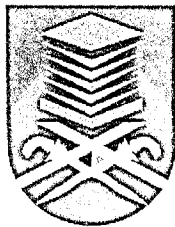# AN INVESTIGATION ON A TMNET ISDN TRAFFIC
IN SHAH ALAM

This thesis is presented in partial fulfillment for the award of

the Bachelor of Electrical (Honors)

UNIVERSITI TEKNOLOGI MARA

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ABSTRACT

This paper is about an investigation on TMNET integrated services digital network (ISDN) traffic in Shah Alam. Traffic analysis is very important to network operations. The results obtained from traffic analysis can be used to improve the grade of service (GOS). Analysis is for a period of 8months, starting from August 2002 until March 2003.

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CHAPTER 1

INTRODUCTION

1.1 Introduction

When any industrial plant is to be designed, an initial decision must be made as to its size, in order to obtain the throughput. For an oil refinery, this number of barrels per day; for a machine shop, it is the traffic to be handled. This determines the number of trunks to be provided.

In teletraffic engineering the tern trunk is used to describe any entity that will carry one call. It may be an international circuit with a length of thousands of kilometers or a few meters of wire between switches in the same telephone exchange. The arrangement of trunks and switches within a telephone exchange is called its trunking.

If record is made over a few minutes of the number of the calls in progress on a large telecommunication system, such a telephone exchange or a transmission route, it appears as shown in figure 1.0. The number of calls varies in random manner, as individual calls begin and end.

If this random variation is smoothed out by taking a running average, the number of calls in progress is found to vary during the day, For example as shown in figure 1.1. There are very few calls during the night. The number of calls rises as people got to work and reaches a maximum by the middle of the morning. If falls at mid-day, as people go to lunch, and it rises again in the afternoon. It decreases as people go home from work and it has a further peak in the evening as people make social calls.