

# IEPSAS-Kosice: experiences in running LCG site

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desktops  
portables

small  
centres

Tier-2

RAL

Tier-1

IN2P3

FNAL

CNAF

FZK

PIC

BNL

Legnaro

CSCS

Rome

CIEMAT

Krakov

NIKHEF

MSU

IC

IFCA

UB

Cambridge

Budapest

Prague

Taipei

TRIUMF

Legnaro

CSCS

Rome

CIEMAT

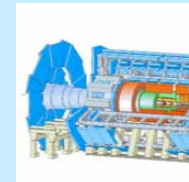
Krakov

NIKHEF

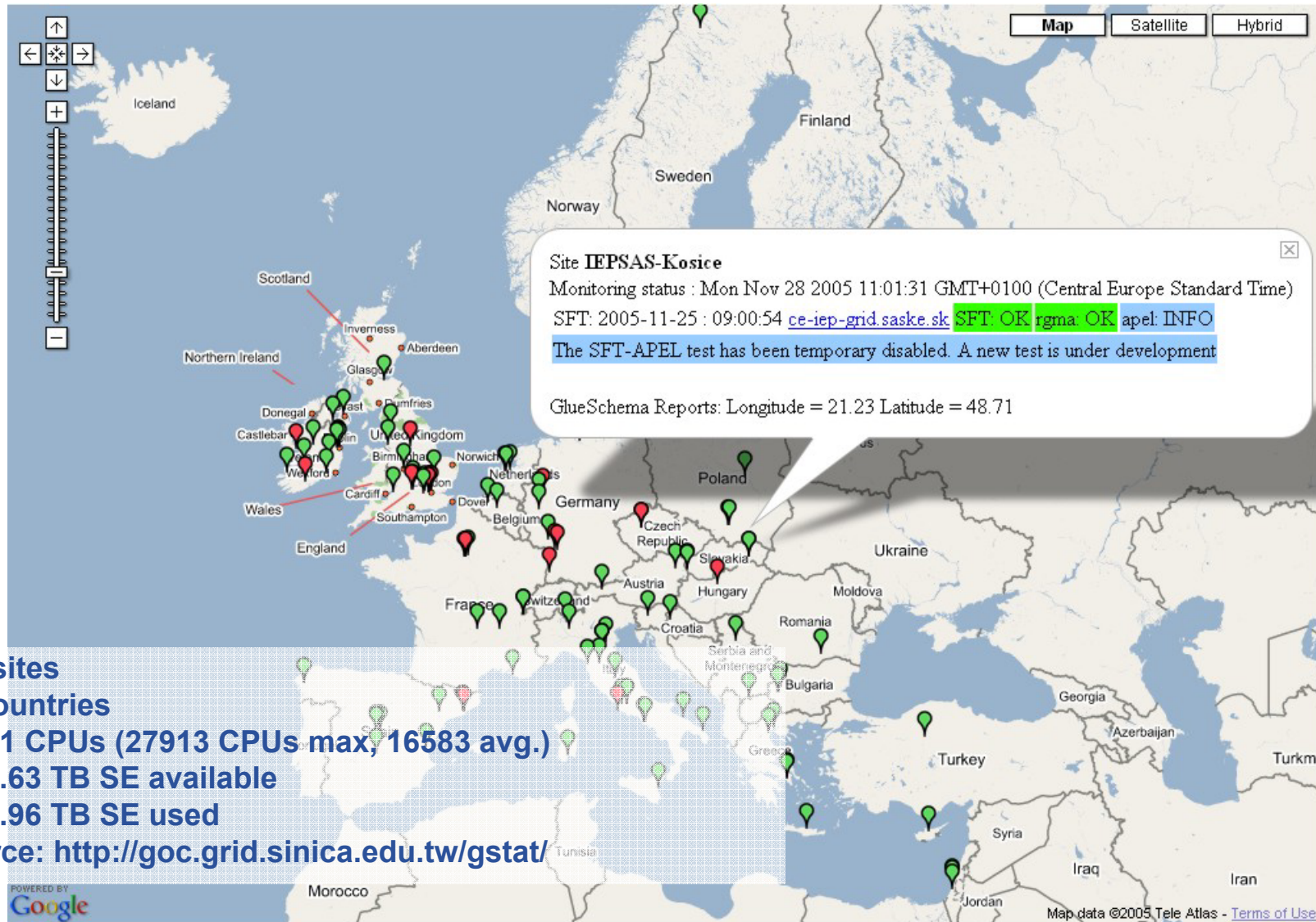
- LHC Computing Model (simplified!!)
- Tier-0 – the accelerator centre
  - Filter → *raw data*
  - Reconstruction → *summary data* (ESD)
  - Record *raw data* and *ESD*
  - Distribute *raw* and *ESD* to Tier-1
- Tier-1 –
  - Permanent storage and **management** of *raw*, *ESD*, calibration data, meta-data, analysis data and databases → **grid-enabled data service**
  - Data-heavy analysis
  - Re-processing raw → ESD
  - National, regional support

“online” to data acquisition process

- high availability
- managed mass storage
- long-term commitment



# LCG-2 google map



Last Build: Mon Nov 28 10:00:04 GMT 2005

# IISAS-Bratislava

The image shows a Google Map of Bratislava, Slovakia. A popup window is open over the city, displaying monitoring data for the IISAS-Bratislava site. The popup text includes the site name, monitoring status (Mon Nov 28 2005 11:01:31 GMT+0100), SFT test results (SFT: OK, rgma: OK, apel:), a note that the SFT-APEL test is temporarily disabled, and GlueSchema Reports (Longitude = 17.070, Latitude = 48.171). Below the map, a text box lists the server specifications: 24 CPU (P4 2.4GHz), 512MB RAM, 300 GB, and the supported applications: Alice, Atlas, Dteam, ESR, Magic. A URL is provided: <http://goc.grid.sinica.edu.tw/gstat/IISAS-Bratislava/>. The map interface includes navigation controls on the left and map style buttons (Map, Satellite, Hybrid) at the top right. The Google logo and 'POWERED BY' text are visible in the bottom left corner of the map area.

