Adding Sites & VOs

Markus Schulz
CERN IT GD-GIS
markus.schulz@cern.ch

Site Reports	GIIS Name	Site Reports	GIIS Name
CAVN	farm012.hep.phy.cam.ac.uk	GLASGOW	ce1-gla.scotgrid.ac.uk
CERN-LCG2	lxn1181.cern.ch	GSI	lcg03.gsi.de
CIEMAT	lcg02.ciemat.es	HEPHYUIBK	grid.uibk.ac.at
CNAF-LCG2	wn-04-07-02-a.cr.cnaf.infn.it	HP-PUERTO-RICO	ce.prd.hp.com
FNAL-LCG2	hotdog46.fnal.gov	INFN-NAPOLI	atlasce01.na.infn.it
FZK-LCG2	gridkap01.fzk.de	INFN-ROMA1	t2-ce-01.roma1.infn.it
IFCA	gtbcg12.ifca.unican.es	IPAS	testbed001.phys.sinica.edu.tw
IFIC	lcg2ce.ific.uv.es	JINR	lxt03.jinr.ru
IMPERIAL	gw39.hep.ph.ic.ac.uk	Karlruhe	karlsruhe.de
INFN-LEGNARO	t2-ce-01.lnl.infn.it	LANC	lunegw.lancs.ac.uk
INFN-MILANO	t2-ce-01.mi.infn.it	LIP	ce01.lip.pt
INFN-TORINO	grid008.to.infn.it	MANCHESTER	bohr0001.tier2.hep.man.ac.uk
KRAKOW	zeus02.cyf-kr.edu.pl	MONTREAL	lcg-ce.lps.umontreal.ca
NCU-TAIWAN	grid01.phy.ncu.edu.tw	NCP	pcncp04.ncp.edu.pk
nikhef.nl	tbn18.nikhef.nl	PRAGUE	golias25.farm.particle.cz
PIC-LCG2	lcgce02.ifae.es	PRAGUE-CESNET	skurut17.cesnet.cz
RAL-LCG2	lcgce02.gridpp.rl.ac.uk	QMUL	ce01.ph.qmul.ac.uk
Taiwan-LCG2	lcg00125.grid.sinica.edu.tw	RALPP	heplnx131.pp.rl.ac.uk
TRIUMF	lcgce01.triumf.ca	SARA	mu6.matrix.sara.nl
USC-LCG2	lcg-ce.usc.cesga.es	SHEF	ce.gridpp.shef.ac.uk
WUPPERTAL	grid-ce.physik.uni-wuppertal.de	SINP	lcg06.sinp.msu.ru
#HG-01-GRNET	ce01.isabella.grnet.gr	TAU	lcfgng.cs.tau.ac.il
AACHEN	lcg2-CE.physik.rwth-aachen.de	TOKYO	dgce0.icepp.jp
ALBERTA	lcgce01.nic.ualberta.ca	TORONTO	bigmac-lcg-ce.physics.utoronto.ca
BHAM-HEP	epcf36.ph.bham.ac.uk	TRIUMF-GC	lcgce02.triumf.ca
BNL	atlasgrid04.usatlas.bnl.gov	UAM	grid003.ft.uam.es
BUDAPEST	grid109.kfki.hu	UB-BARCELONA	lcg-ce.ecm.ub.es
CARLETON	lcg02.physics.carleton.ca	UCL	pc31.hep.ucl.ac.uk
CCIN2P3-LCG2	cclcgceli01.in2p3.fr	UCL-CCC	ce-a.ccc.ucl.ac.uk
CLERMONT	clrglop195.in2p3.fr	WEIZMANN	wipp-ce.weizmann.ac.il
CSCS	compute-0-10.cscs.ch	ITEP	ceitep.itep.ru
DESY	grid-ce1.desy.de	FRASCATI	atlasce.lnf.infn.it
BEIJING	lcg002.ihep.ac.cn	RU-IHEP	ce001.m45.ihep.su
RHUL-LCG2	ce1.pp.rhul.ac.uk		

Sites in LCG2 July 14 2004

egee — Enabling Grids for E-science in Europe

- 22 Countries
- **67 Sites**
  - 52 Europe, 2 US, 5 Canada, 7 Asia, 1 HP
  - Coming: New Zealand, Korea other HP (Brazil, Singapore)
- **>6100 cpu**

Legend:
- No information (black)
- Scheduled Maintenance (yellow)
- Timeout (red)
- Globus OK (orange)
- RB OK (green)

