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Concealment of files blocked by gmail with EOF-based image steganography (Article)

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Abstract

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Nowadays, due to security concern, not all the process of sending files via email runs smoothly. There are several types of file extensions that are blocked when sent via email. For examples, there are several file extensions blocked by Gmail. This paper discusses steganographic implementation using End of File (EOF) algorithm to insert special file into image cover file with JPG and PNG format so that files with these extensions can be sent via email. Before a special extension file is inserted into the cover file, a compression process should be conducted first to make the file size smaller. The proposed algorithm is implemented on Visual Basic.Net software. Based on the tests performed, the application can insert Gmail-blocked file system to the image cover file, without changing the physical bit of the image cover file or file system that inserted with 100% success rate. The stego-image file is also successfully sent via email without being blocked.

Author keywords

End of file | Gmail | Image cover file | Insertion | Steganography

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