



US 20240214391A1

(19) **United States**

(12) **Patent Application Publication**
KILMER et al.

(10) **Pub. No.: US 2024/0214391 A1**

(43) **Pub. Date: Jun. 27, 2024**

(54) **RECEIVING SECURED DATA USING OPTICAL CODES AND URLS**

(71) Applicant: **CargoSense, Inc.**, Reston, VA (US)

(72) Inventors: **Richard Allen Christopher KILMER**, Clifton, VA (US); **Benjamin Aaron WILSON**, Falls Church, VA (US)

(73) Assignee: **CargoSense, Inc.**, Reston, VA (US)

(21) Appl. No.: **18/390,748**

(22) Filed: **Dec. 20, 2023**

Related U.S. Application Data

(60) Provisional application No. 63/434,265, filed on Dec. 21, 2022.

Publication Classification

(51) **Int. Cl.**
H04L 9/40 (2006.01)
G06F 16/955 (2006.01)

(52) **U.S. Cl.**
CPC **H04L 63/126** (2013.01); **G06F 16/9554** (2019.01); **G06F 16/9566** (2019.01); **G06K 7/1417** (2013.01)

(57) **ABSTRACT**

A method for receiving secured data, comprising: at a mobile device comprising an optical sensor: detecting an optical code by the optical sensor, wherein the optical code is physically associated with an entity that is being monitored. The method further comprises decoding a URL encoded in the optical code, wherein the URL comprises a signature and comprises an indication of a service endpoint for performing validation of the signature. The method further comprises transmitting the URL to a server. At the server: the method further comprises accessing the service endpoint represented by the URL for performing validation of the signature, and in accordance with receiving a positive validation result for the signature, storing data for one or more parameters associated with the entity.

The diagram illustrates three scenarios of data exchange and trust between Service A, a Device or Service, and Service B:

- Scenario 1 (Top):** A Device or Service calls an API and passes data to Service A. The data is trusted. (Indicated by a lock icon and the text "can trust this data").
- Scenario 2 (Middle):** A Device or Service calls an API and passes data to Service A. The data is not trusted. (Indicated by a lock icon and the text "cannot trust this data").
- Scenario 3 (Bottom):** A Device or Service calls an API and passes an authenticated URL to Service A. Service A can check the domain to optionally trust the URL. (Indicated by a lock icon and the text "can check the domain to optionally trust the url").
- Scenario 4 (Bottom):** Service A calls an authenticated URL and gets data from Service B. The data is trusted because of the domain. (Indicated by a lock icon and the text "can trust this data because of the domain").