

Apache Airavata: Open Community Science Gateway Framework

Tuesday, 17 September 2013 16:40 (20 minutes)

In this talk, we will present Apache Airavata science gateway framework suite, which is used to manage the complex execution and workflow patterns of scientific applications on distributed computing resources. Apache Airavata is used to develop/enhance science gateways and scientific workflows for astronomy, astrophysics, bioinformatics, computational chemistry, geosciences, and nuclear physics. In this presentation, we examine selected motivating use cases, use these to illustrate Apache Airavata's architecture and design, and describe features in the current Airavata software.

As an Apache Software Foundation project, Apache Airavata is more than open source software. It is also an openly governed software project that encourages external participation in all forms, ranging from contributed code patches to documentation assistance to public advocacy. We review these governance aspects of the project and the potential benefits they offer for other academic software projects. We also highlight the successful Google Summer of Code contributions to the project and integration of Unicore Services on Juelich Supercomputing Center to Ultrascan, an XSEDE Science Gateway.

Co-authors: PIERCE, Marlon (Indiana University); MARRU, Suresh (NSF XSEDE)

Presenter: MEMON, Shahbaz (JUELICH)

Session Classification: Science Gateway Frameworks