

**UNIVERSITI TEKNOLOGI MARA**

**SERVER-BASED CONTENT ADAPTATION  
ARCHITECTURE WITH CACHING MECHANISM**

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Thesis submitted in partial fulfillment of the requirements  
for the degree of  
**MSC Computer Networking**

**Faculty of Information Technology and Quantitative Sciences**

**May 2008**

## **ABSTRACT**

Nowadays, people manage to access the internet to watch videos online not only through desktop or laptop, but also through mobile devices such as PDA or mobile phones at anytime and anywhere. Watching videos on mobile devices has its own drawbacks which are limited resources and bandwidth. Researchers have come up with various architectural approaches in applying content adaptation to overcome those problems. In server-based on-the-fly technique, the downloading response time increase significantly due to frequent transcoding process. We propose a method by implementing new server-based architecture with caching mechanism to solve those problems. The result showed that, the downloading response time for the on-the-fly technique with caching mechanism is faster than the on-the-fly technique without caching mechanism. In conclusion, this new architecture improves the downloading response time and reduces the frequency of transcoding process.

## **ACKNOWLEDGEMENT**

In the name of Allah S.W.T The Most Beneficent, The Most Merciful. It is with the deepest sense of gratitude to the Al-Mighty who gives me the strength and ability to complete this task.

I would like to convey my deepest gratitude to my supervisor, En. Mohd. Faisal Ibrahim for his guidance, encouragement and time to enable the successful completion of this dissertation.

Thank you to my husband whom has been helping me throughout this dissertation. To my family and friends, I truly appreciate their care, support and advice given to me during the development phase of this dissertation.

# TABLE OF CONTENT

ABSTRACT .....	i
ACKNOWLEDGEMENT.....	ii
LIST OF FIGURES .....	vi
LIST OF TABLES.....	vii
LIST OF ABBREVIATIONS .....	ix
CHAPTER I.....	1
INTRODUCTION .....	1
1 Introduction.....	1
1.1 Problem Statement.....	3
1.2 Objectives.....	4
1.3 Contribution .....	4
1.4 Scope.....	4
CHAPTER II .....	5
LITERATURE REVIEW.....	5
2 Introduction.....	5
2.1 Content Adaptation.....	5
2.1.1 Transcoding Process .....	6
2.1.2 Content Adaptation Architecture.....	9
• Client-Based Adaptation .....	9
• Proxy-Based Adaptation .....	10
• Service-Based Adaptation.....	11
• Server-Based Adaptation.....	12
▪ On-the-fly Adaptation.....	12
▪ Offline Adaptation .....	12
2.2 Related Work.....	14
2.3 Cache .....	15
2.3.1 Caching Algorithm.....	15
• Least Recently Used (LRU) .....	16
• Least Frequently Used (LFU).....	16
• First in First out (FIFO).....	16

CHAPTER III.....	17
RESEARCH METHODOLOGY .....	17
3 Introduction.....	17
3.1 Research Method Overview.....	17
3.1.1 Initiation Study Phase .....	21
3.1.2 Planning Phase.....	21
3.1.2.1 Architecture Planning.....	21
3.1.2.2 Caching Mechanism Planning .....	22
3.1.3 Testing Procedure Planning.....	22
3.1.4 Network Design Phase .....	22
3.1.4.1 Requirement Gathering .....	22
3.1.4.2 Network Computing Platform Requirement .....	25
3.1.4.3 Logical Network Design .....	27
3.1.4.4 Physical Network Design .....	28
3.1.5 System and Network Implementation Phase.....	29
3.1.5.1 Network Based Project Learning .....	29
3.1.6 Caching Mechanism Development .....	30
3.1.7 Caching Mechanism Evaluation & Experiments.....	30
3.1.7.1 Caching Mechanism validation .....	30
▪ Cache Miss .....	31
▪ Memory Overflow .....	36
▪ Caching Algorithm .....	38
3.1.7.2 Experiment.....	60
3.1.8 Data Analysis.....	60
• File size categories.....	61
• Number of Users.....	61
CHAPTER IV.....	62
SYSTEM ARCHITECTURE.....	62
4 Introduction.....	62
4.1 Proposed Server-based Content Adaptation Architecture with Caching Mechanism.....	62
4.1.1 Client device .....	64
4.1.2 Web server.....	64
4.1.3 Extractor .....	64
4.1.4 Video Repository .....	65