



# SC16

Salt Lake City, Utah | hpc  
matters.



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# High Performance Computing

## *Keeping Pace*

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# Customer Challenge



## Performance

... increase amid IT budgets and staff reductions



## Manage

... as business-critical, but with scientific mind set

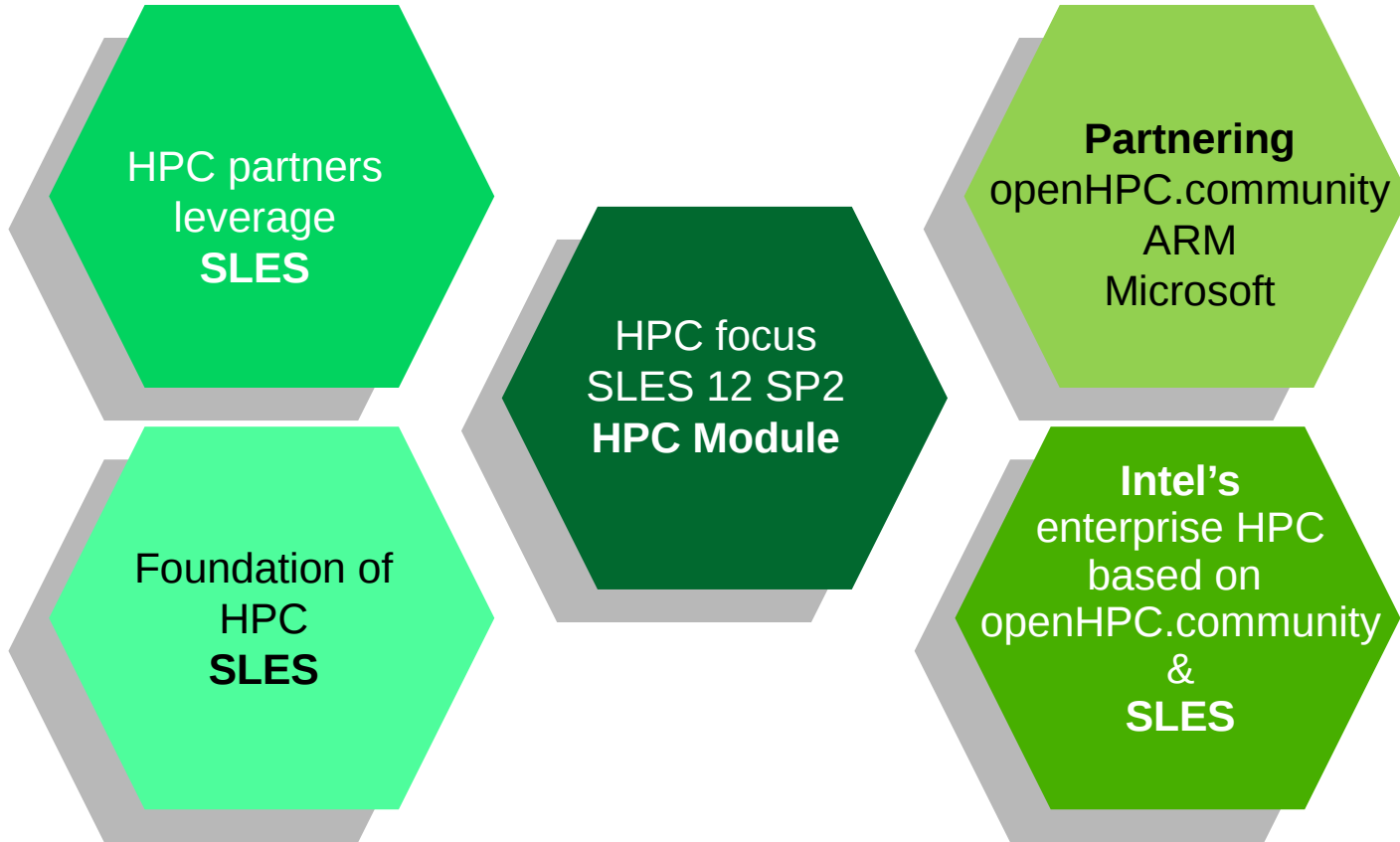


## Support

... across the entire HPC stack, reducing vendor lock-in



# SUSE HPC Ecosystem



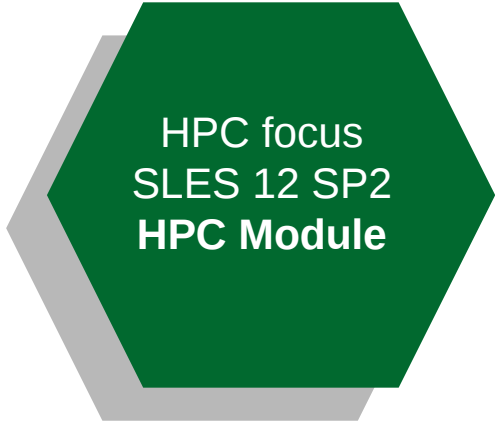
# The SUSE HPC Stack

- It's **SUSE Linux Enterprise Server**
- **New!** **Ceph File System** supported
- **New!** available as part of **Intel HPC Orchestrator**
- **New!** **Microsoft Azure** Test Drive includes SLES for HPC
- Recent developments
  - SUSE Storage with Infiniband support
  - ARM64 partnering with **Cavium**
  - Microsoft Azure: RDMA and Infiniband



# HPC Module

- Packages dedicated to HPC
- Lifecycle towards up-to-date
- Includes leading edge components
- Available for x86\_64, ARM in consideration
- Existing packages kept in SLES, adds new packages

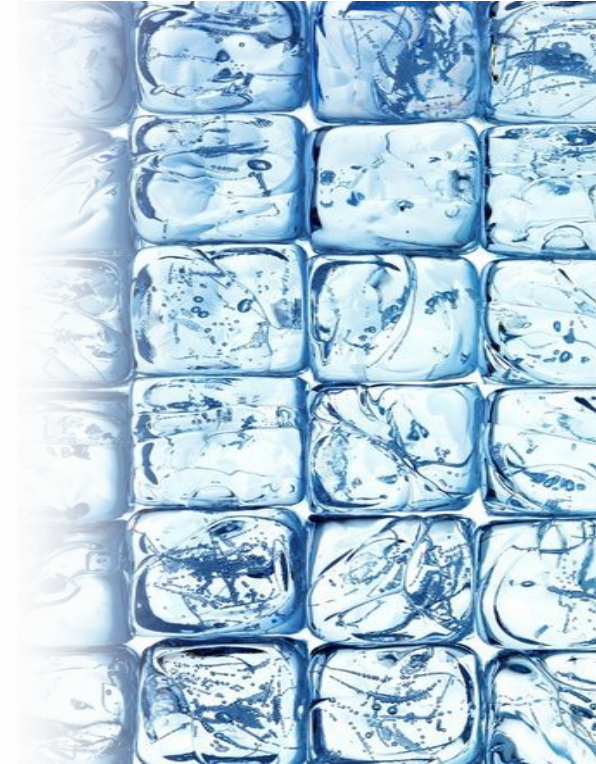


HPC focus  
SLES 12 SP2  
HPC Module

# OpenHPC Open Source Community

[openhpc.community](http://openhpc.community)

- Linux Foundation project – SUSE is founding member
- Provides common platform – standard HPC stack – for collaboration and innovation
- Provides full HPC stack on top of SLES
- Build with SUSE build service  
<http://build.openhpc.community>
- Simplifies installation, configuration, and maintenance of the software stack



# SUSE within Microsoft Azure



SUSE is the only supported enterprise Linux HPC workload on Microsoft Azure public cloud

It offers cloud-based SLES, including automated updates enterprise customers.

**New!** SLES for HPC is part of the Microsoft Test Drive program, freely available via the Azure Marketplace



# Partnering with Intel

Intel distribute **SUSE Linux Enterprise Server for High Performance Computing** as part of the *Intel HPC Orchestrator*

**SUSE** is the commercial Linux supported by the Intel HPC stack

- Accelerate research/innovation and time to insight
- Aligns new optimized components driven by the broader **openHPC.community**
- Simplifies ongoing maintenance and support



# Outlook

- openHPC community contributions will continue to grow
- Foster growing partner ecosystem
- Wider HPC adoption across many industries
- Increase in hybrid cloud deployments mixed with on-premise
- **Coming Soon with SP2!** HPC Module packaging
- **Coming Soon with SP2!** Support for Intel Omni-Path



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