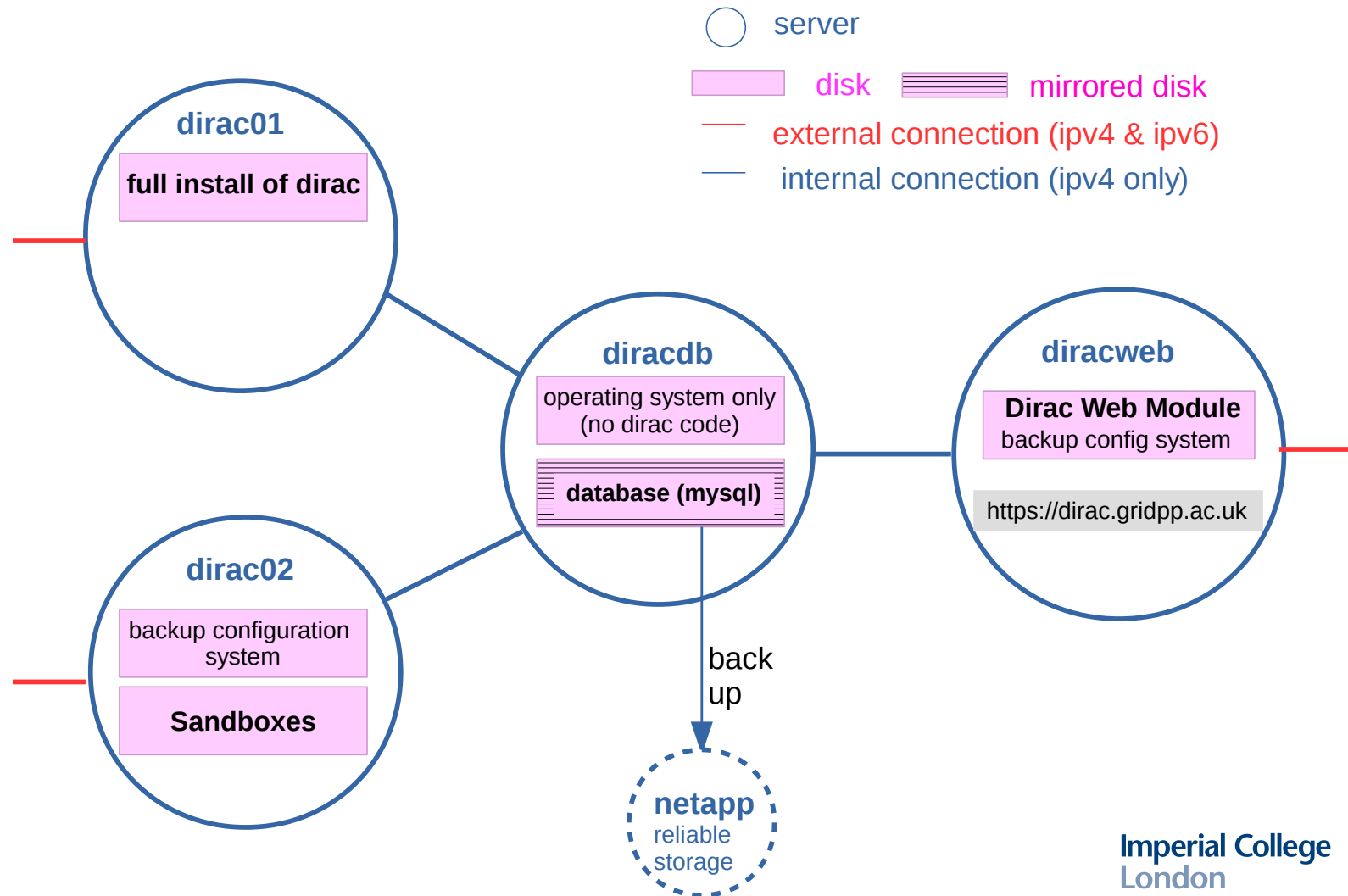


# Dirac Status

Daniela Bauer & Simon Fayer

# The dirac production server



# Supported VOs

cernatschool.org

comet.j-parc.jp

gridpp

lsst

lz

na62.vo.gridpp.ac.uk

pheno

snoplus.snolab.ca

t2k.org

vo.landslides.mossaic.org(\*)

