



Meeting of the Technical Steering Committee (TSC) Board

Wednesday, July 3rd, 2019
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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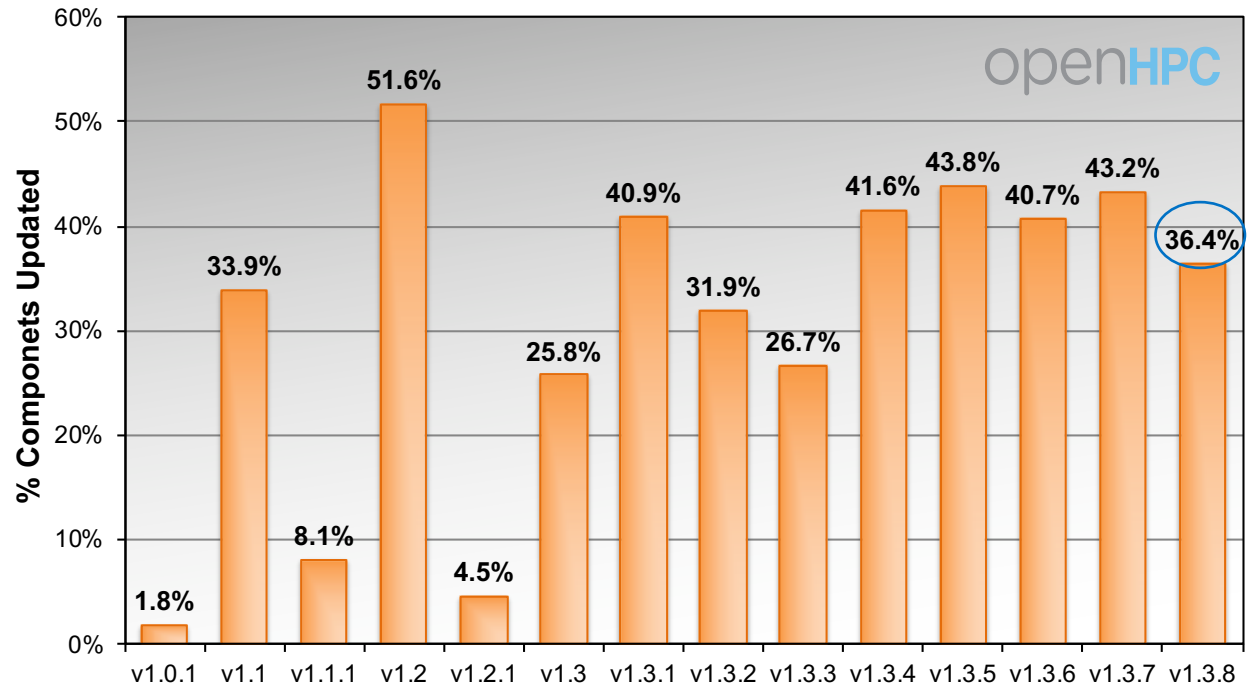
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Agenda

- Reminders
 - 2018/2019 TSC membership voting
 - thanks to everyone for getting nominations in
 - existing members can still cast votes
 - Neal sent out link to voting form
 - voting extended till next week: **Wed, July 10th**
 - PEARC'19 Tutorial: Monday afternoon (July 29, 2019)
 - SC BoF submission deadline: July 31, 2019
- Workshop Submission: Open Source European Summit (LF)
 - Adrian (with Chris D.) submitted OpenHPC workshop application
 - if accepted, will try to leverage cloud resources for the hands-on workshop
- 1.3.8 release
- ISC'19 Post mortem
- Q2 2019 access metrics
- 2.0 infrastructure prep

1.3.8 Release

- Released the week before ISC on June 11
- Roughly similar amount of component version updates that we've seen in last several releases



