

The Final Project Report
For
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SUPERVISORY, CONTROL AND DATA ACQUISITION (SCADA)
SYSTEM FOR TELEKOM MALAYSIA IN TRANSMISSION NETWORK
MANAGEMENT

PREPARED BY
NORFISHAH BT AB. WAHAB

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II

SUMMARY

This report describes the concept of Supervisory, Control And Data Acquisition (SCADA) system in the transmission network acquired by Telekom Malaysia. The system was recently installed at the Central Region and is in the testing and commissioning stage. This system will be extended for the whole of Malaysia to attain a prudent Network Management System.

The scope of my project is to ensure the compatibility of the existing radio equipment, Digital Radio System (DRS) 140 Mbits/6.7 GHz (3+1) with the Remote Terminal Unit (RTU). The RTU, installed recently, is a subsystem of the SCADA system. Its function is to collect the alarms and subsequently transmit them to the Control Centre at Telekom Jalan Raja Chulan via service channel for their immediate response.

The project at the Central Region is expected to be completed in June, 1992. At the time of this report, the work is still in progress at the Control Centre to modify the software and improve the picture creation.

I

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III

TABLE OF CONTENTS

	PAGE
ACKNOWLEDGMENT	I
SUMMARY	II
TABLE OF CONTENTS	III
LIST OF FIGURES	IV
LIST OF TABLES	V
LIST OF APPENDICES	VI
1.0 Introduction	1
2.0 Supervisory Control And Data Acquisition System	
2.1 System Overview	4
2.2 Network General Function	6
2.2.1 Remote Terminal Unit	10
2.2.2 Submaster	15
2.2.3 Master	24
3.0 Theory of Four-wire Multipoint Configu- ration	25
4.0 SCADA Network Configuration For Telekom Malaysia	30
5.0 Bukit Gasing - Teruntum Link Network Management	34

1.0 INTRODUCTION

In these modern days, communication networks are expanding and user demands are increasing. In order to cope with these demands, Telekom Malaysia decided to have a proper network management system to supervise and control the transmission network for the whole Malaysia. The country is divided into 6 regions namely the North, South, East and Centre for West Malaysia and Sabah and Sarawak for East Malaysia.

(Refer to Appendix 1).

The equipment used in transmission systems are supplied by different manufacturers. Consequently, skilled manpower are needed to properly maintain the equipment. Most transmission stations are located on high lands and remote areas which are difficult to access. So, in case of failure prolonged communication interruptions were experienced which resulted in user's inconvenient and complaints and loss of revenue for Telekom Malaysia.

The existing supervisory system covers limited areas. and very few links are being monitored by this supervisory system due to interfacing problems with the equipment being supplied by different manufacturers.