Access experts deliver app solutions, open-source OnDemand



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Web & Interface Services

For those intimidated by the thought of "talking" with supercomputers, Basil Gohar wants to help. As the manager of the Web and Interface Applications group, Gohar and his team have a big goal in mind: Deliver the benefits of powerful computing to users without perceived or actual complexities.

"There is an intimidation factor," said Gohar, whose group manages the way OSC HPC clients access OSC systems through the web. "People believe supercomputing involves very specialized hardware and you have to have a Ph.D. in computer science or be a mad scientist to actually do anything with it. There's no magic going on behind the scenes; it's just normal technology at a larger scale."

That technology is being used in numerous ways for OSC HPC clients. Two of the biggest highlights have been developing an online app store for the AweSim industrial engagement platform, along with setting the groundwork for the Open OnDemand web portal project.

App sharing

Within AweSim, a lot of the work has continued from last year, and a big focus has been on sharing apps. We've enabled the AweSim app developers to actually share their apps through the AweSim dashboard, similar to what can happen in a mobile app store.

For example, say someone writes an application with a type of simulation for filling containers with a fluid. You can then upload a model for a gas can and how much fluid, say, water, oil or honey, you want to put in per second. You write an app that makes it easier for someone to make the calculations themselves and then you can share that app with someone, have them test it out, see if it's good or they can report bugs back to you. Then you report that out and they'll see those updates immediately.

You don't have to know the intricacies of the specific software being used—what's behind the scenes. You just need to know how to use a web site.

Open OnDemand project

Open OnDemand is going to be great because it's one of many open source projects that started at OSC and then went out and became very useful to a lot of people. It's an open source software that will allow people who run their own centers around the U.S. and world to be able to allow other researchers and students access to the system through a web interface rather than traditional command lines, terminals and shell access.

And, Open OnDemand will be modular so it will allow for additional features, like a web file browser, a virtual desktop manager, or even a cluster performance monitoring tool, to be configured and enabled as the site manager desires.