Status for Resource Broker CERN_lxn1188: Mon Jun 28 08:46:12 BST 2004

contacts deployment team or primary site

sends pointer to release page

finds release page and sends contact form

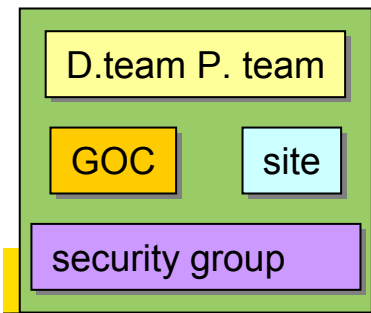forwards contact form to security group and GOC

sends pointer to security policy documents for sites

based on documentation and advice decides on install method and scope

installs, configures

supports

runs tests from guide

D.team P. team

GOC

site

security group

sends site GIIS DN and host name

adds to testZone BDII configuration file

add site layout to goc DB

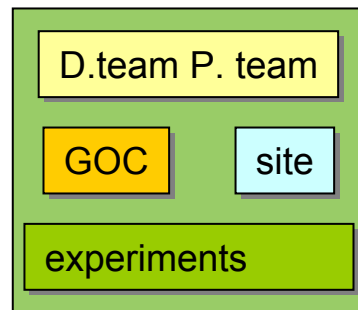runs regular job tests

runs recertification

corrects problems

keeps track of sites certification status

monitors and archives sites information system status

corrects problems

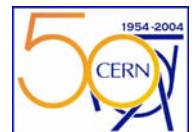adds site on experiments demand to production zone

Experiments add/remove site to their BDII using "Oliver"-Tool

D.team P. team

GOC   site

experiments

Some details

- ## Status monitoring:
  - GIIS monitor: http://goc.grid.sinica.edu.tw/gstat/
    - sanity check on information
    - history on resources published etc.
    - link to the certification status page (ro) https://lcg-sites-status.cern.ch:8383/lcg-sites.html
  - Certification Status:
    - History function (only available from inside CERN)
    - In addition to testers comments automatic created page
  - Oliver-Tool
    - http://grid-deployment.web.cern.ch/grid-deployment/gis/lcg2-bdii/README
  - 2 FAQ pages (one at the GOC in UK one at Taipei)
    - **http://goc.grid.sinica.edu.tw/gocwiki/AdministrationFaq**
    - http://www.gridpp.ac.uk/tb-support/faq

Oliver Tool

- ## Oliver Tool
  - Include lists
  - exclude sites
  - add single sites
  - creates from this config file for BDII by running tool
  - allows to base individual site lists based on dteams last tests

File Edit View Go Bookmarks Tools Window Help

http://goc.grid.sinica.edu.tw/gstat/   Search

Mail AIM Home Radio My Netscape Search Bookmarks Red Hat, Inc. BlogThis! Red Hat Network Support Shop »

GIIS monitor 13:57:02 07/15/04 GMT

GIIS monitor 13:57:02 07/15/04 GMT

CAVN	IS	CERN-LCG2	ok	CERN-RLS	na	CIEMAT	ok	CNAF-LCG2	rm	FNAL-LCG2	rm	FZK-LCG2	rm
IFCA	ok	IFIC	IS	IMPERIAL	ok	INFN-LEGNARO	ok	INFN-MILANO	IS	INFN-TORINO	ok	KRAKOW	
NCU-TAIWAN	ok	nikhef.nl	ok	PIC-LCG2	ok	RAL-LCG2	rm	Taiwan-LCG2	ok	TRIUMF	ok	USC-LCG2	ok
WUPPERTAL	jm	AACHEN	rm	ALBERTA	rm	BHAM-HEP	ok	BNL	IS	BUDAPEST	ok	CARLETON	ok
CCIN2P3-LCG2	na	CLERMONT	na	CSCS	IS	DESY	ok	FRASCATI	ok	GLASGOW	IS	GSI	ok
HEPHYUIBK	ok	HG-01-GRNET	IS	HP-PUERTO-RICO	rm	INFN-NAPOLI	ok	INFN-ROMA1	ok	IPAS	ok	ITEP	ok
JINR	ok	Karlruhe	na	LANC	IS	LIP	rm	MANCHESTER	ok	MONTREAL	ok	NCP	IS
PRAGUE	ok	PRAGUE-CESNET	ok	QMUL	jm	RALPP	ok	RHUL-LCG2	rm	RU-IHEP	rm	SARA	ok
SHEF	rm	SINP	ok	TAU	rm	TOKYO	IS	TORONTO	ok	TRIUMF-GC	jm	UAM	ok
UB-BARCELONA	ok	UCL	ok	UCL-CCC	ok	WEIZMANN	IS	(new-68)BEIJING	na				

	totalCPU	freeCPU	runJob	waitJob	seAvail TB	seUsed TB
Total	4771	1771	1820	1432	8401.17	5598.91

