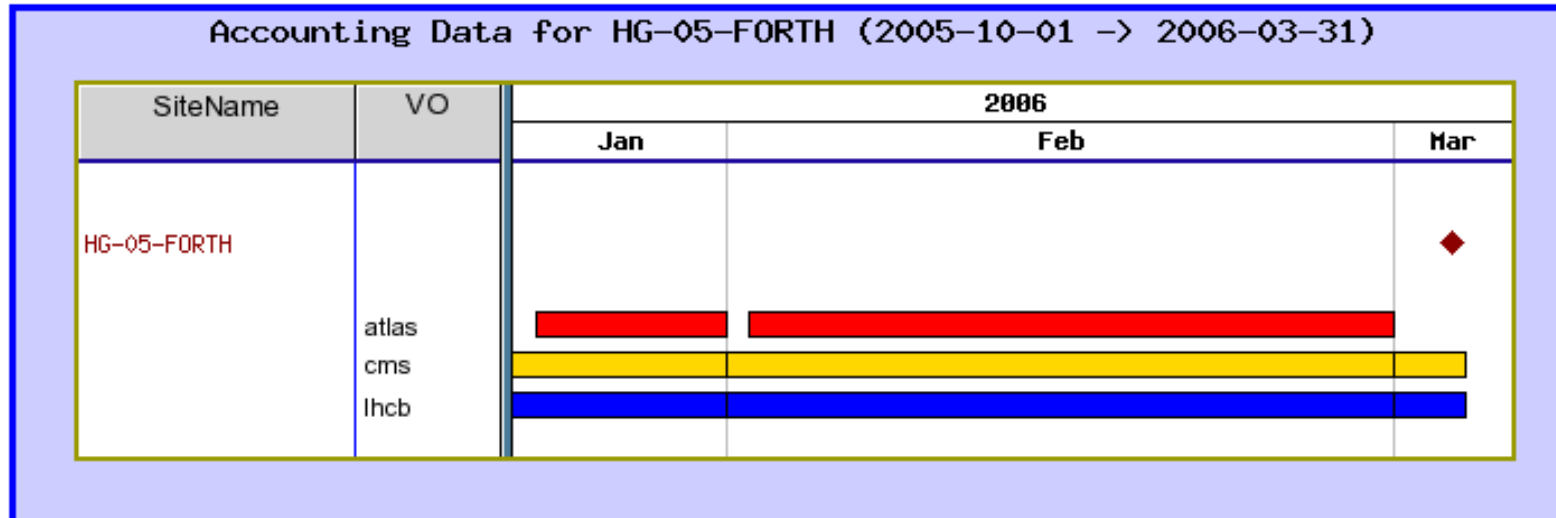
All running:

