



# Meeting of the Technical Steering Committee (TSC) Board

Tuesday, March 20<sup>th</sup> 2018  
11:00am ET

# Meeting Logistics

- [https://www.uberconference.com/jeff\\_ef](https://www.uberconference.com/jeff_ef)
- United States : +1 (510) 224-9559 (No PIN needed).

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# Agenda

- Follow up on discussion item from last time:
  - ✓ the python module naming scheme chosen last time has been implemented to distinguish python2/3 build variants

```
$ module avail py2 py3
----- /opt/ohpc/pub/moduledeps-gnu7-openmpi3 -----
    py2-mpi4py/3.0.0      py2-scipy/1.0.0      py3-mpi4py/3.0.0      py3-scipy/1.0.0
----- /opt/ohpc/pub/moduledeps-gnu7 -----
    py2-numpy/1.14.2      py3-numpy/1.14.2
```

- SLURM update/CVE
- Review Cycle #6
- ARM HPC compiler update
- pdtoolkit – old gcc binary
- Component deprecation discussion (updated draft)
- v1.3.4 release work update

# SLURM Update/CVE

- We received a message last week regarding a forthcoming SLURM release to address another CVE
  - SQL injection attacks against slurmdbd
  - <http://cve.mitre.org/cgi-bin/cvename.cgi?name=CVE-2018-7033>
- SLURM v17.11.15 released on March 15, 2018
- Given the CVE, opted to go ahead and package this latest release for v1.3.4

# Review Cycle #6

openhpc / submissions

## Review #6

No due date 0% complete

Edit milestone New issue

Open	Closed
5	0

- OpenCoarrays #34 opened 8 days ago by LaHaine 10 of 22
- Charliecloud #30 opened on Jan 4 by reidpr 12 of 22
- Paraver #31 opened on Jan 8 by jvallil3 10 of 22
- Dimemas #32 opened on Jan 8 by jvallil3 10 of 22
- Extrae #33 opened on Jan 9 by jvallil3 10 of 22

- We received a total of 5 new requests for the current cycle
  - 3 are related (Paraver, Dimemas, and Extrae)
  - the submitter for these did some starting packaging work in OBS (<https://build.openhpc.community/project/how/home:juanvalls>)
- Recall need minimum of 5 reviews:
  - Site reps (Eric, Derek, Doug)
  - Comp. development reps (Todd/Jeff)
  - Karl
  - Other volunteers?
- Proposed reviewer deadline:  
**Monday, April 2<sup>nd</sup>**
- Proposed deadline for next submission boundary?  
**July 6<sup>th</sup> 2018**

Note: ISC is June 24-28

# ARM HPC compiler update

- Recall previous discussions from last year where we discussed intent to provide aarch64 builds against ARM's HPC compiler toolchain (`armclang`, `armclang++`, `armflang`)
  - similar to packaging for builds with Intel's parallel studio
  - requires some back-end infrastructure updates in OBS to ingest ARM compiler RPMs for use in our builds
  - also requires compatibility package to enable ohpc family hierarchy support
- Update on progress:
  - initial OBS work complete and tested with v18.1 release of ARM HPC compilers
  - initial compatibility package created (`arm-compilers-devel`)
    - works similar to `intel-compilers-devel` to scan for locally installed toolchain binaries
    - however, leverages modulefiles shipped with ARM HPC rpms
  - was able to build an example component (METIS) in my home project area using slightly amended OHPC macro files to introduce an "arm" variant:  
<https://build.openhpc.community/package/show/home:Admin/metis-arm>
  - have provided some feedback to ARM on their RPM packaging that could improve compatibility package dependency requirements and relocation support
- So, that's the good news. The next difficulty is to get all of the relevant packages to build with this toolchain
  - suspect a number of these have not been built previously with clang
  - MPICH and OpenMPI builds did not work out of the box
  - ARM folks have been working with a lot of these packages and will work to provide updates to enable builds
    - hope to get enough packages enabled to include for next release (v1.3.5 for ISC)

# pdtoolkit – old gcc binary

- Had a GitHub ticket filed asking about the presence of old gcc binary in pdtoolkit packaging

<https://github.com/openhpc/ohpc/issues/687>

GNU C version 4.0.2 (University of Oregon, TAU, PDT (r128 - built Thu Jun 3 10:03:11 PDT 2010)) (x86\_64-unknown-linux-gnu)

- This ships with pdtoolkit as part of TAU and is used for source code instrumentation
- Believe it is possible to build TAU without pdtoolkit, but you lose automatic instrumentation features
- Thoughts/comments on how to respond?

