DIRAC Project status

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

- Two patch releases in the last month
  - v7r0p38
  - V7r1p17
- v7r2 release status
  - Python3 client side compatibility is merged
  - HTTPS Tornado based client/server protocol is merged
  - First certification round is done, prerelease with post-certification fixes is compiled
  - Next certification hackathon is this Thursday

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- The first PR of RucioFileCatalog is submitted (Cedric Serfon, BNL)
  - In review
  - Developed for the Belle II DMS as replacement for LFC
  - Basic functionality
    - Files, replicas
    - No metadata management

JupyterHub at notebooks.egi.eu

- DIRAC Notebook and terminal
- OAuth token available
  - Maintained on Jupyter kernels
    - □ Refreshed each 2 hours
- *dirac-notebook-proxy-init* command
  - Converts (downloads) DIRAC proxy based on authentication by Oauth token
  - Usual proxy length (12 hours)
- Terminal is functional
- Notebook is in progress
  - Setting up the proxy is to be sorted out

Ongoing developments

- DIRAC Production System (Luisa, Johan)

- VMDIRAC (Andrei)
  - NTR

- OAuth/OIDC AuthN/AuthZ (Andrii)
  - Will be incorporated in v7r3 release
    - Provide Oauth tokens based authentication to the HTTPS based DIRAC protocol

- Exploring GO language as the basis for the future DIRAC framework (Christophe)

- ES set up at CC/IN2P3 (Luisa, Patrick)
  - Have to incorporate into the FG-DIRAC service

- ▸ # File Catalog
  - ▸ Massive operation can create inconsistencies in the Catalog
    - ▸ FC_Files vs FC_FileInfo tables
      - ☐ CTA, biomed were affected
    - ▸ A tool is prepared (in PR) to fix these inconsistencies
      - ☐ FileCatalog console *repair* command
  - ▸ Massive removal of files from the Catalog
    - ▸ Triggered by the CTA Production
    - ▸ FileCatalog console *rmdir –rf* command
      - ☐ Removes also empty directories
  - ▸ New FileManager implementation
    - ▸ Avoid inconsistencies
    - ▸ Make file addition transactional

- Luigi Fusco, CPPM, is actively looking at it together with colleagues from Italy
  - Starting with the Web development for the portal GUI
    - The mock-up GUI is conceived, coding is started
  - The CORSIKA containers creation tools are being incorporated into a specially designed DIRAC service (Daniele Zito, Catania)
    - Service prototype done
    - Integration is ongoing

- Running smoothly

- Some problems with host certificates
  - M2Crypto usage in DIRAC requires more stringent host certificates
    - Subject Alternative Name becomes mandatory

- Eiscat 3D community support
  - Repopulation of the Eiscat File Catalog
    - ~120M files
    - Dirac-dms-register-directory tool
      - ☐ Publishing a given directory contents in the catalog
      - ☐ Generic tool, storing about 1M files per hour

- Merging with France-Grilles service
  - The detailed procedure is to be defined
  - CC will have to provide additional resources
    - CYFRONET will not contribute starting from April 2021
    - EGI DIRAC services will have to migrate to CC
      - ☐ Extra capacity can be provided, e.g. at CPPM

- The combined service should be easier to maintain
  - Will be one of the Project priorities

- ## Running smoothly
  - Running v7r0
  - We should foresee v7r1 migration

- ## Looking at setting up ELK stack
  - Elasticsearch/LogStash/Kibana
  - Help is needed

- **Contributions to submit**
  - ISGC (16 November)
    - EGI Workload Manager

- Urgency for complex workflows paper
  - Volker's journal

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

- Effort needed to accomplish it