DIRAC Project status

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DIRAC@IN2P3 meeting,
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- Status of releases
- Ongoing developments
- EGI/FG-DIRAC service
- Conferences

- 8 patch releases in the last 2 months
  - v7r2p47
  - v7r3p24
  - ARC6ComputingElement
    - Transition to the ARC REST interface
  - CloudComputingElement
    - VMDIRAC replacement ?
  - Multiple minor fixes
    - Managing Scheduled requests
    - ForcedIndexedMetadata
    - FTS transfers
    - dirac-resource-info
    - datasets
    - docs

- # 8.0.0a26
  - ## WebAppDIRAC 5.0.0a10
  - ## Python3 only
  - ## OAuth2/OIDC AAI, user management
  - ## Status
    - ~12 certification hackathons are rather successful
      - Mostly non-token related functionality
    - Certification on lbcertifoauth.cern.ch – special instance for the certification of the OAuth tokens development
      - Done by Andrii
    - Status is somehow indefinite
      - Broken OAuth machinery, differencies in opinions of the key developers
  - ## Next hackathon on the 21st July
    - Last one before the 8.0 release (?)

- ▸ OAuth/OIDC AuthN/AuthZ (Andrii)
  - ▸ Base features included into v8r0 prerelease
  - ▸ Multiple fixes after the last hackathons
- ▸ Prerelease 8.0.0a25 installed in ccdiracli06.in2p3.fr
  - ▸ Practically in production
  - ▸ Ensures
    - ▸ EGI SSO login in the WebApp
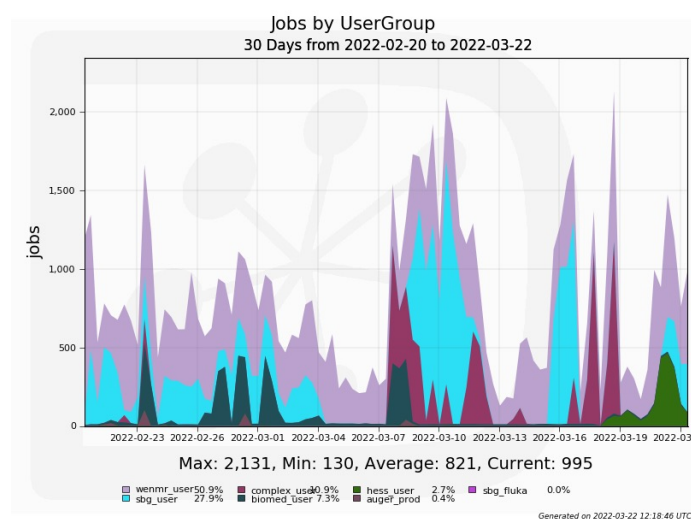   - ▸ dirac-login, e.g. in Jupyter notebooks
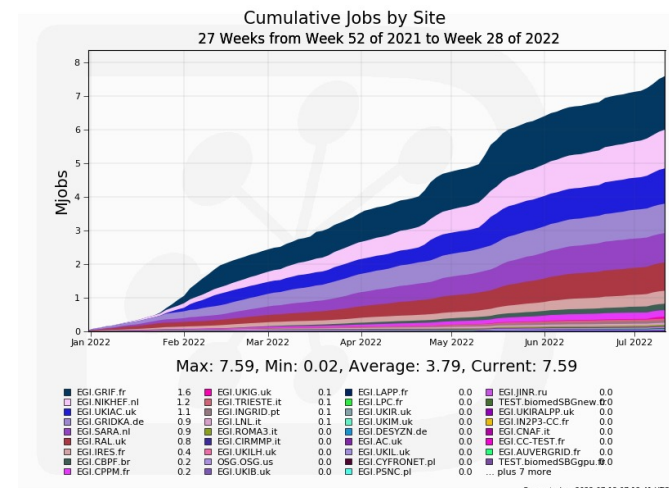
▸ ## Access by tokens to HTCondorCE

  ▸ Demonstrated to work with the HTCondorCE at CC

    ▸ Thanks Vanessa

  ▸ Integration with the SiteDirector/TokenManager is ongoing

  ▸ Issues with packaging the condor software

    ▸ In contact with the HTCondor developers/admins

- ## WebAppDIRAC
  - Updated framework based on the TornadoREST class
    - Common base class for WebApp and REST interfaces
    - Potentially common for TornadoService class as well – HTTPS/RPC DIRAC protocol
  - AuthHandler - example REST implementation
  - Framework for the implementation of the new REST interface
    - Long standing issue of the obsoleted RESTDIRAC

- ## COMDIRAC
  - ### Python3 ready
  - ### PyPi installable

- ## Discussion with GridPP developers
  - ### Possible merging of COMDIRAC into DIRAC
  - ### Overall revision of the package
  - ### Adding new commands
  - ### Actions on our side ?

- Datasets in the CTA context
  - Production experience to consider further developments
    - Search by metadata
    - Use in Transformations/Jobs

- Invitation for development

▸ ## Running more or less smoothly

  ▸ ### Since Jan 2022

    ☐ ~ 8M jobs

    ☐ Up to 4k concurrent jobs

      ☐ ~1200 on average

▸ ## Servers installation

  ▸ ### All servers are at v7r3p15

    ☐ ccdiracli06 at 8.0.0a23

  ▸ ### Next steps

    ☐ Python3 servers

    ☐ ccdiracliXX -> ccdiracXX migration

▸ ## Docs and sites updates ongoing (Gino)

Cumulative Jobs by Site
27 Weeks from Week 52 of 2021 to Week 28 of 2022
Max: 7.59, Min: 0.02, Average: 3.79, Current: 7.59

Jobs by UserGroup
30 Days from 2022-02-20 to 2022-03-22
Max: 2,131, Min: 130, Average: 821, Current: 995

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- VMDIRAC
  - Several sites configured, little used
  - Access by tokens demonstrated for most of them
    - Not in production
- Jupyter
  - Setting up DIRAC access in Jupyter notebooks
    - Successful due to the CVMFS mount in the Jupyter hosts
  - Getting user proxy in the notebooks:
    - source /cvmfs/dirac.egi.eu/dirac/bashrc_egi_dev
    - dirac-login

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- Concordia project
  - Major upgrade of the EscapeDIRAC extension ongoing
    - Python3
    - PyPi installable
    - New WebAppDIRAC framework

- ESAP
  - Integration with DIRAC
    - Asking for integration with RCAuth (In progress, Andrii)

- Recognizing DIRAC as the base workload manager for ESCAPE (Johan)

- Conseil Scientifique de l'IN2P3
  - 23-24 June
  - Presentation by Luisa of the IN2P3 software developments
    - Including DIRAC@IN2P3

- EGI Conference
  - 19-23 September, Prague
    - https://indico.egi.eu/event/5882/
  - DIRAC session
    - Together with the Eiscat 3D project

- Others ?

- ▶ Consortium Agreement Amendment is pending
  - ▶ University of Montpellier slow approval

- ▶ PNNL left the Consortim
  - ▶ Jefferson Lab is a likely candidate

- Urgency for complex workflows paper
  - Volker's journal

- Draft paper URL
  - https://gitlab.in2p3.fr/DiracIN2P3/TSPaper2017

- Effort needed to accomplish it