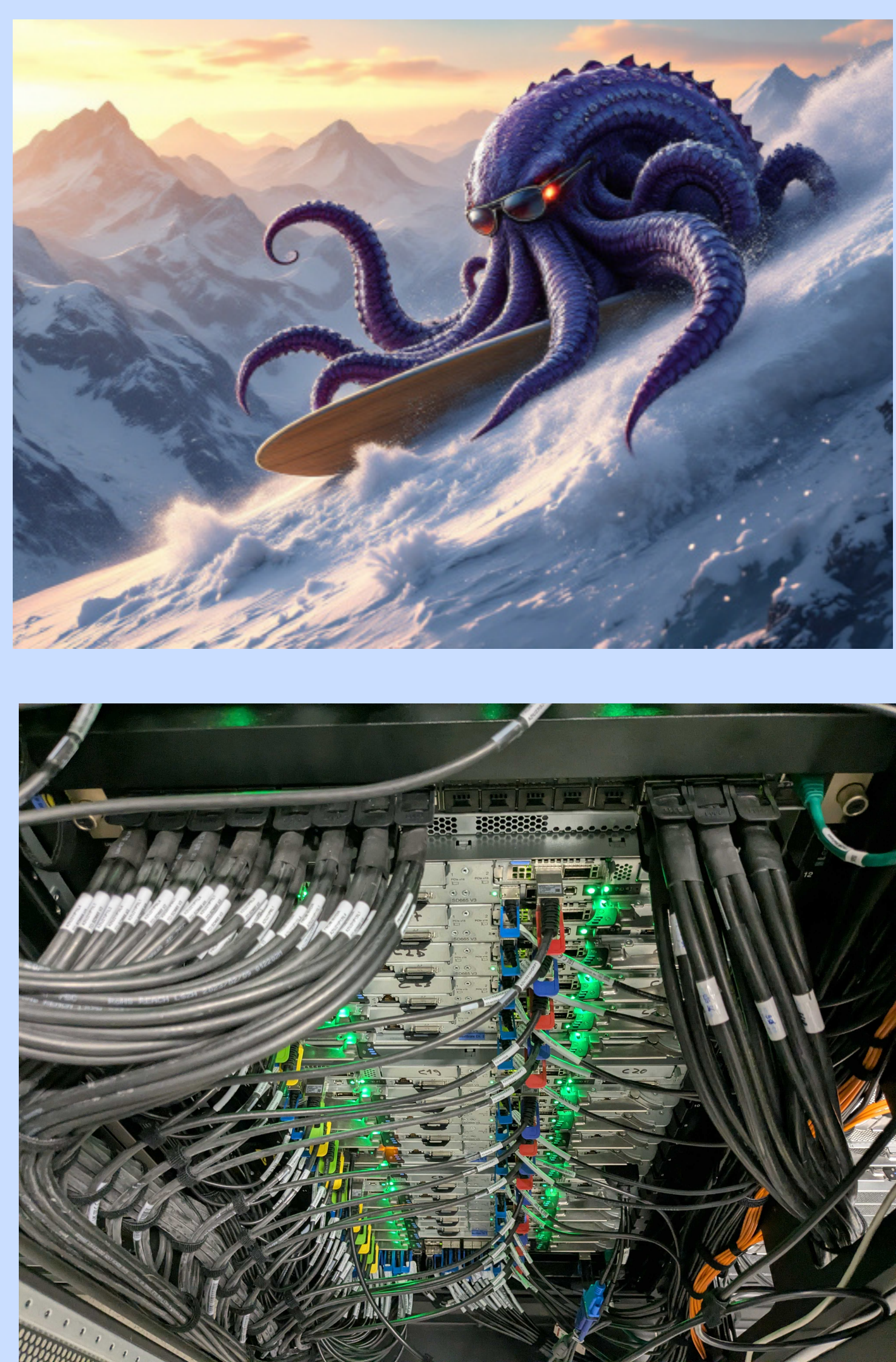
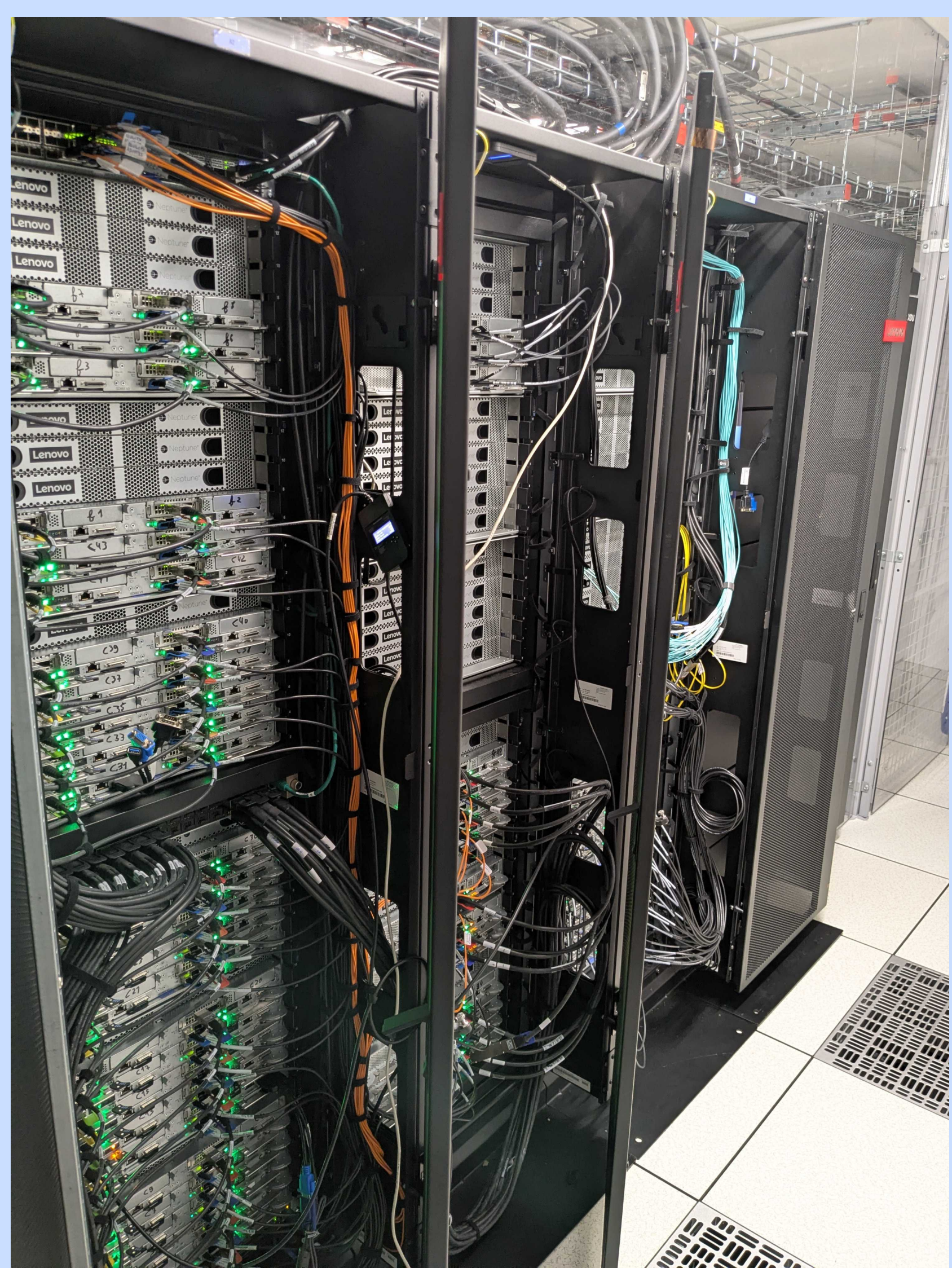


GINAURA-KRAKEN

