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Office de la Propriété Intellectuelle du Canada

Innovation, Science and Economic Development Canada
Canadian Intellectual Property Office

CA 3131327 A1 2022/03/18

(21) 3 131 327

(12) DEMANDE DE BREVET CANADIEN
CANADIAN PATENT APPLICATION

(13) A1

(22) Date de dépôt/Filing Date: 2021/09/20

(41) Mise à la disp. pub./Open to Public Insp.: 2022/03/18

(30) Priorité/Priority: 2020/09/18 (CN202010987495.7)

(51) Cl.Int./Int.Cl. *G06F 17/00* (2019.01)

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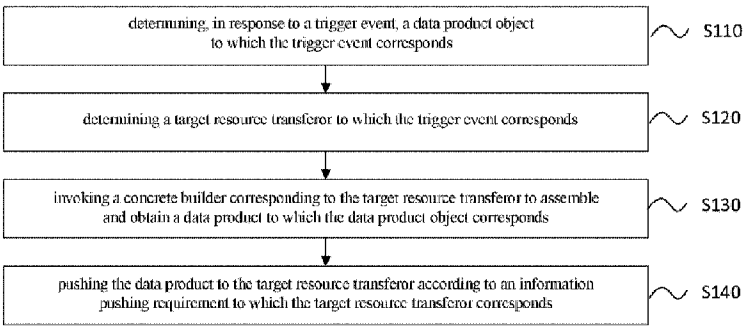
(54) Titre : METHODE DE DOCKING POUR AUTEUR DU TRANSFERT DE RESSOURCES AVEC PLATEFORME DE TRANSFERT DE RESSOURCES FONDEE SUR UN MODE CREATION

(54) Title: METHOD FOR DOCKING RESOURCE TRANSFER PARTY WITH RESOURCE TRANSFER PLATFORM BASED ON BUILDER MODE



(57) Abrégé/Abstract:
The present application relates to the field of computer technology, and more particularly to a method of and a device for connecting a resource transfer platform with a resource transferor based on a builder pattern, a computer equipment and a storage medium. The method comprises: determining, in response to a trigger event, a data product object to which the trigger event corresponds; determining a target resource transferor to which the trigger event corresponds; invoking a concrete builder corresponding to the target resource transferor to assemble and obtain a data product to which the data product object corresponds; and pushing the data product to the target resource transferor according to an information pushing requirement to which the target resource transferor corresponds. Embodiments of the present invention enable enhancement of efficiency in connecting a resource transfer platform with resource transferors, effective reduction in maintenance cost, and decrease in business code redundancy.

Abstract

The present application relates to the field of computer technology, and more particularly to a method of and a device for connecting a resource transfer platform with a resource transferor based on a builder pattern, a computer equipment and a storage medium. The method comprises: determining, in response to a trigger event, a data product object to which the trigger event corresponds; determining a target resource transferor to which the trigger event corresponds; invoking a concrete builder corresponding to the target resource transferor to assemble and obtain a data product to which the data product object corresponds; and pushing the data product to the target resource transferor according to an information pushing requirement to which the target resource transferor corresponds. Embodiments of the present invention enable enhancement of efficiency in connecting a resource transfer platform with resource transferors, effective reduction in maintenance cost, and decrease in business code redundancy.

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METHOD FOR DOCKING RESOURCE TRANSFER PARTY WITH RESOURCE TRANSFER PLATFORM BASED ON BUILDER MODE

BACKGROUND OF THE INVENTION

Technical Field

[0001] The present application relates to the field of computer technology, and more particularly to a method of and a device for connecting a resource transfer platform with a resource transferor based on a builder pattern, a computer equipment and a storage medium.

Description of Related Art

[0002] Relaying on such services of its own as supply chain, logistics, after-sale service and basic data collection, the resource transfer platform (such as an e-commerce retailer) faces mobile application developers and cooperation partners to output open and strong e-commerce capabilities, and achieves consummate connection between the resource transfer platform and resource transferors (such as merchants). Based on the data of the resource transfer platform, digitalization efficiency is exerted, categories of shopping malls are increased, excellent after-sale services are achieved, flows of service providers are helped to be realized, and processing of business is made more highly effective and more convenient. Service resources of the resource transfer platform are hence shared to form a highly effective and intelligent ecological link centering on the resource transfer platform.

[0003] Serial connection is the conventional mode to connect the resource transfer platform with resource transferors. An example is taken below with a retailer connecting with merchant A and merchant B for explanation, as shown in Fig. 1, merchant A and merchant B connected with the retailer are independent of each other, logically simple and easily understandable. The mode of serial connection can still maintain normal operation in the case there are few number of merchants connected with the retailer, however, with incessant business progress of the retailer, the number of merchants to be connected therewith is continuously increased or the number of business modules to be extended is

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continuously increased, under such circumstances there would be many disadvantages should the mode of serial connection be still employed to connect with merchants, for instance, maintenance cost would be doubled, business codes would be redundant, and so on.

SUMMARY OF THE INVENTION

[0004] In view of the deficiencies prevailing in the state of the art, the present invention provides a method of and a device for connecting a resource transfer platform with a resource transferor based on a builder pattern, a computer equipment and a storage medium, and embodiments of the present invention enable enhancement of efficiency in connecting a resource transfer platform with resource transferors, effective reduction in maintenance cost, and decrease in business code redundancy.

