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(54) **METHODS FOR ACCELERATING PRIME NUMBER GENERATION IN ELECTRONIC DEVICES**

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(57) **ABSTRACT**

This application is directed to prime number generation in an electronic device. The electronic device has a first executable and a second executable, and each executable has a unique identifier. The electronic device generates a wrapping key for the first executable and encrypts a prime number with the wrapping key of the first executable to generate an encrypted prime number. The encrypted prime number is stored locally in memory of the electronic device, and is only decryptable by the first executable but not by the second executable. In some embodiments, the first executable extracts the encrypted prime number from the memory of the electronic device, obtains the wrapping key of the first executable, and decrypts the encrypted prime number based on the wrapping key. In an example, the second executable is followed by the first executable, and generates the wrapping key based on a unique identifier of the second executable.