

CSAID management and service provides met on 9/29/2022 to discuss the response to the [FY22 FCRSG closout report](#). This is a summary of that discussion

## Recommendations

1. *SCD should be proactive rather than reactive in providing guidelines to the experiments early on so that there is good understanding of the expectations on both sides. By setting strategic policies for resource usage one can drive users to make beneficial behavioral changes in the areas of processing, scheduling, data lifetime, and cache size.*

This recommendation generated a lot of discussion that used gm2 as an example. What lessons learned could be applied to mu2e and if gm2 had different expectations going in, would their computing model have been different? Additionally, CSAID has very little in the way of sticks to enforce any particular best practices.

We think it is important to develop some written documentation on what performance capabilities the storage can provide and throughput history plots to show what we have delivered [per experiment]. There may be some development work here to make that happen. Experiments would then know what to expect and we can ask them what they want as part of FCRSG

It is also hoped that the migration to CTA and rucio will help to alleviate some of the issues.

2. *The committee encourages SCD to continue developing and supporting capability and capacity in computing, storage, and data management for both local use and to facilitate the use of remote processing resources. SCD should identify the hardware and personnel budget to match the plan. Furthermore, SCD should motivate the experiments to exploit off-site resources.*

Through meetings with the various spokespeople, CSAID should encourage collaborations to apply for grants through EXCEDE. We have some expertise and can provide some guidance if they are interested in following up.

3. *Provide expert help to experiments so that they can utilize computing frameworks in multithreaded mode. This is critical for experiments - particularly for DUNE - to run on a wide range of modern resources, such as HPC. A close collaboration between SCD and code developers from experiments might prove useful.*

This work is in progress in DSSL.

4. *While developing common software solutions and strategic partnerships with other labs are important, SCD should strategically select areas to lead in order to continue workforce development and ensure the capability to innovate.*

We have identified the Elastic Analysis Facility as one of these areas. More might follow.

5. *SCD should develop strategy to train and retain expertise on advanced software development on heterogeneous architectures.*

The formation of the CSAID directorate and underlying reorganization of SCD into 3 division should help with better communication with the experts. This organization will be developing plans for talent development and retention.

*6. SCD should identify which experiments can stay on SAM and which experiments will transition to Rucio. Resource allocation (personnel) should be considered to help experiments implement this strategy.*

The newly formed SCSS division will be developing the roadmap for services this fall which will include a forecast of how long SAM will need to support and for whom. Once that is understood, we will revisit an implementation plan.

*7. There is a lot of knowledge gained by the SCD in supporting CMS computing. The committee encourages the SCD to enhance synergies and foster knowledge-sharing among experiments.*

Ongoing