

DIRAC Project status

*A. Tsaregorodtsev,
CPPM-IN2P3-CNRS, Marseille,
DIRAC@IN2P3 meeting,
11 September 2020*



- ▶ Status of releases
- ▶ Ongoing developments
- ▶ Collaborative work
- ▶ FG-DIRAC service
- ▶ Conferences

- ▶ Current production branch v7r1
 - ▶ The last patch v7r1p11
 - ▶ DIRACOS v1r13
- ▶ v6r22 and v7r0 are mostly installed
 - ▶ Weekly patches to fix encountered problems
- ▶ The next major v7r2
 - ▶ v7r2-pre13 prerelease
 - ▶ No certification run yet
- ▶ Main new features of v7r2
 - ▶ OAuth2/OIDC support incorporated
 - ▶ Not merged yet, still work in progress (see Andrei's report)
 - ▶ Tornado/http client/service protocol as technology preview
 - ▶ Not merged yet, almost ready to go
 - ▶ Multiple Python2/3 compatibility fixes

- ▶ DIRAC Production System (Luisa, Johan)
 - ▶ CTA
- ▶ VMDIRAC (Andrei)
 - ▶ Using Pilot3
 - ▶ Get the Pilot3 codes from the CVMFS installation
- ▶ OAuth/OIDC AuthN/AuthZ (Andrii)
 - ▶ PR is prepared, certification is coming
- ▶ DIRAC within Jupyter Notebooks (Adil)
- ▶ Exploring GO language as the basis for the future DIRAC framework (Christophe)
 - ▶ Direct interaction channel with the running application
 - ▶ Dependent on the HTTP/Tornado based DIRAC protocol

- ▶ The code repository at Gitlab@IN2P3 is set up
- ▶ A development host is deployed
 - ▶ Linked to the DIRAC4EGI installation
- ▶ Luigi Fusco, CPPM, is actively looking at it together with colleagues from Italy
 - ▶ Jobs using CORSIKA containers are demonstrated to work
 - ▶ Starting with the Web development for the portal GUI

- ▶ Discussion in Km3NET about the possibility to use DIRAC as the basis for their processing pipeline
 - ▶ Linked to the ESCAPE activities
 - ▶ Possibly more CPPM effort in the Km3NET computing project
- ▶ Discussion at CPPM about the possibility to set up the CTA real data management procedures based on DIRAC
 - ▶ NectarCAM data (CPPM DAQ responsibility)

- ▶ Running smoothly
 - ▶ Running v7r0
 - ▶ We should foresee v7r1 migration
- ▶ Looking at setting up ELK stack
 - ▶ Elasticsearch/LogStash/Kibana
 - ▶ Help would be quite welcome
- ▶ Setting up multi-core queues
 - ▶ LAL, others
 - ▶ To be done

- ▶ INFRAEOSC: looking at the continuation of the EOSC-Hub project
 - ▶ CNRS prepared a combined proposal
 - ▶ Includes DIRAC service part
 - Service maintenance, user community support
 - Developments (AAI, resources, etc)
 - ▶ Proposal to merge France-Grilles and EGI service
 - Ease of maintenance
 - More active involvement of CC
 - ▶ Proposal submitted with preliminary allocation of 44 PMs to CNRS
 - ▶ CPPM, CC
 - ▶ Waiting for the outcome of the INFRAEOSC call
- ▶ Megagrant call of the Russian Ministry of sciences
 - ▶ Proposal submitted by the University of Nizhny Novgorod
 - ▶ With the CPPM participation (A.T.)
 - ▶ Integration of HPC resources using DIRAC technology (“HPC Cloud” or HPCaaS)
 - ▶ Involving AMU, FG, EGI as eventual partners.

- ▶ EGI Conference 2-4th November
 - ▶ The conference is going online
 - ▶ We have to see if the DIRAC virtual workshop can be still maintained

- ▶ Contributions to submit
 - ▶ ISGC (26 Oct)
 - ▶ ADASS (30 Sep)
 - ▶ JCAD (15 Sep !)

- ▶ Urgency for complex workflows paper
 - ▶ Volker's journal
- ▶ Draft paper URL
 - ▶ <https://gitlab.in2p3.fr/DiracIN2P3/TSPaper2017>
- ▶ Effort needed to accomplish it