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Latest news on the DEEP-EST prototype system

This is a summary of the latest news concerning the system. For a list of known problems related to the system, please refer to [this page](#).

Last update: 2023-05-167'

System software

- ParaStation update (psmgmt) to 5.1.53-1 has been performed

OS

- compute nodes, bxi nodes and login node have been updated to Rocky 8.6
- file servers and master nodes to follow

EasyBuild

- 2023 stage is the default now
- Stage 2023 was relocated to `/p/software/deep/stages/2023`, if you run into trouble please check if you have the old path hardcoded somewhere.
- Please don't use `module use $OTHERSTAGES` when loading Stage 2023. This won't work anymore.

System hardware

CM nodes

- the cluster nodes have direct EBR IB access to the SSSM storage nodes now (without using the IB ↔ 40 GbE gateway)

ESB nodes

- all ESB nodes (`dp-esb[01-75]`) are using EDR Infiniband interconnect (no Extoll anymore)
- SSSM and AFSM file servers can be directly accessed through IB

DAM nodes

- DAM nodes are using EDR Infiniband (instead of using 40 GbE and Extoll) now
- SSSM and AFSM file servers can be directly accessed through IB
- current accelerator layout:
- `dp-dam[01-08]`: 1 x Nvidia V100 GPU
- `dp-dam02: 1 x Intel PAC D5005 FPGA (for testing)
- `dp-dam[09-12]`: 2 x Nvidia V100 GPU
- `dp-dam[13-16]`: 2 x Intel PAC D5005 FPGA

BXI nodes, Network Federation Gateways

- former network federation gateways now used for BXI testing: `dp-nfgw[02,03,05,06]`
- can be accessed via Slurm using partition `dp-bxi`

SDV

- FPGA test nodes available for using FPGAs with oneAPI, OpenCL:
  - Arria10: deeper-sdv[09,10]
  - Stratix10: dp-sdv-esb[01,02]

File Systems

please also refer to the [Filesystems](#) overview

- quota has been added to `/tmp` on `deepv` to avoid congestion

the All Flash Storage Module (AFSM) provides a fast work file system mounted to `/afsm` (symbolic link to `/work`) on all compute nodes (CM, DAM, ESB) and the login node (`deepv`)

- it is managed via project subfolders: after activating a project environment using `jutil` command the `$WORK` will be set accordingly
- the older System Services and Storage Module (SSSM) work file system is obsolete, but still available at (`/work_old`) for data migration
- SSSM still serves the /usr/local/software file system, but
  - starting from Rocky 8 image `/usr/local` will is a local file system on the compute nodes
  - `/usr/local/software` is still shared and provided by the SSSM storage
  - in addition to the !Easybuild software stack the shared `/usr/local/software` filesystem contains some manually installed software in a `legacy` subfolder