- LCG middleware v. 2_7_0
- Operating System: SL3.05

Administration through quattor and scripts



HG-05-FORTH site in production mode



HG-05-FORTH is on-line since 17/1/2006

Certification tests were passed between 19-23/1/2006

Since 23/1 is a production site in the EGEE

GR-04-FORTH-ICS experience

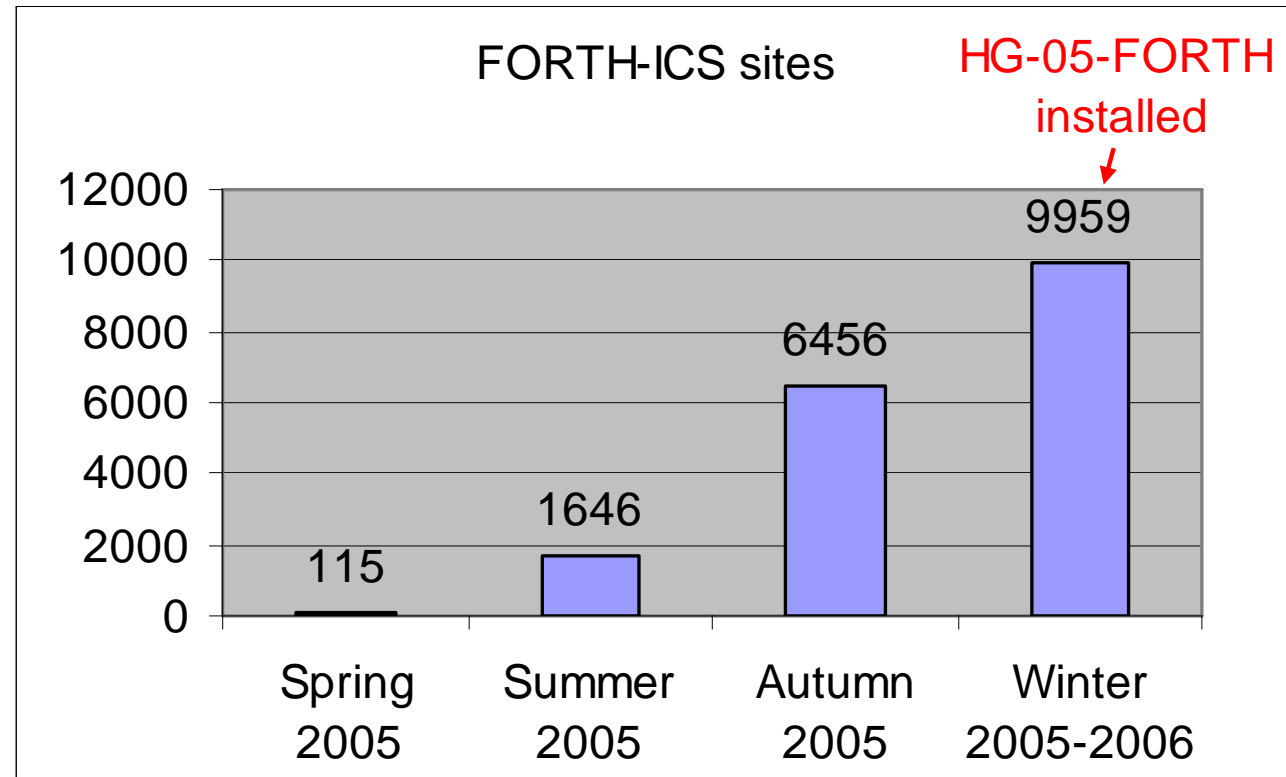
GR-04-FORTH-ICS is on-line since 5/2005

Part of the EGEE infrastructure since then

Accounting statistics for FORTH's sites

Number of jobs that were run in FORTH's sites the last 10 months.

Approximately:
18.000 jobs



Note: **dteam** jobs are not included

Services at FORTH



- GridICE monitoring server
- Network monitoring (smokeping)
- Accounting System (provided by SWE, CESGA)



Soon:

- DGAS (Distributed Grid Accounting System)
- SCMSWeb tool (Another monitoring tool for the SEE)