Site **IISAS-Bratislava**

Monitoring status : Mon Nov 28 2005 11:01:31 GMT+0100 (Central Europe Standard Time)

SFT: 2005-11-25 : 09:01:40 [ce.ui.savba.sk](http://ce.ui.savba.sk) SFT: OK rgma: OK apel:

The SFT-APEL test has been temporary disabled. A new test is under development

GlueSchema Reports: Longitude = 17.070 Latitude = 48.171

**IISAS-Bratislava**  
24 CPU (P4 2.4GHz), 512MB RAM  
300 GB  
Alice, Atlas, Dteam, ESR, Magic  
<http://goc.grid.sinica.edu.tw/gstat/IISAS-Bratislava/>

POWERED BY Google

Last Build: Mon Nov 28 10:00:04 GMT 2005

# FMPHI-Bratislava

Map Satellite Hybrid

Site **FMPHI-UNIBA**  
Monitoring status : Mon Nov 28 2005 11:01:31 GMT+0100 (Central Europe Standard Time)  
SFT: 2005-11-25 : 09:00:53 [lgrid.dnp.fmph.uniba.sk](http://lgrid.dnp.fmph.uniba.sk) SFT: OK rgma: OK apel:  
The SFT-APEL test has been temporary disabled. A new test is under development

GlueSchema Reports: Longitude = 17.0712 Latitude = 48.1528

Slovakia

**FMPHI-UNIBA**  
Hungary  
**7 CPU, dual Athlon**  
**1.4 TB**  
**Alice, Atlas, Dteam**  
<http://goc.grid.sinica.edu.tw/gstat/FMPHI-Bratislava/>

POWERED BY Google

Last Build: Mon Nov 28 10:00:04 GMT 2005

# TU-Kosice

Map Satellite Hybrid

**Site TU-Kosice**  
Monitoring status : Mon Nov 28 2005 11:01:30 GMT+0100 (Central Europe Standard Time)  
SFT: 2005-11-25 : 09:01:26 [ce.grid.tuke.sk](http://ce.grid.tuke.sk) SFT: OK rgma: OK apel:  
The SFT-APEL test has been temporary disabled. A new test is under development  
GlueSchema Reports: Longitude = 21.242 Latitude = 48.733

Slovakia

Hungary

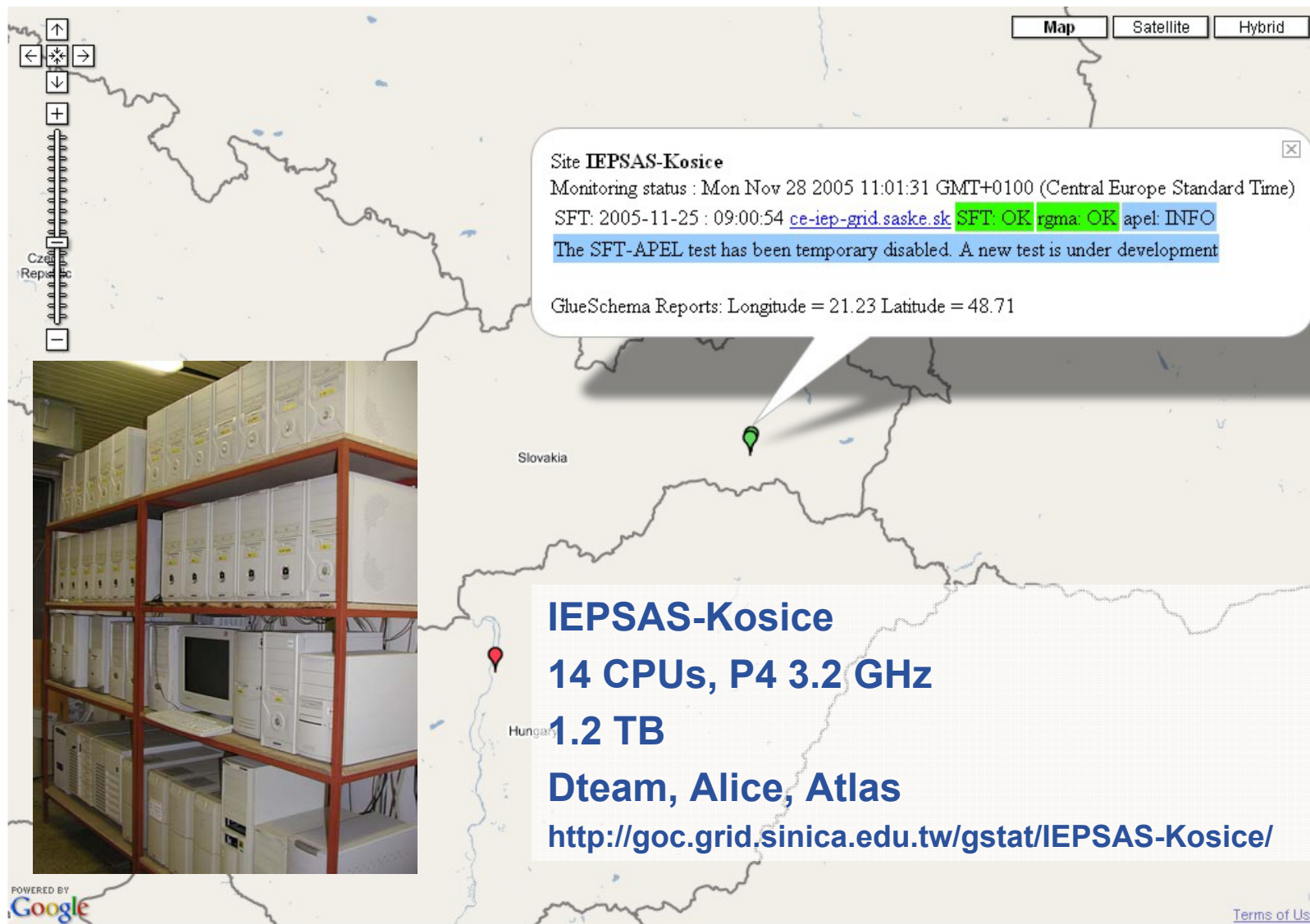
**TU-Kosice**  
**22 CPUs, P4 2.6 GHz**  
**150 GB**  
**Dteam, ESR, VOCE**  
<http://goc.grid.sinica.edu.tw/gstat/TU-Kosice/>

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Terms of Use

Last Build: Mon Nov 28 10:00:04 GMT 2005

# IEPSAS-Kosice



Map Satellite Hybrid

Site **IEPSAS-Kosice**  
Monitoring status : Mon Nov 28 2005 11:01:31 GMT+0100 (Central Europe Standard Time)  
SFT: 2005-11-25 : 09:00:54 [ce-iep-grid.saske.sk](http://ce-iep-grid.saske.sk) SFT: OK rgma: OK apel: INFO  
The SFT-APEL test has been temporary disabled. A new test is under development

