INTERWORKING OF MANS AND ATM BASED B-ISDN

Presented in partial fulfilment for the award of the

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OCT 1997

ACKNOWLEDGMENT

Bismilahirahmanirrahim.

First of all, I would like to thank god, with all HIS blessing, I am able to finish this project as required in order to fulfil the requirement of Bachelor of Electrical Engineering.

I would like to extend my appreciation to my supervisor Dr. Mohd. Dani b. Baba for his kind guidance, advice, supervision and for his painstaking care he has shown me in assisting through the completion of this project.

I also would like to thank Faculty of Electrical Engineering ITM, Puan Zaleha bt. Abu Bakar a Head of Network Management System Support TELEKOM, and all my friends for their helped, comments and criticisms to make this project a success.

Thank you.

ABSTRACT

This paper examines the interworking of Distributed Queue Dual Bus (DQDB) Metropolitan Area Network (MAN) with the Asynchronous Transfer Mode (ATM) of B-ISDN. We will also investigate the relationship between MAN and ATM and how MANs can integrate with ATM based B-ISDN. This includes a comparison and discussion of the interworking of DQDB MAN and B-ISDN on the interworking of services.

There are 3 stages how we can implement this project. The first stage is to analyse the operation of DQDB MAN, followed by the second stage, that is the operation of ATM and the last stage, that is the interworking between of MAN and ATM network.

For this project, we will focus on the DQDB operation. This due to DQDB model with multipriority traffic using simulation packet NETWORK II.5 in developing the network. The characteristic and the performance of the network is analysed using the simulation results. This include, discussions on analysing the performance evaluation of DQDB model with respect to their cell delay, heavy traffic, under traffic, maximum queue length and channel utilisation.

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CHAPTER 1

INTRODUCTION

Now, today's world of electronic communication has three distinct information infrastructures; the telephone for voice communication, the cable television and broadcasting system for video, and packet-switching networks for communication between computer. Although all are fundamentally different, these information infrastructures do exhibit some similarities. Many networking and communications professionals agree that these communication technologies will eventually be merged into one streamlined network infrastructure designed to support the transmission of any type of information.

However, there are hurdles and new technologies must be developed to overcome them. One of the most promising is Asynchronous Transfer Mode (ATM). This transmission, switching and multiplexing technology promises to be important in developing a successful integrated communication strategy.