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Inventors : **Brandon Brent AYERS; Lior BEN HAIM; Jonathan NOGUEIRA**

FOR : **INSTANT INSTALLATION OF APPS**

Enclosed are:

☒ **35 pages of specification (including Abstract page)**
☒ **15 sheets of drawings**
☒ **50 total pages**
☒ **Executed Declaration**
☒ **Executed Power of Attorney; Executed Assignment; Form SB/439**
☒ **Application Data Sheet. See 37 CFR 1.76**
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Respectfully,

Date: February 23, 2018

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AUTHORIZATION FOR INTERNET COMMUNICATIONS IN A PATENT APPLICATION OR REQUEST TO WITHDRAW AUTHORIZATION FOR INTERNET COMMUNICATIONS		
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	Filing Date	
	First Named Inventor	Brandon Brent AYERS
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APPLICATION FOR PATENT

Inventors: Brandon Brent AYERS, Lior BEN HAIM and Jonathan NOGUEIRA

Title: INSTANT INSTALLATION OF APPS

FIELD AND BACKGROUND OF THE INVENTION

The present invention, in some embodiments thereof, relates to installing software applications on devices and, more specifically, but not exclusively, to installing apps on mobile devices.

The use of apps on mobile devices such as cell phones is very widespread. Users frequently install new apps on their devices, providing the devices with new functionality such as access to new services, online shopping, gaming and more.

Many advertisement campaigns encourage users to buy and install apps on their devices. Typically, when a user viewing the ad is interested in installing a new app, the user clicks on a link. After the link is clicked, the device connects to an app store from which the new app may be downloaded. The user may obtain more information about the app by interacting with the app store. If at the end of this interaction the user is still interested in installing the app, the app is downloaded from the app store by clicking on another link.

A significant problem with this flow is poor ad conversion. The conversion problem arises when a user who indicated interest in installing the new app is redirected to an app store. This redirection interrupts user interaction with the current app and forces user attention to the app store, which may not be desired by the user. This often results in the user deciding not to install the new app or even to install a competing app advertised by the app store.

Additionally, fraud is a major issue in the mobile ad industry. Advertisers pay per conversion (e.g. ad click or app installation) and rely heavily on accurate ad attribution so that they are billed appropriately. Unfortunately, fraudulent parties have introduced malware practices to simulate ad clicks or intercept and replace referral IDs. These "click farms" can consume large advertising budgets with what look like

impressive results but that actually amount to very little real user adoption/engagement. Honest advertisers are left paying commissions for such fraudulent activity.

SUMMARY OF THE INVENTION

Embodiments described herein utilize an installation client on a device in order to install apps on a device without redirecting the device to an app store. The content provided to the device includes links (denoted here "instant install links") which indicate that the associated app should be installed by the installation client and not via an app store. When an instant install link is selected, the installation client is invoked to run in the background. The installation client downloads the installation file for the app associated with the instant install link to the device. The new app may then be installed on the device using the installation file.

In optional embodiments, the installation client obtains user confirmation for installation and/or displays information relating to the instant installation process. These interactions between the installation client and the user may be designed to maintain user context by having minimal impact on the user experience in the current app. The user is therefore more likely to continue with installing the new app than if redirected to an app store because the current app remains in the foreground, and only minor (if any) further actions are required in order to install the new app.

Embodiments of the invention provide a technical solution to the problem of enabling users easy download of new software applications onto their devices while maintaining interaction with their current application (i.e. without connecting to an app store). The technical solution is to run an installation client in the background while the current app remains running in the foreground. Further interaction with the user relating to the installation process is processed by the installation client on the device, and is not forwarded to a different network element (e.g. app store server) for processing. In fact, any communication with an app store may be completely eliminated from the communication and operation flow. This solution is an improvement of the state current art, in which an additional connection must be established and maintained between the device and the app store in order to enable installation of the new app.

This simplification of communication and operations flow results in the following benefits:

a) Improved speed – There is no need for the device to connect to an app store or to wait for the app store to permit download and provide the installation file (or a

link to the installation file). Pop-ups, banners, etc. may be generated by the installation client on the device and not received from the app store.

b) Improved usability – Minimal interaction is required from the user. The installation client runs in the background during download of the installation file and the installation itself, leaving the user free to continue with other activities without distraction.

c) Improved accuracy – The installation file may be downloaded by direct communication between the device and a software repository storing the installation files, without an intermediary such as the app store. By removing additional parties from the download process, connection errors and crashes are reduced.

d) Improved control – It is possible to control which network is used to download the installation file and enable/disable downloading on a specific network. Additionally, the installation file (e.g. APK) may be downloaded from different external storage (i.e. not the app store), making it is possible to install a specific version of the installation file which is targeted at a specific audience (versus the generic installation file available at the app store).

e) Improved interaction with third parties – The installation client may interact directly with other parties involved in building ad campaigns (e.g. an ad server), provide event notifications to the other parties, and provide information regarding user charges for the installation.

f) Fraud protection – The installation client provides a closed ecosystem which accurately and reliably traces the user funnel from click to install with completely accurate referral attribution. The installation client may be designed to follow industry-standard security and authentication protocols to safeguard against malicious attacks. This protection ensures that advertisers are only charged for the ad click and/or app install as appropriate.

As used herein, the term "device" means a network-connected device on which software is installed and runs. The term "device" includes both mobile devices (such as mobile phone, tablet, laptop, etc.) and non-mobile devices (such as smart TVs, desktop computers, network enabled devices, etc.).

As used herein, the terms "software application", "application" and "app" mean a software program installed (or to be installed) on a device.

As used herein the term "installation client" means an application running on the device and having the role of downloading and installing software applications on

the device (e.g. installing an app on a mobile phone). The installation client may be a standalone client or a component of another client having additional functionalities. The installation client runs in the background for at least part of the time that it is active.

As used herein the term "installation file" means a file that after download to the device enables installation of the app on the device.

As used herein the term "automatically download" means that the installation file is downloaded by the installation client without closing the current app or moving the current app into background operation.

As used herein the term "app store" means a platform for receiving user instructions to install a software app and for making the installation file of the app accessible for download to the device. The app store is an external platform to which the mobile device is redirected by the current app. The app used to provide the user requests to the app store is optionally a dedicated app store app or a browser.

After being accessed by the device, the app store (e.g. dedicated app or web page displayed on a browser) remains running in the foreground of the device until the user actively exits the app store (for example by closing the dedicated app store app, returning to a previously-displayed webpage, opening a new app, etc.).

As used herein the term "app store" is not limited to platforms distributing apps for mobile devices, and includes platforms for distributing applications to mobile devices (e.g. mobile phones, tablets, laptop computers etc.) and/or to non-mobile devices (e.g. desktop computers, smart TVs, etc.). Examples of app stores for mobile devices include Google Play, Apple App Store and others.

According to a first aspect of some embodiments of the present invention there is provided a device adapted to run software applications. The device includes: a network interface adapted to communicate over a network, at least one non-transitory computer readable storage medium storing instructions and at least one processor associated with the network interface and the storage medium. The processor executes the instructions to:

identify that a link for installation of a first software application is selected by user interaction with a second software application running on the device;

in response to the identifying, invoke, without exiting the second software application, an installation client to run in the background on the device;

instruct the installation client to automatically download an installation file of the first software application to the device over the network using the network interface; and

using the downloaded installation file, install the first software application on the device.

According to a second aspect of some embodiments of the present invention there is provided a method for installation of software applications on a device. The method includes executing, by at least one hardware processor operating in the device, program instructions to:

identify that a link for installation of a first software application is selected by user interaction with a second software application running on the device;

in response to the identifying, invoke, without exiting the second software application, an installation client to run in the background on the device;

instruct the installation client to automatically download an installation file of the first software application to the device over a network; and

install the first software application on the device using the downloaded installation file.

According to a third aspect of some embodiments of the present invention there is provided a non-transitory computer readable medium including instructions that, when executed by at least one processor, cause the at least one processor to perform operations for installing software applications on a device. The operations include:

identifying that a link for installation of a first software application is selected by user interaction with a second software application running on the device;

in response to the identifying, invoking, without exiting the second software application, an installation client to run in the background on the device;

instructing the installation client to automatically download an installation file of the first software application to the device over a network using a network interface of the device; and

using the downloaded installation file, installing the first software application on the device.

In a first possible implementation of the first aspect or the second aspect or the third aspect the installation client is closed when the installation of the first software application is completed.

In a second possible implementation of the first aspect or the second aspect or the third aspect the installation client, upon being instructed to automatically download the installation file, downloads the installation file onto the device from a respective network address of the installation file. In a first possible implementation form of the second possible implementation of the first aspect or the second aspect or the third aspect the installation client retrieves the respective network address over the network from an app information server. In a second possible implementation form of the second possible implementation of the first aspect or the second aspect or the third aspect the installation client constructs the respective network address using information included in the link.

In a third possible implementation of the first aspect or the second aspect or the third aspect the automatic download maintains a user experience of interaction with the second software application.

In a fourth possible implementation of the first aspect or the second aspect or the third aspect the automatic download is performed without directing the user interaction to an app store.

In a fifth possible implementation of the first aspect or the second aspect or the third aspect the installation client is invoked when the link is a deep link linking the installation of the first software application to the installation client.

In a sixth possible implementation of the first aspect or the second aspect or the third aspect the device is a mobile device.

In a seventh possible implementation of the first aspect or the second aspect or the third aspect the installation client prompts for user confirmation of the installation of the first software application prior to the automatic download and performs the automatic download only when the confirmation is obtained. In a first possible implementation form of the seventh possible implementation of the first aspect or the second aspect or the third aspect prompting for user confirmation includes retrieving information associated with the first software application from a server over the network using the network interface and displaying the information on a display of the device. In a second possible implementation form of the second possible implementation of the first aspect or the second aspect or the third aspect the installation client resumes running in the background when a response is received to the prompting.

In an eighth possible implementation of the first aspect or the second aspect or the third aspect the device is redirected to an app store when the installation client is unavailable on the device.

In an ninth possible implementation of the first aspect or the second aspect or the installation client includes integrated security processes. In a first possible implementation form of the ninth possible implementation of the first aspect or the second aspect or the third aspect the integrated security processes perform at least one of: browser authentication, App authentication and deep link structure verification.

Unless otherwise defined, all technical and/or scientific terms used herein have the same meaning as commonly understood by one of ordinary skill in the art to which the invention pertains. Although methods and materials similar or equivalent to those described herein can be used in the practice or testing of embodiments of the invention, exemplary methods and/or materials are described below. In case of conflict, the patent specification, including definitions, will control. In addition, the materials, methods, and examples are illustrative only and are not intended to be necessarily limiting.

Implementation of the method and/or system of embodiments of the invention can involve performing or completing selected tasks manually, automatically, or a combination thereof. Moreover, according to actual instrumentation and equipment of embodiments of the method and/or system of the invention, several selected tasks could be implemented by hardware, by software or by firmware or by a combination thereof using an operating system.

For example, hardware for performing selected tasks according to embodiments of the invention could be implemented as a chip or a circuit. As software, selected tasks according to embodiments of the invention could be implemented as a plurality of software instructions being executed by a computer using any suitable operating system. In an exemplary embodiment of the invention, one or more tasks according to exemplary embodiments of method and/or system as described herein are performed by a data processor, such as a computing platform for executing a plurality of instructions. Optionally, the data processor includes a volatile memory for storing instructions and/or data and/or a non-volatile storage, for example, a magnetic hard-disk and/or removable media, for storing instructions and/or data. Optionally, a network connection is provided as well. A display and/or a user input device such as a keyboard or mouse are optionally provided as well.

BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWINGS

Some embodiments of the invention are herein described, by way of example only, with reference to the accompanying drawings. With specific reference now to the drawings in detail, it is stressed that the particulars shown are by way of example and for purposes of illustrative discussion of embodiments of the invention. In this regard, the description taken with the drawings makes apparent to those skilled in the art how embodiments of the invention may be practiced.

In the drawings:

FIG. 1 is a simplified block diagram of a device for running software applications, according to embodiments of the invention;

FIGs. 2A, 2B, 2C, 2D and 2E are an exemplary series of views displayed during instant installation of an app on a device;

FIG. 3 is a simplified diagram of a system for installation of apps on a device, according to embodiments of the invention;

FIGs. 4A and 4B are simplified flow diagrams illustrating respective embodiments of the invention;

FIGs. 5 and 6 are simplified flowcharts of methods for installing software applications on a device, according to respective embodiments of the invention;

FIG. 7 is a simplified schematic diagram of an installation client according to embodiments of the invention;

FIG. 8 is a simplified block diagram of a system for determining whether a device is enabled for instant installation, according to embodiments of the invention;

FIG. 9 is a simplified system diagram of a system for instant installation of apps on a device, according to exemplary embodiments of the invention; and

FIG. 10 is a simplified flow diagram illustrating an exemplary embodiment of the invention;

FIG. 11 is a simplified flow diagram illustrating a pre-authentication service, according to exemplary embodiments of the invention; and

FIG. 12 is a simplified flow diagram illustrating per-request authentication and eligibility services, according to exemplary embodiments of the invention.

DESCRIPTION OF SPECIFIC EMBODIMENTS OF THE INVENTION

The present invention, in some embodiments thereof, relates to installing software applications on devices and, more specifically, but not exclusively, to installing apps on mobile devices.

Two significant problems that arise in the sale and distribution of software applications are poor ad conversion and fraud. The conversion problem arises when a user who indicated interest in an app by tapping on a link is redirected to an app store. The user interaction with the current app or web page is interrupted, and the user is forced into interaction with the app store.

It is desired to provide a user-friendly solution to this problem, so that the user may easily install apps on a device without redirecting the device (and hence the user) to an app store. Embodiments presented herein utilize an installation client which is invoked to run on the device in the background when the user indicates a desire to download an app (for example by clicking on a link). The installation client performs the actions needed to download (and optionally to install the app) without connecting to an app store and/or opening an app store app.

Optionally the installation client performs one or more additional tasks, including but not limited to:

a) Obtaining user confirmation of the installation;

b) Displaying information relating to the app itself and/or the progress of the download and installation;

c) Installing the app on the device;

d) Creating a shortcut to the app on the device home screen; and

e) Launching the app.

Unlike app stores which force user attention away from current activities, the installation client may be adapted to maintain a convenient user experience. The installation client runs in the background, while the current app (which was used to select installation of the new app) may remain in the foreground until the user actively elects to switch to a different app and/or activity.

In some embodiments the installation client operates in the foreground during some of the instant installation process (e.g. to obtain user confirmation of the instant installation as described below). Optionally, while the installation client operates in the foreground a portion of the display screen shows the current app (possibly dimmed or otherwise obscured as illustrated in Fig. 2B), simulating a user experience of remaining

in the context of the current app even during the brief period that the installation client runs in the foreground.

Optionally, during some of the instant installation process the installation client operates in notification mode. Notifications are displayed but no input is required from the user.

Before explaining at least one embodiment of the invention in detail, it is to be understood that the invention is not necessarily limited in its application to the details of construction and the arrangement of the components and/or methods set forth in the following description and/or illustrated in the drawings and/or the Examples. The invention is capable of other embodiments or of being practiced or carried out in various ways.

The present invention may be a device, a system, a method and/or a computer program product. The computer program product may include a computer readable storage medium (or media) having computer readable program instructions thereon for causing a processor to carry out aspects of the present invention.

The computer readable storage medium can be a tangible device that can retain and store instructions for use by an instruction execution device. The computer readable storage medium may be, for example, but is not limited to, an electronic storage device, a magnetic storage device, an optical storage device, an electromagnetic storage device, a semiconductor storage device, or any suitable combination of the foregoing. A non-exhaustive list of more specific examples of the computer readable storage medium includes the following: a portable computer diskette, a hard disk, a random access memory (RAM), a read-only memory (ROM), an erasable programmable read-only memory (EPROM or Flash memory), a static random access memory (SRAM), a portable compact disc read-only memory (CD-ROM), a digital versatile disk (DVD), a memory stick, a floppy disk, a mechanically encoded device such as punch-cards or raised structures in a groove having instructions recorded thereon, and any suitable combination of the foregoing.

A computer readable storage medium, as used herein, is not to be construed as being transitory signals per se, such as radio waves or other freely propagating electromagnetic waves, electromagnetic waves propagating through a waveguide or other transmission media (e.g., light pulses passing through a fiber-optic cable), or electrical signals transmitted through a wire.

Computer readable program instructions described herein can be downloaded to respective computing/processing devices from a computer readable storage medium or to an external computer or external storage device via a network, for example, the Internet, a local area network, a wide area network and/or a wireless network. The network may comprise copper transmission cables, optical transmission fibers, wireless transmission, routers, firewalls, switches, gateway computers and/or edge servers. A network adapter card or network interface in each computing/processing device receives computer readable program instructions from the network and forwards the computer readable program instructions for storage in a computer readable storage medium within the respective computing/processing device.

Computer readable program instructions for carrying out operations of the present invention may be assembler instructions, instruction-set-architecture (ISA) instructions, machine instructions, machine dependent instructions, microcode, firmware instructions, state-setting data, or either source code or object code written in any combination of one or more programming languages, including an object oriented programming language such as Smalltalk, C++ or the like, and conventional procedural programming languages, such as the "C" programming language or similar programming languages.

The computer readable program instructions may execute entirely on the user's computer, partly on the user's computer, as a stand-alone software package, partly on the user's computer and partly on a remote computer or entirely on the remote computer or server. In the latter scenario, the remote computer may be connected to the user's computer through any type of network, including a local area network (LAN) or a wide area network (WAN), or the connection may be made to an external computer (for example, through the Internet using an Internet Service Provider). In some embodiments, electronic circuitry including, for example, programmable logic circuitry, field-programmable gate arrays (FPGA), or programmable logic arrays (PLA) may execute the computer readable program instructions by utilizing state information of the computer readable program instructions to personalize the electronic circuitry, in order to perform aspects of the present invention.

Aspects of the present invention are described herein with reference to flowchart illustrations and/or block diagrams of methods, apparatus (systems), and computer program products according to embodiments of the invention. It will be understood that each block of the flowchart illustrations and/or block diagrams, and combinations of

blocks in the flowchart illustrations and/or block diagrams, can be implemented by computer readable program instructions.

These computer readable program instructions may be provided to a processor of a general purpose computer, special purpose computer, or other programmable data processing apparatus to produce a machine, such that the instructions, which execute via the processor of the computer or other programmable data processing apparatus, create means for implementing the functions/acts specified in the flowchart and/or block diagram block or blocks. These computer readable program instructions may also be stored in a computer readable storage medium that can direct a computer, a programmable data processing apparatus, and/or other devices to function in a particular manner, such that the computer readable storage medium having instructions stored therein comprises an article of manufacture including instructions which implement aspects of the function/act specified in the flowchart and/or block diagram block or blocks.

The computer readable program instructions may also be loaded onto a computer, other programmable data processing apparatus, or other device to cause a series of operational steps to be performed on the computer, other programmable apparatus or other device to produce a computer implemented process, such that the instructions which execute on the computer, other programmable apparatus, or other device implement the functions/acts specified in the flowchart and/or block diagram block or blocks.

The flowchart and block diagrams in the Figures illustrate the architecture, functionality, and operation of possible implementations of systems, methods, and computer program products according to various embodiments of the present invention. In this regard, each block in the flowchart or block diagrams may represent a module, segment, or portion of instructions, which comprises one or more executable instructions for implementing the specified logical function(s). In some alternative implementations, the functions noted in the block may occur out of the order noted in the figures. For example, two blocks shown in succession may, in fact, be executed substantially concurrently, or the blocks may sometimes be executed in the reverse order, depending upon the functionality involved. It will also be noted that each block of the block diagrams and/or flowchart illustration, and combinations of blocks in the block diagrams and/or flowchart illustration, can be implemented by special purpose

hardware-based systems that perform the specified functions or acts or carry out combinations of special purpose hardware and computer instructions.

A. Device with Installation Client

Reference is now made to FIG. 1, which is a simplified block diagram of a device for running software applications, according to embodiments of the invention. As described in more detail below, installation client 140 is used to install a new app onto the device without going through an app store. Minimal interaction may be required from the user, and in some embodiments the automatic download and installation occurs after one click on a single link. Alternately or additionally, the first click on the link triggers additional actions including, but not limited to, displaying additional information about the app and/or obtaining user confirmation of the download (e.g. in a pop-up window and/or banner).

Device 100 includes at least one processor 110 and at least one non-transitory memory 120 storing code instructions to be executed by processor 110. Device 100 further includes network interface 150 which is used by the device when it communicates with external elements (such as the content provider) over a network. Optionally, device 100 is a mobile device.

Consider a user using an app (denoted herein the current app) running on device 100. The current app displays an "instant install" link (e.g. an ad containing a clickable link) for a different app (denoted herein the new app). When the user selects the "instant install" link in order to download the new app, installation client 140 is invoked to run in the background. The current app is not exited. The user may continue to use the current app without being aware that installation client 140 is now active in the background. Installation client 140 automatically downloads an installation file for the new app (e.g. an APK file). The installation file is used to install the new app on the device.

Optionally, installation client 140 runs continuously in the background, monitors links as they are selected and detects when a selected link is an instant install link (e.g. based on the link format and/or metadata associated with the link).

In response to being instructed to download the installation file, installation client 140 downloads the application file onto device 100.

Optionally, installation client 140 obtains address information (e.g. a link) to the installation file by one of:

a) Constructing the address using information present in the link (for example by retrieving the address for the app specified by the link from a non-transitory internal memory on device 100);

b) Querying an address repository (e.g. on an external server) over the network and receiving the address information in response to the query.

Optionally, installation client 140 (or a client in which it is embedded) performs the installation of the new app. Alternately or additionally, the new app is installed by different software running on device 100.

Optionally, installation client 140 is closed after the new app is installed. Alternately, installation client 140 is closed after download is complete and different software running on the device is triggered to install the new app.

As used herein the term "instant install link" means a link which when selected causes the installation client to become active in order to perform actions necessary to download and install an app. The instant install link indicates a specific app (or apps) which are to be installed when the instant install link is selected.

As used herein the term "the instant install link is selected" and corresponding terms mean receiving input indicating that the app specified by the instant install link should be downloaded and installed as described herein. The manner in which the selection is performed is based on the capabilities of the device and/or user interface and/or the current app. In one non-limiting example, the instant install link is selected by clicking on the instant install link (e.g. in a web browser). In a second non-limiting example, the instant install link is selected by selecting an item in a list and pressing an enter key.

Optionally, the selected link is a deep link which invokes the installation client to install new app. Further optionally, the deep link's format and/or metadata indicate which app should be installed by the installation client. In an exemplary embodiment, the installation client is registered for a dedicated link format which is not used by other types of applications/clients. When an instant install link having the registered format is selected, the only application on the mobile device able to handle the instant install link is the installation client. Thus the installation client is automatically invoked for every link having the registered format.

Optionally, an app and/or the device operating system and/or a client running on the device detect when the selected link is the installation client's deep link and invokes installation client 140.

Optionally, the automatic download maintains the user experience (UX) of interacting with the current software application. The user experience (UX) is typically based on interaction with the user interface input and output elements (e.g. touchpad, keyboard, display, etc.). By maintaining the UX in the current app, the user is not distracted by being forced into interaction with a different app or web page (such as an app store). The user is therefore more likely to continue with a simple, instant installation process as described herein.

The automatic installation is performed without directing user interaction to an app store. For example, when a user browsing a web page selects an instant install link, the user is not transferred to a different app store web page nor does a different app store application pop-up. The user stays in the current app and is not disturbed by an app store application.

Optionally, prior to the automatic download the installation client 140 prompts for user confirmation for installing the new app and performs the automatic download and installation only if confirmation is obtained. Optionally, this prompting includes obtaining information about the new app (e.g. retrieving information from a server on the network) and displaying the information. The displayed information may also include a link (or other indicator) which may be selected to confirm instant installation of the app. Further optionally installation client 140 resumes running in the background when the instant installation is confirmed (and optionally after a specified amount of time since the prompt).

Optionally, when an installation client is unavailable on a device, the device is redirected to an app store. Examples of situations in which an installation client is unavailable on a device include, but are not limited to:

a) The installation client is not installed on the device;

b) The incorrect version of the installation client is installed on the device; and

c) Invocation of the installation client fails.

This redirection may be performed by other software installed on device 100 (e.g. by a different background client or by the current app).

As used herein, the term "redirected to an app store" means that user interaction using the device is shifted to a site and/or application for obtaining apps. Examples of redirection to an app store include, opening an app store home page in a browser, opening a specific app store web page for the new app in a browser and activating a dedicated app store application on the device.

Figs. 2A-2E illustrate an exemplary series of views displayed during the course of the instant installation and confirmation process. In the present example the views are displayed on an integral device display 210. Alternately or additionally the views are displayed on an external display, such as a computer monitor.

In Fig. 2A, device 100 displays the current app (denoted App 1) which includes an instant install link 220 for a new app (denoted App 2). If the instant install link is selected, App 1 is dimmed and popup 230 appears as shown in Fig. 2B. Popup 230 includes information about App 2 and a confirmation link 240 which is selected to confirm that App 2 should be installed. After confirmation link 240 is selected, App 1 is displayed, popup 230 disappears and progress bar 250 indicating the progress of the installation is displayed as shown in Fig. 2C. After the installation is completed, progress bar 250 is replaced by launch bar 260 as shown in Fig. 2D. Launch bar 260 may be used to launch App 2 as shown in Fig. 2E.

In alternate embodiments in which user confirmation of the instant install is not required, the confirmation popup of Fig. 2B is not displayed. Alternately or additionally, one or both of the banners shown in Figs. 2C and 2D are not displayed.

Optionally, a minimal series of views is displayed to the user. After instant install link 220 is selected, instant install link 220 disappears from the display and the device returns automatically to App 1. The new app is downloaded and installed in the background without further intrusion on the user activities on the device.

Referring back to Fig. 1, optionally some or all of the user interface is integrated into the device (e.g. a keyboard, touchpad, touch screen, etc.). Alternately or additionally, some or all of the user interface is external to the device (e.g. a wireless keyboard or mouse, external display, etc.).

For clarity, Fig. 1 shows a single memory 120. Alternately or additionally, device 100 includes multiple memories, each storing portions of the software code and/or data. Optionally, the code instructions on the memory or memories include code instructions for installation client 140. Optionally, the memory or memories include code instructions for additional software and/or firmware installed on the device, including but not limited to the device operating system and/or apps 130 installed on the device.

Reference is now made to Fig. 3, which is a simplified diagram of a system for installation of apps on a device, according to embodiments of the invention. Exemplary embodiments of such a system are described below (see Fig. 7).

Device 100 communicates with content provider 310 and installation file repository 320. Content provider 310 provides content with instant install link(s) to device 100. The instant install link may be part of an advertisement or ad campaign provided to content provider 310 by ad server 330. The advertisement may be displayed on a web page or by an app running on device 100.

Optionally, the instant install link is a deep link indicating that installation client 140 should be utilized for installing an app specified by the link. When an instant install link for a new app is selected, installation client 140 downloads the new app's installation file (e.g. APK) from installation file repository 320.

Optionally, device 100 also communicates over the network with ad server 330 and/or another backend element (such as App information server 340) in order to obtain information about the new app and/or a link or other address information for the installation file. The information about the new app may be displayed to the user, as illustrated in Fig. 2B. The link/address information may be used by installation client 140 in order to access the installation file on installation file repository 320.

Optionally, prior to providing the content to device 100, content provider 310 determines whether device 100 is enabled for instant install (also denoted an enabled device). A device is considered enabled for instant install if an installation client as described herein has been installed on the device and may be invoked when an instant install link is selected. Non-limiting examples of ways that content provider 310 may determine if a particular device is enabled for instant install include checking a device identifier against a list of enabled devices and/or using known information about the device (e.g. type of device, device operating system, etc.). An exemplary embodiment is described below (see Fig. 8).

Optionally, if the device is enabled, content provider 310 provides content with instant install link(s). Otherwise, the content is supplied with an ordinary link which redirects the device to the app store when selected.

In alternate embodiments, content provider 310 provides the content with an instant install link regardless of whether device 100 is or is not enabled. In cases where the device is not enabled for instant installation, the device is redirected to the app store by a backend element such as Ad server 330 or App information server 340.

Reference is now made to Figs. 4A and 4B, which are simplified flow diagrams illustrating respective exemplary embodiments of the invention.

In the exemplary embodiment of Fig. 4A, the content provider provides content which includes an instant install link to the device. The provided content is displayed on the device (including the instant install link). When the instant install link is selected the installation client is invoked. The installation client automatically downloads and, optionally installs, the new app. When the instant install link is selected and the installation client cannot be invoked, the device is redirected to the app store.

The exemplary embodiment of Fig. 4B is similar to that of Fig. 4A but additionally includes:

i) Detecting whether the device is enabled for instant install. If the device is enabled the content provider provides content with an instant install link. If the device is not enabled for instant install (not shown) the content provider may provide content with a differently formatted link.

ii) Interaction with an Ad server in order to obtain information about the new app. The information optionally includes a link for downloading the new app.

iii) Getting confirmation before the new app is downloaded.

As in Fig. 4A, the content provider provides content which includes an instant install link to the device. When the instant install link is selected and the installation client is invoked, app information is obtained from an Ad Server and is displayed. When the download is confirmed (e.g. by the user selecting a confirmation link), the new app is downloaded and installed by the installation client. When the instant install link is selected and the installation client cannot be invoked, the device is redirected via the Ad server to the app store.

Optionally, the installation client also performs event reporting to an event endpoint. Fig. 4B shows the non-limiting example of event reporting after instant installation of the app (see dashed arrow at bottom of figure). Event reporting may be performed by the installation client at other times in the instant download process and about various types of events (e.g. selection of instant install link, confirmation or non-confirmation of instant install, success or failure of instant installation, timing between selections, etc.).

B. Methods for Instant Installation of Apps

Reference is now made to Fig. 5, which is a simplified flowchart of a method for installing software applications on a device, according to embodiments of the

invention. The method is implemented by at least one hardware processor executing code in the device.

In 510, a link for installing a new app is selected. The selection is made by user input into the currently active app (e.g. clicking a link in an open web browser). Optionally, the link is a deep link which indicates that the new app should be installed by an installation client.

In response to the identification, in 520 the installation client is invoked to run on the device in the background. The current software application is not exited.

In 530 the installation client is instructed to automatically download an installation file of the new software application to the device. In 540 the new software application is installed on the device using the downloaded installation file.

Optionally, in 525 user confirmation is obtained prior to download. The automatic download is performed only if the confirmation is obtained.

Optionally, the installation client is closed after the new app is installed. Alternately, the installation client is closed after the download is completed and different software running on the device is triggered to install the new app.

Reference is now made to Fig. 6, which is a simplified flowchart of a method for installing software applications on a device, according to embodiments of the invention.

In 610, selection of an instant install link is identified. Optionally, the link is a deep link linking installation of the new app to the installation client.

