

Title (en)

METHOD FOR THE DYNAMIC CONFIGURATION OF SENSORS AND CONTROL UNITS IN AN ETHERNET NETWORK

Title (de)

VERFAHREN ZUR DYNAMISCHEN KONFIGURATION VON SENSOREN UND STEUERGERÄTEN IN EINEM ETHERNETNETZWERK

Title (fr)

PROCÉDÉ DE CONFIGURATION DYNAMIQUE DE CAPTEURS ET D'UNITÉS DE COMMANDE DANS UN RÉSEAU ETHERNET

Publication

**EP 4264891 A1 20231025 (DE)**

Application

**EP 21843586 A 20211215**

Priority

- DE 102020216278 A 20201218
- DE 2021200262 W 20211215

Abstract (en)

[origin: WO2022128025A1] The invention relates to a method for the dynamic configuration of sensors and control units in an Ethernet network, the method comprising: a) determining the number of active nodes using a head node, b) classifying the nodes detected into two or more classifications of nodes to prioritize the Ethernet network communication using the head node; c) receiving reservation requests from at least some of the plurality of nodes by the head node, d) allocating time slots as a response to reservation requests to one or more nodes in the upcoming communication window, wherein the allocations are based on a priority of the nodes, and the priority is assigned to the nodes in accordance with the classification thereof, wherein, after the number of the active nodes is determined, the nodes are dynamically configured, the relevant node is selected, and a timer of the relevant node is started, wherein each of the active nodes gives itself the smallest possible ID, wherein the respective node consequently accesses the bus and, if there is bus activity, the other nodes in the Ethernet network behave passively.

IPC 8 full level

**H04L 12/40** (2006.01); **H04L 12/403** (2006.01); **H04L 12/413** (2006.01)

CPC (source: EP US)

**H04L 12/40143** (2013.01 - EP US); **H04L 12/4035** (2013.01 - US); **H04L 12/413** (2013.01 - EP); **H04L 12/4035** (2013.01 - EP);  
**H04L 2012/40273** (2013.01 - EP)

Designated contracting state (EPC)

AL AT BE BG CH CY CZ 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)

**WO 2022128025 A1 20220623**; CN 116569523 A 20230808; DE 102020216278 A1 20220623; EP 4264891 A1 20231025;  
US 2024297808 A1 20240905

DOCDB simple family (application)

**DE 2021200262 W 20211215**; CN 202180083587 A 20211215; DE 102020216278 A 20201218; EP 21843586 A 20211215;  
US 202118258277 A 20211215