[0005] According to the first aspect, the present invention provides a method of connecting a resource transfer platform with a resource transferor based on a builder pattern, in one embodiment, the method is applied to the resource transfer platform, and the method comprises:

[0006] determining, in response to a trigger event, a data product object to which the trigger event corresponds;

[0007] determining a target resource transferor to which the trigger event corresponds;

[0008] invoking a concrete builder corresponding to the target resource transferor to assemble and obtain a data product to which the data product object corresponds; and

[0009] pushing the data product to the target resource transferor according to an information pushing requirement to which the target resource transferor corresponds.

[0010] In one embodiment, the step of invoking a concrete builder corresponding to the target resource transferor to assemble and obtain a data product to which the data product object corresponds includes:

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[0011] dividing the data product object into a plurality of product parts to be assembled;

[0012] invoking the concrete builder corresponding to the target resource transferor to assemble the product parts; and

[0013] assembling and obtaining the data product to which the data product object corresponds according to the assembled product parts.

[0014] In one embodiment, the step of dividing the data product object into a plurality of product parts to be assembled includes:

[0015] obtaining an attribute information and a business type to which the data product object corresponds, wherein the attribute information includes a plurality of attributes, and the business type includes commodity information type, order information type, or return/exchange information type; and

[0016] dividing to obtain the plurality of product parts to be assembled according to the attribute information and the business type.

[0017] In one embodiment, the step of assembling and obtaining the data product to which the data product object corresponds according to the assembled product parts includes:

[0018] determining a data message structure requirement set by the target resource transferor to which the data product object corresponds; and

[0019] assembling the assembled product parts according to the data message structure requirement to obtain the data product to which the data product object corresponds.

[0020] In one embodiment, the data product as assembled and obtained is an order message, and a data message structure to which the data message structure requirement corresponds is in JSON format, XML format, or text format.

[0021] In one embodiment, the method further comprises, prior to the step of obtaining, in response to a trigger event, a data product object to which the trigger event corresponds:

[0022] determining one or more target resource transferor(s) to be connected therewith; and

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[0023] creating one or more corresponding concrete builder(s) for each target resource transferor.

[0024] In one embodiment, the resource transfer platform is an e-commerce platform, and the resource transferor is a merchant.

[0025] According to the second aspect, the present invention provides a device for connecting a resource transfer platform with a resource transferor based on a builder pattern, in one embodiment, the device comprises:

[0026] a data product object determining module, for determining, in response to a trigger event, a data product object to which the trigger event corresponds;

[0027] a target transferor determining module, for determining a target resource transferor to which the trigger event corresponds;

[0028] a data product assembling module, for invoking a concrete builder corresponding to the target resource transferor to assemble and obtain a data product to which the data product object corresponds; and

[0029] a data product pushing module, for pushing the data product to the target resource transferor according to an information pushing requirement to which the target resource transferor corresponds.

[0030] According to the third aspect, the present invention provides a computer equipment that comprises a memory, a processor and a computer program stored on the memory and operable on the processor, and the steps according to anyone of the aforementioned method embodiments are realized when the processor executes the computer program.

[0031] According to the fourth aspect, the present invention provides a computer-readable storage medium storing a computer program thereon, and the steps according to anyone of the aforementioned method embodiments are realized when the computer program is executed by a processor.

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[0032] In the embodiments of the present invention, the resource transfer platform determines, in response to a trigger event, a data product object to which the trigger event corresponds and determines a target resource transferor to which the trigger event corresponds, thereafter invokes a concrete builder corresponding to the target resource transferor to assemble and obtain a data product to which the data product object corresponds, and pushes the data product to the target resource transferor according to an information pushing requirement to which the target resource transferor corresponds, so as to achieve the effects of enhancing efficiency in connecting a resource transfer platform with resource transferors, effectively reducing maintenance cost, and decreasing business code redundancy.

BRIEF DESCRIPTION OF THE DRAWINGS

[0033] Fig. 1 is a view schematically illustrating a mode of connection between a retailer and merchants in prior-art technology;

[0034] Fig. 2 is a flowchart schematically illustrating a method of connecting a resource transfer platform with a resource transferor based on a builder pattern in an embodiment;

[0035] Fig. 3 is a view schematically illustrating an order message in JSON format in an embodiment;

[0036] Fig. 4 is a view schematically illustrating an order message in text format in an embodiment;

[0037] Fig. 5 is a block diagram illustrating the structure of a device for connecting a resource transfer platform with a resource transferor based on a builder pattern in an embodiment; and

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[0038] Fig. 6 is a view illustrating the internal structure of a computer equipment in an embodiment.

DETAILED DESCRIPTION OF THE INVENTION

[0039] To make more lucid and clear the objectives, technical solutions and advantages of the present application, the present application is described in greater detail below with reference to the accompanying drawings and embodiments. As should be understood, the specific embodiments as described here are merely meant to explain the present application, rather than to restrict the present application.

[0040] The present invention provides a method of connecting a resource transfer platform with a resource transferor based on a builder pattern, in one embodiment, the method is applicable to the resource transfer platform, and the resource transfer platform can be embodied as an independent server or a cluster consisting of a plurality of servers. As shown in Fig. 2, the method comprises the following steps.

[0041] S110 - determining, in response to a trigger event, a data product object to which the trigger event corresponds.