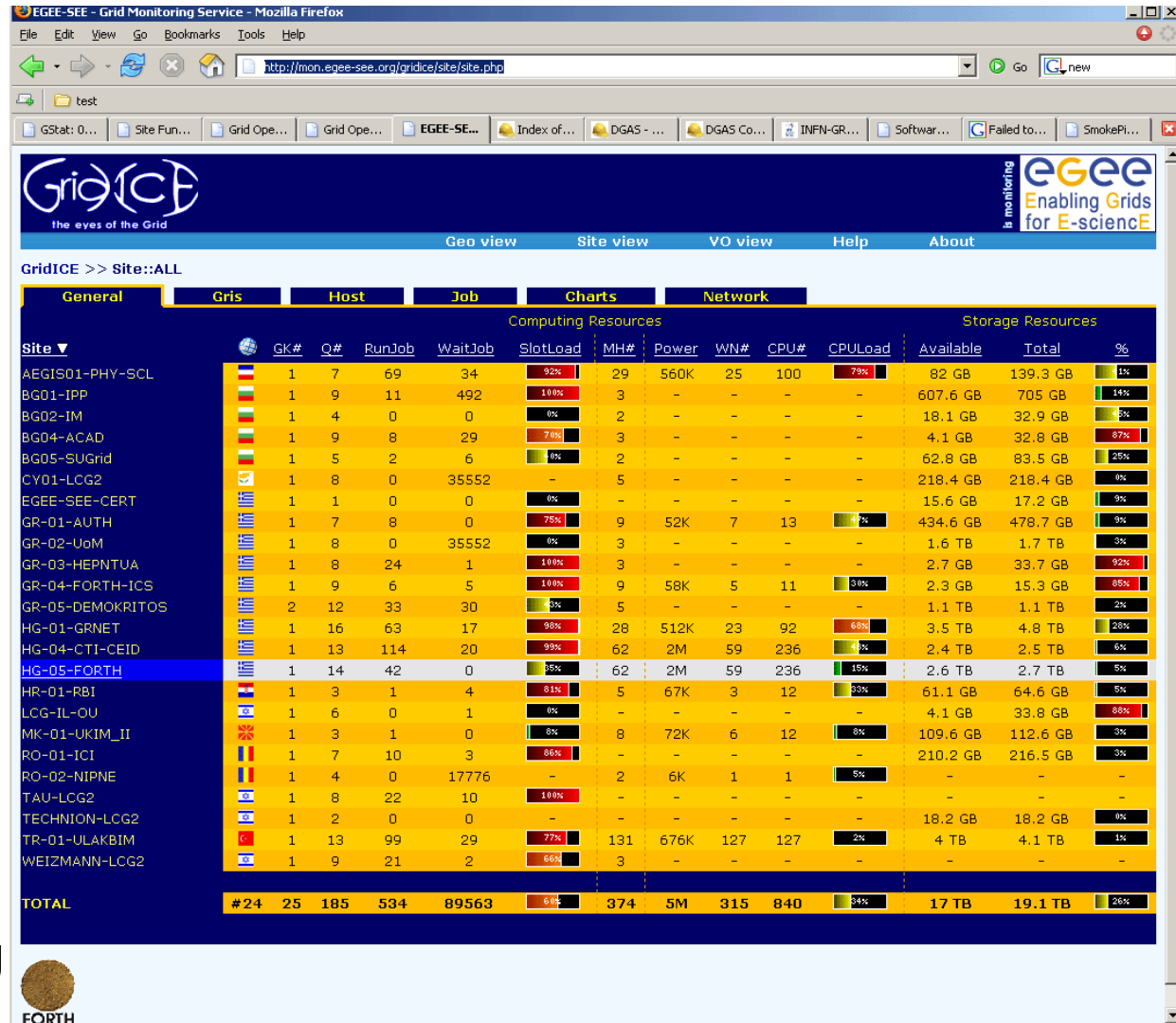
GridICE Monitoring for SEE



GridICE view of the SEE region

version 1.8.3-3

URL:
<http://mon.egee-see.org>



GridICE SEE monitored sites

- An Intel Pentium IV
 - Scientific Linux 3.02
 - CPU 3.0GHz
 - Memory upgraded to 2GB