In 620, it is determined whether an installation client is available and can be used for instant installation of the new app.

If an installation client is available, in 630 the installation client is invoked to run on the device in the background. The current software application is not exited. In 640 the installation client downloads an installation file for the new app to the device. In 650 the new software application is installed on the device using the downloaded installation file.

If an installation client is not available, in 660 the device is redirected to an app store.

Optionally, the automatic download maintains the user experience (UX) of interacting with the current software application as described above.

Optionally, the automatic download is performed without directing user interaction to an app store as described above.

Installation Client

Reference is now made to Fig. 7, which is a simplified schematic diagram of an installation client according to an exemplary embodiment of the invention. Installation client 700 is represented as several modules performing separate functions. The division of functionality demonstrated in Fig. 7 is illustrative, and not intended to be limiting. Other embodiments of an installation client may organize the various functions performed by installation client 700 in a different manner.

UX 710 handles interaction with user, by receiving inputs from the device's user interface and providing output for the user (e.g. on a display and/or by device vibration). UX 710 functionality includes but is not limited to:

- App Details 711 - Provides app details for display (e.g. prior to instant installation of the app);
- Animations 712 - Handles animations for display; and
- Instant install link handler 713 - Handles operations when an instant install link (e.g. a deep link) is selected via the device's user interface. For example, instant install link handler 713 may cause App Details 711 to contact an ad server to obtain details about the new app and/or trigger Download & Installer module 720.

Download & installer 720 downloads and installs the new app when the instant install link is selected (for example by downloading the respective APK file from external storage (such as a content delivery network or cloud storage such as Amazon Web Services) and installing the new app using the downloaded APK file).

Optionally, installation client 700 includes reporter 750 which monitors events occurring in the installation client. Reporter 750 issues event notifications which notify other device and/or network-connected components of events occurring in installation client 700. Examples of events include but are not limited to:

i) Clicks on links;

ii) User confirmation to install app;

iii) Successful download;

iv) Successful install;

v) Failure events; and

vi) Status/monitoring events describing the status of various activities in the flow (e.g. download started, download finished, installation started, etc.).

Security measures

Optionally the installation client includes integrated security measures that authenticate the instant install link when the installation client is invoked, in order to prevent malicious use of instant installation capabilities

Examples of security measures which may be integrated into the installation client include but are not limited to:

A) Browser authentication (denoted SSL Pinning) - Prevents 'man in the middle' attacks for server calls. Browser authentication prevents the installation client from communicating with an unauthorized server, and is performed as follows. The server is configured to use HTTPS protocol and has an SSL certificate installed on it. The installation client has a record of the server's digital certificate. On every call to the server the installation client first validates that the server's certificate matches the one that exists on the installation client and only on success continues the communication .

B) Banner served through an app (denoted App authentication) - Identifies if a particular app is eligible to display instant install links and use the installation client capabilities. In order to be eligible the App registers with a server and is provided upon registration with a unique app-eligibility token. The app-eligibility token is then made available for use with that particular app. The app needs to enable the token through the operating system whenever displaying an instant install link. The installation client, upon receiving an instant install link, checks the eligibility of the caller and if identified as eligible continues the process of downloading the app.

C) Deep link structure verification- Allows an app to designate itself as the default handler of a given type of HTTP deep link. A Digital Asset Links JSON file is added on the server. When an HTTP deep link is invoked on the device, the operating system verifies if there is a domain structured as the deep link domain that exists in the web and has a relevant certificate. Whenever a deep link is selected on a device, the operating system validates if such website exists and has the relevant certificate.

C. Detection of Instant Install Enabled Devices

It may be desired by that content with instant install links be provided only to devices enabled for instant installation. For example, an ad on a webpage provided to an enabled device will include a deep link to the installation client, whereas for a non-enabled device the same ad on the same webpage will have a link to an app store.

Additionally, the provided content may be tailored to the instant installation process in order to provide a positive user experience and/or to allow a smooth transition between selecting the instant install link and downloading the new app.

Reference is now made to Fig. 8, which is a simplified block diagram of a system determining whether a device is enabled for instant installation, according to embodiments of the invention. The determination is made based on an identifier uniquely identifying a specific device (e.g. an AAID).

AAID server 800 manages AAID database on an FTP site 810. Instant install database 820 maintains a list of AAIDs of devices enabled for instant installation of apps. AAID server 800 monitors instant install database 820 and provides up to date information about the enabled devices to the FTP site 820. Prior to providing content to a device, content provider 830 checks the device's AAID against the up-to-date information at FTP site 820 and determines whether the device is enabled for instant installation. If the device is enabled, content provider 830 provides the content with instant install link(s).

D. Exemplary system for instant installation of apps

Reference is now made to Fig. 9, which is a simplified system diagram of a system for instant installation of apps on a device, according to exemplary embodiments of the invention. For purposes of explanation the instant install link is described as an ad on a web page displayed on the device. However it is to be understood that the system configuration described herein is suitable for any content provided with an instant install link (e.g. a link embedded in the current app). For convenience, the term "Single-Tap Install" is used to indicate an ad/ad campaign which supports instant installation of apps as described herein.

Ad server 910 stores Single-Tap Install™ ad campaigns which include instant install links in the ads. The ads/ad campaigns are provided to ad server 910 by any suitable form of ad campaign management.

Content provider 920 obtains information about ad and/or ad campaigns from ad server 910. When device 930 downloads web page 940 via content provider 920, content provider 920 checks whether web page 940 should be provided as a Single-Tap Install ad (i.e. with an instant install link) or as a regular ad. When the link in the Single-Tap Install ad is selected, the installation client on device 930 obtains the respective installation file from database 950 (i.e. the installation file repository).

Optionally, the installation client on device 930 obtains additional details relating to the instant installation directly from ad server 910 and/or using a dedicated Single-Tap Install™ microservice 960. These details may be displayed, for example, in a pop-up or banner requesting confirmation of the instant installation.

Optionally, device 930 provides event notifications to event endpoint 980 which may process the event notifications to create reports, to analyze the effectiveness of ad campaigns and for other purposes.

Self-service portal 990 may be used by media buyers to configure ad campaigns to be used with Single-Tap Install™. At the end of the process an instant install deep link is provided.

Application programming interfaces (APIs) may be available to assist in developing and monitoring campaigns and implementing instant installation. Examples include:

a) External Campaign-Setup/Ad-Configuration API for configuring campaigns programmatically server to server;

b) Campaign Status Sync API for providing information on on-going campaigns to media buyers/advertisers.

c) Eligibility API for determining in real-time if a specific device and/or carrier are enabled/eligible for Single-Tap Install functionality. The Eligibility API enables serving content with instant install links only to eligible devices.

Optionally, the device has an installed browser which displays the instant install link (e.g. banner ad). If a suitable installation client is not on the device, the browser intercepts the instant install link and redirects to the App Store.

Optionally, the installation client handles the instant install deep link, retrieves campaign metadata from the Ad Server and displays a user interface for downloading the campaign. It also communicates with network elements to download/install apps and/or to report events back to the Event Endpoint.

Optionally, the Ad Server is a backend service responsible for delivering sponsored ad campaigns and associated metadata (description, category, ratings, screencaps, etc) to the installation client. Optionally, also manages advertiser budget requirements and captures campaign conversion metrics (banner clicks > installs > opens).

Optionally, the Event Endpoint is a dedicated backend endpoint for processing and storing all reporting events provided by installation client(s) on devices enabled for instant install.

D.2. Instant Install Flow

Reference is now made to Fig. 10, which is a high-level flow diagram illustrating an exemplary embodiment of the invention. For the purposes of Fig. 10, the content is presented as a web page with ad in an Android browser.

1010 - Media Buyer (denoted "Third party" in Fig. 10) has a banner to be served to a device (won a bid on an exchange, etc).

1020 - The third party makes detects if the device is enabled for instant install, for example by targeting a preapproved category of devices (e.g. by device make/ model/ OS/ carrier) or by referencing an AAID lookup (as described for Fig. 8).

1030 - If the device is enabled, the third party presents the banner with an embedded deep link (instead of the app store URL).

1040 - User sees the banner, clicks on the deep link:

1050 - The deep link initiates the installation client and passes in necessary information about the campaign.

1060 - Installation client calls the Ad Server directly with the appropriate campaign ID. Ad Server looks up the campaign and returns all necessary app metadata to populate the user interface (UI).

1070 - Installation client validation cycle. The installation client displays an App Details modal UI with campaign details, screenshots, legal disclaimers and an 'instant install' CTA. User taps install.

1080 - App download/installation begins. App Notifications inform the user of download/installation progress. Once installation is complete, the installation client fires a tracking URL for proper advertising attribution along with an app notification – 'tap to open the app' – to increase user engagement.

1090 - Events on all of the above are sent to the Event Endpoint.

An alternate flow occurs if the device does not in fact have an installation client or if the installation client does not respond to the deep link click:

1100 – Single-Tap Install ad is clicked but installation client is not available.

1110 – The ad click is forwarded to the Ad Server.

1120 - The device is redirected to the app store (e.g. Play Store).

D.3. User Experience

The user experience begins when an end user on an enabled device sees an instant install link (e.g. display banner in a mobile app or mobile web experience).

Exemplary stages of the user experience are now presented.

D.3.i) User Taps Banner –

A dark overlay is displayed to provide appropriate user feedback (see Fig. 2B). A 'loading' indicator is additionally displayed if there is any lag between banner tap and display of the subsequent modal UI. During this sequence, the installation client makes an Ad Server request to retrieve campaign details and the APK download URL. The installation client displays application details in a modal. The modal includes relevant app information such as: the app icon, app name, number of downloads, APK size, average user rating, truncated app description and screencaps. App description includes lines of text and a SHOW MORE link to reveal the full description. Additionally, the modal may include a link to both/either the Advertiser and/or Carrier's Terms of Use and Privacy Policy for legal compliance. Optionally, carrier branding may be added to the App Details Modal.

Call-To-Actions and Behaviors:

a. INSTALL - Tap 'Instant Install' to initiate download/installation process.

b. EXIT - Tap native back key or outside modal (curtain, anywhere in semi-transparent background) to close the modal.

c. TERMS OF USE - optional text, tap to full browser, hidden if not specified.

d. IMAGES - Horizontal swipe to scroll, on tap open full screen view.

e. SHOW MORE – tap to see expanded description, view all required permission details. Also reveals link to app store page

D.3.ii) User Taps Instant Download -

Installation client automatically begins downloading the app in the background and the App Details modal is closed. User sees a standard app notification displaying download progress (see Fig. 2C). The download app notification includes a message header, message body, progress bar, % completion and app icon. Once download is complete, the download notification is replaced by an install progress app notification.

The install app notification includes a message header, message body, and app icon. If the download is interrupted, it will resume or retry per defined business logic.

Call-To-Action and Behaviors:

a. Download and Install App Notifications are non-actionable; no action occurs when they are tapped.

D.3.iii) Post Install 'Open' Prompt -

The app is installed to the device and a shortcut is placed on the user's home screen. After successful installation, the installation client fires the click proxy URL and appends a referrer ID for proper ad attribution. User sees an app notification prompting the user to begin interacting with the target app (see Fig. 2D). The open app notification includes a message header, message body, progress bar, % completion and app icon.

Call-To-Actions and Behaviors:

a. Tap the notification to immediately launch the app to the home activity.

D.4. Download Retry Logic

If the network connection changes or drops during the course of the installation file download, the installation client pauses the download and resumes when a valid network connection is reestablished. If download fails due to checksum mismatch, the installation client immediately fires a 'download failed' app notification encouraging user to 'tap to retry' the download. Tapping will restart the download from scratch. If download fails for any other reason, the installation client will retry several times before firing the same 'download failed' notification.

D.5. App Store Fallback

The installation client provides a fallback mechanism if a user taps the banner and the installation client is not on the device or if the installation client is an older version that does not support current instant installation functionality. Tapping the banner fires the deep link URL which is a standard https URL. If the installation client is on the device, it will intercept the request and append various parameters to the deep link in order to display the appropriate info in the app details modal. If the installation client is not on the device, the browser will hit this URL to perform an Ad Server

GetAds request. The response will include a preprogrammed App Store redirect URL. The web browser opens the redirect URL and displays the App Store page.

D.6. Error Handling

I) No Network:

If the network connection is lost while user is viewing the App Details modal and is not established within a specified amount of time (e.g. five seconds), a "no network connection" message will be presented. Tapping the 'install' call-to-action will have no affect while there is no available network connection. If the network connection is lost while download is in progress, the installation client will pause the download and resume per a specified download retry logic.

II) Crash:

An operating system crash or installation client crash may interrupt the user experience and download progress. Under conditions in which a crash might occur, the installation client automatically retries installing any apps whose installation progress was interrupted by the crash. On resume after the crash, the installation client does not relaunch the app automatically to the last activity.

III) Out of Storage:

The installation client assesses the device's available storage immediately after a user taps the 'install' button. When the device has insufficient storage, a warning dialogue, prompting the user to delete files and create room, is displayed for any application that would exceed the device's storage capacity.

D.7. Security Processes

FIGs. 11 and 12 illustrate authentication and eligibility processes which may be integrated with the installation client.

FIG. 11 is a simplified flow diagram illustrating a pre-authentication service, according to exemplary embodiments of the invention. The pre-authentication service authenticates the media buyer, providing the media buyer with a token (e.g. JWT) for authentication while presenting ads to the user. The media buyer may access the service freely (e.g. every day for every campaign) to receive a valid token to be used during the current 'Per-Request Authentication' (e.g. for the current day).

FIG. 12 is a simplified flow diagram illustrating a per-request eligibility and authentication service, according to exemplary embodiments of the invention. The

service both determines if the current device does or does not have the installation client installed and authenticates a current requested ad (e.g. the media buyer wants to display the ad to the user). The eligibility and authentication service service is accessed by the media buyer prior to displaying an ad on the device. The media buyer then receives a deep link with an authenticated token.

The descriptions of the various embodiments of the present invention have been presented for purposes of illustration, but are not intended to be exhaustive or limited to the embodiments disclosed. Many modifications and variations will be apparent to those of ordinary skill in the art without departing from the scope and spirit of the described embodiments. The terminology used herein was chosen to best explain the principles of the embodiments, the practical application or technical improvement over technologies found in the marketplace, or to enable others of ordinary skill in the art to understand the embodiments disclosed herein.

It is expected that during the life of a patent maturing from this application many relevant devices, software applications , apps, App Stores, links, deep links and clients for devices will be developed and the scope of the terms device, software application, app, App Store, link, deep link and installation client are intended to include all such new technologies a priori.

The terms "comprises", "comprising", "includes", "including", “having” and their conjugates mean "including but not limited to". This term encompasses the terms "consisting of" and "consisting essentially of".

The phrase "consisting essentially of" means that the composition or method may include additional ingredients and/or steps, but only if the additional ingredients and/or steps do not materially alter the basic and novel characteristics of the claimed composition or method.

As used herein, the singular form "a", "an" and "the" include plural references unless the context clearly dictates otherwise. For example, the term "a compound" or "at least one compound" may include a plurality of compounds, including mixtures thereof.

The word “exemplary” is used herein to mean “serving as an example, instance or illustration”. Any embodiment described as “exemplary” is not necessarily to be construed as preferred or advantageous over other embodiments and/or to exclude the incorporation of features from other embodiments.

The word "optionally" is used herein to mean "is provided in some embodiments and not provided in other embodiments". Any particular embodiment of the invention may include a plurality of "optional" features unless such features conflict.

Throughout this application, various embodiments of this invention may be presented in a range format. It should be understood that the description in range format is merely for convenience and brevity and should not be construed as an inflexible limitation on the scope of the invention. Accordingly, the description of a range should be considered to have specifically disclosed all the possible subranges as well as individual numerical values within that range. For example, description of a range such as from 1 to 6 should be considered to have specifically disclosed subranges such as from 1 to 3, from 1 to 4, from 1 to 5, from 2 to 4, from 2 to 6, from 3 to 6 etc., as well as individual numbers within that range, for example, 1, 2, 3, 4, 5, and 6. This applies regardless of the breadth of the range.

Whenever a numerical range is indicated herein, it is meant to include any cited numeral (fractional or integral) within the indicated range. The phrases "ranging/ranges between" a first indicate number and a second indicate number and "ranging/ranges from" a first indicate number "to" a second indicate number are used herein interchangeably and are meant to include the first and second indicated numbers and all the fractional and integral numerals therebetween.

It is appreciated that certain features of the invention, which are, for clarity, described in the context of separate embodiments, may also be provided in combination in a single embodiment. Conversely, various features of the invention, which are, for brevity, described in the context of a single embodiment, may also be provided separately or in any suitable subcombination or as suitable in any other described embodiment of the invention. Certain features described in the context of various embodiments are not to be considered essential features of those embodiments, unless the embodiment is inoperative without those elements.

Although the invention has been described in conjunction with specific embodiments thereof, it is evident that many alternatives, modifications and variations will be apparent to those skilled in the art. Accordingly, it is intended to embrace all such alternatives, modifications and variations that fall within the spirit and broad scope of the appended claims.

All publications, patents and patent applications mentioned in this specification are herein incorporated in their entirety by reference into the specification, to the same extent as if each individual publication, patent or patent application was specifically and individually indicated to be incorporated herein by reference. In addition, citation or identification of any reference in this application shall not be construed as an admission that such reference is available as prior art to the present invention. To the extent that section headings are used, they should not be construed as necessarily limiting.

WHAT IS CLAIMED IS:

1. A device adapted to run software applications, comprising:

a network interface adapted to communicate over a network;

at least one non-transitory computer readable storage medium storing instructions; and

at least one processor associated with said network interface and said storage medium, adapted to execute said instructions to:

identify that a link for installation of a first software application is selected by user interaction with a second software application running on said device;

in response to said identifying, invoke, without exiting said second software application, an installation client to run in the background on said device;

instruct said installation client to automatically download an installation file of said first software application to said device over said network using said network interface; and

using said downloaded installation file, install said first software application on said device.

2. A device according to claim 1, wherein said at least one processor is further adapted to execute said instructions to close said installation client when said installation of said first software application is completed.

3. A device according to claim 1, wherein, upon being instructed to automatically download said installation file, said installation client downloads said installation file onto said device from a respective network address of said installation file.

4. A device according to claim 3, wherein said installation client retrieves said respective network address over said network from an app information server.

5. A device according to claim 3, wherein said installation client constructs said respective network address using information included in said link.

6. A device according to claim 1, wherein said automatic download maintains a user experience of interaction with said second software application.

7. A device according to claim 1, wherein said automatic download is performed without directing said user interaction to an app store.

8. A device according to claim 1, wherein said installation client is invoked when said link comprises a deep link linking said installation of said first software application to said installation client.

9. A device according to claim 1, wherein said device comprises a mobile device.

10. A device according to claim 1, wherein said installation client prompts for user confirmation of said installation of said first software application prior to said automatic download and performs said automatic download only when said confirmation is obtained.

11. A device according to claim 10, wherein said prompting for user confirmation comprises retrieving information associated with said first software application from a server over said network using said network interface and displaying said information on a display of said device.

12. A device according to claim 10, wherein said installation client resumes running in the background when a response is received to said prompting.

13. A device according to claim 1, wherein said at least one processor is further adapted to execute said instructions to redirect said device to an app store when said installation client is unavailable on said device.

14. A device according to claim 1, wherein said installation client comprises integrated security processes.

15. A method for installation of software applications on a device, comprising:

executing, by at least one hardware processor operating in said device, program instructions to:

identify that a link for installation of a first software application is selected by user interaction with a second software application running on said device;

in response to said identifying, invoke, without exiting said second software application, an installation client to run in the background on said device;

instruct said installation client to automatically download an installation file of said first software application to said device over a network; and

install said first software application on said device using said downloaded installation file.

16. A method according to claim 15, further comprising closing said installation client when said installation of said first software application is completed.

17. A method according to claim 15, wherein said automatic download maintains a user experience of interaction with said second software application.

18. A method according to claim 15, wherein said automatic download is performed without directing said user interaction to an app store.

19. A method according to claim 15, wherein said installation client is invoked when said link comprises a deep link linking said installation of said first software application to said installation client.

20. A method according to claim 15, wherein said device comprises a mobile device.

21. A method according to claim 15, wherein said installation client prompts for user confirmation of said installation of said first software application prior to said automatic download and performs said automatic download only when said confirmation is obtained.

22. A non-transitory computer readable medium including instructions that, when executed by at least one processor, cause the at least one processor to perform operations for installing software applications on a device, said operations comprising:

identifying that a link for installation of a first software application is selected by user interaction with a second software application running on said device;

in response to said identifying, invoking, without exiting said second software application, an installation client to run in the background on said device;

instructing said installation client to automatically download an installation file of said first software application to said device over a network using a network interface of said device; and

using said downloaded installation file, installing said first software application on said device.

23. A non-transitory computer readable medium according to claim 22, wherein said automatic download is performed without directing said user interaction to an app store.

ABSTRACT OF THE DISCLOSURE

A device adapted to run software applications includes a network interface, a non-transitory computer readable storage medium and at least one processor. The network interface enables device communication over a network. At least one processor executes instructions stored in the storage medium to:

identify that a link for installation of a new software application is selected by user interaction with a current software application running on the device;

in response to identifying that the link was selected, invoke, without exiting the second software application, an installation client to run in the background on the device;

instruct the installation client to automatically download an installation file of the new software application over the network using the network interface; and

using the downloaded installation file, install the first software application on the device.

Doc Code: Oath
Document Description: Oath or declaration filed

PTO/AIA/08 (06-12)
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DECLARATION FOR UTILITY OR DESIGN PATENT APPLICATION (37 CFR 1.63)

☒ Declaration Submitted With Initial Filing

☐ Declaration Submitted After initial Filing (surcharge (37 CFR 1.16(f)) required

Attorney Docket Number	72247
First Named Inventor	**Brandon Brent AYERS**
COMPLETE IF KNOWN	
Application Number	
Filing Date	
Art Unit	
Examiners Name	

INSTANT INSTALLATION OF APPS

(Title of the Invention)

As below named inventor, I hereby declare that:

This declaration is directed to:

☒ The attached application,
OR
☐ United States Application or PCT Number _____
Filed On _____.

The above-identified application was made or authorized to be made by me.

I believe I am the original inventor or an original joint inventor of a claimed invention in the application.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

Authorization To Permit Access To Application by Participating Office

☑ If checked, the undersigned hereby grants the USPTO authority to provide the European Patent Office (EPO), the Japan Patent Office (JPO), the Korean Intellectual Property Office (KIPO), the World Intellectual Property Office (WIPO), and any other intellectual property offices in which a foreign application claiming priority to the above-identified patent application is filed access to the above-identified patent application. See 37 CFR 1.14(c) and (h). This box should not be checked if the applicant does not wish the EPO, JPO, KIPO, WIPO, or other intellectual property office in which a foreign application claiming priority to the above-identified patent application is filed to have access to the above-identified patent application.

In accordance with 37 CFR 1.14(h)(3), access will be provided to a copy of the above-identified patent application with respect to: 1) the above-identified patent application-as-filed; 2) any foreign application to which the above-identified patent application claims priority under 35 U.S.C. 119(a)-(d) if a copy of the foreign application that satisfies the certified copy requirement of 37 CFR 1.55 has been filed in the above-identified patent application; and 3) any U.S. application-as-filed from which benefit is sought in the above-identified patent application.

In accordance with 37 CFR 1.14(c), access may be provided to information concerning the date of filing the Authorization to Permit Access to Application by Participating Offices.

Attorney Docket Number: 72247

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DECLARATION — Utility or Design Patent Application

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Name		
Address		
City	State	Zip
Country	Telephone	Email

I have reviewed and understand the contents of the above identified application.

I acknowledge the duty to disclose information material to the patentability of the claims, as defined by 37 CFR 1.56.

LEGAL NAME OF SOLE OR FIRST INVENTOR:

(*E.g.*, Given Name (first and middle (if any)) and Family Name or Surname)

Brandon Brent AYERS

Inventor's Signature	Date (Optional)
	02/21/2018

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Mailing Address

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City	State	Zip	Country
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☒ Additional inventors are being named on the **1** supplemental sheet(s) PTO/AIA/10 attached hereto

Attorney Docket Number: 72247

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SUPPLEMENTAL SHEET FOR DECLARATION

ADDITIONAL INVENTOR(S)
Supplemental Sheet (for PTO/AIA/08,09)

Page 1 of 1

Legal Name of Additional Joint Inventor, if any:

(*E.g.*, Given Name (first and middle (if any)) and Family Name or Surname)
Lior BEN HAIM

Inventor's Signature *Lior BenHAim*		Date (Optional) 21 Feb 2018	
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Karkur City	State	**3714048** Zip	**Israel** Country

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(*E.g.*, Given Name (first and middle (if any)) and Family Name or Surname)
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5021 Gloria Street Mailing Address			
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Legal Name of Additional Joint Inventor, if any:

(*E.g.*, Given Name (first and middle (if any)) and Family Name or Surname)

Inventor's Signature		Date (Optional)	
Residence: City	State	Country	
Mailing Address			
City	State	Zip	Country

This collection of information is required by 35 U.S.C. 115 and 37 CFR 1.63. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 21 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Attorney Docket Number: 72247

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SUPPLEMENTAL SHEET FOR DECLARATION

ADDITIONAL INVENTOR(S)
Supplemental Sheet (for PTO/AIA/08,09)

Page 1 of 1

Legal Name of Additional Joint Inventor, if any:

(*E.g.*, Given Name (first and middle (if any)) and Family Name or Surname)
Lior BEN HAIM

Inventor's Signature		Date (Optional)

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Mailing Address

Karkur City	State	**3714048** Zip	**Israel** Country

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Jonathan NOGUEIRA

Inventor's Signature		Date (Optional) 2/22/2018

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Legal Name of Additional Joint Inventor, if any:

(*E.g.*, Given Name (first and middle (if any)) and Family Name or Surname)

Inventor's Signature		Date (Optional)

Residence: City	State	Country

Mailing Address

City	State	Zip	Country

This collection of information is required by 35 U.S.C. 115 and 37 CFR 1.63. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 21 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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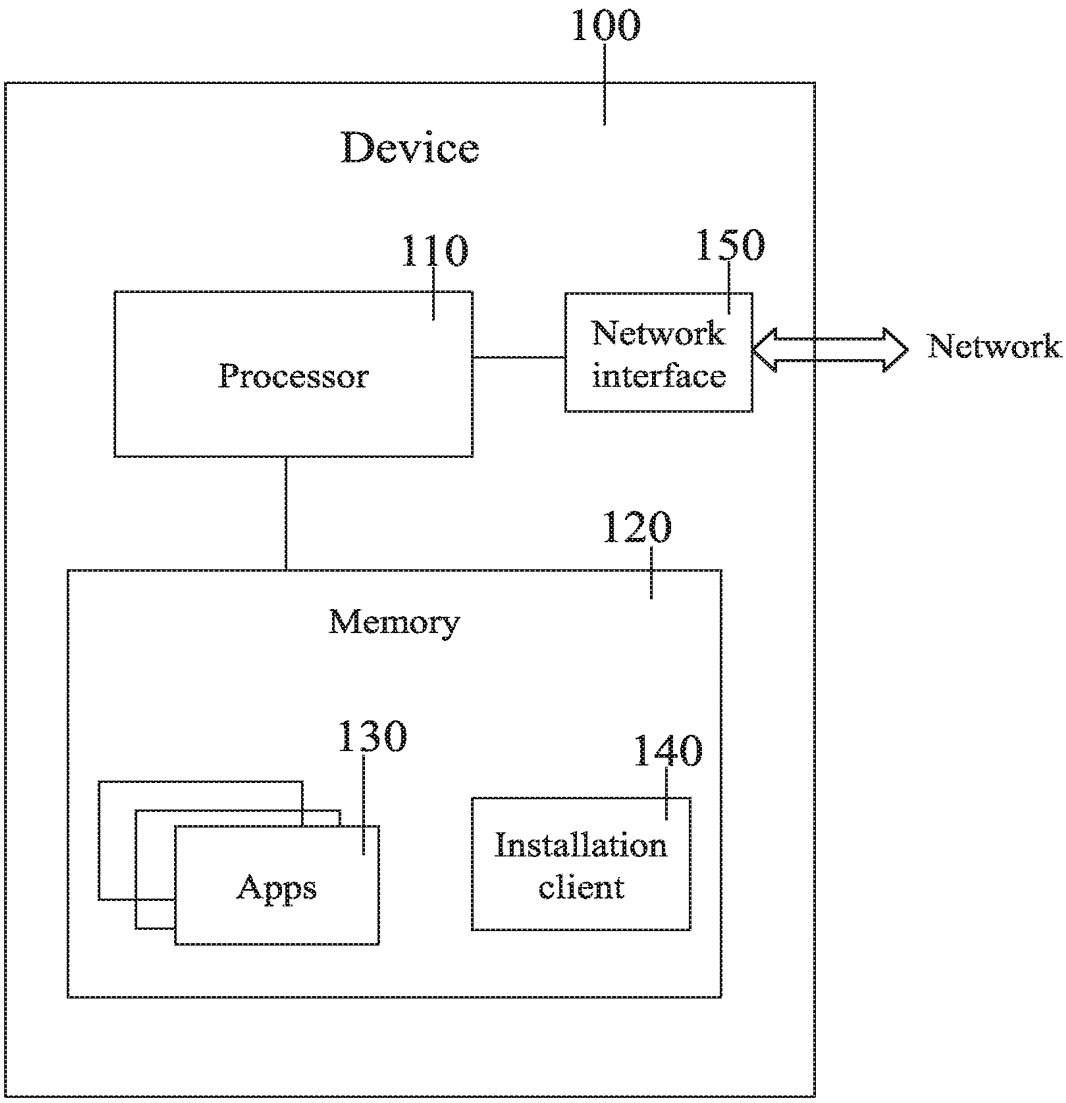
100
Device
110
Processor
150
Network interface
Network
120
Memory
130
Apps
140
Installation client

FIG. 1

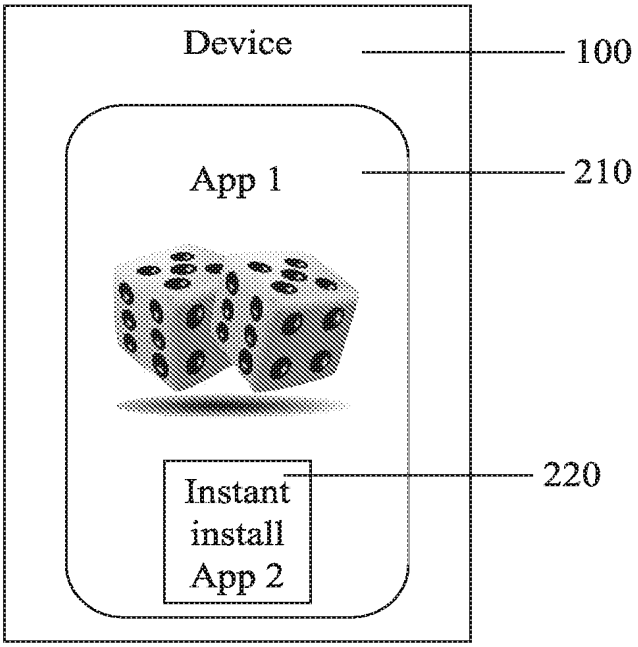
Device
100
App 1
210
Instant
install
App 2
220