[0042] In this embodiment, four core modules are contained in the resource transfer platform, namely a product role module, an abstract creator role module, a concrete builder module, and a director role module, which correspond to four roles of the builder pattern. The builder pattern is a design pattern capable of separating the construction of a complicated object from its representation, and enabling the same construction process to create different representations. The builder pattern creates a complicated object step by step, and allows a user to construct complicated objects by only designating their types and contents, without having to learn of the internal specific construction details. The builder pattern

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pertains to an object construction pattern. The roles contained in this pattern include product role (Product), abstract creator role (Builder), concrete builder role (ConcreteBuilder), and director role (Director).

[0043] The product role (Product) corresponds to the data message structure and output mode of data demanded by a resource transferor (such as a merchant) to be outputted thereto from a resource transfer platform (such as an e-commerce platform). The specific realization can be to define an object (such as a JAVA BEAN object) that is a complicated product containing a plurality of product parts, each of which should be created by the concrete builder; the object includes different attributes, in an e-commerce scenario, the object can at least include such plural attributes as commodity ID, commodity price, commodity quantity, etc., moreover, the object can further correspond to a plurality of business types, such as commodity information type, order information type, or return/exchange information type, etc.

[0044] The abstract creator role (Builder) is defined with a plurality of abstract interfaces for outputting data to the resource transferor (such as a merchant), specifically, it contains an abstract method or interface for creating various product parts of the data product, and usually further includes a method for returning the data product. In the abstract method are included a template (as should be noted, the template here does not indicate a specific data product, but merely a template) for creating the data product, and a method for returning the data product object.

[0045] The concrete builder (ConcreteBuilder) faces data output interfaces of different resource transferors. The specific realization can be to complete specific creating method of data products through multi-state realizing modes, including assembly of interface messages, conversion of data formats, invoking mode realization of external interfaces, and configurations of relevant attributes. For instance, taking the data product being an order message for example, the message format can be such formats as JSON, XML, character

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string (text), etc.; the business type of the message can be such types as commodity, order, returned/exchanged commodity, etc.; and the interface address can be *http* address, timeout setup, etc.

[0046] The director role (Director) is responsible for creating data required by the resource transferor. It is in charge of interaction with the resource transferor to determine the requirement of the resource transferor, base on such requirement to invoke the corresponding concrete builder to assemble the data product that satisfies the requirement, and push the data product to the resource transferor in a customized style according to specific requirement to which the resource transferor corresponds.

[0047] Specifically, in this embodiment, when the resource transfer platform detects the trigger event, the data product object to which this trigger event corresponds is determined. The trigger event can be an ordering event (for instance, it can be a request initiated on the resource transfer platform by a user (or customer) wanting to purchase a commodity to buy a commodity provided by the resource transferor), and can also be a commodity returning/exchanging event (namely a commodity returning request or commodity exchanging request initiated on the resource transfer platform by a user who bought the commodity with respect to the commodity that was bought by the user and provided by a resource transferor). The data product object can be understood as creating requirement information of the data product to be pushed to the resource transferor, and the data product can for example be an order message.

[0048] S120 - determining a target resource transferor to which the trigger event corresponds.

[0049] In this embodiment, the resource transfer platform can obtain relevant information of the trigger event, and determine the target resource transferor through resource transferor identifications therein. Specifically, if the trigger event is an ordering event, the target resource transferor to which the trigger event corresponds means the resource transferor

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that provides the commodity wanted by the user to buy; if the trigger event is a commodity returning/exchanging event, the target resource transferor to which the trigger event corresponds means the resource transferor that provided the commodity the user wants to return/exchange.

[0050] S130 - invoking a concrete builder corresponding to the target resource transferor to assemble and obtain a data product to which the data product object corresponds.

[0051] In this embodiment, different resource transferors have different data pushing requirements, and the resource transfer platform creates in advance a concrete builder for each resource transferor according to the requirement of each resource transferor, so that, when it is required to push data for the resource transferor, the concrete builder corresponding to the resource transferor can be invoked to assemble a data product that satisfies the requirement of the resource transferor.

[0052] Further, in one embodiment, prior to obtaining, in response to a trigger event, a data product object to which the trigger event corresponds, the followings are further included:

[0053] determining one or more target resource transferor(s) to be connected therewith; and

[0054] creating one or more corresponding concrete builder(s) for each target resource transferor.

[0055] The target resource transferor means a target resource transferor requiring to be connected, and it is usual for a resource transferor to correspond to plural concrete builders.

[0056] In this embodiment, the resource transfer platform can connect with plural resource transferors in batches. Specifically, when anyone resource transferor is connected therewith, it suffices to extend corresponding concrete builders in the resource transfer platform according to the requirement of the resource transferor before connection can be completed,

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while there is no need to perform any other redundant operation, and this conforms to the open/close rule in the builder design pattern.

[0057] Further, when it is required to expand a new business type, it is also only needed to make corresponding extension with respect to the concrete builders of the corresponding resource transferor, for instance, to extend the corresponding attribute, method, interface, etc.

[0058] S140 - pushing the data product to the target resource transferor according to an information pushing requirement to which the target resource transferor corresponds.

[0059] Specifically, after the resource transfer platform has well assembled the data product, the data product is pushed to the target resource transferor according to the corresponding information pushing requirement of the target resource transferor.

