HPC2N News Plans Status

# Kebnekaise expansion

Kebnekaise expansion (2)

- 52 CPU nodes
    - Intel Xeon Gold 6132 (Skylake-SP), dual 14 cores, 2.6 GHz
    - 192 GB RAM
    - Mellanox EDR (100 Gb) Infiniband
    - 31 nodes will be GRID nodes when Abisko ends production
        - Estimated 17.4 kHEPSPEC (based on Broadwell performance)
            - ie. 561.9 HEPSPEC per node (an Abisko node is 474.7)
- 10 GPU nodes
    - Same as above
    - Additional 2 NVIDIA V100 (Volta-based) GPU cards on each node

Cooling outage in cluster machine room

- 2018-10-19 18:30 Cooling air temp slowly rising.
- 2018-10-19 19:15 Cooling air temp too high, tempwatch tripping and killing power.
- 2018-10-20 11:15 Calling AHAB, everything looks ok, no blown fuses to the cooling pumps etc.
- 2018-10-20 11:45 AHAB turned power on.
- 2018-10-20 ~17:45 Everything back up again, running single node HPL on all batch nodes.
- 2018-10-20 18:20 Cooling looks stable. Killing HPL and enabling system for user jobs. Done!?!?
- 2018-10-20 ~18:55 Cooling air temp rising fast.
- 2018-10-20 ~19:10 Cooling air temp too high, tempwatch tripping and killing power.
- 2018-10-20 19:15 BIG sigh……
- 2018-10-20 19:30 AHAB got an automatic alarm and fixed the power and hopefully the actual problem.
- 2018-10-21 ~17:00 Got everything back online again, running longer HPL past 19:15. Cooling still stable.
- 2018-10-22 13:00 Turning system over to user jobs.

New TSM server hardware
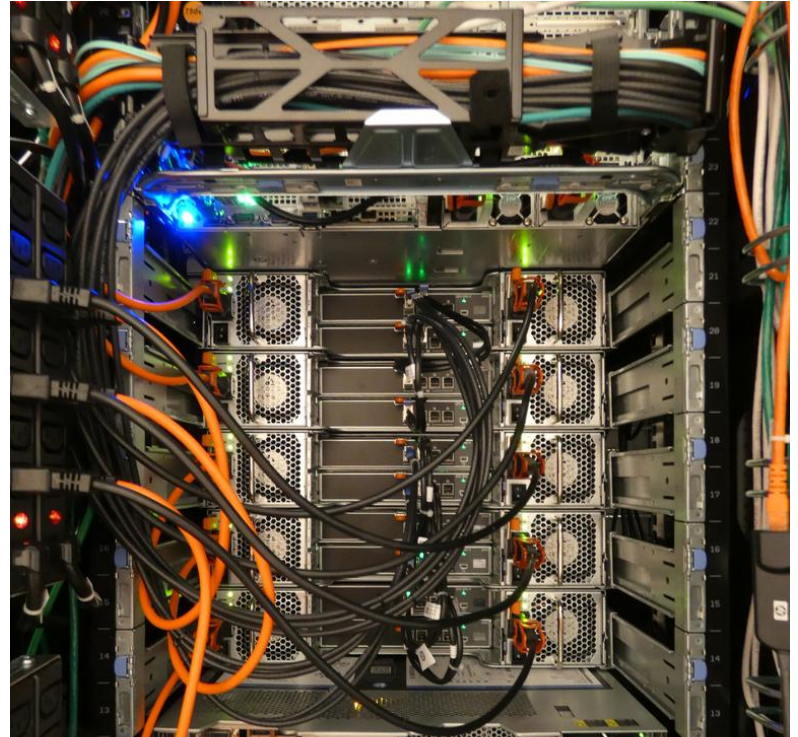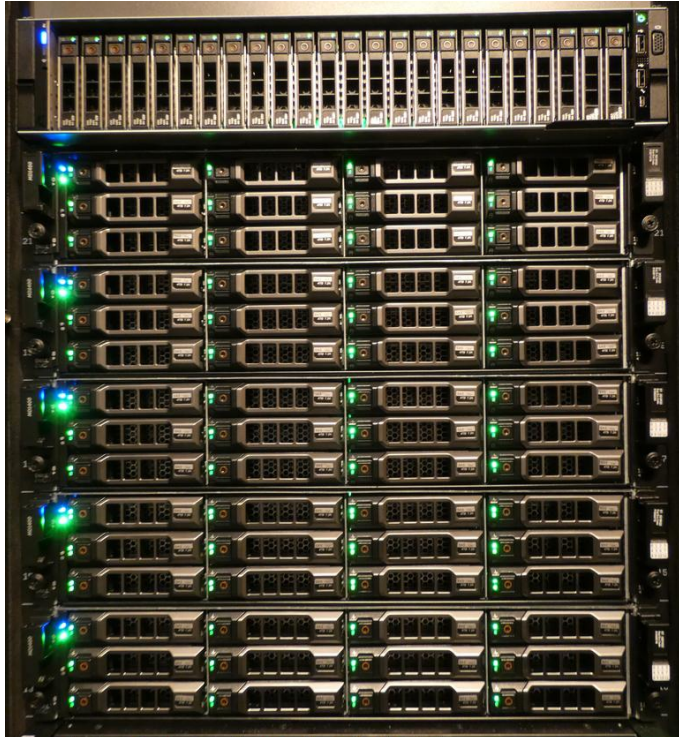
New TSM server hardware (2)

- Old server (spargel) runs out of HW service after 5y in production
- New server (saumagen) is running in production since Oct 31
    - Dell R740xd, 192G RAM, 2xIntel Gold 6128 CPUs
    - Two Dell PERC H740P RAID adapters serving 24x400G SSD in server
    - Two Dell PERC H840 RAID adapters serving five Dell MD1400 enclosures each with 12x4T
    - 4x16G FC for tape connectivity
    - 2x10G ethernet NIC (Intel), 10G each to site/LHC OPN (tape pools)
    - 2x25G ethernet onboard (QLogic), for future networking equipment
    - Free PCIe slots for future networking needs
- Server migration included DB schema conversion and upgrade to TSM 8.1.6
    - DB almost half the size after conversion
    - No longer any 200MB/s bottleneck for Logical Block Protection when using tape