

# MONITORING RUCIO

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**ERALDO SILVA JUNIOR**

**The Brazilian Center for Research in Physics(CBPF)**

Rio de Janeiro - Brazil

# CBPF - GRID

T2 site

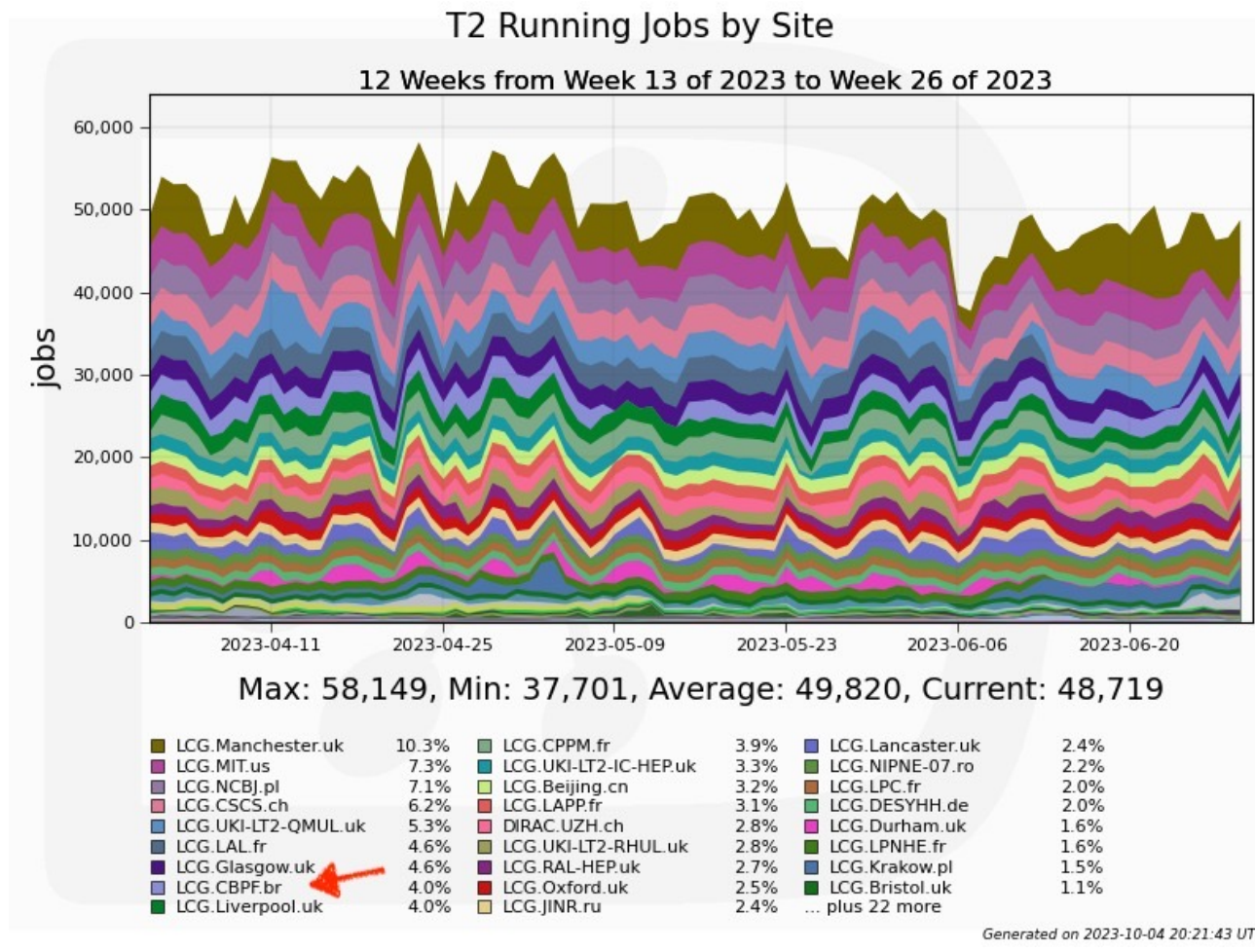
71 machines

6200 cores\*

LHCb

ALICE

DUNE



# CBPF



CBPF location

# National Institute of Science and Technology CERN-Brazil (INCT)

Instituto Nacional de Ciência e Tecnologia  
de Física de Altas Energias CERN-Brasil

*GT – 05 Infraestrutura Computacional*

Jaime Fernandes  
Coordenação - CBPF  
Equipe: Ailton Silva, Orlanna Lopes, Vânia Martins;

Rogério Iope  
Coordenação – UNESP  
Equipe: Jadir Marra, Márcio Antônio.

- *Computação em nuvem.*
- *Interligação com a nuvem do EGI.*

*The In addition to supporting fundamental research in Physics, valuing its researchers on the international stage and scientific dissemination.*



# Brazil to become an Associate Member State of CERN

## Brazil to become an Associate Member State of CERN

On 3 March 2022, CERN Director-General Fabiola Gianotti and Brazilian Minister for Science, Technology and Innovation Marcos Pontes signed an agreement admitting Brazil as an Associate Member State of CERN

12 APRIL, 2022



CERN Director-General Fabiola Gianotti and Brazilian Minister for Science, Technology and Innovation Marcos Pontes (Image: CERN)

[Link here](#)

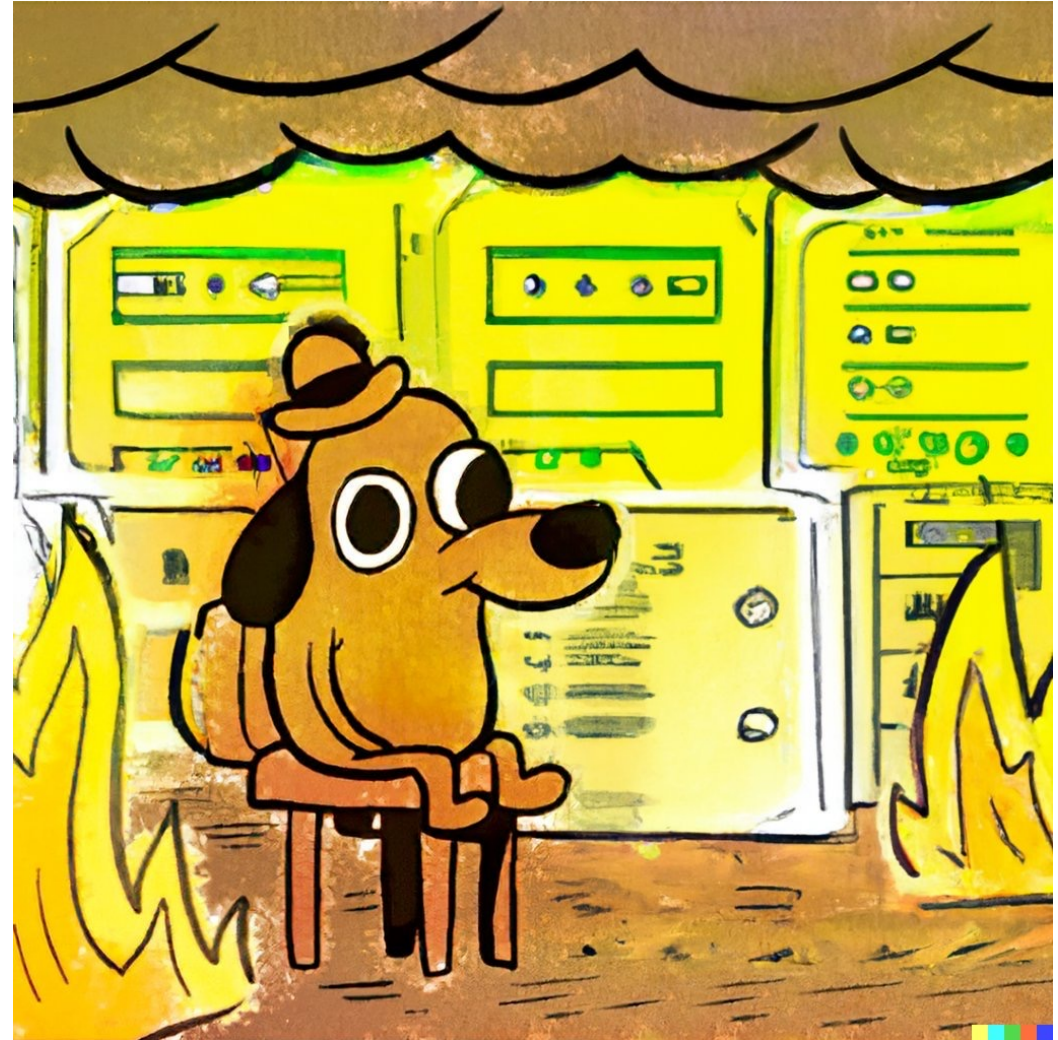
# MONITORING RUCIO

We rely on the monitoring every single day to answer two very distinct questions:



# MONITORING RUCIO

☒ everything working well?



Credits: [@OpenAI DALL-E](#)

# MONITORING RUCIO

What is this thing that is failing ?