vo.londongrid.ac.uk

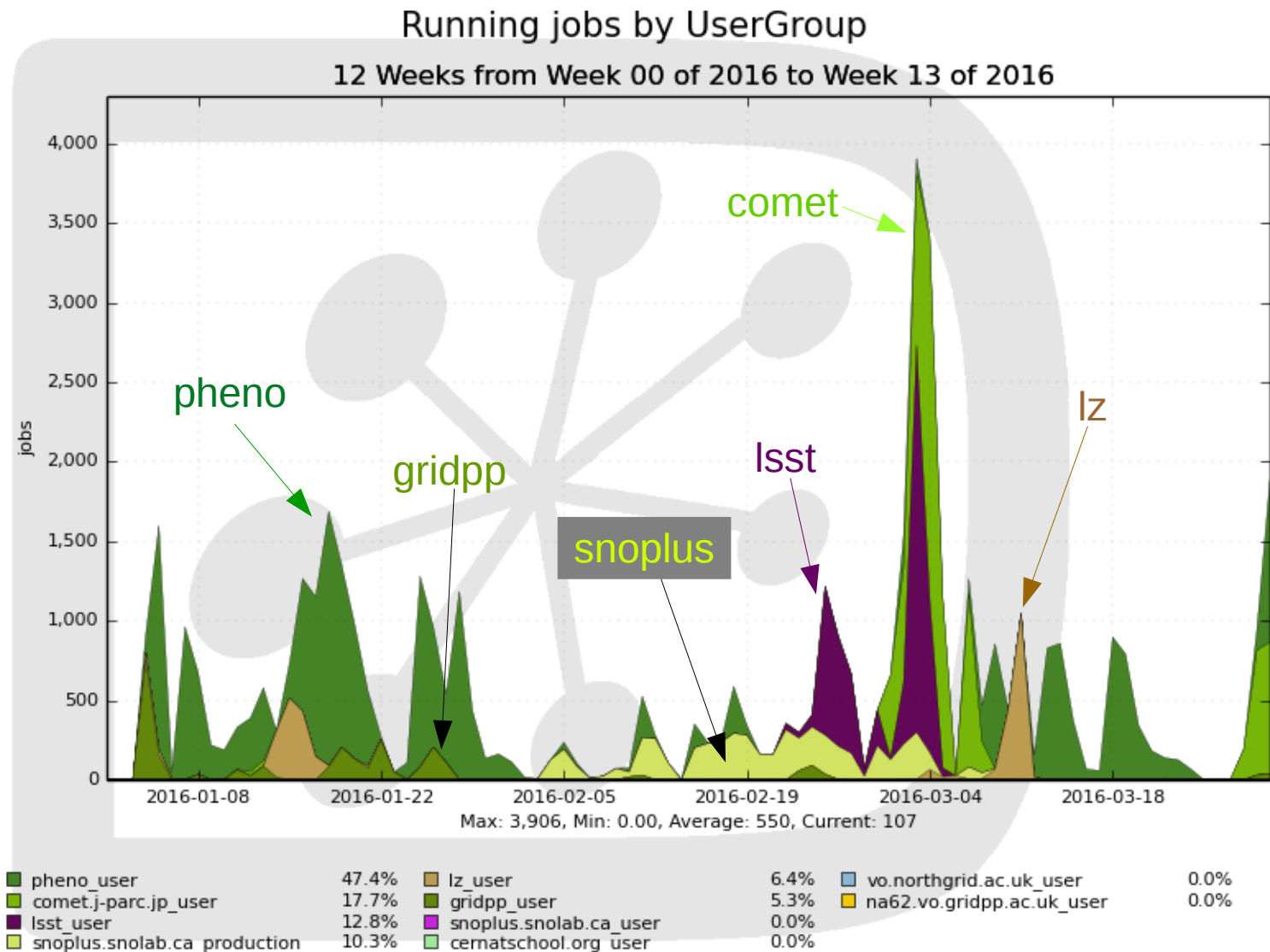
vo.northgrid.ac.uk

vo.scotgrid.ac.uk

vo.southgrid.ac.uk

(\*) Membership expired. VO emails seem to be routed to one 's.metson@bris.ac.uk'

