

Cloud Bursting: a First Experience

Thursday, 20 May 2021 14:30 (30 minutes)

We will report on a proof-of-concept carried out by SCITAS using Google Cloud Platform (GCP) resources to analyze the state of the art and evaluate the capabilities available in GCP.

We evaluated both the technical feasibility and the performance of the solutions from an HPC perspective (including performance benchmarks). We defined a semi-automatic procedure to deploy, in less than 10 minutes, a fully usable cluster.

The following architectures were evaluated:

- a cluster in the cloud, offering the same software stack as our bare-metal clusters (external elastic computing)
- a hybrid approach with an on-site headnode and dynamic allocation of compute nodes in the cloud (hybrid elastic computing)
- a hybrid approach with an on-site compute node using accelerators in the cloud (external compute resources)

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