

Title (en)

TRAIN CONTROL SYSTEM, TRAIN CONTROL DEVICE, AND TRAIN CONTROL METHOD

Title (de)

ZUGSTEUERUNGSSYSTEM, ZUGSTEUERUNGSVORRICHTUNG UND ZUGSTEUERUNGSVERFAHREN

Title (fr)

SYSTÈME DE COMMANDE DE TRAIN, DISPOSITIF DE COMMANDE DE TRAIN ET PROCÉDÉ DE COMMANDE DE TRAIN

Publication

EP 3976441 A4 20230125 (EN)

Application

EP 19930641 A 20190531

Priority

JP 2019021846 W 20190531

Abstract (en)

[origin: WO2020240862A1] The present invention relates to a train control system in a distributed computing environment. The train control system may include a train control server configured to communicate with one or more trains via a communication network. The train control server may include a parameter management unit configured to select, from a parameter file database, a first set of train parameters based on the first set of train data from the parameter file database, a communication unit configured to transmit the first set of train parameters to the first set of trains and receive a set of parameter setting confirmation data from the first set of trains, and a verification unit configured to verify that the set of parameter setting confirmation data achieves a consistency level with respect to the parameter file database.

IPC 8 full level

B61L 27/00 (2006.01)

CPC (source: EP)

B61L 27/40 (2022.01); **B61L 27/20** (2022.01); **B61L 2027/204** (2022.01)

Citation (search report)

- [I] WO 2018206610 A1 20181115 - APOLLO RAIL LTD [GB]
- [A] WO 2017069790 A2 20170427 - GHALY NABIL N [US]
- [A] KARRI RAMESH ET AL: "An Attack Against Message Authentication in the ERTMS Train to Trackside Communication Protocols", PROCEEDINGS OF THE 2017 ACM ON ASIA CONFERENCE ON COMPUTER AND COMMUNICATIONS SECURITY, ASIA CCS '17, 2 April 2017 (2017-04-02), New York, New York, USA, pages 743 - 756, XP093007385, ISBN: 978-1-4503-4944-4, Retrieved from the Internet <URL:<https://www.cs.bham.ac.uk/~tpc/Papers/asiaCCS.pdf>> DOI: 10.1145/3052973.3053027
- See references of WO 2020240862A1

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

DOCDB simple family (publication)

WO 2020240862 A1 20201203; AU 2019447961 A1 20211223; AU 2019447961 B2 20230713; EP 3976441 A1 20220406;
EP 3976441 A4 20230125; JP 2022536059 A 20220812; JP 7174172 B2 20221117

DOCDB simple family (application)

JP 2019021846 W 20190531; AU 2019447961 A 20190531; EP 19930641 A 20190531; JP 2021571385 A 20190531