Стратегия и Практика Патентования Информационных Технологий в США

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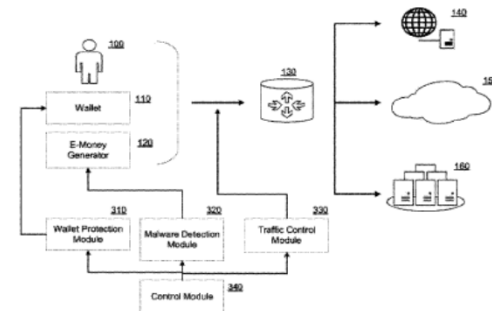michael.mainberg@arentfox.com

Arent Fox LLP и Наши ИТ Клиенты

Что такое патент США?

- Патент США даёт владельцу эксклюзивное право пользоваться запатентованной технологией, а так же исключать других лиц от создания, использования, продажи или импорта в США товаров или сервисов имеющих в себе запатентованную технологию.

- Нет требования практиковать изобретение для принятия правоприменительных мер против нарушителей патента.

- Важно правильно указать имена всех изобретателей и владельца патента.

- Виды патентов для защиты ИТ:
  - Изобретения (Utility patent)
  - Дизайны (Design patent)

- US Patent and Trademark Office (USPTO)

Виды патентных заявок США:
Временная заявка (provisional application)

– Не имеет права приоритета

– Не имеет формальных требований

– Не подлежит патентной экспертизе

– Стоимость подачи заявки: large entity $260, small entity $130, micro entity $65

– Срок действия временной патентной заявки один год, в течении которого необходимо подать заявку на изобретение (utility application) основанную на временной заявке.

– Можно подать множество временных заявок, а потом подать одну общую utility application основанную на всех временных заявоках.

– Если заброшена, временная заявка остается засекреченноий в USPTO.

– Популярность временных заявок значительно возросла в связи с переходом США на мировую систему патентования, в соответствии с которой право на получение патента получает тот, кто первым подал заявку (включая временную заявку), а не тот кто первым изобрел.

Виды патентных заявок США:
Заявка на изобретение (utility application)

– Заявка должна быть подана в течении одного года после подачи российской заявки, что бы испросить дату приоритета от российской заявки.

– Стоимость подачи патентной заявки $1600 за 20 пунктов изобретения, из них не более трёх независимых; $420 за каждый независимый пункт свыше 3, и $80 за каждый пункт свыше 20.

– Для компаний имеющих штат не более 500 человек (small entity), USPTO даёт 50% скидки на все тарифы.

– Для индивидуальных изобретателей у которых доход не более $150,000 USPTO даёт 75% скидки на все тарифы.

– Заявитель может затребовать, что бы патентная заявка рассматривалась секретно и не публиковалась.

– Ускоренное рассмотрение заявки по Fast Track - $4000 ($2000, $1000)

– Ускоренное рассмотрение заявки по Patent Prosecution Highway (PPH) - $0

– Патент действителен на срок 20 лет со дня подачи патентной заявки.

– Тарифы USPTO за поддержание патента: $1600/$3600/$7400 на 4/8/12 годовщины выдачи патента США.

Заявка на промышленный образец
(design patent application)

– Заявка должна быть подана в течении шести месяцев после подачи российской заявки, что бы иметь дату приоритета от российской заявки.

– Стоимость подачи патентной заявки $760.

– Срок ожидания первых результатов экспертизы 12-18 месяцев.

– Патент действителен на срок 14 лет со дня выдачи патента.

В области ИТ можно эффективно использовать патенты на промышленные образцы для защиты GUIs.