Credits: [@OpenAI](#) DALL·E



# MONITORING RUCIO



**Our internal monitoring provides information on Rucio itself (i.e. internal).**

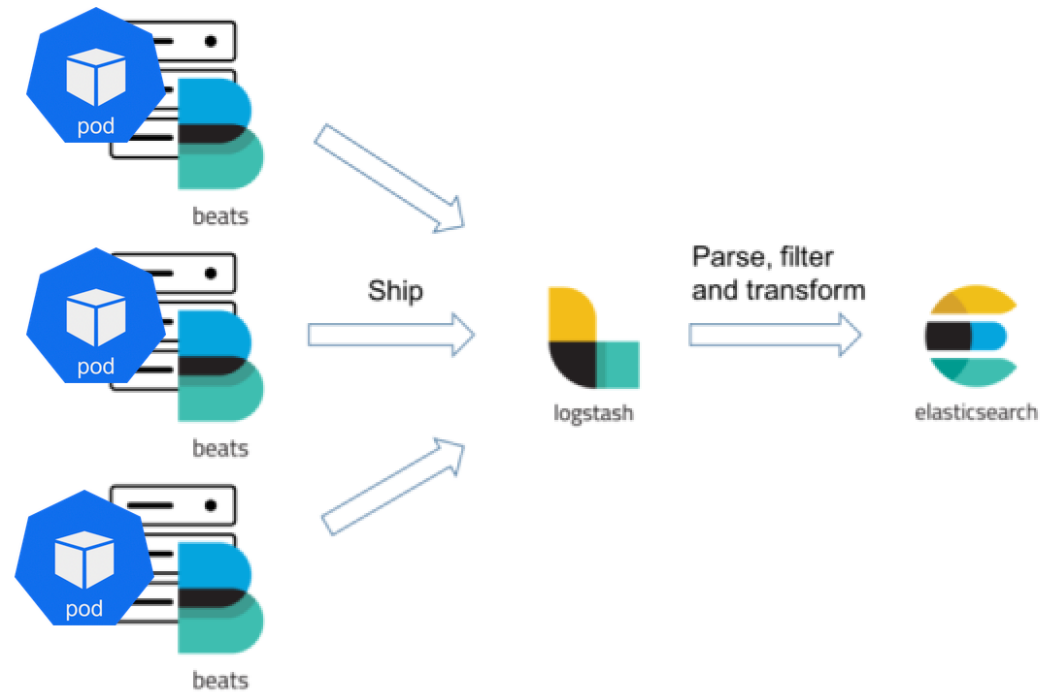
**The DDM transfers monitoring provides information for our RSEs (i.e. external).**

*Stuff breaks all the time; both monitoring sources help us identify issues and potentially take an action.*

# Rucio Internal monitoring

## Logs:

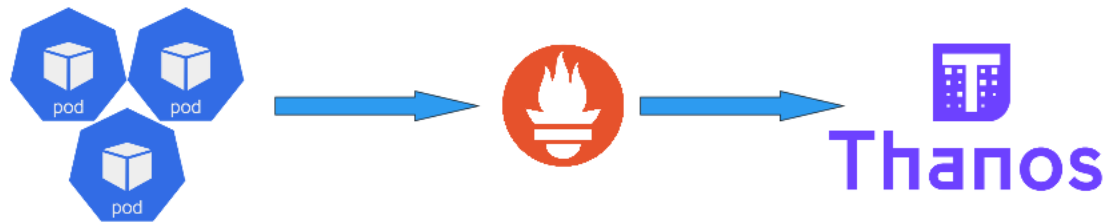
They are collected by beats, which ships the logs to logstash which parse, filter and transform.



# Rucio Internal monitoring

## Kubernetes:

Prometheus get metrics from each pod and push to Thanos for cross cluster monitoring.



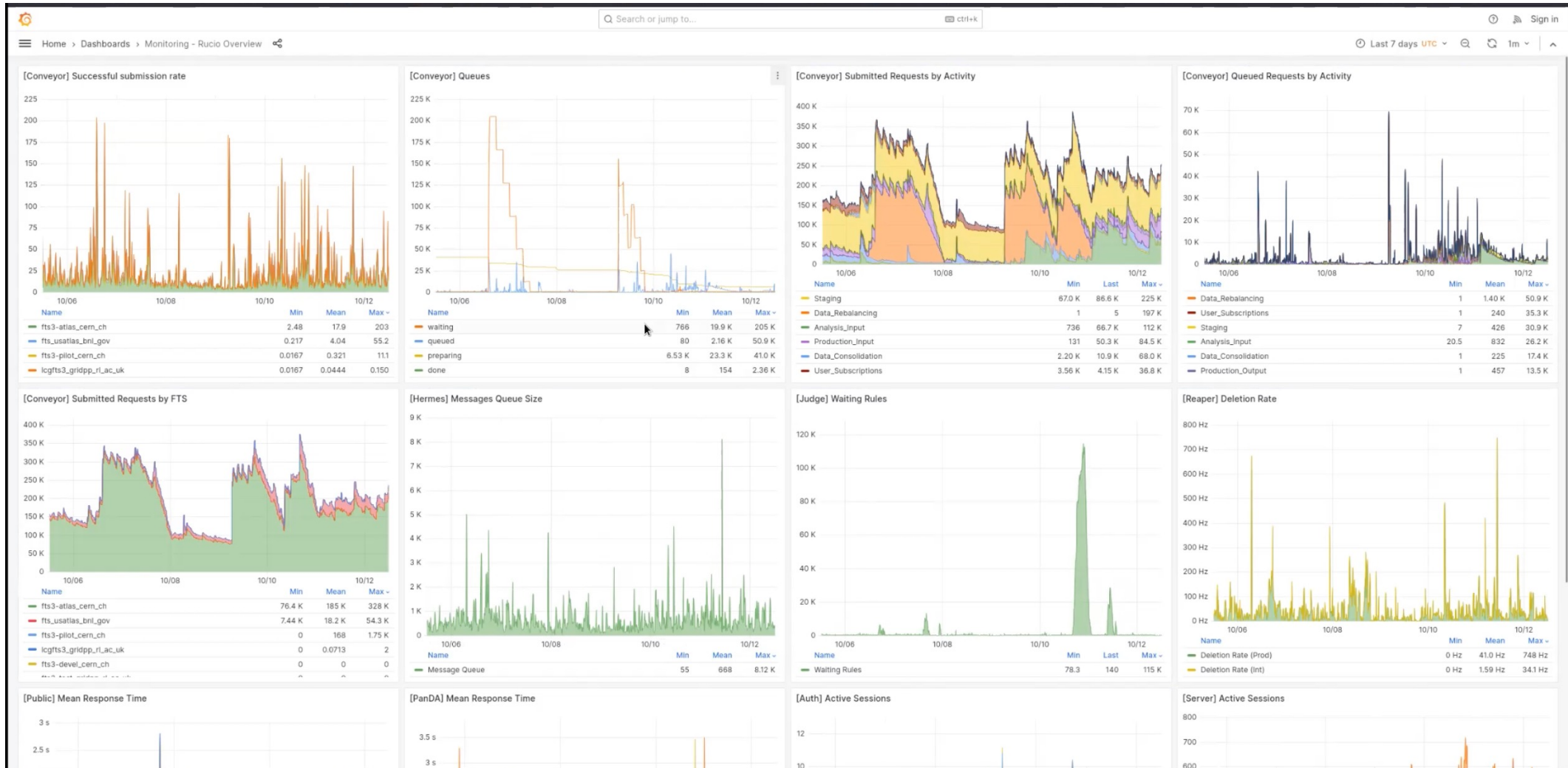
# Rucio Internal monitoring Dashboards

## - Thanos DS

The screenshot displays a list of monitoring dashboards under the 'General' category. Each dashboard entry includes a title, a 'General' sub-link, and a set of colored buttons representing different monitoring components.

Dashboard Title	Sub-link	Monitoring Components
Monitoring - ADC Live Rucio	General	Rucio, ADC
Monitoring - Automatix	General	Rucio, Automatix
Monitoring - Conveyor	General	Rucio, Conveyor, preparer, throttler, submitter, stager, receiver, poller, finisher
Monitoring - Judge	General	Rucio, Judge, replication rules
Monitoring - Kronos	General	Rucio, tracer, time, replica
Monitoring - Necromancer	General	Rucio, Necromancer, Bad replicas
Monitoring - Requests	General	Rucio, Requests, Activity, State
Monitoring - Rucio Overview	General	Rucio, overview
Monitoring - Transmogrifier	General	Rucio, replication rules
Monitoring - Undertaker	General	Rucio, Undertaker, expired DIDs

# Rucio Internal monitoring Dashboard



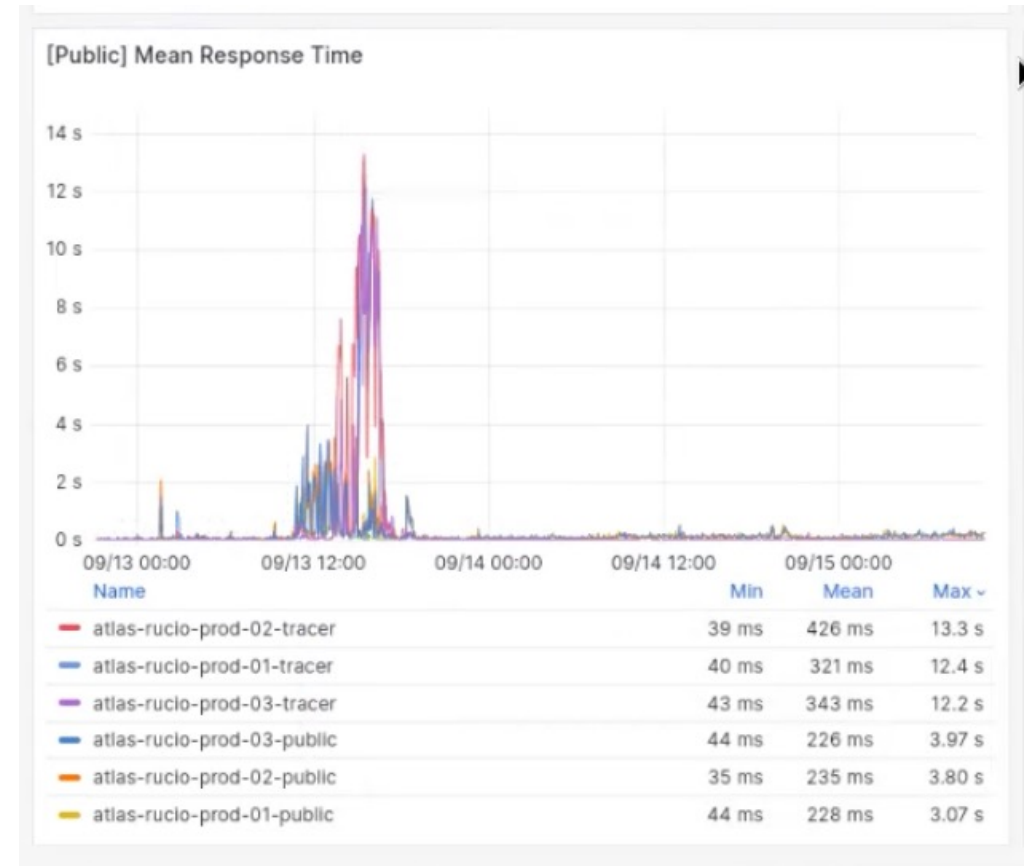
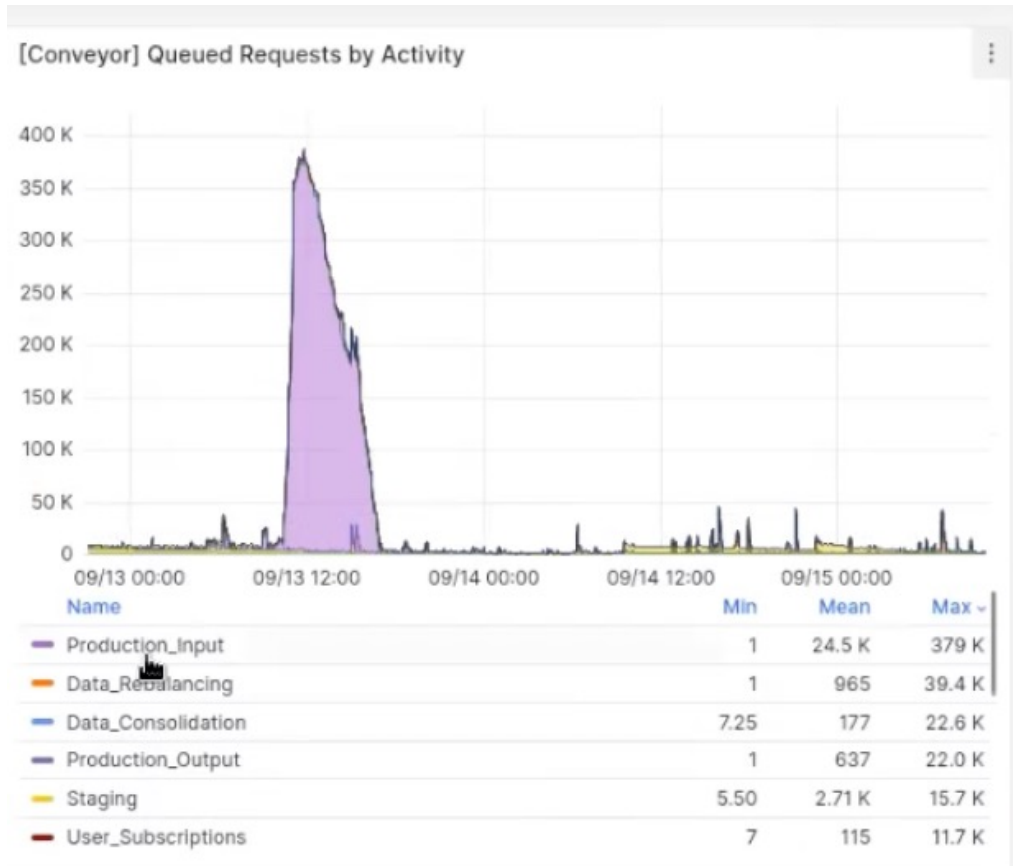
# Rucio Internal monitoring



