



High Performance Computing Module for SUSE Linux Enterprise Server

There are two ways to obtain High Performance Computing functionality from SUSE:

1. The HPC Module is available as part of your SUSE® Linux Enterprise Server subscription and provides the latest functionality for HPC environments.
2. SUSE Linux Enterprise Server for High Performance Computing is the exact same distribution as SUSE Linux Enterprise Server, but it is sold with different terms, conditions and prices that are tailored for the unique requirements of High Performance Computing environments—particularly the extreme scale of many of those environments.

■ Products:

SUSE Linux Enterprise Server for High Performance Computing

Get the Latest HPC Functionality Faster and Easier

Deploy High Performance Computing (HPC) updated functionality faster and easier with the HPC Module. The HPC module provides a selected set of tools and components used in High Performance Computing environments. To keep up with the pace of changing customer needs for leading edge HPC support on both hardware and software, this module provides software components which are frequently updated to the latest versions available. The selection of software components has been inspired by (but not limited to) what is provided by the OpenHPC community project at <http://openhpc.community>. Because this module is updated more frequently than the base operating system, it allows you to keep up with rapidly evolving HPC without changing the base OS and therefore avoid extensive re-testing of your platform.

The HPC community is undergoing a rapid transformation to faster innovation and easier to install tools because of the open collaboration provided by the OpenHPC project. SUSE is a founding member of the OpenHPC community and has worked with OpenHPC and our partners to support a powerful HPC stack for X86-64 and ARM-processor based systems. In addition to traditional, scientific computing workloads, we are seeing many companies creating HPC environments for data analytics and other business-focused workloads. These companies do not have an extensive team to maintain those environments and have a need for commercial support for their HPC software.

This is where SUSE Linux Enterprise High Performance Computing Module can help. The packages included in the HPC Module are fully supported by SUSE under the base SUSE Linux Enterprise Server

subscription. The HPC Module is available for both x86_64 and 64-bit ARM (AArch64) systems.

Functionality included in the module is growing. Today, the HPC Module for SUSE Linux Enterprise Server 12 SP2 contains 4 HPC hardware-related packages:

1. the memory error logging daemon 'rasdaemon',
2. a tool to collect and make visible the hardware topology 'hwloc',
3. a tool to obtain detailed information about the CPU used 'cpuid' (x86_64 only),
4. a library to set the kind of memory used for 'jmalloc' allocations 'memkind' (x86_64 only).

In addition, the HPC Module includes a subset of the package from the openHPC Community project for both x86_64 and AArch64 architectures:

- *the modules-tool 'lua-lmod' (includes 'lua-luaterm', 'lua-luaposix', 'lua-luafilesystem')*,

- *a cluster remote shell 'mrsh',*
- *a parallel shell 'pdsh',*
- *a cluster power manager software 'powerman',*
- *a cluster serial console manager 'conman',*
- *the workload manager 'slurm',*
- *an authentication service 'munge',*
- *and a job scheduler 'prun'.*

The HPC Module is delivered as an add-on to SUSE Linux Enterprise Server. To install the HPC Module for SLES 12 SP2, follow these steps:

1. Start YaST®
2. Select "Add-On Products"
3. Click "Add"
4. Select "Extensions & Modules from Registration Server"
5. Click "Next"
6. Select the HPC Module for the architecture desired
7. Click "Next" to start the installation process.



Contact your local SUSE Solutions Provider, or call SUSE at:

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