



Meeting of the Technical Steering Committee (TSC) Board

Wednesday, June 16th, 2021
11:00am ET

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Agenda/Updates

- Announcements, upcoming talks and deadlines
 - ISC 2021 – OpenHPC BoF: Monday, June 28
 - PEARC'21 BoF submission – ****ACCEPTED****
 - SC'21 BoF submission – due August 6
-

- Internship program experience – Derek?
- TSC Nominations
- Infrastructure updates
- Distro updates
- Singularity
- ISC BoF

TSC Selections

- We are coming up on the end of the current 2020-2021 TSC service cycle (term ends June 30)
 - Nominations closed last Friday for 2021-2022 membership
 - Neal sent out voting form to current TSC members:
 - Please cast your votes by **Tuesday, June 29**
 - Intent is to hopefully announce new TSC membership at next meeting

Infrastructure Updates

TACC Hosted Hardware

- Previously indicated that we did not need to move our gear at TACC
- TACC folks had a change, and we did need to relocate after all
 - OHPC gear currently housed in 1 rack
 - Relocated inside TACC's datacenter last week (Thursday)
 - Rack is mostly back in production now
 - x86_64 OBS build service restored yesterday
 - making some test runs on x86_64 CI now...

ARM Cloud Bare-metal

- Our aarch64 OBS builder has been sponsored by the Works on ARM project using a Cavium-based server at Packet
- Packet acquired by Equinix in 2020
- We were requested to update our infrastructure (current server to retire); I put in a new community request last month which was approved for an Ampere based server
 - Running into problems provisioning this host
 - OBS packages are provided for openSUSE and SLES variants; unfortunately, these images are no longer provided as boot options by Equinix metal
 - Have been trying to PXE boot and use installers via NETBOOT.XYZ (<https://netboot.xyz>)
 - Aarch64 support seems to be lacking
 - Iterating with support, but welcome tips if anyone has installed an openSUSE variant on aarch64 with PXE boot
 - Backup option: may have to provision CentOS and run OBS virtualized with qemu



Distro Updates

- Updates announced for both of our currently supported 2.x distros
 - CentOS 8.4 released June 03
 - Leap 15.3 released June 02
- CentOS 8.4
 - we know there is at least 1 issue using CentOS8.4 with current ohpc related to the hwloc issue we encountered with Stream previously
 - 8.4 has a new version of hwloc and .so numbering changed
 - Breaks install of current resource manager builds (both SLURM and OpenPBS)...

```
+ yum -y --installroot=/opt/ohpc/admin/images/centos8.3 install ohpc-slurm-client
```

```
Last metadata expiration check: 0:00:21 ago on Tue 15 Jun 2021 06:45:36 PM CDT.
```

```
Error:
```

```
Problem: conflicting requests
```

- package ohpc-slurm-client-2.0-47.1.ohpc.2.0.x86_64 requires slurm-slurmd-ohpc, but none of the providers can be installed
- package ohpc-slurm-client-2.1-5.1.ohpc.2.1.x86_64 requires slurm-slurmd-ohpc, but none of the providers can be installed
- package ohpc-slurm-client-2.0-47.1.ohpc.2.0.aarch64 does not have a compatible architecture
- nothing provides libhwloc.so.5()(64bit) needed by slurm-slurmd-ohpc-20.02.5-13.1.ohpc.2.0.x86_64
- package ohpc-slurm-client-2.1-5.1.ohpc.2.1.aarch64 does not have a compatible architecture
- nothing provides libhwloc.so.5()(64bit) needed by slurm-slurmd-ohpc-20.11.7-3.1.ohpc.2.2.x86_64

```
(try to add '--skip-broken' to skip uninstalleable packages)
```

Distro updates – CentOS 8.4

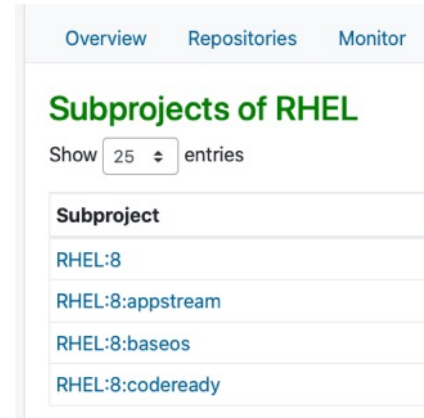
- Have imported CentOS8.4 image into our x86_64 CI
- Setup ohpc 2.3 Factory in our OBS to use public CentOS8.4 repo and rebuilt SLURM
- With this rebuild, all looks good with SLURM with example CI test run
- Discussion on hwloc:
 - SLURM and OpenPBS builds using distro provided hwloc (can't rely on lmod modules to load)
 - We also provide a build of hwloc that does allow multi-version installs via our normal versioned path
 - Alternatively, we could treat hwloc "specially" and install into a fixed path for use with resource managers....
 - Would not be able to support multiply installed versions
 - But would avoid a future gotcha like this with resource managers
- Thoughts on pushing out rebuilds of SLURM and OpenPBS for CentOS8.4 (ohpc v2.3 release)?
 - *Could do this fairly quickly by just rebuilding against updated distro version
 - No change in SLURM version, just a rebuild
 - OpenPBS, minor version update: 20.0.0 -> 20.0.1 (have rebuilt already, but not yet tested...)
 - Need to verify aarch64 as well
 - Or, could take a little time to explore using an updated version of hwloc-ohpc
 - Likely need to rebuild some MPI stacks as well..
- *Then, take longer and target both CentOS8.4 and Leap 15.3 for an ohpc v2.4 release...
 - Revisit hwloc and make all relevant packages use updated version of hwloc-ohpc