FIG. 2A

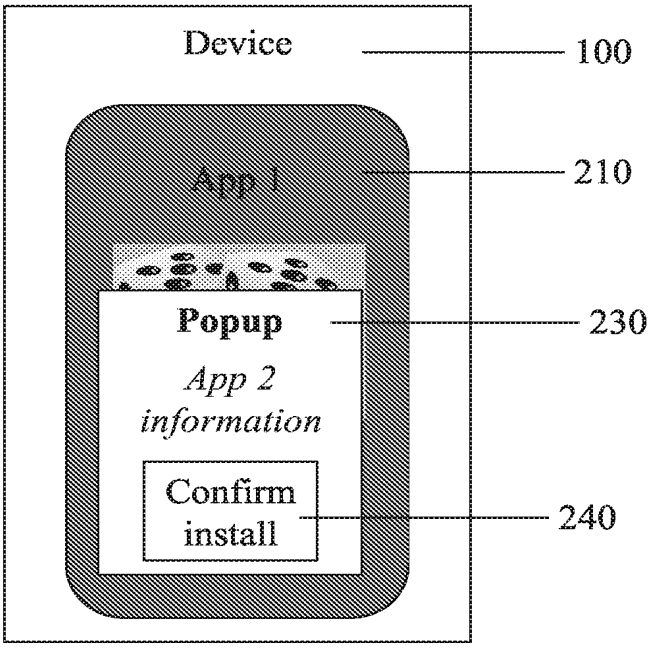
Device
100
App 1
210
Popup
230
App 2
information
Confirm
install
240

FIG. 2B

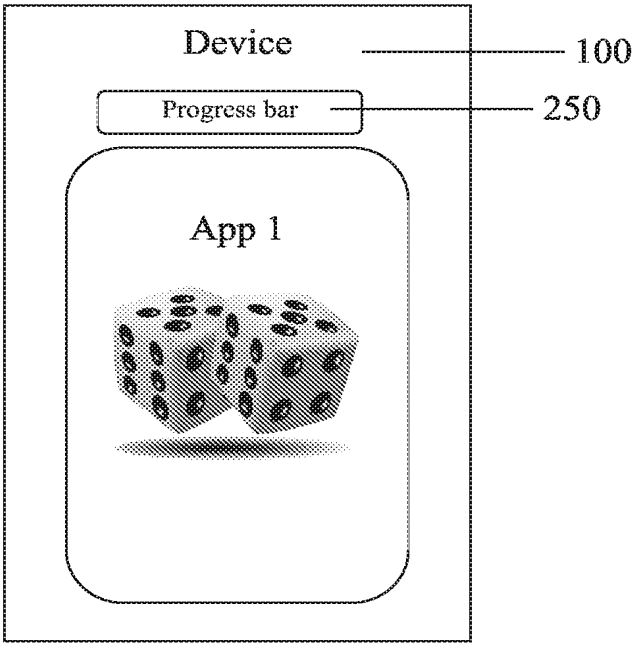
Device
100
Progress bar
250
App 1

FIG. 2C

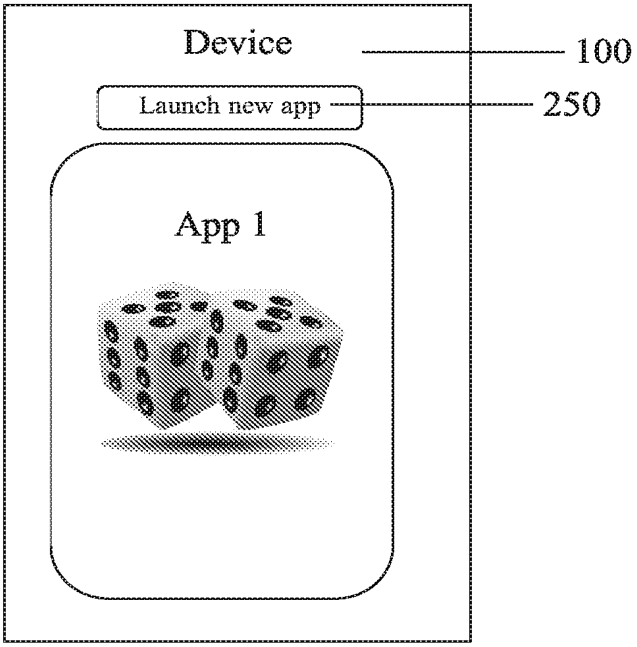
Device
100
Launch new app
250
App 1

FIG. 2D

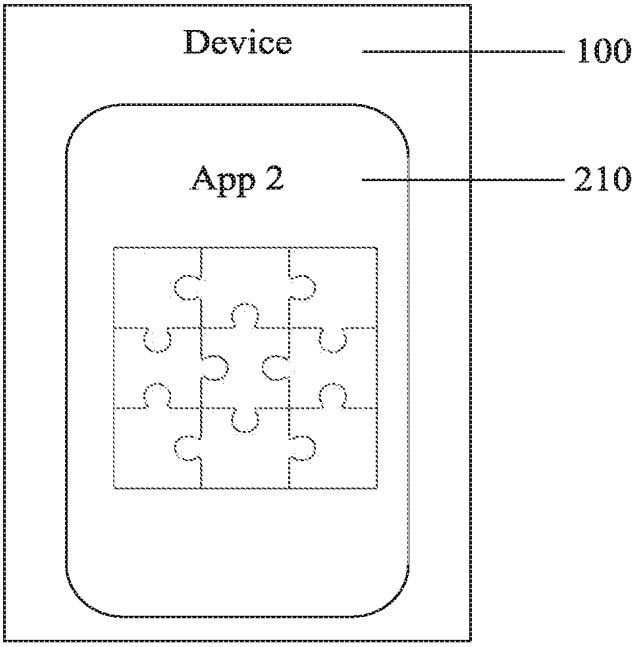

FIG. 2E

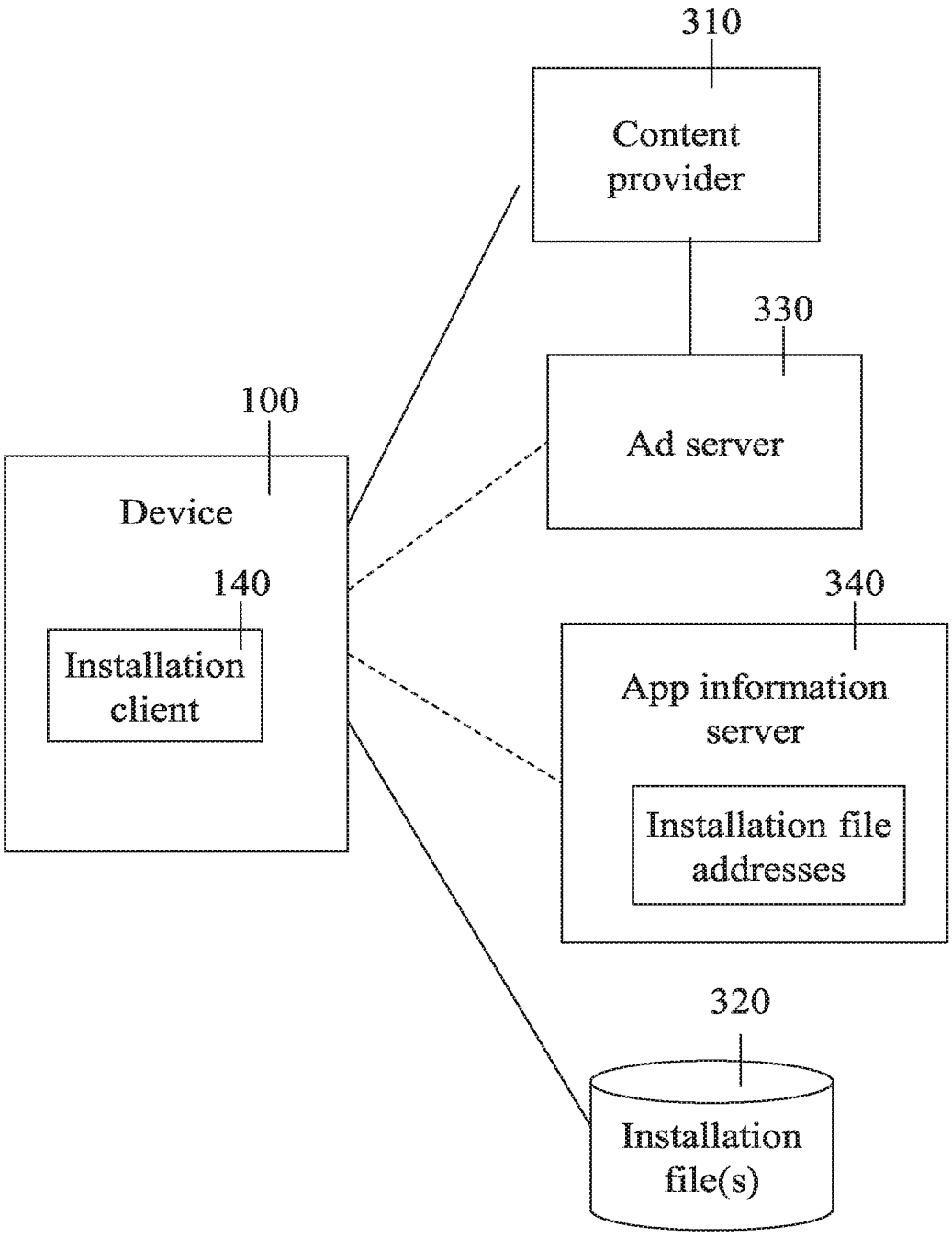
310
Content provider
330
Ad server
100
Device
140
Installation client
340
App information server
Installation file addresses
320
Installation file(s)

FIG. 3

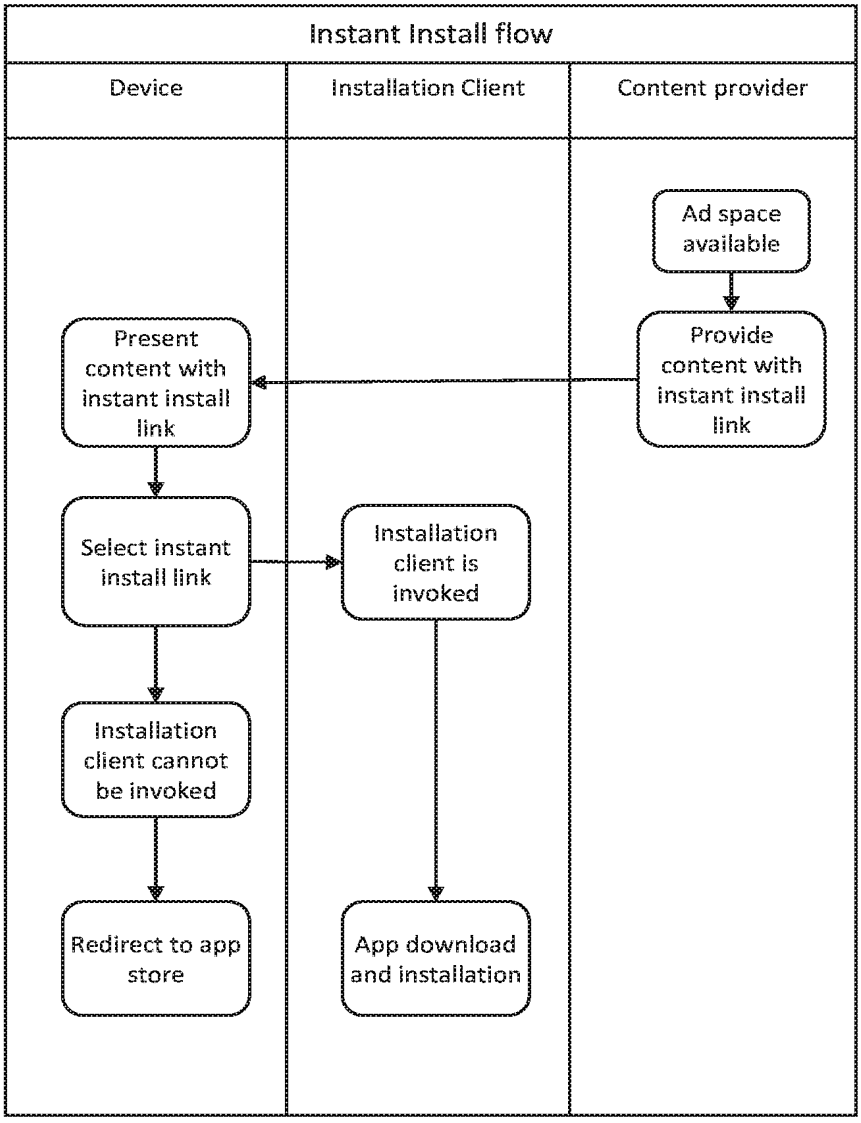
Instant Install flow
Device
Installation Client
Content provider
Ad space available
Provide content with instant install link
Present content with instant install link
Select instant install link
Installation client is invoked
Installation client cannot be invoked
Redirect to app store
App download and installation

FIG. 4A

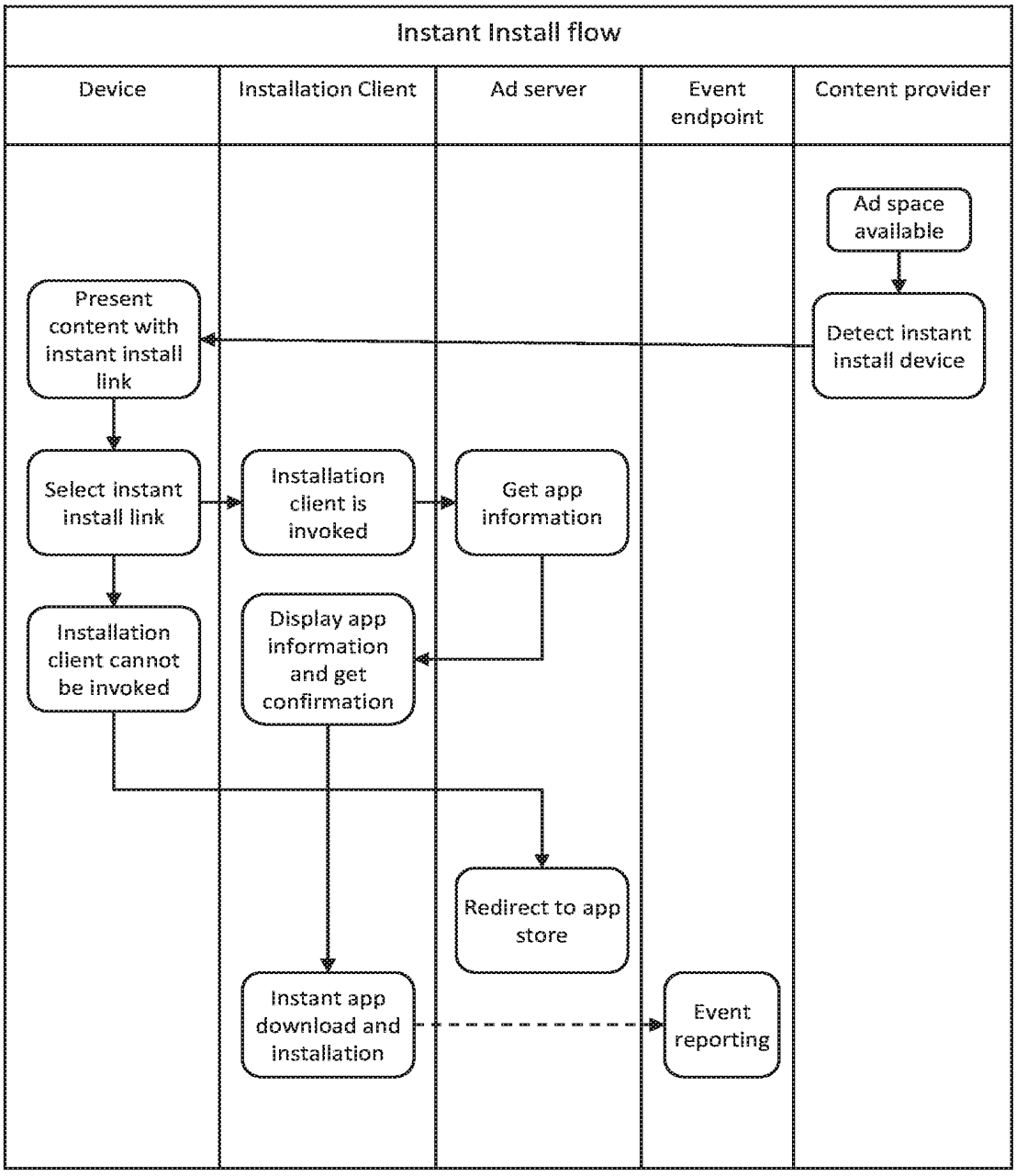
Instant Install flow
Device
Installation Client
Ad server
Event endpoint
Content provider
Ad space available
Present content with instant install link
Detect instant install device
Select instant install link
Installation client is invoked
Get app information
Installation client cannot be invoked
Display app information and get confirmation
Redirect to app store
Instant app download and installation
Event reporting

FIG. 4B

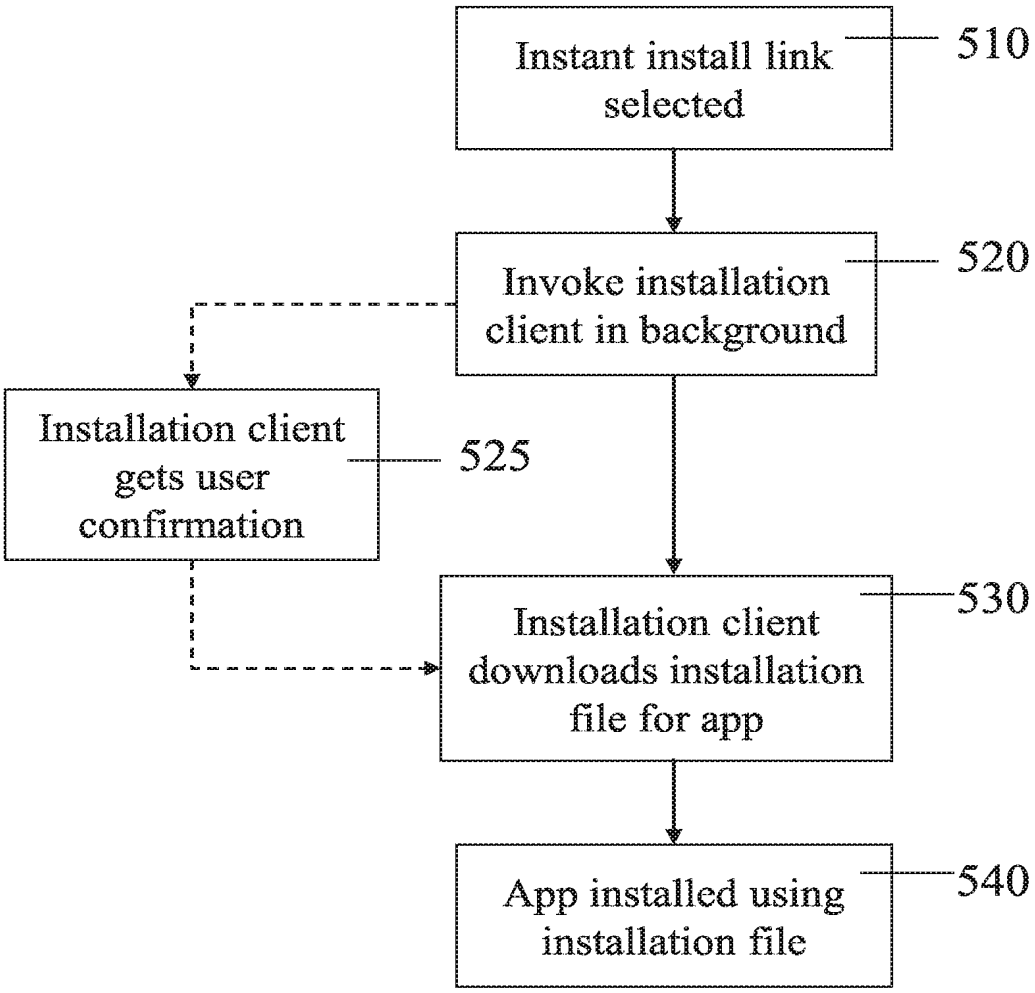
Instant install link selected
510
Invoke installation client in background
520
Installation client gets user confirmation
525
Installation client downloads installation file for app
530
App installed using installation file
540

FIG. 5

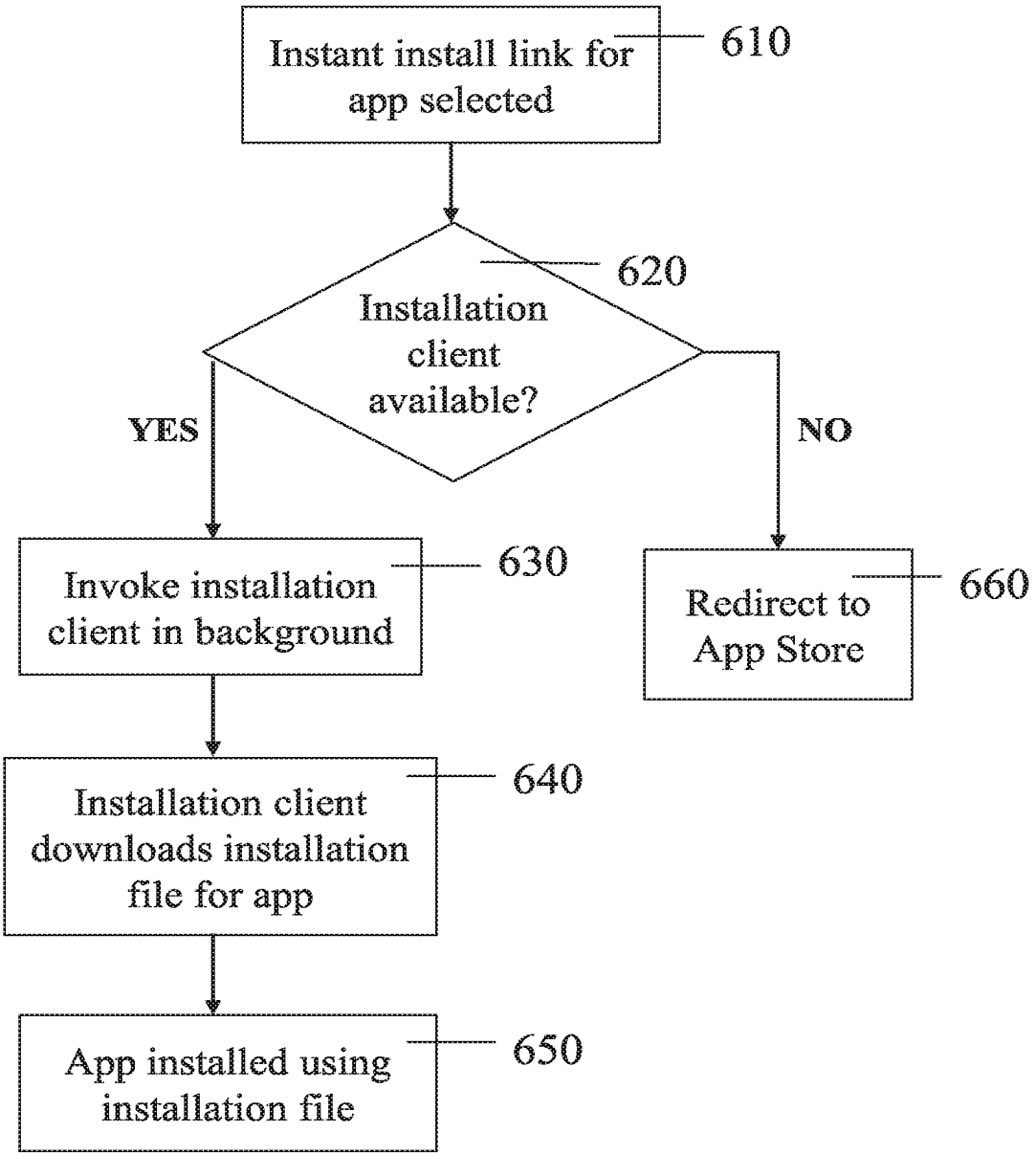
Instant install link for app selected
610
Installation client available?
620
YES
NO
Invoke installation client in background
630
Redirect to App Store
660
Installation client downloads installation file for app
640
App installed using installation file
650

FIG. 6

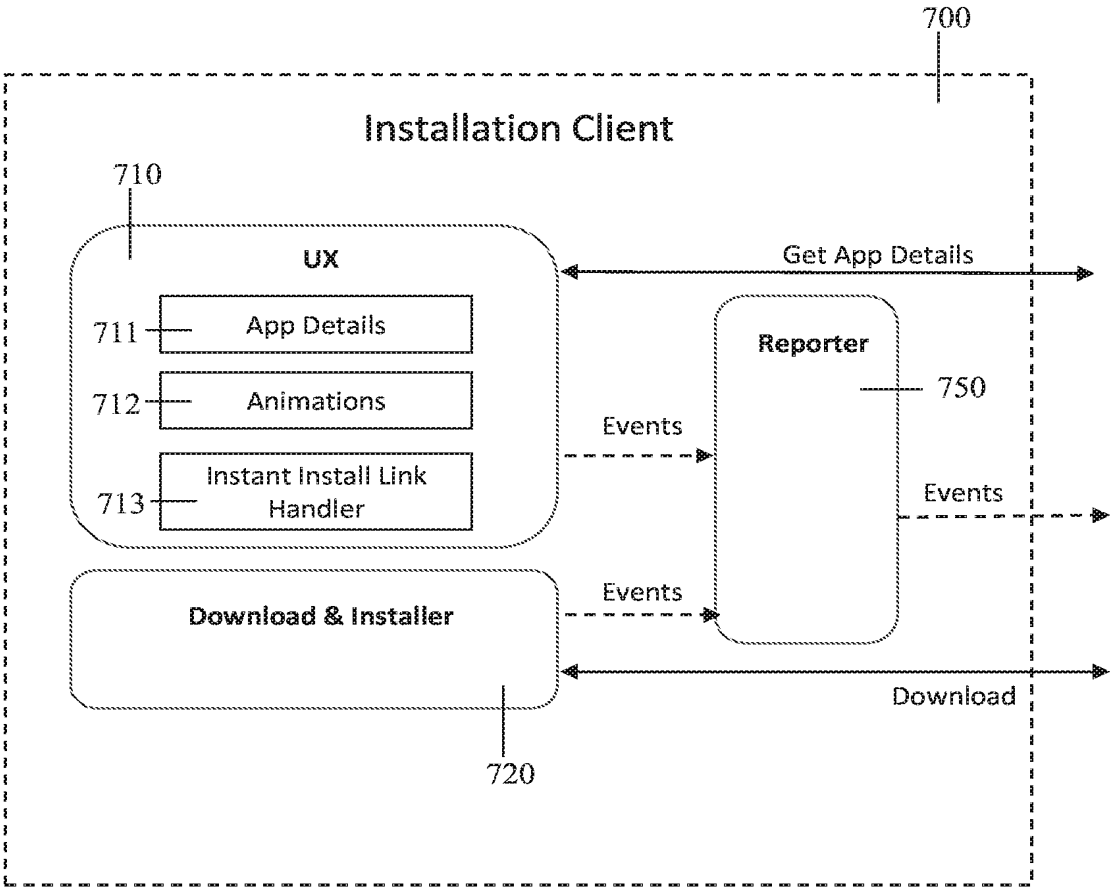
700
Installation Client
710
UX
711
App Details
712
Animations
713
Instant Install Link Handler
Download & Installer
720
Get App Details
Reporter
750
Events
Events
Events
Download

FIG. 7

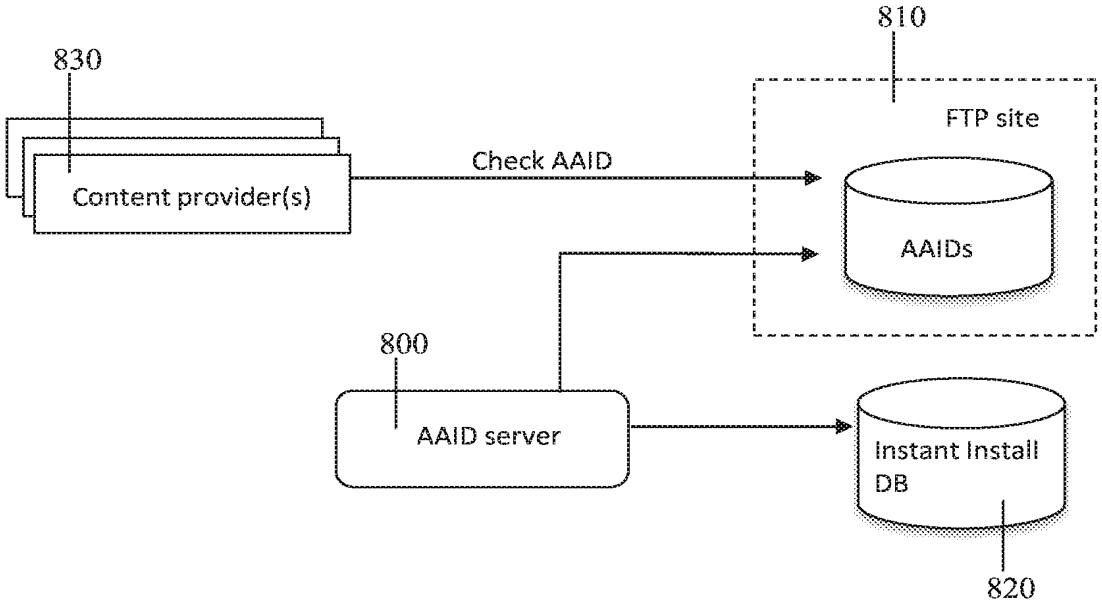
810
830
FTP site
Content provider(s)
Check AAID
AAIDs
800
AAID server
Instant Install
DB
820