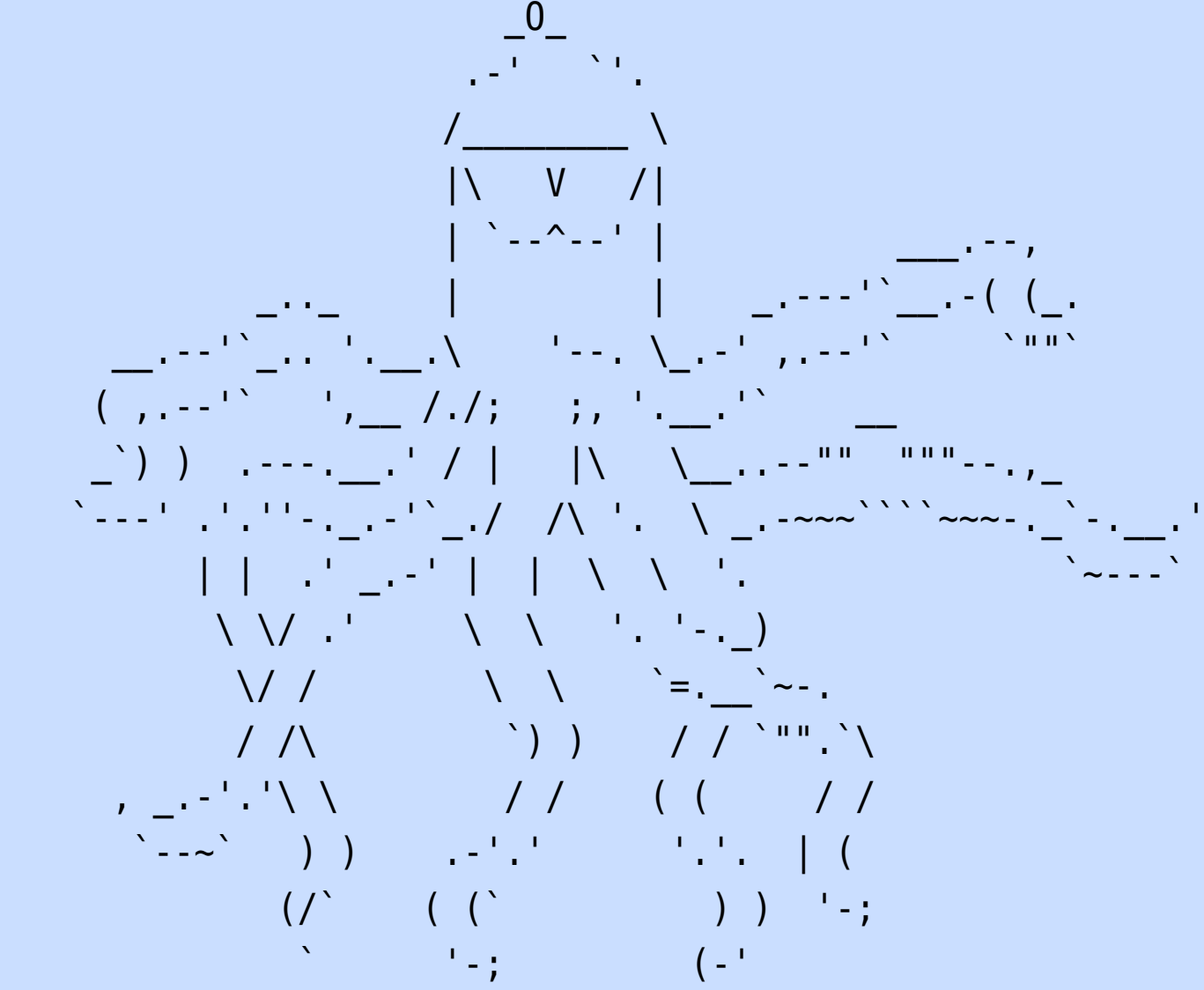
HPC/DA/IA PLATFORM

FOR GRENOBLE-ALPES RESEARCH

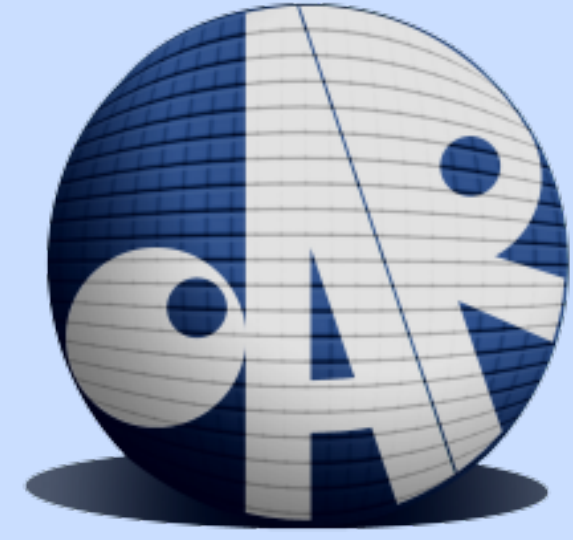


Gricad's pride! A cluster installed in 3 days!
Hardware received on May 26...