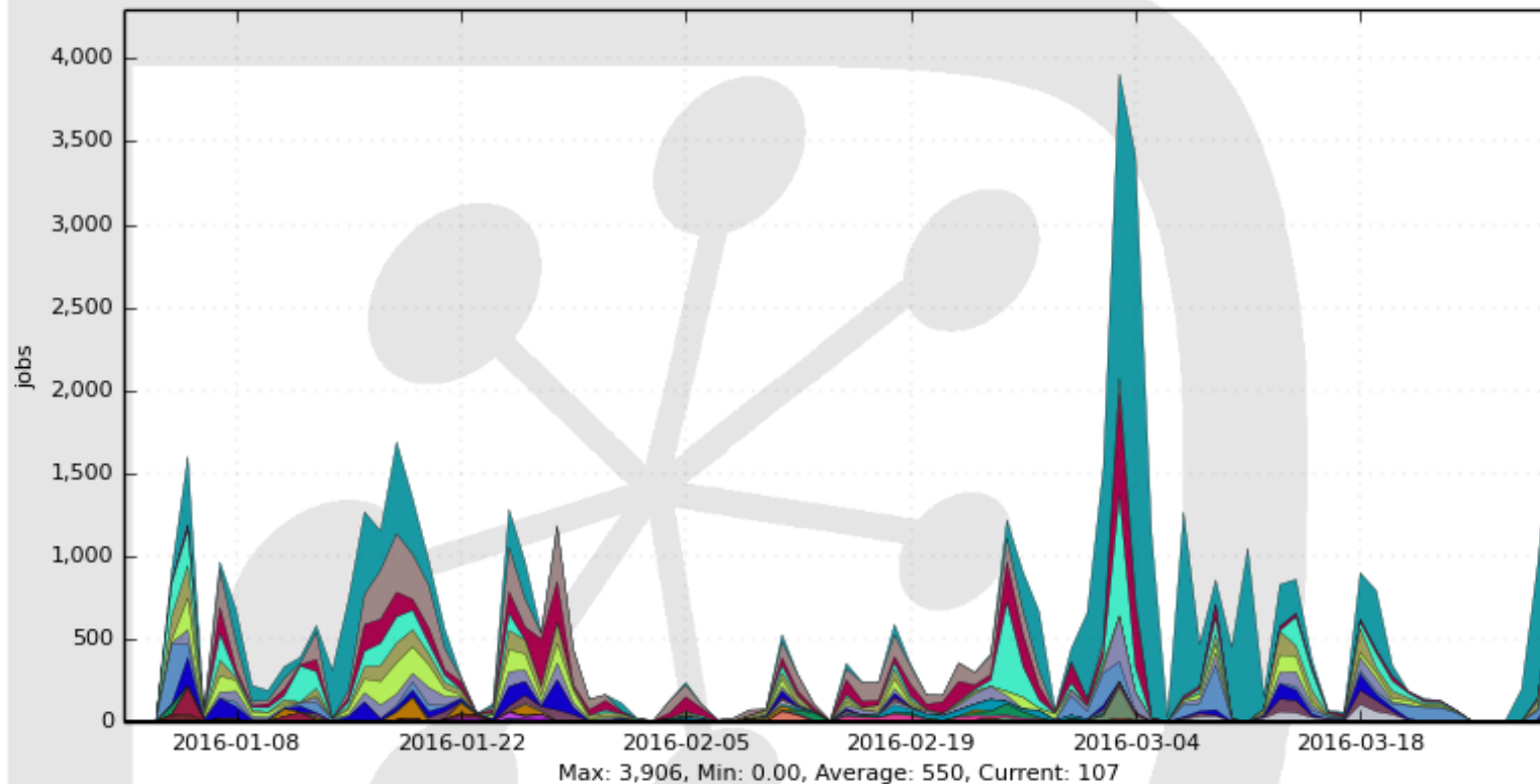
# VOs actually using dirac



# Usage by site

## Running jobs by Site

12 Weeks from Week 00 of 2016 to Week 13 of 2016



LCG.UKI-LT2-IC-HEP.uk	38.0%	LCG.EFDA-JET.uk	1.7%	LCG.UKI-SOUTHGRID-CAM-HEP.uk	0.4%
LCG.RAL-LCG2.uk	10.7%	LCG.UKI-LT2-Brunel.uk	1.3%	VAC.UKI-NORTHGRID-MAN-HEP.uk	0.2%
LCG.UKI-NORTHGRID-LIV-HEP.uk	9.9%	LCG.NCG-INGRID-PT.pt	1.0%	VAC.UKI-LT2-UCL-HEP.uk	0.1%
LCG.UKI-NORTHGRID-MAN-HEP.uk	9.1%	LCG.UKI-SCOTGRID-GLASGOW.uk	0.9%	CLOUD.UKI-LT2-IC-HEP.uk	0.0%
LCG.UKI-LT2-RHUL.uk	5.2%	LCG.UKI-NORTHGRID-LANCS-HEP.uk	0.8%	VAC.UKI-SOUTHGRID-OX-HEP.uk	0.0%
LCG.UKI-SOUTHGRID-RALPP.uk	5.2%	LCG.CA-ALBERTA-WESTGRID-T2.ca	0.6%	LCG.UKI-SOUTHGRID-BHAM-HEP.uk	0.0%
LCG.UKI-SOUTHGRID-OX-HEP.uk	5.2%	LCG.UKI-SCOTGRID-ECDF.uk	0.6%	LCG.UKI-SOUTHGRID-BRIS-HEP.uk	0.0%
LCG.UKI-LT2-QMUL.uk	4.6%	LCG.EFDA-JET.xx	0.5%	CLOUD.CERN-PROD.ch	0.0%
LCG.UKI-SCOTGRID-DURHAM.uk	3.5%	LCG.UKI-SOUTHGRID-SUSX.uk	0.5%	... plus 2 more	

# Why is my site not used ?

- only supports a subsection of these VOs
- no pilot roles for these VOs (\*)
- not enough batch quota for these VOs
- configuration issues: pilot jobs fail
  
- sites cannot be enabled on a VO by VO basis:  
only site currently disabled is Sheffield

- While we can do the initial commissioning of sites, we need the VOs/everyone's help to keep on top the day-to-day site health.
- Not every VO is (can be?) covered by a nagios.
- VOs need to report non-working sites instead of just blacklisting them.
- Some VOs are more amenable to this than others.

(\*) tracked here:

[http://www.hep.ph.ic.ac.uk/~dbauer/dirac/site\\_pilot\\_status.html](http://www.hep.ph.ic.ac.uk/~dbauer/dirac/site_pilot_status.html)

# Monitoring

- Dirac-SAM tests: <https://www.gridpp.ac.uk/gridpp-dirac-sam?action=view>