FIG. 8

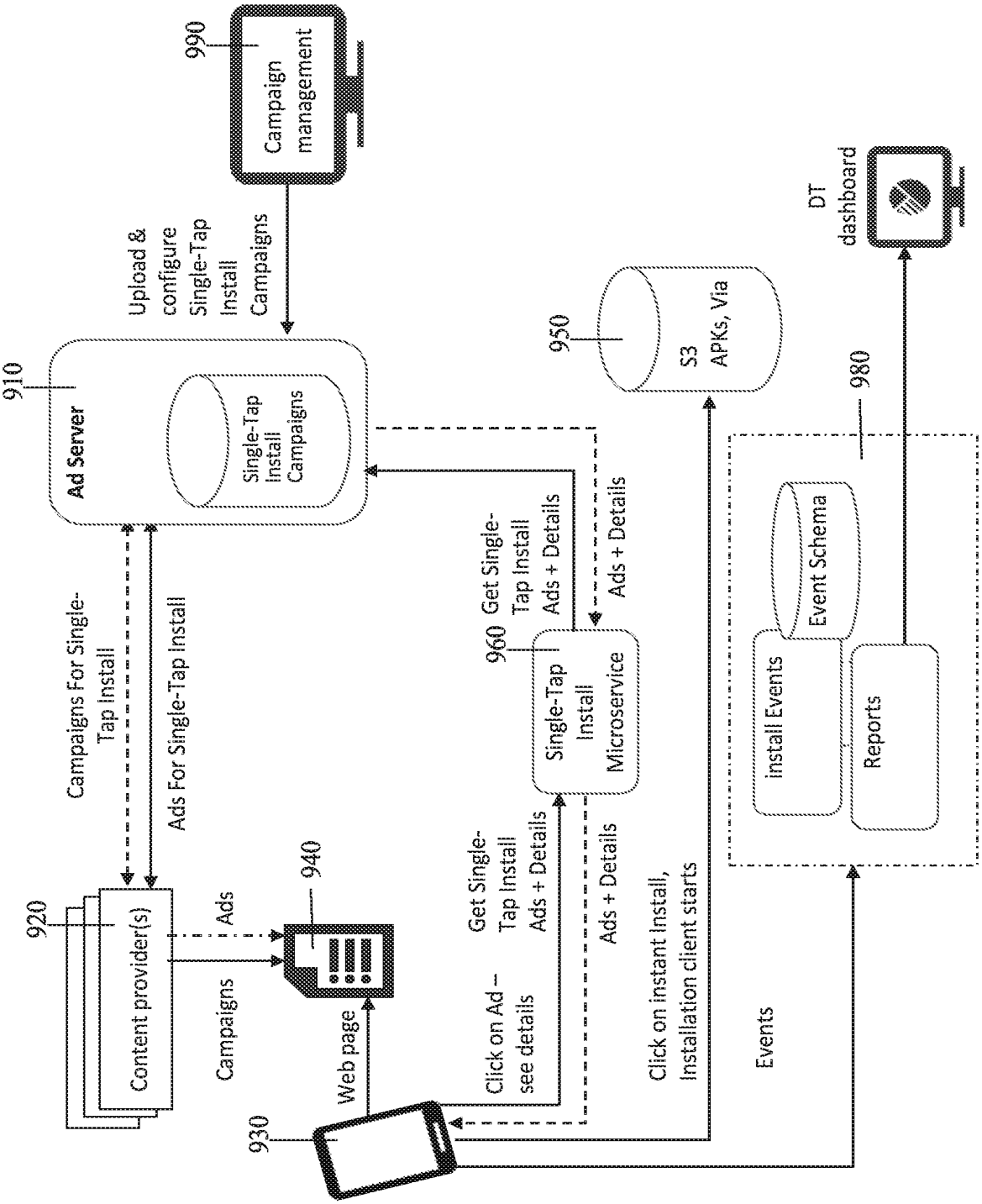
990
Campaign management
Upload & configure Single-Tap Install Campaigns
910
Ad Server
Single-Tap Install Campaigns
950
S3 APKs, Via
DT dashboard
980
Campaigns For Single-Tap Install
Ads For Single-Tap Install
960
Get Single-Tap Install Ads + Details
Ads + Details
Single-Tap Install Microservice
Event Schema
install Events
Reports
920
Content provider(s)
Ads
940
Campaigns
Web page
Get Single-Tap Install Ads + Details
Ads + Details
Click on Ad – see details
Click on instant Install, Installation client starts
Events
930

FIG. 9

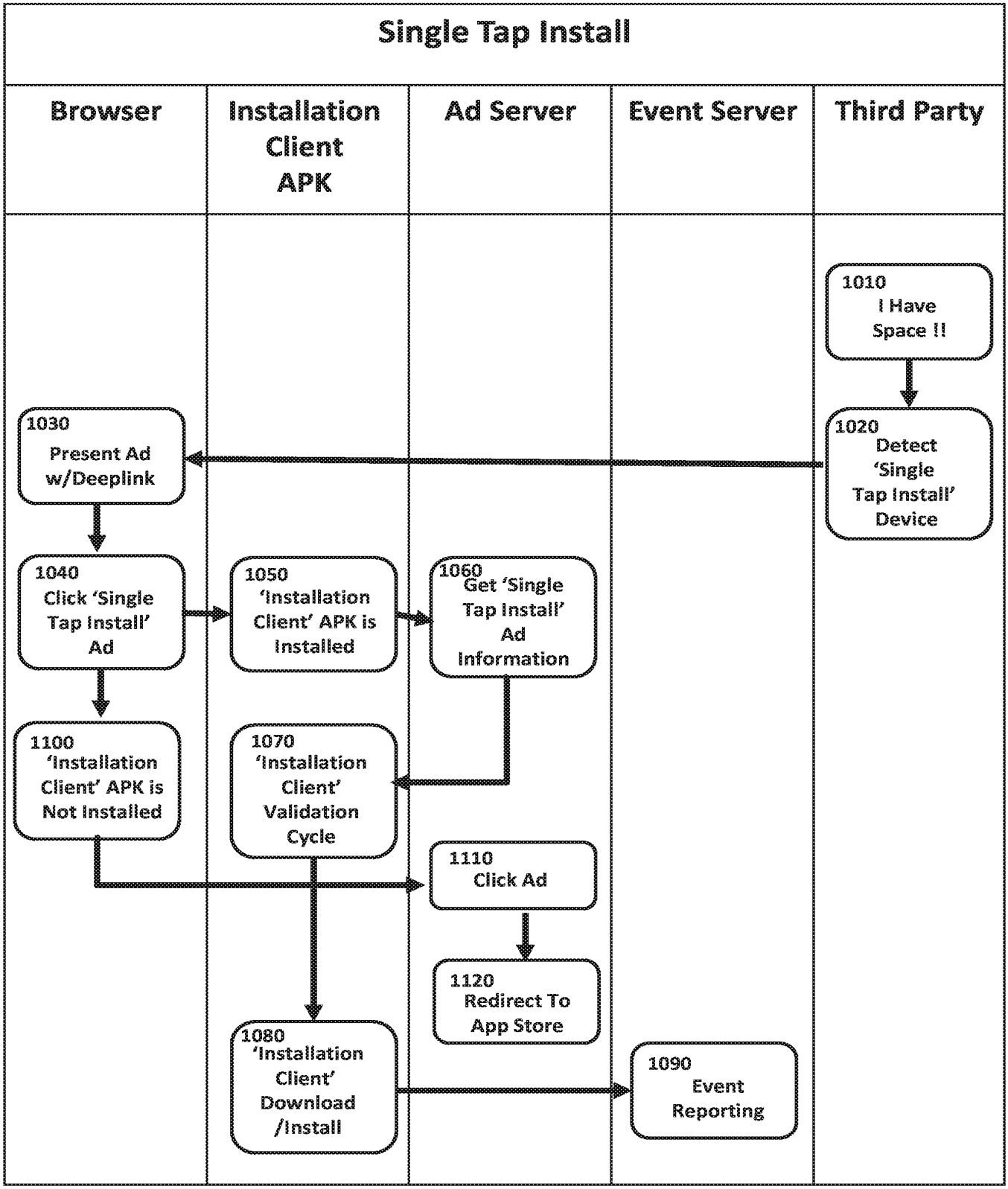
Single Tap Install
Browser
Installation Client APK
Ad Server
Event Server
Third Party
1010 I Have Space !!
1020 Detect 'Single Tap Install' Device
1030 Present Ad w/Deeplink
1040 Click 'Single Tap Install' Ad
1050 'Installation Client' APK is Installed
1060 Get 'Single Tap Install' Ad Information
1100 'Installation Client' APK is Not Installed
1070 'Installation Client' Validation Cycle
1110 Click Ad
1120 Redirect To App Store
1080 'Installation Client' Download /Install
1090 Event Reporting

FIG. 10

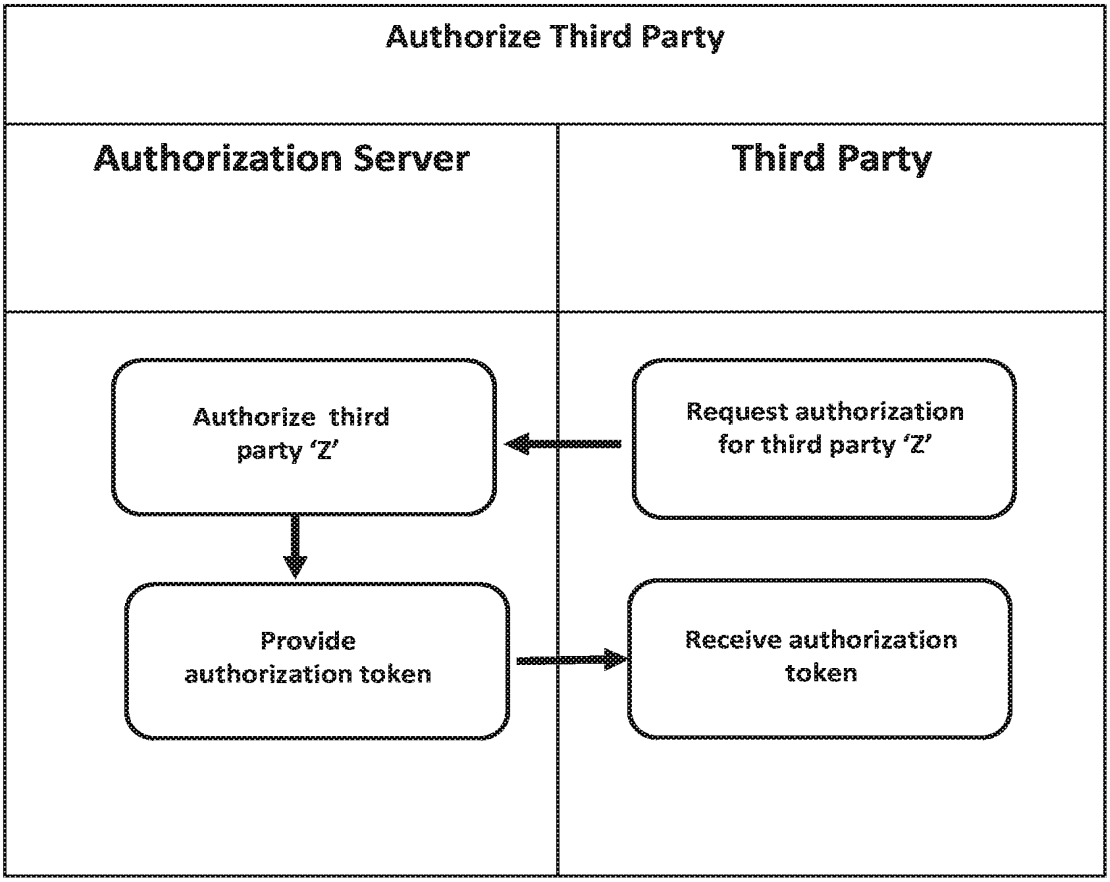
Authorize Third Party
Authorization Server
Third Party
Authorize third party 'Z'
Request authorization for third party 'Z'
Provide authorization token
Receive authorization token

FIG. 11

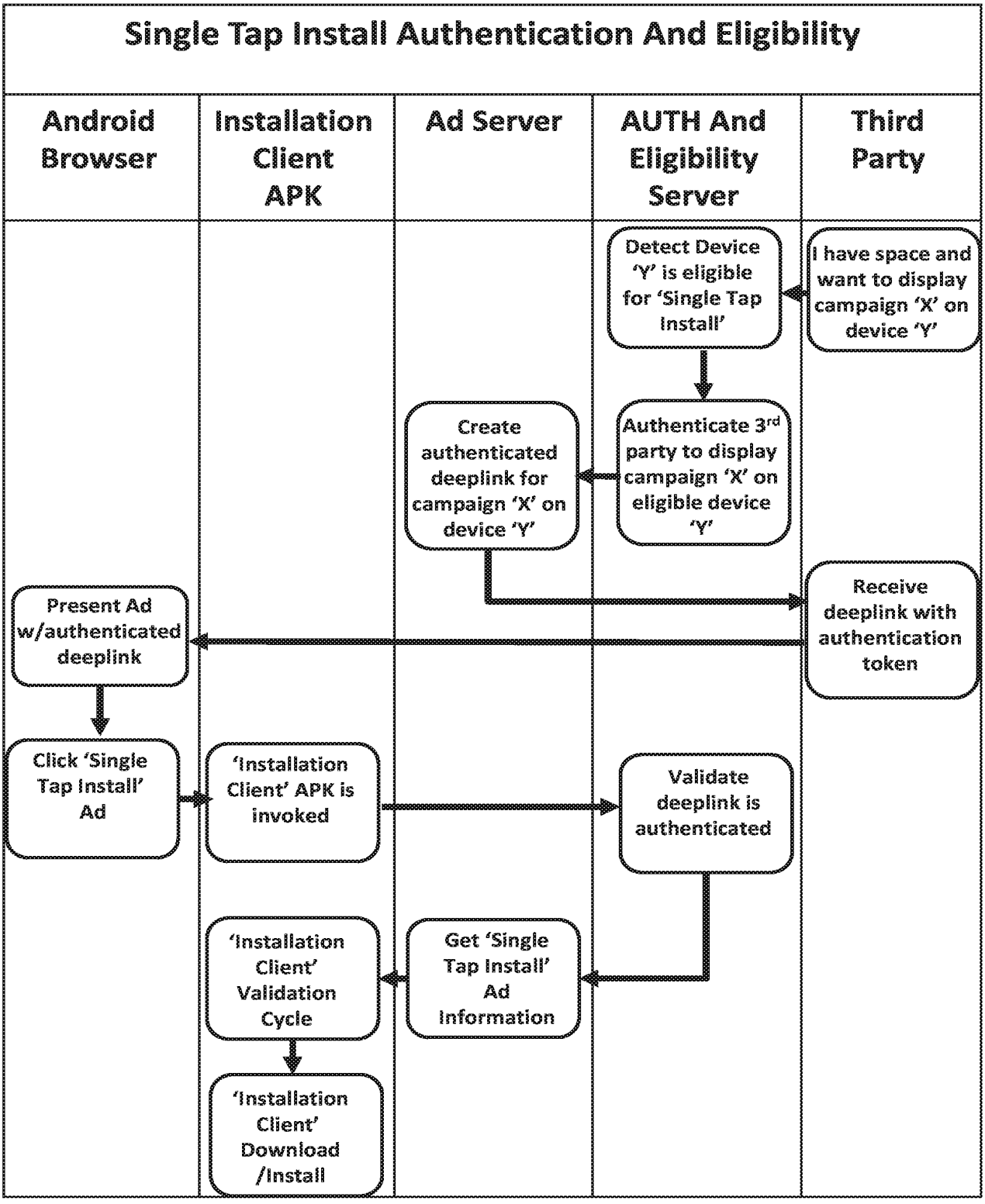
Single Tap Install Authentication And Eligibility
Android Browser
Installation Client APK
Ad Server
AUTH And Eligibility Server
Third Party
Detect Device 'Y' is eligible for 'Single Tap Install'
I have space and want to display campaign 'X' on device 'Y'
Create authenticated deeplink for campaign 'X' on device 'Y'
Authenticate 3rd party to display campaign 'X' on eligible device 'Y'
Receive deeplink with authentication token
Present Ad w/authenticated deeplink
Click 'Single Tap Install' Ad
'Installation Client' APK is invoked
Validate deeplink is authenticated
'Installation Client' Validation Cycle
Get 'Single Tap Install' Ad Information
'Installation Client' Download /Install

FIG. 12

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Application Data Sheet 37 CFR 1.76	Attorney Docket Number	72247
	Application Number	
Title of Invention	INSTANT INSTALLATION OF APPS	

The application data sheet is part of the provisional or nonprovisional application for which it is being submitted. The following form contains the bibliographic data arranged in a format specified by the United states Patent and Trademark Office as outlined in 37 CFR 1.76.

This document may be completed electronically and submitted to the Office in electronic format using the Electronic Filing System (EFS) or the document may be printed and included in a paper filed application.

Secrecy Order 37 CFR 5.2

☐ Portions or all of the application associated with this Application Data Sheet may fall under a Secrecy Order pursuant to 37 CFR 5.2 (Paper filers only. Applications that fall under Secrecy Order may not be filed electronically.)

Inventor Information:

Inventor 1

Legal Name

Prefix	Given Name	Middle Name	Family Name	Suffix
	Brandon	Brent	AYERS	

Residence Information (Select One) ⦿ **US Residency** ○ **Non US Residency** ○ **Active US Military Service**

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Address 2			
City	Austin	**State/Province**	TX
Postal Code	78701	**Country**	US

Inventor 2

Legal Name

Prefix	Given Name	Middle Name	Family Name	Suffix
	Lior		BEN HAIM	

Residence Information (Select One) ○ **US Residency** ⦿ **Non US Residency** ○ **Active US Military Service**

City	Karkur	State/Province		Country	IL

Mailing Address of Inventor:

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Address 2			
City	Karkur	**State/Province**	
Postal Code	3714048	**Country**	IL

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U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Application Data Sheet 37 CFR 1.76	Attorney Docket Number	72247
	Application Number	
Title of Invention	INSTANT INSTALLATION OF APPS	

Inventor 3					
Legal Name					
Prefix	**Given Name**	**Middle Name**		**Family Name**	**Suffix**
	Jonathan			NOGUEIRA	
Residence Information (Select One) ⦿ **US Residency** ○ **Non US Residency** ○ **Active US Military Service**					
City	Zachary	**State/Province**	LA	**Country**	US

Mailing Address of Inventor:			
Address 1	5021 Gloria Street		
Address 2			
City	Zachary	**State/Province**	LA
Postal Code	70791	**Country**	US

Correspondence Information:

Enter either Customer Number or complete the Correspondence Information section below.
For further information see 37 CFR 1.33(a).

☐ An Address is being provided for the correspondence Information of this application.

Customer Number	**67801**
Email Address	martin@ipatent.co.il

Application Information:

Title of the Invention	INSTANT INSTALLATION OF APPS		
Attorney Docket Number	72247	**Small Entity Status Claimed** ☒	
Application Type	Non Provisional		
Subject Matter	Utility		
Suggested Class (If any)		**Sub Class (If any)**	
Suggested Technology Center (if any)			
Total Number of Drawing Sheets (if any)	**15**	**Suggested Figure for Publication (if any)**	

Publication Information:

☐ Request Early Publication (Fee required at time of Request 37 CFR 1.219)

☐ **Request Not to Publish.** I hereby request that the attached application not be published under 35 U.S.C. 122(b) and certify that the invention disclosed in the attached application **has not and will not** be the subject of an application filed in another country, or under a multilateral international agreement, that requires publication at eighteen months after filing.

PTO/AIA/14 (08-12)
Approved for use through 01/31/2014. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Application Data Sheet 37 CFR 1.76	Attorney Docket Number	72247
	Application Number	
Title of Invention	INSTANT INSTALLATION OF APPS	

Representative Information:

Representative information should be provided for all practitioners having a power of attorney in the application. Providing this information in the Application Data Sheet does not constitute a power of attorney in the application (see 37 CFR 1.32). Either enter Customer Number or complete the Representative Name section below. If both sections are completed the customer Number will be used for the Representative Information during processing.

Please Select One:	⊙Customer Number	○US Patent Practitioner	○ Limited Recognition (37 CFR 11.9)
Customer Number	67801		

Domestic Benefit/National Stage Information:

This section allows for the applicant to either claim benefit under 35 U.S.C. 119(e), 120, 121, or 365(c) or indicate National Stage entry from a PCT application. Providing this information in the application data sheet constitutes the specific reference required by 35 U.S.C. 119(e) or 120, and 37 CFR 1.78.

Prior Application Status			
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)

Foreign Priority Information:

This section allows for the applicant to claim benefit of foreign priority and to identify any prior foreign application for which priority is not claimed. Providing this information in the application data sheet constitutes the claim for priority as required by 35 U.S.C. 119(b) and 37 CFR 1.55(a).

Application Number	Country	Filing Date (YYYY-MM-DD)	Priority Claimed
			○ Yes ○ No

Authorization to Permit Access:

☒ Authorization to Permit Access to the Instant Application by the Participating Offices

If checked, the undersigned hereby grants the USPTO authority to provide the European Patent Office (EPO), the Japan Patent Office (JPO), the Korean Intellectual Property Office (KIPO), the World Intellectual Property Office (WIPO), and any other intellectual property offices in which a foreign application claiming priority to the instant patent application is filed access to the instant patent application. See 37 CFR 1.14(c) and (h). This box should not be checked if the applicant does not wish the EPO, JPO, KIPO, WIPO, or other intellectual property office in which a foreign application claiming priority to the instant patent application is filed to have access to the instant patent application.

In accordance with 37 CFR 1.14(h) (3), access will be provided to a copy of the instant patent application with respect to: 1) the instant patent application-as-filed; 2) any foreign application to which the instant patent application claims priority under 35 U.S.C. 119(a)-(d) if a copy of the foreign application that satisfies the certified copy requirement of 37 CFR 1.55 has been filed in the instant patent application; and 3) any U.S. application-as-filed from which benefit is sought in the instant patent application.

In accordance with 37 CFR 1.14(c), access may be provided to information concerning the date of filing this Authorization.

PTO/AIA/14 (08-12)
Approved for use through 01/31/2014. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Application Data Sheet 37 CFR 1.76	Attorney Docket Number	72247
	Application Number	
Title of Invention	INSTANT INSTALLATION OF APPS	

Applicant Information:

Providing assignment information in this section does not substitute for compliance with any requirement of part 3 of Title 37 of CFR to have an assignment recorded by the Office.

Applicant 1

If the applicant is the inventor (or the remaining joint inventor or inventors under 37 CFR 1.45), this section should not be completed. The information to be provided in this section is the name and address of the legal representative who is the applicant under 37 CFR 1.43; or the name and address of the assignee, person to whom the inventor is under an obligation to assign the invention, or person who otherwise shows sufficient proprietary interest in the matter who is the applicant under 37 CFR 1.46. If the applicant is an applicant under 37 CFR 1.46 (assignee, person to whom the inventor is obligated to assign, or person who otherwise shows sufficient proprietary interest) together with one or more joint inventors, then the joint inventor or inventors who are also the applicant should be identified in this section.

⊙ Assignee	O Legal representative under 35 U.S.C 117
O Person to whom the inventor is obligated to assign.	O Person who shows sufficient propriety interest

If applicant is the legal representative, indicate the authority to file the patent application, the inventor is:

Name of the Deceased or Legally Incapacitated Inventor :	

If the Assignee is an Organization check here. ☒

Organization Name	Digital Turbine, Inc.		
Mailing Address Information:			
Address 1	110 San Antonio St. Suite 160		
Address 2			
City	Austin	**State/Province**	TX
Country US		Postal Code	78701
Phone Number		Fax Number	
Email Address			

Signature:

NOTE: This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4 for signature requirements and certifications

Signature	/**Martin D. Moynihan**/			Date (YYYY-MM-DD)	2018-02-23
First Name	Martin	Last Name	Moynihan	Registration Number	40338

This collection of information is required by 37 CFR 1.76. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 23 minutes to complete, including gathering, preparing, and submitting the completed application data sheet form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

Doc Code: PA..
Document Description: Power of Attorney

PTO/AIA/82A (07-13)
Approved for use through 11/30/2014. OMB 0651-0051
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TRANSMITTAL FOR POWER OF ATTORNEY TO ONE OR MORE REGISTERED PRACTITIONERS

Attorney Docket Number: 72247

NOTE: This form is to be submitted with the Power of Attorney by Applicant form (PTO/AIA/82B) to identify the application to which the Power of Attorney is directed, in accordance with 37 CFR 1.5, unless the application number and filing date are identified in the Power of Attorney by Applicant form. If neither form PTO/AIA/82A nor form PTO/AIA82B identifies the application to which the Power of Attorney is directed, the Power of Attorney will not be recognized in the application.

Application Number	
Filing Date	
First Named Inventor	Brandon Brent AYERS
Title	INSTANT INSTALLATION OF APPS
Art Unit	
Examiner Name	
Attorney Docket Number	72247

SIGNATURE of Applicant or Patent Practitioner

Signature	**/Martin D. Moynihan/**	Date (Optional)	February 23, 2018
Name	Martin D. Moynihan	Registration Number	40338
Title (if Applicant is a juristic entity)			
Applicant Name (If Applicant is a juristic entity)			

NOTE: This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4(d) for signature requirements and certifications. If more than one applicant, use multiple forms.

☑ *Total of 4 forms are submitted.

This collection of information is required by 37 CFR 1.131, 1.32 and 1.33.The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

PTO/AIA/82B(07-13)
Approved for use through 11/30/2014. OMB 0651-0051
U.S.Patent and Trademark Office; U.S.DEPARTMENT OF COMMERCE

POWER OF ATTORNEY BY APPLICANT

Attorney Docket Number: 72247
Title: INSTANT INSTALLATION OF APPS
By: Brandon Brent AYERS et al.

I hereby revoke all previous powers of attorney given in the application identified in either the attached transmittal letter or the boxes below.

Application Number	Filing Date

(Note: The boxes above may be left blank if information is provided on form PTO/AIA/82A.)

☑ I hereby appoint the Patent Practitioner(s) associated with the following Customer Number as my/our attorney(s) or agent(s), and to transact all business in the United States Patent and Trademark Office connected therewith for the application referenced in the attached transmittal letter (form PTO/AIA/82A) or identified above: 67801

OR

☐ I hereby appoint Practitioner(s) named in the attached list (form PTO/AIA/82C) as my/our attorney(s) or agent(s), and to transact all business in the United States Patent and Trademark Office connected therewith for the patent application referenced in the attached transmittal letter (form PTO/AIA/82A) or identified above. (Note: Complete form PTO/AIA/82C.)

Please recognize or change the correspondence address for the application identified in the attached transmittal letter or the boxes above to:

☑ The address associated with the above-mentioned Customer Number

OR

☐ The address associated with Customer Number:

OR

Firm or Individual Name					
Address					
City		State		Zip	
Country					
Telephone		Email			

I am the Applicant (if the Applicant is a juristic entity, list the Applicant name in the box):

Digital Turbine, Inc.

☐ Inventor or Joint Inventor (title not required below)
☐ Legal Representative of a Deceased or Legally Incapacitated Inventor (title not required below)
☑ Assignee or Person to Whom the Inventor is Under an Obligation to Assign (provide signer's title if applicant is a juristic entity)
☐ Person Who Otherwise Shows Sufficient Proprietary Interest (e.g., a petition under 37 CFR 1.46(b)(2) was granted in the application or is concurrently being filed with this document) (provide signer's title if applicant is a juristic entity)

SIGNATURE of Applicant for Patent

The undersigned (whose title is supplied below) is authorized to act on behalf of the applicant (e.g., where the applicant is a juristic entity).

Signature		Date (Optional)	February 22, 2018
Name	Barrett Garrison		
Title	EVP & CFO		

NOTE: Signature - This form must be signed by the applicant in accordance with 37 CFR 1.33. See 37 CFR 1.4 for signature requirements and certifications. If more than one applicant, use multiple forms.

☑ Total of 3 forms are submitted.

Approved for use through 01/31/2013. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number

STATEMENT UNDER 37 CFR 3.73(c)

Applicant/Patent Owner: Brandon Brent AYERS et al.

Application No./Patent No.:_____ Filed/Issue Date: _____

Titled: INSTANT INSTALLATION OF APPS

Digital Turbine, Inc. (Name of Assignee) a Corporation (Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that, for the patent application/patent identified above, it is (choose **one** of options 1, 2, 3 or 4 below):

1. ☑ The assignee of the entire right, title, and interest.
2. ☐ An assignee of less than the entire right, title, and interest (check applicable box):
   - ☐ The extent (by percentage) of its ownership interest is ____%. Additional Statement(s) by the owners holding the balance of the interest must be submitted to account for 100% of the ownership interest.
   - ☐ There are unspecified percentages of ownership. The other parties, including inventors, who together own the entire right, title and interest are:

     Additional Statement(s) by the owner(s) holding the balance of the interest must be submitted to account for the entire right, title, and interest.
3. ☐ The assignee of an undivided interest in the entirety (a complete assignment from one of the joint inventors was made). The other parties, including inventors, who together own the entire right, title, and interest are:

   Additional Statement(s) by the owner(s) holding the balance of the interest must be submitted to account for the entire right, title, and interest.
4. ☐ The recipient, via a court proceeding or the like (e.g., bankruptcy, probate), of an undivided interest in the entirety (a complete transfer of ownership interest was made). The certified document(s) showing the transfer is attached.

The interest identified in option 1, 2 or 3 above (not option 4) is evidenced by either (choose **one** of options A or B below):

A. ☑ An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel _____, Frame _____, or for which a copy thereof is attached.

B. ☐ A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as follows:

1. From: _____ To: _____
   The document was recorded in the United States Patent and Trademark Office at
   Reel _____, Frame _____, or for which a copy thereof is attached.
2. From: _____ To: _____
   The document was recorded in the United States Patent and Trademark Office at
   Reel ____, Frame _____, or for which a copy thereof is attached.

[Page 1 of 2]

Approved for use through 01/31/2013. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

STATEMENT UNDER 37 CFR 3.73(c)

3. From: _____ To: _____
The document was recorded in the United States Patent and Trademark Office at
Reel _____, Frame _____, or for which a copy thereof is attached.

4. From: _____ To: _____
The document was recorded in the United States Patent and Trademark Office at
Reel ____, Frame _____, or for which a copy thereof is attached.

5. From: _____ To: _____
The document was recorded in the United States Patent and Trademark Office at
Reel _____, Frame _____, or for which a copy thereof is attached.

6. From: _____ To: _____
The document was recorded in the United States Patent and Trademark Office at
Reel ____, Frame _____, or for which a copy thereof is attached.

☐ Additional documents in the chain of title are listed on a supplemental sheet(s).

☐ As required by 37 CFR 3.73(c)(1)(i), the documentary evidence of the chain of title from the original owner to the assignee was, or concurrently is being, submitted for recordation pursuant to 37 CFR 3.11.

