Pure and Hybrid ARQ Mechanisms: Comparison and Analysis

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Abstract

In recent years, wireless multimedia applications have gained the attention of researchers due to the rapid growth in wireless technology and the Internet. TCP (Transmission Control Protocol) and its variants such as TFRC (TCP Friendly Rate Control) over wireless links have been widely studied to be suitable for wireless multimedia applications, as TCP is the most widely used transport protocol in the Internet. current (approximately 90 percent of the overall IP traffic is carried by TCP according to). When TCP connections span over wireless links, many factors such as interference, multipath fading, user mobility, and atmosphere can cause errors resulting in dropped frames. In this work, we are studying different techniques of error control mechanisms of type ARQ and obtaining an analysis of their performance.

Keywords ARQ, collaborative ARQ, hybrid ARQ, concatenated FEC, wireless ATM.