- local nagios (no certificate): basic ping tests and
- monitoring of site directors (responsible for pilot submission)
- SL dirac tests: <http://pprc.qmul.ac.uk/~lloyd/gridpp/gridtests/uktest.html>

We'd really like the equivalent the gridpp nagios for dirac, with automatic alerts, but it's not clear (yet?) how to distinguish dirac from site problems.

# Recent issues

We report every issue at:

<https://groups.google.com/forum/?hl=en-GB#!forum/diracgrid-forum>

- dirac not submitting jobs to empty sites, after (internally) queueing jobs at other sites: Reported to the developers, improvement promised. No timeline given.
- asynchronous data transfer (dirac-dms-replicate-and-register-request): doesn't work. Reported to the developers, but so far unresolved
- disappearing pilots: unfortunately both the grid middleware and dirac have a tendency not to log failure reasons, making debugging job failure rather tricky
- fixed: md5 signed pilot proxies



# Security considerations

glexec:

- made considerable improvements to the codebase to catch all the edge and not-so-edge cases, but weren't able to handle output data correctly (yet)
- no longer supported ?
- requires sites to update their configurations (which takes a long time)
- Mitigate the effects of having a single pilot cert for all VOs:  
We now have a test setup (almost) running, which will hopefully allow us to test having unique pilot certs for each VO.  
Note: It's not a given that this works.

# Currently testing

We now have a dirac test server, but:

- it took a surprisingly long time to reinstall dirac from scratch
- we are currently testing:
  - the new dirac web interface
  - unique pilot certificates for each VO
  - improvements to our auto config module