[NOTE: A separate copy (i.e., a true copy of the original assignment document(s)) must be submitted to Assignment Division in accordance with 37 CFR Part 3, to record the assignment in the records of the USPTO. See MPEP 302.08]

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

/Martin D. Moynihan/	February 23, 2018
Signature	Date
Martin D. Moynihan	40338
Printed or typed Name	Title or Registration Number

ASSIGNMENT

For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the undersigned (hereinafter called the "Assignors"):

Brandon Brent AYERS
Lior BEN HAIM
Jonathan NOGUEIRA

hereby sell(s), assign(s) and transfer(s) to:

Digital Turbine, Inc.
110 San Antonio St. Suite 160
78701 Austin
TX, USA

(hereinafter called the "Assignee"), its successors, assigns, nominees or other legal representatives, the undersigned's entire rights, title and interest in and to the invention titled:

INSTANT INSTALLATION OF APPS

described and claimed in the following Patent Application:

Utility Patent Application to be filed in the USA,
executed the same date as this assignment,
and identified as Attorney Docket No. 72247

and in and to said Patent Application, and all original and reissued Patents granted therefore, and all divisions and continuations thereof, any corresponding PCT Patent Application and the National Phases thereof, including the right to apply and obtain Patents in all other countries, the right to claim priority under International Conventions, and the Letters Patent which may be granted thereon:

covenant that the undersigned have (has) the full right to convey the entire interest therein assigned;

authorize(s) and request(s) the Registrar of Patents, and any Official of any country whose duty it is to issue Patents on applications as aforesaid, to issue the said Letters Patent to the said Assignee;

and agree(s) to sign all lawful papers, make all rightful oaths, do all lawful acts requisite for such Patent Applications, and do everything possible to aid said Assignee to apply for, obtain and enforce Patent protection for said invention.

ASSIGNORS

Brandon Brent AYERS	**Lior BEN HAIM**	**Jonathan NOGUEIRA**
Date: 02/21/2018	**Date:**	**Date:**

ASSIGNMENT

For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the undersigned (hereinafter called the "Assignors"):

Brandon Brent AYERS	**1221 S Congress Ave #412, 78701 Austin, TX, USA**
Lior BEN HAIM	**15 HaShachar Street, 3714048 Karkur, Israel**
Jonathan NOGUEIRA	**5021 Gloria Street, 70791 Zachary, LA, USA**

hereby sell(s), assign(s) and transfer(s) to:

Digital Turbine, Inc.
110 San Antonio St. Suite 160
78701 Austin
TX, USA

(hereinafter called the "Assignee"), its successors, assigns, nominees or other legal representatives, the undersigned's entire rights, title and interest in and to the invention titled:

INSTANT INSTALLATION OF APPS

described and claimed in the following Patent Application:

Utility Patent Application to be filed in the USA,
executed the same date as this assignment,
and identified as Attorney Docket No. 72247

and in and to said Patent Application, and all original and reissued Patents granted therefore, and all divisions and continuations thereof, any corresponding PCT Patent Application and the National Phases thereof, including the right to apply and obtain Patents in all other countries, the right to claim priority under International Conventions, and the Letters Patent which may be granted thereon:

covenant that the undersigned have (has) the full right to convey the entire interest therein assigned;

authorize(s) and request(s) the Registrar of Patents, and any Official of any country whose duty it is to issue Patents on applications as aforesaid, to issue the said Letters Patent to the said Assignee;

and agree(s) to sign all lawful papers, make all rightful oaths, do all lawful acts requisite for such Patent Applications, and do everything possible to aid said Assignee to apply for, obtain and enforce Patent protection for said invention.

ASSIGNORS

_____	Lior BenHAim	_____
Brandon Brent AYERS	**Lior BEN HAIM**	**Jonathan NOGUEIRA**
Date: _____	**Date:** 21 Feb 2018	**Date:** _____

ASSIGNMENT

For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the undersigned (hereinafter called the "Assignors"):

Brandon Brent AYERS	**1221 S Congress Ave #412, 78701 Austin, TX, USA**
Lior BEN HAIM	**15 HaShachar Street, 3714048 Karkur, Israel**
Jonathan NOGUEIRA	**5021 Gloria Street, 70791 Zachary, LA, USA**

hereby sell(s), assign(s) and transfer(s) to:

Digital Turbine, Inc.
110 San Antonio St. Suite 160
78701 Austin
TX, USA

(hereinafter called the "Assignee"), its successors, assigns, nominees or other legal representatives, the undersigned's entire rights, title and interest in and to the invention titled:

INSTANT INSTALLATION OF APPS

described and claimed in the following Patent Application:

Utility Patent Application to be filed in the USA,
executed the same date as this assignment,
and identified as Attorney Docket No. 72247

and in and to said Patent Application, and all original and reissued Patents granted therefore, and all divisions and continuations thereof, any corresponding PCT Patent Application and the National Phases thereof, including the right to apply and obtain Patents in all other countries, the right to claim priority under International Conventions, and the Letters Patent which may be granted thereon:

covenant that the undersigned have (has) the full right to convey the entire interest therein assigned;

authorize(s) and request(s) the Registrar of Patents, and any Official of any country whose duty it is to issue Patents on applications as aforesaid, to issue the said Letters Patent to the said Assignee;

and agree(s) to sign all lawful papers, make all rightful oaths, do all lawful acts requisite for such Patent Applications, and do everything possible to aid said Assignee to apply for, obtain and enforce Patent protection for said invention.

ASSIGNORS

Brandon Brent AYERS	**Lior BEN HAIM**	**Jonathan NOGUEIRA**
Date:	**Date:**	**Date:** 2/22/2018

ASSIGNEE

Digital Turbine, Inc.

Signature :	
Name :	Barrett Garrison
Capacity :	EVP & CFO
Date :	February 22, 2018

Utility Patent Application to be filed in the USA, executed the same date as this assignment, and identified as Attorney Docket No. 72247

Electronic Patent Application Fee Transmittal

Application Number:	
Filing Date:	
Title of Invention:	INSTANT INSTALLATION OF APPS
First Named Inventor/Applicant Name:	Brandon Brent AYERS
Filer:	Martin Moynihan
Attorney Docket Number:	72247

Filed as Small Entity

Filing Fees for Utility under 35 USC 111(a)

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
UTILITY FILING FEE (ELECTRONIC FILING)	4011	1	75	75
UTILITY SEARCH FEE	2111	1	330	330
UTILITY EXAMINATION FEE	2311	1	380	380
Pages:				
Claims:				
CLAIMS IN EXCESS OF 20	2202	3	50	150
Miscellaneous-Filing:				
Petition:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				
Miscellaneous:				
		Total in USD ($)		**935**

Electronic Acknowledgement Receipt

EFS ID:	31866906
Application Number:	15903054
International Application Number:	
Confirmation Number:	1094
Title of Invention:	INSTANT INSTALLATION OF APPS
First Named Inventor/Applicant Name:	Brandon Brent AYERS
Customer Number:	67801
Filer:	Martin Moynihan
Filer Authorized By:	
Attorney Docket Number:	72247
Receipt Date:	23-FEB-2018
Filing Date:	
Time Stamp:	04:49:25
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	DA
Payment was successfully received in RAM	$935
RAM confirmation Number	022318INTEFSW00013351501407
Deposit Account	501407
Authorized User	Martin Moynihan

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

37 CFR 1.16 (National application filing, search, and examination fees)

37 CFR 1.17 (Patent application and reexamination processing fees)

37 CFR 1.19 (Document supply fees)

37 CFR 1.20 (Post Issuance fees)

37 CFR 1.21 (Miscellaneous fees and charges)

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Transmittal of New Application	1-72247TransmittalSheetUtilityApplicationFiledon23February2018.pdf	34696 1de30d15bb14b1e8d44eb41eb0a4ae5df43d1016	no	1
Warnings:					
Information:					
2	Internet Communications Authorized	2-72247FormPTOSB439.pdf	76785 dfb4854738aa4fcb5dceb3ec182d4a31ed1157fb	no	2
Warnings:					
Information:					
3	Specification	3-72247.pdf	179051 dfdd1ed0c5fbdabec3fe1a5c61e3652ca424138a	no	35
Warnings:					
Information:					
4	Oath or Declaration filed	4-72247ExecutedDeclaration.pdf	278882 cb22100fbf8e61917fa194cd34fcf0264349b9c8	no	4
Warnings:					
Information:					
5	Drawings-only black and white line drawings	5-72247Figures.pdf	666932 8aaea79b68e8ace1c48a6ae59eff09236dd6376b	no	15
Warnings:					
Information:					
6	Application Data Sheet	6-72247ApplicationDataSheet.pdf	69118 1d766be57f2cb2d15627c6627f75cc08c34778ef	no	4
Warnings:					
Information:					

This is not an USPTO supplied ADS fillable form

7	Power of Attorney	7-72247ExecutedPowerOfAttorney.pdf	343093 1e100144a8e377d831c9cf4a901555e8d3bcf9d3	no	4
Warnings:					
Information:					
8	Assignee showing of ownership per 37 CFR 3.73	8-72247ExecutedAssignment.pdf	205177 471b2fd5812235404923e34c1437edd3831afbc	no	4
Warnings:					
Information:					
9	Fee Worksheet (SB06)	fee-info.pdf	36138 5fb2cc933327edd326aaae2d0849d206030b26f9	no	2
Warnings:					
Information:					
			Total Files Size (in bytes):	1889872	

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

SCORE Placeholder Sheet for IFW Content

Application Number: 15903054 Document Date: 02/23/2018

The presence of this form in the IFW record indicates that the following document type was received in electronic format on the date identified above. This content is stored in the SCORE database.

Since this was an electronic submission, there is no physical artifact folder, no artifact folder is recorded in PALM, and no paper documents or physical media exist. The TIFF images in the IFW record were created from the original documents that are stored in SCORE.

- Drawing

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APPLICATION NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY.DOCKET.NO	TOT CLAIMS	IND CLAIMS
15/903,054	02/23/2018		935	72247	23	3

CONFIRMATION NO. 1094

67801
MARTIN D. MOYNIHAN d/b/a PRTSI, INC.
P.O. BOX 16446
ARLINGTON, VA 22215

FILING RECEIPT

OC000000098150322

Date Mailed: 03/20/2018

Receipt is acknowledged of this non-provisional patent application. The application will be taken up for examination in due course. Applicant will be notified as to the results of the examination. Any correspondence concerning the application must include the following identification information: the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. **If an error is noted on this Filing Receipt, please submit a written request for a Filing Receipt Correction. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections**

Inventor(s)

Brandon Brent AYERS, Austin, TX;
Lior Ben Haim, Karkur, ISRAEL;
Jonathan Nogueira, Zachary, LA;

Applicant(s)

Digital Turbine, Inc., Austin, TX;

Power of Attorney: The patent practitioners associated with Customer Number 67801

Domestic Applications for which benefit is claimed - None.
A proper domestic benefit claim must be provided in an Application Data Sheet in order to constitute a claim for domestic benefit. See 37 CFR 1.76 and 1.78.

Foreign Applications for which priority is claimed (You may be eligible to benefit from the **Patent Prosecution Highway** program at the USPTO. Please see http://www.uspto.gov for more information.) - None.
Foreign application information must be provided in an Application Data Sheet in order to constitute a claim to foreign priority. See 37 CFR 1.55 and 1.76.

Permission to Access Application via Priority Document Exchange: Yes

Permission to Access Search Results: No

Applicant may provide or rescind an authorization for access using Form PTO/SB/39 or Form PTO/SB/69 as appropriate.

If Required, Foreign Filing License Granted: 03/19/2018

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 15/903,054**

Projected Publication Date: 08/29/2019

Non-Publication Request: No

Early Publication Request: No
**** SMALL ENTITY ****
Title

INSTANT INSTALLATION OF APPS

Preliminary Class

Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications: No

PROTECTING YOUR INVENTION OUTSIDE THE UNITED STATES

Since the rights granted by a U.S. patent extend only throughout the territory of the United States and have no effect in a foreign country, an inventor who wishes patent protection in another country must apply for a patent in a specific country or in regional patent offices. Applicants may wish to consider the filing of an international application under the Patent Cooperation Treaty (PCT). An international (PCT) application generally has the same effect as a regular national patent application in each PCT-member country. The PCT process **simplifies** the filing of patent applications on the same invention in member countries, but **does not result** in a grant of "an international patent" and does not eliminate the need of applicants to file additional documents and fees in countries where patent protection is desired.

Almost every country has its own patent law, and a person desiring a patent in a particular country must make an application for patent in that country in accordance with its particular laws. Since the laws of many countries differ in various respects from the patent law of the United States, applicants are advised to seek guidance from specific foreign countries to ensure that patent rights are not lost prematurely.

Applicants also are advised that in the case of inventions made in the United States, the Director of the USPTO must issue a license before applicants can apply for a patent in a foreign country. The filing of a U.S. patent application serves as a request for a foreign filing license. The application's filing receipt contains further information and guidance as to the status of applicant's license for foreign filing.

Applicants may wish to consult the USPTO booklet, "General Information Concerning Patents" (specifically, the section entitled "Treaties and Foreign Patents") for more information on timeframes and deadlines for filing foreign patent applications. The guide is available either by contacting the USPTO Contact Center at 800-786-9199, or it can be viewed on the USPTO website at http://www.uspto.gov/web/offices/pac/doc/general/index.html.

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Title 35, United States Code, Section 184

Title 37, Code of Federal Regulations, 5.11 & 5.15

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NOT GRANTED

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PATENT APPLICATION FEE DETERMINATION RECORD

Substitute for Form PTO-875

Application or Docket Number: 15/903,054

APPLICATION AS FILED - PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	SMALL ENTITY RATE($)	SMALL ENTITY FEE($)	OR	OTHER THAN SMALL ENTITY RATE($)	OTHER THAN SMALL ENTITY FEE($)
BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A	75		N/A	
SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A	330		N/A	
EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A	380		N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	23 minus 20 =	* 3	x 50 =	150	OR		
INDEPENDENT CLAIMS (37 CFR 1.16(h))	3 minus 3 =	*	x 230 =	0.00			
APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).			0.00			
MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))				0.00			
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL	935		TOTAL	

APPLICATION AS AMENDED - PART II

		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	SMALL ENTITY RATE($)	SMALL ENTITY ADDITIONAL FEE($)	OR	OTHER THAN SMALL ENTITY RATE($)	OTHER THAN SMALL ENTITY ADDITIONAL FEE($)
AMENDMENT A	Total (37 CFR 1.16(i))	*	Minus	**	=	x =		OR	x =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	x =		OR	x =	
	Application Size Fee (37 CFR 1.16(s))									
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
						TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	

		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE($)	ADDITIONAL FEE($)	OR	RATE($)	ADDITIONAL FEE($)
AMENDMENT B	Total (37 CFR 1.16(i))	*	Minus	**	=	x =		OR	x =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	x =		OR	x =	
	Application Size Fee (37 CFR 1.16(s))									
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
						TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".
The "Highest Number Previously Paid For" (Total or Independent) is the highest found in the appropriate box in column 1.

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/903,054	02/23/2018	Brandon Brent AYERS	72247	1094

67801 7590 06/27/2019

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EXAMINER	
KANG, INSUN	

ART UNIT	PAPER NUMBER
2193	

NOTIFICATION DATE	DELIVERY MODE
06/27/2019	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

usptomail@ipatent.co.il

Office Action Summary	Application No. 15/903,054	Applicant(s) AYERS et al.	
	Examiner INSUN KANG	Art Unit 2193	AIA (FITF) Status Yes

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTHS FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☑ Responsive to communication(s) filed on 2/23/2018.

☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

2a)☐ This action is **FINAL.** 2b) ☑ This action is non-final.

3)☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

4)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims*

5) ☑ Claim(s) 1-23 is/are pending in the application.

5a) Of the above claim(s) _____ is/are withdrawn from consideration.

6) ☐ Claim(s) _____ is/are allowed.

7) ☑ Claim(s) 1-23 is/are rejected.

8) ☐ Claim(s) _____ is/are objected to.

9) ☐ Claim(s) _____ are subject to restriction and/or election requirement

* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to **PPHfeedback@uspto.gov.**

Application Papers

10)☑ The specification is objected to by the Examiner.

11)☑ The drawing(s) filed on 2/23/2018 is/are: a)☑ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

Certified copies:

a)☐ All b)☐ Some** c)☐ None of the:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

** See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☑ Notice of References Cited (PTO-892)

2) ☐ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b) Paper No(s)/Mail Date _____.

3) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date _____.

4) ☐ Other: _____.

Notice of Pre-AIA or AIA Status

The present application, filed on or after March 16, 2013, is being examined under the first inventor to file provisions of the AIA.

This action is responding to application papers dated 2/23/2018.

Claims 1-23 are pending in the application.

Specification

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words in length. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, “The disclosure concerns,” “The disclosure defined by this invention,” “The disclosure describes,” etc. In addition, the form and legal phraseology often used in patent claims, such as “means” and “said,” should be avoided.

The abstract of the disclosure is objected to because the abstract contains multiple paragraphs not in a narrative form. Correction is required. See MPEP § 608.01(b).

The use of the term GOOGLE PLAY, APPLE, which is a trade name or a mark used in commerce, has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology (or accompanied with a trademark symbol).

Although the use of trade names and marks used in commerce (i.e., trademarks, service marks, certification marks, and collective marks) are permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as commercial marks.

Claim Rejections - 35 USC § 112

The following is a quotation of 35 U.S.C. 112(b):
(b) CONCLUSION.—The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the inventor or a joint inventor regards as the invention.

The following is a quotation of 35 U.S.C. 112 (pre-AIA), second paragraph:
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-14 are rejected under 35 U.S.C. 112(b) or 35 U.S.C. 112 (pre-AIA), second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the inventor or a joint inventor, or for pre-AIA the applicant regards as the invention.

In claims 1, 2, and 13, the term "adapted to" recited in the claims is unclear. It has been held that the recitation that an element is "adapted to" perform a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. *In re Hutchison*, 69 USPQ 138. Correction is required.

Per claims 3-12 and 14, these claims are rejected because they depend from claim 1.

Claim Rejections - 35 USC § 103

In the event the determination of the status of the application as subject to AIA 35 U.S.C. 102 and 103 (or as subject to pre-AIA 35 U.S.C. 102 and 103) is incorrect, any correction of the statutory basis for the rejection will not be considered a new ground of rejection if the prior art relied upon, and the rationale supporting the rejection, would be the same under either status.

The following is a quotation of 35 U.S.C. 103 which forms the basis for all obviousness rejections set forth in this Office action:

> A patent for a claimed invention may not be obtained, notwithstanding that the claimed invention is not identically disclosed as set forth in section 102, if the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious before the effective filing date of the claimed invention to a person having ordinary skill in the art to which the claimed invention pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1, 3-7, 9-11, 15, 18, 18, and 20-23 are rejected under 35 U.S.C. 103 as being unpatentable over Jitkoff et al. US 20160216954, hereafter Jitkoff) in view of Andrews et al. (US 20190109927, hereafter Andrews).

1. A device adapted to run software applications, comprising:

a network interface adapted to communicate over a network (Jitkoff, see at least [0017], Network 108 can be a public communication network …a tree or hierarchical network; [0019]); at least one non-transitory computer readable storage medium storing instructions; and at least one processor associated with said network interface and said storage medium, adapted to execute said instructions to (Jitkoff, see at least [0034], applications …recorded on a …storage medium…executed by one or more processing unit(s); [0036]):

identify that a link for installation of a first software application is selected by user interaction with a second software application running on said device (Jitkoff, see at least [0015] the user may be prompted to choose whether to download and install the application. In some implementations, the application may not be installed, and a link to download/install the application may be provided for downloading and/or installing the application; [0016], a link is provided …. Embedded with the item or a selectable mechanism) to automatically launch the browser and open the web page …from the application launcher);

in response to said identifying, invoke, without exiting said second software application, (Jitkoff, see at least [0015] the user may be prompted to choose whether to download and install the application. In some implementations, the application may not be installed, and a link to download/install the application may be provided for downloading and/or installing the application; [0016], a link is provided …. Embedded with the item or a selectable mechanism) to automatically launch the browser and open the web page, providing the user with seamless access to the item directly from the application launcher; [0031], directly at the application launcher; [0033]).

Jitkoff does not explicitly teach an installation client to run in the background on said device. Andrews teaches an installation client to run in the background on said device (Andrews, see at least, [0070], run as a background task; [0180], application manager 106 will launch the application as a background process; [0122], trigger a background application launch and fetch update; [0286], background updates). It would have been obvious for one having ordinary skill in the art before the effective filing date of the claimed invention to have combined Jitkoff's direct access to items by a link to download/install an application with Andrews' functionality of background running process, since they are analogous art because they are from the same field of endeavor related to software initiating or installation. Combining Andrews' functionality with that of Jitkoff results in a system that allows a background processing of an application. The modification would be obvious because one having ordinary skill in the art would be motivated to make this combination to prevent user interfering and present a user "with current and up-to-date content without having to wait for application to download the content (Andrews, see at least [0173]).

Jitkoff and Andrews in combination further disclose instruct said installation client to automatically download an installation file of said first software application to said device over said

network using said network interface; and using said downloaded installation file, install said first software application on said device (Jitkoff, see at least [0015], the application may be installed and provided to the user for launching …prompted to choose whether to download and install the application…the choice of whether to automatically download and/or install an application; ([0033], automatically downloaded and/or installed; Andrews, see at least, see fig. 12 and associated texts, performing background updating of an application, note that background updating is automatic update without disruption).

3. A device according to claim 1, wherein, upon being instructed to automatically download said installation file, said installation client downloads said installation file onto said device from a respective network address of said installation file (Jitkoff, see at least, [0016], a link is provided…entering the URL for the web page; [0031]; [0015], the application may be installed and provided to the user for launching …prompted to choose whether to download and install the application…the choice of whether to automatically download and/or install an application).

4. A device according to claim 3, wherein said installation client retrieves said respective network address over said network from an app information server (Jitkoff, see at least, cliet-server network environment…connected to a server…by a network; [0033], provide a link to the user …the application is downloaded).

5. A device according to claim 3, wherein said installation client constructs said respective network address using information included in said link. (Jitkoff, see at least, [0016], a link is provided…entering the URL for the web page; [0031]; [0015], the application may be installed and provided to the user for launching …prompted to choose whether to download and install

the application…the choice of whether to automatically download and/or install an application).

6. A device according to claim 1, wherein said automatic download maintains a user experience of interaction with said second software application (Jitkoff, see at least [0015], [0015] Where the search results include an application (e.g., a third party application) the application is accessed and made available for launching directly at the application launcher …the application may be installed and provided to the user for launching …prompted to choose whether to download and install the application…the choice of whether to automatically download and/or install an application; ([0033], automatically downloaded and/or installed; Andrews, see at least, see fig. 12 and associated texts, performing background updating of an application, note that background updating is automatic update without disruption).

7. A device according to claim 1, wherein said automatic download is performed without directing said user interaction to an app store (Jitkoff, see at least [0013] the search results are provided in a form that is directly accessible by the user at the application launcher (e.g., without the need to perform an additional step of launching the application providing the data and/or accessing and/or downloading the application through the application store or web browser providing the application).

9. A device according to claim 1, wherein said device comprises a mobile device (Jitkoff, see at least [0044], mobile devices; [0018], smartphones, PDAs...tablet; [0033], app launcher; [0037]; Andrews, see at least [0009], mobile device).

10. A device according to claim 1, wherein said installation client prompts for user confirmation of said installation of said first software application prior to said automatic download and performs said automatic download only when said confirmation is obtained (Jitkoff et al., [0015] the user may be prompted to choose whether to download and install the application. In some implementations, the application may not be installed, and a link to download/install the application may be provided for downloading and/or installing the application. In one example, the choice of whether to automatically download and/or install an application).

11. A device according to claim 10, wherein said prompting for user confirmation comprises retrieving information associated with said first software application from a server over said network using said network interface and displaying said information on a display of said device (Jitkoff, [0031] In step 206, the one or more instances of the one or more items are provided for display to the user. Once the user views the provided instances of the one or more items, the user may select to view any of the data (e.g., a useful snippet or all of the data) directly from the application launcher without needing to go to the application, … may provide some utility with respect to the email address may be provided to the user; [0032] displaying one or more items to a user in response to a search query entered by the user. The application

launcher window 300 includes a search box 301, a "go" button 302, and an item display area 303; [0033] a download and/or install link "D/I" 306a-d is displayed along with each item 1-4 of the list 305, to allow the user to directly download and/or install the application associated with the item and access the item directly from the app launcher once the application is downloaded and/or installed).

Per claims 15, 17, 18, 20, and 21, they are method versions of claims 1, 6, 7, 9, and 10, respectively, and are rejected for the same reasons set forth in connection with the rejection of claims 1, 6, 7, 9, and 10 above.

Per claims 22 and 23, they are medium versions of claims 1 and 7, respectively, and are rejected for the same reasons set forth in connection with the rejection of claims 1 and 7 above.

Claim 2 and 16 are rejected under 35 U.S.C. 103 as being unpatentable over Jitkoff in view of Andrews and Yamada (US 20100095294).

Per claim 2:

Jitkoff and Andrews do not explicitly teach wherein said at least one processor is further adapted to execute said instructions to close said installation client when said installation of said first software application is completed. Yamada teaches wherein said at least one processor is further adapted to execute said instructions to close said installation client when said installation of said first software application is completed (Yamada, see at least, [0066] If it is determined that execution of all of the installation operation commands is completed, the administrator account installer is closed. If not, the processing returns to step S1201). It would have been obvious for one having ordinary skill in the art before the effective filing date of the claimed invention to have combined Yamada's installer closing with Jitkoff's direct access to

items by a link to download/install an application with Andrews' functionality of background running process, since they are analogous art because they are from the same field of endeavor related to software initiating or installation. Combining Yamada's functionality with that of Jitkoff and Andrews results in a system that allows closing the installer when application installation is completed. The modification would be obvious because one having ordinary skill in the art would be motivated to make this combination to complete the installation process so that computing resources allocation for the installer can be reserved (Yamada, see at least, [0066] If it is determined that execution of all of the installation operation commands is completed, the administrator account installer is closed. If not, the processing returns to step S1201).

Per claim 16, it is the method version of claim 2, respectively, and is rejected for the same reasons set forth in connection with the rejection of claim 2 above.

Claim 8, 13, and 19 are rejected under 35 U.S.C. 103 as being unpatentable over Jitkoff in view of Andrews and Molinet et al. (US 20160142859, hereafter Molinet).

Per claim 8:

Jitkoff and Andrews do not explicitly teach wherein said installation client is invoked when said link comprises a deep link linking said installation of said first software application to said installation client. Molinet teaches wherein said installation client is invoked when said link comprises a deep link linking said installation of said first software application to said installation client. (Molinet, see at least, [0027]; [0025], a contextual deep link indicates a particular configuration for an application …a reference to a location in an application; [0026], a

client device 120 makes a request associated with a contextual deep link for the application; [0027]; [0028]; [0029], a link that causes the second client device 121 to open or initiate the application 121 on the second client device … to open a landing page of the application 121). It would have been obvious for one having ordinary skill in the art before the effective filing date of the claimed invention to have combined Molinet's deep linking of applications with Jitkoff's direct access to items by a link to download/install an application with Andrews' functionality of background running process, since they are analogous art because they are from the same field of endeavor related to software initiating or installation. Combining Molinet's functionality with that of Jitkoff and Andrews results in a system that allows deep linking of application. The modification would be obvious because one having ordinary skill in the art would be motivated to make this combination to enable applications to be open or initiated with deep linking so that a particular configuration of an application is indicated (Molinet, see at least [0016]; [0025]).

Per claim 13:

Jitkoff and Andrews do not explicitly teach wherein said at least one processor is further adapted to execute said instructions to redirect said device to an app store when said installation client is unavailable on said device. Molinet teaches wherein said at least one processor is further adapted to execute said instructions to redirect said device to an app store when said installation client is unavailable on said device (Molinet, see at least, [0027] if the user is using a mobile device that supports a mobile application ecosystem, the server may detect this contextual information and respond with a redirection to the application store on the user's client device 120 if the user does not have installed the application referenced in the

link). It would have been obvious for one having ordinary skill in the art before the effective filing date of the claimed invention to have combined Molinet's deep linking of applications and redirecting to the application store if needed with Jitkoff's direct access to items by a link to download/install an application with Andrews' functionality of background running process, since they are analogous art because they are from the same field of endeavor related to software initiating or installation. Combining Molinet's functionality with that of Jitkoff and Andrews results in a system that allows redirection to the application store to obtain the needed application. The modification would be obvious because one having ordinary skill in the art would be motivated to make this combination to enable redirection to an application store so that a unavailable application can be obtained through the application store (Molinet, see at least, [0027] if the user is using a mobile device that supports a mobile application ecosystem, the server may detect this contextual information and respond with a redirection to the application store on the user's client device 120 if the user does not have installed the application referenced in the link).

Per claim 19, it is the method version of claim 8, respectively, and is rejected for the same reasons set forth in connection with the rejection of claim 8 above.

Claim 12 is rejected under 35 U.S.C. 103 as being unpatentable over Jitkoff in view of Andrews and Madsen et al. (US 20150074659, hereafter Madsen).

Per claim 12:

Jitkoff and Andrews do not explicitly teach wherein said installation client resumes running in the background when a response is received to said prompting. Madsen teaches wherein said

installation client resumes running in the background when a response is received to said prompting (Madsen, see at least, [0064] the package handler 412 may prompt the user to identify the location of the third-party database or to install the component using the third-party installer program at a certain time, etc. In some such examples, the package handler 412 may wait until confirmation is received from the user that the additional information is provided prior to resuming setting the customization options). It would have been obvious for one having ordinary skill in the art before the effective filing date of the claimed invention to have combined Madsen's resuming of installation program with Jitkoff's direct access to items by a link to download/install an application with Andrews' functionality of background running process, since they are analogous art because they are from the same field of endeavor related to software initiating or installation. Combining Madsen's functionality with that of Jitkoff and Andrews results in a system that allows continuation of installation process. The modification would be obvious because one having ordinary skill in the art would be motivated to make this combination to resume to complete the installation process when a user confirms the installation (Madsen, see at least, [0064] the package handler 412 may prompt the user to identify the location of the third-party database or to install the component using the third-party installer program at a certain time, etc. In some such examples, the package handler 412 may wait until confirmation is received from the user that the additional information is provided prior to resuming setting the customization options).

Claim 14 is rejected under 35 U.S.C. 103 as being unpatentable over Jitkoff in view of Andrews and Sundermeyer et al. (US 20170070361, hereafter Sundermeyer).

Per claim 14:

Jitkoff and Andrews do not explicitly teach wherein said installation client comprises integrated security processes. Sundermeyer teaches wherein said installation client comprises integrated security processes (Sundermeyer, see at least, [0225] The user or installer of the system selects 1308 all devices that have been identified as available for inclusion into the integrated security system …At this point all devices will have been registered 1314 with the integrated security system servers; [0260] The installer uses a computer to navigate to a web portal (e.g., integrated security system web interface), logs in to the portal, and enters the authorization key of the installed gateway into the web portal for authentication). It would have been obvious for one having ordinary skill in the art before the effective filing date of the claimed invention to have combined Sundermeyer's integrated security system for installation with Jitkoff's direct access to items by a link to download/install an application with Andrews' functionality of background running process, since they are analogous art because they are from the same field of endeavor related to software initiating or installation. Combining Sundermeyer's functionality with that of Jitkoff and Andrews results in a system that allows secure installation process. The modification would be obvious because one having ordinary skill in the art would be motivated to make this combination to provide an installation process with integrated security so that a proper authentication and authorization are ensured for the installation (Sundermeyer, see at least, [0225] The user or installer of the system selects 1308 all devices that have been identified as available for inclusion into the integrated security system …At this point all devices will have been registered 1314 with the integrated security system servers; [0260] The installer uses a computer to navigate to a web portal (e.g.,

integrated security system web interface), logs in to the portal, and enters the authorization key of the installed gateway into the web portal for authentication).

