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(54) Title: GENERATING AND COMMUNICATING SOURCE IDENTIFICATION INFORMATION TO ENABLE RELIABLE COMMUNICATIONS

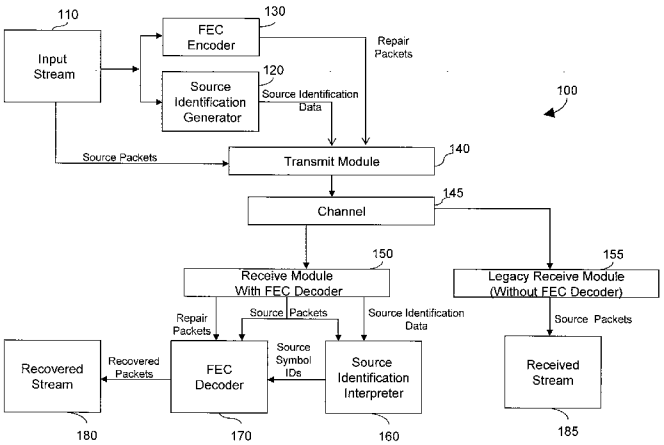

FIG. 1

(57) Abstract: A method of generating Source Identification information from a source packet stream and reliably transmitting the Source Identification information from a source to a destination over a communications channel is provided. The method operates on a set of source packets, wherein Source Identification information for each source packet to be transmitted is derived and delivered with the Source Identification information of all or most other source packets of an associated source block. The method includes techniques to minimize the network bandwidth required to deliver Source Identification information and techniques to overcome network impairments. When combined with FEC techniques, retransmission techniques, or combinations of FEC techniques and retransmission techniques, the methods described herein allow receivers to recover lost source packets, while simultaneously ensuring that the original source packets are not modified and thereby ensuring backwards compatibility for legacy receivers.

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