

Efficient Utilization of Commodity Computers in Academic Institutes: A Cloud Computing Approach

Authors : Jasraj Meena, Malay Kumar, Manu Vardhan

Abstract : Cloud computing is a new technology in industry and academia. The technology has grown and matured in last half decade and proven their significant role in changing environment of IT infrastructure where cloud services and resources are offered over the network. Cloud technology enables users to use services and resources without being concerned about the technical implications of technology. There are substantial research work has been performed for the usage of cloud computing in educational institutes and majority of them provides cloud services over high-end blade servers or other high-end CPUs. However, this paper proposes a new stack called "CiCKASStack" which provide cloud services over unutilized computing resources, named as commodity computers. "CiCKASStack" provides IaaS and PaaS using underlying commodity computers. This will not only increasing the utilization of existing computing resources but also provide organize file system, on demand computing resource and design and development environment.

Keywords : commodity computers, cloud-computing, KVM, CloudStack, AppScale

Conference Title : ICCSISCT 2015 : International Conference on Computer Science, Information Systems and Communication Technologies

Conference Location : London, United Kingdom

Conference Dates : February 16-17, 2015