Apple's Design Patent D604305

Samsung Galaxy

Процесс патентного делопроизводства в США

Подача Российской приоритетной заявки

в течении года (или 6 месяцев)

Обычная процедура ~ 2 года ожидания

Делопроизводство занимает ~ 1 год

~ 2-3 года ожидания

Подача временной заявки (срок действия до 12 месяцев)

Публичное оглашение/ использование или продажа изобретения

в течении года

Подача патентной заявки в USPTO

Ускоренная процедура ~ 2 месяца ожидания

Получение решения экспертизы

В случае отказа - две попытки оспорить отказ или исправить формулы изобретения

Апелляция в палату жалоб

Прошение о продолжении экзаменации

Рекомендуется проводить телефонное интервью с экспертом (и с его начальником!)

~ 1-2 года ожидания

Рекомендации к подготовке патентных заявок на изобретения (Utility applications)

- Очень кратко описывайте уровень техники (prior art).

  - Не перечисляйте и не обсуждайте известные патенты и заявки.

  - ВСЁ ЧТО ВЫ СКАЖИТЕ МОЖЕТ БЫТЬ ИСПОЛЬЗОВАНО ПРОТИВ ВАС

  - Добавляйте описание уровня техники в описание изобретения.

  - В Американской практике, в отличии от Российской и Европейской, не нужно разделять формулу изобретения на две части, отдельно указывающие уровень техники и новые аспекты изобретения.

- USPTO требует заявителя раскрыть известный ему уровень техники, который может повлиять на патентоспособность изобретения.

  - Раскрывайте USPTO результаты поисков уровня техники полученных во всех родственных иностранных заявках в течении трех месяцев после получение результатов поисков во избежание пошлин.

  - Используйте Information Disclosure Statement (IDS)

Рекомендации по подготовке патентных заявок на изобретения...

- Детально составляйте описание изобретения
    - В заявки на ПО включайте чертежи и схемы (с графическими изображениями) взаимодействия функциональных модулей ПО.
    - Добавляйте описание компьютерной системы и детально объясняйте как функции ПО выполняются компьютерной системой.
    - Описывайте все возможные варианты алгоритмов работы ПО.
    - Включайте описание того как методы или алгоритмы могут кодироваться программными инструкциями которые хранятся в памяти компьютера или в других недвижимых носителях данных (e.g., non-transitory computer readable medium).
- Каждый пункт формулы изобретения должен иметь дословное описание в детальном описание изобретения и чертежах.
- Терминология должна совпадать между пунктами формулы изобретения и детальным описанием изобретения и чертежами.

Рекомендации по подготовке патентных заявок на изобретения…

- Используйте следующие типы пунктов формул изобретения:
    - system, method и computer program product stored on a non-transitory computer readable medium
- Не подавайте слишком широкие независимые пункты изобретения
- По возможности используйте стандартную терминологию.
- Один пункт формулы должен описывать только одно устройство.
    - Например, одна формула на клиент и одна формула на сервер
- Не используйте устройство-плюс-функция (means-plus-function) формулы
- Формулы на способы и системы ведение бизнеса = патентоспособны
    - Необходимо их связать с конкретными функциями компьютера
    - Необходимо описать конкретный технический результат
- Формулы направленные на логические модели баз данных = патентоспособны
- Формулы на структуры данных = патентоспособны

Клиент-Сервер Парадигм

```
        ┌──────────┐
        │  Second  │
        │   User   │
        └────┬─────┘
             │
┌────────┐ ┌─┴────────┐ ┌────────┐
│ First  │─│ Network  │─│ Third  │
│  User  │ │  Server  │ │  User  │
└────────┘ └──────────┘ └────────┘
```
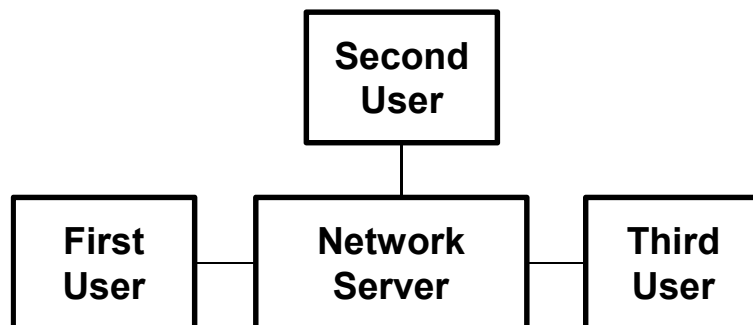
A system, comprising:

a **computer** configured to send requests from a first user to establish electronic relationships with a plurality of other users;

a **networking server** configured to:

    process the requests;

    receive communications posted by the first user, and

    send communications from a second user to the computer based on relationships between the first user and the second user.

