

Rigorous design of cloud applications using formal methods

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PROJECT SUMMARY



- Reliable design of concurrent critical systems involving asynchronous parallelism
- Definition of formal languages for describing the behaviour, the logical properties, the quantitative aspects of systems, and the verification techniques.

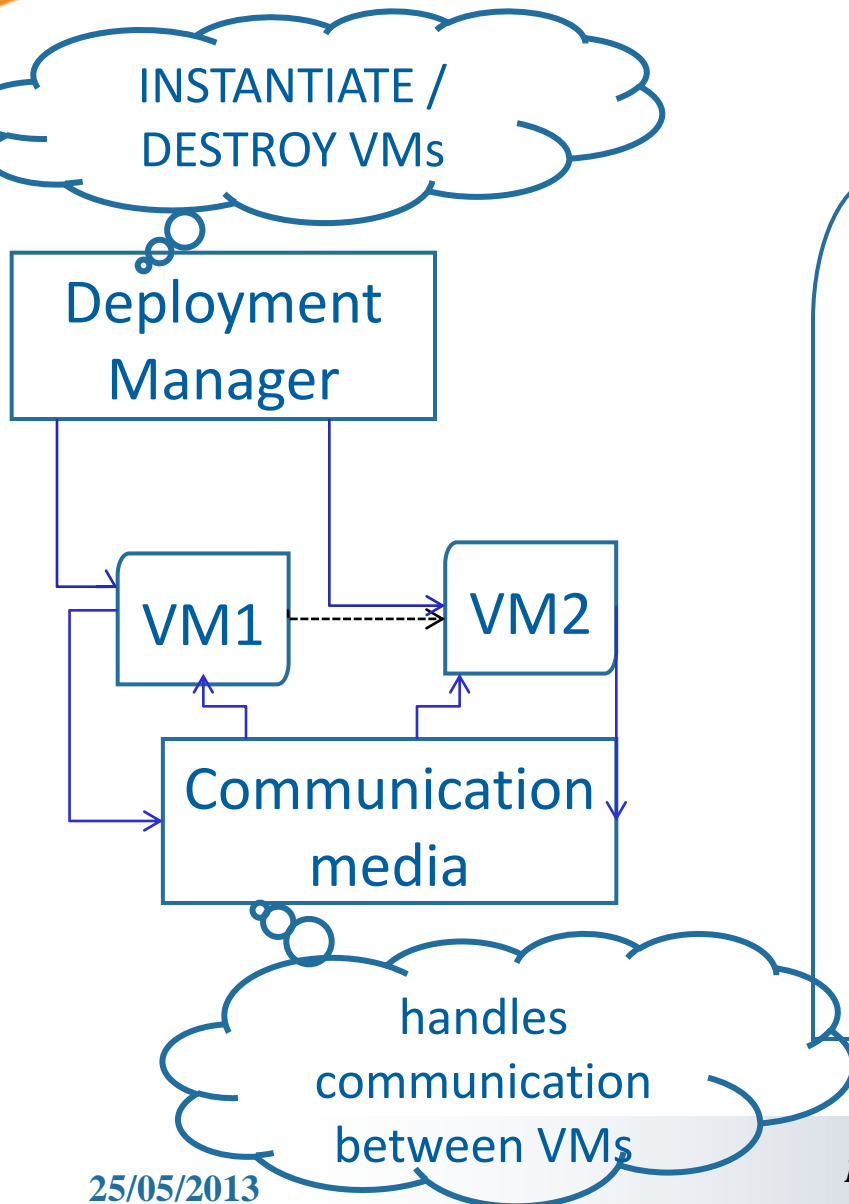
Context

Cloud applications are distributed applications composed of software that run on different virtual machines (VMs).



- Dynamicity: new virtual machines are instantiated or destroyed
- Moving the VM from a physical machine to another one.

SPECIFICATION & VERIFICATION



- The model checking tools available in CADP toolbox
- A component cannot be started before the component it depends on.
- If a VM is destroyed, all its components are stopped