ABSTRACT

To improve a technology of encryption for a data processing apparatus in order to reduce a possibility of having communication broken by a third party. The data processing apparatus encrypts subject data to render it as encrypted data and records it on a predetermined recording medium, and also decrypts the encrypted data recorded on the recording medium to change it back to the subject data. When performing the encryption, an algorithm and a key to be used for the encryption are generated by using solutions which are sequentially generated by assigning past solutions to a solution generating algorithm. The solutions are erased at a stage where it is no longer necessary to assign them to the solution generating algorithm anew.