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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

# 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  ${\tt dp-bxi}$

# 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- the older System Services and Storage Module (SSSM) work file system is obsolete, but still available at (/work\_old) for data migration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  $/ {\tt usr/local}$  will is a local file system on the compute nodes
  - $\sc / \sc usr / \sc local / \sc still shared and provided by the SSSM storage$
  - in addition to the !Easybuild software stack the shared /usr/local/software filesystem contains some manually installed software in a legacy subfolder