Distributed Text-to-Image Encryption Algorithm

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ABSTRACT

Data encryption techniques are used to protect data against hackers. Text-to-Image encryption algorithm (TTIE) is an encryption algorithm proposed for data encryption. The TTIE algorithm is used to map a given text into an image. The algorithm was analyzed and it was found that the dominant time is the storage time (saving images on the hard disk). In this paper, we analyze the TTIE algorithm on a single machine when a large data collection is used. A high running time is recorded. To overcome this problem we propose a distributed TTIE (DTTIE) algorithm in order to investigate reducing the encryption time. In DTTIE a server is responsible for distributing a large data collection (5.77 GBytes) among a cluster of nodes in a round robin fashion. Each node encrypts the document it receives into an image and then stores the resulting image on its local disk. In this paper we calculate the speed up of our proposed algorithm DTTIE.