Abstract

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CampusCloud: Aggregating Universities Computing Resources in Ad-Hoc Clouds

Cloud Computing has recently emerged as a new computing paradigm based on the concept of virtualization with the goal of creating a shared highly scalable computing infrastructure from aggregated physical resources to deliver seamless on-demand provisioning of software, hardware, and data as services. Universities typically have large amounts of computing resources to support instructional and research activities. This paper investigates the challenges of developing a Campus Cloud based on aggregating resources in multiple universities. The requirements model; the architecture model of this cloud environment are presented. An implementation methodology using open source cloud middleware is also discussed.