Компьютер пользователя и сервер являются разными устройствами. Следовательно, данный пункт системной формулы не будут напрямую нарушаться социальной сетью которая не выполняет все функции пункта формулы изобретения.

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Клиент-Сервер Парадигм

Client-Side

A method, comprising:

receiving, from a first user, requests to establish electronic relationships with a plurality of other users;

providing data corresponding to the requests to a server system; and

receiving from the server system communications posted by the one or more other users,

wherein the communications have been selected by the server system to be delivered only to users who have relationships with the other users.

Server-Side

A method, comprising:

receiving, from a computing device, requests to establish electronic relationships with a plurality of other users;

receiving communications from a plurality of other users;

determining whether the first user has a defined relationship with the other users; and

providing the communications based on a determination that the first user has a defined relationship with the other users.

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Примеры из нашей практики:
US Patent 9,542,683 to Kaspersky Lab

Title: System and Method for Protecting Electronic Money

Filed: June 10, 2015 -> Issued: January 10, 2017 (Fast Track)

Fig. 3

Abstract

Disclosed are systems and methods for protecting electronic money transactions from fraud and malware. An exemplary method include scanning a computer to detect software objects associated with electronic money that includes at least one of a wallet configured to store electronic money, an electronic money generating application, and data including an interaction history with an electronic exchange for electronic money; identifying and adjusting electronic money security modules configured to provide data security to the detected software objects associated with the electronic money; and executing, by the adjusted electronic money security modules, at least one electronic money transaction involving the electronic money. In one aspect, the electronic money security modules include a wallet protection module, a malware detection module, and a traffic control module.
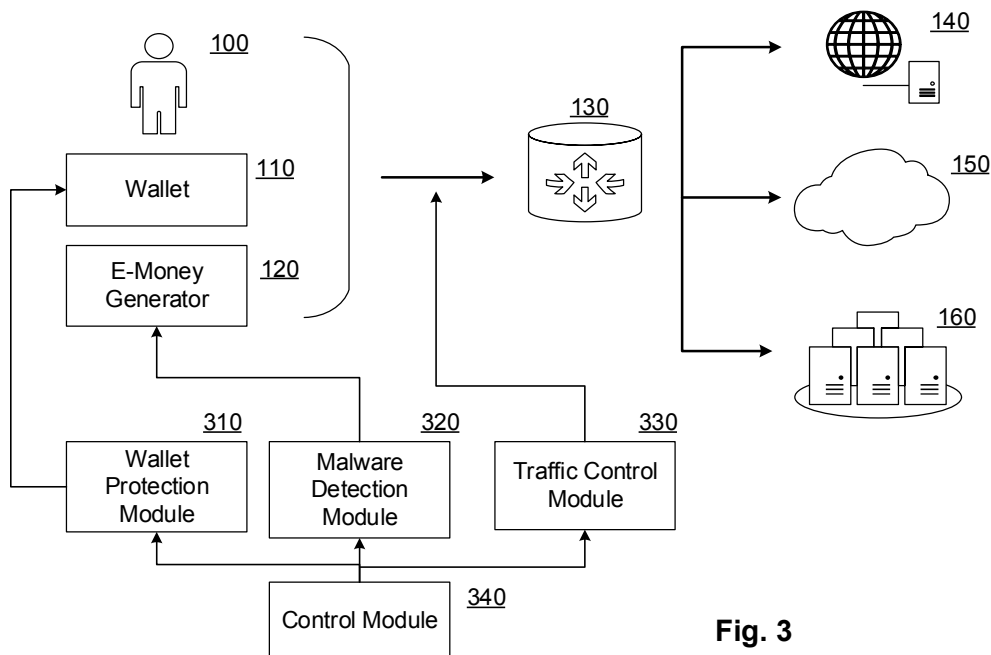
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Claims of the US Patent No. 9,542,683

