

Towards the EISCAT_3D Portal - Experiences with DIRAC

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The suite of `dirac.egi.eu` services is supporting virtual research environments (VRE) and scientific gateways (SG) in order to manage all the distributing computing matters, in a transparent manner to the end user. It also is providing a multitenant portal with a core of high level applications for the scientific computing. At the beginning of 2016, the EGI Competence Centre for EISCAT-3D decided to adopt DIRAC. From January to March, 2016, `dirac.egi.eu` has deployed all the necessary services and catalogue population for a proof of concept in the use of data management facilities and smoothly integration with necessary computing. The 2007 data has been chosen for the test, including more than 8 million of file entries. Further, a DIRAC storage element has been deployed and setup on the top of existing EISCAT NFS file system. In this manner, DIRAC secured layer is used in the authorized access to the data. In this proof of concept, any user belonging to the `eiscat.se` VO can access to the File Catalogue using command line DIRAC client or `dirac.egi.eu` web portal. User can find up files in the catalogue by metadata fields. Then, user can use logical file names (LFC) of the catalogue to include in jobs with a software stack of the corresponding pipeline processing and the job parameters. For testing purposes EGI Fedcloud VO resources are used, latter, per VO resources will be used in production.

Next EISCAT-3D portal prototype will be deployed using WebAppDIRAC web developing framework, which enables re-engineering of the necessary web applications, to be adapted into the Competence Centre needs. This standalone frontend is connected to `dirac.egi.eu` backend. The administrative operations will remain in the `dirac.egi.eu` portal (accounting, configuration, task monitoring, job monitoring, etc) which the end-user does not really care. In the horizon, new generation of EISCAT-3D data will be managed with this portal, not only for the user analysis, but also for EISCAT administration at the data centres.

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Session Classification: Competence centres, user communities