

## **Influence of Error Correction Codes on the Quality of Optical Broadband Connections**

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**Abstract :** The increasing development of multimedia applications requiring the simultaneous transport of several different services contributes to the evolution of the need for very high-speed network. In this paper, we propose an effective solution to achieve the very high speed while retaining elements of the optical transmission channel. So our study focuses on error correcting codes that aim for quality improvement on duty. We present a comparison of the quality of service for single channels and integrating the code BCH, RS and LDPC in order to find the best code in the different conditions of the transmission.

**Keywords :** code error correction, high speed broadband, optical transmission, information systems security

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