Examiner's Note

The Examiner has pointed out particular references contained in the prior art of record within the body of this action for the convenience of the Applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply. Applicant, in preparing the response, should consider fully the entire reference as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to INSUN KANG whose telephone number is (571)272-3724. The examiner can normally be reached on M-F 10 am-6 pm.

Examiner interviews are available via telephone, in-person, and video conferencing using a USPTO supplied web-based collaboration tool. To schedule an interview, applicant is encouraged to use the USPTO Automated Interview Request (AIR) at http://www.uspto.gov/interviewpractice.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chat Do can be reached on 571-272-3721. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/INSUN KANG/
Primary Examiner, Art Unit 2193

Notice of References Cited	Application/Control No. 15/903,054	Applicant(s)/Patent Under Reexamination AYERS et al.	
	Examiner INSUN KANG	Art Unit 2193	Page 1 of 2

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	CPC Classification	US Classification
*	A	US-20190109927-A1	04-2019	Andrews; Jonathan J.	H04W76/14	1/1
*	B	US-20180332453-A1	11-2018	Molinet; Michael Charles	H04L67/42	1/1
*	C	US-20180234496-A1	08-2018	Ratias; Cole Asher	H04L67/22	1/1
*	D	US-20160162451-A1	06-2016	Xu; Yongyong	G06F8/61	1/1
*	E	US-20130050093-A1	02-2013	KIM; Joo-youn	G06F9/54	345/168
*	F	US-20180188924-A1	07-2018	Kumar; Aayush	G06F3/04842	1/1
*	G	US-20190068537-A1	02-2019	Judd; Tilke	G06F9/4843	1/1
*	H	US-20160216954-A1	07-2016	JITKOFF; John Nicholas	G06F8/61	1/1
*	I	US-20170078369-A1	03-2017	McDiarmid; Trevor	G06F9/44521	1/1
*	J	US-20170052773-A1	02-2017	Deselaers; Thomas	H04L67/34	1/1
*	K	US-20120198439-A1	08-2012	Kane; Travis David	G06F8/61	717/177
*	L	US-20190012065-A1	01-2019	Lynch; Sean	G06F9/44505	1/1
*	M	US-20090064135-A1	03-2009	Jimmerson; Shane	G06F8/61	717/178

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	CPC Classification
	N					
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NON-PATENT DOCUMENTS

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Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

Notice of References Cited	Application/Control No. 15/903,054	Applicant(s)/Patent Under Reexamination AYERS et al.	
	Examiner INSUN KANG	Art Unit 2193	Page 2 of 2

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	CPC Classification	US Classification
*	A	US-20050131971-A1	06-2005	James, Sarita M.	G06F8/60	1/1
*	B	US-20100095294-A1	04-2010	Yamada; Koji	G06F8/61	717/174
*	C	US-20070234292-A1	10-2007	Kumar; Raj	G06F9/4868	717/120
*	D	US-20170070361-A1	03-2017	SUNDERMEYER; Ken	H04L12/2818	1/1
*	E	US-20150074659-A1	03-2015	Madsen; Anders Bach	G06F8/61	717/177
	F					
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FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	CPC Classification
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Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	15/903,054	AYERS et al.
	Examiner	Art Unit
	INSUN KANG	2193

CPC - Searched*		
Symbol	Date	Examiner

CPC Combination Sets - Searched*		
Symbol	Date	Examiner

US Classification - Searched*			
Class	Subclass	Date	Examiner

* See search history printout included with this form or the SEARCH NOTES box below to determine the scope of the search.

Search Notes		
Search Notes	Date	Examiner
(g06f8/$5.CPC g06f9/$6.CPC.) with text search and review; Palm inventor search; NPL search (IP.com/STIC)	06/09/2019	IK
(g06f8/$5.CPC g06f9/$6.CPC.) with text search and review;	06/10/2019	IK
(g06f8/$5.CPC g06f9/$6.CPC.) with text search and review;	06/23/2019	IK

Interference Search			
US Class/CPC Symbol	US Subclass/CPC Group	Date	Examiner

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
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	Examiner	Art Unit
	INSUN KANG	2193

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

CLAIMS

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47

CLAIM		DATE								
Final	Original	06/24/2019								
	1	✓								
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	23	✓								

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1 - 46 46 results

1.

Application installation method and apparatus

The invention claims a mounting method and device for. Said method comprises: Receiving application installation request; Triggering operating script obtaining the selected application of the installation information and the selected applied corresponding to the destination virtual environment,...

CURRENT ASSIGNEES: BOE TECH GROUP CO LTD
CN108595191A | CHINA APPLICATIONS | 28-SEP-2018

2.

Accessing software application functionality in search

A method includes transmitting a search query from a computing device to a search system configured to generate search results in response to a received search query, and receiving search results from the search system in response to transmitting the search query. The search results include an...

CURRENT ASSIGNEES: SAMSUNG ELTNC CO LTD
US9940400 | US PATENTS | 10-APR-2018

3.

Accessing Software Application Functionality In Search

A method includes transmitting a search query from a computing device to a search system configured to generate search results in response to a received search query, and receiving search results from the search system in response to transmitting the search query. The search results include an...

CURRENT ASSIGNEES: SAMSUNG ELTNC CO LTD
US20150242422 | US APPLICATIONS | 27-AUG-2015

4.

Method for configuring an application

The invention relates to a method for automatically configuring an application after downloading the same via a website. An example of an area of application of the present invention is enterprise web applications that are installed on a server in a customer network. The proposed "one-touch...

CURRENT ASSIGNEES: UNIFY GMBH & CO KG
EP2340485A1 | EPO APPLICATIONS | 06-JUL-2011

5.

Method for configuring an application

The invention relates to a method for automatically configuring an application after downloading the same via a website. An example of an area of application of the

Result #1

STIC Scientific and Technical Information Center

Search: **Discover NPL**

install application download link background select

Search

Basic Search Advanced Search Search History

Refine Results

Current Search

Find all my search terms:

install application download link background select

Expanders

Also search within the full text of the articles

Apply equivalent subjects

Limiters

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Details

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emizel, Tugba Taskaya; Eren, P. Erhan. In *Telematics a*

-1165 Language: English. DOI: 10.1016/j.tele.2017.05.0(

owned apps and their category differ with gender and pe

he probability of accepting recommended **applications**.•Number of apps owned in implies higher acceptance of recommended apps.•Conscientiousness is positively pting recommended **applications**.•Being agreeable is related with editor's choice erence. (*AN: S0736585317300497*), Database: ScienceDirect

e phone use; Mobile **application** use; User profiling; Mobile **application** ; Recommender systems

nder USPTO Full Text Options

ient access of software **application**

ectronics Co., Ltd. US Patent: 10296,641. Filed: April 14, 2015. Issued: May 21, e: USPTO Patent Grants

ques include transmitting a search query to a search system and receiving search search system. The search results include an **application** access mechanism fies a native **application** state and an **application download** address (ADA) that on for downloading the **application**. The search results also include preview data he state and/or a web access mechanism (WAM) that specifies a web-based e. The techniques further include generating a selectable **link** including the AAM,

both of the preview data and WAM, displaying the **link**, and receiving a user **ink**. The techniques also include, in response to receiving the user selection, or more of downloading, installing, and launching the native **application**, and **cation** into the state, displaying the preview data, and launching the web-based setting the **application** into the web state.
6641

t Options

and scalable QR **link** security detection devices

ao, Kun; Shen, Xinyang; Qi, Xiaotian; Liu, Rui; Choo, Kim-Kwang Raymond. In *n Computer Systems*. November 2018 88:663-674 Language: English. DOI: 2018.05.082 Abstract: Android security is an ongoing topic of interest to both the nity and industry, particularly as the mobile threat landscape evolves. A threat that olved is malicious **link** dissemination via QR codes, and such codes are widely sers in countries such as China. Thus, this paper proposes a threat-oriented QR tection framework, QRFence, based on a novel machine learning-based **link** aluation model. Specifically, QRFence comprises a QR malicious **link** detection ntegrated permission detection scheme, and provides the following properties: ation algorithms, extensive training features and various permission combinations. amework is independent of the security detection plugin, and performs threat evaluation on the QR **links** during decoding; therefore, allowing users to understand potential threats of malicious **links** on-the-fly. Findings from our evaluations indicate that the average accuracy rate of this proposed QR **link** detection framework is 93.20%. (*AN: S0167739X17324160*), Database: ScienceDirect

Subjects: QR code; Malicious **link**; Android security; Machine learning; Threat degree

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4. An app a day keeps a customer connected: Explicating loyalty to brands and branded **applications** through the lens of affordance and service-dominant logic

Academic Journal

By Fang, Yu-Hui. In *Information & Management*. April 2019 56(3):377-391 Language: English. DOI: 10.1016/j.im.2018.07.011 Abstract: Highlights •This study explores antecedents of loyalty to branded **applications** (app) and brands.•The lens of affordance and service-dominant logic are used to build the research model.•Five app affordances are identified as antecedents of value-in-use (VIU).•VIU directly influences both app continuance intention and brand loyalty.•VIU also influences loyalty through brand competence and brand warmth. (*AN: S0378720617310893*), Database: ScienceDirect

Subjects: Service-dominant logic; Brand competence; Brand warmth; Branded **applications**;

Affordance; Brand loyalty

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5. Blockchain Enabled **Applications** : Understand the Blockchain Ecosystem and How to Make It Work for You

eBook

By: Dhillon, Vikram; Metcalf, David; Hooper, Max. [New York, NY] : Apress. 2017. eBook. Description: Work with blockchain and understand its potential **application** beyond cryptocurrencies in the domains of healthcare, Internet of Things, finance, decentralized organizations, and open science. Featuring case studies and practical insights generated from a start-up spun off from the author's own lab, this book covers a unique mix of topics not found in others and offers insight into how to overcome real hurdles that arise as the market and consumers grow accustomed to blockchain based start-ups. You'll ... (*AN 1641968*), Database: eBook Collection (EBSCOhost)

Subjects: COMPUTERS / Programming / Open Source; COMPUTERS / Human-Computer Interaction (HCI); Blockchains (Databases)

PDF Full Text USPTO Full Text Options Download

Table of Contents Most Relevant Pages From This eBook

6. Taming the IoT data deluge: An innovative information-centric service model for fog computing **applications**

Academic Journal

By Tortonesi, Mauro; Govoni, Marco; Morelli, Alessandro; Riberto, Giulio; Stefanelli, Cesare; Suri, Niranjan. In *Future Generation Computer Systems*. April 2019 93:888-902 Language: English. DOI: 10.1016/j.future.2018.06.009 Abstract: Fog Computing is a new computation paradigm, recently emerged from the convergence of IoT, WSN, mobile computing, edge computing, and Cloud Computing, which is particularly well suited for Smart City environments. Fog Computing aims at supporting the development of time-sensitive, location-, social-, and context-aware **applications** by using computational resources in close proximity of information producers and consumers, such as increasingly common cheap and powerful modern hardware platforms. However, realizing Fog Computing solutions for Smart Cities represents a very challenging task, because of the massive amount of data to process, the strict resource and time constraints, and the significant dynamicity and heterogeneity of computation and network resources. These formidable challenges suggest taking into consideration new information and service model solutions that explore several trade-offs between processing speed and accuracy. Along these guidelines, we designed the SPF Fog-as-a-Service platform, which proposes a new information-centric and utility-based service model and allows the definition of self-adaptive and composition-friendly services, which can execute either on edge devices or in the Cloud. In numerous evaluations, SPF proved to be a very effective platform for running Fog services on heterogeneous devices with significantly different computational capabilities while also demonstrating remarkable ease of development and management characteristics. (*AN: S0167739X17306702*), Database: ScienceDirect

Subjects: Fog computing; Smart cities; Information-centric networking; Internet-of-Things; Value of information

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7. An SDN-based framework for improving the performance of underprovisioned IP Video Surveillance networks

Academic Journal

By Go, Sharleen Joy Y.; Festin, Cedric Angelo M.; Tan, Wilson M.. In *Journal of Network and Computer Applications*. 15 April 2019 132:49-74 Language: English. DOI: 10.1016/j.jnca.2019.01.026 Abstract: In the coming years, the dominance of video in global Internet traffic is expected to intensify due to the ongoing migration from analog CCTV to IP-based surveillance systems. As opposed to analog, IP cameras can be integrated into pre-existing computer networks and thus, are more cost-effective. However, since video is bandwidth-intensive, contention among the streams from multiple IP cameras and traffic from other **applications** results to a severely degraded network performance. Software-Defined Networking (SDN) is a relatively new paradigm which aims to build dynamically configurable networks. The decoupling of forwarding and control functions in SDN architecture enables a centralized controller to create a map of the network topology by utilizing the information collected from the switches. This paper proposes an SDN-based framework to enhance the performance of IP Video Surveillance (IPVS) systems deployed over underprovisioned networks. As a means of allowing the controller to infer a stream's QoS metrics and to execute bitrate adjustment or rerouting as necessary, two video quality indicators were also formulated by utilizing the statistics messages available in OpenFlow, a widely recognized protocol in SDN. Moreover, our design is built on the idea that the video streams in surveillance systems offer different utilities depending on the captured event. Experimental results show that employing the proposed framework improved the video streams' overall packet loss, latency, jitter and throughput by 88%, 36%, 11% and 5% respectively. The comparison of the video streams' QoS metrics also suggests that the framework is capable of prioritizing the reception of selected streams. Furthermore, we also demonstrate that the proposed framework can be easily extended to handle the case of an IPVS system wherein the streams are subjected to dynamic priority assignment. (*AN: S1084804519300402*), Database: ScienceDirect

Subjects: SDN; IPVS; QoS; Video surveillance; Video streaming

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8. Mobi-SAGE-RS: A sparse additive generative model-based mobile **application** recommender system

Academic Journal

By Yin, Hongzhi; Wang, Weiqing; Chen, Liang; Du, Xingzhong; Hung Nguyen, Quoc Viet; Huang, Zi. In *Knowledge-Based Systems*. 1 October 2018 157:68-80 Language: English. DOI: 10.1016/j.knosys.2018.05.028 Abstract: With the rapid prevalence of smart mobile devices and the dramatic proliferation of mobile **applications** (Apps), App recommendation becomes an emergent task that will benefit different stockholders of mobile App ecosystems. However, the extreme

sparsity of user-App matrix and many newly emerging Apps create severe challenges, causing CF-based methods to degrade significantly in their recommendation performance. Besides, unlike traditional items, Apps have rights to access users' personal resources (e.g., location, message and contact) which may lead to security risk or privacy leak. Thus, users' choosing of Apps are influenced by not only their personal interests but also their privacy preferences. Moreover, user privacy preferences vary with App categories. In light of the above challenges, we propose a mobile sparse additive generative model (Mobi-SAGE) to recommend Apps by considering both user interests and category-aware user privacy preferences in this paper. To overcome the challenges from data sparsity and cold start, Mobi-SAGE exploits both textual and visual content associated with Apps to learn multi-view topics for user interest modeling. We collected a large-scale and real-world dataset from 360 App store - the biggest Android App platform in China, and conducted extensive experiments on it. The experimental results demonstrate that our Mobi-SAGE consistently and significantly outperforms the other existing state-of-the-art methods, which implies the importance of exploiting category-aware user privacy preferences and the multi-modal App content data on personalized App recommendation. (*AN: S0950705118302491*), Database: ScienceDirect

Subjects: Recommender system; Mobile **applications**; User modeling; Privacy; Sparse additive generative model; Cold start

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9. AppScalpel: Combining static analysis and outlier detection to identify and prune undesirable usage of sensitive data in Android **applications**

Academic Journal

By Meng, Zhaoyi; Xiong, Yan; Huang, Wenchao; Qin, Lei; Jin, Xin; Yan, Hongbing. In *Neurocomputing.* January 2018 Language: English. DOI: 10.1016/j.neucom.2019.01.105 Abstract: Today's Android users face a security dilemma: they want to grant permissions to apps for enjoying more abundant functionalities, but also worry that the apps may abuse these permissions to leak their private information without their grants. To optimize users' benefits, we implement a novel privacy-preserving system named AppScalpel to prune undesirable usage of sensitive data in Android **applications**, on the top of static analysis and outlier detection results. We use static analysis to extract sufficient contextual features of data usage behaviors within **applications**. To precisely identify undesirable usage of sensitive data, we leverage outlier detection, which solves the problem of lacking labeled behavioral samples. To enforce the privacy-preserving rules within apps, AppScalpel instruments rule enforcers on each undesirable data-flow path respectively by the code instrumentation technique. We aim to block undesirable usage of sensitive data without affecting other user-desired functionalities. Our evaluation demonstrates that AppScalpel precisely identifies undesirable usage of sensitive data and effectively protects users' private information in a fine-grained mode, and the robustness of the instrumented apps is also achieved. Moreover, for the instrumented apps, AppScalpel introduces little space and runtime overhead. (*AN: S0925231219302577*), Database: ScienceDirect

Subjects: Android privacy; Static analysis; Outlier detection; Code instrumentation; Rule enforcement

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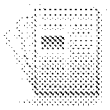
10. **Application** deployment using Microservice and Docker containers: Framework and optimization


Academic Journal

By Wan, Xili; Guan, Xinjie; Wang, Tianjing; Bai, Guangwei; Choi, Baek-Yong. In *Journal of Network and Computer Applications*. 1 October 2018 119:97-109 Language: English. DOI: 10.1016/j.jnca.2018.07.003 Abstract: To improve the scalability and elasticity of **application** deployment and operation in cloud computing environments, new architectures and techniques are developed and studied, e.g., microservice architecture, and Docker container. Especially, Docker container enables the sharing on operation system and supporting libraries, which is more lightweight, prompt and scalable than Hypervisor based virtualization. These features make it ideally suit for **applications** deployed in microservice architecture. However, existing models and schemes, which are mostly designed for Hypervisor based virtualization techniques, fall short to be efficiently used for Docker container based **application** deployment. To take the benefits of microservice architecture and Docker containers, we explore the optimization of **application** deployment in cloud data centers using microservice and Docker containers. Our goal is to minimize the **application** deployment cost as well as the operation cost while preserving service delay requirements for **applications**.In this paper, we first formulate the **application** deployment problem by examining the features of Docker, the requirements of microservice-based **applications**, and available resources in cloud data centers. We further propose a communication efficient framework and a suboptimal algorithm to determine the container placement and task assignment. The proposed algorithm works in a distributed and incremental manner, which makes it scalable to massive physical resources and diverse **applications** under the framework. We validate the efficiency of our solution through comparisons with three existing strategies in Docker Swarm using real traces from Google Cluster. The evaluation results show that the proposed framework and algorithm provide more flexibility and save more cost than existing strategies. (*AN: S1084804518302273*), Database: ScienceDirect

Subjects: Application deployment; Microservice architecture; Docker container

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11. Accessing software **application** functionality in search


Patent

By: Samsung Electronics Co., Ltd. US Patent: 9,940,400. Filed: December 31, 2014. Issued: April 10, 2018. , Database: USPTO Patent Grants

Abstract: A method includes transmitting a search query from a computing device to a search system configured to generate search results in response to a received search query, and receiving search results from the search system in response to transmitting the search query. The search results include an **application** access mechanism that references a native **application** and indicates one or more operations for the **application** to perform. The **application** performing the operations sets the **application** into an **application** state. The search results also include an

application download address that indicates a location for downloading the **application**. The method also includes generating a user selectable **link** that includes the **application** access mechanism and the **application download** address, and displaying the user **link**. In response to receiving a user selection of the selectable **link**, the method also includes downloading, installing, launching, and causing the native **application** to perform the one or more operations.
AN: edspgr.09940400

USPTO Full Text Options

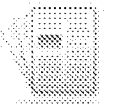
12. POST-**INSTALL APPLICATION** INTERACTION


Patent

Patent **Application**: 15/642994. Filed: July 06, 2017. Published: January 18, 2018. , Database: USPTO Patent Applications
Abstract: Methods, systems, and apparatus include computer programs encoded on a computer-readable storage medium, including a method for providing content. Data specifying a post-**install** activity is received from a provider of an **application**. An opportunity is identified to provide third-party content to a user. A likelihood is determined that the user will perform the specified post-**install** activity based on one or more attributes of the user and attributes of users that have previously performed the specified post-**install** activity in the **application**. A selection value is adjusted for third-party content that identifies the **application** based on the determined likelihood, wherein the selection value increases as the likelihood increases. The third-party content identifying the **application** is selected based on the adjusted selection value. The third-party content identifying the **application** is distributed to a client device of the user.
AN: edspap.20180018155

USPTO Full Text Options

13. 5G-enabled devices and smart-spaces in social-IoT: An overview

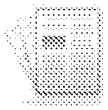

Academic Journal

By Al-Turjman, Fadi. In *Future Generation Computer Systems*. March 2019 92:732-744 Language: English. DOI: 10.1016/j.future.2017.11.035 Abstract: The abundance of smartphones, with their growing capabilities potentiates **applications** in numerous domains. A typical smartphone nowadays is equipped with an array of embedded sensors (e.g., GPS, accelerometers, gyroscopes, RFID readers, cameras, and microphones) along with different communication interfaces (e.g. Cellular, WiFi, Bluetooth, etc.). Thus, a smartphone is a significant provider for sensory data that awaits the utilization in many critical **applications**. Primers of this vision have demonstrated success, both in the literature and **application**'s market. In this literature review, we present the main motivations in carrying these smart devices, and the correlation between the user surrounding context and the **application** usage. We focus on context-awareness in smart systems and space discovery paradigms; online versus offline, the femtocell usage and energy aspects to be considered, and about the ongoing social IoT **applications**. Moreover, we highlight the most up-to-date open research issues in this area. (*AN: S0167739X17311962*), Database: ScienceDirect

Subjects: Internet of Things (IoT); Smart environments; Sensors; 5G; Smartphones

Full Text Finder USPTO Full Text Options

14. Risk analysis of Android **applications**: A user-centric solution

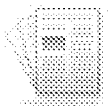


By Dini, Gianluca; Martinelli, Fabio; Matteucci, Ilaria; Petrocchi, Marinella; Saracino, Andrea; Sgandurra, Daniele. In *Future Generation Computer Systems.* March 2018 80:505-518 Language: English. DOI: 10.1016/j.future.2016.05.035 Abstract: Android **applications** (apps) pose many risks to their users, e.g., by including code that may threaten user privacy or system integrity. Most of the current security countermeasures for detecting dangerous apps show some weaknesses, mainly related to users' understanding and acceptance. Hence, users would benefit from an effective but simple technique that indicates whether an app is safe or risky to be installed. In this paper, we present MAETROID (Multi-criteria App Evaluator of TRust for AndrOID), a framework to evaluate the trustworthiness of Android apps, i.e., the amount of risk they pose to users, e.g., in terms of confidentiality and integrity. MAETROID performs a multi-criteria analysis of an app at deploy-time and returns a single easy-to-understand evaluation of the app's risk level (i.e., Trusted, Medium Risk, and High Risk), aimed at driving the user decision on whether or not installing a new app. The criteria include the set of requested permissions and a set of metadata retrieved from the marketplace, denoting the app quality and popularity. We have tested MAETROID on a set of 11,000 apps both coming from Google Play and from a database of known malicious apps. The results show a good accuracy in both identifying the malicious apps and in terms of false positive rate. (*AN: S0167739X16301534*), Database: ScienceDirect

Subjects: Android security; User experience and expectations; Malware; Usability; Risk analysis; User-centric devices

Full Text Finder USPTO Full Text Options

15. Agent-based simulation of unmanned aerial vehicles in civilian **applications**: A systematic literature review and research directions



By Mualla, Yazan; Najjar, Amro; Daoud, Alaa; Galland, Stéphane; Nicolle, Christophe; Yasar, Ansar-Ul-Haque; Shakshuki, Elhadi. In *Future Generation Computer Systems.* November 2019 100:344-364 Language: English. DOI: 10.1016/j.future.2019.04.051 Abstract: Recently, the civilian **applications** of Unmanned Aerial Vehicles (UAVs) are gaining more interest in several domains. Due to operational costs, safety concerns, and legal regulations, Agent-Based Simulation (ABS) is commonly used to design models and conduct tests. This has resulted in numerous research works addressing ABS in civilian UAV **applications**. This paper aims to provide a comprehensive overview of the ABS contribution in civilian UAV **applications** by conducting a Systematic Literature Review (SLR) on the relevant research in the previous ten years. Following the SLR methodology, this objective is broken down into several research questions aiming to (i) understand the evolution of ABS use in civilian UAV **applications** and identify the related hot research topics, (ii) identify the underlying artificial intelligence systems used in the literature, (iii) understand how and when ABS is integrated in broader and more complex internet of things & ubiquitous computing environments, and (iv) identity the communication technologies, tools, and evaluation techniques used to design, implement, and test the proposed ABS models. From the

SLR results, key research directions are highlighted including problems related to autonomy, explainability, security, flight duration, integration within smart cities, regulations, and validation & verification of the UAV behavior. (*AN: S0167739X18328462*), Database: ScienceDirect

Subjects: Multi-agent systems; Agent-based simulation; Unmanned aerial vehicle; Systematic literature review; Civilian **applications**

Full Text Finder USPTO Full Text Options

16. TRANSITIONING FROM A DIGITAL GRAPHICAL **APPLICATION** TO AN **APPLICATION INSTALL**

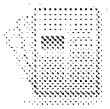

Patent

Patent **Application**: 15/632270. Filed: June 23, 2017. Published: October 19, 2017. , Database: USPTO Patent Applications

Abstract: A method and apparatus for transitioning from a digital graphical environment to an **application download** environment is provided. In an embodiment, a digital graphical **application** executes on a client computing device. A request is received to **download** additional content at a future time. The client computing device makes a determination that the digital graphical **application** has been terminated. In response to determining that the **application** has been terminated, the client computing device displays a notification for downloading additional content. Upon receiving a selection of the notification, the client computing device sends a request to a marketplace **application** to cause the client computing device to **download** the additional content. *AN: edspap.20170301142*

USPTO Full Text Options

17. Conceptual framework for the security of mobile health **applications** on Android platform


Academic Journal

By Hussain, Muzammil; Zaidan, A.A.; Zidan, B.B.; Iqbal, S.; Ahmed, M.M.; Albahri, O.S.; Albahri, A.S.. In *Telematics and Informatics*. August 2018 35(5):1335-1354 Language: English. DOI: 10.1016/j.tele.2018.03.005 Abstract: Highlights •Deliberated the acceptance of mHealth apps among users and the efficacy of mHealth apps in the healthcare system.•Discussed the intended protection mainly through a set of security checks and policies in mHealth apps.•Conceptual framework for the security of Mobile Health **Applications** on Android Platform are presented. (*AN: S0736585317308225*), Database: ScienceDirect

Full Text Finder USPTO Full Text Options

18. TRANSITIONING FROM A VIRTUAL REALITY **APPLICATION** TO AN **APPLICATION INSTALL**

Patent **Application**: 15/066858. Filed: March 10, 2016. Published: September 14, 2017. , Database: USPTO Patent Applications

Patent

Abstract: A method and apparatus for transitioning from a virtual reality environment to an **application download** environment is provided. In an embodiment, a digital graphical virtual reality **application** executes on a client computing device. A request is received to **download** additional content at a future time. The client computing device makes a determination that the digital graphical virtual reality **application** has been terminated. In response to determining that the **application** has been terminated, the client computing device displays a notification for downloading additional content. Upon receiving a selection of the notification, the client computing device sends a request to a marketplace **application** to cause the client computing device to **download** the additional content.

AN: edspap.20170263053

USPTO Full Text Options

19. Cloud restriction solver: A refactoring-based approach to migrate **applications** to the cloud

Academic Journal

By Borges, Marcos; Barros, Erick; Maia, Paulo Henrique. In *Information and Software Technology*. March 2018 95:346-365 Language: English. DOI: 10.1016/j.infsof.2017.11.014 Abstract: Context The migration of legacy systems to the Platform as a Service (PaaS) model provides several benefits, but also brings new challenges, such as dealing with the restrictions imposed by the service provider. Furthermore, factors such as time, training and the extensive reengineering activities make the migration process time consuming and error prone. Although there exist several techniques for partial or total migration of legacy **applications** to the cloud, only a few specifically address the resolution of these constraints. (*AN: S0950584917301799*), Database: ScienceDirect

Subjects: Software evolution; Cloud migration; Refactoring

Full Text Finder USPTO Full Text Options

20. Method, non-transitory computer-readable medium, and software providing system to distribute and **install application** program **downloads** to user terminal in distributed environment

Patent

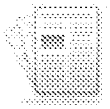
By: Brother Kogyo Kabushiki Kaisha. US Patent: 9,678,733. Filed: August 03, 2015. Issued: June 13, 2017. , Database: USPTO Patent Grants

Abstract: Web content, an initial installer, and a common installer set (a set of a common installer execution file, a common installer settings file, and a common installer character string file) are stored in a software providing system. The Web content causes a display of a user terminal to display a Web page which receives operations on a user terminal side in order to **download** the initial installer to the user terminal. As a result of an operation on the Web page, the initial installer is downloaded from the software providing system to the user terminal, and operates on the user terminal. The initial installer **downloads** the common installer set from the software providing system to the user terminal. The common installer set **downloads** and **installs** a plurality of **application** programs on the user terminal, from the software providing system.

