

Table 5: **Resource Management**

RPM Package Name	Version	Info/URL
munge-ohpc	0.5.12	MUNGE authentication service. http://dun.github.io/munge
pbspro-client-ohpc	14.1.0	PBS Professional for a client host. https://github.com/pbspro/pbspro
pbspro-execution-ohpc	14.1.0	PBS Professional for an execution host. https://github.com/pbspro/pbspro
pbspro-server-ohpc	14.1.0	PBS Professional for a server host. https://github.com/pbspro/pbspro
slurm-devel-ohpc	16.05.8	Development package for Slurm. http://slurm.schedmd.com
slurm-munge-ohpc	16.05.8	Slurm authentication and crypto implementation using Munge. http://slurm.schedmd.com
slurm-ohpc	16.05.8	Slurm Workload Manager. http://slurm.schedmd.com
slurm-pam_slurm-ohpc	16.05.8	PAM module for restricting access to compute nodes via Slurm. http://slurm.schedmd.com
slurm-perlapi-ohpc	16.05.8	Perl API to Slurm. http://slurm.schedmd.com
slurm-plugins-ohpc	16.05.8	Slurm plugins (loadable shared objects). http://slurm.schedmd.com
slurm-sjobexit-ohpc	16.05.8	Slurm job exit code management tools. http://slurm.schedmd.com
slurm-sjstat-ohpc	16.05.8	Perl tool to print Slurm job state information. http://slurm.schedmd.com
slurm-slurmdb-direct-ohpc	16.05.8	Wrappers to write directly to the slurmdb. http://slurm.schedmd.com
slurm-slurmdbd-ohpc	16.05.8	Slurm database daemon. http://slurm.schedmd.com
slurm-sql-ohpc	16.05.8	Slurm SQL support. http://slurm.schedmd.com
slurm-torque-ohpc	16.05.8	Torque/PBS wrappers for transition from Torque/PBS to Slurm. http://slurm.schedmd.com

Table 6: **Compiler Families**

RPM Package Name	Version	Info/URL
gnu-compilers-ohpc	5.4.0	The GNU C Compiler and Support Files. http://gcc.gnu.org
intel-compilers-devel-ohpc	2017	OpenHPC compatibility package for Intel(R) Parallel Studio XE. https://github.com/openhpc/ohpc

Table 7: MPI Families

RPM Package Name	Version	Info/URL
intel-mpi-devel-ohpc	2017	OpenHPC compatibility package for Intel(R) MPI Library. https://github.com/openhpc/ohpc
mpich-gnu-ohpc mpich-intel-ohpc	3.2	MPICH MPI implementation. http://www.mpich.org
mvapich2-gnu-ohpc mvapich2-intel-ohpc mvapich2-psm2-gnu-ohpc mvapich2-psm2-intel-ohpc	2.2	OSU MVAPICH2 MPI implementation. http://mvapich.cse.ohio-state.edu/overview/mvapich2
openmpi-gnu-ohpc openmpi-intel-ohpc openmpi-psm2-gnu-ohpc openmpi-psm2-intel-ohpc	1.10.4	A powerful implementation of MPI. http://www.open-mpi.org

Table 8: Development Tools

RPM Package Name	Version	Info/URL
autoconf-ohpc	2.69	A GNU tool for automatically configuring source code. http://www.gnu.org/software/autoconf
automake-ohpc	1.15	A GNU tool for automatically creating Makefiles. http://www.gnu.org/software/automake
libtool-ohpc	2.4.6	The GNU Portable Library Tool. http://www.gnu.org/software/libtool
python-numpy-gnu-ohpc python-numpy-intel-ohpc	1.11.1	NumPy array processing for numbers, strings, records and objects. http://sourceforge.net/projects/numpy
python-scipy-gnu-mpich-ohpc python-scipy-gnu-mvapich2-ohpc python-scipy-gnu-openmpi-ohpc	0.18.0	Scientific Tools for Python. http://www.scipy.org
R_base-ohpc	3.3.1	R is a language and environment for statistical computing and graphics (S-Plus like). http://www.r-project.org
valgrind-ohpc	3.11.0	Valgrind Memory Debugger. http://www.valgrind.org