Color	Alert Severity
#FAFFFA	OK
#EEFFFF	INFO
#EDEFFF	NOTE
#FFFFCC	WARN
#FFEECC	ERROR
#FFBBEE	CRIT
#DBDBDB	MAINT

GIIS monitor 13:57:02 07/15/04 GMT - Netscape

File Edit View Go Bookmarks Tools Window Help

http://goc.grid.sinica.edu.tw/gstat/   Search

Mail AIM Home Radio My Netscape Search Bookmarks Red Hat, Inc. BlogThis! Red Hat Network Support Shop

GIIS monitor 13:57:02 07/15/04 GMT

Site List

No	Site Reports	zone	GIIS Name	bbdii	sanity	version	totalCPU	freeCPU	runJob	waitJob	seAvail TB	seUs TB
1	CAVN	ext,pro	farm012.hep.phy.cam.ac.uk	Fail	warn	na						
2	CERN-LCG2	ext,pro	lxn1181.cern.ch	Pass	ok	LCG-2_1_0	974	174	54	51	931.38	465.6
3	CERN-RLS	ext,pro	lxn1194.cern.ch	Pass	warn	na					931.32	465.6
4	CIEMAT	ext,pro	lcg02.ciemat.es	Pass	ok	LCG-2_0_0	2	2	0	0	0.06	0.00
5	CNAF-LCG2	ext,pro	wn-04-07-02-a.cr.cnaf.infn.it	Pass	warn	LCG-2_0_0	798	236	510	671	1862.71	1863
6	FNAL-LCG2	ext,pro	hotdog46.fnal.gov	Pass	warn	LCG-2_0_0	18	18	0	0		
7	FZK-LCG2	ext,pro	gridkap01.fzk.de	Pass	warn	na						
8	IFCA	ext,pro	gtbcg12.ifca.unican.es	Pass	ok	LCG-2_0_0	32	31	1	0	0.04	0.00
9	IFIC	ext,pro	lcg2ce.ific.uv.es	Pass	warn	LCG-2_1_0	108	106	1	0		
10	IMPERIAL	ext,pro	gw39.hep.ph.ic.ac.uk	Pass	ok	LCG-2_0_0	66	56	10	0	0.09	0.31
11	INFN-LEGNARO	ext,pro	t2-ce-01.lnl.infn.it	Pass	ok	LCG-2_0_0beta	142	64	49	0	0.12	1.22
12	INFN-MILANO	ext,pro	t2-ce-01.mi.infn.it	Fail	warn	na						
13	INFN-TORINO	ext,pro	grid008.to.infn.it	Pass	ok	LCG-2_0_0beta	24	2	22	0	0.41	1.53
14	KRAKOW	ext,pro	zeus02.cyf-kr.edu.pl	Pass	ok	LCG-2_0_0	14	10	4	4	0.03	0.06
15	NCU-TAIWAN	ext,pro	grid01.phy.ncu.edu.tw	Pass	ok	LCG-2_0_0	8	8	0	0	0.44	0.08
16	nikhef.nl	ext,pro	tbn18.nikhef.nl	Pass	ok	LCG-2_0_0	236	68	170	317	1.20	0.49
17	PIC-LCG2	ext,pro	lcgce02.ifae.es	Pass	ok	LCG-2_0_0	210	42	113	0	2794.06	2794
18	RAL-LCG2	ext,pro	lcgce02.gridpp.rl.ac.uk	Pass	ok	LCG-2_1_0	144	122	18	0	931.33	0.99
19	Taiwan-LCG2	ext,pro	lcg00125.grid.sinica.edu.tw	Pass	ok	LCG-2_0_0	268	3	265	43	933.07	0.07
20	TRIUMF	ext,pro	lcgce01.triumf.ca	Pass	ok	LCG-2_0_0	10	0	10	13	0.63	0.07
21	USC-LCG2	ext,pro	lcg-ce.usc.cesga.es	Pass	ok	LCG-2_0_0	1	1	0	0	0.23	0.68
22	WUPPERTAL	ext,pro	grid-ce.physik.uni-wuppertal.de	Pass	ok	LCG-2_0_0	2	2	0	0	0.45	0.91
23	AACHEN	ext	lcg2-CE.physik.rwth-aachen.de	Pass	ok	t20040225_1700	2	2	0	0	0.0	0.0
24	ALBERTA	ext	lcgce01.nic.ualberta.ca	Pass	ok	LCG-2_0_0	2	2	0	0	0.0	0.0
25	BHAM-HEP	ext	epcf36.ph.bham.ac.uk	Pass	ok	LCG-2_0_0	22	22	0	0	0.02	0.01
26	BNL	ext	atlasgrid04.usatlas.bnl.gov	Fail	warn	na						