AN: edspgr.09678733

USPTO Full Text Options

21. Internet of Things (IoT), mobile cloud, cloudlet, mobile IoT, IoT cloud, fog, mobile edge, and edge emerging computing paradigms: Disambiguation and research directions

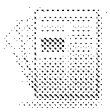


By Elazhary, Hanan. In *Journal of Network and Computer Applications*. 15 February 2019 128:105-140 Language: English. DOI: 10.1016/j.jnca.2018.10.021 Abstract: Currently, we are experiencing a technological shift, which is expected to change the way we program and interact with the world. Cloud computing and mobile computing are two prominent research areas that have already had such an impact. The Internet of Things (IoT), which is concerned with building a network of Internet-enabled devices to promote a smart environment, is another promising area of research. Numerous emerging computing paradigms related to those areas of research and/or their intersections have come into play. These include Mobile Cloud Computing (MCC), cloudlet computing, mobile clouds, mobile IoT computing, IoT cloud computing, fog computing, Mobile Edge Computing (MEC), edge computing, the Web of Things (WoT), the Semantic WoT (SWoT), the Wisdom WoT (W2T), opportunistic sensing, participatory sensing, mobile crowdsensing, and mobile crowdsourcing. Unfortunately, those paradigms suffer from the lack of standard definitions, and so we frequently encounter a single term referring to various paradigms or several terms referring to a single paradigm. Accordingly, this paper attempts to disambiguate those paradigms and explain how and where they fit in the above three areas of research and/or their intersections before it becomes a serious problem. They are tracked back to their inception as much as possible. This is in addition to discussing research directions in each area. The paper also introduces technologies related to the IoT such as ubiquitous and pervasive computing, the Internet of Nano Things (IoNT), and the Internet of Underwater Things (IoUT). (*AN: S1084804518303497*), Database: ScienceDirect

Subjects: Cloudlet computing; Crowdsensing; Crowdsourcing; Edge computing; Fog computing; Internet of things; Mobile cloud; Mobile cloud computing; Mobile edge computing; Opportunistic sensing; Participatory sensing; Semantic web of things; Web of things; Wisdom web of things

Full Text Finder USPTO Full Text Options

22. LiquidLib: A comprehensive toolbox for analyzing classical and ab initio molecular dynamics simulations of liquids and liquid-like matter with **applications** to neutron scattering experiments



By Walter, Nathan P.; Jaiswal, Abhishek; Cai, Zhikun; Zhang, Yang. In *Computer Physics Communications*. July 2018 228:209-218 Language: English. DOI: 10.1016/j.cpc.2018.03.005 Abstract: Neutron scattering is a powerful experimental technique for characterizing the structure and dynamics of materials on the atomic or molecular scale. However, the interpretation of experimental data from neutron scattering is oftentimes not trivial, partly because scattering methods probe ensemble-averaged information in the reciprocal space. Therefore, computer

simulations, such as classical and ab initio molecular dynamics, are frequently used to unravel the time-dependent atomistic configurations that can reproduce the scattering patterns and thus assist in the understanding of the microscopic origin of certain properties of materials. LiquidLib is a post-processing package for analyzing the trajectory of atomistic simulations of liquids and liquid-like matter with **application** to neutron scattering experiments. From an atomistic simulation, LiquidLib provides the computation of various statistical quantities including the pair distribution function, the weighted and unweighted structure factors, the mean squared displacement, the non-Gaussian parameter, the four-point correlation function, the velocity auto correlation function, the self and collective van Hove correlation functions, the self and collective intermediate scattering functions, and the bond orientational order parameter. LiquidLib analyzes atomistic trajectories generated from packages such as LAMMPS, GROMACS, and VASP. It also offers an extendable platform to conveniently integrate new quantities into the library and integrate simulation trajectories of other file formats for analysis. Weighting the quantities by element-specific neutron-scattering lengths provides results directly comparable to neutron scattering measurements. Lastly, LiquidLib is independent of dimensionality, which allows analysis of trajectories in two, three, and higher dimensions. The code is beginning to find worldwide use. (*AN: S0010465518300778*), Database: ScienceDirect

Subjects: Molecular dynamics; Neutron scattering; Correlation function; LAMMPS; GROMACS; VASP

Full Text Finder USPTO Full Text Options

23. Development of a participatory Green Infrastructure design, visualization and evaluation system in a cloud supported jupyter notebook computing environment

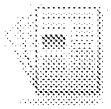
Academic Journal

By Leonard, Lorne; Miles, Brian; Heidari, Bardia; Lin, Laurence; Castronova, Anthony M.; Minsker, Barbara; Lee, Jong; Scaife, Charles; Band, Lawrence E.. In *Environmental Modelling and Software.* January 2019 111:121-133 Language: English. DOI: 10.1016/j.envsoft.2018.10.003 Abstract: Land use planners, landscape architects, and water resource managers are using Green Infrastructure (GI) designs in urban environments to promote ecosystem services including mitigation of storm water flooding and water quality degradation. An expanded set of urban sustainability goals also includes increasing carbon sequestration, songbird habitat, reducing urban heat island effects, and improvement of landscape aesthetics. GI is conceptualized to improve water and ecosystem quality by reducing storm water runoff at the source, but when properly designed, may also benefit these expanded goals. With the increasing use of GI in urban contexts, there is an emerging need to facilitate participatory design and scenario evaluation to enable better communication between GI designers and groups impacted by these designs. Major barriers to this type of public participation is the complexity of both parameterizing, operating, visualizing and interpreting results of complex ecohydrological models at various watershed scales that are sufficient to address diverse ecosystem service goals. This paper demonstrates a set of workflows to facilitate rapid and repeatable creation of GI landscape designs which are incorporated into complex models using web **applications** and services. For this project, we use the RHESSys (Regional Hydro-Ecologic Simulation System) ecohydrologic model to evaluate participatory GI landscape designs generated

by stakeholders and decision makers, but note that the workflow could be adapted to a set of other watershed models. (*AN: S1364815217308290*), Database: ScienceDirect

Full Text Finder USPTO Full Text Options

24. Open source QGIS toolkit for the Advanced Research WRF modelling system

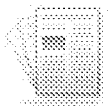


By Meyer, D.; Riechert, M.. In *Environmental Modelling and Software*. February 2019 112:166-178 Language: English. DOI: 10.1016/j.envsoft.2018.10.018 Abstract: The Advanced Research WRF (Weather Research and Forecasting) model is a popular atmospheric model used for research and Numerical Weather Prediction (NWP). However, despite its popularity, its set-up and configuration often demand several interdisciplinary skills that go beyond the understanding of physical processes. Pre-processing tasks, such as importing custom high-resolution datasets in the WRF Pre-processing System (WPS), still require a considerable effort from the user. We present GIS4WRF, a free, open-source, and cross-platform QGIS Python plug-in to help scientists and practitioners with their Advanced Research WRF modelling workflows. GIS4WRF incorporates new and existing tools for data-processing, configuration, simulation, and visualization into a single graphical environment, and offers WRF-CMake binary distributions for Windows, macOS, and Linux. We highlight its main features and provide useful insights into several key approaches and techniques used in its development. We end with two example **applications** highlighting the contributions of GIS4WRF in simplifying several WRF-related tasks. (*AN: S1364815218304523*), Database: ScienceDirect

Subjects: WRF; WPS; QGIS; Plug-in; Python; Software development

Full Text Finder USPTO Full Text Options

25. Scaling-up assessment from a contextual behavioral science perspective: Potential uses of technology for analysis of unstructured text data



By Berkout, Olga V.; Cathey, Angela J.; Kellum, Karen Kate. In *Journal of Contextual Behavioral Science*. April 2019 12:216-224 Language: English. DOI: 10.1016/j.jcbs.2018.06.007 Abstract: With technological advancement, we have increased access to unstructured text data and the means to analyze it. Such information is available from electronic health records, blogs, social media posts, and other sources and is being used in business **applications** and social science research. These approaches can open up new areas for analysis, summarize massive amounts of information, and provide rapid feedback. Contextual behavioral science research in this area remains extremely limited. This manuscript provides an overview of techniques suitable for beginners interested in such analyses, potential **applications**, and resources for learning more. (*AN: S2212144718301947*), Database: ScienceDirect

Subjects: Technology; Contextual behavioral science; Assessment; Natural language processing

Full Text Finder USPTO Full Text Options

26. Mobile phishing attacks and defence mechanisms: State of art and open research challenges

Academic Journal

By Goel, Diksha; Jain, Ankit Kumar. In *Computers & Security.* March 2018 73:519-544 Language: English. DOI: 10.1016/j.cose.2017.12.006 Abstract: Phishing is an online identity theft in which an attacker tries to steal user's personal information, resulting in financial loss of individuals as well as organisations. Nowadays, mobile devices especially smartphones are increasingly being used by the users due to a wide range of functionalities they provide. These devices are very compact and provide functionalities similar to those of desktop computers due to which attackers are now targeting the mobile device users. However, detection of mobile phishing attack is a different problem from desktop phishing due to the dissimilar architectures of both. Moreover, identification of mobile phishing attack with high accuracy is an important research issue as not much amount of work has been done in this field. Many anti-phishing solutions for mobile devices have been proposed till date but still there is a lack of a full fledge solution. The primary objective of this paper is to do a detailed analysis on mobile phishing -- attacking techniques and defence mechanisms. We present this paper in four folds. First, we discuss in detail about mobile phishing attack, its history, motivation of attackers, and security concerns of smartphones. Second, we analyse various mobile phishing attacks and provide a taxonomy of the same. Third, we provide taxonomy of numerous recently proposed solutions that detect and defend users from mobile phishing attacks. Fourth, we discuss different issues and challenges faced by researchers while dealing with mobile phishing attacks. In addition, we have also discussed datasets and evaluation matrices used by researchers for evaluating their approaches. (*AN: S0167404817302717*), Database: ScienceDirect

Subjects: Mobile phishing; Smartphones; Cyber security; Social engineering; Mobile malware; Machine learning

Full Text Finder USPTO Full Text Options

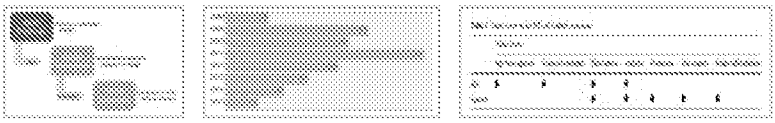
27. Linking Platforms, Practices, and Developer Ethics: Levers for Privacy Discourse in Mobile **Application** Development.

Academic Journal

By: Shilton, Katie; Greene, Daniel. *Journal of Business Ethics.* Mar2019, Vol. 155 Issue 1, p131-146. 16p. 1 Diagram, 1 Chart, 1 Graph. Abstract: Privacy is a critical challenge for corporate social responsibility in the mobile device ecosystem. Mobile **application** firms can collect granular and largely unregulated data about their consumers, and must make ethical decisions about how and whether to collect, store, and share these data. This paper conducts a discourse analysis of mobile **application** developer forums to discover when and how privacy conversations, as a representative of larger ethical debates, arise during development. It finds that online forums can be useful spaces for ethical deliberations, as developers use these spaces to define, discuss, and justify their values. It also discovers that ethical discussions in mobile development are prompted by work practices which vary considerably between iOS and Android, today's two major mobile

platforms. For educators, regulators, and managers interested in encouraging more ethical discussion and deliberation in mobile development, these work practices provide a valuable point of entry. But while the triggers for privacy conversations are quite different between platforms, ultimately the justifications for privacy are similar. Developers for both platforms use moral and cautionary tales, moral evaluation, and instrumental and technical rationalization to justify and legitimize privacy as a value in mobile development. Understanding these three forms of justification for privacy is useful to educators, regulators, and managers who wish to promote ethical practices in mobile development. [ABSTRACT FROM AUTHOR] DOI: 10.1007/s10551-017-3504-8. (*AN: 134918478*), Database: Business Source Complete

Subjects: Mobile app development; Social responsibility of business; Professional ethics; Computer privacy; Discourse analysis



HTML Full Text PDF Full Text (503KB) USPTO Full Text Options

28. A heterogeneous mobile cloud computing model for hybrid clouds

Academic Journal

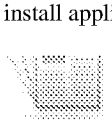
By Alonso-Monsalve, Saúl; García-Carballeira, Félix; Calderón, Alejandro. In *Future Generation Computer Systems*. October 2018 87:651-666 Language: English. DOI: 10.1016/j.future.2018.04.005 Abstract: Mobile cloud computing is a paradigm that delivers **applications** to mobile devices by using cloud computing. In this way, mobile cloud computing allows for a rich user experience; since client **applications** run remotely in the cloud infrastructure, **applications** use fewer resources in the user's mobile devices. In this paper, we present a new mobile cloud computing model, in which platforms of volunteer devices provide part of the resources of the cloud, inspired by both volunteer computing and mobile edge computing paradigms. These platforms may be hierarchical, based on the capabilities of the volunteer devices and the requirements of the services provided by the clouds. We also describe the orchestration between the volunteer platform and the public, private or hybrid clouds. As we show, this new model can be an inexpensive solution to different **application** scenarios, highlighting its benefits in cost savings, elasticity, scalability, load balancing, and efficiency. Moreover, with the evaluation performed we also show that our proposed model is a feasible solution for cloud services that have a large number of mobile users. (*AN: S0167739X17313894*), Database: ScienceDirect

Subjects: Fog computing; Heterogeneous cloud; Hybrid cloud; Mobile cloud computing; Mobile edge computing; Participating device

Full Text Finder USPTO Full Text Options

29. RECOLA2: REcursive Computation of One-Loop Amplitudes 2

By Denner, Ansgar; Lang, Jean-Nicolas; Uccirati, Sandro. In *Computer Physics Communications*.

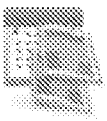

Academic Journal

March 2018 224:346-361 Language: English. DOI: 10.1016/j.cpc.2017.11.013 Abstract: We present the Fortran95 program Recola2 for the perturbative computation of next-to-leading-order transition amplitudes in the Standard Model of particle physics and extended Higgs sectors. New theories are implemented via model files in the 't Hooft–Feynman gauge in the conventional formulation of quantum field theory and in the **Background**-Field method. The present version includes model files for Two-Higgs-Doublet Model and the Higgs-Singlet Extension of the Standard Model. We support standard renormalization schemes for the Standard Model as well as many commonly used renormalization schemes in extended Higgs sectors. Within these models the computation of next-to-leading-order polarized amplitudes and squared amplitudes, optionally summed over spin and colour, is fully automated for any process. Recola2 allows the computation of colour- and spin-correlated leading-order squared amplitudes that are needed in the dipole subtraction formalism. Recola2 is publicly available for **download** at http://recola.hepforge.org. (*AN: S001046551730396X*), Database: ScienceDirect

Subjects: NLO computations; One-loop amplitudes; Beyond Standard Model; Higher orders; Theories beyond the Standard Model

Full Text Finder USPTO Full Text Options

30. **Download** The Web's BEST-KEPT SECRETS.


Periodical

By: Stapley, Will. *Computer Active* , 2/13/2019, Issue 547, p50-57, 7p, 16 Color Photographs. Publisher: Dennis Publishing Ltd.. (*AN 134593216*), Database: Complementary Index

Subjects: Other Sound Recording Industries; Other printing; Toy and hobby goods merchant wholesalers; Doll, Toy, and Game Manufacturing; All other miscellaneous chemical product manufacturing; Plastic film and sheet manufacturing; Photographic equipment and supplies merchant wholesalers; Camera and photographic supplies stores; Photographic Equipment and Supplies Merchant Wholesalers; Photographic Film, Paper, Plate, and Chemical Manufacturing; All Other Publishers; Other publishers; Outdoor Advertising; Print and picture frame stores; COMPOSITE **applications** (Computer science); BOARD games; AUDIOBOOKS; PHOTOGRAPHIC film; POSTERS

Full Text Finder USPTO Full Text Options

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S1002	38	("20190109927" | "20180332453" | "20180234496" | "20160162451" | "20130050093" | "20180188924" | "20190068537" | "20160216954" | "20170078369" | "20170052773" | "20120198439" | "20190012065" | "20090064135" | "20050131971" | "20100095294" | "20070234292").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/23 19:57
S992	21	(g06f8/$5.CPC g06f9/$6.CPC.) and (download$4 install$5) with (set$1up (set near1 up) client launcher agent program manager installer) with (integrat$4 with security)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/23 19:13
S986	29	(g06f8/$5.CPC g06f9/$6.CPC.) and ((download$4 install$5) with (updat$4 patch$4 revision revised software application app program firmware driver)) with (without "not") with (access$4 redirect$4 direct$4 instant$4 hyper$1link link url deep$1link) with (((application app play apple) near1 (source store)) play$1store app$1store)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/23 18:56
S984	29	(g06f8/$5.CPC g06f9/$6.CPC.) and ((download$4 install$5) with (updat$4 patch$4 revision revised software application app program firmware driver)) with (without "not") with (access$4 redirect$4 direct$4 instant$4 hyper$1link link url deep$1link) with (((application app play apple) near1 (source store)) play$1store app$1store)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/23 18:35
S979	72	(g06f8/$5.CPC g06f9/$6.CPC.) and (download$4 install$5) with (set$1up (set near1 up) client launcher agent program manager installer) with (silent background) and (hyper$1link link url deep$1link) with ((download$4 install$5)) with (invok$4 select$4 chosen choos$4 click$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/23 17:42
S975	167	(g06f8/$5.CPC g06f9/$6.CPC.) and ((download$4 install$5) with (updat$4 patch$4 revision revised software application app program firmware driver) client launcher agent program manager installer) with (silent background) and (hyper$1link link url deep$1link) with ((download$4 install$5)) with (select$4 chosen choos$4 click$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/23 14:22
S937	56	(g06f8/$5.CPC g06f9/$6.CPC.) and	US-PGPUB;	OR	ON	2019/06/09

		((download$4 install$5) with (updat$4 patch$4 revision revised software application app program firmware driver)) with (mobile) with (without redirect$4 direct$4 instant$4) with (((application app play) near1 store) play$1store app$1store)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			17:39
S931	63	(g06f8/$5.CPC g06f9/$6.CPC.) and ((download$4 install$5) with (updat$4 patch$4 revision revised software application app program firmware driver)) with (mobile) same (without redirect$4 ((application app play) near1 store) play$1store app$1store) and (client agent program manager install$5) with background with (run$4 execut$4 invok$4) and (hyper$1link link url) with (select$4 determin$5 chosen choos$4 click$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/09 17:02
S927	41	(g06f8/$5.CPC g06f9/$6.CPC.) and ((download$4 install$5) with (updat$4 patch$4 revision revised software application app program firmware driver)) with (mobile) same (without redirect$4 (app near1 store)) and (client agent program manager install$5) with background with (run$4 execut$4 invok$4) and (hyper$1link link url) with (select$4 determin$5 chosen choos$4 click$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/09 16:52
S925	137	("8261258" "20150193215" "9274774" "20060212548" "7596610" "10180831" "20140196026" "8984388" "20120272232" "9032395" "20180227175" "20120072871" "20150012587" "20110179411" "9940400" "8910150" "9967138" "20150242422" "20030097400" "7028295" "10067752" "20160328225" "6282711" "20160188130" "10162620" "10296641" "20140351041" "9678733" "20140123131" "20160179956" "20130019233" "20130019234" "9110753" "9319406" "20190124083" "20150355893" "10158635" "9411572" "20170075670" "8621457" "9886256" "20110113423" "20150296072" "20090064135" "20070094658" "20120254859" "10031737" "8745153" "9294606" "8225312" "8938735" "20100205274" "20090320017").pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/09 14:27
S924	111	(g06f8/$5.CPC g06f9/$6.CPC.) and ((download$4 install$5) with (updat$4 patch$4 revision revised software application app program firmware driver)) with (mobile) and (client agent program manager install$5) with background with (run$4 execut$4 invok$4) and (hyper$1link link url) with (select$4 determin$5 chosen choos$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/09 14:22
S923	613	(g06f8/$5.CPC g06f9/$6.CPC.) and ((download$4 install$5) with (updat$4	US-PGPUB; USPAT;	OR	ON	2019/06/09 14:22

		patch$4 revision revised software application app program firmware driver)) with (mobile) and (client agent program manager install$5) with (instant$4 seamless$4 distrupt$4 interrupt$4 continu$4 continuous$3 background) with (run$4 execut$4 invok$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			
S922	295	(g06f8/$5.CPC g06f9/$6.CPC.) and ((download$4 install$5) with (updat$4 patch$4 revision revised software application app program firmware driver)) with (mobile) and (client agent program manager install$5) with background with (run$4 execut$4 invok$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/09 14:11
S920	343	(g06f8/$5.CPC g06f9/$6.CPC.) and ((download$4 install$5) with (updat$4 patch$4 revision revised software application app program firmware driver)) with background with (run$4 execut$4 invok$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/08 18:22
S918	61	(g06f8/$5.CPC g06f9/$6.CPC.) and ((download$4 install$5) with (updat$4 patch$4 revision revised software application app program firmware driver)).ab. and (client agent program manager) with install$5 with background	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/08 16:45
S914	8	(g06f8/$5.CPC g06f9/$6.CPC.) and (hyper$1link link url) with install$5 with (software application app program firmware driver) with (select$4 determin$5 chosen choos$4) with (client user) and install$5 with background	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/06/08 16:15

EAST Search History (Interference)

< This search history is empty>

6/ 24/ 2019 7:07:35 AM
C:\ Users\ ikang\ Documents\ EAST\ Workspaces\ 15903054.wsp

Application installation method and apparatus

The invention claims a mounting method and device for. Said method comprises: Receiving application installation request; Triggering operating script obtaining the selected application of the installation information and the selected applied corresponding to the destination virtual environment,...

CURRENT ASSIGNEES: BOE TECH GROUP CO LTD
CN108595191A | CHINA APPLICATIONS | 28-SEP-2018

2.

Common installer client

Systems and techniques to provide for software installation. In general, in one implementation, the technique includes receiving a manifest, the manifest including a reference to one or more applications to be installed, obtaining an installer associated with an application, and using the associated...

CURRENT ASSIGNEES: GOOGLE LLC
US8261258 | US PATENTS | 04-SEP-2012

3

Common installer server

Systems and techniques to provide for software installation. In general, in one implementation, the technique includes detecting selection of one or more applications by a user; creating a manifest for the one or more applications, the manifest including a reference to the one or more applications ...

CURRENT ASSIGNEES: GOOGLE LLC
US20150193215 | US APPLICATIONS | 09-JUL-2015

4.

Common installer server

Systems and techniques to provide for software installation. In general, in one implementation, the technique includes detecting selection of one or more applications by a user; creating a manifest for the one or more applications, the manifest including a reference to the one or more applications...

CURRENT ASSIGNEES: GOOGLE LLC
US9274774 | US PATENTS | 01-MAR-2016

5.

Method for realizing downloading of mobile terminal application program and mobile terminal

The method of the present invention adds a plug-in control unit on an operation interface of a mobile terminal, and displays the plug-in control unit on the operation...

Result #1

UNITED STATES PATENT AND TRADEMARK OFFICE

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APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
15/903,054	02/23/2018	Brandon Brent AYERS	72247

CONFIRMATION NO. 1094

67801
MARTIN D. MOYNIHAN d/b/a PRTSI, INC.
P.O. BOX 16446
ARLINGTON, VA 22215

PUBLICATION NOTICE

OC000000110770533

Title:INSTANT INSTALLATION OF APPS

Publication No.US-2019-0265958-A1
Publication Date:08/29/2019

NOTICE OF PUBLICATION OF APPLICATION

The above-identified application will be electronically published as a patent application publication pursuant to 37 CFR 1.211, et seq. The patent application publication number and publication date are set forth above.

The publication may be accessed through the USPTO's publically available Searchable Databases via the Internet at www.uspto.gov. The direct link to access the publication is currently http://www.uspto.gov/patft/.

The publication process established by the Office does not provide for mailing a copy of the publication to applicant. A copy of the publication may be obtained from the Office upon payment of the appropriate fee set forth in 37 CFR 1.19(a)(1). Orders for copies of patent application publications are handled by the USPTO's Public Records Division. The Public Records Division can be reached by telephone at (571) 272-3150 or (800) 972-6382, by facsimile at (571) 273-3250, by mail addressed to the United States Patent and Trademark Office, Public Records Division, Alexandria, VA 22313-1450 or via the Internet.

In addition, information on the status of the application, including the mailing date of Office actions and the dates of receipt of correspondence filed in the Office, may also be accessed via the Internet through the Patent Electronic Business Center at www.uspto.gov using the public side of the Patent Application Information and Retrieval (PAIR) system. The direct link to access this status information is currently https://portal.uspto.gov/pair/PublicPair. Prior to publication, such status information is confidential and may only be obtained by applicant using the private side of PAIR.

Further assistance in electronically accessing the publication, or about PAIR, is available by calling the Patent Electronic Business Center at 1-866-217-9197.

Office of Data Managment, Application Assistance Unit (571) 272-4000, or (571) 272-4200, or 1-888-786-0101

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:		§	
		§	
	Brandon Brent AYERS et al.	§	
		§	Confirmation No.: 1094
Serial No.:	15/903,054	§	
		§	
Filed:	February 23, 2018	§	Group Art Unit: 2193
		§	
For:	INSTANT INSTALLATION OF APPS	§	
		§	
		§	Attorney Docket: **72247**
		§	
Examiner:	Insun KANG	§	

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

RESPONSE

Sir:

This is in response to the United States Patent and Trademark Office Action mailed June 27, 2019, which response is being made on or before September 27, 2019, and for which no extension of time fees are due.

Applicant submits this response for entry into the record, in which:

Amendments to the Specification begin on page 2.

Amendments to the Claims begin on page 4.

Remarks begin on page 9.

Please amend the above-identified application as follows:

In the Claims:

1. (Currently Amended) A device configured for running ~~adapted to run~~ software applications, comprising:

a network interface configured for communicating ~~adapted to communicate~~ over a network;

at least one non-transitory computer readable storage medium storing instructions; and

at least one processor associated with said network interface and said storage medium, configured for executing ~~adapted to execute~~ said instructions to:

identify that a link for installation of a first software application is selected by user interaction with a second software application running on said device;

in response to said identifying, invoke, without exiting said second software application, an installation client for downloading and installing applications on said device to run in the background on said device;

instruct said installation client to automatically download an installation file of said first software application to said device over said network using said network interface; and

using said downloaded installation file, install said first software application on said device.

2. (Currently Amended) A device according to claim 1, wherein said at least one processor is further configured for executing ~~adapted to execute~~ said instructions to close said installation client when said installation of said first software application is completed.

3. (Original) A device according to claim 1, wherein, upon being instructed to automatically download said installation file, said installation client downloads said installation file onto said device from a respective network address of said installation file.

4. (Original) A device according to claim 3, wherein said installation client retrieves said respective network address over said network from an app information server.

5. (Original) A device according to claim 3, wherein said installation client constructs said respective network address using information included in said link.

6. (Original) A device according to claim 1, wherein said automatic download maintains a user experience of interaction with said second software application.

7. (Original) A device according to claim 1, wherein said automatic download is performed without directing said user interaction to an app store.

8. (Original) A device according to claim 1, wherein said installation client is invoked when said link comprises a deep link linking said installation of said first software application to said installation client.

9. (Original) A device according to claim 1, wherein said device comprises a mobile device.

10. (Original) A device according to claim 1, wherein said installation client prompts for user confirmation of said installation of said first software application prior to said automatic download and performs said automatic download only when said confirmation is obtained.

11. (Original) A device according to claim 10, wherein said prompting for user confirmation comprises retrieving information associated with said first software application from a server over said network using said network interface and displaying said information on a display of said device.

12. (Original) A device according to claim 10, wherein said installation client resumes running in the background when a response is received to said prompting.

13. (Currently Amended) A device according to claim 1, wherein said at least one processor is further configured for executing ~~adapted to execute~~ said instructions to redirect said device to an app store when said installation client is unavailable on said device.

14. (Original) A device according to claim 1, wherein said installation client comprises integrated security processes.

15. (Currently Amended) A method for installation of software applications on a device, comprising:

executing, by at least one hardware processor operating in said device, program instructions to:

identify that a link for installation of a first software application is selected by user interaction with a second software application running on said device;

in response to said identifying, invoke, without exiting said second software application, an installation client for downloading and installing applications on said device to run in the background on said device;

instruct said installation client to automatically download an installation file of said first software application to said device over a network; and

install said first software application on said device using said downloaded installation file.

16. (Original) A method according to claim 15, further comprising closing said installation client when said installation of said first software application is completed.

17. (Original) A method according to claim 15, wherein said automatic download maintains a user experience of interaction with said second software application.

18. (Original) A method according to claim 15, wherein said automatic download is performed without directing said user interaction to an app store.

19. (Original) A method according to claim 15, wherein said installation client is invoked when said link comprises a deep link linking said installation of said first software application to said installation client.

20. (Original) A method according to claim 15, wherein said device comprises a mobile device.

21. (Original) A method according to claim 15, wherein said installation client prompts for user confirmation of said installation of said first software application prior to said automatic download and performs said automatic download only when said confirmation is obtained.

22. (Currently Amended) A non-transitory computer readable medium including instructions that, when executed by at least one processor, cause the at least one processor to perform operations for installing software applications on a device, said operations comprising:

identifying that a link for installation of a first software application is selected by user interaction with a second software application running on said device;

in response to said identifying, invoking, without exiting said second software application, an installation client <u>for downloading and installing applications on said device</u> to run in the background on said device;

instructing said installation client to automatically download an installation file of said first software application to said device over a network using a network interface of said device; and

using said downloaded installation file, installing said first software application on said device.

23. (Original) A non-transitory computer readable medium according to claim 22, wherein said automatic download is performed without directing said user interaction to an app store.

REMARKS

Reconsideration of the above-identified application in view of the amendments above and the remarks following is respectfully requested.

Claims 1-23 are in this Application. Claims 1-23 have been rejected under 35 U.S.C. § 103. Claims 1, 2, 13, 15 and 22 have been amended herewith without prejudice.

Amendments To The Specification

The Abstract is replaced herein to be a single paragraph in narrative form, thereby complying with MPEP § 608.01(b).

The terms "Google Play" and "Apple" have been capitalized and are followed by trademark symbols.

Amendments To The Claims

35 U.S.C. § 112 Rejections

In claims 1, 2 and 13 the term "adapted to" has been replaced by the term "configured for" thereby providing positive limitations and resolving the lack of clarity found by the examiner in claims 1, 2, and 13.

35 U.S.C. § 103 Rejections

The Examiner rejected claims 1, 3-7, 9-11, 15, 18 and 20-23 as being unpatentable over US Pat. Publ. 2016/0216954 by Jitkoff et al. (hereafter *Jitkoff*) in view of US Pat. Publ. 2019/0109927 by Andrews et al. (hereafter *Andrews*). The Examiner rejected claims 2 and 16 as being unpatentable over *Jitkoff* in view of *Andrews* in view of US Pat. Publ. 2010/0095924 by Yamada (hereafter *Yamada*). The Examiner rejected claims 8, 13 and 19 as being unpatentable over *Jitkoff* in view of *Andrews* in view of US Pat. Publ. 2016/0142859 by Molinet (hereafter *Molinet*). The Examiner rejected claim 12 as being unpatentable over *Jitkoff* in view of *Andrews* in view of US Pat. Publ. 2015/0074659 by Madsen (hereafter *Madsen*). The Examiner rejected claim 14 as being unpatentable over *Jitkoff* in view of *Andrews* in view of US Pat. Publ. 2017/0070361by Sundermeyer et al. (hereafter *Sundermeyer*).

For clarity, Applicants are describing the teachings of *Jitkoff*, *Andrews*, *Yamada*, *Molinet*, *Madsen* and *Sundermeyer* individually but are traversing the rejection with respect to the combination of these references, *infra*. That is, the Applicants are not attacking the references individually, rather addressing the combinations of references as set forth in the instant Office Action.

The embodiments claimed herein enable users to download new software applications without exiting the application they are currently interacting with. The application is downloaded and installed by an installation client running in the background. The user selects an application for download (for example by clicking a link) and the application is downloaded and installed by the installation client without further (or very limited) user involvement.

