



Performance Monitoring on CLAIX

the benefits and what you need to consider

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Performance Monitoring on CLAIX

The Benefits

- continuous monitoring of all HPC applications
- no manual invocation of tools by the user

- post-mortem analysis of (past) batch jobs
 - at the moment: no direct access for users due to privacy concerns
 - please talk to a member of the HPC team
 - required information: list of nodes + time of batch job

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Example: HPL on 12 nodes of CLAIX-2016

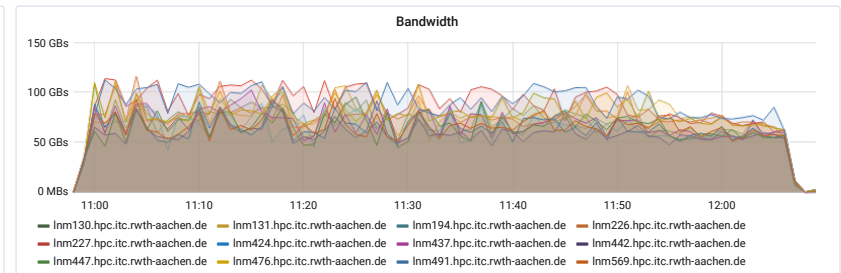
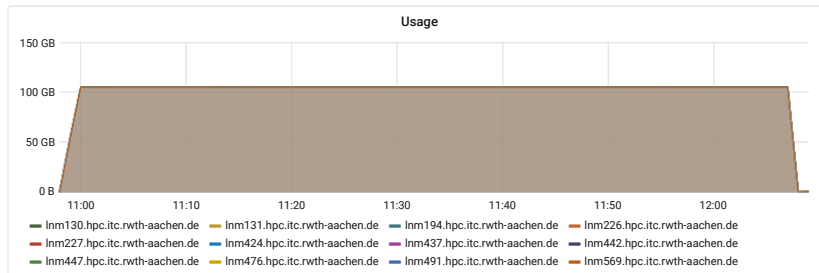


Overview ▾

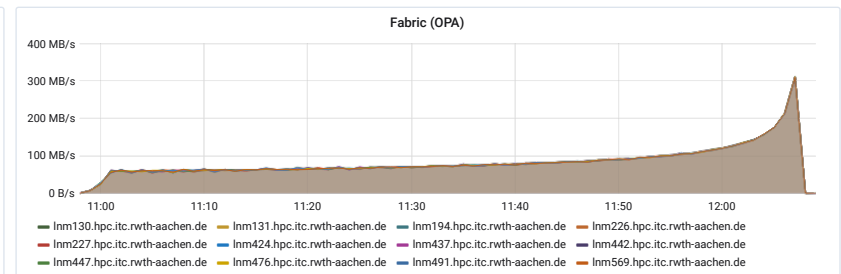
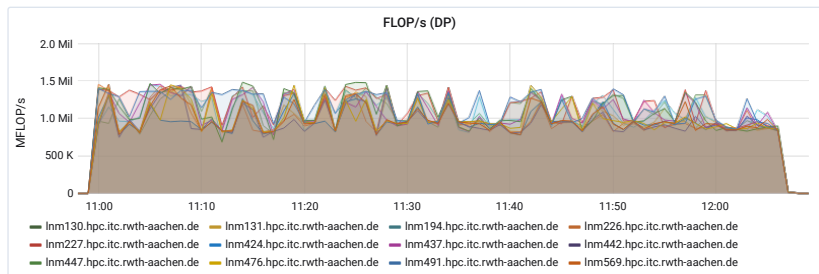
☆ ↻ ⚙ ⏪ 🔍 ⏩ 🕒 Apr. 19, 2018 10:58:00 to Apr. 19, 2018 12:09:00 ↺

Hosts Inm130.hpc.itc.rwth-aachen.de + Inm131.hpc.itc.rwth-aachen.de + Inm194.hpc.itc.rwth-aachen.de + Inm226.hpc.itc.rwth-aachen.de + Inm227.hpc.itc.rwth-aachen.de + Inm424.hpc.itc.rwth-aachen.de + Inm437.hpc.itc.rwth-aachen.de + Inm442.hpc.itc.rwth-aachen.de + Inm447.hpc.itc.rwth-aachen.de + Inm476.hpc.itc.rwth-aachen.de + Inm491.hpc.itc.rwth-aachen.de + Inm569.hpc.itc.rwth-aachen.de ▾

Memory



Computation



Performance Monitoring on CLAIX

Considerations for Your Own Measurements

- our performance monitoring uses likwid with Hardware Performance Counters
 - to avoid interference please tell the batch system if you use tools
 - this will pause monitoring based on Hardware Performance Counters
- LSF (CLAIX-2016)
 - Intel VTune: `#BSUB -app vtune; likwid: #BSUB -app likwid`
- during aiXcelerate 2018:
 - use `--reservation=aixcel_perf`
- possible overhead of continuous monitoring
 - not noticeable in our benchmarks
 - if you think your jobs are affected, please let us know!

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Questions?