GlueSchema Reports: Longitude = 21.23 Latitude = 48.71

Slovakia

Hungary

**IEPSAS-Kosice**  
**14 CPUs, P4 3.2 GHz**  
**1.2 TB**  
**Dteam, Alice, Atlas**  
<http://goc.grid.sinica.edu.tw/gstat/IEPSAS-Kosice/>

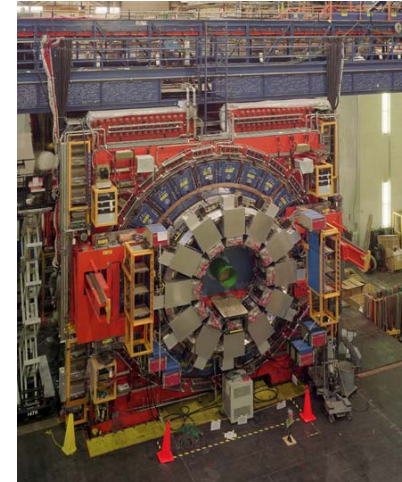
POWERED BY Google

Terms of Use

Last Build: Mon Nov 28 10:00:04 GMT 2005

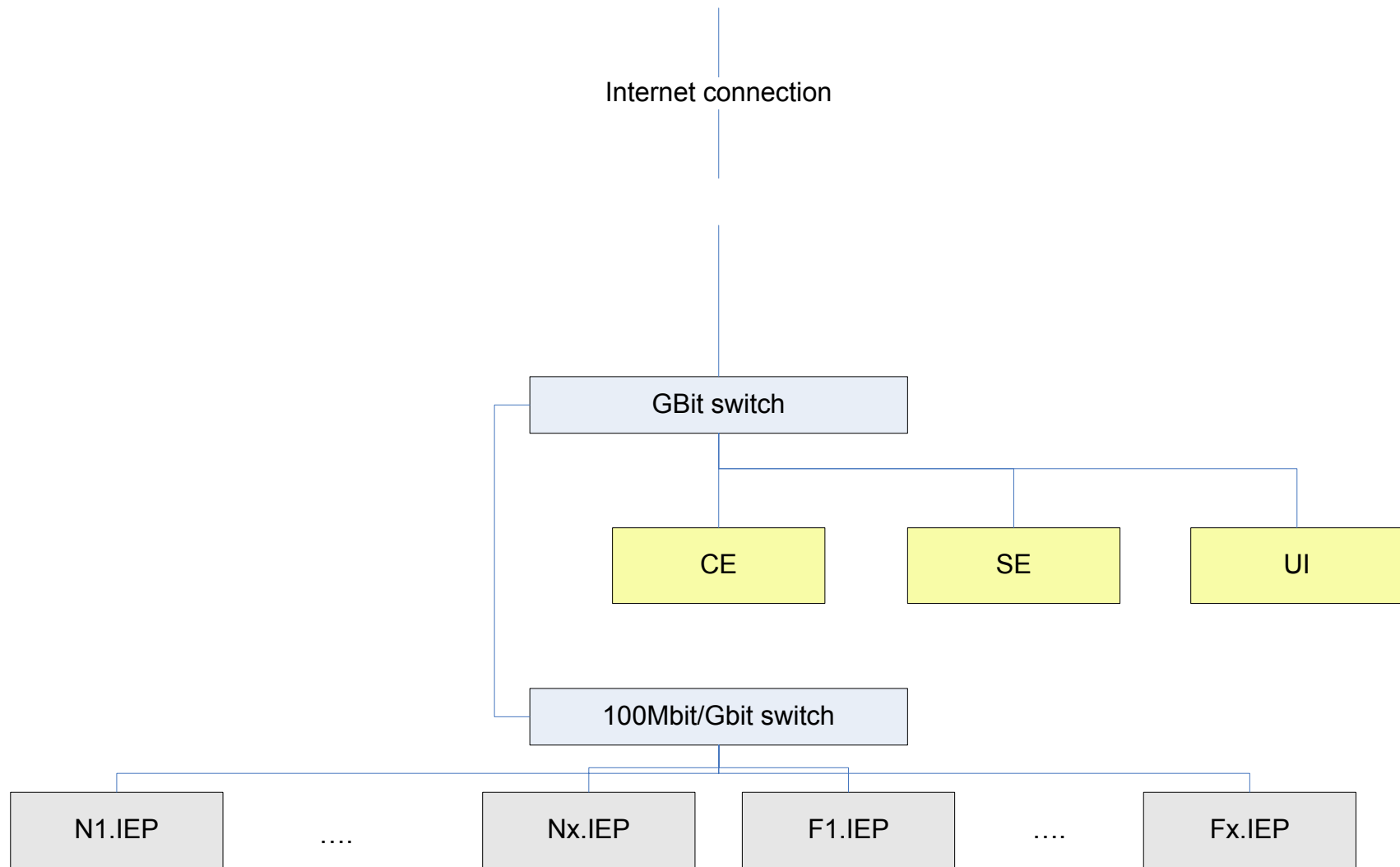
# IEPSAS-Kosice history

- 2000/01 CDF, Fermilab, 3 WN, 1 Master
- 2002 CERN, Fermilab 8 WN
- 2003 Storage Element (2.0 TB; dual AthlonMP), CDF software
- 2004 24 WNs (P4 3.2 GHz, 1250 SI2k/cpu, 1252 SF2k/cpu) + infrastructure
- Present

