

VIRTDOM: a dynamic Virtual Machine manager for customized execution environments.

Distributed computer systems pose a new class of problems, due to increased heterogeneity either from the hardware than from the user's request point of view.

One possible solution is to create on demand virtual working environments tailored on the user's requirements, hence the need to manage dynamically such environments. This work proposes a solution based on the use of Virtual Machines (Xen) coupled with a Virtual Machine Manager to create, destruct and migrate the virtualized working environments according to a customized policy.

The informations will be collected using a client-server mechanism, to allow the manager to deploy preconfigured Virtual Machines on the available hardware resources. When a new execution environment became active, it is automatically recognized by the Batch System Manager and is then ready to be used.

This prototype has been put in production at Perugia INFNGRID site and the first results will be presented.

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