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(54) Title: SELECTIVE REPEAT ARQ WITH EFFICIENT UTILIZATION OF BITMAPS

(57) Abstract

In a wireline or wireless telecommunications system or data network, which employs a Selective Repeat Automatic Repeat Request (ARQ) to convey data packet reception status for a sequence of data packets grouped together into a number of blocks of data packets, partial bit mapping is employed to improve efficiency, particularly with respect to bandwidth. This may be accomplished, more specifically, by including in the ARQ message that is sent from the receiver to the sender, a number of partial bitmaps, along with a corresponding number of bitmap block numbers, where a first bitmap block number identifies a particular one of the blocks of data packets and the corresponding bitmap defines the reception status of the data packets in that block. Each of the remaining bitmap block numbers identify an additional block of data packets relative to the first block of data packets. Accordingly, the remaining bitmap block numbers require fewer bits to identify their corresponding data packet blocks.