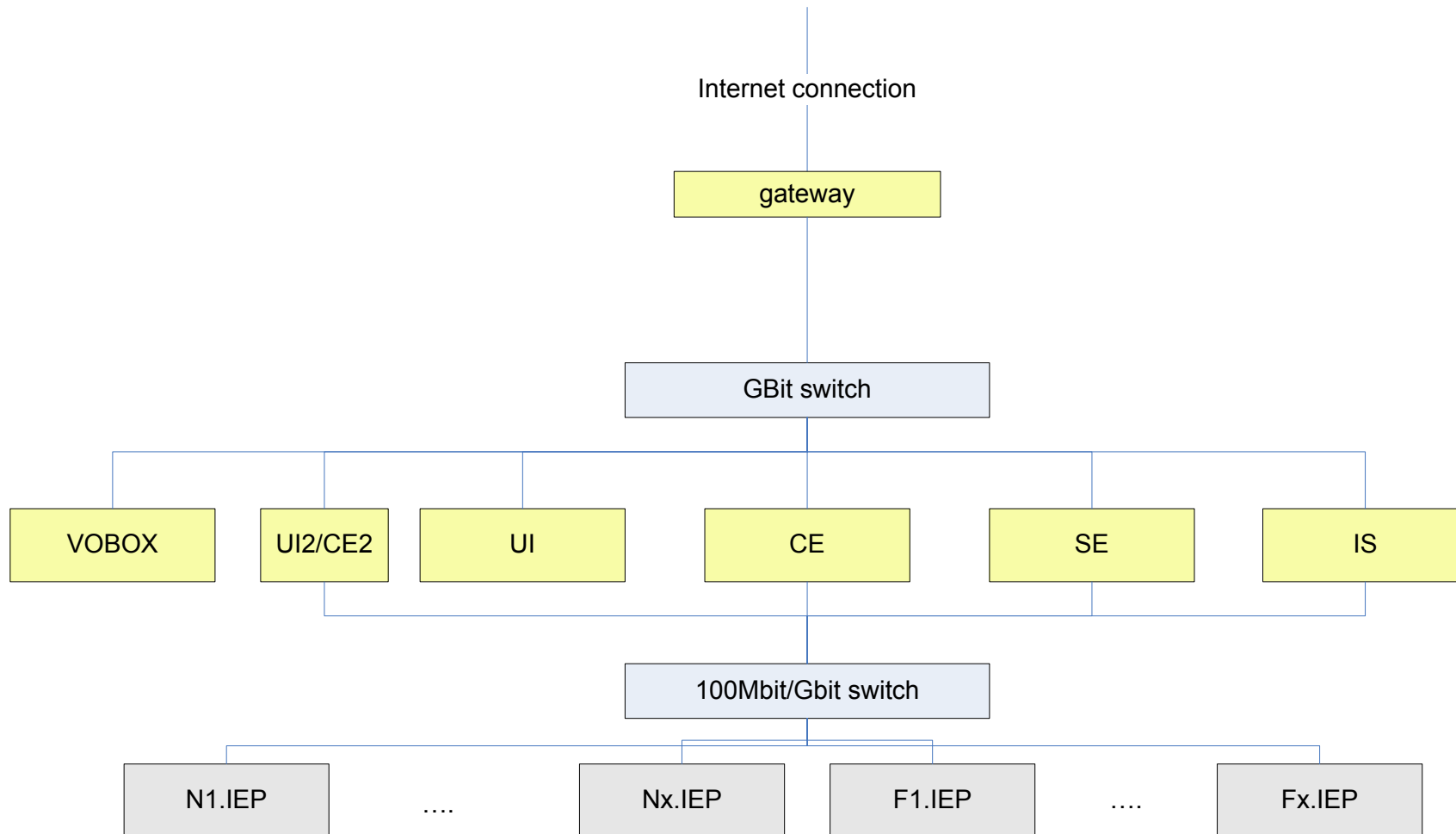




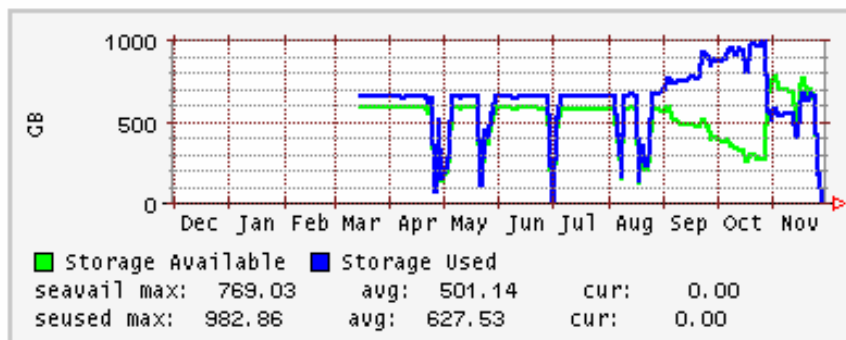
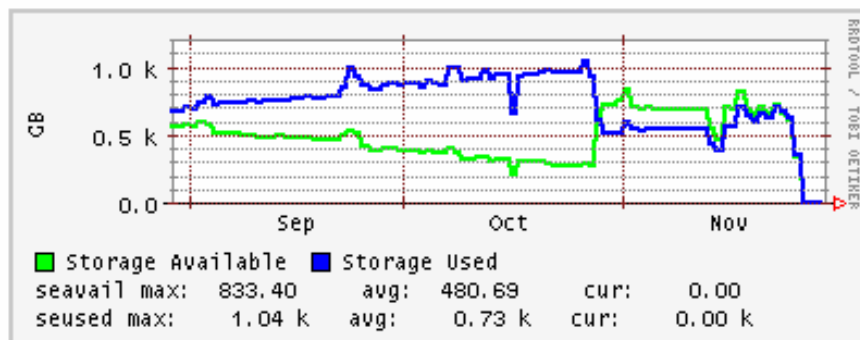
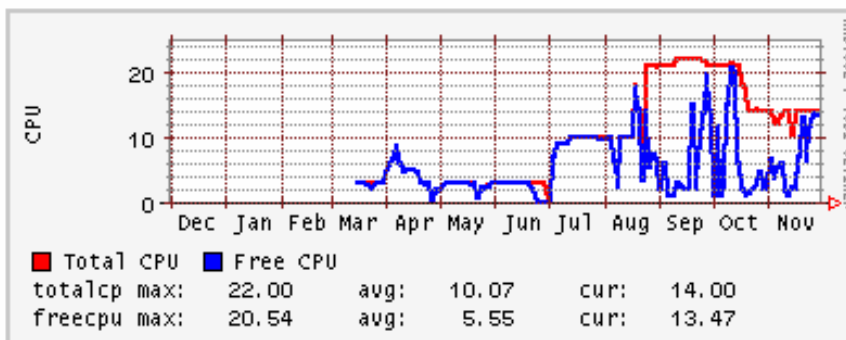
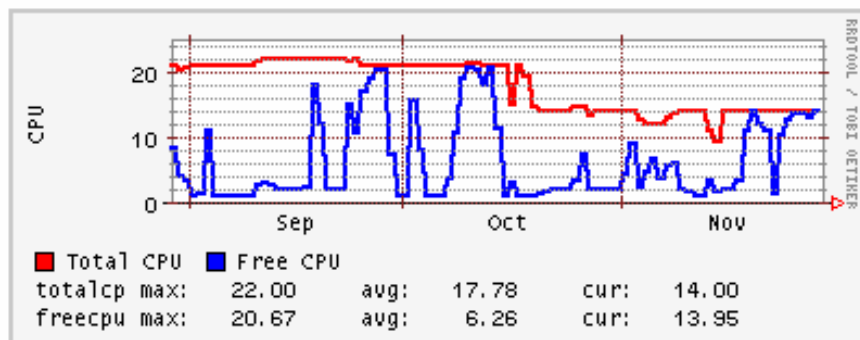
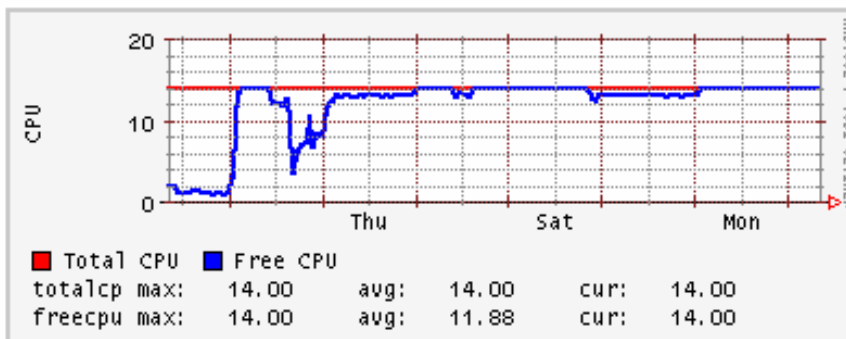
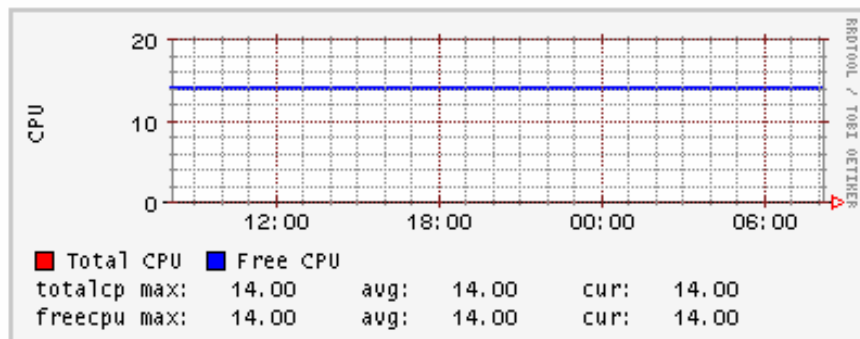
# IEPSAS-Kosice architecture



