

Title (en)

APPARATUS FOR PROCESSING APPROXIMATELY ENCRYPTED MESSAGES AND METHODS THEREOF

Title (de)

VORRICHTUNG UND VERFAHREN ZUR VERARBEITUNG VON ANNÄHERND VERSCHLÜSSELTEN NACHRICHTEN UND VERFAHREN DAFÜR

Title (fr)

APPAREIL DE TRAITEMENT DE MESSAGES APPROXIMATIVEMENT CHIFFRÉS ET PROCÉDÉS ASSOCIÉS

Publication

**EP 3909193 A1 20211117 (EN)**

Application

**EP 19908950 A 20191121**

Priority

- US 201962790806 P 20190110
- KR 20190066572 A 20190605
- KR 20190112292 A 20190910
- KR 2019016001 W 20191121

Abstract (en)

[origin: KR20200087061A] The present invention is to provide an apparatus for efficiently performing a reboot operation on an approximate-encrypted ciphertext and a method thereof. A method of processing a ciphertext is disclosed. According to the present invention, the method of processing a ciphertext comprises the steps of: linearly transforming a homomorphic ciphertext for an approximate message containing an error; calculating an approximate modulus of the linearly modified homomorphic ciphertext using a multi-order equation set to approximate input values within a preset range to an integer point; and linearly transforming the approximate modulus calculated homomorphic ciphertext into a ciphertext form.

IPC 8 full level

**H04L 9/00** (2006.01); **H04L 9/06** (2006.01); **H04L 9/08** (2006.01); **H04L 9/30** (2006.01)

CPC (source: EP KR)

**H04L 9/008** (2013.01 - EP KR); **H04L 9/0618** (2013.01 - KR); **H04L 9/0838** (2013.01 - KR); **H04L 9/3026** (2013.01 - KR)

Cited by

CN117353898A; CN117440103A

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

EP 3909193 A1 20211117; EP 3909193 A4 20220928; KR 102167565 B1 20201019; KR 20200087061 A 20200720

DOCDB simple family (application)

EP 19908950 A 20191121; KR 20190112292 A 20190910