Meeting of the Technical Steering Committee (TSC) Board

Wednesday, June 17th, 2020
11:00am ET

Meeting Logistics

- https://zoom.us/j/556149142

- United States : +1 (646) 558-8656
  - Meeting ID: 556 149 142

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Agenda/Updates

- Announcements:
  - TSC nomination process complete. Request to cast votes for 2020-2021 term has been sent to current TSC members (should have email from Neal)
    - Ballots are due by **Tuesday, June 30**

- Upcoming deadlines:
  - SC'20
    - <u>BoFs</u>: Due **July 31, 2020**

- PEARC'20 tutorial/cloud working group updates (csim)

- 2.0RC1 release

- Mentorship program

OHPC Cloud Working Group Updates

- Web-based tutorial / self-paced education
  - Hugo static site generator + github pages
  - Learn theme - https://themes.gohugo.io/hugo-theme-learn/
  - Skeletal site done: https://utdsimmons.github.io/
  - Need to migrate to ohpc github page or some other mechanism
  - Possible mechanism for more/future tutorial content
  - Meeting Weekly for the next ~6 weeks

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2.0RC1 – released on June 05, 2020

- Release notes at
  https://github.com/openhpc/ohpc/releases/tag/v2.0RC1

- Final package availability counts:

Base OS	aarch64	x86_64	noarch
CentOS 8	179	336	28
Leap 15	177	328	28

- Went live with 6 recipes total:
  - CentOS 8.1
    - Warewulf+SLURM (x86_64)
    - Warewulf+SLURM (aarch64)

  - Leap 15.1
    - Warewulf+SLURM (x86_64)
    - Warewulf+SLURM (aarch64)
    - Warewulf+PBS Pro (x86_64)
    - Warewulf+PBS Pro (aarch64)

2.0 RC1 (05 June 2020)

koomie released this 11 days ago

Release Notes

- This initial release candidate (2.0 RC1) represents a significant update for OpenHPC to target support for two new major OS distro versions: **CentOS8.1** and **OpenSUSE Leap 15.1**.
  - As the OpenHPC 2.x series targets major new distro versions, please note that the 2.x series is **not** backwards compatible with the OpenHPC 1.3.x series.
  - OpenHPC 2.x is intended for fresh installs with the newer distro versions (or containers based on these distro versions).
  - Note that 2.x builds for SUSE based systems are now performed against Leap instead of SLES. Leap 15.1 is intended to be compatible with SLES 15 SP1.
  - Systems that start with 2.0RC1 installs will be able to upgrade to future 2.X releases.

Important Highlights/Notices

- A new compiler variant `gnu9` is introduced with this release.
- A new openmpi variant `openmpi4` is introduced with this release.
- MPICH builds now use the newer `ch4` interface.
- 2.x introduces the use of two related transport layers for MPICH and OpenMPI family builds that support a variety of underlying fabrics: UCX (Unified Communication X) and OFI (OpenFabrics interfaces).
- 2.x also introduces initial 3rd party builds against the Arm Linux compiler for aarch64:
  - A compiler compatibility package (`arm1-compilers-devel-ohpc`) is provided to enable the `arm1` compiler variant. See Section 3.7 in the aarch64 recipes for additional information.
  - Initially, only a subset of development packages are available for use with the `arm1` variant. See details below and Appendix E in the aarch64 recipes for details on available builds.
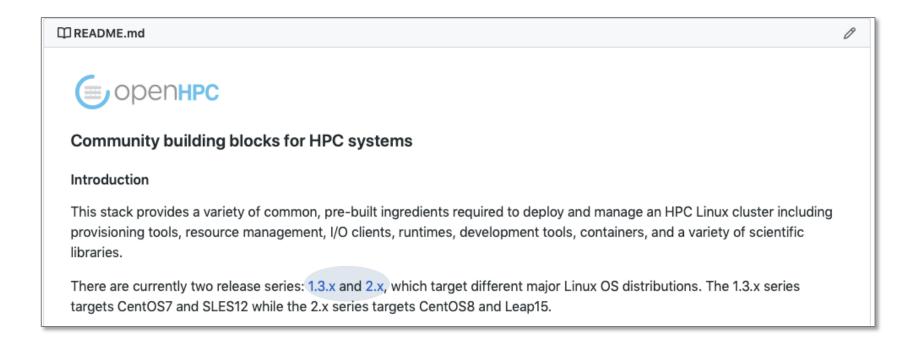- 2.x package repositories are now hosted on a new site: http://repos.openhpc.community