```
octopus@trinity:~$ ssh kraken
octopus@kraken-cpu:~$ oarsub -I -l /nodes=48 --project admin
Last login: Thu May 29 10:42:21 CEST 2025 from 666.666.666.666 on ssh
Linux kraken-cpu 6.11.7-amd64# 1 SMP PREEMPT_DYNAMIC Debian 6.11.7-1 (2024-11-09)
```



```
WELCOME TO KRAKEN CLUSTER!
octopus@kraken-cpu:~$ oarsub -I -l /nodes=48 --project admin
# INFO: Modable instance: 1 Estimated nb resources: 9216 Walltime: 7200
OAR_JOB_ID=11
Interactive mode: waiting...
Starting...
Connect to OAR job 11 via the node kraken-c10
octopus@kraken-c10:~$
```

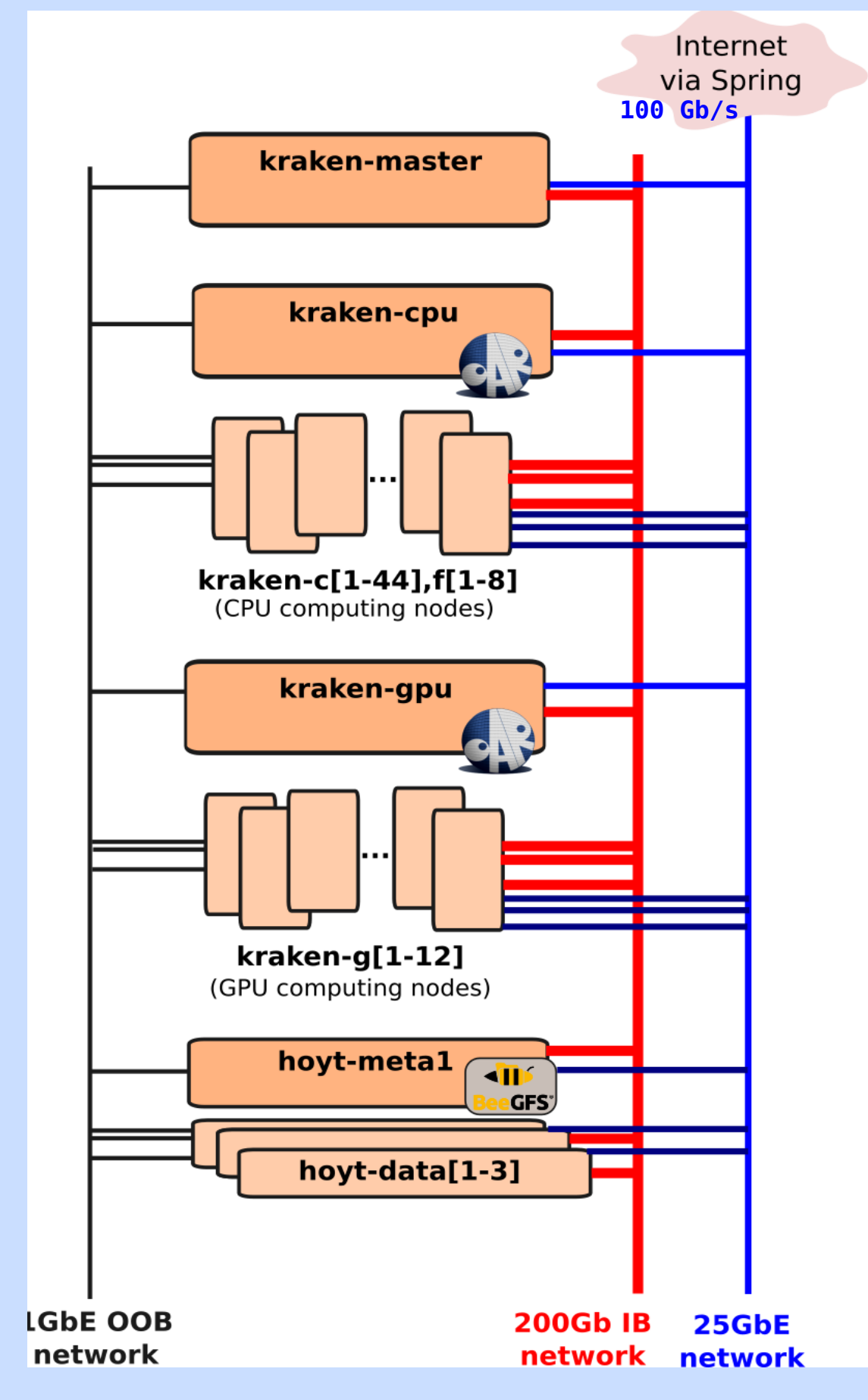


January 2026 set-up:
11328 CPU cores AMD Genoa, 48 GPU Nvidia H100, 200Gbp/s Interconnect,
300TB full NVMe scratch, 768 and 1536 GB of RAM per node

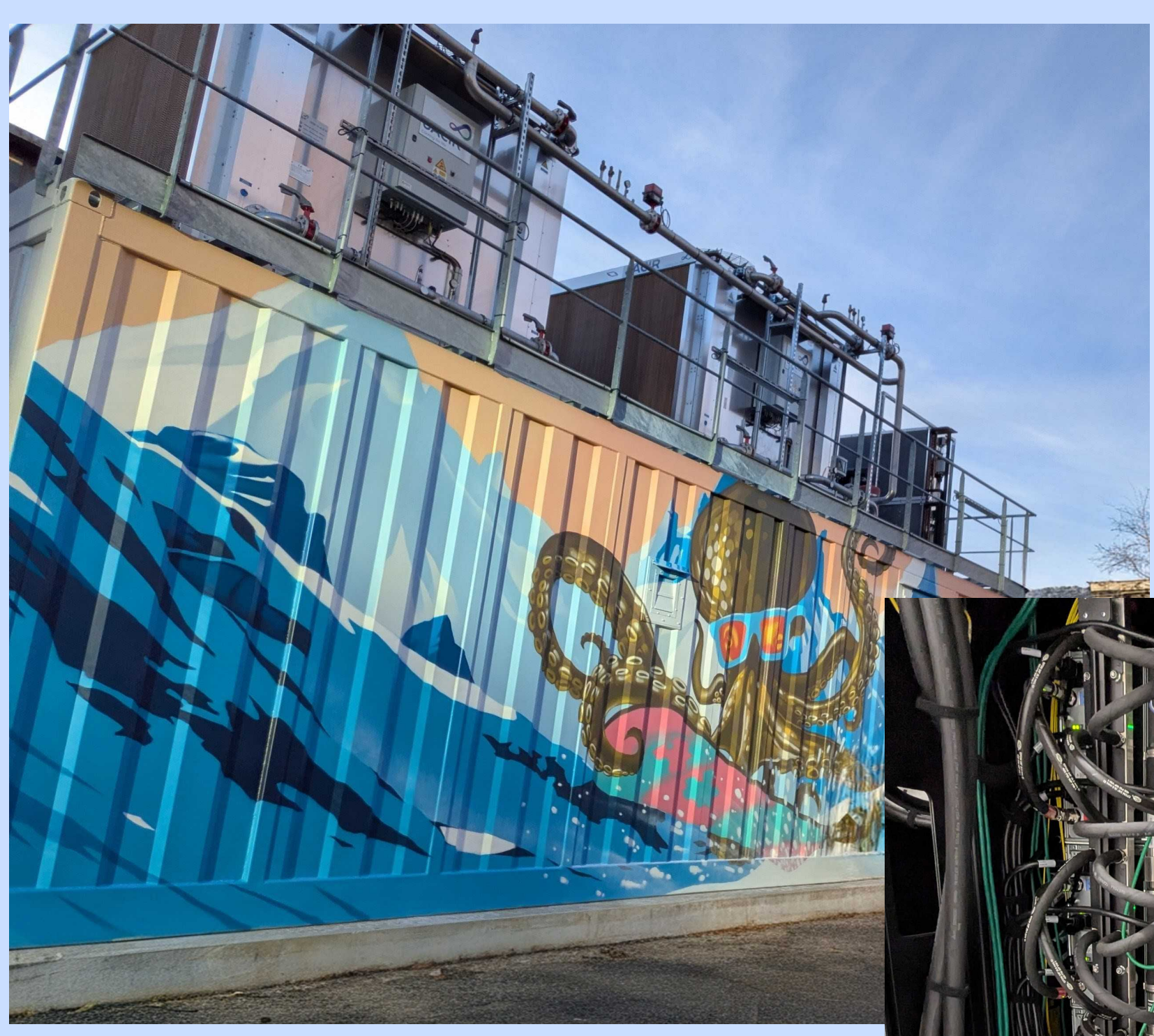
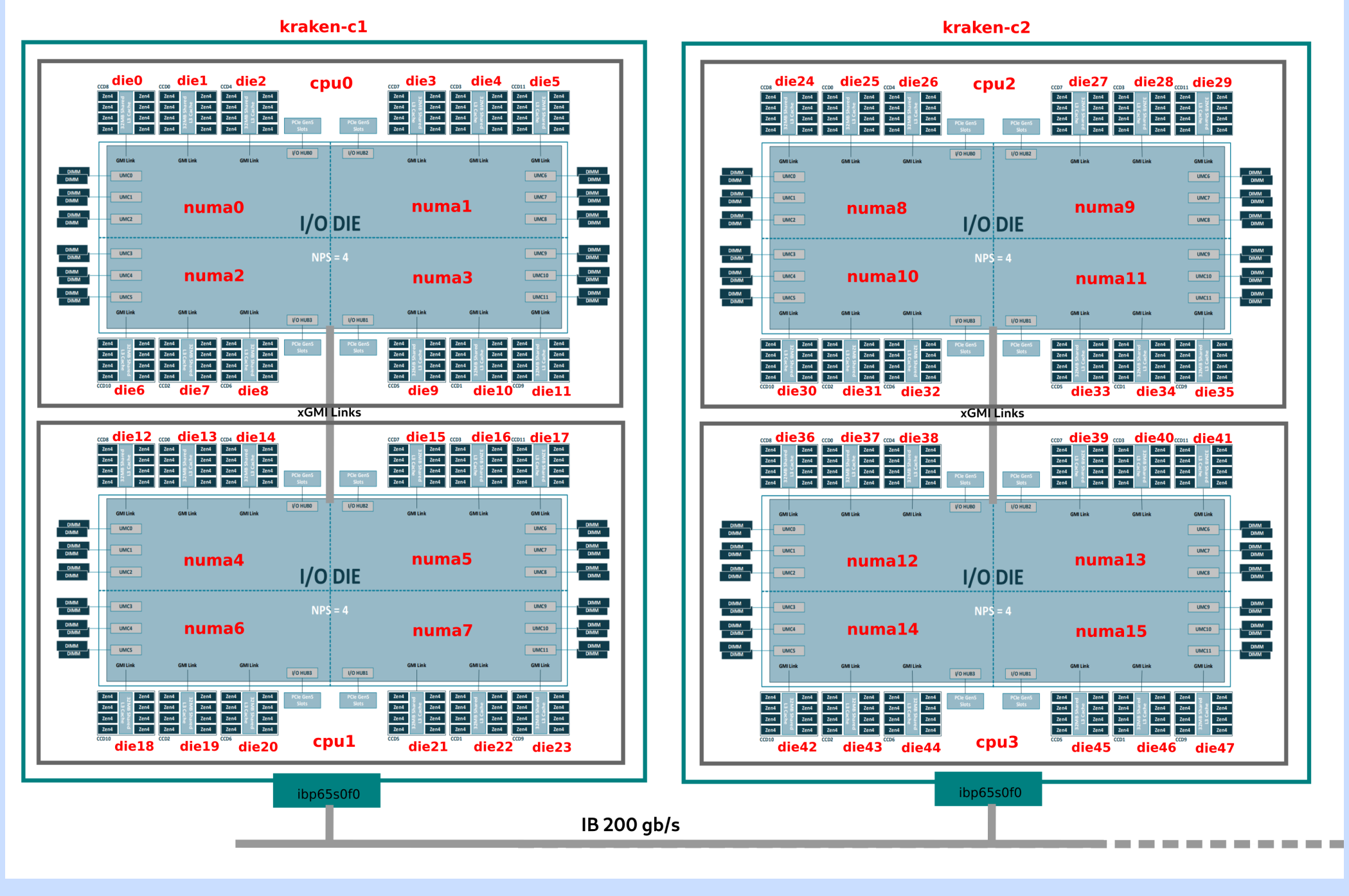
- * 44 CPU computing nodes with 192 cores each:
 - * 2 AMD EPYC 9654 96C 2.4GHz Processor
 - * 768 GB RAM (4 GB /core)
 - * 1.92 TB local NVMe SSD scratch
 - * Infiniband NDR 200 Gb/s HBA
- * 8 CPU computing fat nodes with 192 cores each:
 - * 2 AMD EPYC 9654 96C 2.4GHz Processor