Table 9: Performance Analysis Tools

RPM Package Name	Version	Info/URL
imb-gnu-impi-ohpc imb-gnu-mpich-ohpc imb-gnu-mvapich2-ohpc imb-gnu-openmpi-ohpc imb-intel-impi-ohpc imb-intel-mpich-ohpc imb-intel-mvapich2-ohpc imb-intel-openmpi-ohpc	4.1	Intel MPI Benchmarks (IMB). https://software.intel.com/en-us/articles/intel-mpi-benchmarks
mpiP-gnu-impi-ohpc mpiP-gnu-mpich-ohpc mpiP-gnu-mvapich2-ohpc mpiP-gnu-openmpi-ohpc mpiP-intel-impi-ohpc mpiP-intel-mpich-ohpc mpiP-intel-mvapich2-ohpc mpiP-intel-openmpi-ohpc	3.4.1	mpiP: a lightweight profiling library for MPI applications. http://mpip.sourceforge.net
papi-ohpc	5.4.3	Performance Application Programming Interface. http://icl.cs.utk.edu/papi
pdtoolkit-gnu-ohpc pdtoolkit-intel-ohpc	3.22	PDT is a framework for analyzing source code. http://www.cs.uoregon.edu/Research/pdt
scalasca-gnu-impi-ohpc scalasca-gnu-mpich-ohpc scalasca-gnu-mvapich2-ohpc scalasca-gnu-openmpi-ohpc scalasca-intel-impi-ohpc scalasca-intel-mpich-ohpc scalasca-intel-mvapich2-ohpc scalasca-intel-openmpi-ohpc	2.3.1	Toolset for performance analysis of large-scale parallel applications. http://www.scalasca.org
scorep-gnu-impi-ohpc scorep-gnu-mpich-ohpc scorep-gnu-mvapich2-ohpc scorep-gnu-openmpi-ohpc scorep-intel-impi-ohpc scorep-intel-mpich-ohpc scorep-intel-mvapich2-ohpc scorep-intel-openmpi-ohpc	3.0	Scalable Performance Measurement Infrastructure for Parallel Codes. http://www.vi-hps.org/projects/score-p
sionlib-gnu-impi-ohpc sionlib-gnu-mpich-ohpc sionlib-gnu-mvapich2-ohpc sionlib-gnu-openmpi-ohpc sionlib-intel-impi-ohpc sionlib-intel-mpich-ohpc sionlib-intel-mvapich2-ohpc sionlib-intel-openmpi-ohpc	1.7.0	Scalable Performance Measurement Infrastructure for Parallel Codes. http://www.fz-juelich.de/ias/jsc/EN/Expertise/Support/Software/SIONlib/_node.html
tau-gnu-impi-ohpc tau-gnu-mpich-ohpc tau-gnu-mvapich2-ohpc tau-gnu-openmpi-ohpc tau-intel-impi-ohpc tau-intel-mpich-ohpc tau-intel-mvapich2-ohpc tau-intel-openmpi-ohpc	2.26	Tuning and Analysis Utilities Profiling Package. http://www.cs.uoregon.edu/research/tau/home.php

Table 10: Distro Support Packages/Dependencies

RPM Package Name	Version	Info/URL
lua-bit-ohpc	1.0.2	Module for Lua which adds bitwise operations on numbers. http://bitop.luajit.org
lua-filesystem-ohpc	1.6.3	Lua library to Access Directories and Files. http://keplerproject.github.com/luafsystem
lua-posix-ohpc	33.2.1	POSIX library for Lua. https://github.com/luaposix/luaposix

Table 11: Lustre

RPM Package Name	Version	Info/URL
lustre-client-ohpc	2.8.0	Lustre File System. https://wiki.hpdd.intel.com

Table 12: IO Libraries

RPM Package Name	Version	Info/URL
adios-gnu-impi-ohpc adios-gnu-mpich-ohpc adios-gnu-mvapich2-ohpc adios-gnu-openmpi-ohpc adios-intel-impi-ohpc adios-intel-mpich-ohpc adios-intel-mvapich2-ohpc adios-intel-openmpi-ohpc	1.10.0	The Adaptable IO System (ADIOS). http://www.olcf.ornl.gov/center-projects/adios
hdf5-gnu-ohpc hdf5-intel-ohpc	1.8.17	A general purpose library and file format for storing scientific data. http://www.hdfgroup.org/HDF5
netcdf-cxx-gnu-impi-ohpc netcdf-cxx-gnu-mpich-ohpc netcdf-cxx-gnu-mvapich2-ohpc netcdf-cxx-gnu-openmpi-ohpc netcdf-cxx-intel-impi-ohpc netcdf-cxx-intel-mpich-ohpc netcdf-cxx-intel-mvapich2-ohpc netcdf-cxx-intel-openmpi-ohpc	4.2.1	C++ Libraries for the Unidata network Common Data Form. http://www.unidata.ucar.edu/software/netcdf
netcdf-fortran-gnu-impi-ohpc netcdf-fortran-gnu-mpich-ohpc netcdf-fortran-gnu-mvapich2-ohpc netcdf-fortran-gnu-openmpi-ohpc netcdf-fortran-intel-impi-ohpc netcdf-fortran-intel-mpich-ohpc netcdf-fortran-intel-mvapich2-ohpc netcdf-fortran-intel-openmpi-ohpc	4.4.4	Fortran Libraries for the Unidata network Common Data Form. http://www.unidata.ucar.edu/software/netcdf
netcdf-gnu-impi-ohpc netcdf-gnu-mpich-ohpc netcdf-gnu-mvapich2-ohpc netcdf-gnu-openmpi-ohpc netcdf-intel-impi-ohpc netcdf-intel-mpich-ohpc netcdf-intel-mvapich2-ohpc netcdf-intel-openmpi-ohpc	4.4.1	C Libraries for the Unidata network Common Data Form. http://www.unidata.ucar.edu/software/netcdf
phdf5-gnu-impi-ohpc phdf5-gnu-mpich-ohpc phdf5-gnu-mvapich2-ohpc phdf5-gnu-openmpi-ohpc phdf5-intel-impi-ohpc phdf5-intel-mpich-ohpc phdf5-intel-mvapich2-ohpc phdf5-intel-openmpi-ohpc	1.8.17	A general purpose library and file format for storing scientific data. http://www.hdfgroup.org/HDF5