[0060] In this embodiment, the resource transfer platform determines, in response to a trigger event, a data product object to which the trigger event corresponds and determines a target resource transferor to which the trigger event corresponds, thereafter invokes a concrete builder corresponding to the target resource transferor to assemble and obtain a data product to which the data product object corresponds, and pushes the data product to the target resource transferor according to an information pushing requirement to which the target resource transferor corresponds, so as to achieve the effects of enhancing efficiency in connecting a resource transfer platform with resource transferors, effectively reducing maintenance cost, and decreasing business code redundancy.

[0061] In one embodiment, the step of invoking a concrete builder corresponding to the target resource transferor to assemble and obtain a data product to which the data product object corresponds includes:

[0062] dividing the data product object into a plurality of product parts to be assembled;

[0063] invoking the concrete builder corresponding to the target resource transferor to assemble

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the product parts; and

[0064] assembling and obtaining the data product to which the data product object corresponds according to the assembled product parts.

[0065] Specifically, when a data product is being created via the builder pattern, it is required to divide the data product object into a plurality of product parts, the concrete builder corresponding to the target resource transferor is then invoked to assemble the product parts, and finally the assembled product parts are assembled to obtain the data product.

[0066] Further, in one embodiment, the step of dividing the data product object into a plurality of product parts to be assembled includes:

[0067] obtaining an attribute information and a business type to which the data product object corresponds; and

[0068] dividing to obtain the plurality of product parts to be assembled according to the attribute information and the business type.

[0069] The attribute information includes a plurality of attributes, such as commodity ID, commodity price, commodity quantity, etc., and the business type includes commodity information type, order information type, or return/exchange information type.

[0070] In this embodiment, the resource transfer platform divides the requirement for creating the data product (namely the data product object) into building requests of the various product parts, and then assigns the building requests of the product parts to corresponding concrete builders (ConcreteBuilder) that are responsible for assembling the corresponding product parts. When the resource transfer platform divides the requirement for creating the data product, the division is made according to the attribute information and business type to which the data product object corresponds.

[0071] In one embodiment, the step of assembling and obtaining the data product to which the

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data product object corresponds according to the assembled product parts includes:

[0072] determining a data message structure requirement set by the target resource transferor to which the data product object corresponds; and

[0073] assembling the assembled product parts according to the data message structure requirement to obtain the data product to which the data product object corresponds.

[0074] In this embodiment, the resource transferor can require the resource transfer platform to push to it data of which format (namely the data message structure), and a data message structure to which the data message structure requirement corresponds is in JSON format, XML format, or text format. For instance, a certain large retailer A connects with merchant B and merchant C due to business expansion, the format of the order message required by merchant B to be output to it by retailer A is the common JSON format, the pushed order message is as shown in Fig. 3, whereas the format of the order message required by merchant C to be output to it by retailer A is the text format, and the pushed order message is as shown in Fig. 4. Accordingly, when the resource transfer platform assembles the data product, it is required to base on the data message structure requirement, JSON format, text format etc. for example, as preset by the target resource transferor to assemble the data product, so as to satisfy the requirement of the resource transferor.

[0075] Based on the same inventive conception, the present invention further provides a device for connecting a resource transfer platform with a resource transferor based on a builder pattern, in one embodiment, as shown in Fig. 5, the device comprises the following modules:

[0076] a data product object determining module 110, for determining, in response to a trigger event, a data product object to which the trigger event corresponds;

[0077] a target transferor determining module 120, for determining a target resource transferor to which the trigger event corresponds;

[0078] a data product assembling module 130, for invoking a concrete builder corresponding to the target resource transferor to assemble and obtain a data product to which the data

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product object corresponds; and

[0079] a data product pushing module 140, for pushing the data product to the target resource transferor according to an information pushing requirement to which the target resource transferor corresponds.

[0080] In one embodiment, the data product assembling module includes:

[0081] a part dividing sub-module, for dividing the data product object into a plurality of product parts to be assembled;

[0082] an invoking sub-module, for invoking the concrete builder corresponding to the target resource transferor to assemble the product parts; and

[0083] an assembling sub-module, for assembling and obtaining the data product to which the data product object corresponds according to the assembled product parts.

[0084] In one embodiment, the part dividing sub-module includes:

[0085] an information obtaining unit, for obtaining an attribute information and a business type to which the data product object corresponds, wherein the attribute information includes a plurality of attributes, and the business type includes commodity information type, order information type, or return/exchange information type; and

[0086] a part dividing unit, for dividing to obtain the plurality of product parts to be assembled according to the attribute information and the business type.

[0087] In one embodiment, the assembling sub-module includes:

[0088] a structure requirement determining unit, for determining a data message structure requirement set by the target resource transferor to which the data product object corresponds; and

[0089] an assembling unit, for assembling the assembled product parts according to the data message structure requirement to obtain the data product to which the data product object corresponds.

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[0090] In one embodiment, the data product as assembled and obtained is an order message, and a data message structure to which the data message structure requirement corresponds is in JSON format, XML format, or text format.

[0091] In one embodiment, the device for connecting a resource transfer platform with a resource transferor based on a builder pattern further comprises the following modules:

[0092] a to-be-connected transferor determining module, for determining one or more target resource transferor(s) to be connected therewith; and

[0093] a builder creating module, for creating one or more corresponding concrete builder(s) for each target resource transferor.

[0094] In one embodiment, the resource transfer platform is an e-commerce platform, and the resource transferor is a merchant.

