

# Data transfer system for the MAGIC Telescopes



J. Delgado, A. Bruzzese, G. Merino, Port d'Informació Científica (CIEMAT-IFAE),  
The MAGIC Collaboration

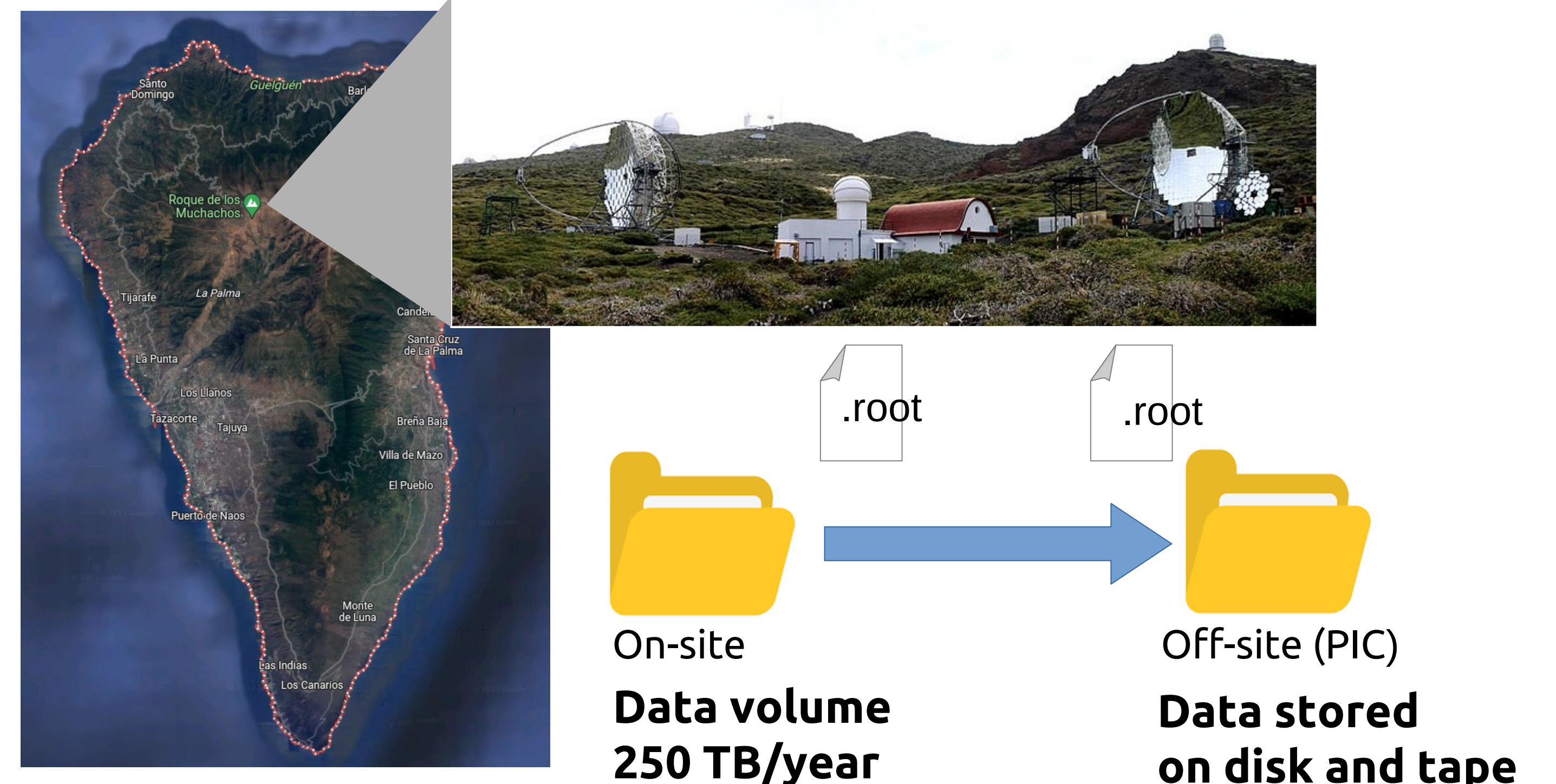