A method for protecting electronic money transactions, comprising:

scanning a computer to detect software objects associated with electronic money, wherein said software objects include at least one electronic wallet configured to store electronic money and resources used by the electronic wallet to exchange the electronic money;

providing a set of security modules comprising a wallet protection module configured to provide data security to the detected electronic wallet and resources and a traffic control module configured to analyze protocols and control the transmission of data relating to the exchange of the electronic money by the detected electronic wallet; and

upon detection of an electronic wallet:

controlling, by the wallet protection module, access to the resources used by the electronic wallet to protect an exchange of the electronic money by the electronic wallet;

tracking and protecting execution of the electronic wallet, by the wallet protection module, by monitoring and controlling access to at least one of virtual memory, network connections, and threads used by the electronic wallet, wherein access is reduced upon detection of suspicious activity, and wherein controlling access to virtual memory comprises protecting virtual memory used by a running process of an executable file of the electronic wallet by prohibiting injection of an external malicious code;

monitoring, by the traffic control module, network connections used by the electronic wallet to determine whether the exchange of electronic money by the electronic wallet is a transmission to an untrusted recipient based on protocol analyzer data obtained from analyzing the network connections; and

upon determination that the transmission is to an untrusted recipient, controlling, by the traffic control module, the exchange of electronic money between the electronic wallet and the untrusted recipient by at least one of filtering malicious packets or controlling network connections.

Примеры из нашей практики:
US Patent 9,747,586 to CPN Gold

Title: System and Method for Issuance of Electronic Currency Substantiated by a Reserve of Assets
Filed: September 12, 2016 -> Issued: August 29, 2017 (Fast Track)

Abstract

Disclosed herein are system and methods for issuance and circulation of electronic currency, as well as a payment system based on use of the aforementioned electronic currency. In one exemplary aspect, the system includes a management module configured to: create and manage one or more wallets of electronic currency; manage information about a reserve substantiating the electronic currency, wherein the reserve comprises one or more tangible or intangible assets; and record electronic currency transactions in a settlement network, wherein the settlement network carries out transactions and stores data describing said transactions; and an issuance center configured to carry out centralized issuance of the electronic currency and its controlled release into circulation in the settlement network, wherein the amount of the issued electronic currency released into circulation in the settlement network is equal to or less than the amount of the reserve substantiating it.

