

Updated after discussion in Rucio meeting on 2024-03-04

Rucio 35 release roadmap

“Donkey and the Data Factory”

[Martin Barisits](#)

on behalf of the Rucio team



Release plan

- Three major releases in 2024
 - 34 “Donkey Potter and the Data Cache” March 2024
 - 35-LTS “Donkey and the Data Factory” July 2024
 - 36 “Donkey Unchained” November 2024
- LTS support period
 - 1.29-LTS will be supported until **2024-07**
 - 32-LTS will be supported until **2025-07**
 - 35-LTS will be supported until **2026-07**



Misc

- Roadmap discussion of today will be compiled and updated in this document
 - As usual GH tracking project will be created
- Release date will be end of July 2024
- Two checkpoints during the release sprint
 - Around **May 16** and **June 20**

Authentication [5 → 7]

@dchristidis, @massnig



Priorities

- ~~Add Token TPC tests to the CI~~
[#6451](#)
- Make new token support Multi-VO compatible [#6406](#)
- Use OpenID Connect Discovery
[#6414](#)
- Allow for token providers other than IAM [#6630](#)
- Review operations where SSL verification is disabled [#6632](#)
- Create a new API endpoint for the clients to request tokens [#6638](#)

Tasks

-

Ongoing long term tasks

- New OIDC token workflows

Ideas

-

Clients [11 → 14]

@voetberg, @mlasnig



Priorities

- [Re-write and standardization of client command structure #6639](#)

Tasks

-

Ongoing long term tasks

-

Ideas

- Client for ingesting inplace replicas
- Use textualize.rich in the clients

Consistency checks [3 → 3]

@faluchet, @mrguilima



Priorities

-

Tasks

-

Ongoing long term tasks

- Auditor upgrade [#3437](#)

Ideas

-

Core & Internals [18 → 25]

@bari12, @mlassnig



Priorities

- Document and cleanup discrepancies between surl and lfn2pfn algorithms [#5129](#)
- [Retire RSE limits #6629](#)
- [Collect functional RSE attributes into a single file #6624](#)
- [Remove all instances of mutable objects \(e.g. empty lists or dictionaries\) as default parameter values #5169](#)

Tasks



Ongoing long term tasks



Ideas



Database [3 → 6]

@massnig, @bari12



Priorities

- ~~SQLAlchemy 1.0 syntax adaptations~~ [#6057](#)
- Continue with SQLAlchemy 1.0 → 2.0 syntax [#6640](#)

Tasks

- cx_oracle → python-oracledb dependency upgrade [#6467](#)

Ideas

-

Ongoing long term tasks

- SQLAlchemy 1.0 → 2.0

Dataset deletion [4 → 4]

@alexanderrichards, @bari12



Priorities

- Allow undertaker to delete file dids [#5154](#)

Tasks

-

Ongoing long term tasks

-

Ideas

-

Deletion [4 → 7]

@labkode, @cserf



Priorities

- Foreign key error [#5733](#)
- Prevent multiple Reaper threads from working on the same replicas [#6512](#)

Tasks

-

Ongoing long term tasks

-

Ideas

-

DIRAC [0 → 1]

@cserf



Priorities

-

Tasks

-

Ideas

-

Ongoing long term tasks

-

Docker & Kubernetes [1+7+5 → 1+10+8]

@rdimaio, @massnig, @labkode, @ericvaandering



Priorities

-

Tasks

- Evaluate ARM based Rucio containers

Ideas

-

Ongoing long term tasks

-

Documentation [11+2 → 15+4]

@bari12, @voetberg



Priorities

- Documentation for setting up Rucio [#d/187](#)
- [Improving docstrings #6628](#)
- [Formatting / style guide #287](#)
- [Make a table for all daemon and its functionality #296](#)

Tasks

- Docusaurus v2.0 → v3.0 migration

Ongoing long term tasks

-

Ideas

-

Functional tests [2→ 2]

@cserf



Priorities

-

Tasks

- Add documentation

Ideas

-

Ongoing long term tasks

-

Jupyterlab extension [2→2]

@ftorradeflot, @garciagenrique



Priorities

- [JupyterLab version \(v3 to v4\) update #27](#)

Tasks

-

Ongoing long term tasks

-

Ideas

-

Lifetime model [0 → 0]

@dchristidis



Priorities

-

Tasks

-

Ongoing long term tasks

-

Ideas

- Introduce Follower mode
 - Investigate for new WebUI

Messaging [4 → 4]

@alexanderrichards, @mlassnig



Priorities

- factorize duplicate messaging code [#6423](#)

