BROADBAND TECHNOLOGIES/DSL

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FINAL APPROVAL

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I am thankful to Almighty Allah who provided me necessary strength and energy in acquiring enough knowledge in planning for a better future. Insha Allah I shall come up to the expectations to serve the mankind through the knowledge that I have acquired Master of Computer Science (MCS) degree program from Bahria University The DSL is an emerging technology which traptize the communication/IT sector which enhance the economic growth challenged by globalization.

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ABSTRACT

Running data and voice traffic over copper wires is nothing new, but during the 90s new technology has been applied that has made copper into gold - within the existing copper wire network that is used for telephony lies the promise of speed that we used to dream about. ..... There we were, minding our own business, when suddenly we're bombarded with messages about the latest and greatest technology that's going to make us more productive and successful in all our pursuits. Or at least all those involving using the Internet.

In proceeding, it is mandatory to overview the DSL technology in brief and its significance on global telecommunication. "DSL stands for high-speed Digital Subscriber Line. It is a dedicated digital circuit from your home to the telephone company's central office, using normal, copper telephone line. DSL also provides a separate channel for voice phone conversations, which means that voice and fax calls can be carried at the same time high-speed data is flowing across the line".

Its unique advantage is that it can provide high-speed digital transmission over the 750 million ordinary phone lines that make up the existing global telecommunications infrastructure.

In our research we have focused on DSL deployed equipment and their allied accessories. Primarily it facilitates us to understand the ingredients of technology. As a role model, we have selected the infrastructure of Paknet DSL provider as a core of our research thesis.

Paknet Limited a fully owned Subsidiary of Pakistan Telecommunication Company Limited (PTCL) was formed in March 1999 and started commercial operation in January 2000. It is now the biggest Internet Service Provider of the Country.

Besides Internet Paknet also provides data communication services like Clear Channel data links, Frame Relay and Digital Circuits on Optical fiber cross connect systems etc.

Specifically we have expedited the infrastructure of Paknet. How they provide the service to their customers, on back end the integration of PTCL and Paknet technology corridor, deployment of their equipments, their specification and working are covered so far.

Further more it is our well-fortune that during this period the Paknet has exploit their expansion phase-II. We also took a part in this valuable exercise, which has been accomplished by Chinese engineers and entrepreneur. This expansion phase is defined in our research thesis in details.

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