Heterogeneous Cloud Computing

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ABSTRACT
Current cloud computing infrastructure typically assumes a homogeneous collection of commodity hardware, with details about hardware variation intentionally hidden from users. In this paper, we present our approach for extending the traditional notions of cloud computing to provide a cloud-based access model to clusters that contain a heterogeneous architectures and accelerators. We describe our ongoing work extending the Open Stack cloud computing stack to support heterogeneous architectures and accelerators, and our experiences running Open Stack on our local heterogeneous cluster testbed.

INDEX TERMS
Cloud computing, Computer architecture, Graphics processing unit, Hardware, Libraries, Servers, Virtual machining

CONTROLLED INDEXING

- cloud computing

NON CONTROLLED INDEXING

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