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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: 2022-09-15

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

Network Federation Gateways

- · with the all IB solution NFGWs are not needed anymore! this also affects heterogenous jobs
- dp-nfgw[01,04] (IB EDR \leftrightarrow 40GbE) still present, but not in use anymore
- remaining NFGWs are being used for BXI testing now: dp-nfgw[02,03,05,06]

SDV

- 4 node BXI test setup has been installed using the former GW nodes
- 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)
- the older System Services and Storage Module (SSSM) work file system is obsolete, but still available at (/work_old) for data migration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 be a local file system
 - /usr/local/software will be shared and provided by the SSSM storage
 - in addition to the !Easybuild software stack the shared /usr/local/software filesystem will contain manually installed software in a legacy subfolder

System software

• ParaStation? update (psmgmt) to 5.1.49-4 has been performed

os

- · the decision was taken to use one Rocky linux image for all compute nodes
- transition from CentOS to Rocky Linux 8.5 has been finished on compute nodes
- login node deepvhas moved to Rocky linux 8 as well
- · file servers and master nodes to follow

EasyBuild

- 2022 EasyBuild stage is being set up
 - new stage can be loaded as Stages/2022