Isabella cluster technical specifications

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Login node

Login node (teran.srce.hr) is located on virtualization VMware cluster. This configuration ensures high availability (HA) for all services such as: access to the cluster, user data, job queuing system (Sun of Grid Engine) and supervision services (Ganglia).

File system

File system BeeGFS is used for storage of permanent (/home), temporary (/shared) user data and enables simultaneous access to data from login computer and all computer nodes. BeeGFS consists of 6 HP DL380 Gen10 servers providing a total of 765 TiB of space. The servers are connected to the nodes via 40 and 56 Gb/s Infiniband computer network and with login computer via 10 Gb/s Ethernet network.

Computer nodes

The total of 69 computer nodes provides users with:

- 158 CPU processors
- 2.188 CPU processor cores
- 12 graphics processors
- 10 TB RAM
- 756 TB shared data memory

1. 76 x Lenovo NeXtScale nx360 M5
     - 2 x Intel Xeon E5-2683 v3
     - 128 GB RAM
     - 1 x 1 TB disk memory
     - 56 Gb/s Infiniband
2. 3 x Dell EMC PowerEdge C4140
     - 2 x Intel Xeon Silver 4114
     - 4 x NVIDIA Tesla V100
     - 384 GB RAM
     - 1 x 3,2 TB disk memory type NVMe SSD

Network infrastructure

Network infrastructure consists of:

    2 x HP ProCurve 2848 1 Gb/s Ethernet switch (96 ports)
    6 x Mellanox SX6025 (56 Gb/s) Infiniband switch (36 ports)