



DELIVERING HIGH SPEED ACCESS VIA DSL

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ABSTRACT

This thesis examines the superiority of DSL (Digital Subscriber Line) as a technology that provides a simultaneous use of the existing twisted pair local loop to support high-speed data traffic and analog voice phone. The thesis also examines other technologies such as cable modem, T1, and wireless, against the impact on the PSTN (Public Switched Telephone Network) and the capability of providing broadband services. DSL and its biggest competitor, cable modem, are investigated in greater detail than other technology emphasizing on economical feasibility, and the technical viability. At the end, it concludes that DSL is superior technology in many aspects in providing high-speed broadband services for different niches market.

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1.2. OBJECTIVES OF THE THESIS

There are several purposes of this thesis which is to prove that xDSL is a superior technology to its competitors in providing a broadband Internet access service for residential users and small businesses. That is, to prove that xDSL is technically, economical and practicable.

CHAPTER 1

1. PROBLEM DESCRIPTION

1.1. BACKGROUND OF THE PROBLEM

The growth of information technology knowledge in our society has developed a new era of communication. People are demanding for higher speed and bigger bandwidth to deliver high speed multimedia-based application and the slow Internet connection in our country has becoming a main issue. It is realized here that high speed communication is now becoming one of the 'necessity' either for business or pleasure.

There are two fundamental problems with conventional Internet access methods (e.g. Analog modems, ISDN, 56 K modem). One is the requirement of faster speed and higher bandwidth, and the second one is the impact on holding time for the switch. It will discuss these problems in the next chapter.