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OSiRIS: A Distributed Storage and Networking Project Update

Monday 4 November 2019 11:15 (15 minutes)

We will report on the status of the OSiRIS project (NSF Award #1541335, UM, IU, MSU and WSU) after its fourth year. OSiRIS is delivering a distributed Ceph storage infrastructure coupled together with software-defined networking to support multiple science domains across Michigan's three largest research universities. The project's goal is to provide a single scalable, distributed storage infrastructure that allows researchers at each campus to work collaboratively with other researchers across campus or across institutions. The NSF CC*DNI DIBBs program which funded OSiRIS is seeking solutions to the challenges of multi-institutional collaborations involving large amounts of data and we are exploring the creative use of Ceph and networking to address those challenges.

We will present details on the current status of the project and its various science domain users and use-cases. In the presentation we will cover the various design choices, configuration, tuning and operational challenges we have encountered in providing a multi-institutional Ceph deployment interconnected by a monitored, programmable network fabric. We will conclude with our plans for the final year of the project and its longer term outlook.

Consider for promotion

No

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