

Universiti Teknologi MARA

**Implementing Peer to Peer Technology for ISE
Virtual Community Knowledge Sharing**

Shafizol Bakhtiar Bin Mokhtar

**Thesis submitted in fulfillment of the requirements for
Bachelor of Science (Hons) Information System Engineering
Faculty of Information Technology And
Quantitative Science**

November 2006

DECLARATION

I certify that this thesis and the research to which it refers are the product of my own work and that any ideas or quotation from the work of other people, published or otherwise are fully acknowledged in accordance with the standard referring practices of the discipline

NOVEMBER 11, 2006

SHAFIZOL BAKHTIAR

BIN MOKHTAR

2003471074

ABSTRACT

Knowledge sharing is a method of sharing information between community members or between other communities. Nowadays, knowledge sharing could not be implemented between student and lecturers and student to student. That is because, student did not have an appropriate platform for them to share their opinion, share their knowledge among themselves and to their lecturers. Beside that the problem of workspace and space acquired over internet also contributing to the unavailability of sharing knowledge between student and lecturers. By using peer to peer technologies, a new platform for sharing data between lecturers and student could be created. With the limitation for storage is almost did not happen, folder for data could be easily customize, peer to peer provide the most flexible data sharing and migration to be implemented. This paper will suggest the peer to peer technologies and how it could be implemented in ISE Virtual Community.

TABLE CONTENTS

CONTENT	PAGE
TITLE PAGE	i
DECLARATION	ii
ACKNOWLEDGEMENT	iii
ABSTRACT	iv
 CHAPTER ONE: INTRODUCTION	
1.1 Research Background	1
1.2 Project Statement	2
1.3 Project Scope	2
1.4 Project Objective	3
1.5 Project Significant	3
1.6 Project limitation	3
1.7 Overview of the Report	5
 CHAPTER TWO: LITERATURE REVIEW	
2.1 Definition	7
2.2 Method of peer to peer architecture	7
2.3 Issues related to Peer to Peer Technologies	10
2.4 Benefit of implementing P2P Technologies	11
2.5 A few things that is related with Peer to Peer Technologies	11
2.51 Storage and Access	12
2.52 Query Language	12
2.53 Data model	13
2.54 Query Engine	14
2.55 Network Properties	14
2.56 Data Placement	14
2.57 Topology and Routing	16
2.58 Integration Mechanism	18
2.59 Mapping Representation	18

2.510	Mapping Creation	19
2.511	Integration Method	20
2.512	Other Issues	21
2.6	A few things about knowledge sharing	22
2.61	A Vision: Knowledge Sharing	22
2.62	The knowledge sharing effort	23
2.7	Summary	25

CHAPTER THREE: RESEARCH APPROACH AND METHODOLOGY

3.1	Introduction	26
3.2	Research approach	27
3.21	Research Study	28
3.2.2	Data Collection	28
3.2.2.1	Interview	29
3.2.2.2	Questionnaire	29
3.2.2.3	Observation	30
3.2.2.4	Online Resources	30
3.2	Design Analysis	31
3.3	Design Product	31

CHAPTER FOUR: CONSTRUCTION

1.1	Introduction	32
4.2	Conceptual Design	33
4.2	Prototype development	37
4.4	Users of system	37

CHAPTER FIVE: RESULT AND ANALYSIS OF DATA

5.0	Introduction	39
5.1	Prototype of ISE Virtual Community P2P Program	45
5.3	Prototype Result	45
5.4	Conclusion	48