[0095] Specific definitions relevant to the device for connecting a resource transfer platform with a resource transferor based on a builder pattern may be inferred from the aforementioned definitions to the method of connecting a resource transfer platform with a resource transferor based on a builder pattern, while no repetition is made in this context. The various modules in the aforementioned device for connecting a resource transfer platform with a resource transferor based on a builder pattern can be wholly or partly realized via software, hardware, and a combination of software with hardware. The various modules can be embedded in the form of hardware in a processor in a computer equipment or independent of any computer equipment, and can also be stored in the form of software in a memory in a computer equipment, so as to facilitate the processor to invoke and perform operations corresponding to the aforementioned various modules.

[0096] In one embodiment, a computer equipment is provided, and its internal structure can be as shown in Fig. 6. The computer equipment comprises a processor, a memory, a network interface and a database connected to each other via a system bus. The processor of the

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computer equipment is employed to provide computing and controlling capabilities. The memory of the computer equipment includes a nonvolatile storage medium, and an internal memory. The nonvolatile storage medium stores therein an operating system, a computer program and a database. The internal memory provides environment for the running of the operating system and the computer program in the nonvolatile storage medium. The network interface of the computer equipment is employed to connect to an external terminal via network for communication. The computer program realizes a method of connecting a resource transfer platform with a resource transferor based on a builder pattern when it is executed by a processor.

[0097] As understandable to persons skilled in the art, the structure illustrated in Fig. 6 is merely a block diagram of partial structure relevant to the solution of the present application, and does not constitute any restriction to the computer equipment on which the solution of the present application is applied, as the specific computer equipment may comprise component parts that are more than or less than those illustrated in Fig. 6, or may combine certain component parts, or may have different layout of component parts.

[0098] In one embodiment, there is provided a computer equipment that comprises a memory, a processor and a computer program stored on the memory and operable on the processor, and the following steps are realized when the processor executes the computer program:

[0099] determining, in response to a trigger event, a data product object to which the trigger event corresponds; determining a target resource transferor to which the trigger event corresponds; invoking a concrete builder corresponding to the target resource transferor to assemble and obtain a data product to which the data product object corresponds; and pushing the data product to the target resource transferor according to an information pushing requirement to which the target resource transferor corresponds.

[0100] In one embodiment, when the processor executes the computer program to realize the step of invoking a concrete builder corresponding to the target resource transferor to

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assemble and obtain a data product to which the data product object corresponds, the following steps are further realized:

[0101] dividing the data product object into a plurality of product parts to be assembled; invoking the concrete builder corresponding to the target resource transferor to assemble the product parts; and assembling and obtaining the data product to which the data product object corresponds according to the assembled product parts.

[0102] In one embodiment, when the processor executes the computer program to realize the step of dividing the data product object into a plurality of product parts to be assembled, the following steps are further realized:

[0103] obtaining an attribute information and a business type to which the data product object corresponds, wherein the attribute information includes a plurality of attributes, and the business type includes commodity information type, order information type, or return/exchange information type; and dividing to obtain the plurality of product parts to be assembled according to the attribute information and the business type.

[0104] In one embodiment, when the processor executes the computer program to realize the step of assembling and obtaining the data product to which the data product object corresponds according to the assembled product parts, the following steps are further realized:

[0105] determining a data message structure requirement set by the target resource transferor to which the data product object corresponds; and assembling the assembled product parts according to the data message structure requirement to obtain the data product to which the data product object corresponds.

[0106] In one embodiment, the data product as assembled and obtained is an order message, and a data message structure to which the data message structure requirement corresponds is in JSON format, XML format, or text format.

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[0107] In one embodiment, before the processor executes the computer program to realize the step of obtaining, in response to a trigger event, a data product object to which the trigger event corresponds, the following steps are further realized:

[0108] determining one or more target resource transferor(s) to be connected therewith; and creating one or more corresponding concrete builder(s) for each target resource transferor.

[0109] In one embodiment, the resource transfer platform is an e-commerce platform, and the resource transferor is a merchant.

[0110] In one embodiment, there is provided a computer-readable storage medium storing thereon a computer program, and the following steps are realized when the computer program is executed by a processor: determining, in response to a trigger event, a data product object to which the trigger event corresponds; determining a target resource transferor to which the trigger event corresponds; invoking a concrete builder corresponding to the target resource transferor to assemble and obtain a data product to which the data product object corresponds; and pushing the data product to the target resource transferor according to an information pushing requirement to which the target resource transferor corresponds.

[0111] In one embodiment, when the computer program is executed by a processor to realize the step of invoking a concrete builder corresponding to the target resource transferor to assemble and obtain a data product to which the data product object corresponds, the following steps are further realized:

[0112] dividing the data product object into a plurality of product parts to be assembled; invoking the concrete builder corresponding to the target resource transferor to assemble the product parts; and assembling and obtaining the data product to which the data product object corresponds according to the assembled product parts.

[0113] In one embodiment, when the computer program is executed by a processor to realize

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the step of dividing the data product object into a plurality of product parts to be assembled, the following steps are further realized:

[0114] obtaining an attribute information and a business type to which the data product object corresponds, wherein the attribute information includes a plurality of attributes, and the business type includes commodity information type, order information type, or return/exchange information type; and dividing to obtain the plurality of product parts to be assembled according to the attribute information and the business type.

