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## Network technologies in the I.Bi.S.Co. Napoli HPC hybrid cluster

*Tuesday, 20 September 2022 19:00 (1 hour)*

The work aims to describe the architectural characteristics, and especially the local network, of a new hybrid cluster of 128 GPUs set up in the Data Center of the Monte Sant'Angelo complex of the "Federico II" University of Naples. Its hybrid features allow you to use its resources in different scenarios: from parallel computing, to GP-GPU accelerated workload, to their combinations. The cluster consists of 36 nodes and 2 switches that perform two functions: computing and storage. To maximize the efficiency of the cluster and to accommodate the multiple needs of users, the local network uses two distinct architectures:

- intra-node: characterized by the combination of NVLink and PCI-e
- inter-node: characterized by the combination of InfiniBand and Ethernet

The setting up was possible thanks to funds financed by the I.Bi.S.Co. project (Infrastructure for Big data and Scientific Computing), of the PON 2017-2022.

This infrastructure will enter the establishing National Center for Computing, financed by the funds of the PNRR.

### Any relevant links

### Topic

A Federated Compute Continuum

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**Session Classification:** Posters (presenters at poster)

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