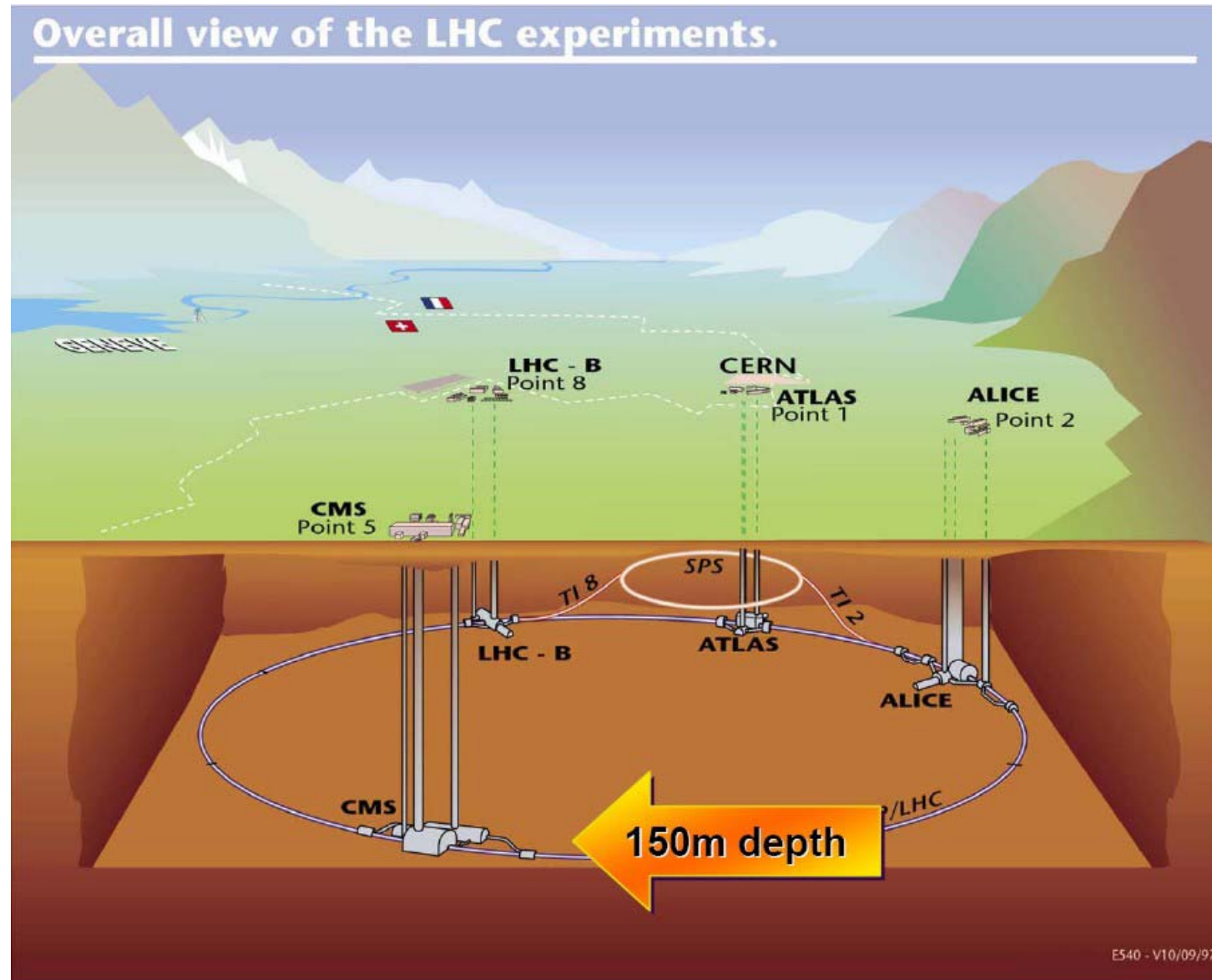
# IEPSAS-Kosice architecture



# IEPSAS-Kosice resources

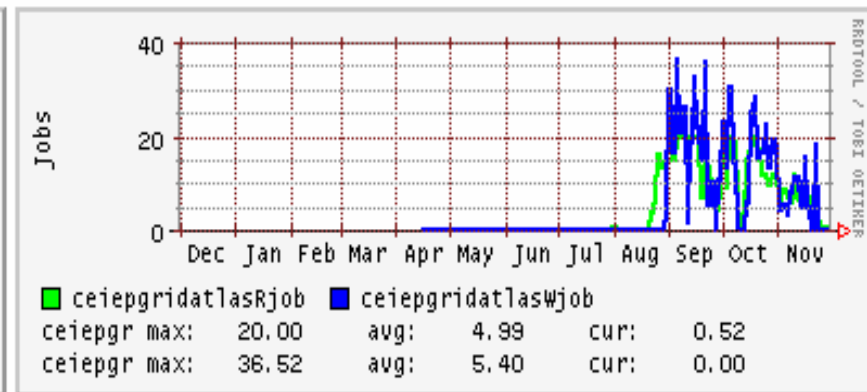
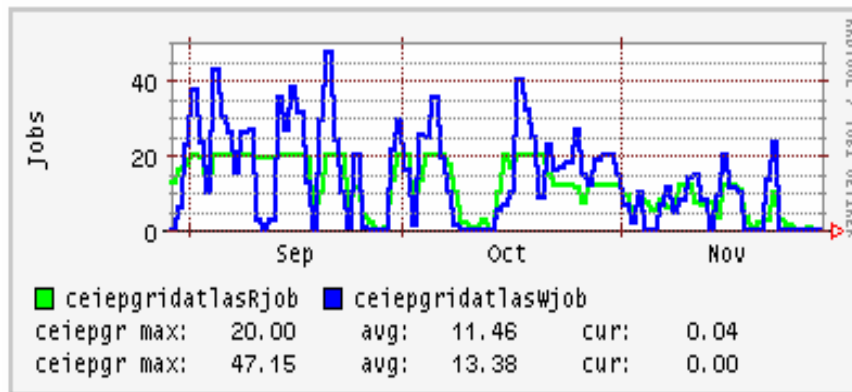


