

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property

Organization

International Bureau

(43) International Publication Date

31 October 2019 (31.10.2019)



(10) International Publication Number

WO 2019/207335 A1

(51) International Patent Classification:

G06F 9/44 (2018.01)

H04L 29/06 (2006.01)

G06F 15/16 (2006.01)

(21) International Application Number:

PCT/IB2018/052789

(22) International Filing Date:

22 April 2018 (22.04.2018)

(25) Filing Language:

English

(26) Publication Language:

English

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(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

Published:

— with international search report (Art. 21(3))

(54) Title: INTERNET OF THINGS CONTROLLER

(57) Abstract: Here we have various devices embedded with software, sensors, actuators, etc. connected to each other and can exchange data among themselves. There is a Controller Program for these interconnected devices which runs remotely on a virtual machine like gateway router to which the interconnected devices can communicate to. The Controller Program boots up each of the device and is aware of their initial states. The Controller Program registers for any state change with each device and it has complete knowledge of the states of all interconnected devices. On any state change of a device, the Controller Program can run checks and trigger new functions or analytical jobs on one or more interconnected devices as configured by the user.



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Internet of Things Controller

In this invention we have various devices embedded with software, sensors, actuators, etc. connected to each other and can exchange data among themselves. There is a Controller Program for these interconnected devices which runs remotely on a virtual machine like gateway router to which the interconnected devices can communicate to. The Controller Program boots up each of the device and is aware of their initial states. The Controller Program registers for any state change with each device and it has complete knowledge of the states of all interconnected devices. On any state change of a device, the Controller Program can run checks and trigger new functions or analytical jobs on one or more interconnected devices as configured by the user. Periodically all interconnected devices send their current state information to the Controller Program to make sure that the Controller Program is in sync with the states of all the interconnected devices.

Claims

Following is the claim for this invention:-

1. In this invention we have various devices embedded with software, sensors, actuators, etc. connected to each other and can exchange data among themselves. There is a Controller Program for these interconnected devices which runs remotely on a virtual machine like gateway router to which the interconnected devices can communicate to. The Controller Program boots up each of the device and is aware of their initial states. The Controller Program registers for any state change with each device and it has complete knowledge of the states of all interconnected devices. On any state change of a device, the Controller Program can run checks and trigger new functions or analytical jobs on one or more interconnected devices as configured by the user. Periodically all interconnected devices send their current state information to the Controller Program to make sure that the Controller Program is in sync with the states of all the interconnected devices. The above novel technique of providing state driven Controller for interconnected devices is the claim for this invention.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/IB2018/052789

A. CLASSIFICATION OF SUBJECT MATTER

G06F9/44, G06F15/16, H04L29/06 Version=2018.01

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

G06F, H04L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

Databases - TotalPatent One, IPO Internal Database

Keywords - Internet of things, controller program, state, boot up

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US20160087933 A1 (WEAVED INC) 24 March 2016 (24-03-2016) (Abstract, paragraphs [0005], [0223], [0553], [0659] - [0660], [0790])	1

☐ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

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Date of the actual completion of the international search

20-07-2018

Date of mailing of the international search report

20-07-2018

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Indian Patent Office
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