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Hybrid Cloud-based Grid Infraestructure: Experience & Future

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Description of the Work

The CESGA supercomputing center, as part of its participation on EGI activities, gives multiple services to the Grid community, including computing infrastructure, regional coordination and monitoring, accounting and metrics portals, software provisioning, and testing for the future EGI federated cloud infrastructure.

To efficiently perform these duties, in addition to its preexisting regional and national ones, a flexible and manageable solution is required.

Our OpenNebula based hybrid cloud of virtual machines address this need, greatly simplifying resource provisioning and allocation flexibility and control.

This work will expose our experience and plans regarding this infrastructure, built on our new 8-core servers, and which allowed successful migration of our existing grid infrastructure to more energy efficient and powerful hardware.

Conclusions

Our work exposes our experience and plans regarding our OpenNebula based hybrid cloud infrastructure, and which offers many grid services like computing infrastructure, regional coordination and monitoring, accounting and metrics portals and software provisioning, allowing easy partitioning and allocation of resources.

Impact

This paper would describe a existing, in production example of cloud infrastructure offering grid services. We feel there is string interest from other sites in the experiences creating and managing it.

Overview (For the conference guide)

This work will expose our experience and plans regarding our OpenNebula based hybrid cloud infrastructure, and which offers many grid services like computing infrastructure, regional coordination and monitoring, accounting and metrics portals and software provisioning, allowing easy partitioning and allocation of resources.

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