# CERN, Atlas, Alice

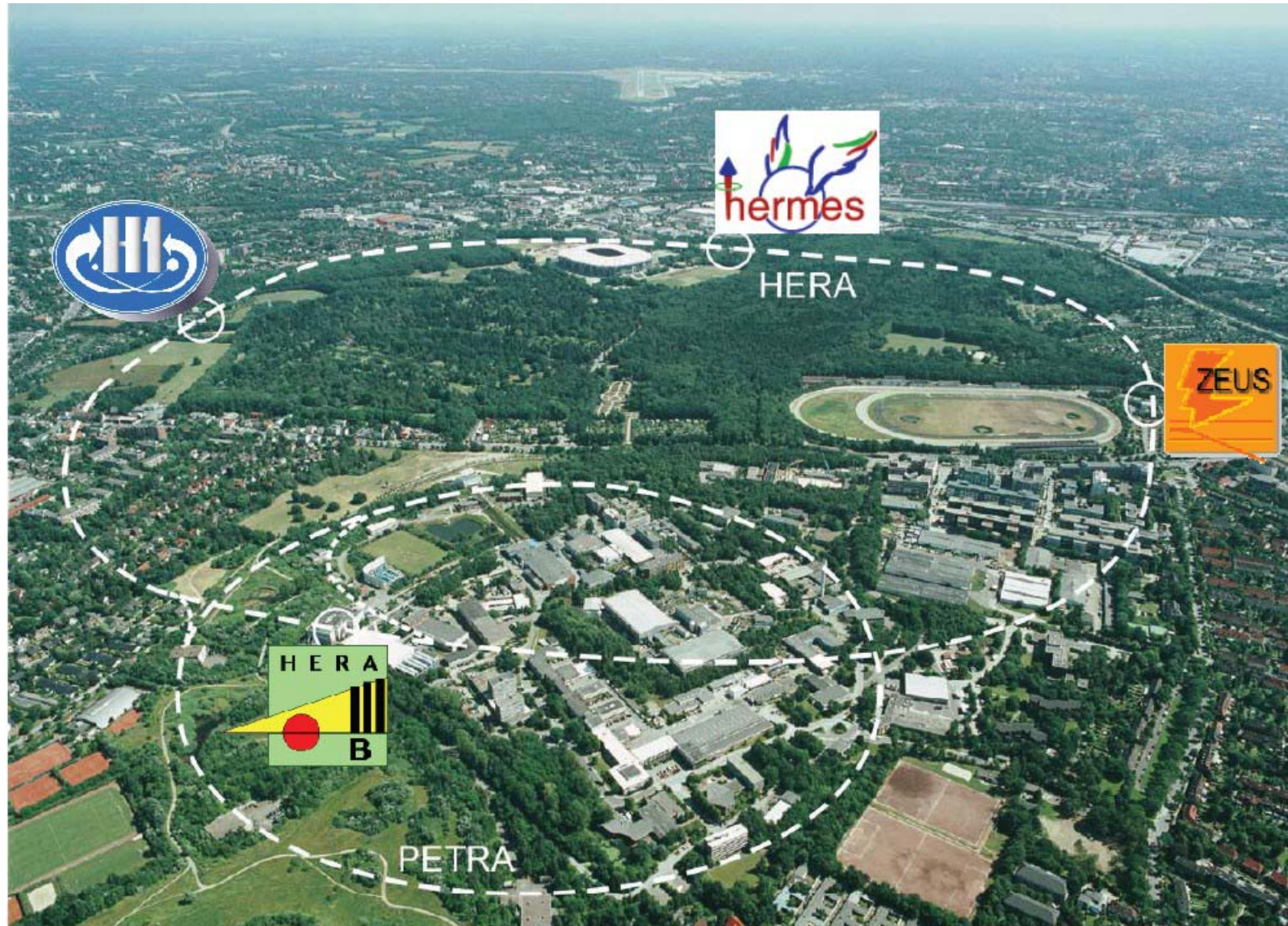


# Atlas jobs

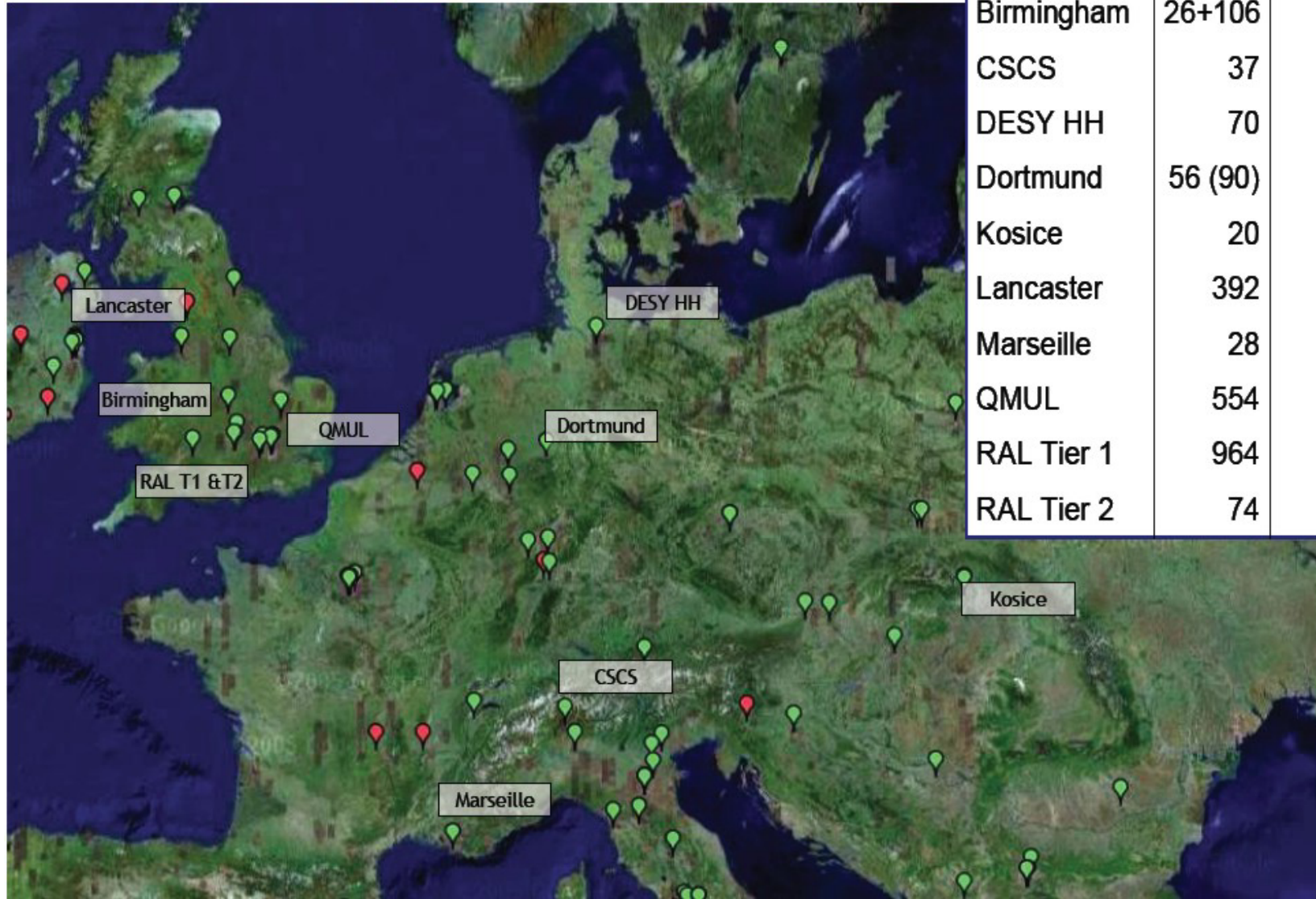
- MC simulations
- 1200 simulation jobs, 500 reconstruction jobs
