SuperMUC-NG

System Overview

SuperMUC-NG consists of 6,336 Thin compute nodes each with 48 cores and 96 GB memory and 144 Fat compute nodes each 48 cores and 768 GB memory per node.

In total 311,040 compute cores with a main memory of 719 TB and a peak performance of 26.9 PetaFlop/s are available. All compute nodes are equipped with Intel Xeon Skylake' processors. The internal interconnect is a fast OmniPath network with 100 Gbit/s.

The compute nodes are bundled into 8 domains (islands). Within one island, the OmniPath network topology is a 'fat tree' for highly efficient communication. The OmniPath connection between the islands is pruned (pruning factor 1:4).

In addition to the compute nodes there are 64 nodes in the Compute Cloud of SuperMUC-NG (half of them equipped with 2 GPUs each), and one huge memory node with 6 TB and 192 cores.

For details see: Hardware of SuperMUC-NG

Documentation

Support

- Support and Servicedesk for SuperMUC-NG
- FAQ and Troubleshooting

Access to System

- Access and Login to SuperMUC-NG

Using the System

- Building and Running applications on SuperMUC-NG
- Job Processing with SLURM on SuperMUC-NG
- File Systems of SuperMUC-NG
  - Data Transfer Options on SuperMUC-NG
- HPC Software and Programming
  - MPI - Message Passing Interface
  - OpenMP - shared memory and device parallelism
  - Tuning and Optimization for HPC
  - see also: lrztools and lrzlib on SuperMUC-NG
  - also: use command sw-info, or command module avail
- User Guides for HPC
- Compute Cloud of SuperMUC-NG

Courses

- Courses, Training and Events for HPC

User Affairs

- Access and Login to SuperMUC-NG
- Application for a project on SuperMUC-NG
  - Acknowledgement of SuperMUC-NG
  - Reporting obligations on SuperMUC-NG
- HPC Calls for projects, allocations, support or funding

Public Relations

- Gauss Centre for Supercomputing
- Public Relations for HPC (including the scientific results obtained)

Status

- SuperMUC-NG Status
- Usage Statistics for SuperMUC-NG

Application Labs

- HPC Application Labs

Legal

- Data Privacy
- Rules