 - * 1536 GB RAM (8 GB / core)
 - * 1.92 TB local NVMe SSD scratch
 - * Infiniband NDR 200 Gb/s HBA
- * 12 GPU computing nodes:
 - * 2 AMD EPYC 9654 96C 2.4GHz Processor
 - * 1536 GB RAM
 - * 4 GPU Nvidia H100 94GB HBM2e
 - * 3.84 TB local NVMe SSD scratch
 - * 2 x Infiniband NDR 200 Gb/s HBA
- * Infiniband NDR 200Gb/s non-blocking Interconnect (2x200 Gb/s for GPU nodes)
- * Hoyt scratch: 300 TB BeeGFS distributed scratch filesystem full NVMe SSD
- * Access to Bettik, Mantis and Summer
- * DWC (Direct Water Cooling) on all the computing nodes
- * OAR v3 batch scheduler and Alumet system profiling tool



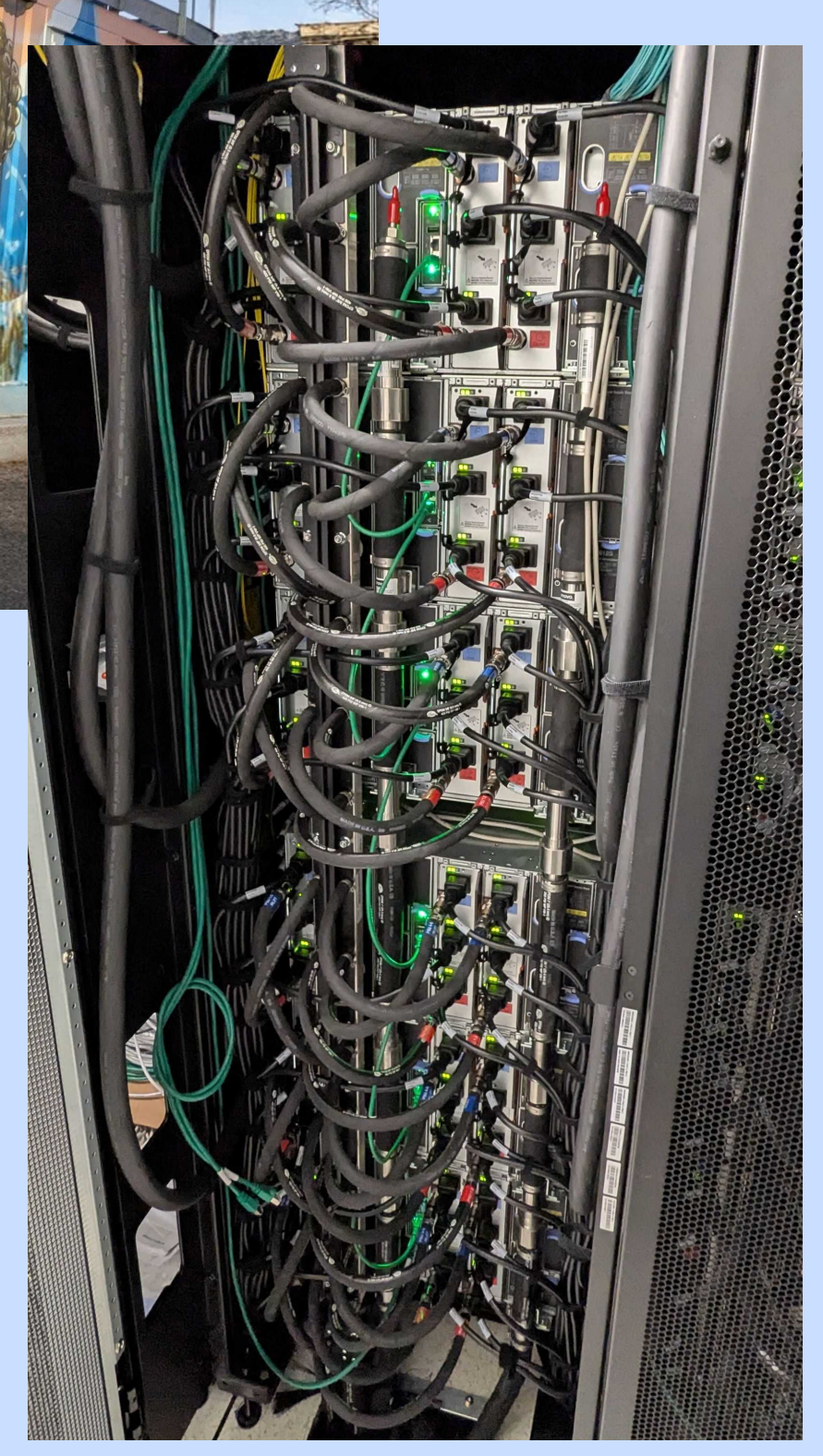
Technical architecture



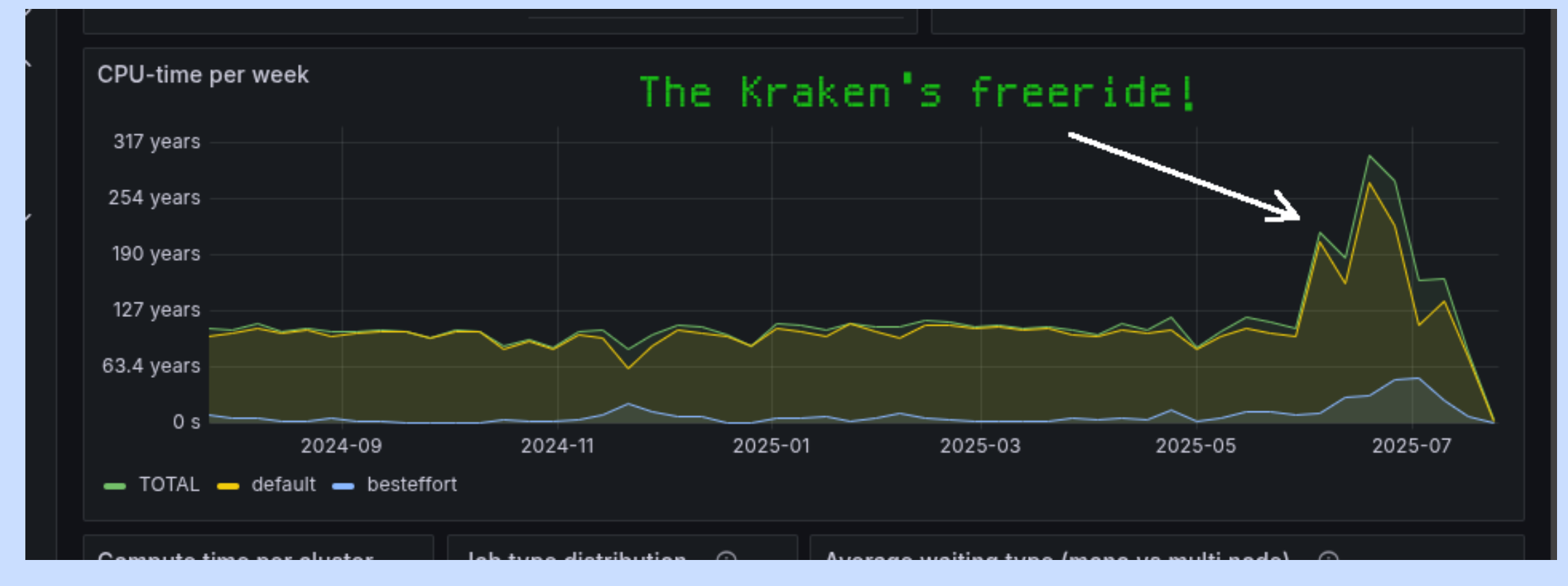
Genoa CPU architecture and OAR configuration



Efficient direct liquid
cooling



Gricad's pride: The Freeride!
400k jobs | executed on the first month!
5M h.core |



Load of all the GRICAD's HPC clusters

The freeride, a challenging month (July 2025):
"During this period, challengers among the Grenoble's public researchers will have exclusive access to all compute nodes and the scratch file system, allowing us to put the new platform through its paces and make any necessary adjustments. This means that candidate projects must be able to scale on such a platform, either on the CPU partition (9984 cores) or on the GPU partition (28 H100), or on both partitions. Projects challenging the scratch storage are also welcome (big i/o rate)
Please note: as this is a special "run-in" period, voluntary or involuntary, planned or unplanned reboots or full resets will be possible! "