General Updates

- nagios, munge, and clustershell installs in recipes now leverage distro-provided versions
- `ip` is now used in place of `ifconfig` in documentation recipes (#600)
- the intel-mpi-devel-ohpc compatibility package can now be installed independently of the companion compiler (#955)
- installation recipes have been updated to use `chrony` instead of `ntpd` for time synchronization (#1107)
- packaging for a number of development components has been updated to allow better alternate build flag support. This is intended for sites who would like to rebuild from an ohpc provided src.rpm and provide alternate build settings (e.g. to apply additional processor-specific optimization flags) (#1183)
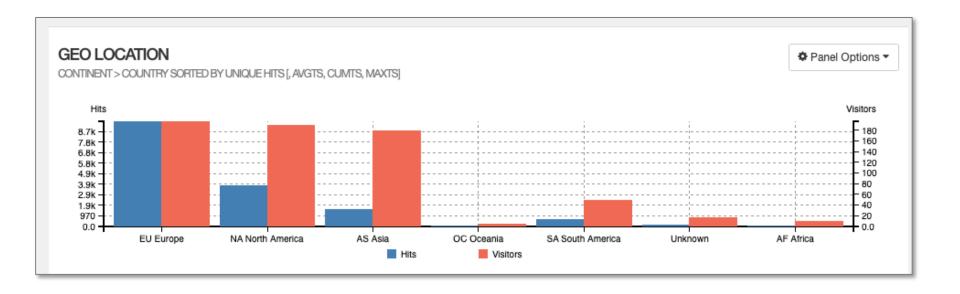- slurm configuration example in installation recipes updated to use "configless" option (#1205)

2.0RC1 – GitHub

- Now that 2.x is available, we have two current trees (1.3.x and 2.x) which are applicable for different distro versions.

- Tweaked the top-level GitHub page to reflect this; we now have separate (wiki) pages to download packages for 1.3.x or 2.x:

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2.0RC1 – any initial takers?

- 356 GB downloaded from new repository (but note that 39GB is from our CI testing at Linaro)

  – averaged ~4TB download/month for previous releases over last 3 months

- 34 downloads for distribution tarballs (both aarch64 and x86_64)

Mentorship Program

- With a 2.0 RC release out, would like to revisit the mentorship program discussed previously

- We have budget approval to fund 4 mentees ($4K stipend)

- Will host application process on Linux Foundation mentorship pages

  - https://communitybridge.org

- With COVID-19, travel possibilities to sync up at a conference are obviously up in the air, but can proceed without that for virtual mentorship program

- Previous potential mentor volunteers:
  - Chris S.
  - Reese
  - Nirmala
  - Karl
  - Adrian
  - Aaron
  - Peter Liu
  - Derek

Mentorship – project proposals

can we prioritize these – other new items folks would like to add instead?

1. document and test end-to-end cloud recipe on one at least one cloud service provider (*focus of current PEARC workshop*) – add PBS support and Leap15. Turn it into a recipe.

2. design add-on documentation for additional services
   - e.g. how to integrate with existing LDAP server or AD?
   - what's new with centos8/leap15?
   - security advise for securing your head node; selinux, etc...
   - Jupyter notebooks (support with a workload manager)
   - Open OnDemand
   - UseGalaxy.org
   - document provisioning of a management node to support variety of add-on services?
   - document provisioning of a login node
   - TSC to potentially devise review mechanism to promote documentation
   - high availability of head node with corosync/pacemaker

3. add performance testing subcomponent to ohpc test harness
   - cache performance results of key benchmarks, kernels, common applications
   - method for publishing results

4. design add-on documentation/testing for adding several ML frameworks

5. How to build/deploy/execute containers within your snazzy openhpc cluster

6. Documentation around how to do a customized rebuild of existing ohpc package or add your own package

7. Multi arch cluster documentation

8. Documentation on extending local cluster packages with Spack/EasyBuild

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