

Title (en)

METHOD AND DEVICE FOR OPERATING A COMPUTING DEVICE

Title (de)

VERFAHREN UND VORRICHTUNG ZUM BETREIBEN EINER RECHENEINRICHTUNG

Title (fr)

PROCÉDÉ ET DISPOSITIF D'EXPLOITATION D'UN DISPOSITIF INFORMATIQUE

Publication

EP 4078415 A1 20221026 (DE)

Application

EP 20833782 A 20201216

Priority

- DE 102019220461 A 20191220
- EP 2020086404 W 20201216

Abstract (en)

[origin: WO2021122734A1] A method for operating a computing device having at least one computing core (102a, 102b, 102c,..., 102n; K1, K2, K3, K4; KX) for a control unit of a motor vehicle, wherein the computing device (100; 100a; 100b; 100c) is designed to control a data interchange between a connectivity zone (400) and a safety zone (440), wherein the safety zone (440) comprises at least one component (442, 444, 446) of the vehicle such as for example an engine controller (442), a braking system (444) or a steering system (446) that is required for driving the vehicle and has increased safety relevance, wherein the connectivity zone (400) comprises at least one component (420, 422, 424, 426) of the vehicle whose operation requires communication outside the vehicle, but is not required for driving the vehicle and does not have increased safety relevance, wherein at least one first program, in particular application program (AP1), executable by the computing device (100; 100a; 100b; 100c) is assigned to an untrusted zone (Z1), and at least one further program, in particular application program (AP2), is assigned to a trusted zone (Z2), wherein the component (420, 422, 424, 426) of the connectivity zone (400) is assigned to the untrusted zone (Z1), and the component (442, 444, 446) of the safety zone (440) is assigned to the trusted zone (Z2), wherein the computing device (100; 100a; 100b; 100c) comprises at least one memory (1030, 1032) having at least one first buffer storage area (TB1b, B3'), to which exclusively the program (AP1) assigned to the untrusted zone (Z1) has read-only and/or write-only access, having at least one second buffer storage area (TB2a, B1_2), to which exclusively the further program (AP2) assigned to the trusted zone (Z2) has read-only and/or write-only access, and having at least one interchange buffer storage area (TB1a, TB2b, B3''), which allows the first program (AP1) of the untrusted zone (Z1) write-only access and the second program (AP2) of the trusted zone (Z2) read-only access.

IPC 8 full level

G06F 21/53 (2013.01); **G06F 9/54** (2006.01); **G06F 12/14** (2006.01)

CPC (source: EP US)

G06F 9/544 (2013.01 - EP); **G06F 12/1441** (2013.01 - EP); **G06F 12/1483** (2013.01 - EP); **G06F 21/53** (2013.01 - EP US); **H04L 63/0209** (2013.01 - EP); **G06F 2212/1052** (2013.01 - EP); **G06F 2221/033** (2013.01 - US); **G06F 2221/2105** (2013.01 - US); **G06F 2221/2113** (2013.01 - US)

Citation (search report)

See references of WO 2021122734A1

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

Designated validation state (EPC)

KH MA MD TN

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DOCDB simple family (application)

DE 102019220461 A 20191220; CN 202080087688 A 20201216; EP 2020086404 W 20201216; EP 20833782 A 20201216; JP 2022537899 A 20201216; US 202017785163 A 20201216