26TH INTERNATIONAL CONFERENCE ON COMPUTING IN HIGH ENERGY & NUCLEAR PHYSICS

Sergi Luque  
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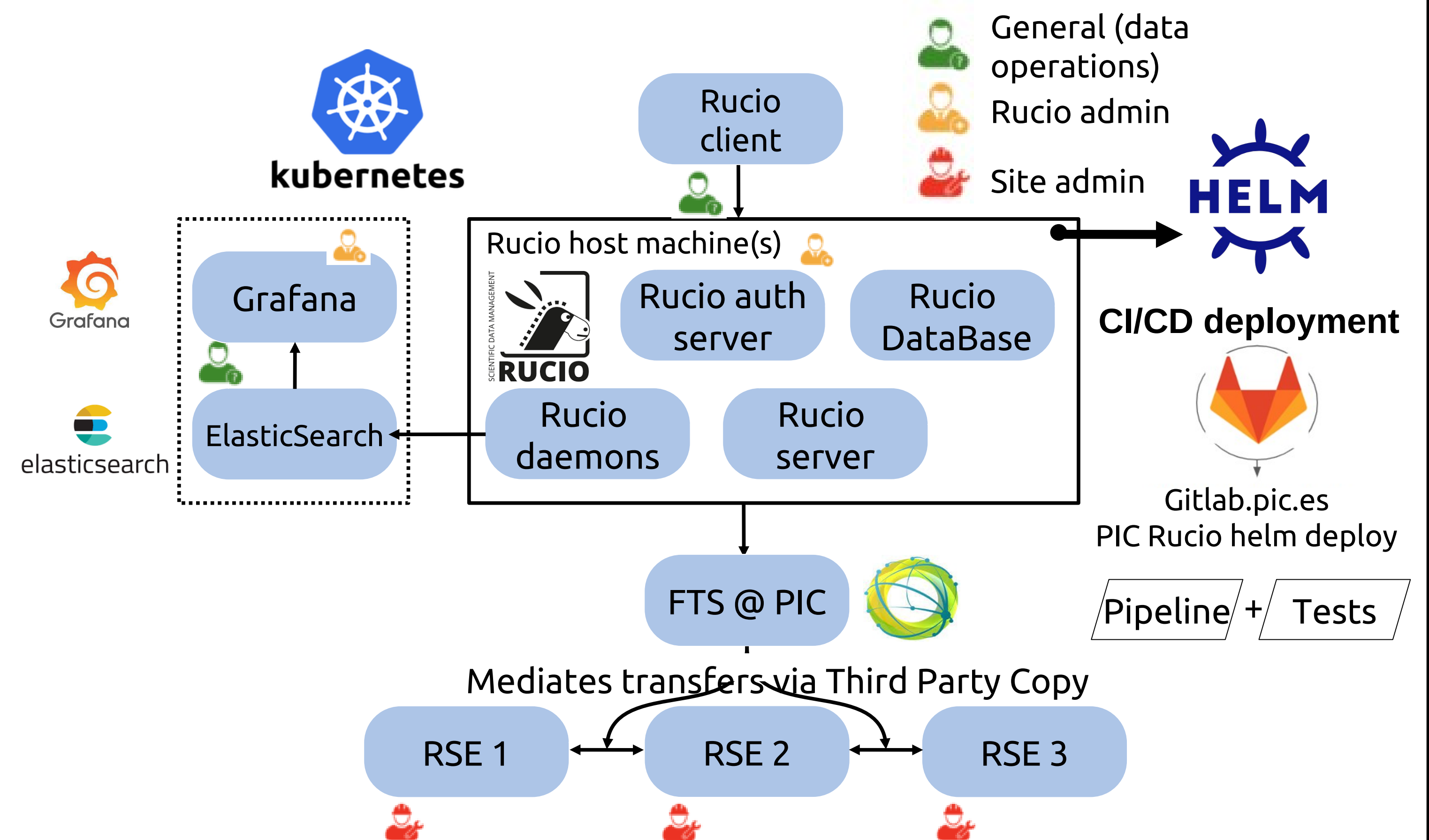
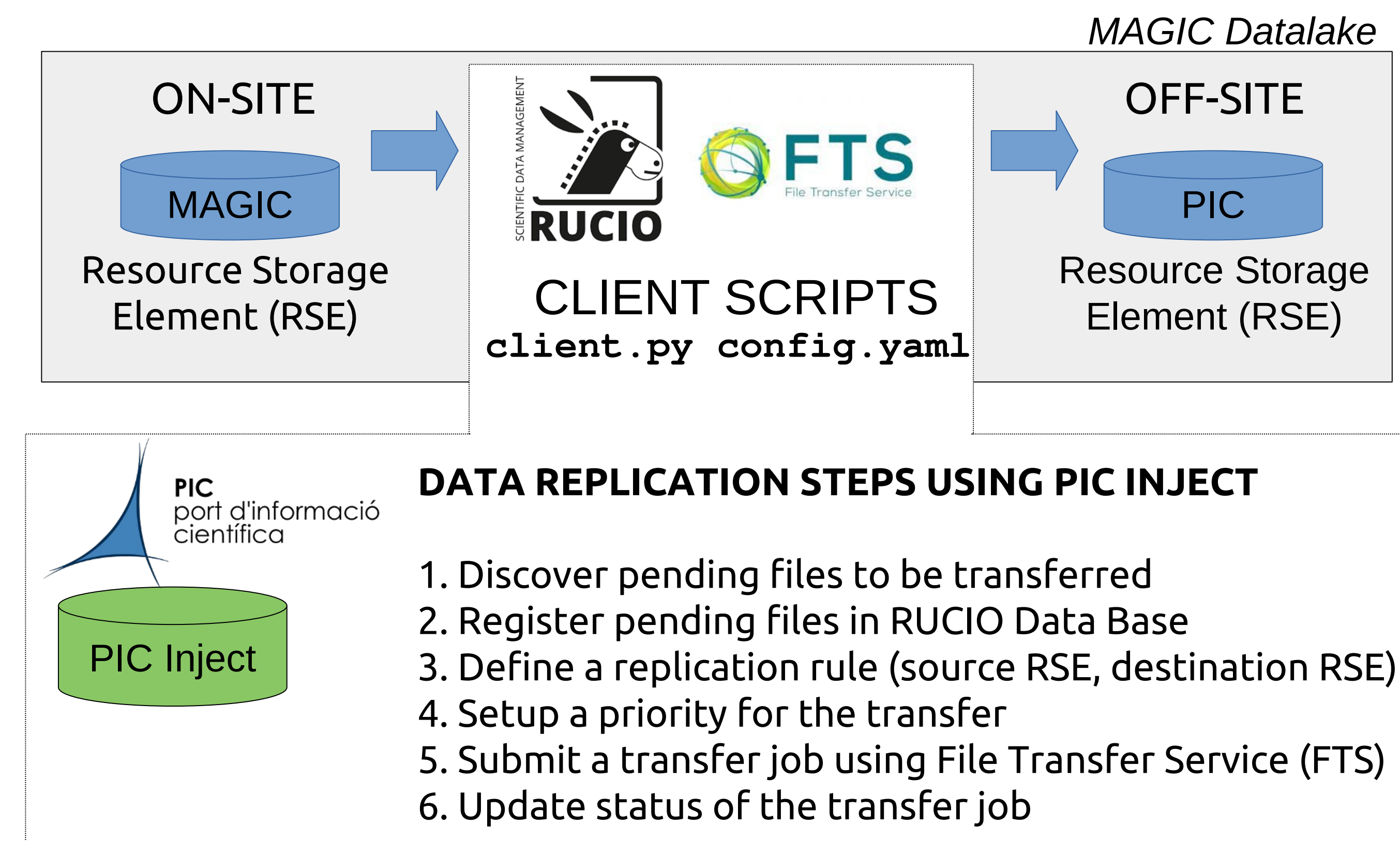
## The MAGIC Telescopes

