

UNIVERSITI TEKNOLOGI MARA

**PERFORMANCE MONITORING OF
DATA TRAFFIC IN ADSL NETWORK
USING MSAN UA5000**

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Dissertation submitted in partial fulfilment
of the requirements for the degree of
Master of Science

Faculty of Electrical Engineering

January 2016

ABSTRACT

MSAN which is known as Multi Service Accesses Network is a fiber equipments that is located between Central Office and subscribers. MSAN UA5000 is a fiber cabinet manufactured by HuaWei Technologies and it is one of the renowned fiber's equipments for ADSL network especially in rural areas. The requirement of broadband service in rural areas has become very important because broadband has becomes the basic needs. This thesis will embark on the collection of data at one of the UA 5000 located 5 kilometers away from Local Exchange. A few testing needs to be done repeatedly to determine the peak hour and the cause of variations in the traffic performance. The measurement results show the variations of data transmit and received where the data can be utilize by the Service Provider to determine peak hour traffic and monitor the service to the customers. The outcome of this study can be used to improve and maximize the quality of service and at the same time resolve the inconsistency of the transmitted data rate to subscribers.

ACKNOWLEDGEMENT

First and foremost, praise to Allah S.W.T for His willing and blessing in giving me the opportunity and strength to complete my Master's degree generally and my final year project specifically. I would like to express my gratitude to my supervisor Dr Darmawaty Binti Mohd Ali for inspiration and guidance throughout the process of completing this thesis.

I also want to thank MR Rizal Izwan from Huawei Technologies for his help and support along this traffic monitoring process.

Next, I would like to thank my friends and all EE700 students who help me and gave me suggestions. Finally, thank you to my parents and family for their unwavering support.

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CHAPTER ONE

INTRODUCTION

1.1 RESEARCH BACKGROUND

The broadband network is very important to our daily lives nowadays. Peoples around the world communicate using the internet daily via VoIP, data transfer and also video conferencing applications. The internet has now become an officially 'essential things people cannot do without, just like the phones or television. Telecommunication industries currently are one of the rapid growth industry around the world. Malaysia has invested in an advanced nationwide broadband infrastructure that would enable Malaysians to stay in the forefront of technology. Asymmetric Digital Subscriber Line (ADSL), Next Generation Network (NGN)[1], Long Term Evolution (LTE), Fiber to The Home (FTTH)[2] are part of the technologies that are currently being implemented in Malaysia to fulfill the needs of high speed broadband.

However, the latest technologies are always deployed in the urban area because of higher demands of broadband service from the subscribers in the city. The subscriber in the city experienced high speed internet access as compared to the subscribers in the rural area. This study will focus on the ADSL network in rural areas. One of the equipment that have been widely used for the ADSL network is Multi-service Access Node (MSAN).

MSAN which is known as Multi Service Accesses Network is a fiber equipment that located between Central Office and subscribers. MSAN UA5000[15]