

Title (en)
PRIVACY-MAINTAINING TRACKING SYSTEM

Title (de)
PRIVATSPHÄRE-ERHALTENDES NACHVERFOLGUNGSSYSTEM

Title (fr)
SYSTÈME DE SUIVI ASSURANT LA CONFIDENTIALITÉ

Publication
EP 4136860 A1 20230222 (DE)

Application
EP 21725684 A 20210404

Priority
• DE 102020002148 A 20200405
• DE 2021000059 W 20210404

Abstract (en)
[origin: WO2021204313A1] The invention relates to a tracking system which enables the collection of information about persons who are present at a specific time at a specific location, which system uses a mobile communication device (e.g. a smartphone), encrypts the presence information and transmits it in a privacy-protecting form to a tracking data provider. The system uses markers (for example QR code markers) which contain a Uniform Resource Locator (URL). Selected locations are provided with markers of a tracking service provider. Users of the tracking system register with their personal contact information (for example a telephone number) and a PIN code or password which they have chosen. The tracking system enables people to read markers in order to log their presence at a location at a specific time and to store encrypted presence information on a server. The tracking system can use different servers (for example a registration server, a marker server and a logging server) which may be operated by different organisations. The encryption of presence information is carried out using different encryption techniques and different cryptographic keys. In order to protect the presence information of users of the tracking system, which information is stored in logs of the system, presence data are encrypted by means of cryptographic keys. For access to presence information and personal data a combination of cryptographic keys of individual persons and authorised organisations is necessary. Due to the privacy-maintaining properties of the tracking system, it can be ensured that an authorisation procedure must be carried out for every contact tracking request to an authorised organisation. The system can be used in order to track chains of infection of an infectious disease by an authorised organisation (for example a health authority). When using the system for tracking chains of infection, an authorised organisation can carry out a digital contact tracking of persons who were present at the same location, or of persons who had direct contact with one another. The encryption system used by the tracking system guarantees the sovereignty of the users over their personal data and presence information. The consent of the user is necessary so that authorised organisations can access these data, and is enforced technically by means of cryptography.

IPC 8 full level
H04W 4/02 (2009.01); **G16H 50/80** (2018.01); **H04W 12/02** (2009.01)

CPC (source: EP)
H04W 4/023 (2013.01); **H04W 12/02** (2013.01); **G16H 50/80** (2017.12)

Citation (search report)
See references of WO 2021204313A1

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

DOCDB simple family (publication)
DE 102020002148 A1 20211007; EP 4136860 A1 20230222; WO 2021204313 A1 20211014

DOCDB simple family (application)
DE 102020002148 A 20200405; DE 2021000059 W 20210404; EP 21725684 A 20210404