Minute of the meeting
Date: February 18th, 2021

Participants

EUROfusion: France Boillod-Cerneux, David Coster, Jacques David, Roman Hatzky, Serhiy Mochalskyy
CINECA: Susana Bueno, Alessandro Marani, Nitin Shukla

Subjects discussed

Ticket revision

We have reviewed events announced to all users via hpc-newsletter (and via hpc-comm@cineca.it address) that have affected production since January 14 until February 17. We reported also the creation, on January 29, of a new preemption partition on Marconi100.

We have reviewed the progress on the ticket escalated to Intel support, 3932: Intel originally found a bug on the compiler front end and solved it. They provided us an archive with the sources, BUILD script and the outputs of the reproducer that did not show the issue. Unfortunately, the first bug had "hidden" a second bug on the vectorizer that was triggered by the definition of the macro "USE_ARR_IN_MODULE" in the reproducer. We reported this issue to Intel that confirmed the problem and opened a new bug (CMPLRIL0-33599) on which they are working now.

We have also reported and reviewed other tickets on the second level support queue. We have shown a list of tickets referring to users' failed jobs on Marconi SKL partition due to OPA instabilities; we will check previously reported failed jobs, as those indicated in ticket 14301, to check if they ran on the same subset of nodes. For ticket 14109, we will evaluate the possibility of including details in our Users' guide documentation.

Ticket statistics

We have reported and reviewed information collected for all tickets received (on both the first and second level support queues) since January 11 until February 14.

Module usage on Marconi-SKL

We have reported information specific to VASP software to show its usage on Marconi-SKL. We have also shown data collected since March 1 until January 31 that report the modules usage of those batch jobs submitted by EUROfusion users/accounts (4th Cycle Allocation) to Marconi-SKL partition, and data containing information on the module usage by partition/qos for those jobs referring to January 2020.

Sanity checks on Marconi and Marconi100 clusters

Sanity checks were performed during maintenance operations on both Marconi and Marconi100. The results show good stability and there are no performance issues to be reported.

likwid & hpcmd tools

Likwid tool is available as module on Marconi cluster at the candidate modules profile. The installed version is 5.0.1 and contains the patch provided by the tool developer.

Other points discussed

We will have discussed about the mechanism in place on a Sweden computing centre that manages to run OpenMP linpack and a stream call (total time ~ 4 seconds), and If the performance deviates significantly from expected, the node is automatically drained and taken out of operation. The idea of performing small performance tests at the beginning

of each job is interesting but we need more details from the computing centre that developed this test method. The main concerns are about the fact that just 4 seconds of test may be actually not able to tell us anything relevant, and about the job that discovers the issue, that would be rescheduled and may lose priority. EUROFusion will try to get more details so to start a proper discussion.

Next ticket meetings

The scheduled dates for next ticket meetings are:

TM-51: Thursday, March 18th, 2021 at 10:00
TM-52: Wednesday, April 14th, 2021 at 10:00
TM-53: Wednesday, May 19th, 2021 at 10:00