IRIS-HEP Nebraska PI chat

Who is working on the project and what are they doing?

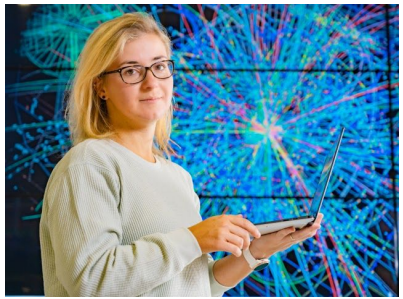
- Oksana Shadura (DOMA/AS): development of coffea-casa analysis facility prototype and ongoing development/support of ROOT I/O
  - The AF is anticipated to play a role in the Analysis Grand Challenge
- Derek Weitzel (OSG-LHC): oversight of OSG accounting/monitoring/registration and reporting to WLCG, software distribution infrastructure, R&D in DOMA
- Marian Zvada and Huijun Zhu (OSG-LHC): operation of OSG accounting/monitoring/registration and reporting to WLCG
- Ken Bloom: PI, coordination, riding herd on coffea-casa team, etc.

Specific collaborations

- The Nebraska coffea-casa team collaborates strongly with Brian at Morgridge, and as needed with developers of ServiceX and Skyhook to integrate those products into the facility. Dask is heavily used in coffea-casa and further engagement is expected there. Ultimately the AF should be “available” via Helm charts such that it could be deployed throughout HEP.
- The Nebraska OSG-LHC team is thoroughly integrated into the OSG-LHC organization.
- Collaborates with UCSD on XCache development, Wisconsin on software distribution and accounting technologies
- XCache meetings weekly bring together CMS, ATLAS, OSG, and XRootD developers to discuss issues and priorities.

Intellectual hub

- We are currently working with IRIS-HEP Fellow Zora Che (Boston University undergraduate), who has been commissioning part of a physics analysis on coffea-casa and measuring performance.
- Mat Adamec (incoming Nebraska physics graduate student) might be an IRIS-HEP Fellow this summer.
- Oksana has taken part in many training activities over time, but less so during the pandemic.
    - However, nice photo of her on the IRIS-HEP home page:
- Suhaib was an IRIS-HEP fellow during summer 2020 for proactive accounting monitoring.



Presentations

- Oksana and Mat both presented at PyHEP last summer
  - For Mat, first ever public presentation, and they had a big audience!
- Oksana presented on analysis facilities at HSF workshop in November
- Multiple presentations at a variety of workshops, although these have more typically been internal to CMS/ATLAS
- Some great presentations coming up!
  - Coffea-casa selected for plenary talk at upcoming vCHEP!
  - Oksana is co-organizing a session at the upcoming Dask workshop and giving one of the presentations.
  - Oksana was also invited by LHCP organizers to give a presentation on the status of analysis tools.
  - In case Oksana isn't busy enough, she is also an organizer of this summer's PyHEP.
- Derek spoke at the OSG All Hands regarding XCache and Token development
- Derek and Diego (UCSD/DOMA) presented the findings of XRootD Monitoring Validation
- Huijun's numerous presentations regarding OSG Monitoring setup

How is the project managed/measured?

- Coffea-casa team meets bi-weekly with Ken and Brian.
  - Opportunity to set short/medium-term goals for team members
- Oksana has a weekly standing meeting with Ken.
- US WLCG site support piggybacks off of OSG's ticketing system, where response times and other measurements are gathered.
- Specific time frames defined in PEP for XRootD monitoring collector improvements
- SLA's for OSG services are measured and reported. SLA monitoring is performed and managed at UNL.

Plans for the next year

- Coffea-casa:
  - Stand up an instance of the AF that can support beta users from CMS, measure performance for different analyses, optimize
  - Assuming an investment from IRIS-HEP, grow the hardware deployment
  - Integrate additional services for the benefit of analysts
  - Longer term: heading towards participation in the analysis grand challenge
  - This has gotten a lot of buzz in the past year: we need to live up to the hype, and then pursue world domination….
- OSG-LHC
  - PEP G7.5: Have at least 5 instances of refactored XRootD monitoring in production use. We have generated 2 validation reports and are now making the changes from the recommendations.
  - Changes in upstream WLCG reporting requires technology upgrades here
  - Continue to move services to Kubernetes hosting
  - Continue to improve the monitoring through constant refinements