- Data rebalance procedure

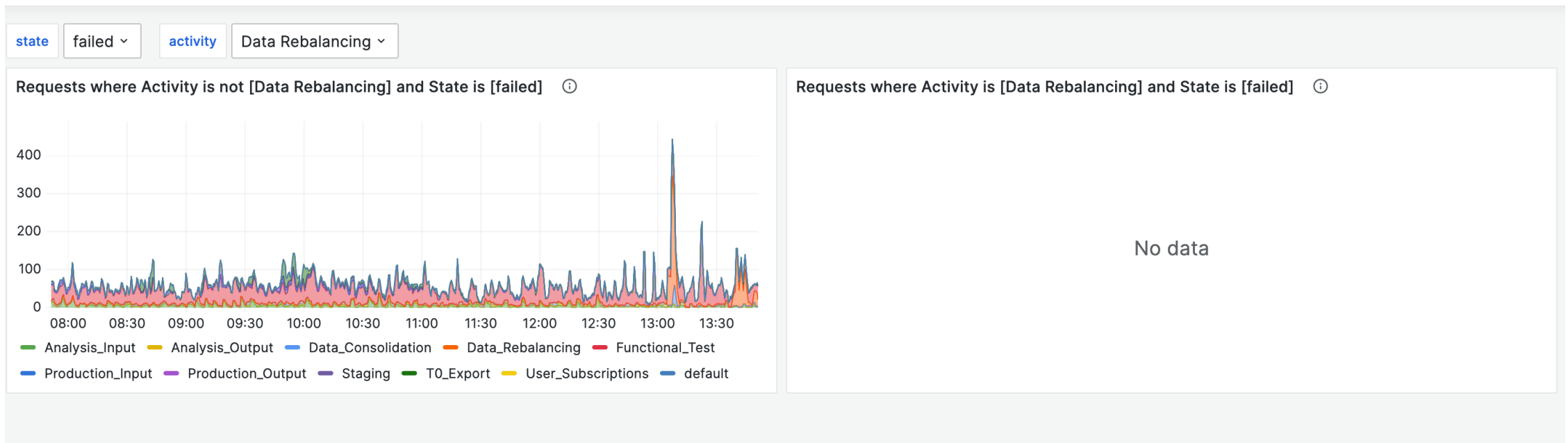
Submitted transfer requests below 200K, the others are kept waiting by the Conveyor Throttler

# Rucio Internal monitoring



## Health Check

# Rucio Internal monitoring



## Requests by Activity filters



# DDM storage monitoring

Dashboard BigPanda Transfers Rucio HC **Storage** Pilots CERN Satellites Services Front

ALL TAPE 2 28

NUCLEUS DATA 7 26 NUCLEUS SCRATCH 33

TIER-0 DATA 1 TIER-0 SCRATCH 1

TIER-1 DATA 1 10 TIER-1 SCRATCH 11

TIER-2 DATA 6 1 42 TIER-2 SCRATCH 1 48

TIER: ALL NUCLEUS T0 T1 T2 T3 ENDPOINT:

ALL TAPE DATA SCRATCH SPECIAL GROUP LOCALGROUP

- ADC live page

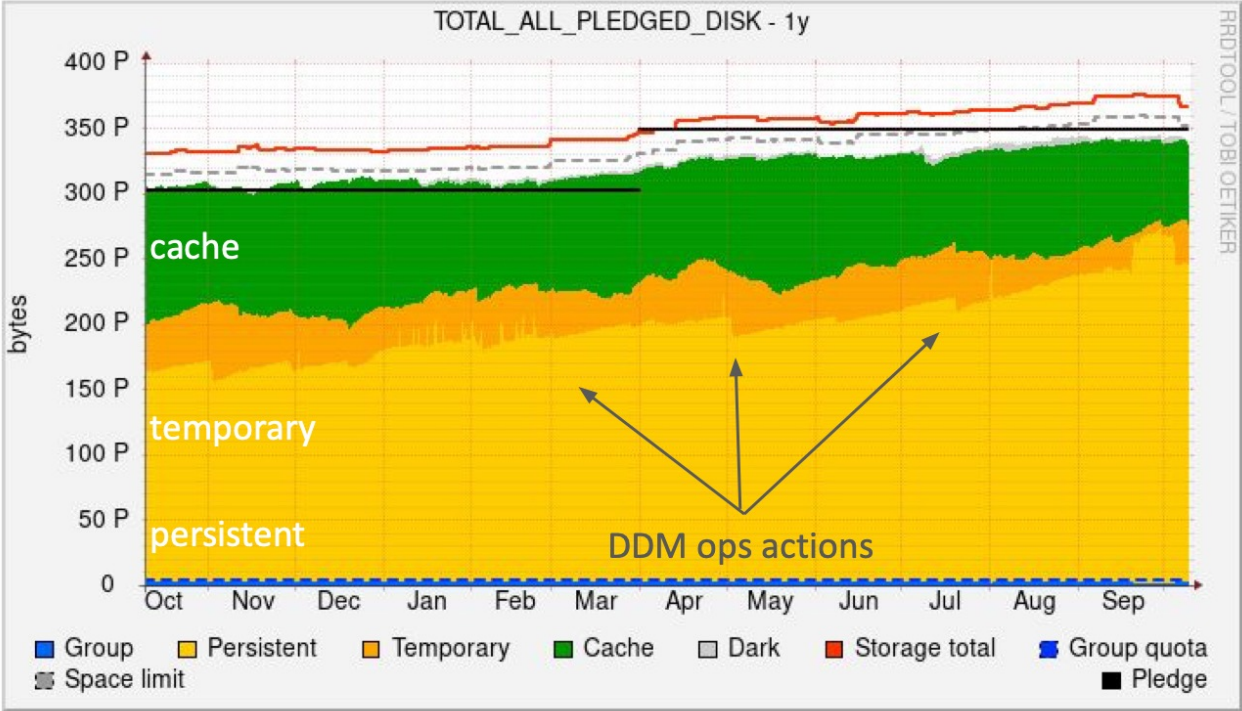
Used by the shifter  
To have a glance of  
the state of the  
storage occupancy

Search:

Disk	Site	Total (TB)	Sec (TB)	Free (TB)	Limit (TB)	Diff (TB)	Del (%)
SARA-MATRIX_DATADISK	SARA-MATRIX	5171	0	129.5	300.00	-170.52	100.0
DESY-ZN_DATADISK	DESY-ZN	2750	0	120.7	275.00	-154.32	100.0
UNI-FREIBURG_DATADISK	UNI-FREIBURG	2900	0	165.4	290.00	-124.58	100.0
INFN-ROMA1_DATADISK	INFN-ROMA1	1594	0	77.9	159.43	-81.55	99.9
DESY-HH_DATADISK	DESY-HH	2832	0	228.6	283.24	-54.63	100.0
LRZ-LMU_DATADISK	LRZ-LMU	2701	0	253.6	270.08	-16.50	100.0
UAM-LCG2_DATADISK	UAM-LCG2	1144	0	101.1	114.42	-13.28	100.0