[0115] In one embodiment, when the computer program is executed by a processor to realize the step of assembling and obtaining the data product to which the data product object corresponds according to the assembled product parts, the following steps are further realized:

[0116] determining a data message structure requirement set by the target resource transferor to which the data product object corresponds; and assembling the assembled product parts according to the data message structure requirement to obtain the data product to which the data product object corresponds.

[0117] In one embodiment, the data product as assembled and obtained is an order message, and a data message structure to which the data message structure requirement corresponds is in JSON format, XML format, or text format.

[0118] In one embodiment, before the computer program is executed by a processor to realize the step of obtaining, in response to a trigger event, a data product object to which the trigger event corresponds, the following steps are further realized:

[0119] determining one or more target resource transferor(s) to be connected therewith; and creating one or more corresponding concrete builder(s) for each target resource transferor.

[0120] In one embodiment, the resource transfer platform is an e-commerce platform, and the resource transferor is a merchant.

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[0121] As comprehensible to persons ordinarily skilled in the art, the entire or partial flows in the methods according to the aforementioned embodiments can be completed via a computer program instructing relevant hardware, the computer program can be stored in a nonvolatile computer-readable storage medium, and the computer program can include the flows as embodied in the aforementioned various methods when executed. Any reference to the memory, storage, database or other media used in the various embodiments provided by the present application can all include nonvolatile and/or volatile memory/memories. The nonvolatile memory can include a read-only memory (ROM), a programmable ROM (PROM), an electrically programmable ROM (EPROM), an electrically erasable and programmable ROM (EEPROM) or a flash memory. The volatile memory can include a random access memory (RAM) or an external cache memory. To serve as explanation rather than restriction, the RAM is obtainable in many forms, such as static RAM (SRAM), dynamic RAM (DRAM), synchronous DRAM (SDRAM), dual data rate SDRAM (DDRSDRAM), enhanced SDRAM (ESDRAM), synchronous link (Synchlink) DRAM (SLDRAM), memory bus (Rambus) direct RAM (RDRAM), direct Rambus dynamic RAM (DRDRAM), and Rambus dynamic RAM (RDRAM), etc.

[0122] Technical features of the aforementioned embodiments are randomly combinable, while all possible combinations of the technical features in the aforementioned embodiments are not exhausted for the sake of brevity, but all these should be considered to fall within the scope recorded in the Description as long as such combinations of the technical features are not mutually contradictory.

[0123] The foregoing embodiments are merely directed to several modes of execution of the present application, and their descriptions are relatively specific and detailed, but they should not be hence misunderstood as restrictions to the inventive patent scope. As should be pointed out, persons with ordinary skill in the art may further make various modifications and improvements without departing from the conception of the present

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application, and all these should pertain to the protection scope of the present application. Accordingly, the patent protection scope of the present application shall be based on the attached Claims.

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CLAIMS

What is claimed is:

1. A method of connecting a resource transfer platform with a resource transferor based on a builder pattern, characterized in that the method is applied to the resource transfer platform, and that the method comprises:

   determining, in response to a trigger event, a data product object to which the trigger event corresponds;

   determining a target resource transferor to which the trigger event corresponds;

   invoking a concrete builder corresponding to the target resource transferor to assemble and obtain a data product to which the data product object corresponds; and

   pushing the data product to the target resource transferor according to an information pushing requirement to which the target resource transferor corresponds.

2. The method according to Claim 1, characterized in that the step of invoking a concrete builder corresponding to the target resource transferor to assemble and obtain a data product to which the data product object corresponds includes:

   dividing the data product object into a plurality of product parts to be assembled;

   invoking the concrete builder corresponding to the target resource transferor to assemble the product parts; and

   assembling and obtaining the data product to which the data product object corresponds

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according to the assembled product parts.

3. The method according to Claim 2, characterized in that the step of dividing the data product object into a plurality of product parts to be assembled includes:

obtaining an attribute information and a business type to which the data product object corresponds, wherein the attribute information includes a plurality of attributes, and the business type includes commodity information type, order information type, or return/exchange information type; and

dividing to obtain the plurality of product parts to be assembled according to the attribute information and the business type.

4. The method according to Claim 2, characterized in that the step of assembling and obtaining the data product to which the data product object corresponds according to the assembled product parts includes:

determining a data message structure requirement set by the target resource transferor to which the data product object corresponds; and

assembling the assembled product parts according to the data message structure requirement to obtain the data product to which the data product object corresponds.

5. The method according to Claim 4, characterized in that the data product as assembled and obtained is an order message, and that a data message structure to which the data message structure requirement corresponds is in JSON format, XML format, or text format.

6. The method according to Claim 1, characterized in further comprising, prior to the step of obtaining, in response to a trigger event, a data product object to which the trigger event

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corresponds:

determining one or more target resource transferor(s) to be connected therewith; and

creating one or more corresponding concrete builder(s) for each target resource transferor.

7. The method according to Claim 1, characterized in that the resource transfer platform is an e-commerce platform, and that the resource transferor is a merchant.

8. A device for connecting a resource transfer platform with a resource transferor based on a builder pattern, characterized in that the device comprises:

a data product object determining module, for determining, in response to a trigger event, a data product object to which the trigger event corresponds;

a target transferor determining module, for determining a target resource transferor to which the trigger event corresponds;

a data product assembling module, for invoking a concrete builder corresponding to the target resource transferor to assemble and obtain a data product to which the data product object corresponds; and

a data product pushing module, for pushing the data product to the target resource transferor according to an information pushing requirement to which the target resource transferor corresponds.

