

## DWDM Network Implementation in the Honduran Telecommunications Company "Hondutel"

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**Abstract :** The DWDM (Dense Wavelength Division Multiplexing) is in constant growth around the world by consumer demand to meet their needs. Since its inception in this operation arises the need for a system which enable us to expand the communication of an entire nation to improve the computing trends of their societies according to their customs and geographical location. The Honduran Company of Telecommunications (HONDUTEL), provides the internet services and data transport technology with a PDH and SDH, which represents in the Republic of Honduras C. A., the option of viability for the consumer in terms of purchase value and its ease of acquisition; but does not have the efficiency in terms of technological advance and represents an obstacle that limits the long-term socio-economic development in comparison with other countries in the region and to be able to establish a competition between telecommunications companies that are engaged in this heading. For that reason we propose to establish a new technological trend implemented in Europe and that is applied in our country that allows us to provide a data transfer in broadband as it is DWDM, in this way we will have a stable service and quality that will allow us to compete in this globalized world, and that must be replaced by one that would provide a better service and which must be in the forefront. Once implemented the DWDM is build upon the existing resources, such as the equipment used, and you will be given life to a new stage providing a business image to the Republic of Honduras C,A, as a nation, to ensure the data transport and broadband internet to a meaningful relationship. Same benefits in the first instance to existing customers and to all the institutions were bidden to these public and private need of such services.

**Keywords :** demultiplexers, light detectors, multiplexers, optical amplifiers, optical fibers, PDH, SDH

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