



Applications and Middleware Used with Intel® Omni-Path Fabric

Compatibility Report

July 2019



1 Document Conventions

The following conventions are used in tables of this document.

- Blue cells indicate category headings.
- White cells indicate "known to work," used by Intel and/or 3rd party.
- Green cells indicate certified and supported by the ISV.
- Bold Text indicates community code.



2 Applications

The table below lists the applications that have been certified or are *known to work* with Intel® Omni-Path Fabric.

Astrophysics	Life Science	Manufacturing	Manufacturing (Cont.)
Gadget	ABySS	Altair Accusolve v14	MSC Software Nastran 2017
Chemistry	AMBER16	Altair FEKO v14	MSC Software Marc 2016
NWChem 6.6	Broad GATK4 (BigStack 1.0)	Altair Optistruct v14	NASA Overflow 2.2L
Physics	CHARMM	Altair RADIOS v14	OpenFOAM 3.x
ALYA	CP2K	ANSYS CFX 18.0 and later	Onera ELSA
BQCD	CPMD	ANSYS Fluent 17	Siemens (CD-Adapco) StarCCM+ V11
CHROMA	Desmond	ANSYS Fluent 18.0 and later	Siemens NX Nastran
GENE	DIAMOND	ANSYS Mechanical 18.2	Simulia Abaqus/Explicit 2016D04, 2017
MILC	DL_POLY	Autodesk VRED	Simulia Abaqus/Standard 2016D04, 2017
QCD	GAMESS	Comsol Multiphysics v5.3	Software Cradle SCTetra
QPhiX	Gaussian	Comsol Server v5.2a	Software Cradle scFlow
Climate and Weather	Gromacs v 5.0.4	Convergent Science CONVERGE	Software Cradle scStream
HOMME	LAMMPs Feb 2016 Stable Version	CST Studio Suite	Material Science
MPAS	NAMD v 2.11	ESI ACE+	Abinit
NEMO	QIAGEN	ESI Virtual Performance Solution (VPS)	BerkeleyGW
NIM Dynamics G6	RAxML	ESI PAM-STAMP 2019	LSMS
POP	Ray	Exa PowerFLOW	Psi4
Specfm3d	RELION	Flow Science Flow-3D MP 11.2	Quantum Espresso 5.3.0
WRF 3.5.1	Rosetta	Fire Dynamics Simulator	SIESTA
Energy	SNAP	ICON iconCFD	Analytics
Paradigm 17 (Geodepth & Echos)	VMD	LSTC LS-DYNA R8.1 and 9.0	Kinetica
Paradigm 18 (Geodepth & Echos)	VASP developer branch	Metacomp CAA++	ParaView
Rockflow Dynamic tNavigator	Wien2K V14.2	Metacomp CFD++	Cloud
			Docker
			Singularity



3 Middleware

The table below lists the middleware that have been certified or are *known to work*.

Cluster & Workload Management	File System	Tools	Deep Learning Frameworks
Adaptive MOAB	Community Luster	Allinea FORGE	Intel Caffe
Adaptive TORQUE	IBM Spectrum Scale (GPFS) 4.2.2	Ceph	Caffe
Altair PBSPro 13.1	Intel IEEL 3.x	DDT	Caffe2
Altair PBSWorks 13.1	Thinkparq BeeGFS	Hadoop	TensorFlow
Bright Computing Cluster Manager 8	MPI	MCT	Torch
HPE Cluster Management Utility (CMU)	IBM Platform MPI 9.1.4.3 and later	MUMPS	Horovod (Uber)
IBM LSF	IBM Platform MPI 9.1.4.2 and earlier	Singular	Programming Language
OpenHPC	IBM Spectrum MPI 10.1.0.2 and later	VTune	CUDA
OpenStack Ironic	Intel MPI	Libraries	R-MPI (including the ggplot2 package)
Intel HPC Orchestrator	MPI-Caffe	NetCDF	
PSSC Labs CBeST (PSSC's HPC Solutions ONLY)	MVAPICH2 2.1	Parmetis	
Schedmd SLURM 16.05	Open MPI	PETSc	
Univa GridEngine	SGI MPI	SPRNG	
Warewulf		SuperLU_DIST	
xCat		TAU	



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