9. A computer equipment, comprising a memory, a processor and a computer program stored on the memory and operable on the processor, characterized in that the method steps according to anyone of Claims 1 to 7 are realized when the processor executes the computer program.

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10. A computer-readable storage medium, storing a computer program thereon, characterized in that the method steps according to anyone of Claims 1 to 7 are realized when the computer program is executed by a processor.

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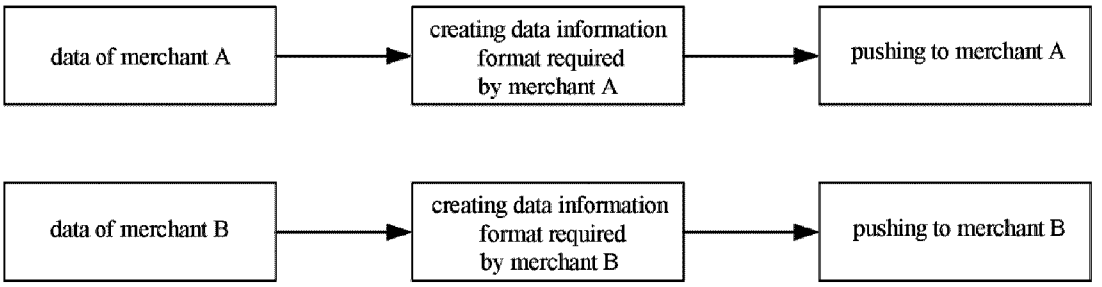

Fig. 1

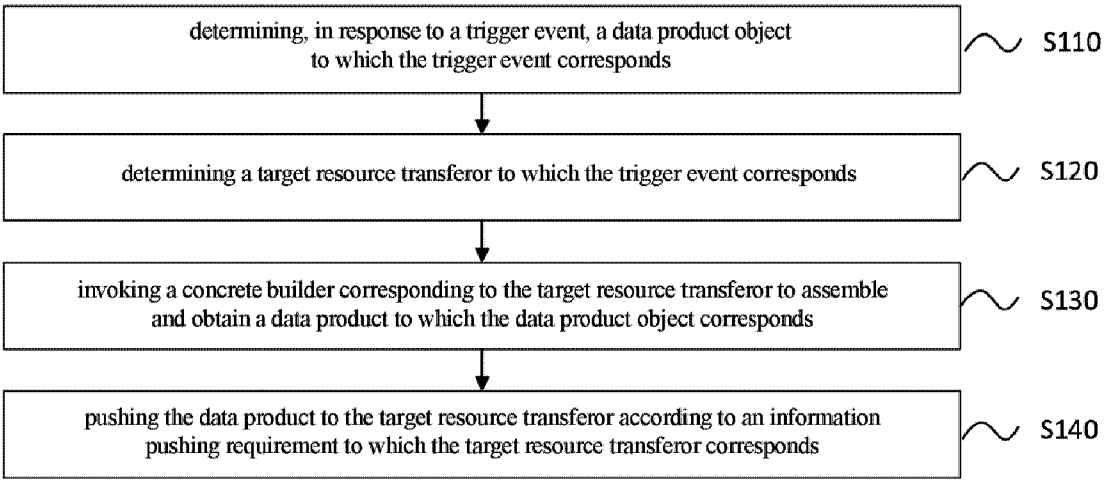

Fig.2

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{
    "cmmdtyList": [
        {
            "SKU": "2896000703007",
            "SOLD_QTY": "1",
            "SOLD_PRICE": "2988.00",
            "ITEM_NAME": "华为HUAWEI P308GB+128GB the land of the sky
             all Netcom mobile phones",
            "SUB_ORDER_NO": "00169968853601",
            "CAPTCHA": "8262"
        }
    ],
    "cmmdtyTotalMap": {
        "ITEM_COUNT": "1",
        "TOTAL": "2988.00"
    },
    "forWordMap": {
        "ORDER_NO": "MM0000294874JH",
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        "CASHIER": "99990001",
        "CID": "21"
    },
    "payWayList": [
        {
            "MEDIA_TYPE": "19176117",
            "PAYMENT_AMOUNT": "2988.00",
            "ACCOUNT_NUMBER": "233665*********5239:643565505222"
        }
    ],
    "rewardsList": [],
    "summaryMap": {}
}
```


Fig. 3


```
LINE_NUMBER8
ORDER_NOMM0000294874JH
BUYER_NAME
CASHIER99990001
CID21
SKU2896000703007ISOLD_QTY1ISOLD_PRICE2988.00IITEM_NAME华为HUAWEI P30(ELE-
AL00) 8GB+128GB the land of the sky all Netcom mobile phones
ISUB_ORDER_NO00169968853601ICAPTCHA8262
ITEM_COUNT1
TOTAL2988.00
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ACCOUNT_NUMBER233665*********5239:643565505222
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Fig. 4