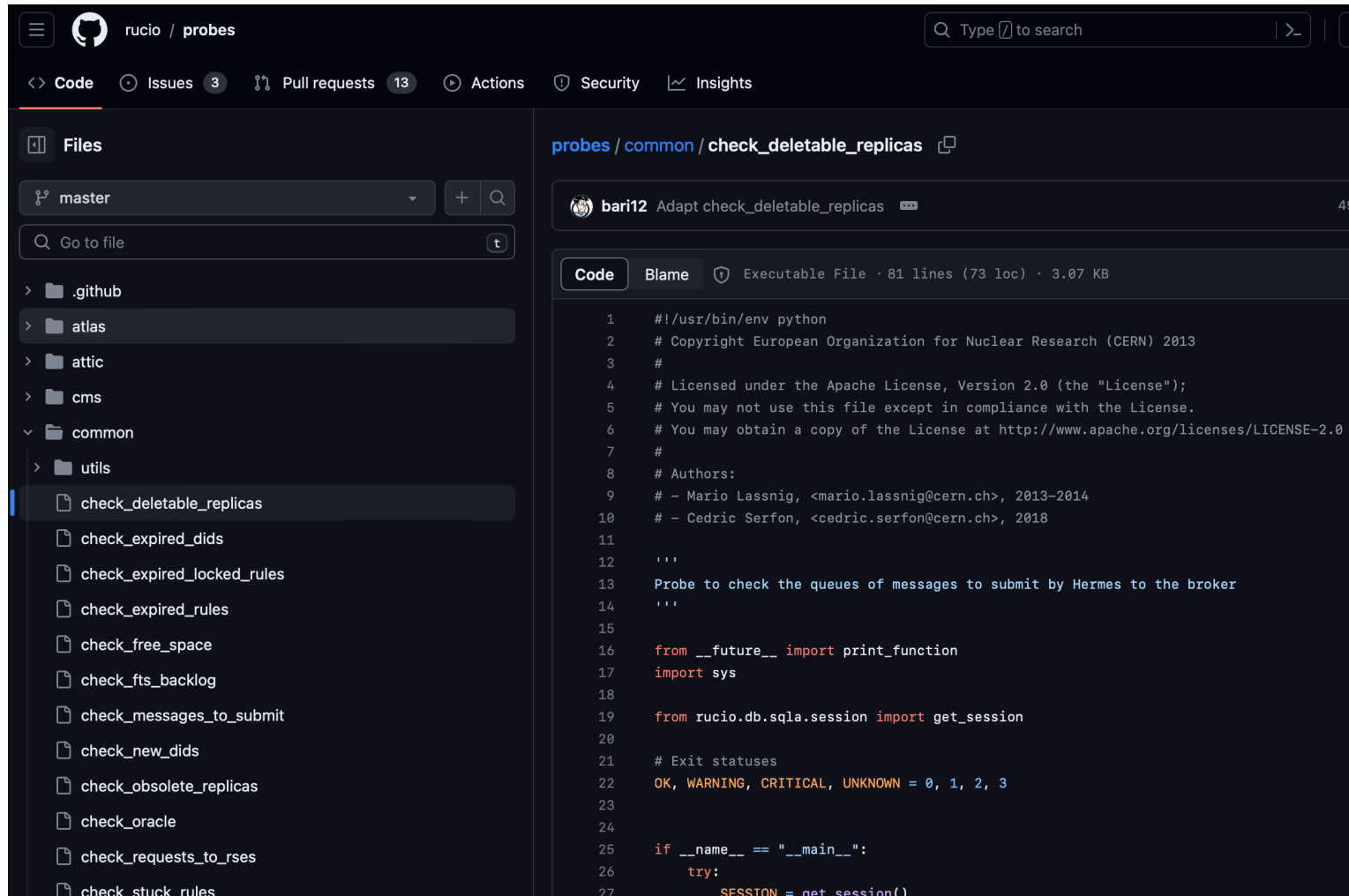


# DDM storage monitoring



## DDM operation campagne

# MONITORING RUCIO



The screenshot shows a GitHub repository for 'rucio / probes'. The left sidebar displays a file tree with folders like '.github', 'atlas', 'attic', 'cms', 'common', and 'utils'. The 'common' folder is expanded, showing several files including 'check\_deletable\_replicas'. The main content area shows the code for 'check\_deletable\_replicas' by user 'bari12'. The code is a Python script that checks the queues of messages to submit by Hermes to the broker. It includes a license header and imports necessary modules like 'print\_function' and 'sys'.

```
1  #!/usr/bin/env python
2  # Copyright European Organization for Nuclear Research (CERN) 2013
3  #
4  # Licensed under the Apache License, Version 2.0 (the "License");
5  # You may not use this file except in compliance with the License.
6  # You may obtain a copy of the License at http://www.apache.org/licenses/LICENSE-2.0
7  #
8  # Authors:
9  # - Mario Lassnig, <mario.lassnig@cern.ch>, 2013-2014
10 # - Cedric Serfon, <cedric.serfon@cern.ch>, 2018
11
12 '''
13 Probe to check the queues of messages to submit by Hermes to the broker
14 '''
15
16 from __future__ import print_function
17 import sys
18
19 from rucio.db.sqla.session import get_session
20
21 # Exit statuses
22 OK, WARNING, CRITICAL, UNKNOWN = 0, 1, 2, 3
23
24
25 if __name__ == "__main__":
26     try:
27         SESSION = get_session()
```

**Nagios®**



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

Common Nagios probes to monitor Rucio

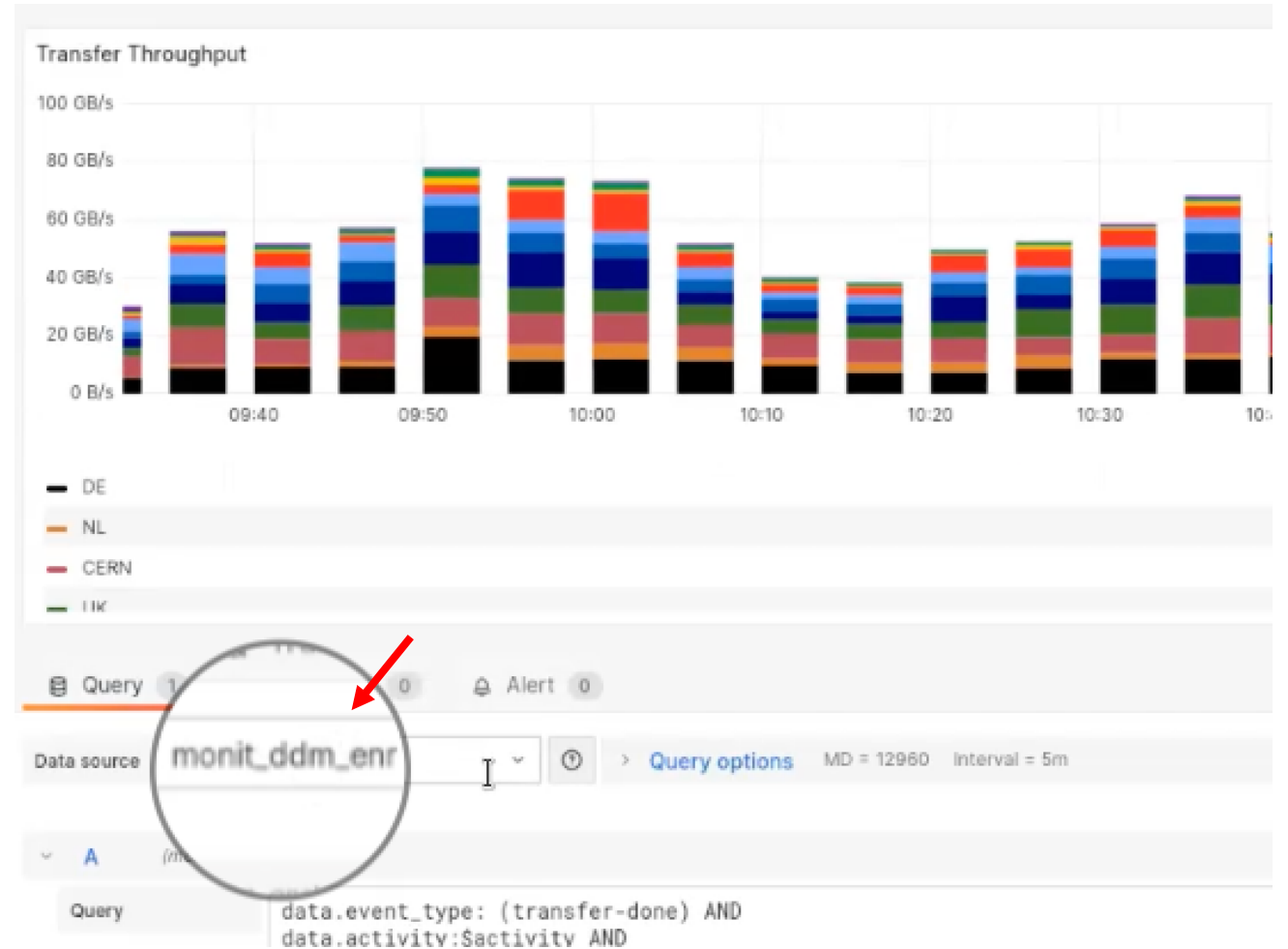
# DDM transfers monitoring

Rucio Data Source `monit_ddm_enrich`

MONIT



Computing Resource Information Catalog



# DDM transfers monitoring

Home > Dashboards > DDM Monitoring > DDM Transfers

Binning: auto | Group by: activity | Activity: Analysis Input + Data Consolidation + Data Rebalancing + Data reb... | Protocol: All | Src tier: All | Src country: All | Src cloud: All | Src site: All | Dst site: All | Dst endpoint: All | Dst token: All | Include endpoints: Enter variable value | Exclude endpoints: none | Dst rows: dst\_cloud | Src columns: src\_cloud

Selected (1)

- All
- AGLT2
- BEIJING-LCG2
- BNL-ATLAS
- BNLHPC
- CA-SFU-T2
- CA-VICTORIA-WESTGRID-T2
- CA-WATERLOO-T2
- CERN-PROD
- CSCS-LCG2
- CYFRONET-LCG2
- DESY-HH
- DESY-ZN
- EELA-UTFSM

ATLAS Theme | ATLAS Theme (compact legend) | Default | Grafana Dark

> Overview & Help (1 panel)

> Matrix (Efficiency) (1 panel)

> Matrix (Failures) (1 panel)