- 450 GB produced



# DESY, HERA

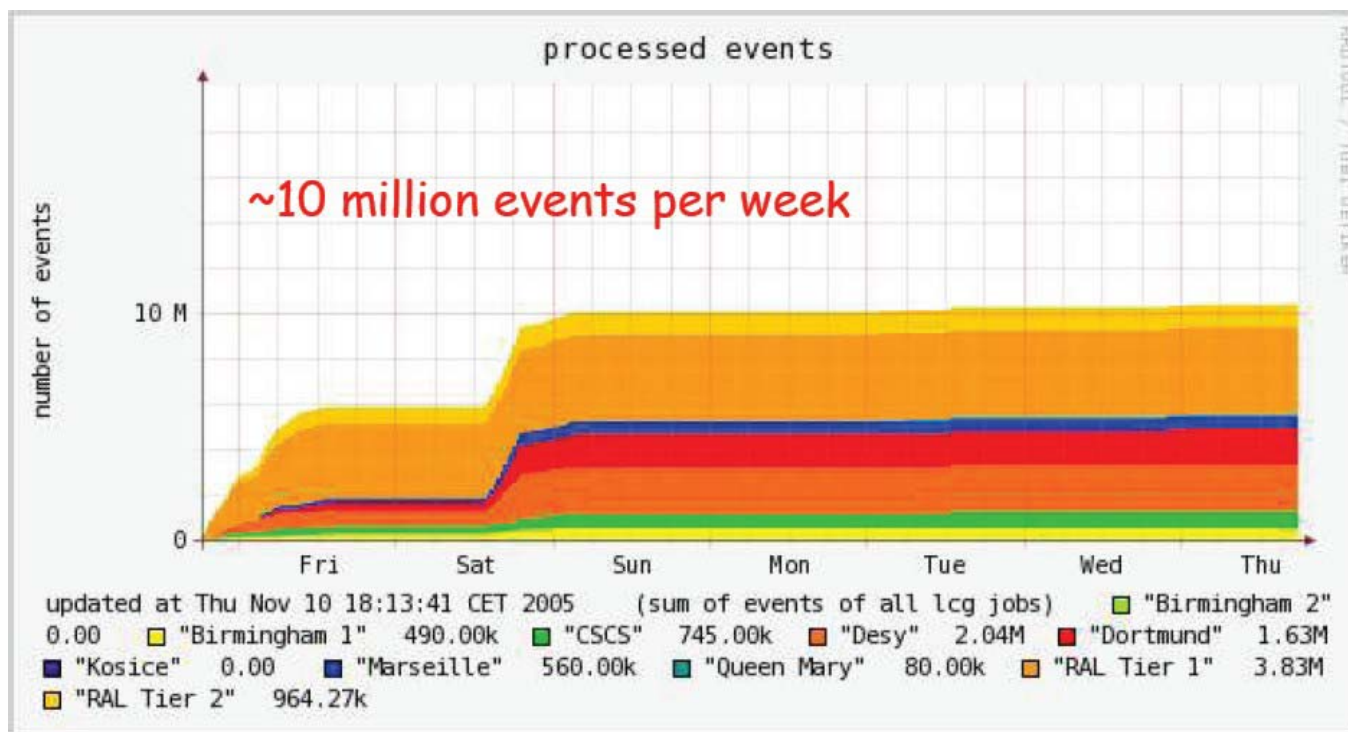
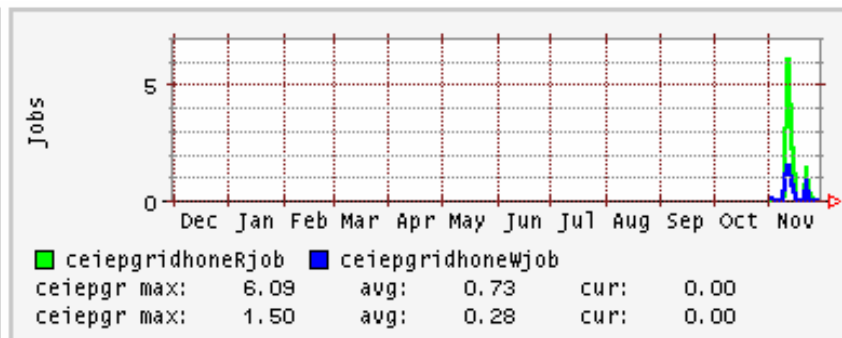
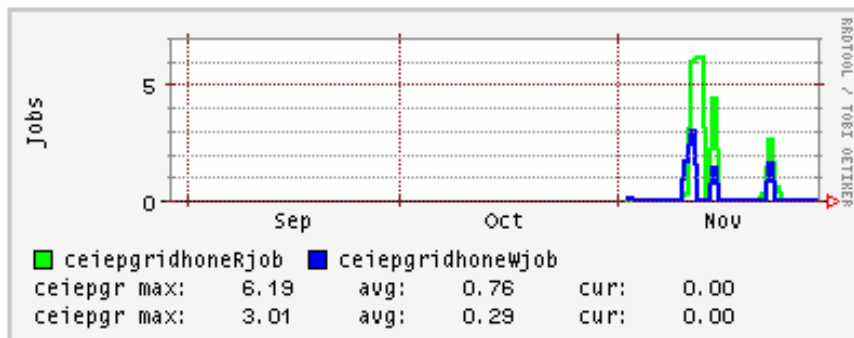


