





IDAC PL STATUS

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Orest Dorosh, Tomasz Früboes, Henryk Giemza, Krzysztof Nawrocki, Agnieszka Pollo, Adam Zadrożny, Bartosz Zięba

Light IDAC - Installation Site



- Poznań Supercomputing and Networking Center (PSNC) in Poznań (Poland)
- Light IDAC planned as a part of a larger system
 KMD3 / PraceLab2 in total:
 - 25PB storage
 - ~ 6k CPU physical cores system + some GPU
- KMD3 (National Data Repository)/PraceLab2 are run by consortium of Polish supercomputing centres (including NCBJ)







Specification of Light-IDAC (POL-NCB S1)

Specification of light IDAC-PL

- 500 CPU cores
 - 20-30 cores for system/db
 - 470-480 cores for users
- 0.5 TB of storage space for Object Light Catalogue
- 4.5 TB for catalogues
- 2 x 0.25 FTE support stuff
- proposed center could serve 500-1000 users in total and 250 users using center concurrently

As specified in guidelines: <u>https://rtn-003.lsst.io/</u>

Will be ready by the end of 2024





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Specification of Light-IDAC (POL-NCB S1) +

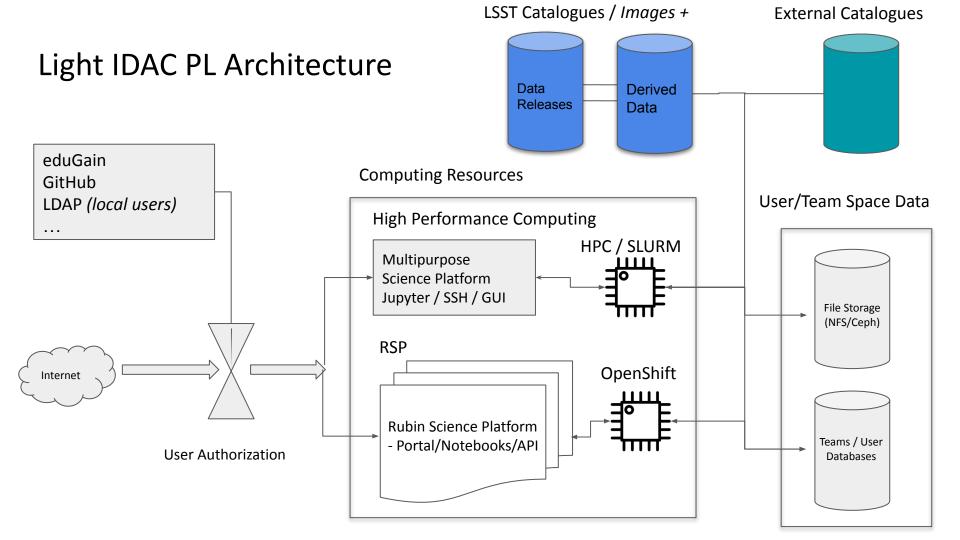
Specification of Light IDAC-PL +

- present plan: storage of (lite) catalog data
- new present-day needs: images (at least co-adds)

Under consideration @'23 => Must have @'24+

- additional storage
- access to GPUs for ML
- access to more CPUs
- → funding project for extra storage and GPU submitted (for now out of scope of the Light IDAC - an addition)





Current status

- all Light IDAC PL hardware installed @PSNC
 - ~1/3 of the storage up and running (NFS appliance with fast SSD cache)
 - the rest is to be set up and configured (as CephFS instance) ongoing not a priority
- configuration of optical fiber connecting storage (KMD) to computing CPU/GPU resources (PraceLab2) ongoing
- our RSP instance migrated from the demonstrator site at CIS/NCBJ (@Świerk) to the new OKD site setup on new hardware (@PSNC)
- we use this migration to check our automated procedures for setting up our RSP instance
- next steps uploading some substantial part of DR data for functional and scalability tests based on generic tutorials and more realistic scientific use cases
- a fully operational Light IDAC-PL RSP based expected 2024Q4/2025Q1
- new proposals to double+ storage resources to allow for image analyses using GPUs submitted
- multi-purpose science platform installation/configuration ongoing not a priority



Notebooks

Documentation

APIs

Support Community

knawro 🗸

Rubin Science Platform

Portal

Portal

Discover data in the browser



earn more about the portal.

Notebooks

Process and analyze LSST data with Jupyter notebooks in the cloud



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APIs

Learn how to programatically access data with Virtual Observatory interfaces



In-kind software effort and the main science cases

- Science Pipeline Development in the LSST
 - Galaxies Science Collaboration
 - Dark Energy Science Collaboration
 - AGN Collaboration
- Ongoing, but signed MoA needed to successfully apply for budget for more FTEs to complete (in progress).

