UNIVERSITI TEKNOLOGI MARA

IMPLEMENTATION OF GREEN DATA CENTER TOWARDS GREEN IT

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Report submitted in partial fulfillment of the requirements

for the degree of

Master of Science (Information Technology)

Faculty of Computer and Mathematical Sciences

July 2014

ABSTRACT

In the recent years, information technology (IT) is becoming significantly popular due to the explosive development of the computing systems and the growth of internet. As people progressively depend on the IT, the dilemma of energy utilization in IT industry and government organizations becomes global warming issues for society. These global issues have made it essential to explore a new paradigm of computing, called green IT. The implementation of green IT addresses on issues on how to offer the solutions for large scale computing system like a green data center where information systems and applications may have high energy utilization and aims at the development of technologies for a greener and more sustainable environment. The purpose of this research is to explore various issues pertaining to characteristics and factors that drive the green data center implementation and how green data center contribute to green IT. The research methodology involves four phases which are planning, information gathering, result and analysis, and documentation. Qualitative approach is used to gather data based on a case study in one of Malaysia State Government Office implementing green data center. Data were collected via semi structured interviews based on semi structured questionnaire with the Director of IT Department, Head of Data Center Operation Unit and Data Center Administrator. The findings of this research provide an overview on the significance of implementing green data center in the public sector to reduce energy consumption and lower the operational cost and facilitate business continuity of public sectors to serve citizens.

ACKNOWLEDGEMENT

Praise be to Allah SWT Most Gracious, Most Beneficent

First and foremost, all my greatest praise to Allah SWT, the Almighty for His blessing and permission upon us to complete my project within the prescribe time. First, my warmest and deepest appreciation goes to my supervisor, Assoc. Prof. Norehan Abdul Manaf from Faculty of Computer and Mathematical Sciences, UiTM Shah Alam for the guidance throughout my research study. Thank you for never stop giving ideas, opinions, and always support me in completing this research. Thank you for being understanding and patiently supporting me from the initial stage until the completion of this research.

I also would like to thank to all respondents that give all the data I need in order for me to complete this research. My acknowledgement also goes to my beloved husband, Mohamad Suhaimi bin Harun, and my parents, Haji Hashim bin Hanafiah and Hajjah Anizah binti Johari, for their continuous love, beliefs and support and never stop praying for my success. And my heartful appreciation to my children Mufazzal Syimir bin Mohamad Suhaimi and Majdina Syaurah binti Mohamad Suhaimi for being able to understand what I am doing.

Lastly, I would like to express my gratitude and love to all my lecturers, and my friends for their great guidance and in-depth discussion towards my projects and other persons that involved either directly or indirectly in completing this research and I hope that this research does not end here but the journey shall continue and be able to contribute to the Public Sector of Malaysia and other researchers in the same field.

Thank you very much.

TABLE OF CONTENTS