ESCAPE WP2

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Contents

1) **MAGIC - Workflow**:
   a) **Overview**
   b) Use case 1 - CTA/PIC-Rucio
   c) Use case 2 - ESCAPE-Rucio

Overview - Data Challenge 21

ESCAPE has organized the “Data Challenge 21” in November this year to test the deployments and integrations in the context of the solutions designed.

It will take 5 days of intensive test of the proposed use cases (22nd to the 26th of November)

Use Case 001: Long haul ingestion and replication - CTA/PIC-Rucio

Use Case 002: Data reprocessing - ESCAPE-Rucio

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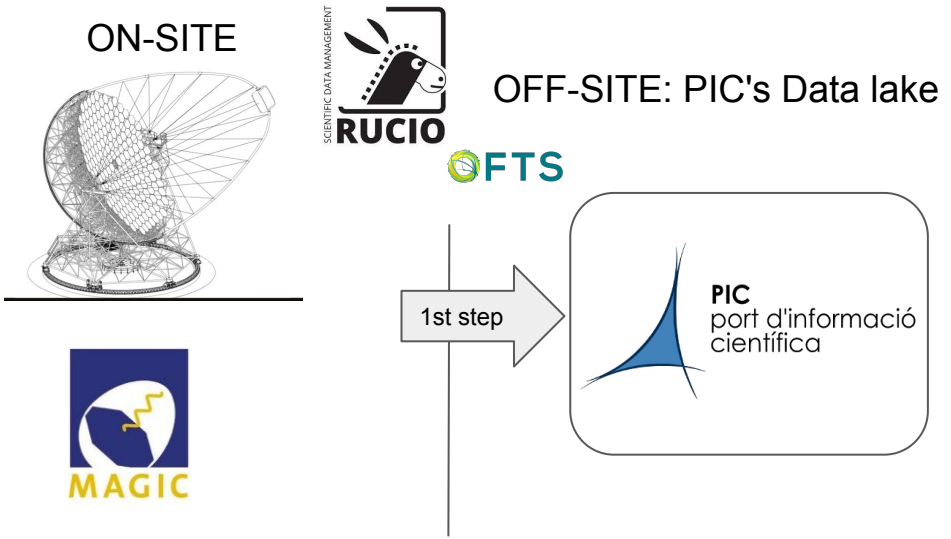
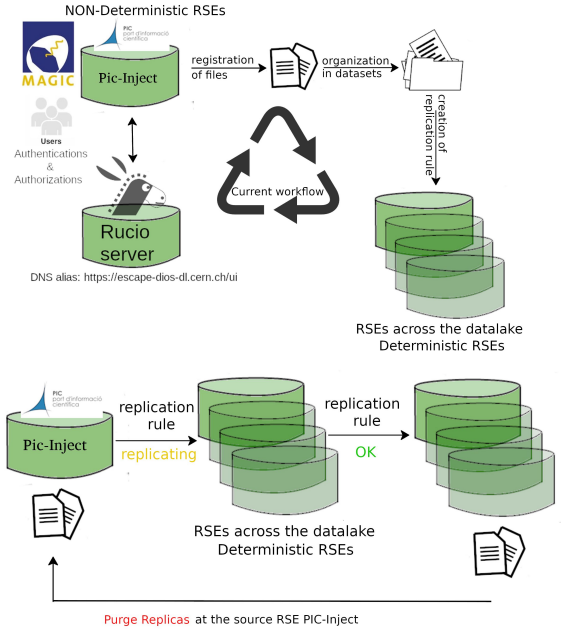
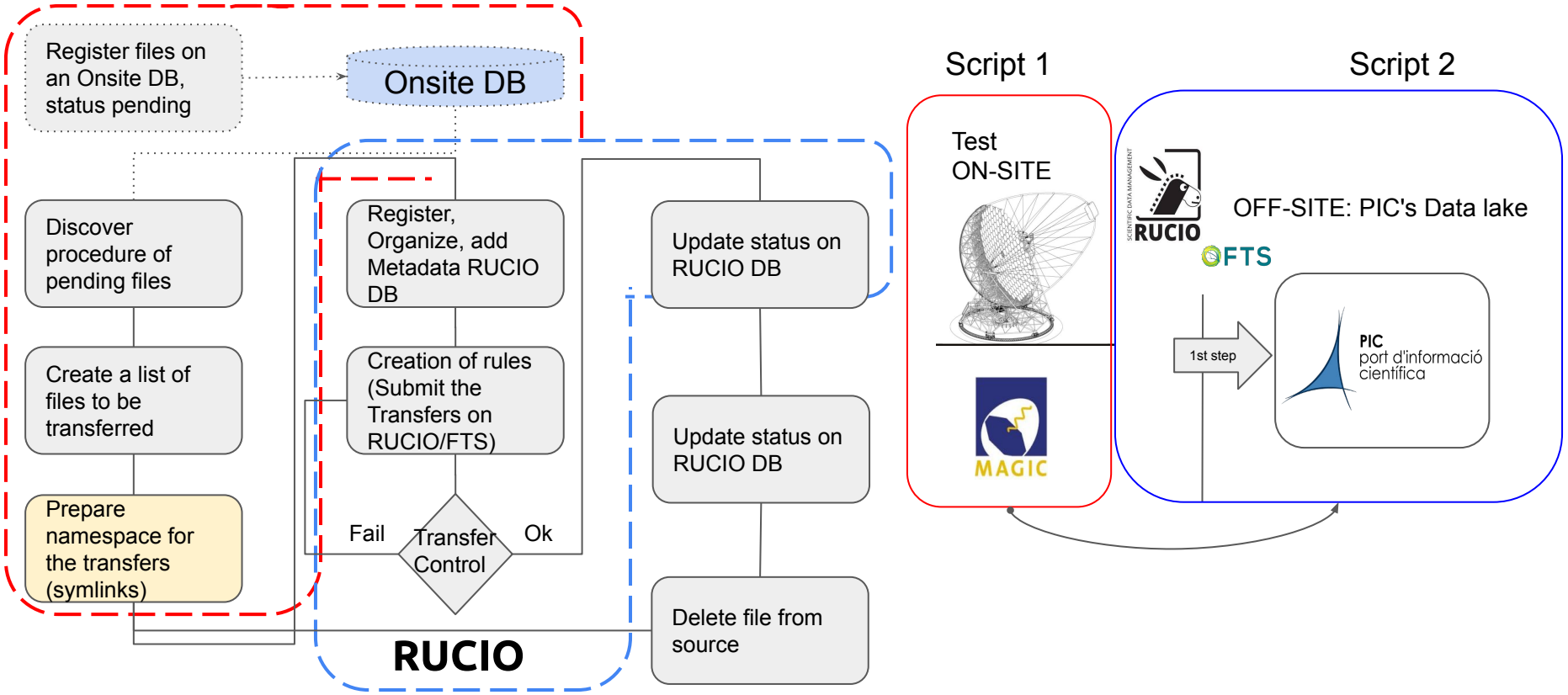
Use case 1 - CTA/PIC-Rucio: Long haul ingestion and replication

