High Performance Computing

Access and Overview of HPC Systems

Status
### SuperMUC and SuperMUC-NG

<table>
<thead>
<tr>
<th>Phase 1</th>
<th>Phase 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>login: hw.supermuc.lrz.de</td>
<td>login: skx.supermuc.lrz.de</td>
</tr>
<tr>
<td>queue: micro, general, test, big</td>
<td>queue: micro, general, test, big</td>
</tr>
</tbody>
</table>

**File System**
- $HOME: UP
- $WORK: UP
- $SCRATCH: UP

**detailed node status:** Phase 2

**SuperMUC-NG:**
- HOME, WORK, SCRATCH: FRIENDLY USERS
- SLURM: FRIENDLY USER

**Linux Cluster**

<table>
<thead>
<tr>
<th>CoolMUC-2</th>
<th>CoolMUC-3</th>
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<tbody>
<tr>
<td>login: lxlogin5-7.lrz.de</td>
<td>login: lxlogin8.lrz.de</td>
</tr>
<tr>
<td>partitions: mpp2_batch, mpp2_inter</td>
<td>partitions: mpp3_batch, mpp3_inter</td>
</tr>
<tr>
<td>queue: serial</td>
<td>teramem_inter</td>
</tr>
</tbody>
</table>

**IvyMUC**

| login: lxlogin10.lrz.de |

**SLURM**

**Details:**
- SuperMUC-NG
- Software for HPC

### Cloud and other systems

<table>
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<tr>
<th>Open Nebula</th>
<th>GPU Cloud</th>
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<tr>
<td>UP</td>
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**Details:**
- RStudio Server (LRZ Service)
- Software for HPC

### Message of the Day
SuperMUC and SuperMUC-NG

Lenovo schedules a system reservation on March 29, 11 am, for 4 hours.

1. The reason for the outage is to make OPA/GPFS configuration to address an issue with recovery from an OPA Interface failure on a Storage (NSD) Server:
   - Increase TCP MTU size from 2K to 4K
2. Receive Packet Steering (RPS) tuning on NSD Servers (HPPFS filesystems only i.e. SCRATCH/WORK)

The reservation also allows time for adequate testing of this change.

A short outage of the PROJECT/HOME filesystem will be also required while the MTU size is changed.

We estimate PROJECT/HOME will be available again by 11:30am from the Login nodes.

SuperMUC-NG Friendly Users

Your old UserIDs are not valid for SuperMUC-NG!
You will have only ONE single UserID for all the projects you are working with. Accordingly, you have only a single HOME directory. Above that, you will also have only a single SCRATCH directory. As usual, after you have logged into SuperMUC-NG the paths to your HOME and SCRATCH directories are set in the environment variables $HOME and $SCRATCH. Your accessible WORK directories are listed in $WORK_LIST.

Note that WORK or SCRATCH may not be accessible from the start. The same applies to SLURM and available queues.

For more details see: https://doku.lrz.de/display/PUBLIC/Operational+Concept

We propose that you start by migrating your HOME directory and compile your code.

For data migration between SuperMUC and SuperMUC-NG see:
https://doku.lrz.de/display/PUBLIC/Data+Migration+from+SuperMUC+to+SuperMUC-NG

The documentation for SuperMUC-NG can be accessed via:
https://doku.lrz.de/display/PUBLIC/SuperMUC-NG

Report immediate problems via the servicedesk: https://doku.lrz.de/display/PUBLIC/Servicedesk+for+SuperMUC-NG

Please contact your mentor to discuss further questions and the progress of your project.

SuperMUC-NG Friendly User Period started

After the Friendly User Period the system will start normal user operation. Duration of the Friendly User Period will be at least 4 weeks.

SuperMUC Phase2 frequency capping removed

See http://www.lrz.de/aktuell/ali00735.html for details.

More Links

- Access and Overview of HPC Systems
- Cluster Node Housing
- Courses, Training and Events for HPC
- Grid Computing
- HPC Application Labs
- LRZ Compute Cloud
- Linux Cluster
- Public Relations for HPC
- RStudio Server (LRZ Service)
- SLURM Workload Manager
- Software for HPC
- SuperMUC-NG
- Support for HPC and Big Data
- User Guides for HPC
- Consulting for HPC and BigData Services at LRZ
- Tuning and Optimization for HPC
- SuperMUC NG SLURM Status

## Services

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