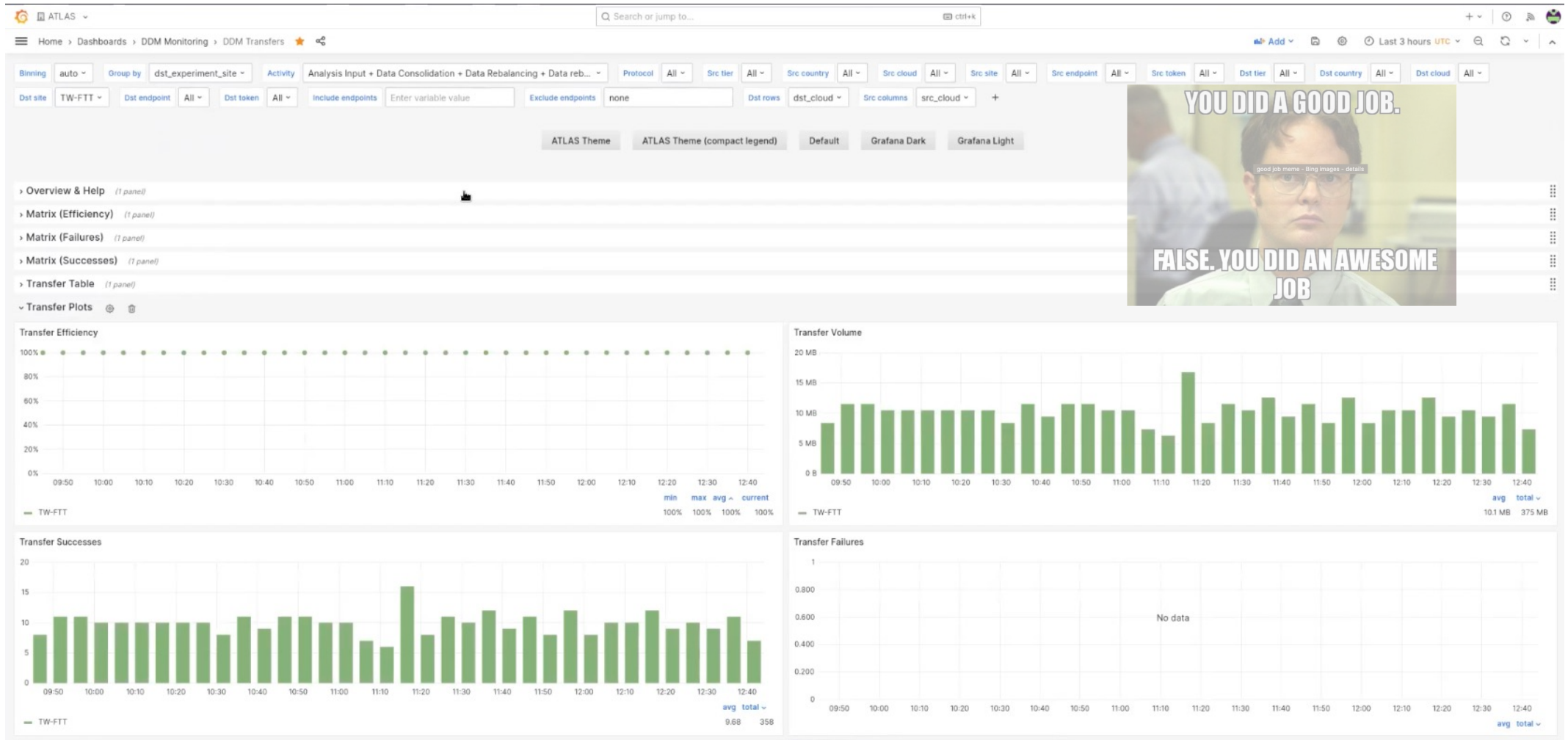
> Matrix (Successes) (1 panel)

> Transfer Table (1 panel)

> Transfer Plots (6 panels)

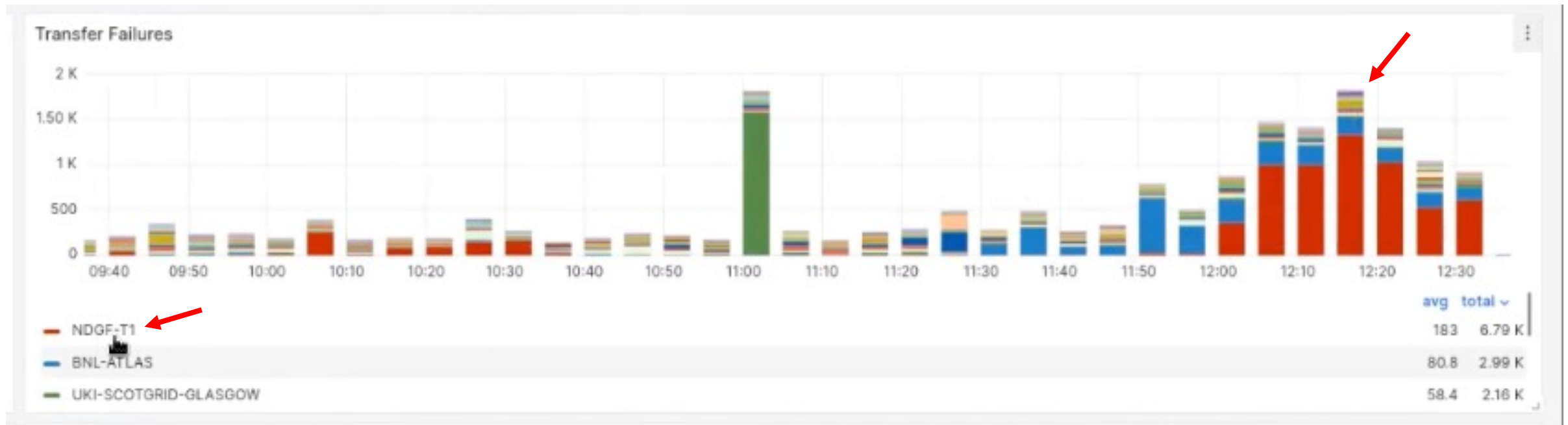
> Transfer Errors (1 panel)

# DDM transfers monitoring



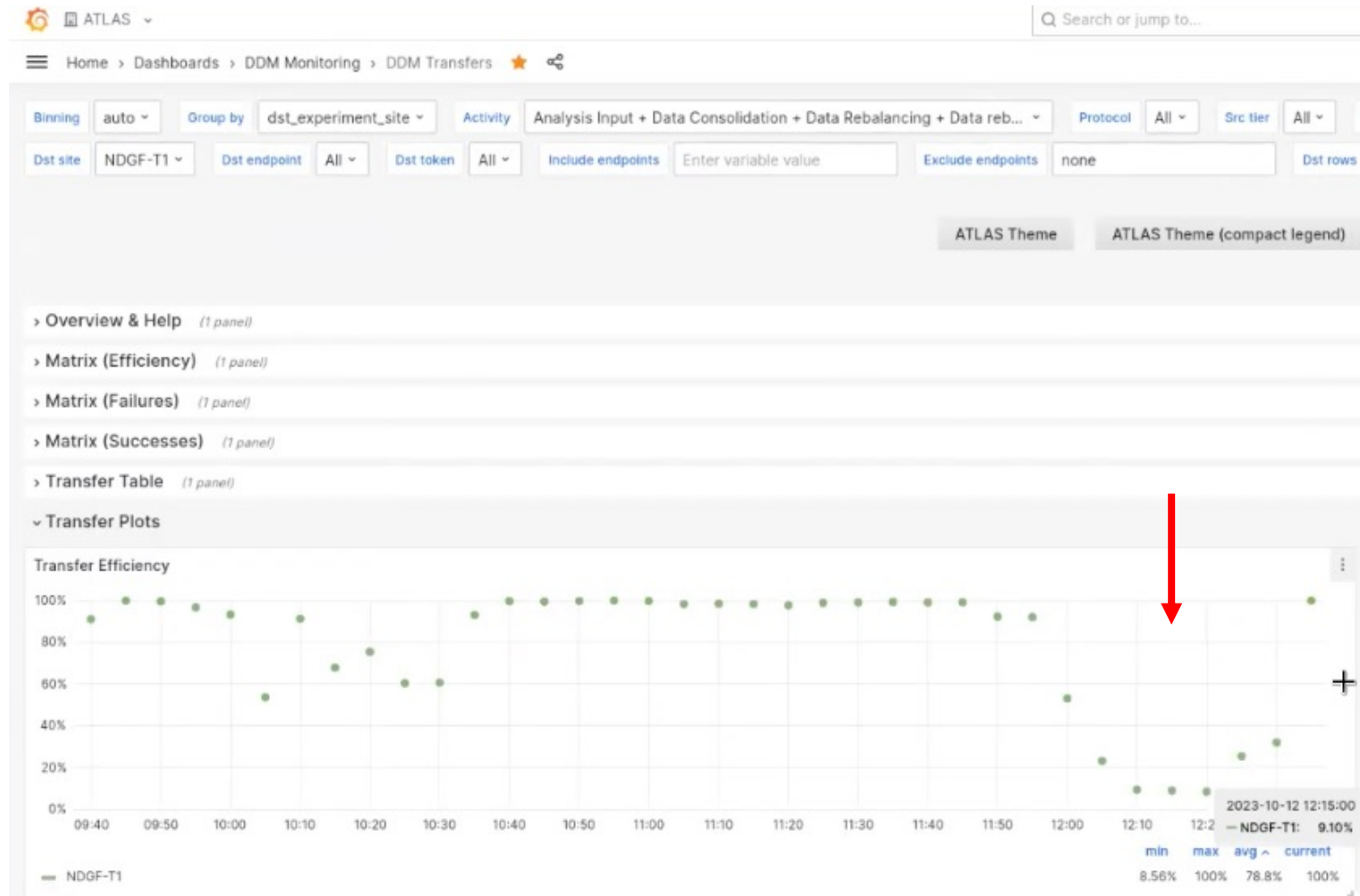
# DDM transfers monitoring

## Transfer Failures overview



# DDM transfers monitoring

Transfer efficiency





# DDM transfers monitoring

## Transfers monitoring



### Transfer Errors

#### Error Overview

data.purged\_reason

TRANSFER ERROR: Copy failed (3rd pull). Last attempt: copy curl error (18): Transferred a partial file

Count

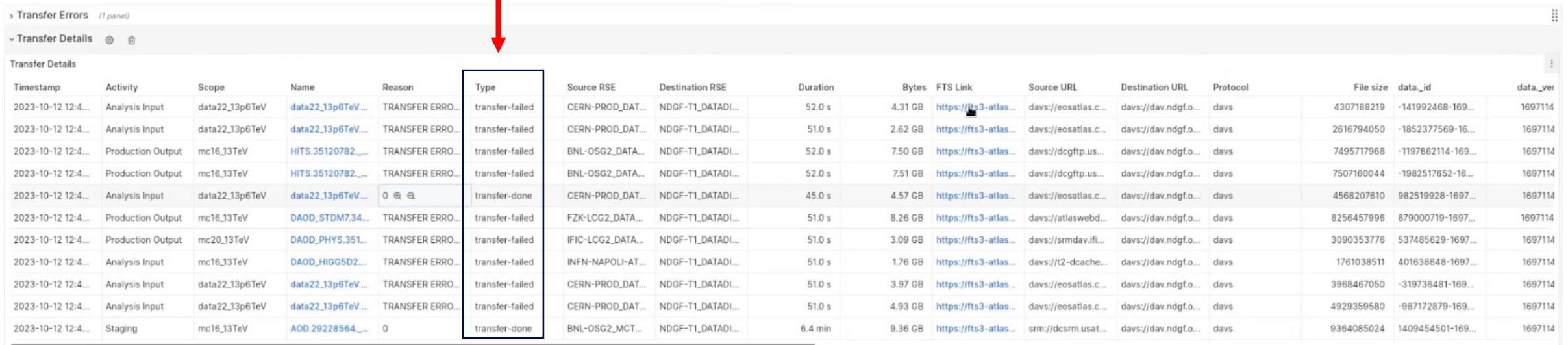
6.38 K

# DDM transfers monitoring

## Transfers details

> Transfer Errors (1 panel)

