Secure routing of data packets including with use with transpositional modulation fortified communications

United States Patent: 12185424
Date of Patent: December 31, 2024

3. Inventors: Tammisetti; Mohan (Tucson, AZ)

4. Assignee: TM IP HOLDINGS, LLC (Little Switzerland, NC)

5. Abstract: A method and system for secure routing of data packets includes a data stream on a first communication network formed from a plurality of data packets. A source security certificate engine is implemented on a first computerized device. The source security certificate engine: assigns a certificate signature to a data packet of the data stream on a per-packet level; assigns a network route number to the data packet of the data stream to thereby encrypt the data packet; generates at least one encryption key; and selects a carrier network path from available carrier channels, wherein the encrypted data packet is communicated over the selected carrier network path. A destination security certificate engine implemented on a second computerized device, decrypts the encrypted data packet using the at least one encryption key. The data packet may be carried in a transpositional modulation (TM) signal communicated on a TM channel.