OSCARS
Open Science Clusters' Action for Research & Society

Funded Project

STARLIGHT

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Implemented by

LAPP
Laboratoire d'Annecy de Physique des Particules

UNIVERSITÉ SAVOIE MONT BLANC

cnrs IN2P3

CTAO

ACADA COLLABORATION

Phœnix2

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CHALLENGE ADDRESSED

Gamma ray

Analysis is currently performed in **monoscopic** mode.

Current performances for **ONE** telescope:

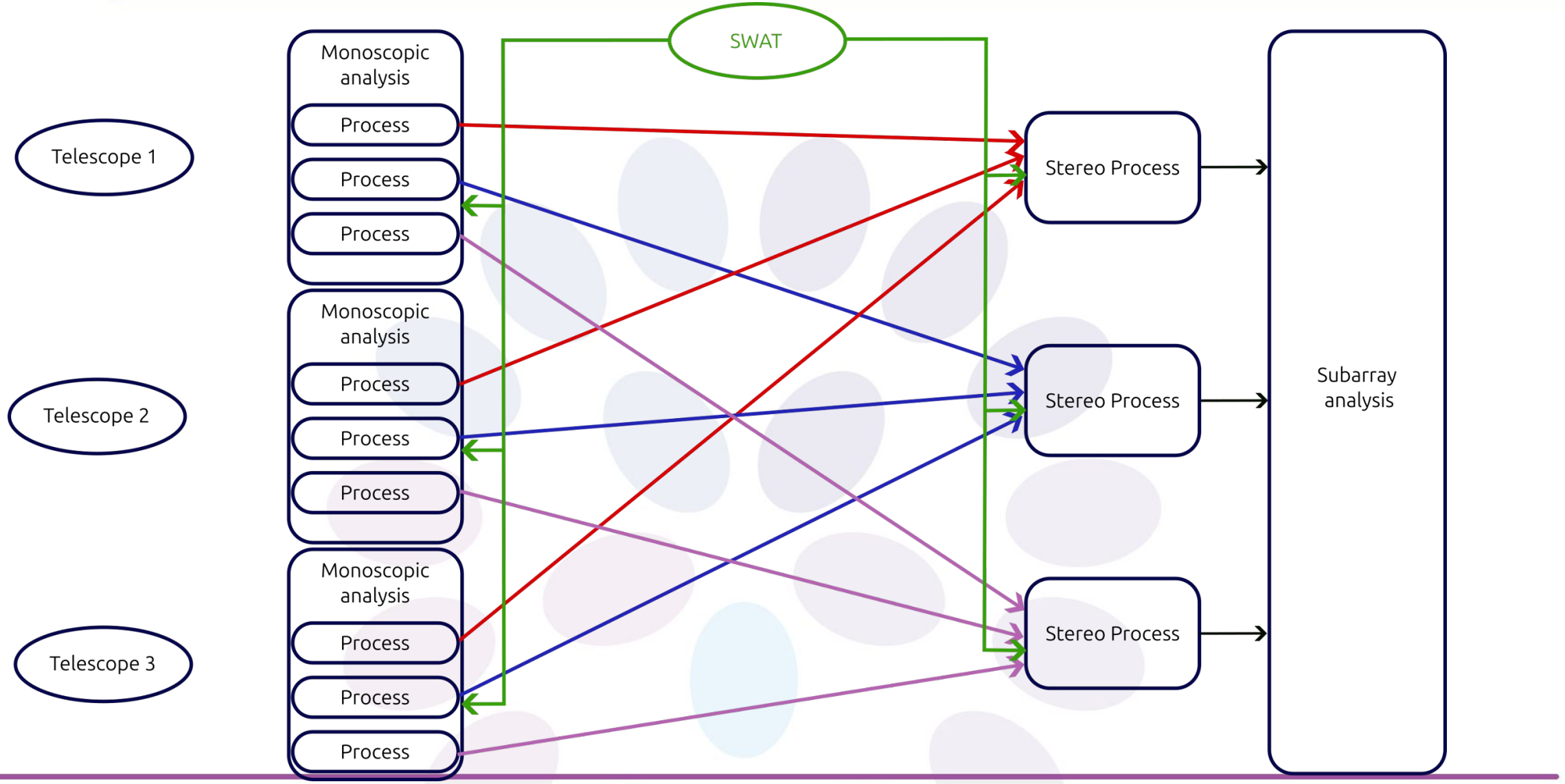
- Input data : **~3 GB/s**
- Output data : **~20 kB/s**
- Current speed : **~0.75 GB/s/CPU**
- DL3 available in : **~50 secs**

Now, the analysis must be extended to **up to 60 telescopes**.

Key questions:

- What design should be adopted to maintain current **performance** with up to 60 telescopes?
- How should we **aggregate** the data?

SOLUTION


SWAT
Telescope 1
Telescope 2
Telescope 3
Monoscopic analysis
Process
Process
Process
Monoscopic analysis
Process
Process
Process
Monoscopic analysis
Process
Process
Process
Stereo Process
Stereo Process
Stereo Process
Subarray analysis

OSCARS

What are the key results achieved to date and how have you made them available to the broader community?

- Mock design used to speed-up testing
- C++ socket management using ZMQ
- C++ daemons management
- StereoData daemon that aggregates events from multiple mocked telescopes

How will make your results sustainable over time - How will the scientific community/-ies further exploit them?

- Fully reproductible environments using Pixi
- CI/CD best practices (Tests / Documentation / Releases)
- Projects published on Zenodo
- Specific backend technology choice abstracted

TEAM

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