The Major Atmospheric Gamma-Ray Imaging Cherenkov (MAGIC) Telescopes are located at the *Observatorio del Roque de los Muchachos (La Palma, Canary Islands, Spain)*

Two 17 diameter Imaging Atmospheric Cherenkov Telescopes (IACTs) dedicated to the observations of gamma rays from galactic and extragalactic sources in the range of very high energies (30 GeV to 100 TeV). Different data types with different sizes are transferred to Port d'Informació Científica, the MAGIC Data Center.



## Design and Infrastructure

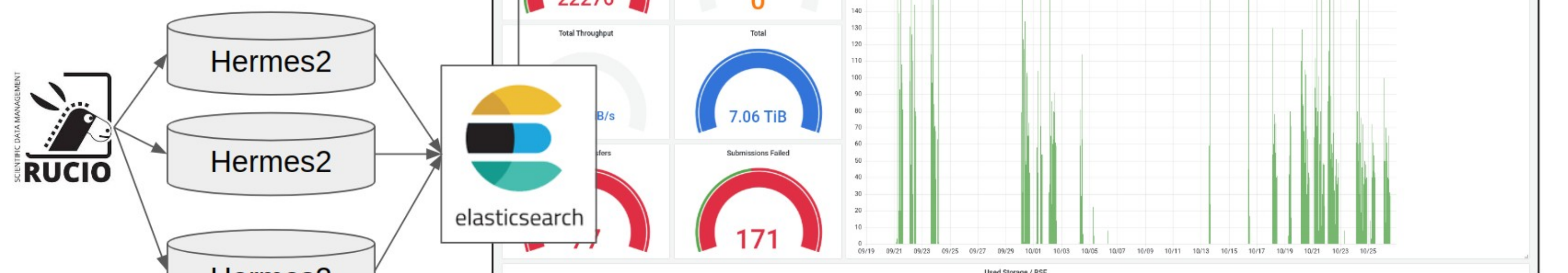


## Results

Accounting: (5 months) **120,000** Transferred Files  
**45TB** Transferred Volume

### Grafana Dashboard to monitor the system using Hermes2

1. RUCIO messages collected by HERMES daemon, stored on ElasticSearch.
2. ElasticSearch used to update Grafana dashboard and MAGIC Datatransfer DB



Integration with MAGIC Data Transfer web service

Element	Status
RAW M1	Done
RAW M2	Done
Calibrated Data M1	Done
Calibrated Data M2	Done

## Conclusions

The new data transfer system is more robust thanks to the RUCIO orchestrator. Can be easily scaled to multi-site data replication.

Future work planned to apply this design for other experiments like CTA-LST1 telescopes, introducing multi-site data replication.

## Acknowledgments

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