Transfer Details



Timestamp	Activity	Scope	Name	Reason	Type	Source RSE	Destination RSE	Duration	Bytes	FTS Link	Source URL	Destination URL	Protocol	File size	data_id	data_ver
2023-10-12 12:4...	Analysis Input	data22_13p6TeV	data22_13p6TeV...	TRANSFER ERRO...	transfer-failed	CERN-PROD_DAT...	NDGF-T1_DATADI...	52.0 s	4.31 GB	<a href="https://fts3-atlas...">https://fts3-atlas...</a>	davs://eosatlas.c...	davs://dav.ndgf.o...	davs	4307188219	-141992468-169...	1697114
2023-10-12 12:4...	Analysis Input	data22_13p6TeV	data22_13p6TeV...	TRANSFER ERRO...	transfer-failed	CERN-PROD_DAT...	NDGF-T1_DATADI...	51.0 s	2.62 GB	<a href="https://fts3-atlas...">https://fts3-atlas...</a>	davs://eosatlas.c...	davs://dav.ndgf.o...	davs	2616794050	-1852377569-16...	1697114
2023-10-12 12:4...	Production Output	mc16_13TeV	HITS.35120782_...	TRANSFER ERRO...	transfer-failed	BNL-OSG2_DATA...	NDGF-T1_DATADI...	52.0 s	7.50 GB	<a href="https://fts3-atlas...">https://fts3-atlas...</a>	davs://dcgftp.us...	davs://dav.ndgf.o...	davs	7495717968	-1197862114-169...	1697114
2023-10-12 12:4...	Production Output	mc16_13TeV	HITS.35120782_...	TRANSFER ERRO...	transfer-failed	BNL-OSG2_DATA...	NDGF-T1_DATADI...	52.0 s	7.51 GB	<a href="https://fts3-atlas...">https://fts3-atlas...</a>	davs://dcgftp.us...	davs://dav.ndgf.o...	davs	7507160044	-1982517652-16...	1697114
2023-10-12 12:4...	Analysis Input	data22_13p6TeV	data22_13p6TeV...	0 @ @ @	transfer-done	CERN-PROD_DAT...	NDGF-T1_DATADI...	45.0 s	4.57 GB	<a href="https://fts3-atlas...">https://fts3-atlas...</a>	davs://eosatlas.c...	davs://dav.ndgf.o...	davs	4568207610	982519928-1697...	1697114
2023-10-12 12:4...	Production Output	mc16_13TeV	DAOD_STDM7.34...	TRANSFER ERRO...	transfer-failed	FZK-LCG2_DATA...	NDGF-T1_DATADI...	51.0 s	8.26 GB	<a href="https://fts3-atlas...">https://fts3-atlas...</a>	davs://atlaswebd...	davs://dav.ndgf.o...	davs	8256457996	879000719-1697...	1697114
2023-10-12 12:4...	Production Output	mc20_13TeV	DAOD_PHYS.351...	TRANSFER ERRO...	transfer-failed	IFIC-LCG2_DATA...	NDGF-T1_DATADI...	51.0 s	3.09 GB	<a href="https://fts3-atlas...">https://fts3-atlas...</a>	davs://srmfav.ifi...	davs://dav.ndgf.o...	davs	3090353776	537485629-1697...	1697114
2023-10-12 12:4...	Analysis Input	mc16_13TeV	DAOD_HIGGS5D2...	TRANSFER ERRO...	transfer-failed	INFN-NAPOLI-AT...	NDGF-T1_DATADI...	51.0 s	1.76 GB	<a href="https://fts3-atlas...">https://fts3-atlas...</a>	davs://t2-dcache...	davs://dav.ndgf.o...	davs	1761038511	401638648-1697...	1697114
2023-10-12 12:4...	Analysis Input	data22_13p6TeV	data22_13p6TeV...	TRANSFER ERRO...	transfer-failed	CERN-PROD_DAT...	NDGF-T1_DATADI...	51.0 s	3.97 GB	<a href="https://fts3-atlas...">https://fts3-atlas...</a>	davs://eosatlas.c...	davs://dav.ndgf.o...	davs	3968467050	-319736481-169...	1697114
2023-10-12 12:4...	Analysis Input	data22_13p6TeV	data22_13p6TeV...	TRANSFER ERRO...	transfer-failed	CERN-PROD_DAT...	NDGF-T1_DATADI...	51.0 s	4.93 GB	<a href="https://fts3-atlas...">https://fts3-atlas...</a>	davs://eosatlas.c...	davs://dav.ndgf.o...	davs	4929359580	-987172879-169...	1697114
2023-10-12 12:4...	Staging	mc16_13TeV	AOD.29228564_...	0	transfer-done	BNL-OSG2_MCT...	NDGF-T1_DATADI...	6.4 min	9.36 GB	<a href="https://fts3-atlas...">https://fts3-atlas...</a>	srm://dcsrm.usat...	davs://dav.ndgf.o...	davs	9364085024	1409454501-169...	1697114

# DDM transfers monitoring

Transfers details => UI

Transfer Details								
Timestamp	Activity	Scope	Name	Reason	Type	Source RSE	Destination RSE	Duration
2023-10-12 12:4...	Analysis Input	data22_13p6TeV	<a href="#">data22_13p6TeV...</a>	TRANSFER ERRO...	transfer-failed	CERN-PROD_DAT...	NDGF-T1_DATADI...	52.0 s
2023-10-12 12:4...	Analysis Input	data22_13p6TeV	<a href="#">data22_13p6TeV.00430897.physics_Main.merge.AOD.f1259_m2118_lb0073_0003.1</a>				NDGF-T1_DATADI...	51.0 s
2023-10-12 12:4...	Production Output	mc16_13TeV	<a href="#">HITS.35120782_...</a>	TRANSFER ERRO...	transfer-failed	BNL-OSG2_DATA...	NDGF-T1_DATADI...	52.0 s
2023-10-12 12:4...	Production Output	mc16_13TeV	<a href="#">HITS.35120782_...</a>	TRANSFER ERRO...	transfer-failed	BNL-OSG2_DATA...	NDGF-T1_DATADI...	52.0 s
2023-10-12 12:4...	Analysis Input	data22_13p6TeV	<a href="#">data22_13p6TeV...</a>	0	transfer-done	CERN-PROD_DAT...	NDGF-T1_DATADI...	45.0 s
2023-10-12 12:4...	Production Output	mc16_13TeV	<a href="#">DAOD_STDM7.34...</a>	TRANSFER ERRO...	transfer-failed	FZK-LCG2_DATA...	NDGF-T1_DATADI...	51.0 s
2023-10-12 12:4...	Production Output	mc20_13TeV	<a href="#">DAOD_PHYS.351...</a>	TRANSFER ERRO...	transfer-failed	IFIC-LCG2_DATA...	NDGF-T1_DATADI...	51.0 s
2023-10-12 12:4...	Analysis Input	mc16_13TeV	<a href="#">DAOD_HIGG5D2...</a>	TRANSFER ERRO...	transfer-failed	INFN-NAPOLI-AT...	NDGF-T1_DATADI...	51.0 s
2023-10-12 12:4...	Analysis Input	data22_13p6TeV	<a href="#">data22_13p6TeV...</a>	TRANSFER ERRO...	transfer-failed	CERN-PROD_DAT...	NDGF-T1_DATADI...	51.0 s
2023-10-12 12:4...	Analysis Input	data22_13p6TeV	<a href="#">data22_13p6TeV...</a>	TRANSFER ERRO...	transfer-failed	CERN-PROD_DAT...	NDGF-T1_DATADI...	51.0 s
2023-10-12 12:4...	Staging	mc16_13TeV	<a href="#">AOD.29228564_...</a>	0	transfer-done	BNL-OSG2_MCT...	NDGF-T1_DATADI...	6.4 min

# DDM transfers monitoring

## Transfers monitoring

### Transfer '6b04a402-68c8-11ee-9895-fa163e017123' FAILED

VO: atlas

Delegation ID: bad9d909de813e31  
Submitted time: 2023-10-12T06:27:29Z  
Job finished: 2023-10-12T12:40:12Z  
Priority: 3  
Bring online: 604800  
Archive timeout: -1

Received by fts-atlas-003.cern.ch  
Job expires: 2023-10-19T06:27:29Z  
Overwrite flag: Y  
Job type: H  
Cancel flag:  
Pin lifetime: -1  
Target QoS:

Metadata:

{"issuer": "rucio", "multi\_sources": false, "multihop": true, "auth\_method": "certificate"}

Files transferred	Bytes transferred	Submission time	Start time	Running time	Avg. file throughput	Current job throughput
1 out of 2	4.01 GiB	2023-10-12T06:27:29Z	2023-10-12T06:28:16Z (+47s)	11156 s	58.41 MiB/s	-