OpenHPC v1.3.8 - S/W components

Functional Areas	Components new in v1.3.8 release
Base OS	CentOS 7.6, SLES12 SP4
Architecture	aarch64, x86_64
Administrative Tools	Conman, Ganglia, Lmod, LosF, Nagios, NHC, pdsh, pdsh-mod-slurm, prun, EasyBuild, ClusterShell, mrsh, Genders, Shine, Spack, test-suite
Provisioning	Warewulf, xCAT
Resource Mgmt.	SLURM, Munge, PBS Professional, PMIx
Runtimes	Charliecloud, OpenMP, OCR, Singularity
I/O Services	Lustre client, BeeGFS client*
Numerical/Scientific Libraries	Boost, GSL, FFTW, Hypre, Metis, MFEM, Mumps, OpenBLAS, OpenCoarrays, PETSc, PLASMA, Scalapack, Scotch, SLEPc, SuperLU, SuperLU_Dist, Trilinos
I/O Libraries	HDF5 (pHDF5), NetCDF/pNetCDF (including C++ and Fortran interfaces), Adios
Compiler Families	GNU (gcc, g++, gfortran), Clang/LLVM, Intel Parallel Studio*
MPI Families	MVAPICH2, OpenMPI, MPICH, Intel MPI*
Development Tools	Autotools, cmake, hwloc, mpi4py, R, SciPy/NumPy, Valgrind
Performance Tools	PAPI, IMB, Likwid, mpiP, pdtoolkit TAU, Scalasca, ScoreP, SIONLib, GeoPM, mrsafe, Dimemas, Extrae, Paraver, OSU Microbenchmarks

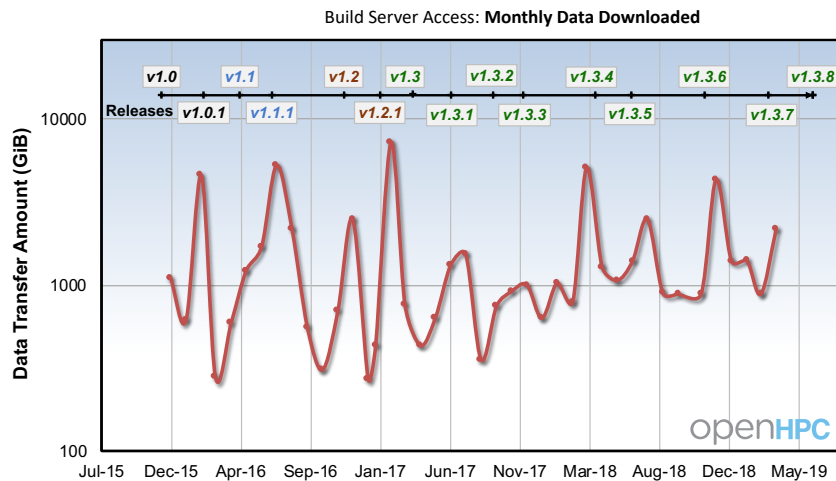
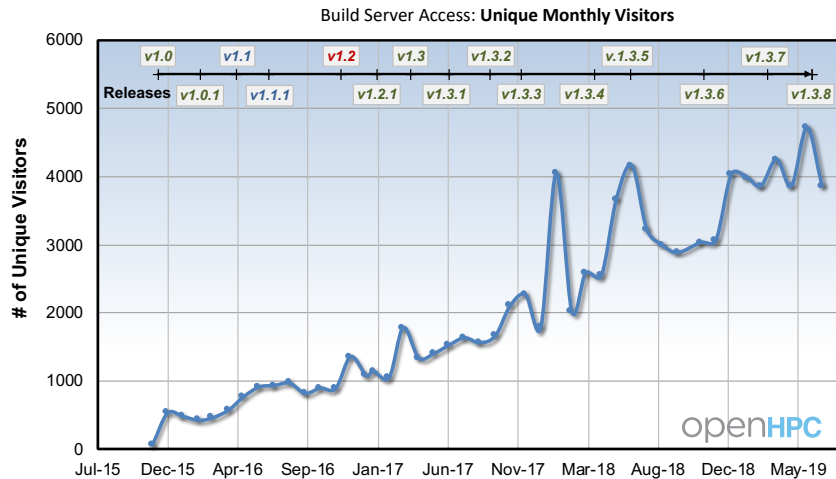
- 3rd Party libraries are built for each compiler/MPI family
- Resulting repositories currently comprised of ~700 RPMs

ISC'19 - Post Mortem

- General feedback:
 - multiple generic "thank you"s, keep up the good work
 - complimentary on quality of existing recipes
- BoF Session
 - we drew an unlucky time with 8:30am slot on last day
 - room was small, but ended up being full
- Some discussion items:
 - do we have sview build enabled for slurm?
 - I checked on this - we do - it get's packaged up as a separate rpm, so user needs to opt-in to install that
 - user expecting to see spack module available as non-admin user
 - agree on this, we've talked about this before and would like to try and revamp spack install for 2.x
 - folks seem generally favorable if we can provide mechanism to automatically pre-register installed ohpc packages with easybuild and spack to avoid rebuilds
 - question about not wanting to upgrade packages for users with existing application builds
 - walked thru the fact that you can opt-in to install new compiler/mpi variants
 - admin chooses what is default lmod environment for their users
 - packaging and install paths purposefully done so you can keep all old versions if you want as well
 - question about centos7 to centos8 in-place upgrade
 - some information online about ability to upgrade from rhel7 to rhel8 using Leapp utility
 - impact for us would be to maintain increasing package release numbers for components that do not have a newer upstream version