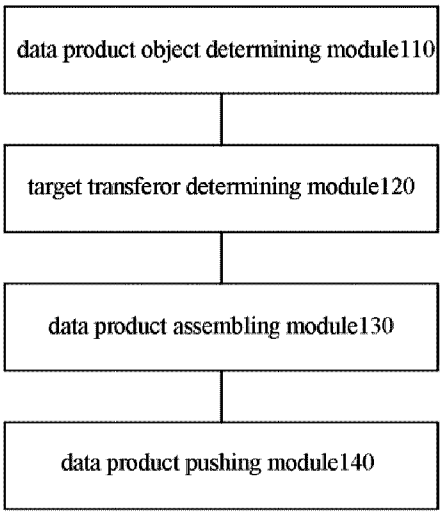

Fig. 5

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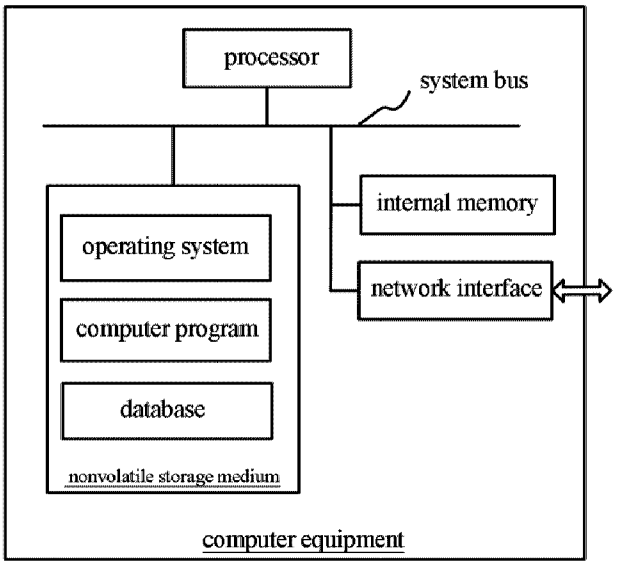

Fig. 6

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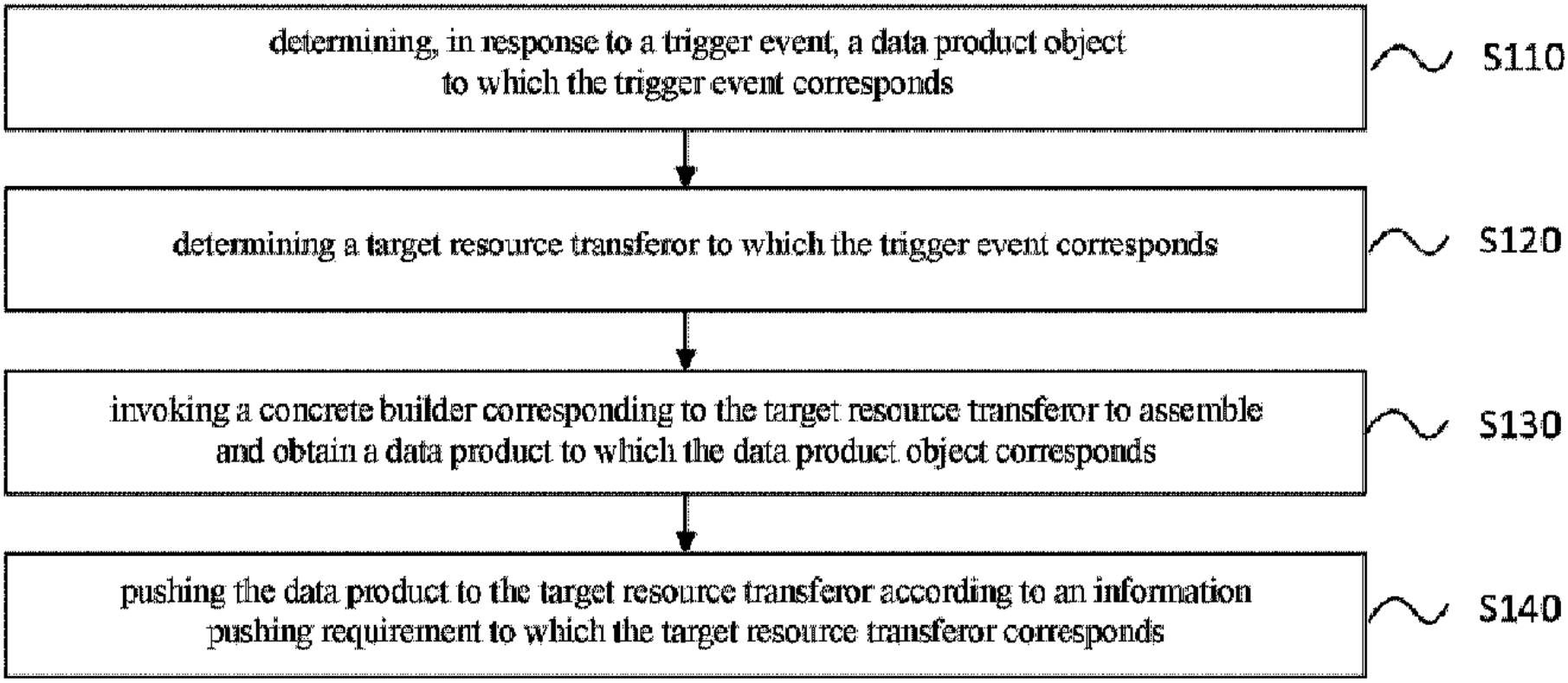
determining, in response to a trigger event, a data product object to which the trigger event corresponds
S110
determining a target resource transferor to which the trigger event corresponds
S120
invoking a concrete builder corresponding to the target resource transferor to assemble and obtain a data product to which the data product object corresponds
S130
pushing the data product to the target resource transferor according to an information pushing requirement to which the target resource transferor corresponds
S140