Table 13: **Runtimes**

RPM Package Name	Version	Info/URL
ocr-gnu-ohpc ocr-intel-ohpc	1.0.1	Open Community Runtime (OCR) for shared memory. https://xstack.exascale-tech.com/wiki

Table 14: **Serial Libraries**

RPM Package Name	Version	Info/URL
gsl-gnu-ohpc	2.2.1	GNU Scientific Library (GSL). http://www.gnu.org/software/gsl
metis-gnu-ohpc metis-intel-ohpc	5.1.0	Serial Graph Partitioning and Fill-reducing Matrix Ordering. http://glaros.dtc.umn.edu/gkhome/metis/metis/overview
openblas-gnu-ohpc	0.2.19	An optimized BLAS library based on GotoBLAS2. http://www.openblas.net
superlu-gnu-ohpc superlu-intel-ohpc	5.2.1	A general purpose library for the direct solution of linear equations. http://crd.lbl.gov/~xiaoye/SuperLU

Table 15: **Parallel Libraries**

RPM Package Name	Version	Info/URL
boost-gnu-impi-ohpc boost-gnu-mpich-ohpc boost-gnu-mvapich2-ohpc boost-gnu-openmpi-ohpc boost-intel-impi-ohpc boost-intel-mpich-ohpc boost-intel-mvapich2-ohpc boost-intel-openmpi-ohpc	1.61.0	Boost free peer-reviewed portable C++ source libraries. http://www.boost.org
fftw-gnu-mpich-ohpc fftw-gnu-mvapich2-ohpc fftw-gnu-openmpi-ohpc	3.3.4	A Fast Fourier Transform library. http://www.fftw.org
hypre-gnu-impi-ohpc hypre-gnu-mpich-ohpc hypre-gnu-mvapich2-ohpc hypre-gnu-openmpi-ohpc hypre-intel-impi-ohpc hypre-intel-mpich-ohpc hypre-intel-mvapich2-ohpc hypre-intel-openmpi-ohpc	2.10.1	Scalable algorithms for solving linear systems of equations. http://www.llnl.gov/casc/hypre
mumps-gnu-impi-ohpc mumps-gnu-mpich-ohpc mumps-gnu-mvapich2-ohpc mumps-gnu-openmpi-ohpc mumps-intel-impi-ohpc mumps-intel-mpich-ohpc mumps-intel-mvapich2-ohpc mumps-intel-openmpi-ohpc	5.0.2	A MULTifrontal Massively Parallel Sparse direct Solver. http://mumps.enseeiht.fr
petsc-gnu-impi-ohpc petsc-gnu-mpich-ohpc petsc-gnu-mvapich2-ohpc petsc-gnu-openmpi-ohpc petsc-intel-impi-ohpc petsc-intel-mpich-ohpc petsc-intel-mvapich2-ohpc petsc-intel-openmpi-ohpc	3.7.0	Portable Extensible Toolkit for Scientific Computation. http://www.mcs.anl.gov/petsc
superlu_dist-gnu-impi-ohpc superlu_dist-gnu-mpich-ohpc superlu_dist-gnu-mvapich2-ohpc superlu_dist-gnu-openmpi-ohpc superlu_dist-intel-impi-ohpc superlu_dist-intel-mpich-ohpc superlu_dist-intel-mvapich2-ohpc superlu_dist-intel-openmpi-ohpc	4.2	A general purpose library for the direct solution of linear equations. http://crd-legacy.lbl.gov/~xiaoye/SuperLU
trilinos-gnu-impi-ohpc trilinos-gnu-mpich-ohpc trilinos-gnu-mvapich2-ohpc trilinos-gnu-openmpi-ohpc trilinos-intel-impi-ohpc trilinos-intel-mpich-ohpc trilinos-intel-mvapich2-ohpc trilinos-intel-openmpi-ohpc	12.6.4	A collection of libraries of numerical algorithms. http://trilinos.sandia.gov/index.html