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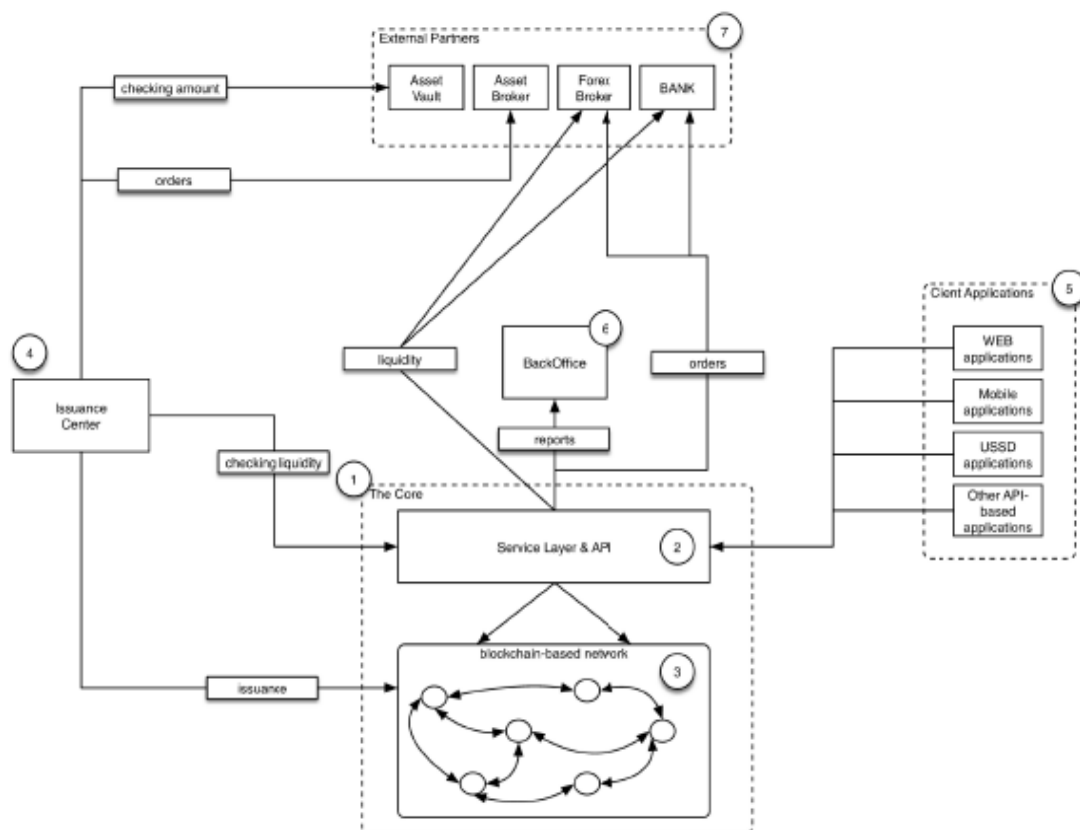
Claims of the US Patent No. 9,747,586

A computer-based system for issuing and managing electronic currency substantiated by a gold reserve, comprising:

a <u>management module</u>, executable by a computer processor, configured to:

create and manage one or more wallets of electronic currency for a system operator and a plurality of clients;

execute electronic currency payment transactions by transferring electronic currency between one or more wallets of the system operator and/or a plurality of clients and recording information about the executed transactions in a private blockchain-based settlement network;

manage information about the gold reserve substantiating the electronic currency and control in real-time purchase or sale of gold on an external market in an amount required to fully substantiate the issued electronic currency at each moment of time; and

an <u>issuance center</u>, executable by a computer processor, configured to:

receive in real-time information from the management module concerning an amount of the gold reserve substantiating the electronic currency;

perform centralized generation and controlled issuance of the electronic currency into circulation, wherein the generation of all of the electronic currency is performed in a single block by creating this block in a blockchain using a mining operation that generates a maximum possible amount of the electronic currency, and wherein the generated electronic currency is issued into circulation in an amount equal to or less than the amount of the gold reserve substantiating it;

when the amount of gold reserve reaches a threshold amount, calculate, by the computer processor, in real-time, an amount of gold to be sold or purchased on the external market in order to fully substantiate the issued electronic currency based on a set of mathematical functions that account for distributions of moments of time of receiving from the clients orders for purchasing or selling of electronic currency using a fiat currency and size of the received orders, and

transmit to the management module an order to purchase or sell the calculated amount of gold, on the external market, to maintain a sufficient amount of reserve to fully substantiate the electronic currency at each moment of time.

Примеры из нашей практики: US Patent 9,443,017 to Yandex

Title: System and Method for Displaying Search Results

Filed: June 2, 2014 -> Issued: September 13, 2016 (Fast Track)

