DIRAC Project status

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DIRAC@IN2P3 meeting,
22 May 2023

- Status of releases
- Developments
- EGI DIRAC service
- DiracX
- Conferences

- ## 8.0.44
  - Production release
  - Minor fixes
    - File.secureOpenForWrite: fix exception when opening in binary mode, fixes #7581

- ## 9.0.0a28
  - Certification release
  - Last certification hackathon is rather successful
    - Several bugs from 8.0 were fixed

- ## DiracX 0.0.1a13
  - installed and working in OpenShift at CERN.

- ## Releases installed in CVMFS
  - ### Automatically upon tagging with a Github action
  - ### x86_64 and aarch64 architectures
- ## Images for the inner SingularityComputingElement
  - ### Independance of a node architecture (centOS/Alma/…)
  - ### VO specific images
- ## Pilot files
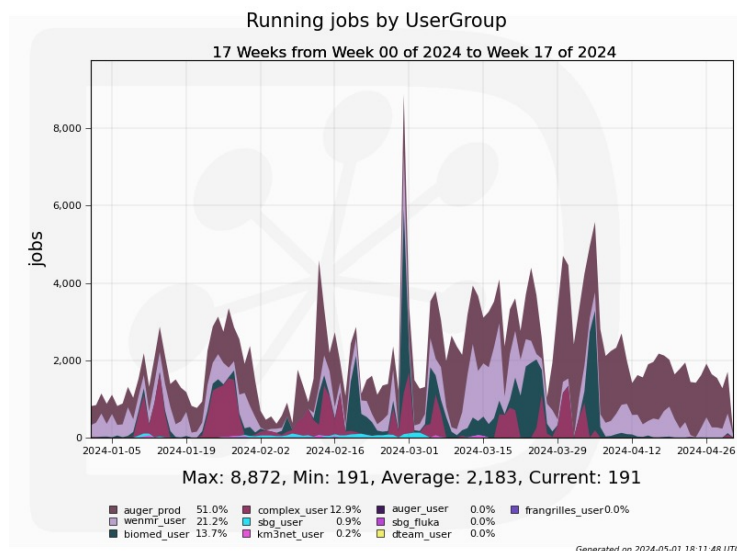 - ### VO specific pilot files

OAuth/OIDC AuthN/AuthZ

- ▸ Biomed use case:
  - ▸ biomed_user, biomed_pilot groups defined with corresponding entitlements in Check-In
  - ▸ Parametric scopes are enabled in the aai-dev.egi.eu
    - ▸ To be enabled in production
  - ▸ Submitting jobs with Check-In tokens
    - ▸ OK for HTCondorCE with Check-In validation script
    - ▸ In the test ARC7: UIOCloud site
    - ▸ Check-In validation script should be enabled

▸ **Running smoothly**
- ▸ Since beginning 2024
  - ☐ ~9M jobs
  - ☐ More than 15k concurrent jobs in spikes
    - ☐ ~2000 on average last month
- ▸ About 2 times higher activity than in 2023
  - ☐ Up to 200K jobs per day in spikes
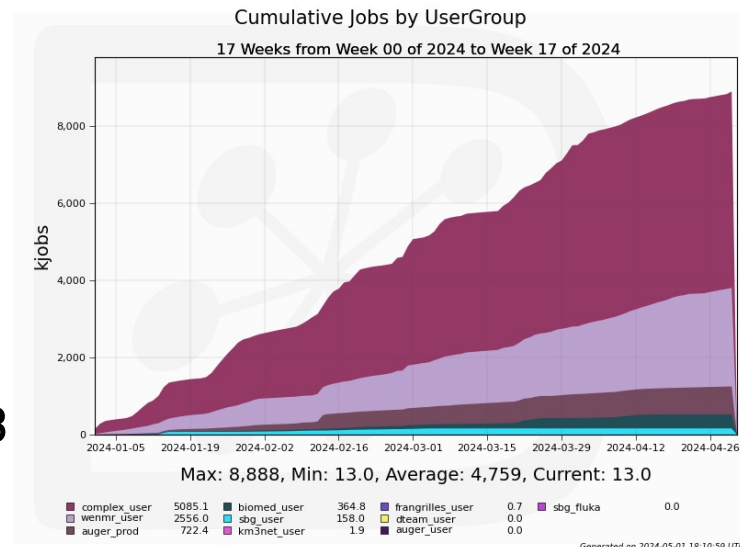
▸ **Servers installation**
- ▸ Smooth server running
- ▸ Servers are all at 8.0.17
  - ☐ Plus some hacks for tokens support
- ▸ Pilots at 8.0.39
- ▸ ES Monitoring not working
  - ☐ Needs profound revision