# H1 LCG Sites & Resources



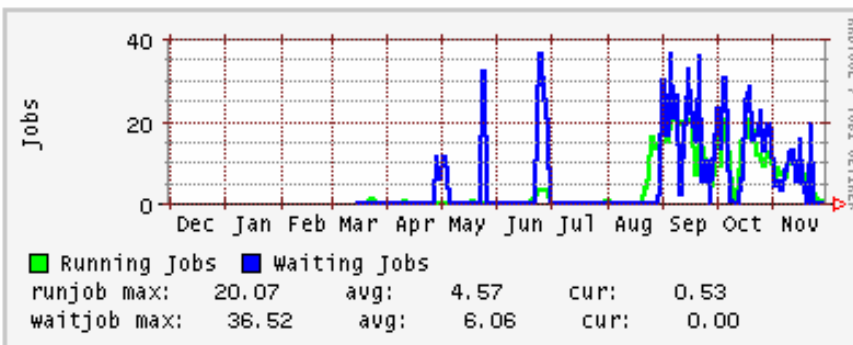
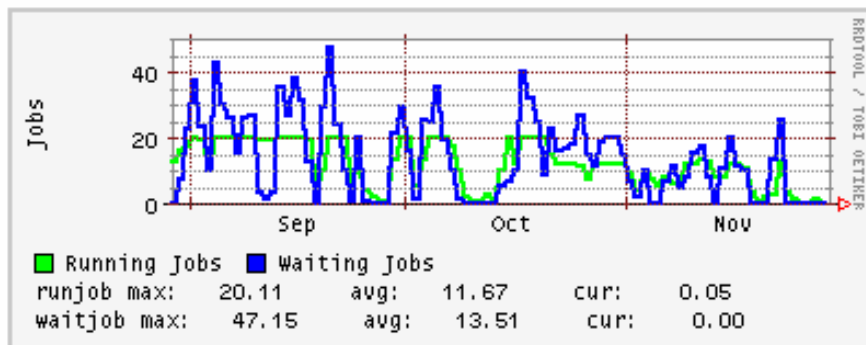
H1 sites	CPUs	Storage
Birmingham	26+106	1.6 TB
CSCS	37	0.5 TB
DESY HH	70	5 TB
Dortmund	56 (90)	0.5 TB
Kosice	20	0.8 TB
Lancaster	392	1.0 TB
Marseille	28	0.5 TB
QMUL	554	1.5 TB
RAL Tier 1	964	1.5 TB
RAL Tier 2	74	0.5 TB

# H1 statistics





# IEPSAS-Kosice overall



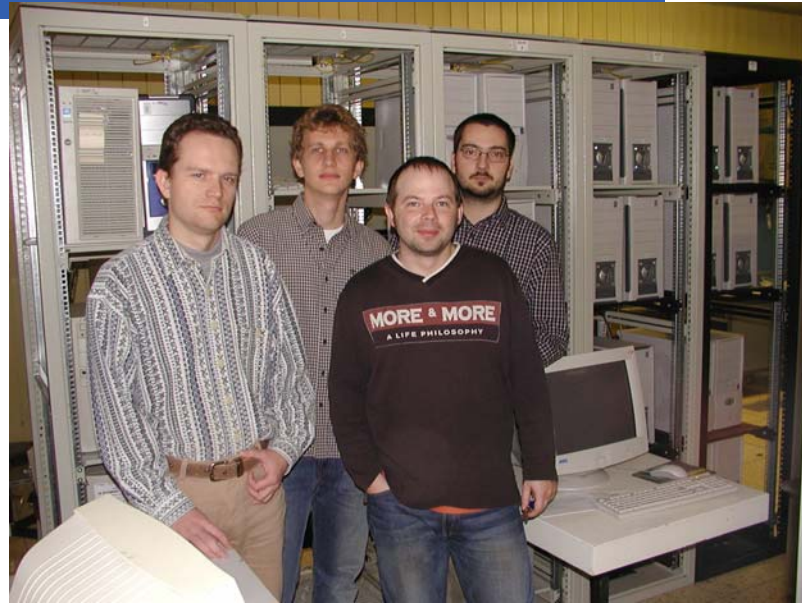
- **Future plans**
  - Hardware upgrade
  - Alice integration

- **Contacts:**

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[Jan.Astalos@savba.sk](mailto:Jan.Astalos@savba.sk)

# Conclusion



# Fermilab/CDF



- **Fermilab reconstruction farms**
- **1504 CPUs**
- **2256 GFLOPS**
- **Mix of P3, Athlon, P4 Xeon**

