

Rucio 1.22 release roadmap

“Green Donkey”

[Martin Barisits](#)

on behalf of the Rucio team



Release plan

- Three feature releases in 2019
 - 1.19 “Fantastic Donkey” February 2019 ✓
 - 1.20 LTS “Wonder Donkey” June 2019 ✓
 - 1.21 “Donkeys of the Galaxy” October 2019 ✓
- Three feature releases in 2020
 - 1.22 “Green Donkey” February 2020
 - 1.23 LTS “The incredible Donkey” June 2020
 - 1.24 “Aquadonkey” November 2020
- LTS support period
 - 1.20 will be supported until **2021-06**
 - 1.23 will be supported until **2022-06**



1.21 Release roadmap

- Next to major feature development, focus of this release on
 - Cleanup & Stability
 - Repository cleanup already started but is not finished yet
 - Removal/Cleanup of deprecated functionality
 - Difficult to understand for new users; Burden for developers
 - Expand possibility to use community specific policies
 - Documentation
 - Some parts of the documentation outdated
 - Need better documentation for individual configuration (RSE Parameters, Config table, ...)
 - Operators documentation/recipes, as discussed at community workshop
 - Deployment
 - Kubernetes



1.22 Release roadmap

- Next to major feature development, focus this release on
 - Kubernetes
 - ATLAS wants to go into production with K8s Rucio within this release
 - Documentation
 - As discussed at the Coding Camp
 - This needs real dedicated effort
 - Please contact me if you want to contribute
 - Reduce issues
 - Cleanup outdated old issues
 - Implement small issues, low hanging fruits

Accounting & Dumps [0 open issues]

@tbeerman



Legend:

- Priority task for this release
- Non-priority task / Idea
- Done

Authentication [1 → 5]

@massnig, @gumond



- Ongoing: Open ID connect [#2612](#)
 - Extend authentication to OIDC
- Compatibility testing with EduGain
 - OIDC includes that, need to get EduGain key

Clients [30 → 30]

@massnig, @TomasJavurek



- Raise an exception in case of server timeout [#1152](#)
- Many tickets
 - @massnig, @TomasJavurek please cleanup and follow-up tickets if they are still needed

Consistency checks [3 → 4]

@TomasJavurek, @dchristidis



- **Support for object stores**
- Only work for DISK now. Would need it for TAPE too [#366](#)
 - With tapes this should not be done automatically
 - Not a priority
- Replica listing via xroot

Core & Internals [35 → 40]

@bari12, @mlassnig



- Rucio.cfg vs Rucio config table [#2630](#)
- History table definition explicitly (No Versioned models) [#2063](#)
- Ongoing: MultiVO features [#2635](#)
- Metadata Unification [#3096](#)
- Many open tickets
 - @bari12, @mlassnig please cleanup
- Switch from web.py to flask
 - Complicated; Was discussed at coding camp and decision was made to do that
 - Looking for interested developer
- Finish up Import/Export for CRIC

Data Pre-Placement [3 → 3]

@tbeerman



- Currently not used
 - Will be discussed in future Dev Meeting
 - Needs to be generic for other Communities

Dataset deletion [1 → 1] @bari12



Deletion [13 → 12]

@tbeerman, @cserf



- **Reaper 2.0 [#2412](#)**
 - Almost done, SKIP Locked query needs to be addressed
- **Relax protection of sources [#1637](#)**
- **Fill contents history when deleting last replica [#37](#)**
- **Archive Handling in Reaper [#1431](#)**
- **Reaper protection in case of Judge-Evaluator backlog [#1578](#)**
- **Exclude temporary rse with timeout to not slow down the overall deletion rate [#528](#)**
 - Right now run hospital reaper

Documentation [2 → 8]

@bari12



- Documentation for configuration parameters [#2631](#)
 - Config table
 - RSE Attributes
- Operators documentation / recipes [#2636](#)
-

Functional tests [1 → 1]

@cserf



Infrastructure [5 → 7]

@tbeerman, @mlassnig



- Expand Kubernetes usage
- Automatic scaling of kubernetes daemons

Lifetime model [0 → 1]

@cserf



- Improve WebUI
- Introduce Follower mode

Messaging [1 → 1]

@massnig



Monitoring & Logging [0 → 3]

@tbeerman



- Logging of POST parameters
 - Core pushes to elastic or debug?
- Tracking what happened with a did [#2637](#)

Probes & Alarms [6 → 4]

@dchristidis



- ~~XCache config table population add to probe~~ [#2638](#)
- Long Term: Moving away from Nagios probes

Rebalancing [1 → 1]

@TomasJavurek



- Needs better configuration and get rid of hard-coded entries
- Improvements to BB8

Recovery [1 → 2]

@cserf, @TomasJavurek



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

Release management [7 → 7]

@bari12



- Better way to deal with configuration/permissions (entry point, configuration.py, ...) [#533](#)
 - @james-epcc is this doable for the 1.22 release?
- Consistent headers for each source file [#534](#)
- Investigate different code management model
 - Separate branches for each release line
 - Single PRs against specific branch instead of double PRs

RSE Manager & Protocols [5 → 5]

@TomasJavurek, @TWAtGH



- **Overhaul of RSE Manager**
 - @TomasJavurek
- RSE Manager should have a better separation between client/server

Rules [12 → 12]

@bari12



- Transparent handling of archives with rules [#1091](#)
- ~~Global Quotas~~ [#2315](#)
- Possibility to inject rules delayed [#2639](#)
- 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](#)
- Long/Medium term: Mega rule support
- Possibility of a rule dry-run

Subscriptions [0 → 0]

@cserf



- Include the creation of delayed rules in subscriptions

Testing [7 → 4]

@bari12



- ~~3.5 tests for server~~
 - ~~@haha~~
- ~~Instaclient removal from github?~~
- ~~Improve oracle test crashes [#2588](#)~~
- ~~Python 3.5 for server~~
- ~~Python 3.6 for clients~~
- Python 3.6 for server

Traces [4 → 4]

@tbeerman



Transfers [21 → 19]

@bari12, @cserf



- ~~Changes for CTA transfer handling [#2632](#)~~
- ~~Source throttling [#2611](#)~~
- ~~Activity exclusion for submitter [#2640](#)~~
- Problems with receiver (multi source) @bari12 [#704](#)
- New Daemon to dynamically adapt ranking
 - Failed transfers, queue sizes
 - Check if FTS algorithm can do some of this

WebUI [17 → 15]

@tbeerman



- ~~SSO~~ [#2306](#)
 - ~~GSOE~~
- ~~user/pass authentication for webui~~ [#2614](#)
 - ~~GSOE~~
- Get SSO login into production



More information

Website



<http://rucio.cern.ch>

Documentation



<https://rucio.readthedocs.io>

Repository



<https://github.com/rucio/>

Images



<https://hub.docker.com/r/rucio/>

Online support



<https://rucio.slack.com/messages/#support/>

Developer contact



rucio-dev@cern.ch

Publications



<https://rucio.cern.ch/publications.html>

Twitter



<https://twitter.com/RucioData>