File Edit View Go Bookmarks Tools Window Help

http://goc.grid.sinica.edu.tw/gstat/lxn1181.cern.ch/   Search

Mail AIM Home Radio My Netscape Search Bookmarks Red Hat, Inc. BlogThis! Red Hat Network Support Shop

GIIS monitor 14:02:05 07/15/04 GMT
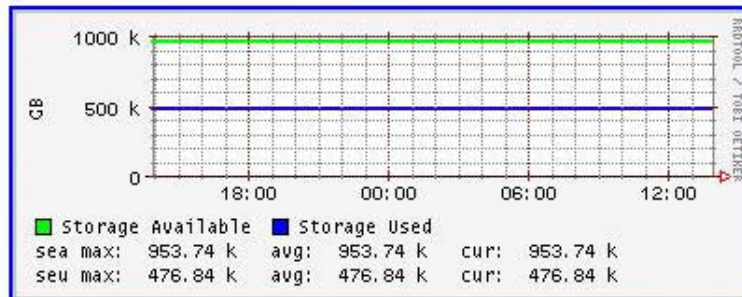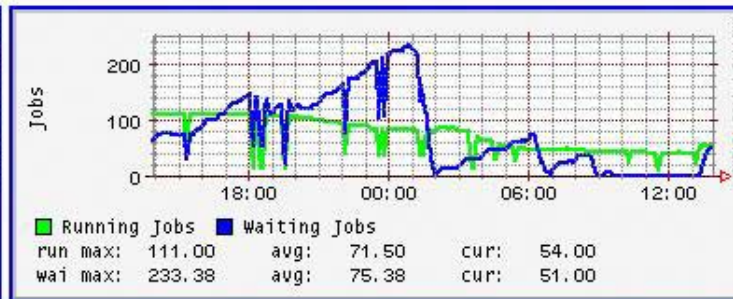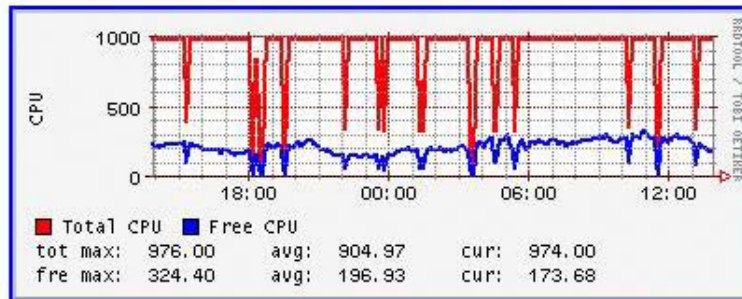
GOC DB Info:

Scheduled Maintenance
startDate,   endDate,   desription
05:00:00 05/04/03,   07:00:00 05/04/03,   CERN network will be partially down. RLS will be affected
23:00:00 06/22/04,   23:00:00 06/23/04,   reorganization of the CERN computer centre. Major services will be unavailable

Total CPU Count:	Free CPU Count:	Running Jobs:	Waiting Jobs:	Total Available SE (GB):	SE Usage: (GB)
974	172	54	51	953741.787373	476838.811008

Total CPU Free CPU
tot max: 976.00   avg: 904.97   cur: 974.00
fre max: 324.40   avg: 196.93   cur: 173.68

Running Jobs Waiting Jobs
run max: 111.00   avg: 71.50   cur: 54.00
wai max: 233.38   avg: 75.38   cur: 51.00

Storage Available Storage Used
sea max: 953.74 k   avg: 953.74 k   cur: 953.74 k
seu max: 476.84 k   avg: 476.84 k   cur: 476.84 k

Site test report

WN: ccwalm14

date: Thu Jul 15 10:50:48 CEST 2004

Table of contents

Environment on the node

```
BQSCLUSTER=anastasie
BQS_DEBUG_LEVEL=0
BQS_EOJLOG=/usr/spool/bqs/eojlogs/1145.ccwalm14.in2p3.fr
BQS_MONITORINGPERIOD=30
BQS_PROCNUMBER=1
```

File Edit View Go Bookmarks Tools Window Help

Mail   AIM   Home   Radio   Netscape   Search   Bookmarks   Red Hat, Inc.   BlogThis!   Red Hat Network   Support   Shop

