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CONDE: Climate simulation ON DEmand using HPCaaS

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CONDE (Climate simulation ON DEmand) is the final result of our work and research about climate and meteorological simulations over an HPC as a Service (HPCaaS) model. On our architecture we run very large climate ensemble simulations using a, adapted, WRF version that is executed on-demand and that can be deployed over different Cloud Computing environments (like Amazon Web Services, Microsoft Azure or Google Cloud) and that uses BOINC as middleware for the tasks execution and results gathering. Here, we also present as well some basic examples of applications and experiments to verify that the simulations ran in our system are correct and show valid results.