Cumulative Jobs by UserGroup
17 Weeks from Week 00 of 2024 to Week 17 of 2024

Max: 8,888, Min: 13.0, Average: 4,759, Current: 13.0

complex_user	5085.1	biomed_user	364.8	frangrilles_user	0.7	sbg_fluka	0.0
wenmr_user	2556.0	sbg_user	158.0	dteam_user	0.0		
auger_prod	722.4	km3net_user	1.9	auger_user	0.0		

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Running jobs by UserGroup
17 Weeks from Week 00 of 2024 to Week 17 of 2024

Max: 8,872, Min: 191, Average: 2,183, Current: 191

auger_prod	51.0%	complex_user	12.9%	auger_user	0.0%	frangrilles_user	0.0%
wenmr_user	21.2%	sbg_user	0.9%	sbg_fluka	0.0%		
biomed_user	13.7%	km3net_user	0.2%	dteam_user	0.0%		

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- Infra TECH-01-01 call (~5M) **GreenDIGIT** – technologies and practices for sustained RI computing environments
  - Project started on the 1st March'24
  - CNRS is involved in multiple groups, mostly in WP6, WP7:
    - Demonstrator of technologies
    - Post is prepared for announcement (21-24 PMs)

- PEPR Cloud STEEL
  - Data placement and data-aware job scheduling
  - CNRS/CPPM participation on the level of 15PMs for 7 years
    - Possibly a continuation of the GreenDIGIT recrutement

- **10th DIRAC User's Workshop**
  - 19-21 June 2024
    - CC/IN2P3
  - Format ½+1+½ days
  - ½ reports + ½ hackathons
  - https://indico.cern.ch/event/1341205/
    - Please register

The 10th DIRAC Users' Workshop

19-21 June, 2024
https://indico.cern.ch/e/duw10

diracgrid.org

Organizers :
Vanessa Hamar (CC-IN2P3)
Federico Stagni (CERN)
Andrei Tsaregorodtsev (CPPM-IN2P3)

- CHEP'24
  - Dead line 10th May
  - Proposals
    - DiracX/CWL (Alexandre)
    - DiracX Status (Federico)

- Others ?

- Advancing slowly
  - CERN/KEK groups are busy with production
  - More effort is certainly needed
- Status
  - 0.0.0a13 is installed in OpenShift at CERN
  - Simple job submission is demonstrated

- We have to see how to increase our contributions to its development
- K3s deployments for sites not having "OpenShift" like services (Bertrand)
  - 1 to **N** nodes
  - Documentation available:
    - https://github.com/bertrandrigaud/diracx-k3s

- Having a stable development/certification environment

  - Move cctbdirac01,02 to DIRAC/9.0.0aXX + DiracX/0.0.0aXX
  - Allow to migrate smoothly the production service to DIRAC 9.0 eventually

- Stable demo/development local environment

  - Laptop environment

- Deployment is important but there should be something to deploy

  - Finding where we have to contribute to the DiracX functionality

  - Possible major topics:

    - Transformation System

      - Workflows

    - Production System

    - Data Management System

      - File Catalog

- Today's hands on program
  - Single node k3s functional setup
  - Laptop demo

- Current developments
  - Failure recovery TS agent
  - ES dashboards
  - Biomed containerized applications
  - …

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