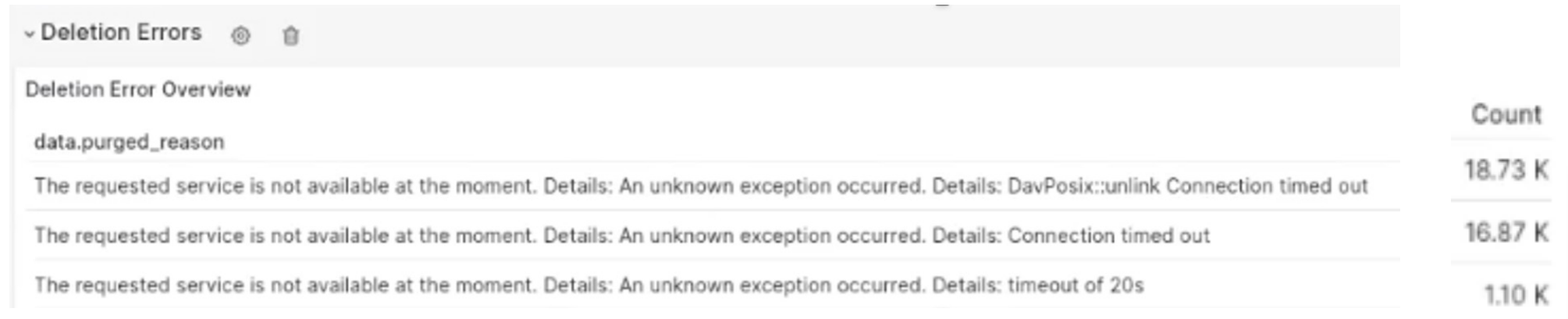
Showing 1 to 2 out of 2

SUBMITTED DELETE READY STAGING ARCHIVING ACTIVE STARTED CANCELED 1 FAILED 1 FINISHED NOT\_USED

First Previous 1 Next Last

File ID	File State	File Size	Throughput	Remaining	Start Time	Finish Time	Staging Start	Staging End	Archiving Start	Archiving End	Log
+ 5719106117	FINISHED	4.01 GiB	58.41 MiB/s	-	2023-10-12T09:32:36Z	2023-10-12T09:34:12Z	2023-10-12T06:28:16Z	2023-10-12T09:32:29Z	-	-	<a href="#">Log</a>
davs://eosctaatas.cern.ch:8444/eos/ctaatas/archive/grid/atlas/rucio/derived/data22_13p6TeV/physics_Main/00431810/data22_13p6TeV.00431810.physics_Main.merge.A00.f1263_m2121/data22_13p6TeV.00431810.physics_Main.merge.A00.f1263_m2121._lb0254._0005.1?copy_node=pull											
davs://eosatlas.cern.ch:443/eos/atlas/atlasdatadisk/rucio/data22_13p6TeV/07/d2/data22_13p6TeV.00431810.physics_Main.merge.A00.f1263_m2121._lb0254._0005.1											
+ 5719106118	FAILED	4.01 GiB	0.00 MiB/s	-	2023-10-12T12:39:19Z	2023-10-12T12:40:12Z	-	-	-	-	<a href="#">Log</a>
davs://eosatlas.cern.ch:443/eos/atlas/atlasdatadisk/rucio/data22_13p6TeV/07/d2/data22_13p6TeV.00431810.physics_Main.merge.A00.f1263_m2121._lb0254._0005.1?copy_node=pull											
davs://dav.ndgf.org:443/atlas/disk/atlasdatadisk/rucio/data22_13p6TeV/07/d2/data22_13p6TeV.00431810.physics_Main.merge.A00.f1263_m2121._lb0254._0005.1											

# DDM transfers monitoring

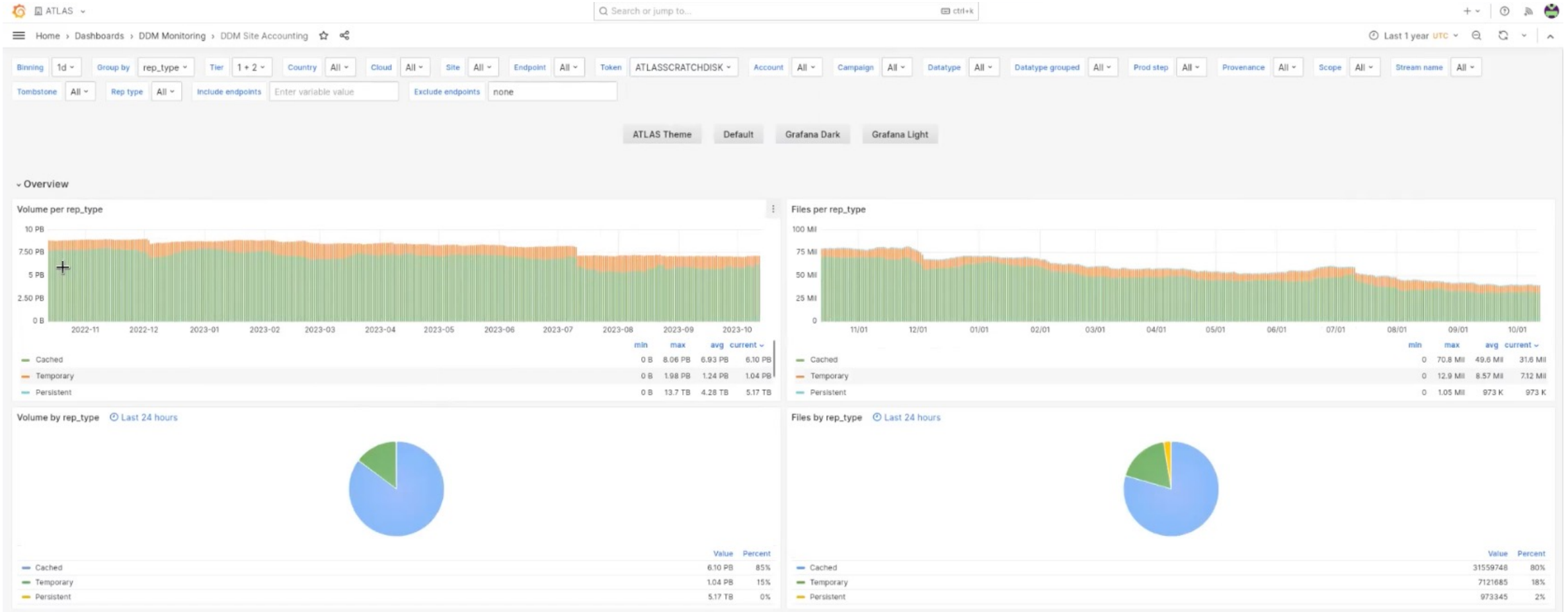


The screenshot shows a web interface for monitoring deletion errors. At the top, there is a header 'Deletion Errors' with a dropdown arrow, a refresh icon, and a trash icon. Below this is a section titled 'Deletion Error Overview'. A table follows, with a 'Count' column on the right. The table contains three rows of error messages, each with a corresponding count.

	Count
<code>data.purged_reason</code>	
The requested service is not available at the moment. Details: An unknown exception occurred. Details: DavPosix::unlink Connection timed out	18.73 K
The requested service is not available at the moment. Details: An unknown exception occurred. Details: Connection timed out	16.87 K
The requested service is not available at the moment. Details: An unknown exception occurred. Details: timeout of 20s	1.10 K

Deletion Errors Overview (FTS) – Error message count

# Rucio monitoring



## Storage space status

# Rucio WebUI

- **Replication rules and their behaviour;**
- **Rucio Storage Elements (RSEs) locks monitoring;**
- **RSEs usage;**



Welcome to Rucio UI

# Rucio monitoring

[Rucio Documentation](#) [Python Client API](#) [REST API](#)

[Welcome](#)

[Getting Started](#)

[User](#)

[Operator](#)

[Setting up a Rucio demo environment](#)

[Installing Rucio Server](#)

[Installing Rucio Daemons](#)

[Configuration](#)

[Multi-VO Rucio](#)

[Monitoring](#)

[Database Operations](#)

[Administration Tricks](#)

[Configuration parameters](#)

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[DID Metadata](#)

[Policy Packages](#)

[S3 Storage Configuration](#)

[Notifications](#)

[Executables](#)

🏠 > Operator > **Monitoring**

## Monitoring

There are three different monitoring components:

- Rucio internal monitoring using Graphite/Grafana
- Transfer monitoring using the messages sent by Hermes
- File/Dataset Access monitoring using the traces

### Internal Monitoring

This is to monitor the internals of Rucio servers and daemons, e.g., submission rate of the conveyor, state of conveyor queues, reaper deletion rate, server response times, server active session, etc. We use Graphite<sup>1</sup> for this. It's easy to setup and then you have to point your Rucio instance to the Graphite server using the `\carbon_server` options in the "monitor" section in `etc/rucio.cfg`.

The different Rucio components will then send metrics using those "record" functions you will find all over the code. Graphite has a built-in web interface to show graphs but more comfortable to use is the Grafana<sup>2</sup> tool.

The internal monitoring functions are defined in `core/monitor.py`, it includes:

1) `record_counter`. This is to send the StatsD counter metrics. Counters are the most basic and default type. They are treated as a count of a type of event per second, and are, in Graphite, typically averaged over one minute. That is, when looking at a graph, you are usually seeing the average number of events per second

<https://rucio.cern.ch/documentation/operator/monitoring/>



# Rucio monitoring

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## The list of Rucio internal metrics

### 1) Core

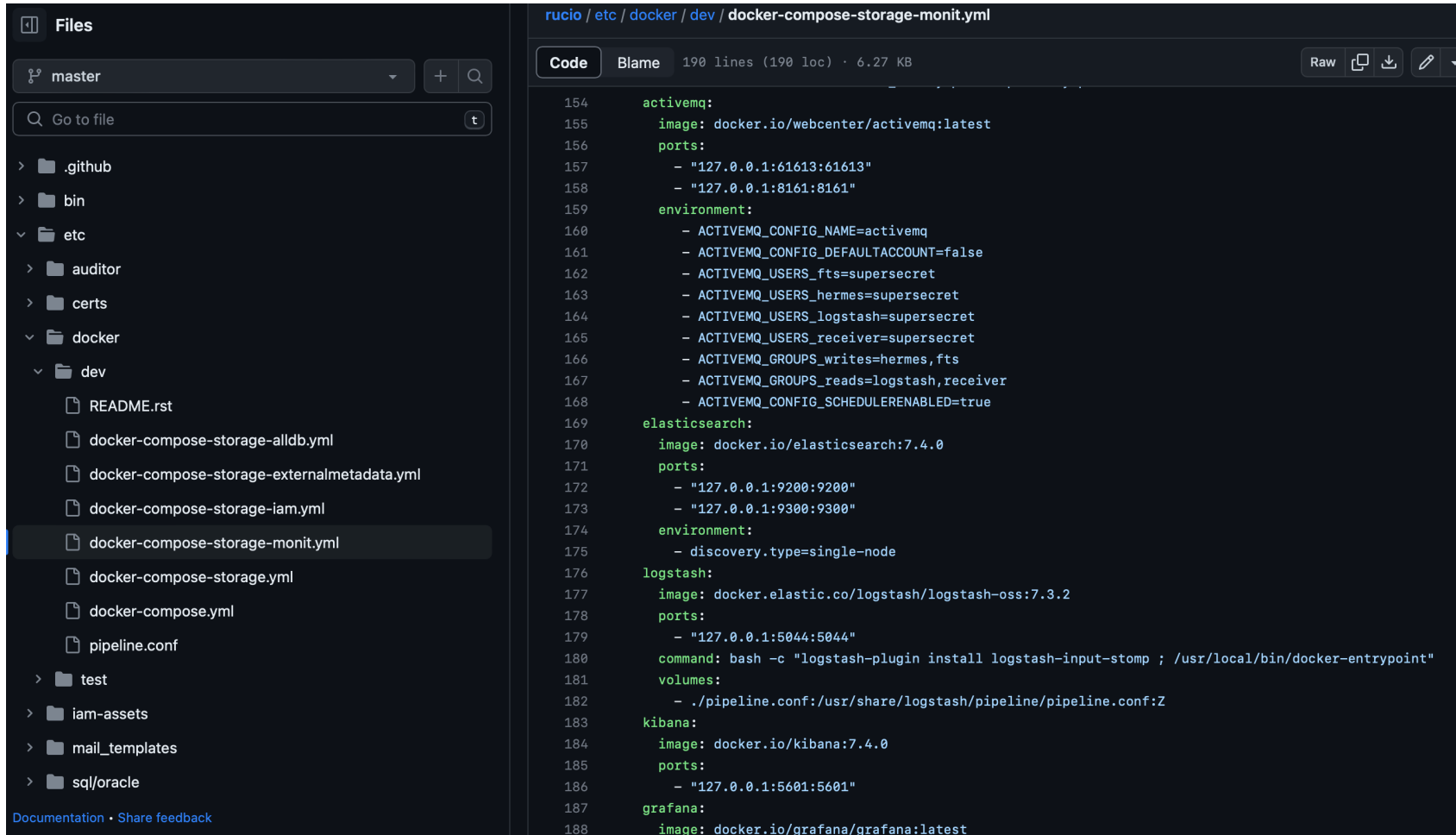
```
credential.signswift, credential.signs3 (timer)
trace.nongrid_trace
core.request.* (counter)
core.request.archive_request.* (timer)
rule.add_rule, rule.add_rule.*, rule.delete_rule, rule.evaluate_did_detach, rule.evaluate_did
trace.trace (counter)
```