Description/Goal: Ingestion of MAGIC data from a remote site to the PIC's data lake. Data Transfer and replication in off-site and after replication deletion of the data at the origin.





Use case 1 - CTA/PIC-Rucio: MAGIC - Workflow



DAC21 Activities: Goals, Status, Progress and Plans

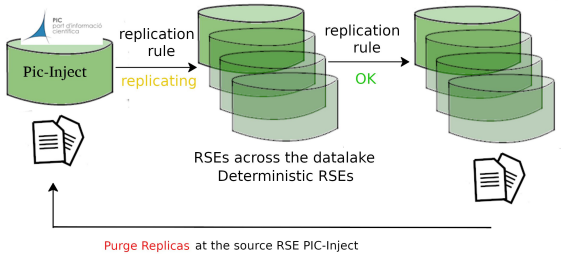
- **Activity One:**
  - MOCK DAC21: Test La Palma - PIC transfers:
    - Continuous creation of mock file consistent with MAGIC namespace ✓
    - File discovery ✓
    - Symbolic link creation ✓
    - Configuration of grid-ftp endpoints ✓
    - Rucio :
      - Registration ✓
      - Organization: dataset, containers ✓
      - Metadata ✓
      - Transfers ✓
      - Deletion ✓
    - Time test:
      - 1 week ✓
      - 2 weeks ▬
      - 3 weeks ▬
    - Different size file with
      - 10 mb ✓
      - 200 mb ▬
      - 700 mb ▬