CERN LCG Site Status

Site	Zone	CE name	Last tester	Date	
CAVN	Prod	farm012.hep.phy.cam.ac.uk	Judit Novak	2004-07-15	CE not in BDII
CERN-LCG2	Prod	lxn1181.cern.ch,lxn1184.cern.ch	Judit Novak	2004-07-15	OK
CIEMAT	Prod	lcg02.ciemat.es	Judit Novak	2004-07-15	OK
CNAF-LCG2	Prod	wn-04-07-02-a.cr.cnaf.infn.it	Judit Novak	2004-07-15	org.edg.data.reptor.info.InfoServiceExc
FNAL-LCG2	Prod	hotdog46.fnal.gov	Judit Novak	2004-07-15	No SE found in the Info Service with ho
FZK-LCG2	Prod	gridkap01.fzk.de	Judit Novak	2004-07-15	GlobusURLCopy: the server sent an err /grid/fzk.de/mounts/nfs/data/lcg1/SE00 c3fefd6260c3: Permission denied.
IFCA	Prod	gtbcg12.ifca.unican.es	Judit Novak	2004-07-15	OK
IFIC	Prod	lcg2ce.ific.uv.es	Judit Novak	2004-07-15	CE not in BDII
IMPERIAL	Prod	gw39.hep.ph.ic.ac.uk	Judit Novak	2004-07-15	OK
INFN-LEGNARO	Prod	t2-ce-01.lnl.infn.it	Judit Novak	2004-07-15	OK

File   Edit   View   Go   Bookmarks   Tools   Window   Help

Mail   AIM   Home   Radio   Netscape   Search   Bookmarks   Red Hat, Inc.   BlogThis!   Red Hat Network   Support   Shop   »

CERN LCG Site Status

Site History

Send   Reset

Node

```
2004-07-05, Piotr Nyczyk, OK, OK,
2004-07-06, Piotr Nyczyk, OK, OK,
2004-07-06, Piotr Nyczyk, OK, OK,
2004-07-09, Piotr Nyczyk, OK, OK,
Wed Jul 14 16:02:31 2004, Judit Novak 0973, No SE found in the Info Service with host
wacdr002d.cern.ch, Replica Management Failed,
Wed Jul 14 16:14:38 2004, Judit Novak 0973, No SE found in the Info Service with host
wacdr002d.cern.ch, Replica Management Failed,
2004-07-15, Judit Novak , OK, OK,
2004-07-15, Judit Novak , OK, OK,
```

Done

Experience

- TestZone/ProdZone
  - Not really meaningful anymore
    - site state is dynamic
    - experiments need different subsets to work with a site
      – replica manager yes/no
      – software installation
      – bulk transfer from WN to external SE
    - experiments classify sites by managing their own BDIIs
      – adding sites that we don't knew about
      – removing sites for their own reasons
      – based on predefined sets managed by the deployment team
- Other problems
  - re-certification jobs can be on some sites in the queue for a day
    - new standard set of queues in preparation
  - can take a long time until all features of a site are working
  - sites still miss the entry point into the project that describes the process

- Add the results of the certification run to the IS
  - **GlueHostApplicationSoftwareRunTimeEnvironment**
  - VO-dteam-repmanager-OK
  - VO-dteam-localSE-OK
  - VO-dteam…..
- Experiments can steer their jobs via jdl statements
- Maintain lists of sites to be used with Oliver-Tool
  - all-OK
  - new-sites
  - …..
- Track site certification process in savannah
  - **LCG2 sites** is there
  - certification team will start using this soon
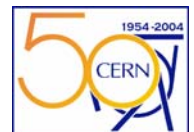
Adding a VO to a site

- Adding services (VO, registration, RLS)
  - See Maria's presentation
- On the sites (not a complete list)
  - many nodes and local services involved (WNs, CE, SEs, RB, MyProxy)
  - user pool accounts
  - create entries in gridmap-dir
  - configure script to create gridmapfile
  - create directory structure for user software installation
  - create environment for managing the user software installation
  - create directory structure on the SEs
  - create VO dependent configuration files
  - add the VO to the information provider
  - accounting?????
- The process is error prone and has too many steps
  - number of pool accounts is inflated
  - sites have to decide again and again on supporting a new VO

Adding a VO to a site

- Light weight VOs have been promised by EGEE
  - when??? and how???
- Maybe Super-VOs are a temporary solution
  - group several projects from the same area
  - run individual VOs for accounting (or using sub groups in the VO system)
  - locally the number of VOs will be limited
  - sites decide to support Super-VOs (not that frequent)
  - sites that want to give priority to a Sub VO can still do this
  - Problems:
    - no individual accounting for storage possible
    - interference in storage and user software installation possible
    - interference in the catalogues are not different from individual VOs
      - no authorization used in the current system
- Open for better solutions