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Energy efficiency and environmental considerations for green data centres

(Article)

Uddin, M.^a [✉](#), Shah, A.^b [✉](#), Memon, J.^c [✉](#) [🔍](#)^aFaculty of Computer Systems and Software Engineering, Universiti Malaysia Pahang, Kuantan, Pahang, Malaysia^bDepartment of Information Systems, Kulliyah of Information Communication Technology, International Islamic University Malaysia, Selangor, Malaysia^cDepartment of Information Systems, Faculty of Computing, Universiti Teknologi Malaysia, Skudai, Malaysia

Abstract

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The advancement in information and communication technology based businesses and social practices in last few decades have transformed many, if not most, economies into e-economy and businesses into e-businesses. Technology has the potential to create sustainable business and society both in grim and green economic times. Data centres are found major culprits in consuming too much energy in their overall operations and generating huge amount of CO₂. This paper determines the properties and attributes of green IT infrastructures and provides ways for achieving green sustainable businesses. The proposed green IT attributes and characteristics using virtualisation technology are very industrious and efficient for data centres to be more energy efficient and green, hence reducing the emission of greenhouse gases so that the overall effect on global warming can be reduced or even eliminated. Copyright © 2014 Inderscience Enterprises Ltd.

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