✓ Done
▬ In Progress
O To be done

DAC21 Activities: Goals, Status, Progress and Plan

- **Activity One:**
  - DAC21: Test La Palma - PIC transfers:
    - Continuous creation of mock file consistent with MAGIC namespace ✓
    - File discovery ✓
    - Symbolic link creation ✓
    - Configuration of grid-ftp endpoints ✓
    - Solve connection problems with la Palma ⭕
    - Rucio :
      - Registration ⭕
      - Organization: dataset, containers ⭕
      - Metadata ⭕
      - Transfers ⭕
      - Deletion ⭕
    - File size file with:
      - 700 mb ⭕

✓ Done
▬ In Progress
⭕ To be done



- **Success during DAC21:**
  - Magic data can be successfully registered transferred, replicated, and file deleted on the origin RSE.
  - Tack data transfer was monitored with grafana dashboard.

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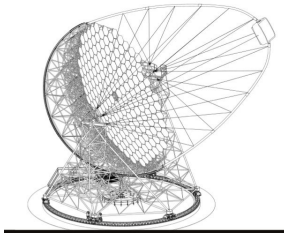
Use case 1 - CTA/PIC-Rucio: Long haul ingestion and replication

Description/Goal: Ingestion of dl3 MAGIC data from a remote site to the ESCAPE's data lake and analyse them using ESCAPE's jupyters+rucio

ON-SITE



MAGIC

RUCIO

OFF-SITE: ESCAPE's Data lake

FTS

1st step

PIC port d'informació científica

2nd step

jupyter

RUCIO

- Workflow to calculate the spectral energy distribution (SED).

DAC21 - USE CASE 1: setting

Data :

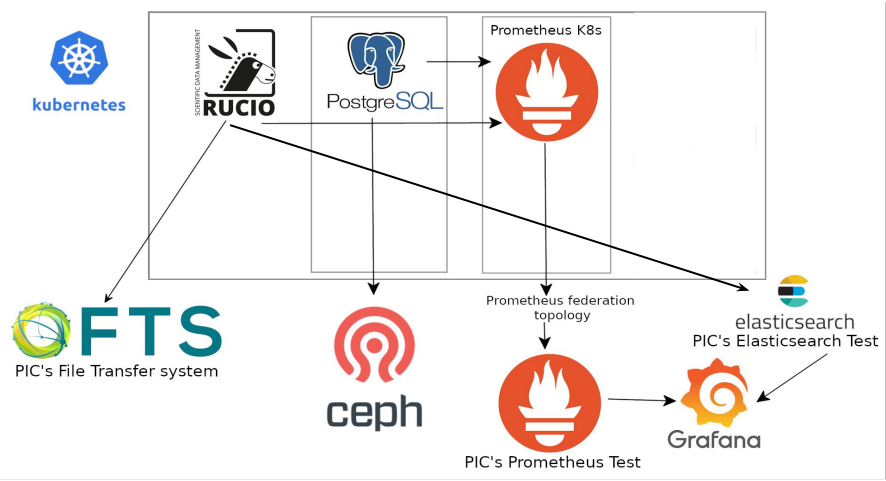
- **Use case 1:**
  - Magic data Simulated data
  - 700 mb
- **Use case 2:**
  - DL3 MAGIC data

Rucio Server:

- **Version:**
  - Rucio v1.23.15
- **Deployed with:**
  - The Rucio server and daemon services are fully packaged with Helm
  - Available in : https://rucio.github.io/helm-charts/)
- **Monitoring:**
  - Will be using Prometheus for all our monitoring needs
  - Weare currently writing the logs using hermes2 in our own
  - Elasticsearch centralized instance

FTS:

- **Version:**
  - FTS v3.10.1



Personnel involved

PIC staff

- Jordi Delgado for all IT configurations and installations
- Agustín Bruzzese for all RUCIO and scripts configuration and development
- Carles Acosta and Elena Planas as technical support for dCache and XrootD configurations
- Gonzalo Merino as ESCAPE-PIC coordinator

ESCAPE-CTA people

- Matthias Füßling, Gareth Hughes as ESCAPE-CTA coordinators
- Frederik Guillardo and Nadine Neyroud for RUCIO integrations with other use cases