# Component deprecation discussion

Follow up from last time:

- Draft write-up shared in google doc

[https://docs.google.com/document/d/1qtDIknqVEBiU4fs2RHFsfJ5ItBJQRNsCNNWd\\_EL5\\_OM/edit?usp=sharing](https://docs.google.com/document/d/1qtDIknqVEBiU4fs2RHFsfJ5ItBJQRNsCNNWd_EL5_OM/edit?usp=sharing)

- Thanks for those who reviewed. Based on the comments, have made several updates that will highlight next

# Component depreciation

Changes from initial draft  
are highlighted in [green](#)

## Updated Draft for Component Deprecation (1 of 2)

### Purpose:

OpenHPC relies on a growing number of open-source projects to provide a variety of pre-built binaries and libraries common in HPC environments for multiple Linux distributions. While OpenHPC strives to maintain the entire set of selected components for each release, the purpose of this policy is to cover situations where a particular component cannot be maintained and outlines the OpenHPC deprecation procedure.

### Outline:

Existing components within OpenHPC may be flagged for deprecation consideration for the following general reasons ([along with other issues raised by the community that gather sufficient support](#)):

- build failures encountered using current OpenHPC development toolchain(s)
- runtime test failures encountered in OpenHPC integration test suite
- incompatibility with other component changes (e.g. API changes, etc)
- component functionality superseded by newer, [stable](#) development project
- availability of component in binary form from other community repositories that are sufficient for use with OpenHPC
- incompatible license change
- unresolved security issues
- introduction of incompatible dependency requirements
- upstream source removal/deprecation
- [community resource constraints](#)
- = ~~other miscellaneous issues that prevent component from being used as desired in OpenHPC environment~~

# Component depreciation (cont.)

Changes from initial draft  
are highlighted in green

## Updated Proposal Draft for Component Deprecation (2 of 2)

If any of the issues outlined are encountered, OpenHPC maintainers will first try to resolve the problems directly through creation of patches and interaction with the relevant upstream development parties. Generic patches devised for use within the OpenHPC build process will be submitted upstream for consideration. In cases where a particular problem cannot be resolved in time for the next planned OpenHPC release (herein referred to as the N<sup>th</sup> release), the following process will be triggered:

- relevant component(s) will be demarcated with a "stalled" flag in the Important Highlights section of the Release Notes with a brief summary of the issue(s) encountered
- relevant component(s) that are stalled will not be included in the N<sup>th</sup> release (N)

### Deprecation:

Components flagged as "stalled" during the N<sup>th</sup> release will continue to be analyzed during the development cycle for the subsequent OpenHPC release (N<sup>th</sup>+1). If a component issue cannot be satisfactorily resolved via changes by upstream community or OpenHPC maintainers in time for the (N<sup>th</sup>+1) release, the relevant component(s) will be deprecated.

Once deprecated, the relevant component(s) will not be included for any future releases unless it is selected for re-inclusion via the OpenHPC component submission process.

# Component depreciation (cont.)

- Other remaining thoughts/comments?
- Is there sufficient agreement to post this policy on our wiki?

