NEW SYSTEM FOR REMOTE MANAGEMENT, VIA WEB, OF A SUPERCOMPUTING PLATFORM

Description:

Solving numerical simulation problems, when they are complex, requires a cluster of computers capable of carrying out the extensive calculations. Multidisciplinary problems, such as those related to physics, statistics, engineering, etc., can sometimes require a great deal of computing power. Such is the case of geophysical flow simulation when applied to reality situations. Thus, the present invention consists of a cluster platform and web interface that provides the user with the ability to solve numerical problems using mathematical models. The web interface frees the user from the dependency of installing software on the client computer at the cost of a much greater integration between said interface and the cluster hardware which, together with advanced web programming, enables dynamic user-code interaction in an environment friendly similar to other commercial programs but under a purely web interface.
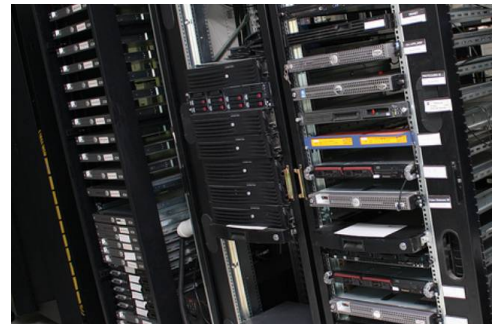
Keywords:

Platform, Supercomputing, Resolution, Problems, Math

Sectors:

ICT, Others

Areas:

Telecommunications, Internet and Networks, Communications, Technological Improvements

Advantages:

Among the advantages of the present invention are: • Allows the dynamic generation of preprocessing forms for each mathematical model with the possibility of inclusion of source code by the user. • Calculations can be performed on CPUs or GPUs (graphics card processors) • The user does not need the installation of specific programs on his computer. • The present invention can solve different kinds of problems.

Uses and Applications:

The present invention falls within the field of supercomputing platforms used for the numerical simulation of complex problems.

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