UNIVERSITI TEKNOLOGI MARA

TELEWORK MODEL USING CLOUD COMPUTING TECHNOLOGY

MUHAMMAD OMAR

Dissertation submitted in partial fulfillment of the requirements for the degree of

Master of Science (Information Technology)

Faculty of Computer and Mathematical Sciences

May 2011

i

.

Abstract

The rapid development of information and communication technology (ICT) has become inevitable in our daily lives, especially in the management and technical fields. Introduction to a vast variety of the 'utilities computing' concept has been regarded as a strategic move to induce a healthy and balanced competitive growth. This particular technology is seen as a bright prospect in the economical management of year 2011, especially in the ICT sector. The introduction of cloud computing in Malaysia has enabled improvement in the operative management as well as significantly brings down the cost of operation in every organisation. Furthermore it has provided an ideal platform for the related organisations which implement the telework concept, which makes working away from the office a reality. The core purpose of this research is to identify organisations which implement the essential elements of telework and cloud computing, besides investigating factors which influence the telework to utilise cloud computing in management. This study is quantitative, whereby questionnaires were distributed to about 60 organisations under the Multimedia Super Corridor (MSC). The findings indicate that all factors identified of cloud computing have a positive relationship with telework. Next, this research developed a telework model using cloud computing, based on above factors; cost effectiveness, need for cloud computing, reliability, collaboration and security, as obtained from correlation statistics. The importance of this research could serve as guidance for other organisations to practice this particular technology and benefit individually, especially remained align with green ICT.

TABLE OF CONTENTS

TITLE PAGE	i
ABSTRACT	ii
CANDIDATE'S DECLARATION	iv
ACKNOWLEDGEMENT	v
LIST OF FIGURES	vi
LIST OF TABLES	vii

CHAPTER 1

INTRODU	JCTION	.1
` 1.1	Background of the Study	.1
1.2	Statement of the Problem	.3
1.3	Research Questions	.4
1.4	Research Objectives	.4
1.5	Contribution of Research	.5
1.6	Significance of Research	.5
1.7	Scope and Limitations	.6
1.8	Overview of Research	.7

CHAPTER 2

LITERATURE REVIEW10			
2.2	Telework	10	
2.3	Advantages of Telework	11	
2.4	Disadvantages of Telework	12	
2.5	Components of Telework	13	
2.6	Overview Cloud Computing	14	
2.7	Cloud Computing in Malaysia Perspective	15	
2.8	Key Features of Cloud Computing	16	

AUTHOR'S DECLARATION

I declare that the work in this thesis was carried out in accordance with the regulations stipulated by Universiti Teknologi MARA (UiTM). It is original and is the result of my own work, unless otherwise indicated or acknowledged as referenced work. I declare that this thesis has not been submitted to any other academic or non-academic institution for any other degree or qualification.

In the event that the thesis is found to violate any of the conditions mentioned above, I voluntarily waive the right of conferment of my degree and agree to be subjected to the disciplinary rules and regulations stipulated by the university.

Name of Candidate	:	Muhammad bin Omar
Candidate's UiTM ID	:	2009856244
Program	:	Masters of Science in Information Technology
		(CS770)
Faculty	:	Faculty of Computer and Mathematical Sciences
Thesis Title	•	Telework Model Using Cloud Computing
		Technology
Signature of Candidate	:	ltt .
Date	:	17.5.2011
Name of Supervisor	:	Assoc Prof Datin Dr Noor Habibah binti Haji
		Arshad
Signature of Supervisor	: `	
Date	3	17 5 2011

Acknowledgement

Praise and great thank to Almighty God and His blessings for giving me strength, I am able to finish this dissertation on time.

I would like to take this opportunity to express my highest appreciation to my supervisor Datin Noor Habibah Arshad (Associate Prof. Dr.) for her encouragement, guidance, and timely feedback throughout the dissertation process. I would also like to thank Dr. Wan Adilah Wan Adnan as the Program Coordinator for CS770 for her guidance and encouragement during the preparation of this dissertation.

Secondly, I would like to dedicate my deeply appreciation to Ms. Nur Syafiqah Jasmin for her moral support and kindness in providing me the information needed in order for me to complete this dissertation from the starting. Also thanks to my beloved parents, Mr. Omar Hj Mohamad and Mrs. Salmah Hj Samsuddin for their faith, continuous encouragement and support.

Last but not least, a very sincere thank for those who had involved in contributing their help and support either directly or indirectly in making this dissertation successful.

Thank you very much.