Steganography is a technique which hides secret information. In this work, we will hide a secret information in the packets which are produced during a Skype call. Skype is one of the best known and the most widely used VoIP applications. We will propose, describe and implement a steganography method by which we will send the secret message during the Skype call. For embedding the message into packets and extracting them, we will use steganographic method called matrix encoding. To avoid packet loss, we will increase the robustness of this method by error-correcting and self-synchronising codes. As error-correcting codes, we will use the binary Hamming \((7, 4)\)-codes and for the self-synchronising, we will use T-codes.