Title: IPVPN DESIGN IN TELEKOM MALAYSIA BERHAD (TMB)

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ABSTRACT

Internet Protocol Virtual Private Network (IPVPN) defines a private network that uses public network infrastructure, Internet to carry data. This research focuses on logical design of an IPVPN that resides on an IP network, which is TMNet for Telekom Malaysia Berhad (TMB). With IP, we provide a cost effective design to the customer instead of using leased line to maintain wide geographical communication. Also, we are applying MPLS architecture which combines the layer 2 switching and Layer 3 routing to improve performance, scalability, reliability and security while IPSec architecture enhance on security to customer's data traffic. This research also concerns about Quality of Service (QOS) that enable to offer differentiated IP based service levels on network traffic.

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INTRODUCTION

1.1 PREFACE

Towards the era of globalization, updated information is one of the precious assets of an organization. The information are used within the corporate network (intranet) as well as the global network especially for connection to remote users or telecommuters and also to their suppliers or partners (extranet).

With the rise of Internet and Internet Protocol (IP) usage for business applications, the role of shared networks has accelerated in today's corporate data networking environment. (Telecommuters, mobile users, business travelers, etc.). Everyone recognizes the strategic importance of internet access. Internet is used to extend the network that brings business and their customers close together and also help businesses to minimize cost.

Service Providers such as Telekom Malaysia Berhad (TMB) are struggling to meet their customers' demand in delivering value-added IP networks (including privacy, Quality of Service (QOS) and Any to Any Activity) with multiple service classes that can interoperate with their customer network, at a lower cost.

IP Virtual Private Network (IPVPN) has emerged as a fundamental solution that constructed within a public network infrastructure, which is Internet. In this research we will look on how IPVPN is designed and how its technology can support the demands of privacy, QOS, any to any connectivity, security, and scalability of the customer.