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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: 2023-03-16

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

- · 2022 EasyBuild stage is still the default
- 2023 stage being prepared

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 $\underline{\mbox{Filesystems}}$ 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- the older System Services and Storage Module (SSSM) work file system is obsolete, but still available at (/work_old) for data migration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