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## **OSiRIS: Targeting the Multi-science, Multi-institutional Collaborative Data Challenge**

*Thursday, 18 May 2017 14:15 (30 minutes)*

We will present an overview of the OSiRIS project (NSF Award #1541335, UM, IU, MSU and WSU) which started in September 2015. OSiRIS's goal is to provide a single scalable, distributed storage infrastructure that allows researchers at any participating campus to read, write, manage and share data directly from their own computing locations even as the data is shared across all participating campuses.

The OSiRIS infrastructure is specifically targeted at addressing the challenges more and more science domains are encountering as they work with large, diverse or distributed data. As the data grows, or becomes more complex or distributed, scientists are challenged to manage, share and analyze that data and become diverted from a focus on their scientific research and instead dealing with data-access and data-management concerns.

We will describe how the OSiRIS project is tackling this challenge using a combination of Ceph, software-defined storage, various open-source management, security and monitoring components and software-defined networking to enable an infrastructure that supports multiple science domains with multi-institutional access to collaboratively extract scientific results from large, distributed or diverse data. The presentation will cover the current status of OSiRIS, describe its technical details, experiences to-date, and summarize our plans for remainder of the 5-year project.

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