Updated Usage/Access Statistics (thru June 2019)

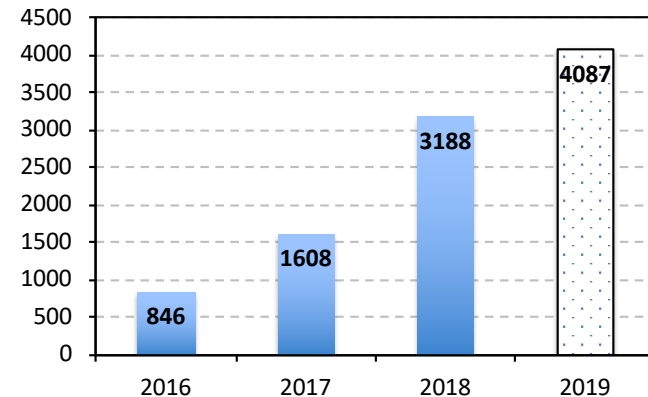


- Stats for build/repo server (tracking # of unique visitors per month and amount of data downloaded):

<http://build.openhpc.community>

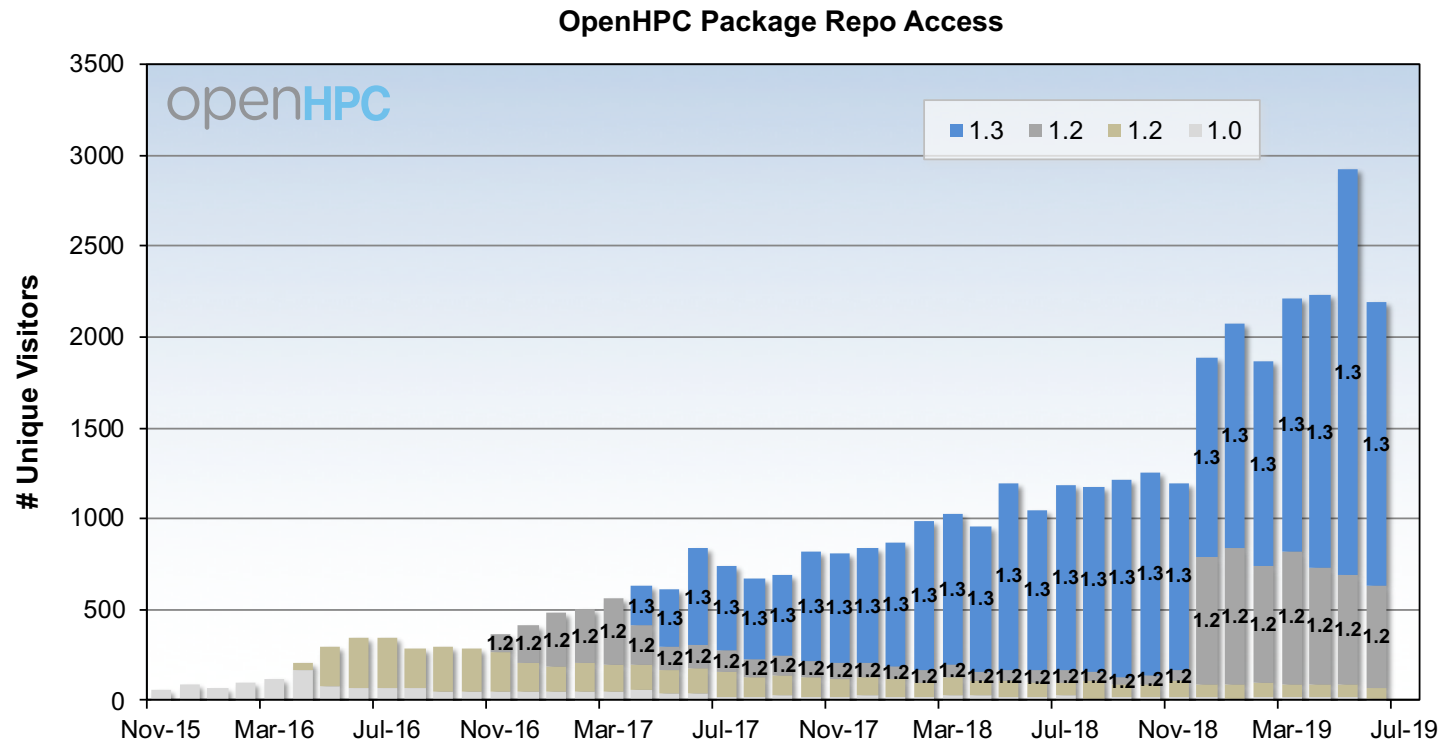
- Averaging ~2.4 TB/month download in 2019

