

ABSTRACT OF THE DISCLOSURE

A method for building an advanced storage key includes: storing, in a memory of a mobile device, at least (i) device information associated with the mobile device, (ii) program code associated with a first program, the code including an instance identifier, and (iii) program code associated with a second program, the code including a first key; generating a device fingerprint associated with the mobile device based on the device information via execution of the code associated with the first program; generating a random value via execution of the code associated with the first program; building a diversifier value based on the generated device fingerprint, the generated random value, and the instance identifier included in the code associated with the first program; and decrypting the built diversifier value using the first key stored in the code associated with the second program via execution of the code associated with the second program to obtain a storage key.

Fig. 7