

Title (en)  
Locking system

Title (de)  
Schliesssystem

Title (fr)  
Système de verrouillage

Publication  
**EP 2620919 A1 20130731 (EN)**

Application  
**EP 12152711 A 20120126**

Priority  
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Abstract (en)

The present invention relates to a locking system for managing access of an electronic key to an electronic lock. The system comprises at least one electronic lock (2) which may be unlocked by means of a RFID card; at least one mobile phone (1) with an NFC device, wherein said mobile phone (1) is adapted to install an mobile key application such that the mobile phone can be uses as electronic key for the electronic lock (2); a locking system management (201) for managing the access of the mobile phone (1) to the electronic lock (2) by means of a key data set; and an OTA key server (201) for storing and distrusting encrypted key data sets, wherein said locking system management (201) is adapted to encrypt the key data set and to push said encrypted key data set to the OTA key server (201). The mobile phone (1) is adapted to download by means of the mobile key application the appropriate encrypted key data set from the OTA key server (201) via the cellular mobile network, to decrypt the downloaded key data set and to store said decrypted key data set in a secure element of the NFC device, wherein said NFC device is further adapted to switch in a card emulation mode and to transmit the key data set during said card emulation mode to the electronic lock to be unlocked.

IPC 8 full level

**G07C 9/00** (2006.01)

CPC (source: EP US)  
**G07C 9/00571** (2013.01 - EP); **G07C 9/00857** (2013.01 - EP); **G07C 9/27** (2020.01 - EP US)

Citation (search report)

- [I] US 2010306549 A1 20101202 - ULLMANN JOHANNES [AT]
- [I] WO 2005091182 A2 20050929 - HUMBEL ROGER [CH]
- [A] US 2011035604 A1 20110210 - HABRAKEN G WOUTER [US]
- [A] WO 2007126375 A1 20071108 - SICS SWEDISH INST OF COMP SCIE [SE], et al

Cited by

US2014145823A1; CN113002483A; CN111179479A; CN107004316A; CN111815815A; CN103489245A; CN112002041A; SE2150275A1; CN104157060A; CN107005798A; EP2958085A1; CN105659564A; CN104851158A; CN107978033A; CN108648313A; CN105915344A; CN107004315A; EP3540656A1; JP2015068086A; CN103578169A; CN106600755A; CN107004314A; AT520583A1; CN114898482A; EP4068823A1; JP2017133286A; US11295563B2; US11164411B2; US10062226B2; EP3062295A1; CN107481361A; US11043054B2; WO2016089832A1; WO2017180454A1; WO2016089837A1; WO2016089841A1; WO2022141170A1; WO2015042502A1; US11933076B2; EP3300033A1; US10192372B2; US11913254B2; WO2022191765A1; WO2018225019A1; WO2020182178A1; US10477398B2; US11238681B2; US11466473B2; US11617053B2; US11798333B2; US10791444B2; US11341795B2; US11339589B2; US11447980B2; WO2016001103A1; WO2016089846A1; US10540835B2; US10891810B2; US11017623B2; US11488428B2; US11694498B2; WO2017180563A1; WO2017192215A1; WO2019174170A1; US10431026B2; US10477369B2; US10482698B2; US10490005B2; US10679440B2; US10839628B2; US10854025B2; US10945112B2; US11087572B2; US11317266B2; US11468720B2; EP3228106B1

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