

IHDEA Cloud Working Group Report

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Outline

1. Purpose
2. Actions in last year
 - a. Paris Meeting
3. Forward Actions

Purpose

{Disclaimer: NO official charter : this is what Brian and Baptiste think its about}

1. To discuss, determine what collaboration would be useful in 'cloud'.
2. Develop and create any needed international standards
3. Promote awareness of cloud efforts and bolster international collaboration

Q: Do we need a charter or is this reasonable??

Workshop Purpose

“Prepare the way for interoperability between science platforms in heliophysics.”

1. **Meet** others in this area!
2. **Discuss** interests, determine if we have shared vision
3. **Understand** better the current digital infrastructures in heliophysics and neighbouring fields (clouds, science platforms, modelling centers, web services, data centers...)
4. **Capture** use cases, areas of intersecting interest

Cloud Working Group Workshop - Paris

- Held 10-13 July 2023 at the Observatory of Paris
- ~25 Participants, North America & Europe
- In person meeting

MIRO / GoogleDocs / pen+whiteboard

Agenda was flexible

- First day: presentations
- Days 2-4: unconference approach



Unconference Topics Discussed (no particular order)

- X-platform operation / cooperation
- Sharing Code
- Discoverability (data, software, cloud...)
- Reproducibility
- Datalake (shared/distributed data space)
- Partners (ex: IVOA, CERN...)
- Workflows & Pipelines
- Shared Software Stack/Environment
- Shared Infrastructure

Key Takeaways

- **Shared Vision statement**

“A world-wide network of data and computing resources will accelerate heliophysics collaboration capitalising on (hybrid) cloud environments. Users in this community will be able to readily conduct and share research, share best practices, form teams of researchers across agency and international boundaries, publish these resources for others in this environment to utilize, and engage the community and outreach.”

- **Work is happening now.**
 - Examples: ESALabs, Observatory of Paris, HelioCloud, ESCAPE, etc
- **Community is excited, but concerned.**
 - Need solutions for multiple cloud environments (commercial vs gov't vs academic vs ??)
 - Cost models
 - Many other issues...
- **There is a 'there there'.**
 - Much to discuss, but we need to ground in Use Cases. Need to engage with other communities (IVOA)
- **Use Case document**
 - <https://shorturl.at/qFGL9> (Draft!)
 - 30 use cases addressing aspects of all topics

Forward Actions

Solidify Use Cases

- Presentation and review

Select Priorities

- Which use cases can we tackle? What is the impact? How hard?

Re-convene Group for 2nd Workshop (Summer 2024?)

- Meeting details are TBD

Expand membership (currently NO members outside of N. America, Europe)

What about private companies? (currently only academic/agencies)

- Consolidate use cases first