Abstract

Disclosed are systems, methods and computer program products for showing search information. In one aspect of the invention, a method for showing search information includes processing, by a hardware processor, a search query input of a user; providing, via a user interface component, a preview of a number of search results corresponding to at least a portion of the processed search query input; detecting, by the hardware processor, activation of the user interface component; and displaying at least a portion of the search results in response to the activation of the user interface
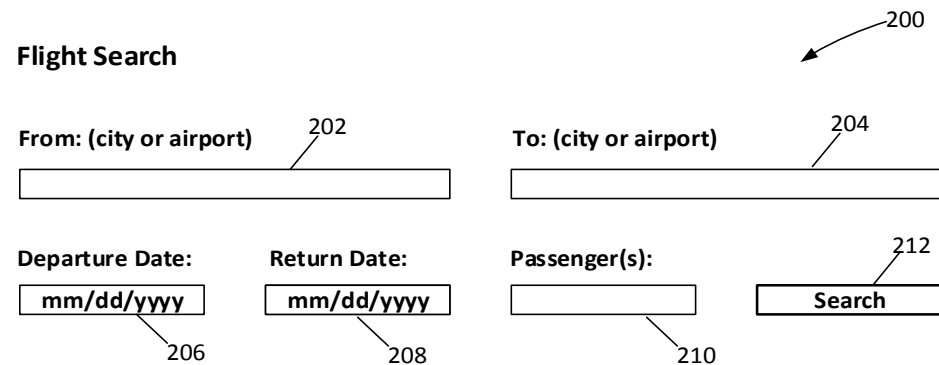
Flight Search — 200

From: (city or airport) — 202

To: (city or airport) — 204

Departure Date: — mm/dd/yyyy — 206

Return Date: — mm/dd/yyyy — 208

Passenger(s): — 210

212 — Search

Fig. 2A

Flight Search

From: (city or airport) — 214

Moscow

To: (city or airport) — 216

New York

Departure Date: — mm/dd/yyyy

Return Date: — mm/dd/yyyy
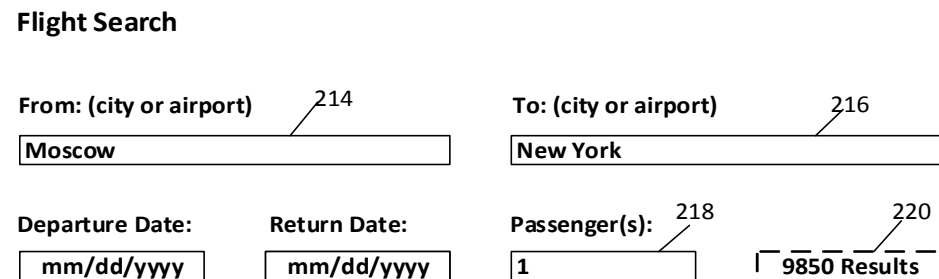
Passenger(s): — 218 — 1

220 — 9850 Results

Fig. 2B

Claims of the US Patent No. 9,443,017

A method for showing search information on a screen, the method comprising:

providing a user interface comprising: a first user interface component for receiving one or more elements of a search query input from a user, and a second interface component having a dual functionality, including (i) providing a preview of an integer number of search results corresponding to at least a portion of the search query input without showing contents of the search results, and (ii) receiving a user input that causes display of at least a portion of contents of the search results;

receiving, via the first user interface component, one or more elements of the search query input from the user; processing, by a processor, the search query having the one or more received inputs prior to the user finalizing and submitting the search query;

dynamically determining and updating, by the processor, an integer number of search results as the first user interface component continues to receive the one or more elements of the search query input from the user; dynamically providing for display to the user, via the second user interface component, only the integer number of search results corresponding to at least a portion of the processed search query input without showing on the screen any additional information relating to the search results;

detecting, by the processor, activation of the second user interface component by the user; and

providing for display to the user at least a portion of the search results in response to the activation of the second user interface component.