### 2) Transfertool

```
transfertool.fts3.delegate_proxy.success.*, \
  transfertool.fts3.delegate_proxy.fail.* (timer)
transfertool.fts3.submit_transfer.[externalhost] (timer)
transfertool.fts3.[externalhost].submission.success/failure (counter)
transfertool.fts3.[externalhost].cancel.success/failure (counter)
transfertool.fts3.[externalhost].update_priority.success/failure (counter)
transfertool.fts3.[externalhost].query.success/failure (counter)
transfertool.fts3.[externalhost].whoami.failure (counter)
transfertool.fts3.[externalhost].Version.failure (counter)
transfertool.fts3.[externalhost].query_details.failure (counter)
transfertool.fts3.[externalhost].bulk_query.failure (counter)
transfertool.fts3.[externalhost].query_latest.failure (counter)
transfertool.fts3myproxy.[externalhost].submission.success/failure (counter)
```

<https://rucio.cern.ch/documentation/operator/monitoring/>

# Rucio Internal monitoring



```
154   activemq:
155     image: docker.io/webcenter/activemq:latest
156     ports:
157       - "127.0.0.1:61613:61613"
158       - "127.0.0.1:8161:8161"
159     environment:
160       - ACTIVEMQ_CONFIG_NAME=activemq
161       - ACTIVEMQ_CONFIG_DEFAULTACCOUNT=false
162       - ACTIVEMQ_USERS_fts=supersecret
163       - ACTIVEMQ_USERS_hermes=supersecret
164       - ACTIVEMQ_USERS_logstash=supersecret
165       - ACTIVEMQ_USERS_receiver=supersecret
166       - ACTIVEMQ_GROUPS_writes=hermes,fts
167       - ACTIVEMQ_GROUPS_reads=logstash,receiver
168       - ACTIVEMQ_CONFIG_SCHEDULERENABLED=true
169   elasticsearch:
170     image: docker.io/elasticsearch:7.4.0
171     ports:
172       - "127.0.0.1:9200:9200"
173       - "127.0.0.1:9300:9300"
174     environment:
175       - discovery.type=single-node
176   logstash:
177     image: docker.elastic.co/logstash/logstash-oss:7.3.2
178     ports:
179       - "127.0.0.1:5044:5044"
180     command: bash -c "logstash-plugin install logstash-input-stomp ; /usr/local/bin/docker-entrypoint"
181     volumes:
182       - ./pipeline.conf:/usr/share/logstash/pipeline/pipeline.conf:Z
183   kibana:
184     image: docker.io/kibana:7.4.0
185     ports:
186       - "127.0.0.1:5601:5601"
187   grafana:
188     image: docker.io/grafana/grafana:latest
```

## Development



<https://github.com/rucio/rucio/blob/master/etc/docker/dev/docker-compose-storage-monit.yml>

# Questions

# Extra slides

# DDM transfers monitoring

You are here: Data Identifier [data22\_13p6TeV.data22\_13p6TeV.00430897.physics\_Main.merge.AOD.f1259\_m2118\_lb0073\_0003.1]

## DID Metadata

accessed_at	Tue, 11 Jul 2023 05:10:43 UTC
account	tzero
adler32	bee3d983
availability	AVAILABLE
created_at	Mon, 15 Aug 2022 11:42:35 UTC
datatype	AOD
did_type	FILE
events	13591
filesize	2.62 GB
guid	2e9fa12ca2806a499d216671945a656b
hidden	false
lumblocknr	73
monotonic	false
name	data22_13p6TeV.00430897.physics_Main.merge.AOD.f1259_m2118_lb0073_0003.1
obsolete	false
prod_step	merge
project	data22_13p6TeV
purge_replicas	true
run_number	430897
scope	data22_13p6TeV
stream_name	physics_Main
suppressed	false
updated_at	Tue, 11 Jul 2023 05:10:43 UTC
version	f1259_m2118

# DDM transfers monitoring

## File Replica States

File Replica States

Show  entries

Filename	Replcas
data22_13p6TeV:data22_13p6TeV.00430897.physics_Main.merge.AOD.f1259_m2118_lb0073_0003.1	CERN-PROD_DATADISK CERN-PROD_DERIVED NDGF-T1_DATADISK
Filename	Replcas

Showing 1 to 1 of 1 entries

Color Codes  
AVAILABLE UNAVAILABLE COPYING BEING\_DELETED BAD TEMPORARY\_UNAVAILABLE

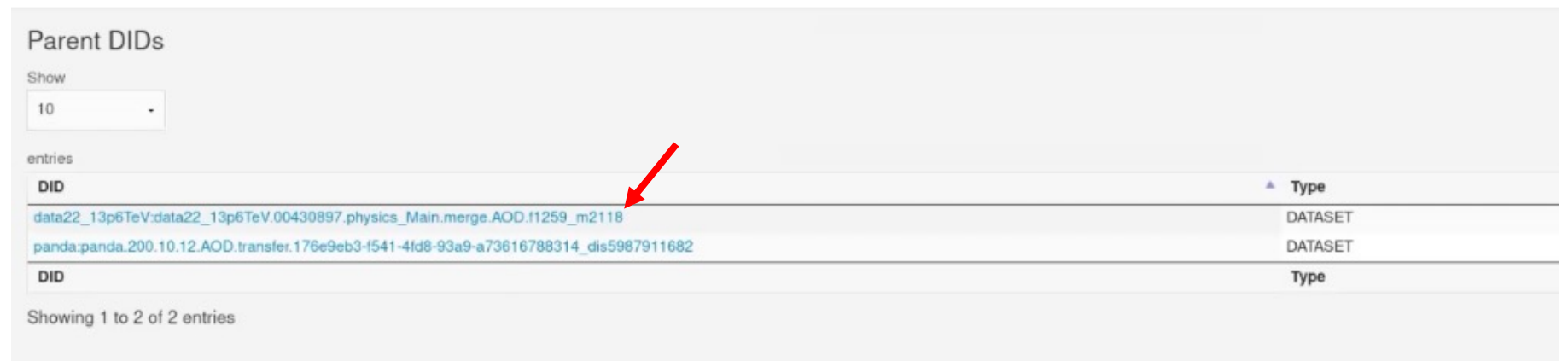


Parent DIDs

Show  entries

DID	Type
data22_13p6TeV:data22_13p6TeV.00430897.physics_Main.merge.AOD.f1259_m2118	DATASET
panda:panda.200.10.12.AOD.transfer.176e9eb3-f541-4fd8-93a9-a73616788314_dis5987911682	DATASET
DID	Type

Showing 1 to 2 of 2 entries



# DDM transfers monitoring

## DID Metadata

**DID Metadata**

account	panda
availability	AVAILABLE
closed_at	Thu, 12 Oct 2023 06:04:45 UTC
created_at	Thu, 12 Oct 2023 06:04:44 UTC
did_type	DATASET
events	494970
expired_at	Thu, 19 Oct 2023 06:04:45 UTC
filesize	94.59 GB
hidden	true
is_open	false
length	21
monotonic	false
name	panda.200.10.12.ACD.transfer.176e9eb3-f541-4fd8-93a9-a73616788314_dis5987911682
obsolete	false
purge_replicas	false
scope	panda
suppressed	false
task_id	35092180
updated_at	Thu, 12 Oct 2023 06:05:23 UTC

**Rules**

Show 10 entries

Rule	State	Account	Subscription
NDGF-T1_DATADISK	REPLICATING	panda	-
Rule	State	Account	Subscription

Showing 1 to 1 of 1 entries

# DDM transfers monitoring

## Rule metadata

Rule metadata	
account	panda
activity	Analysis Input
comments	<a href="#">task_id:3092180</a>
copies	1
created_at	Thu, 12 Oct 2023 06:05:34 UTC
did_type	DATASET
expires_at	Thu, 19 Oct 2023 06:05:34 UTC <a href="#">+</a> <a href="#">x</a>
grouping	DATASET
id	879ca74664da4b8b915ce6010ffb0c45
ignore_account_limit	false
ignore_availability	true
locked	false
locks_ok_cnt	11
locks_replicating_cnt	10
locks_stuck_cnt	0
name	panda.200.10.12.ADD.transfer.176e9eb3-f541-4fd8-93a9-a73616788314_dis5987911682
notification	CLOSE
priority	3
purge_replicas	false
rse_expression	NDGF-T1_DATADISK
scope	panda
split_container	false
state	REPLICATING
updated_at	Thu, 12 Oct 2023 12:39:33 UTC

[Boost rule](#)