Abstract

Cloud computing currently serves massive data loads across public and private clouds. However this poses a huge demand for energy support. The current system is mainly centered on coal and non-renewable energy based sources. A transition must be made towards green data centers which depend on renewable energy sources. According to the International Data Corporation, in 2010 for every $1 spent on hardware, 50 cents are spent on power and cooling [1]. We expect that by 2013 for every $1 spent on hardware, $1 will be spent on power and cooling. This naturally prompts stakeholders of Fortune 500 companies to push towards a Green IT transition. GreenCloud based datacenters, in the long term are not only financially
rewarding but also environmentally friendly. This paper describes the landscape of the current interplay between three major parameters – Big Data, Cloud Computing and Green IT. A systematic two-fold approach to bring about a transition to a GreenCloud system is suggested. The future of Big Data is on the Green Cloud.

References

- Copyright 2012 Alternative Energy eTrack – GlobalData
- Luiz André Barroso and Urs Hölzle, Google Inc. The Datacenter as a Computer - An


**Index Terms**

Computer Science  
Distributed System
Keywords
Greencloud  Cloud Computing  Virtualization; Datacenter  Energy Management