## 1.3.4 status

- still trying to complete target release deadline at the end of this month
- recall that this release adopts the updated dependency packaging approach which appends "(ohpc)" as a color on .so's installed into /opt/ohpc path
  - in addition to the usual bevy of component version updates, also includes several new components:
    - MFEM, Likwid, and NHC

### 1.3.4

No due date 87% complete

[Edit milestone](#) [New issue](#)

Open	Closed
7	50

[Metric 'disk\\_total' will lost after 300 secs using gmond default configure](#) #681 opened 14 days ago by gassyfeve 5

[Tau 2.27 won't profile non-MPI with monolithic libTAU](#) bug #683 opened 12 days ago by crbaird

[pdtoolkit \(3.25\)](#) built component t:perf-tools #624 opened on Nov 28, 2017 by crbaird

[PMIx \(2.0.2\)](#) component t:rms #616 opened on Nov 28, 2017 by crbaird

[tau \(2.27\)](#) built component t:perf-tools #612 opened on Nov 28, 2017 by crbaird

[Adding xCAT stateful recipe](#) #522 opened on Aug 8, 2017 by mrmhodak 1

[add pbspro to aarch64 testing matrix for centos and sles](#) arm64 #582 opened on Oct 18, 2017 by ericvh 1

# 1.3.4 status - CI snapshot

majority of runs looking good

still need to test upgrade and  
install from dist tarballs

 **1.3.x**

OpenHPC CI Infrastructure  
Thanks to the Texas Advanced Computing Center (TACC) for hosting support and to Intel, Cavium, and Dell for hardware donations.

[add description](#)

S	W	Categorized - Job	Last Success	Last Failure	Last Duration
1.3	1.3.1	1.3.2	1.3.3	<b>1.3.4</b>	All
					<a href="#">+</a>
-	⌚	.. » [aarch64]	<b>18 hr - #38</b>	<b>6 hr 32 min - #40</b>	<b>2 hr 37 min</b>
		☁ (1.3.4) - (centos7.4,aarch64) (warewulf+slurm) (fabric=eth)	18 hr - #38	6 hr 32 min - #40	2 hr 37 min
		☁ (1.3.4) - (sles12sp3,aarch64) (warewulf+slurm) (fabric=eth)	21 hr - #35	9 hr 25 min - #37	2 hr 29 min
-	✓	⌚ .. » [x86_64] - CentOS 7	<b>1 hr 38 min - #88</b>	<b>16 hr - #83</b>	<b>1 hr 24 min</b>
		✅ ⌚ (1.3.4) - (centos7.4,x86_64) (warewulf+pbspro) (fabric=lb) - UEFI	2 hr 50 min - #120	2 days 23 hr - #97	1 hr 8 min
		⌚ (1.3.4) - (centos7.4,x86_64) (warewulf+slurm) (fabric=eth)	1 hr 38 min - #236	3 days 19 hr - #191	1 hr 6 min
		⌚ (1.3.4) - (centos7.4,x86_64) (warewulf+slurm) (fabric=ib) + psxe	4 hr 51 min - #87	16 hr - #83	2 hr 22 min
		⌚ (1.3.4) - (centos7.4,x86_64) (warewulf+slurm) (fabric=opa) + psxe	4 hr 26 min - #81	3 days 9 hr - #62	2 hr 22 min
		✅ ⌚ (1.3.4) - (centos7.4,x86_64) (xcat+slurm) (fabric=lb)	1 hr 38 min - #88	22 hr - #80	1 hr 24 min
-	!	⌚ .. » [x86_64] - SLES12	<b>1 hr 25 min - #87</b>	<b>2 hr 3 min - #65</b>	<b>1 hr 0 min</b>
		✅ ☁ (1.3.4) - (sles12sp3,x86_64) (warewulf+pbspro) (fabric=lb) - UEFI	1 hr 25 min - #87	10 hr - #84	1 hr 0 min
		✅ 🌐 (1.3.4) - (sles12sp3,x86_64) (warewulf+slurm) (fabric=eth)	2 hr 33 min - #86	14 hr - #82	54 min
		✅ 🌐 (1.3.4) - (sles12sp3,x86_64) (warewulf+slurm) (fabric=ib)	2 hr 49 min - #125	14 hr - #121	1 hr 11 min
		❗ ☁ (1.3.4) - (sles12sp3,x86_64) (warewulf+slurm) (fabric=opa) + psxe	6 hr 31 min - #64	2 hr 3 min - #65	2 hr 4 min