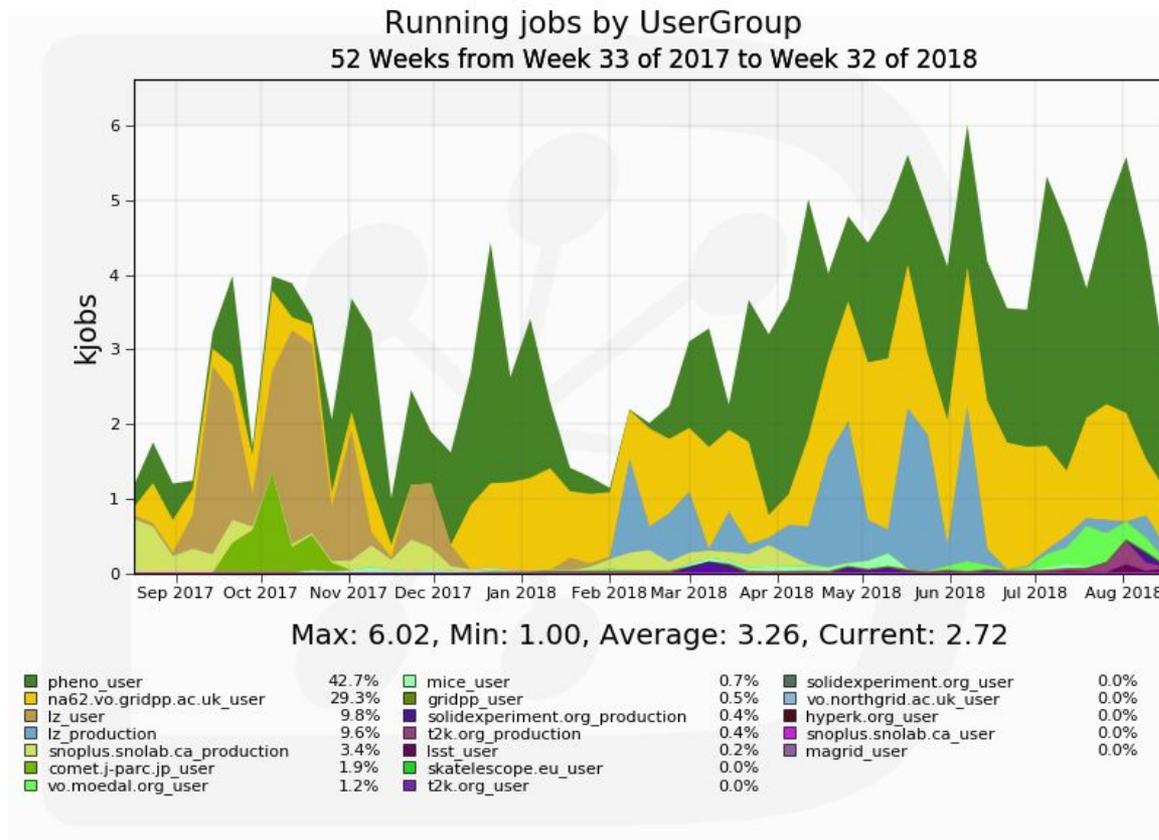


Technical effort GridPP puts into supporting 'Other VOs'

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- We have shown that if we take users by the hand they are able to use GridPP resources
- Graph shows jobs running from VOs actively supported to use DIRAC and GridPP resources



DIRAC features requested by VOs

(Anything marked in red denotes software development to be done by GridPP)

- **SKA:** Workflow Management System
 - “Transformation System” in DIRAC terminology
 - Deployment on our existing test server relatively straightforward (took about 3 FTE-weeks)
 - Deployment on multi-VO production server is not possible due to security issues surrounding a lack of metadata scopes in DIRAC
- **Most VOs:** “Resource Status System”
 - Enables the automatic exclusion of bad resources/sites, on a VO by VO basis
- **Multiple VOs (especially SKA):** Integration of DIRAC and RUCIO
- **Multiple VOs (especially LZ):** Submission to IRIS/Cloud resources via DIRAC. Evaluation of current options (VCycle, CloudScheduler, VMDIRAC etc). Adapting them for IRIS/Cloud use.

VO effort towards using the Grid

- A number of non-LHC VOs have allocated dedicated computing personnel
 - Usually computing is only part of their work for their collaboration
 - Often not experienced in Grid computing
- Most experiments can cope when offered DIRAC but not much more
 - (Or a “DIRAC like” interface offering command line, web interface and python API access)
 - For example unlikely to be willing or able to build their own VM image
 - A notable exception would be SKA
 - However, even with a dedicated programmer, they still needed assistance from GridPP

Other Grid interfaces

(That we know of, all effort from the experiments unless indicated otherwise)

- LZ
 - Custom web submission system (“JSI”) built on DIRAC API (new)
- NA62
 - Custom web submission system built on DIRAC API (adapted from GLite WMS-based submission system)
- SKA
 - Hired a dedicated software engineer to evaluate GridPP offering
 - However, DIRAC needs to have a reliable, secure transformation system useable by SKA
 - As with all new features tested, there is a certain amount of configuring/bug fixing/interware development that is beyond the VO’s remit
- SoLid: currently modifying the LZ submission system
 - Lacking experienced personnel and currently require significant GridPP assistance