Примеры из нашей практики:
US Patent Application 2016/0275180 to Abbyy

Title: System and Method for Storing and Searching Data Extracted from Text Documents

Filed: May 20, 2015 (pending)

Abstract

Text data is subjected to syntactic and semantic analysis of natural language texts based on exhaustive linguistic descriptions. The results are then used in the information extraction process from which an RDF (Resource Description Framework) graph is generated. The extracted data is represented as a set of <subject, predicate, object>(<s, p, o>) triplets. The subject is some entity, or information object, that represents an object in the real world. The predicate is a certain feature that describes the subject. There are two types of predicates: attributes and relations. An object is a given predicate's value for a given subject and may be either a simple data type (integer, string, etc.) or the identifier of a different information object. There are various types of information objects, for example: Person, Location, Organization, Job Placement Confirmation etc. The storage of extracted data contains one or more RDF graph that represent all of the extracted information about real-world objects, and a collection of annotated document texts.
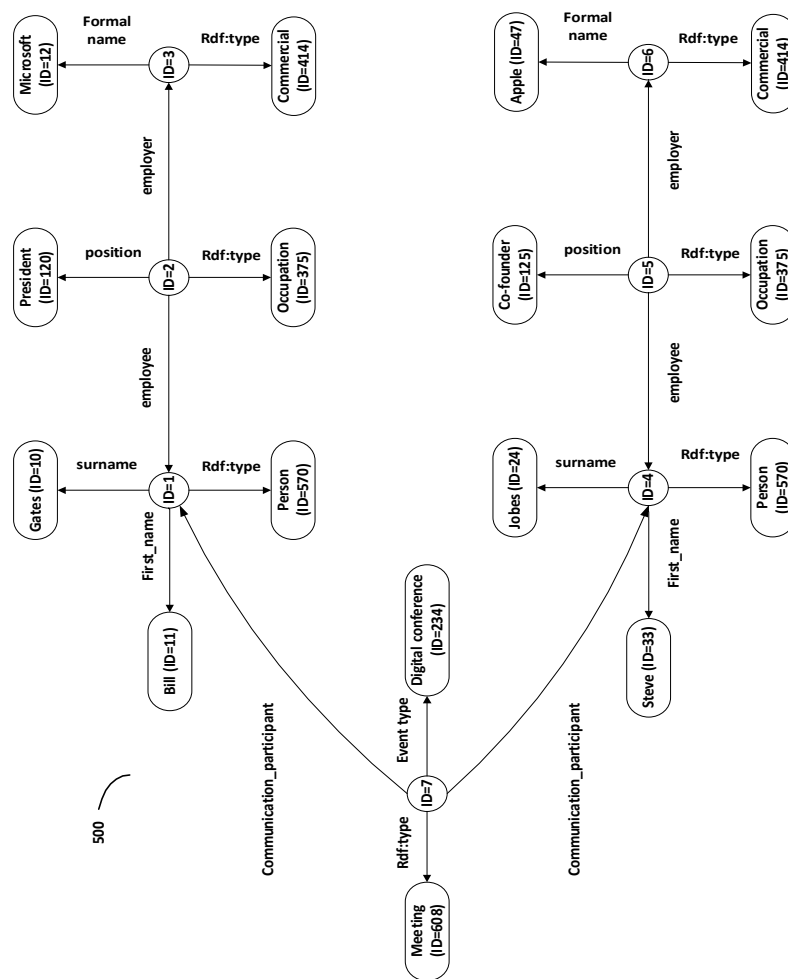
Fig. 5

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Claims of the US Application 2016/0275180

A computer-implemented method for storing in a computer system, searching and updating data extracted from text documents, the method comprising:

extracting at least one first information object from a text document;

generating one or more subject-predicate-object triplets for the first information object;

accessing a storage of extracted data that contains a RDF graph comprising a plurality of subject-predicate-object triplets for a plurality of different information objects extracted from different text documents;

searching the storage of extracted data for a second information object related to the same object in real world as the first information object, wherein two information objects are related when said two information objects have at least the subject parameter in common, and wherein searching includes selecting and searching at least one of three types of identifier tables containing one of a double, a triple and a quad search indices, wherein each search index is based on at least two parameters selected from a subject, a predicate, an object and a document;

when at least one second information object related to the same object in real world as the first information object is found, updating the storage of extracted data by adding the at least one subject-predicate-object triplet of the first information object to the RDF graph and updating at least one of the three types of indexes tables.

Благодарю за внимание!

Вопросы?