

Open OnDemand App Development and Integration

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ABSTRACT

Open OnDemand (openondemand.org) is an NSF-funded open-source HPC platform currently in use at over 200 HPC centers around the world. It is an intuitive, innovative, and interactive interface to remote computing resources. Open OnDemand (OOD) helps computational researchers and students efficiently utilize remote computing resources by making them easy to access from any device. It helps computer center staff support a wide range of clients by simplifying the user interface and experience.

This working session is meant to be an open discussion to guide the future roadmap for OOD in the near term, by getting feedback from the science gateways community on the development and integration of applications within OOD.

Nearly any software application can be made accessible via OOD. The official OOD github repo currently has links to software that appeals to a wide range of scientific disciplines, such as Jupyter, Abaqus, ANSYS, COMSOL, MATLAB, RStudio, Tensorboard, QGIS, VMD, RELION, STATA and Visual Studio. The OOD development team is also aware of planned or ongoing work to integrate many other software packages and platforms, including many that are prominent within the Science Gateways community, such as Galaxy, TAPIS, Globus, and Pegasus.

The OOD team has held more generic ‘Birds of a Feather’ sessions at multiple PEARC and SC conferences in recent years as well as regular online webinars, each of which have seen significant attendance of many dozens of people. As the Gateways series of conferences has historically had many attendees from locations that utilize OOD, as well as attendees from many of the most prolific science gateways development teams, holding a working session to bring together some of these people is a natural fit for the conference.

This proposed working group session is meant to follow that same general format as utilized at PEARC and SC in the

past and be an open discussion to guide the future roadmap for OOD with regards to application development and integration. In following with our previous webinars and BoFs, key outcomes include a summary of the comments and discussion points, which include reports on installation and utilization issues from locations that currently have it installed, as well as a list of feature requests and development prioritizations. The initial slides that the organizers will present, briefly providing an OOD overview, roadmap summary and items of note will also be posted on our website for review by the community.

Keywords—Open OnDemand, App Development, HPC

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