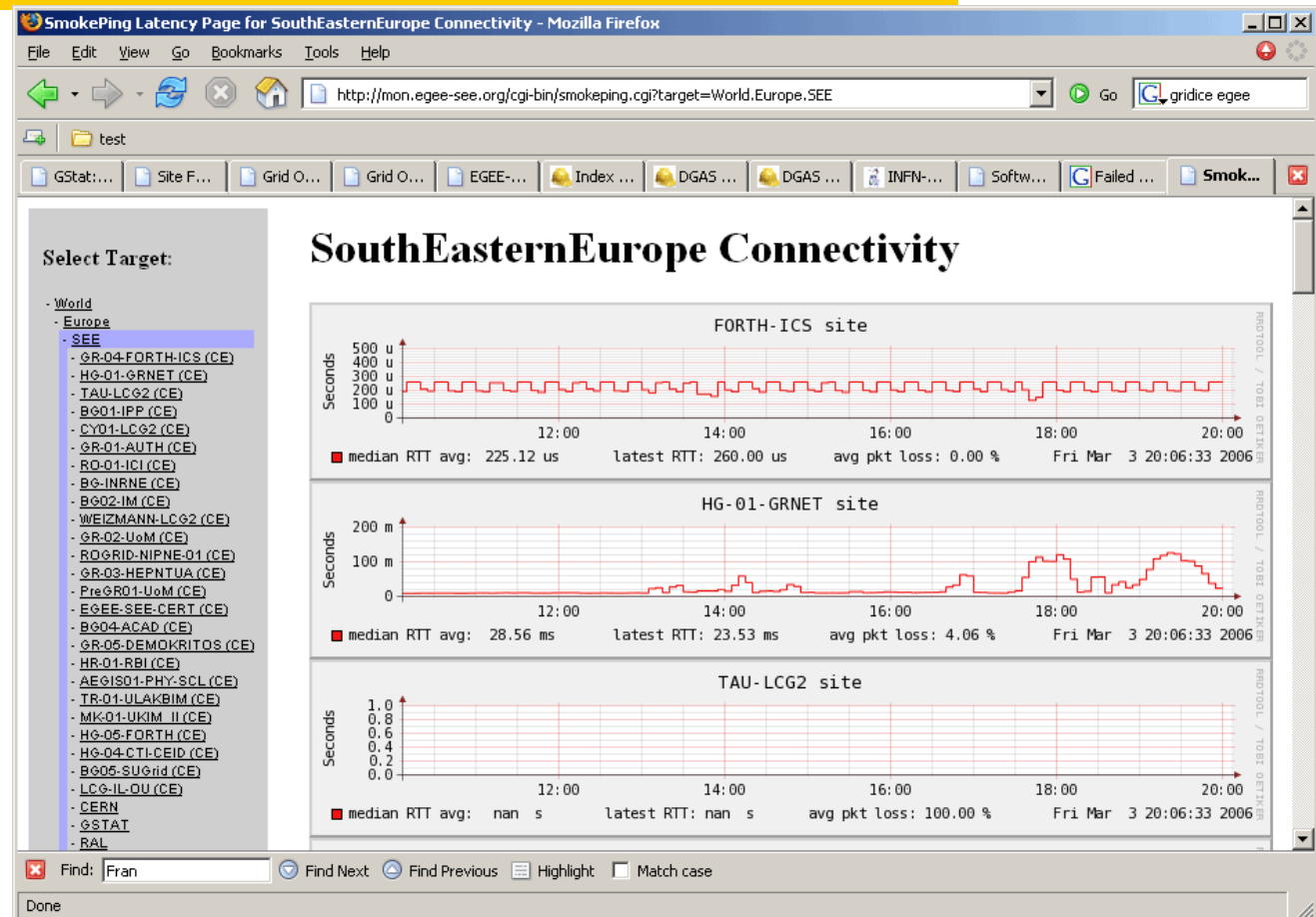
Monitoring 9 regions, 25 sites with more than 800 CPUs

