

**UNIVERSITI TEKNOLOGI MARA**

**STUDY THE BUSINESS STRATEGY AND  
SUSTAINABILITY OF METRO ETHERNET  
IMPLEMENTATION**

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## ABSTRACT

Metro Ethernet business solutions are designed to cater to every customer's individual needs and supported by highly skilled professionals. The world today relations information in the form of digital voice and data and the transport network is used to carry this information from one abode to another. Transport technologies use a media to carry this information. Ethernet economics are proven in the LAN. This technology now delivers the same advantage to the WAN. The cost per Mbps of bandwidth is lower for Ethernet services in comparison to other alternatives. This project is actually a case study of the existing network of NRE\*Net. This case study is basically studying and analyzing the network of the agencies in NRE that use Metro Ethernet Services, with limited scope and particular objective. This project objective is to study the Metro Ethernet capabilities in providing a flexible, scalable, and cost-effective option to private lines, frame relay, and Asynchronous Transfer Mode (ATM) connectivity solutions for WAN. This paper will presents an overview of deploying Metro Ethernet in reducing the costs and at the same time increase the level of satisfaction of its end-user employees and customers with secure remote connectivity solutions. Ethernet over fiber provide distinct operational, strategic and economic advantages over legacy technologies for the delivery of metro data services. By combining the simplicity and scalability of Ethernet networking technology with the speed of optical transport, Ethernet networks overcome the primary limitations of legacy data networks.

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## **CHAPTER 1**

### **INTRODUCTION**

#### **1.0 Project Background**

Metro Ethernet help businesses in building a viable business strategy that capitalizes on existing infrastructures, while at the same time lowering total cost of network ownership. Furthermore, this solution can replace redundant access technologies and act as a migration technology where businesses can have the connectivity required to achieve next generation services.

Metro Ethernet Solution is flexible to act in response to rapidly shifting market conditions and diverse customer requirement. Metro Ethernet Solutions create the most profitable metropolitan area networks. With full-line up multi-layer service portfolio, Metro Ethernet Solutions deliver multiple data, voice, and video services over a high-speed access connection.

Availability of affordable high-speed Metro Ethernet services satisfy overall communications requirements, Metro Ethernet Solutions is clearing the path to a new era of information and communication. Metro Ethernet networking offers all the functionality enterprises expect from a Local Area Network but spread over entire towns, cities or other metropolitan regions. The result is radically simplified network management and much more bandwidth than you'd get from traditional services based on Leased Lines or Frame Relay [5, 24].