Tasks

-

Ongoing long term tasks

-

Ideas

-

Metadata [7 → 8]

@robbarnsley



Priorities

- ~~Update and re-design core meta module~~ [#5224](#)

Tasks

-

Ongoing long term tasks

-

Ideas

-

Monitoring & Logging [1 → 3]

@maany, @mlassnig



Priorities

- [Create and populate common monitoring repository #6641](#)

Tasks

-

Ongoing long term tasks

-

Ideas

-

MultiVO [1 → 1]

@Thysk



Priorities



Tasks



Ongoing long term tasks



Ideas



Policies [3 → 3]

@jamesp-epcc



Priorities

- ~~Refactor policy package algorithm code [#6382](#)~~
- Switching permissions/schema/policy to policy packages [#4798](#)

Tasks



Ongoing long term tasks



Switching permissions/schema/policy to policy packages [#4798](#)

Ideas



Probes & Alarms [0+2 → 0+4]

@dchristidis, @ericvaandering



Priorities

-

Tasks

- Move semi-required probes (e.g. obsolete calculation) to abacus daemon
- Convert CMS probes to SQLAlchemy

Ongoing long term tasks

-

Ideas

- Moving probes to prometheus

Protocols [6 → 7]

@voetberg, @mlassnig



Priorities

- [Make WebDAV protocols on par with GFAL #6633](#)

Tasks

- Some updates needed for xrootd implementation

Ongoing long term tasks

- Prepare for deprecation of GFAL2

Ideas

- Rucio without rsemanger.py
- Getting rid of regexp in path calculations

Rebalancing [0 → 0]

@cserf



Priorities



Tasks



Ongoing long term tasks



Ideas



Recovery [1 → 0]

@cserf



Priorities

-

Tasks

-

Ongoing long term tasks

-

Ideas

- Archive support for necromancer
 - TPC transfer for archive contents?
 - Student project

Release management [2 → 3]

@bari12, @dchristidis



Priorities

- [Evaluate all TODO and FIXME comments #6642](#)

Tasks

-

Ongoing long term tasks

-

Ideas

- Dependency testing of target platform
- Rename daemons to understandable names [#4795](#)

Replicas [7 → 9]

@rdimaio, @alexanderrichards



Priorities

-

Tasks

-

Ongoing long term tasks

-

Ideas

-

REST & API [4 → 9]

@bziemons, @bari12



Priorities

- Rename internal API layer to gateway #6644

Tasks

-

Ongoing long term tasks

-

Ideas

- Look into pagination for (heavy) streaming APIs
- Start thinking about API 2.0

Rules [15 → 19]

@rdimaio, @bari12



Priorities

- [Evaluate archive workflows for rules \(Using an archive as a source\) #6643](#)

Tasks

- Reevaluate rule option: if the RSE expression doesn't point to the same RSEs anymore we should be able to reevaluate the rule. Would help a lot for decommissioning sites [#536](#)

Ongoing long term tasks

- Evaluate rule codebase and refactor

Ideas

- Possibility of a rule dry-run
-

Subscriptions [6 → 4]

@cserf



Priorities

- [SUBSCRIPTIONS_HISTORY integrity error #6292](#)

Tasks

-

Ongoing long term tasks

-

Ideas

-

Testing [17 → 20]

@maany, @rdimaio



Priorities

- ~~Type annotate code #6454~~
- Type annotate the code #6588
- Testing: Client Only tests #6599

Tasks

- ~~More tests to factories~~

Ongoing long term tasks

- ~~MyPi static code analysis #4455~~
- Type annotate all methods

Ideas

-

Traces [3 → 3]

@mlasnig, @maany



Priorities

-

Tasks

-

Ideas

-

Ongoing long term tasks

- Trace schema enforcement

Transfers [12 → 10]

@rdimaio, @labkode



Priorities

- ~~Tape metadata support~~ [#6398](#)

Tasks

- Evaluate usage of tape RSEs as sources (In some cases, with existing DISK replicas, switch to TAPE happens too soon)

Ideas

-

Ongoing long term tasks

-

WebUI [1+91 → 1+92]

@maany, @esilvaju



Priorities

- ~~Finish connecting primary pages and release a to be tested version of the webui [#w/301](#)~~
- ~~Migrate Dashboard to Clean Architecture [#w/158](#)~~
- ~~Deployment and Release Workflow [#w/401](#)~~
- [Webui 35 milestone 9](#)

Tasks

- Implement OIDC support [#w/149](#)

Ongoing long term tasks

- WebUI 2.0

Ideas

-