Average # of visitors/month



Updated Usage/Access Stats (thru June 2019)

- These stats monitor access specifically to package repository metadata (typically expected to be via yum/zypper)
- Repo access binned by minor version



Updated Usage/Access Stats (thru June 2019)

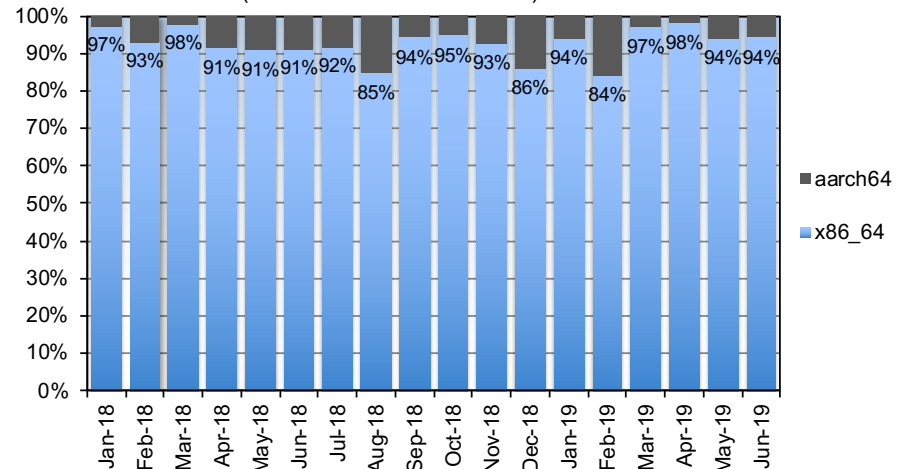
Architecture specific metrics:

- To provide some characterization, we scrape the access logs to analyze two architecture specific file types:

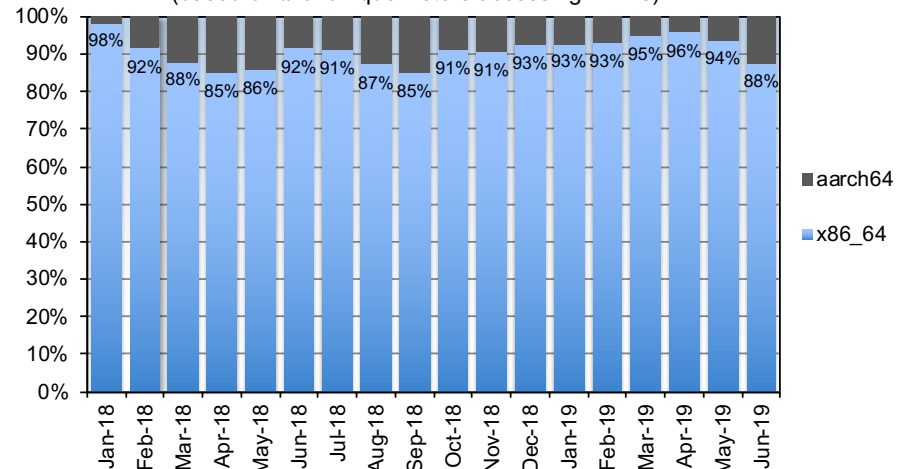
`(aarch64 | x86_64) .rpm`
`(aarch64 | x86_64) .tar`

- Plots compare percentages for the amount of data xfer'ed and the # of unique visitors accessing the (aarch64|x86_64) files

Download Comparison by Architecture
(based on RPM data xfer'ed)



Download Comparison by Architecture
(based on # of unique visitors accessing RPMs)



2.x Infrastructure Prep

- Have ingested OpenSUSE Leap 15.1 (x86_64) RPMs into our OBS system
 - still need to ingest aarch64 and a little more work to get setup for builds
- 2.0 branch in Github exists now
 - note: changed branch naming convention
 - we previously embedded strings like "obs", "Factory", and "OpenHPC" in the branch names following some other projects, but didn't really do anything with it
 - taking opportunity to update for 2.x and will just use version number for branch naming
- For 2.x, would like to move final production package repositories to live on s3, instead of our OBS instance
 - started to sync over our current repo(s) to s3
 - can talk in the future whether we'd like existing 1.3.8 users to migrate to this in the future, or not