- GREECE
- CYPRUS
- ISRAEL
- FYROM
- CROATIA
- TURKEY
- ROMANIA
- BULGARIA
- SERBIA and MONTENEGRO

Network Connectivity checking for SEE

SmokePing checking
for network
connectivity

version 1.4.2



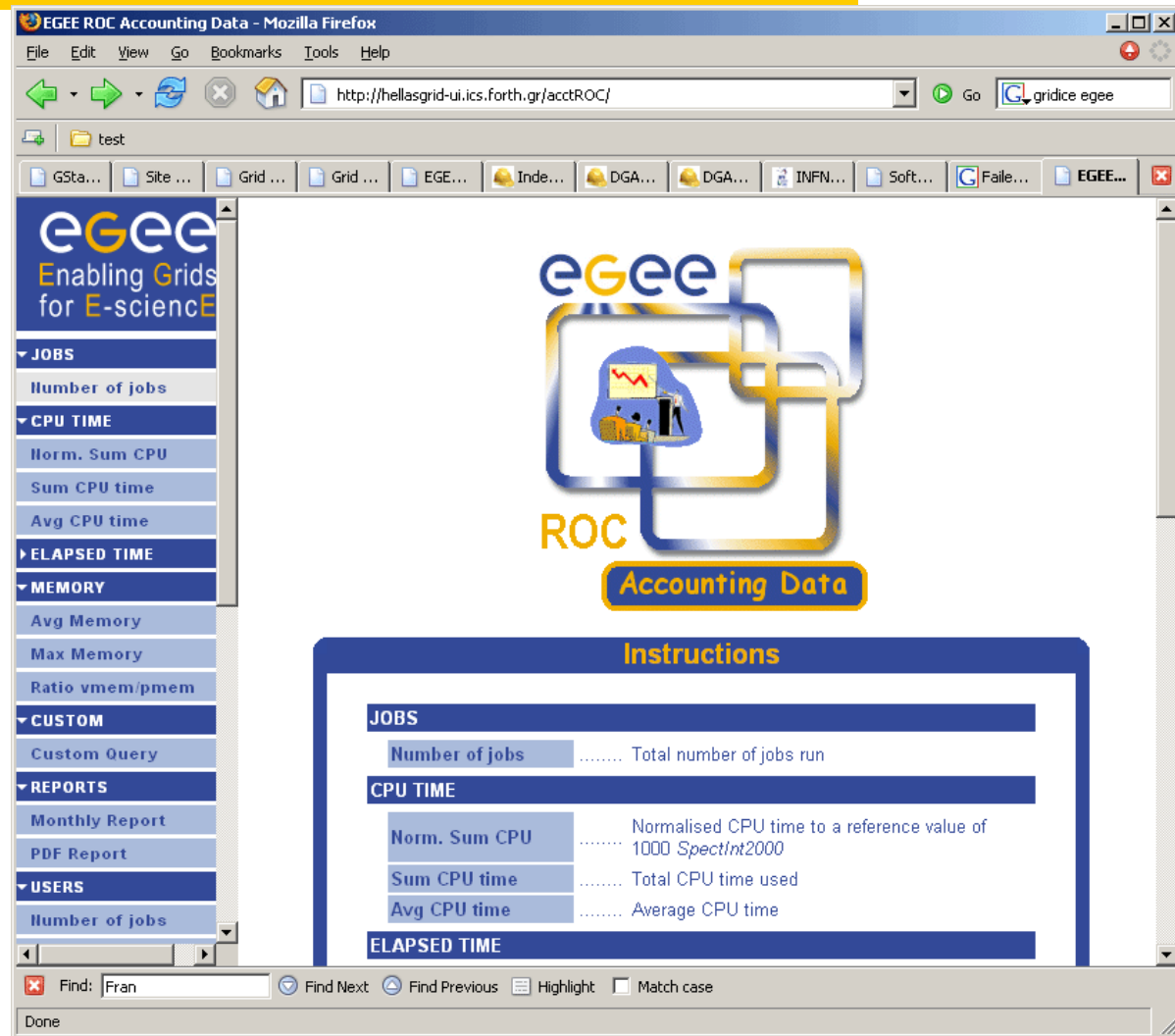
URL: <http://mon.egee-see.org/cgi-bin/smokeping.cgi>

Accounting Statistics for SEE

Accounting statistics
of the SEE region is
already installed at
FORTH

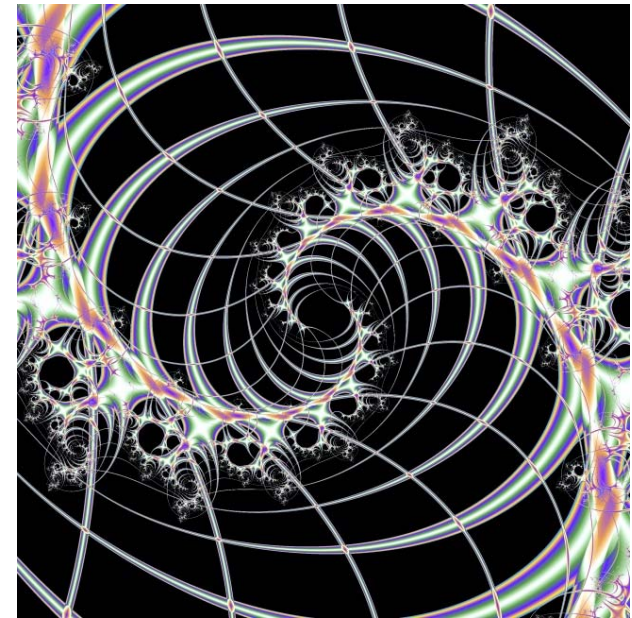
Software is provided by
SWE region

URL:
To be provided



Some thoughts for future services

- MPI support in HG-05-FORTH
- Installation of the new Intel C compiler v9.0 in HG-05-FORTH
- DGAS (Distributed Grid Accounting System)
- SCMSWeb (New monitoring service)



Questions?

