Submission Details: bof117s1

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BoF Title

BoF Title: XALT: Job-Level Usage Data on Today's Supercomputers

BoF Organizer/Speaker Information

Bof Organizer/Speaker 1:

Salutation: Mr.
Name: Dr. Robert T. McLay
Email: mclay@tacc.utexas.edu
Company/Institution: University of Texas at Austin
2nd Company/Institution: TACC
Country: United States of America
Job Title: Manager of Software Tools
Biography:

Robert McLay received his Ph.D from the University of Texas at Austin in Engineering Mechanics. His research interests include solving incompressible fluid dynamics with 3-D Finite Elements on large parallel computers. He is also interested in software tools to support supercomputers.

He joined the Texas Advanced Computing Center in 2008. In 2011, he became manager of the HPC Software Tools group. He released Lmod, a Lua based Environment Modules Tool as open source project in 2009. It has grown from a single center to be used by hundreds of sites around the world.

Photograph:

Type: jpg
Size: 121KB
Uploaded: 12:16 PM
MD5: fa4f717474642af26351815f479763c2
Original Name: RTM_Headshot.jpg

Will this person present this BoF at ISC? Yes
Is corresponding author? Yes
Is this person on the Birds of a Feather reviewing committee? No

Abstract

Abstract (Maximum 250 words):

We're interested in what users are actually doing: everything from which applications, libraries, and individual functions are in demand, to preventing the problems that get in the way of successful computational research. And this year we're especially interested in some of the next great challenges, including (1) understanding the needs of formerly non- traditional research communities that comprise half the user community and whose non- MPI workflows consume more than a third of the computing cycles; (2) Track Container usage on HPC systems; (3) Track the use of GPU's; (4) putting usage data in the hands of end users interested in records of their own job-level activity to facilitate, for example, reproducible research. We are now tracking individual Python packages

and similar usage within other frameworks like R and MATLAB.

XALT (xalt.readthedocs.org) is a battle-tested tool focused on job-level usage data; it enjoys a well-documented history of helping administrators, support staff, and decision makers manage and improve their operations. The small but growing list of centers that run XALT includes NCSA, UK NCC, KAUST, NICS, the University of Utah, and TACC. Join us a far- ranging discussion that will begin with an overview of new XALT capabilities before it ventures into broader strategic and technical issues related to job-level activity tracking.

Topic Area

Please select the topic area(s) your BoF belongs to: Performance Modeling & Measurement

Keywords

Keywords: Containers for HPC
HPC Centre Planning and Operations
MPI

Fraction of time for presentations

How much of your BoF time will be taken up be "classic" presentations, excluding discussion? 30%

Description of concept for making ther BoF interactive

Description of concept for making ther BoF interactive (Maximum 150 words):

Once the topic of Job Level tracking has been introduced, the discussion will be directed to see what interesting things job level tracking can discover on how your users are using your site. Also what are the barriers to getting a tool like XALT up on the attendees site.

Targeted Audience

Targeted Audience (Maximum 100 words):

The targeted audience for this BoF would be site managers trying to understand how there site resource is being used as well as those who's job is to design the sites' next system.

Estimated Number of Attendees

How many attendees do you expect for this BoF session? Between 50 and 80

Consent to be notified about future ISC Call announcements

I agree to be contacted by the ISC organizers for call announcements for future ISC High Performance conferences. yes

Presentation Slides for Attendees

I agree to the publication of the BoF presentation slides as part of the ISC 2020 proceedings. yes