

网络、通信、安全

一种对改进图像LSB隐秘方法的重加密检测方案

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摘要 分析一种可以抵抗RS统计方法和Chi-square统计方法的改进的LSB图像隐秘方案, 找到了该方案的两个致命缺陷, 即每次加密都以很大的可能性减小图像像素平均值, 且加密次数与减小的程度紧密相关。利用这两点可以设计若干统计特征作为特征向量, 结合分类器FLD去训练和检测图像, 实现载体图像和隐秘图像的正确分类, 进而提出针对改进LSB隐秘方案的检测方案。

关键词 [LSB密写](#) [重加密](#) [检测方案](#)

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Re-encryption detection scheme to improved image LSB steganography method

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Abstract

An improved LSB image steganography scheme is analyzed, which can resist RS statistical method and Chi-square statistical method. The scheme has two critical defects: One is that each encryption reduces the mean of all pixels of the image with very great possibility, and other is, there is strong correlation between the times of encryption and the degree reduced of the mean. Taking advantage of these two points, several statistics vectors can be designed as statistics characteristic vectors. With those vectors, this paper trains the FLD classifier, detects images, and utilizes the FLD classifier trained, and can successfully classify between cover images and steganography images. Based on above, a detection algorithm, can attack the improved LSB image steganography scheme, is proposed successfully.

Key words [LSB steganography](#) [re-encryption](#) [detection scheme](#)

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