A PACKET SWITCHING ARCHITECTURE PROVIDING ENCRYPTION ACROSS PACKETS

Abstract

Apparatus for preventing the unauthorized detection of the start and end of packets being communicated within a packet switching system. The packet switching system comprises a plurality of packet switching networks that are interconnected by trunks. Each switching network has a number of trunk controllers with each terminating one of the trunks interconnecting that network to other networks. Each controller has an encrypting circuit for only encrypting the flag of each packet before the packet is transmitted on the connected trunk and a decrypting circuit for decrypting the flag of each packet received from the connected trunk. The decrypting circuit on the receiving side of a trunk recovers flag synchronization with the encrypting circuit on the transmitting side of the trunk by the exchange of special packets. Each flag comprises a plurality of bytes. The decrypting circuit can automatically adjust for a predefined number of errors in the flag bytes or a predefined number of flag bytes appearing in the data of a packet.

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