Singularity

- Jeremy pointed out that Singularity versions in distros has caught up a reasonable amount (<https://github.com/openhpc/ohpc/pull/1325>)
 - CentOS 8.4 -> Singularity v3.7.4
 - Leap 15.3 -> Singularity v3.7.2
 - OpenHPC v2.x version currently at v3.7.1
- This was brought up once before and consensus was to stick with an ohpc build at the time:
 - How do folks feel about this now?

ISC BoF - Monday, June 28

- Recall this is only 30 minutes long
 - Will quickly go over 2.x release highlights
 - Mention cloud-based recipe.
 - Mentorship program next summer
 - Pre-built containers available
 - Methods of communication
 - Slack
 - Component submission process
 - Presume major focus of discussion will be around CentOS8
 - We can highlight working Rocky recipe in ohpc v2.2
 - Also hoping to have proof of concept using RHEL packages on our OBS build server
 - Have 3 RHEL repos imported thus far for x86_64 (note, **codeready** in RHEL is **powertools** in CentOS)
 - Unfortunately, cannot resolve every package needed just yet to kick off a build
 - Other items for input?
 - Do we want to mention this hwloc business?
 - Singularity?



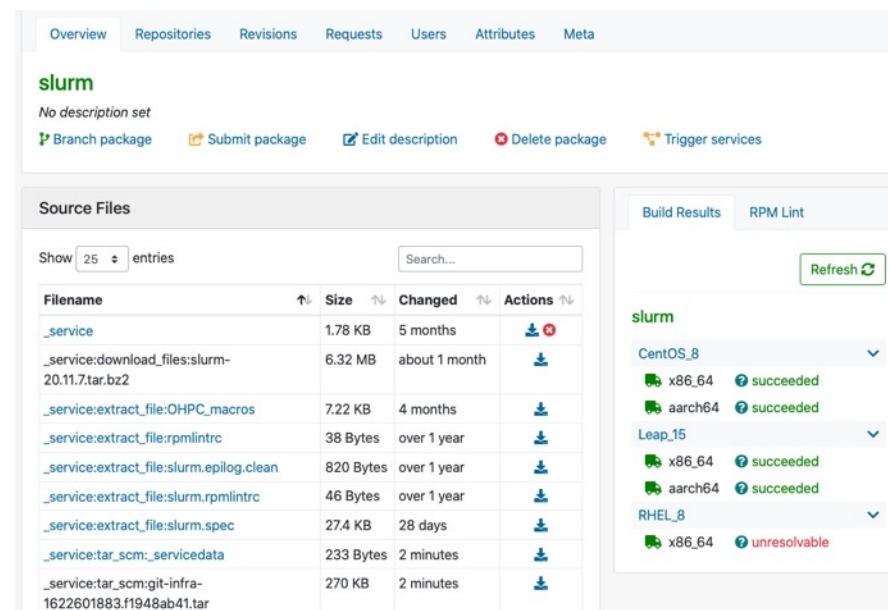
Overview Repositories Monitor

Subprojects of RHEL

Show 25 entries

Subproject

- RHEL:8
- RHEL:8:appstream
- RHEL:8:baseos
- RHEL:8:codeready



Overview Repositories Revisions Requests Users Attributes Meta

slurm

No description set

Branch package Submit package Edit description Delete package Trigger services

Source Files

Show 25 entries Search...

Filename	Size	Changed	Actions
_service	1.78 KB	5 months	⬇️ ⬆️
_service:download_files:slurm-20.11.7.tar.bz2	6.32 MB	about 1 month	⬇️
_service:extract_file:OHPC_macros	7.22 KB	4 months	⬇️
_service:extract_file:rplintrc	38 Bytes	over 1 year	⬇️
_service:extract_file:slurm.epilog.clean	820 Bytes	over 1 year	⬇️
_service:extract_file:slurm.rplintrc	46 Bytes	over 1 year	⬇️
_service:extract_file:slurm.spec	27.4 KB	28 days	⬇️
_service:tar_scm:_servicedata	233 Bytes	2 minutes	⬇️
_service:tar_scm:git-infra-1622601883.f1948ab41.tar	270 KB	2 minutes	⬇️

Build Results RPM Lint

Refresh

slurm

- CentOS_8
 - x86_64 succeeded
 - aarch64 succeeded
- Leap_15
 - x86_64 succeeded
 - aarch64 succeeded
- RHEL_8
 - x86_64 unresolvable