Hiding Data into Reserve Space before Image Encryption using Blowfish Algorithm

Abstract

Nowadays, with the fast development of information technology more images and data are available on the internet. Hence there is a need to have some kind of authentication to that data with increase in technology. This paper is about encryption and decryption of images using a private-key block cipher called 64-bits. Blowfish designed to increase security and to improve performance. This algorithm will be used as a variable key size up to 448 bits. The reversible data hiding (RDH) in encrypted images, is most powerful technology than others. Reversible Data Hiding (RDH) maintains the tremendous property that is the original content can be losslessly recover after embedding data. Reversible Data hiding phenomena is defined as a scheme that allows complete and visionless restoration of the original host data. All existing method of embedded data by reversible vacating room from the encrypted images which may have some faults on the data extraction or image restorations. The reversible data hiding is also known as the new watermarking technique which is used to derive an image by embedding some data on it as a watermark. A novel method is proposed by reserving room for embedding
data before encryption of an image takes place with the available RDH algorithm and methods. Now the authentic person can secrete the data definitely on the image to provide authentication. Reversible technique is in the sense extraction of the original input image.

References


Index Terms

Computer Science  Security

Keywords
Hiding Data into Reserve Space before Image Encryption using Blowfish Algorithm

Block Cipher, Cryptography, Feistel Network, Cryptography, Data Hiding, Steganography, Watermarking.