While traversing the rejection and in order to promote the examination, Applicant amended main claim 1 to recite:

> 1. A device configured for running software applications, comprising:
> a network interface configured for communicating over a network;
> at least one non-transitory computer readable storage medium storing instructions; and
> at least one processor associated with said network interface and said storage medium, configured for executing said instructions to:
> identify that a link for installation of a first software application is selected by user interaction with a second software application running on said device;
> in response to said identifying, invoke, without exiting said second software application, an installation client <u>for downloading and installing applications on said device</u> to run in the background on said device;
> instruct said installation client to automatically download an installation file of said first software application to said device over said network using said network interface; and
> using said downloaded installation file, install said first software application on said device. (Emphasis added.)

Corresponding amendments were made for independent claims 15 and 23. Basis for the amendments can be found, *inter alia*, on p. 3 line 33 to p. 4 line 1.

As claimed herein, the installation client is an application which downloads and installs applications while running in the background. Thus the user may continue interacting with application(s) running in the foreground of the device without disruption (e.g. without being directed to an app store).

Applicant respectfully submits that neither *Jitkoff* nor *Andrews* teach the limitations of an "*installation client for downloading and installing applications on said device to run in the background on said device*" for the reasons presented below.

In para. 0013, *Jitkoff* presents an application launcher which searches local and web-based applications for items meeting a user's search criteria. In *Jitkoff* the result of the search by the application launcher may be an application. The items found by the application launcher search are made accessible to the user at the application launcher.

With regards to applications found by the application launcher search, *Jitkoff* para. 0015 recites:

> [0015] Where the search results include an application (e.g., a third party application) the application is accessed and made available for launching directly at the application launcher. For example, where the application is determined to not yet have been installed at the user client device and thus accessible by the user, the application may be installed and provided to the user for launching. In one example, the user may be prompted to choose whether to download and install the application. In some implementations, the application may not be installed, and a link to download/install the application may be provided for downloading and/or installing the application. In one example, the choice of whether to automatically download and/or install an application, when such application is not yet installed at the client device may depend upon various criteria including the extent to which the application matches the search criteria, and/or system or user preferences. Thus, the user does not need to take extra steps to access the application for downloading and/or installing the application.

While *Jitkoff* para. 0015 does indicate that an application is downloaded and installed, *Jitkoff* is silent on the manner by which the download and installation is performed by the device. There is no mention in *Jitkoff* of a separate application (i.e. an installation client) which performs the download and installation, and certainly not of a separate application which performs the download and installation while running in the background on the device. The application launcher runs in the foreground of the device and therefore does not teach the installation client as claimed.

The arguments presented above are supported by page 5 of the Office Action in which the Examiner acknowledges that "Jitkoff does not explicitly teach an installation client to run in the background on said device".

The Examiner alleges that Andrews teaches an "installation client to run in the background on said device". However nowhere does *Andrews* describe a an installation client which downloads an application installation file and which uses the downloaded application installation file to install the application while running in the background on the device.

In *Andrews*, an application is launched in the background to download content for its own interface. In this way up to date content may be displayed as soon as the user opens the application in the foreground, without a delay to upload new content when the application is opened.

For example *Andrews* para. 0115 describes "background fetch updating":

> In some implementations, mobile device 100 can be configured to predictively launch applications as background processes of the mobile device 100 so that the applications can download content and update their interfaces in anticipation of a user invoking the applications. For example, the user application launch history data (e.g., "system.bundleId" start events) maintained by sampling daemon 102 can be used to forecast (predict) when the user will invoke applications of the mobile device 100. These predicted applications can be launched by the application manager 106 prior to user invocation so that the user will not be required to wait for a user invoked application to download current content and update the graphical interfaces of the applications. (Emphasis added.)

Andrews para. 0173 describes a similar background update operation:

> [0173] In some implementations, when application manager 106 makes an admission control request to sampling daemon 102 and receives a "yes" reply, application manager 106 can invoke or launch the identified application (e.g., as identified by the "bundleId" attribute value, application 108) in the background of the operating environment of mobile device 100. For example, the application 108 can be launched in the background such that it is not apparent to the user that application 108 was launched. The application 108 can then communicate over a network (e.g., the Internet) with content server 404 to download updated content for display to the user. Thus, when the user subsequently selects application 108 (e.g., brings the application to the foreground), the user will be presented with current and up-to-date content without having to wait for application 108 to download the content from server 404 and refresh the application's user interfaces. (Emphasis added.)

It is thus seen that in *Andrews* the application performing the background operations does not download an application installation file as claimed. Furthermore, *Andrews* is incapable of teaching an installation client installing the application using the application installation file because the application installation file was not downloaded and is therefore not available for use.

With regard to the dependent claims:

1) The Examiner cited *Jitkoff* in view of *Andrews* in view *Yamada* for claims 2 and 16. *Yamada* teaches an installer program for which performs installation operations collectively for multiple pieces of software. *Yamada* is directed at preventing a user from downloading applications using an administrator account. In *Yamada*, if an administrator account indicates that the account to execute the command is the user account, the command is executed in the user account rather than in the administrator account. *Yamada* does not teach an installation client as claimed, and therefore does not remedy the deficiencies of *Jitkoff* in view of *Andrews*.

2) The Examiner cited *Jitkoff* in view of *Andrews* in view *Molinet* for claims 8, 13 and 19.

With regard to claims 8 and 19, *Molinet* teaches contextual deep linking of applications. The deep link is associated with link data which indicates a configuration of an application. This link data is received from the server by the client device and is used by the client device to configure the application as indicated in the link data. *Molinet* does not invoke an installation client when the deep link is selected.

With regard to claim 13, *Molinet* teaches automatically redirecting the device to an application store if the application being configured is not already installed on the device. As claimed herein, the device is redirected to the app store only if the installation client itself is not installed on the device.

Molinet does not teach an installation client as claimed and therefore does not remedy the deficiencies of *Jitkoff* in view of *Andrews*.

3) The Examiner cited *Jitkoff* in view of *Andrews* in view *Madsen* for claim 12. *Madsen* teaches a web-based installation handler that enables a user to install a full enterprise software suite directly from a web page onto a host machine. *Madsen* does

not teach an installation client running in the background on the device and therefore does not remedy the deficiencies of *Jitkoff* in view of *Andrews*.

4) The Examiner cited *Jitkoff* in view of *Andrews* in view *Sundermeyer* for claim 14. *Sundermeyer* relates to a data model for home automation which includes an automation network including a gateway at a premises coupled to a remote server. A security system integrates broadband and mobile access and control with conventional security systems and premise devices to provide a tri-mode security network that enables users to remotely stay connected to their premises. While *Sundermeyer* does teach security processes, these security processes are not integrated into an installation client for downloading and installing applications on a device and therefore do not remedy the deficiencies of *Jitkoff* in view of *Andrews*.

In summary, none of *Jitkoff*, *Andrews*, *Yamada*, *Molinet*, *Madsen* and *Sundermeyer*, alone or in combination, teach or suggest:

i. "*an installation client for downloading and installing applications on said device to run in the background on said device*".

ii. "*instruct said installation client automatically download an installation file of said first software application to said device over said network using said network interface*"; and

iii. "*using said downloaded installation file, install said first software application on said device*".

It is therefore submitted that claims 1, 15 and 23 are both novel and inventive over the prior art. It is believed that the dependent claims are allowable as being dependent on an allowable main claim.

Conclusion

No Disclaimers or Disavowals

Although the present response may include amendments to the application or claims, or characterizations of claim scope or referenced art, Applicants do not concede that previously pending claims in this application are not patentable over the cited references. Rather, any amendments or characterizations are being made to expedite the issuance. Applicants reserve the right to pursue at a later date any previously pending or other broader or narrower claims that relate to subject matter supported by the instant application, including subject matter specifically disclaimed herein or by any prior prosecution. Accordingly, reviewers of this application, or any parent, child or related prosecution history should not infer that Applicants have made any disclaimers or disavowals of any subject matter supported by the instant application.

In view of the above amendments and remarks it is respectfully submitted that claims 1-23 are now in condition for allowance. A prompt notice of allowance is respectfully and earnestly solicited.

While the above amendments and/or remarks are believed to be sufficient to overcome the Examiner's rejections, any omissions as to assertions by the Examiner or certain requirements that may be applicable to such rejections (e.g., assertions regarding dependent claims, whether a reference constitutes prior art, whether references are legally combinable for obviousness purposes) is not an admission that such assertions are accurate or such requirements have been met. Applicant reserves the right to analyze and dispute such positions in the future.

Should the Examiner have any questions or comments as to the form, content, or entry of this paper, the Examiner is requested to contact the undersigned at the telephone number below prior to mailing the next Official Action. Similarly, if there are any further issues yet to be resolved to advance the prosecution of this application to issue, the Examiner is requested to telephone the undersigned counsel.

Any fees associated with this paper, for its entry into the record, may be charged to Deposit Account No. 50-1407.

During the pendency of this application, the Commissioner for Patents is hereby authorized to charge payment of any filing fees for presentation of extra claims under 37 CFR § 1.16 and any patent application processing fees under 37 CFR § 1.17, or credit any overpayment, to Deposit Account No. 50-1407.

The Commissioner for Patents is hereby authorized to treat any concurrent or future reply, requiring a petition for extension of time under 37 CFR § 1.136 for its timely submission, as incorporating a petition for extension of time for the appropriate length of time if not submitted with the reply.

Recognizing that Internet communications are not secure, I hereby authorize the USPTO to communicate with the undersigned and practitioners in accordance with 37 CFR § 1.33 and 37 CFR § 1.34 concerning any subject matter of this application by video conferencing, instant messaging, or electronic mail. I understand that a copy of these communications may be made of record in the application file.

Respectfully submitted,

/Martin D. Moynihan/

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Date: September 24, 2019

Electronic Acknowledgement Receipt

EFS ID:	37250833
Application Number:	15903054
International Application Number:	
Confirmation Number:	1094
Title of Invention:	INSTANT INSTALLATION OF APPS
First Named Inventor/Applicant Name:	Brandon Brent AYERS
Customer Number:	67801
Filer:	Martin Dennis Moynihan
Filer Authorized By:	
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Application Type:	Utility under 35 USC 111(a)

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Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		72247ResponsetoOADated27June2019.pdf	80722 33ad85340456e46db1a0b467d684e606ecf17e21	yes	16

	Multipart Description/PDF files in .zip description		
	Document Description	**Start**	**End**
	Amendment/Req. Reconsideration-After Non-Final Reject	1	1
	Specification	2	3
	Claims	4	8
	Applicant Arguments/Remarks Made in an Amendment	9	16
Warnings:			
Information:			
	Total Files Size (in bytes):	80722	

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

Please replace the existing Abstract found on Page 35 with the following Abstract:

ABSTRACT

A device which runs software applications includes a network interface, a non-transitory computer readable storage medium and at least one processor. The device identifies that a link for installation of a new software application is selected by user interaction with a software application that is running on the device. In response to the identification, an installation client is invoked to run in the background on the device without exiting the currently-running software application. The installation client is instructed to automatically download an installation file of the new software application over the network using the network interface. The new software application is installed on the device using the downloaded installation file.

In the Specification:

Please amend the Paragraph beginning at **Page 4, line 18**, as follows:

As used herein the term "app store" is not limited to platforms distributing apps for mobile devices, and includes platforms for distributing applications to mobile devices (e.g. mobile phones, tablets, laptop computers etc.) and/or to non-mobile devices (e.g. desktop computers, smart TVs, etc.). Examples of app stores for mobile devices include GOOGLE PLAY™~~Google Play~~, APPLE™ ~~Apple~~ App Store and others.

PTO/SB/06 (09-11)
Approved for use through 1/31/2014. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
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PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 15/903,054	Filing Date 02/23/2018	☐ To be Mailed

ENTITY: ☐ LARGE ☑ SMALL ☐ MICRO

APPLICATION AS FILED - PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA		RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A		N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A		N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A		N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*		x $50 =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*		x $230 =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).				
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))					
* If the difference in column 1 is less than zero, enter "0" in column 2.				TOTAL	

APPLICATION AS AMENDED - PART II

		(Column 1)		(Column 2)	(Column 3)			
AMENDMENT	09/24/2019	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	* 23	Minus	** 23	= 0		x $50 =	0
	Independent (37 CFR 1.16(h))	* 3	Minus	*** 3	= 0		x $230 =	0
	☐ Application Size Fee (37 CFR 1.16(s))							
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							
							TOTAL ADD'L FEE	0

		(Column 1)		(Column 2)	(Column 3)			
AMENDMENT		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	*	Minus	**	=		x $0 =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=		x $0 =	
	☐ Application Size Fee (37 CFR 1.16(s))							
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							
							TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.	LIE
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".	/ROSS W BROWN/
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".	
The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.	

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/903,054	02/23/2018	Brandon Brent AYERS	72247	1094

67801 7590 01/03/2020

MARTIN D. MOYNIHAN d/b/a PRTSI, INC.
P.O. BOX 16446
ARLINGTON, VA 22215

EXAMINER
KANG, INSUN

ART UNIT	PAPER NUMBER
2193	

NOTIFICATION DATE	DELIVERY MODE
01/03/2020	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

usptomail@ipatent.co.il

Office Action Summary	Application No. 15/903,054	Applicant(s) AYERS et al.	
	Examiner INSUN KANG	Art Unit 2193	AIA (FITF) Status Yes

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTHS FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☑ Responsive to communication(s) filed on 9/24/2019.

☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

2a)☑ This action is **FINAL.** 2b) ☐ This action is non-final.

3)☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

4)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims*

5) ☑ Claim(s) 1-23 is/are pending in the application.

5a) Of the above claim(s) _____ is/are withdrawn from consideration.

6) ☐ Claim(s) _____ is/are allowed.

7) ☑ Claim(s) 1-23 is/are rejected.

8) ☐ Claim(s) _____ is/are objected to.

9) ☐ Claim(s) _____ are subject to restriction and/or election requirement

* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to **PPHfeedback@uspto.gov.**

Application Papers

10)☐ The specification is objected to by the Examiner.

11)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

Certified copies:

a)☐ All b)☐ Some** c)☐ None of the:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

** See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☑ Notice of References Cited (PTO-892)

2) ☐ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b) Paper No(s)/Mail Date _____.

3) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date _____.

4) ☐ Other: _____.

Notice of Pre-AIA or AIA Status

The present application, filed on or after March 16, 2013, is being examined under the first inventor to file provisions of the AIA.

This action is responding to the amendment filed on 9/24/2019.

Claims 1-23 are pending in the application.

Specification

The objection to the specification has been withdrawn due to the amendment to the specification.

Claim Rejections - 35 USC § 112

The rejection to the claims 1-14 has been withdrawn due to the amendment to the claims.

Claim Rejections - 35 USC § 103

In the event the determination of the status of the application as subject to AIA 35 U.S.C. 102 and 103 (or as subject to pre-AIA 35 U.S.C. 102 and 103) is incorrect, any correction of the statutory basis for the rejection will not be considered a new ground of rejection if the prior art relied upon, and the rationale supporting the rejection, would be the same under either status.

The following is a quotation of 35 U.S.C. 103 which forms the basis for all obviousness rejections set forth in this Office action:

> A patent for a claimed invention may not be obtained, notwithstanding that the claimed invention is not identically disclosed as set forth in section 102, if the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious before the effective filing date of the claimed invention to a person having ordinary skill in the art to which the claimed invention pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1, 3-7, 9-11, 15, 18, 18, and 20-23 are rejected under 35 U.S.C. 103 as being unpatentable over Jitkoff et al. US 20160216954, hereafter Jitkoff) in view of Cayre et al. (US 20170192764, hereafter Cayre).

1. A device adapted to run software applications, comprising:

a network interface configured for communicating over a network (Jitkoff, see at least [0017], Network 108 can be a public communication network …a tree or hierarchical network; [0019]); at least one non-transitory computer readable storage medium storing instructions; and at least one processor associated with said network interface and said storage medium, configured for executing said instructions to (Jitkoff, see at least [0034], applications …recorded on a …storage medium…executed by one or more processing unit(s); [0036]):

identify that a link for installation of a first software application is selected by user interaction with a second software application running on said device (Jitkoff, see at least [0015] the user may be prompted to choose whether to download and install the application. In some implementations, the application may not be installed, and a link to download/install the application may be provided for downloading and/or installing the application; [0016], a link is provided …. Embedded with the item or a selectable mechanism) to automatically launch the browser and open the web page …from the application launcher);

in response to said identifying, invoke, without exiting said second software application, (Jitkoff, see at least [0015] the user may be prompted to choose whether to download and install the application. In some implementations, the application may not be installed, and a link to download/install the application may be provided for downloading and/or installing the application; [0016], a link is provided …. Embedded with the item or a selectable mechanism) to automatically launch the browser and open the web page, providing the user with seamless access to the item directly from the application launcher; [0031], directly at the application launcher; [0033]).

Jitkoff teaches that the application launcher provides the functionality to download and install an application directly at the launcher ([0015]), but does not explicitly teach that the application launcher is provided for downloading and installing applications on said device to run in the background on said device. Cayre teaches an installation client for downloading and installing applications on said device to run in the background on said device. (Cayre, see at least [0004]; [0046], The first application can then download and install the second application. This downloading and installation can occur in the background without requiring user interaction). It would have been obvious for one having ordinary skill in the art before the effective filing date of the claimed invention to have combined Jitkoff's direct access to items by a link to download/install an application with Cayre' functionality of background application installation, since they are analogous art because they are from the same field of endeavor related to software installation. Combining Cayre' functionality with that of Jitkoff results in a system that allows a background installation process of an application by modifying Jitoff's application launcher to perform a silent installation in the background. The modification would be obvious because one having ordinary skill in the art would be motivated to make this combination to initiate the installation process without user involvement so that the installation process is performed in the background without interfering the user activity ([0046]).

Jitkoff further discloses: instruct said installation client to automatically download an installation file of said first software application to said device over said network using said network interface; and using said downloaded installation file, install said first software application on said device (Jitkoff, see at least [0015], the application may be installed and provided to the user for launching …prompted to choose whether to download and install the application…the choice of whether to automatically download and/or install an application; ([0033], automatically downloaded and/or installed).

3. A device according to claim 1, wherein, upon being instructed to automatically download said installation file, said installation client downloads said installation file onto said device from a respective network address of said installation file (Jitkoff, see at least, [0016], a link is provided…entering the URL for the web page; [0031]; [0015], the application may be installed and provided to the user for launching …prompted to choose whether to download and install the application…the choice of whether to automatically download and/or install an application).

4. A device according to claim 3, wherein said installation client retrieves said respective network address over said network from an app information server (Jitkoff, see at least, cliet-server network environment…connected to a server…by a network; [0033], provide a link to the user …the application is downloaded).

5. A device according to claim 3, wherein said installation client constructs said respective network address using information included in said link. (Jitkoff, see at least, [0016], a link is provided…entering the URL for the web page; [0031]; [0015], the application may be installed and provided to the user for launching …prompted to choose whether to download and install the application…the choice of whether to automatically download and/or install an application).

6. A device according to claim 1, wherein said automatic download maintains a user experience of interaction with said second software application (Jitkoff, see at least [0015], [0015] Where the search results include an application (e.g., a third party application) the application is accessed and made available for launching directly at the application launcher …the application

may be installed and provided to the user for launching …prompted to choose whether to download and install the application…the choice of whether to automatically download and/or install an application; ([0033], automatically downloaded and/or installed).

7. A device according to claim 1, wherein said automatic download is performed without directing said user interaction to an app store (Jitkoff, see at least [0013] the search results are provided in a form that is directly accessible by the user at the application launcher (e.g., without the need to perform an additional step of launching the application providing the data and/or accessing and/or downloading the application through the application store or web browser providing the application).

9. A device according to claim 1, wherein said device comprises a mobile device (Jitkoff, see at least [0044], mobile devices; [0018], smartphones, PDAs...tablet; [0033], app launcher; [0037]).

10. A device according to claim 1, wherein said installation client prompts for user confirmation of said installation of said first software application prior to said automatic download and performs said automatic download only when said confirmation is obtained (Jitkoff et al., [0015] the user may be prompted to choose whether to download and install the application. In some implementations, the application may not be installed, and a link to download/install the application may be provided for downloading and/or installing the application. In one example, the choice of whether to automatically download and/or install an application).

11. A device according to claim 10, wherein said prompting for user confirmation comprises retrieving information associated with said first software application from a server over said network using said network interface and displaying said information on a display of said device (Jitkoff, [0031] In step 206, the one or more instances of the one or more items are provided for display to the user. Once the user views the provided instances of the one or more items, the user may select to view any of the data (e.g., a useful snippet or all of the data) directly from the application launcher without needing to go to the application, … may provide some utility with respect to the email address may be provided to the user; [0032] displaying one or more items to a user in response to a search query entered by the user. The application launcher window 300 includes a search box 301, a "go" button 302, and an item display area 303; [0033] a download and/or install link "D/I" 306a-d is displayed along with each item 1-4 of the list 305, to allow the user to directly download and/or install the application associated with the item and access the item directly from the app launcher once the application is downloaded and/or installed).

Per claims 15, 17, 18, 20, and 21, they are method versions of claims 1, 6, 7, 9, and 10, respectively, and are rejected for the same reasons set forth in connection with the rejection of claims 1, 6, 7, 9, and 10 above.

Per claims 22 and 23, they are medium versions of claims 1 and 7, respectively, and are rejected for the same reasons set forth in connection with the rejection of claims 1 and 7 above.

Claim 2 and 16 are rejected under 35 U.S.C. 103 as being unpatentable over Jitkoff in view of Cayre and Yamada (US 20100095294).

Per claim 2:

Jitkoff and Cayre do not explicitly teach wherein said at least one processor is further configured for executing said instructions to close said installation client when said installation of said first software application is completed. Yamada teaches wherein said at least one processor is further adapted to execute said instructions to close said installation client when said installation of said first software application is completed (Yamada, see at least, [0066] If it is determined that execution of all of the installation operation commands is completed, the administrator account installer is closed. If not, the processing returns to step S1201). It would have been obvious for one having ordinary skill in the art before the effective filing date of the claimed invention to have combined Yamada's installer closing with Jitkoff's direct access to items by a link to download/install an application with Cayre' functionality of background installation process, since they are analogous art because they are from the same field of endeavor related to software initiating or installation. Combining Yamada's functionality with that of Jitkoff and Cayre results in a system that allows closing the installer when application installation is completed. The modification would be obvious because one having ordinary skill in the art would be motivated to make this combination to complete the installation process so that computing resources allocation for the installer can be reserved (Yamada, see at least, [0066] If it is determined that execution of all of the installation operation commands is completed, the administrator account installer is closed. If not, the processing returns to step S1201).

Per claim 16, it is the method version of claim 2, respectively, and is rejected for the same reasons set forth in connection with the rejection of claim 2 above.

Claim 8, 13, and 19 are rejected under 35 U.S.C. 103 as being unpatentable over Jitkoff in view of Cayre and Molinet et al. (US 20160142859, hereafter Molinet).

Per claim 8:

Jitkoff and Cayre do not explicitly teach wherein said installation client is invoked when said link comprises a deep link linking said installation of said first software application to said installation client. Molinet teaches wherein said installation client is invoked when said link comprises a deep link linking said installation of said first software application to said installation client. (Molinet, see at least, [0027]; [0025], a contextual deep link indicates a particular configuration for an application …a reference to a location in an application; [0026], a client device 120 makes a request associated with a contextual deep link for the application; [0027]; [0028]; [0029], a link that causes the second client device 121 to open or initiate the application 121 on the second client device … to open a landing page of the application 121). It would have been obvious for one having ordinary skill in the art before the effective filing date of the claimed invention to have combined Molinet's deep linking of applications with Jitkoff's direct access to items by a link to download/install an application with Cayre' functionality of background installation process, since they are analogous art because they are from the same field of endeavor related to software initiating or installation. Combining Molinet's functionality with that of Jitkoff and Cayre results in a system that allows deep linking of application. The modification would be obvious because one having ordinary skill in the art would be motivated to make this combination to enable applications to be open or initiated with deep linking so

that a particular configuration of an application is indicated (Molinet, see at least [0016]; [0025]).

Per claim 13:

Jitkoff and Cayre do not explicitly teach wherein said at least one processor is further configured for executing said instructions to redirect said device to an app store when said installation client is unavailable on said device. Molinet teaches wherein said at least one processor is further adapted to execute said instructions to redirect said device to an app store when said installation client is unavailable on said device (Molinet, see at least, [0027] if the user is using a mobile device that supports a mobile application ecosystem, the server may detect this contextual information and respond with a redirection to the application store on the user's client device 120 if the user does not have installed the application referenced in the link). It would have been obvious for one having ordinary skill in the art before the effective filing date of the claimed invention to have combined Molinet's deep linking of applications and redirecting to the application store if needed with Jitkoff's direct access to items by a link to download/install an application with Cayre' functionality of background installation process, since they are analogous art because they are from the same field of endeavor related to software initiating or installation. Combining Molinet's functionality with that of Jitkoff and Cayre results in a system that allows redirection to the application store to obtain the needed application. The modification would be obvious because one having ordinary skill in the art would be motivated to make this combination to enable redirection to an application store so that a unavailable application can be obtained through the application store (Molinet, see at least, [0027] if the user is using a mobile device that supports a mobile application ecosystem,

the server may detect this contextual information and respond with a redirection to the application store on the user's client device 120 if the user does not have installed the application referenced in the link).

Per claim 19, it is the method version of claim 8, respectively, and is rejected for the same reasons set forth in connection with the rejection of claim 8 above.

Claim 12 is rejected under 35 U.S.C. 103 as being unpatentable over Jitkoff in view of Cayre and Madsen et al. (US 20150074659, hereafter Madsen).

Per claim 12:

Jitkoff and Cayre do not explicitly teach wherein said installation client resumes running in the background when a response is received to said prompting. Madsen teaches wherein said installation client resumes running in the background when a response is received to said prompting (Madsen, see at least, [0064] the package handler 412 may prompt the user to identify the location of the third-party database or to install the component using the third-party installer program at a certain time, etc. In some such examples, the package handler 412 may wait until confirmation is received from the user that the additional information is provided prior to resuming setting the customization options). It would have been obvious for one having ordinary skill in the art before the effective filing date of the claimed invention to have combined Madsen's resuming of installation program with Jitkoff's direct access to items by a link to download/install an application with Cayre' functionality of background installation process, since they are analogous art because they are from the same field of endeavor related to software initiating or installation. Combining Madsen's functionality with that of Jitkoff and

Cayre results in a system that allows continuation of installation process. The modification would be obvious because one having ordinary skill in the art would be motivated to make this combination to resume to complete the installation process when a user confirms the installation (Madsen, see at least, [0064] the package handler 412 may prompt the user to identify the location of the third-party database or to install the component using the third-party installer program at a certain time, etc. In some such examples, the package handler 412 may wait until confirmation is received from the user that the additional information is provided prior to resuming setting the customization options).

Claim 14 is rejected under 35 U.S.C. 103 as being unpatentable over Jitkoff in view of Cayre and Sundermeyer et al. (US 20170070361, hereafter Sundermeyer).

Per claim 14:

Jitkoff and Cayre do not explicitly teach wherein said installation client comprises integrated security processes. Sundermeyer teaches wherein said installation client comprises integrated security processes (Sundermeyer, see at least, [0225] The user or installer of the system selects 1308 all devices that have been identified as available for inclusion into the integrated security system …At this point all devices will have been registered 1314 with the integrated security system servers; [0260] The installer uses a computer to navigate to a web portal (e.g., integrated security system web interface), logs in to the portal, and enters the authorization key of the installed gateway into the web portal for authentication). It would have been obvious for one having ordinary skill in the art before the effective filing date of the claimed invention to have combined Sundermeyer's integrated security system for installation with

Jitkoff's direct access to items by a link to download/install an application with Cayre' functionality of background installation process, since they are analogous art because they are from the same field of endeavor related to software initiating or installation. Combining Sundermeyer's functionality with that of Jitkoff and Cayre results in a system that allows secure installation process. The modification would be obvious because one having ordinary skill in the art would be motivated to make this combination to provide an installation process with integrated security so that a proper authentication and authorization are ensured for the installation (Sundermeyer, see at least, [0225] The user or installer of the system selects 1308 all devices that have been identified as available for inclusion into the integrated security system …At this point all devices will have been registered 1314 with the integrated security system servers; [0260] The installer uses a computer to navigate to a web portal (e.g., integrated security system web interface), logs in to the portal, and enters the authorization key of the installed gateway into the web portal for authentication).

Examiner's Note

The Examiner has pointed out particular references contained in the prior art of record within the body of this action for the convenience of the Applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply. Applicant, in preparing the response, should consider fully the entire reference as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

Response to Arguments

Applicant's arguments filed 9/24/2019 have been fully considered but they are not persuasive.

In response to applicant's remark that a separate application which performs the download and installation while running in the background on the device. The application launcher runs in the foreground of the device and therefore does not teach the installation client as claimed. As claimed herein, the installation client is an application which downloads and installs applications while running in the background. Thus the user may continue interacting with application(s) running in the foreground of the device without disruption (e.g. without being directed to an app store).

In response, the claims do not recite separate applications, that is, the installation client is not further recited as being a separate or independent application outside of the claimed instructions that invokes the installation client claimed. Jitkoff also discloses instructions of the disclosed system that facilitate the application launcher to provide a user with access to items including applications ([0019]; [0014]), the applications can be downloaded and installed directly from the launcher of the disclosed system ([0033]). Therefore, applicant's remark above is not persuasive as Jitkoff discloses the corresponding instructions that invokes the application launcher. The newly cited Cayre teaches an application that is for downloading and installing applications on a device to run in the background on said device as has been addressed above.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory

action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to INSUN KANG whose telephone number is (571)272-3724. The examiner can normally be reached on M-F 10 am-6 pm.

Examiner interviews are available via telephone, in-person, and video conferencing using a USPTO supplied web-based collaboration tool. To schedule an interview, applicant is encouraged to use the USPTO Automated Interview Request (AIR) at http://www.uspto.gov/interviewpractice.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chat Do can be reached on 571-272-3721. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/INSUN KANG/
Primary Examiner, Art Unit 2193

Notice of References Cited	Application/Control No. 15/903,054	Applicant(s)/Patent Under Reexamination AYERS et al.	
	Examiner INSUN KANG	Art Unit 2193	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	CPC Classification	US Classification
*	A	US-20170286081-A1	10-2017	Shantharam; Shravan	G06F8/61	1/1
*	B	US-20170192764-A1	07-2017	Cayre; Stefano	H04L67/125	1/1
*	C	US-20170010878-A1	01-2017	Barkie; Eric J.	G06F8/61	1/1
*	D	US-20160342403-A1	11-2016	Zamir; Tal	G06F8/61	1/1
*	E	US-20160283259-A1	09-2016	Mehta; Kunal	G06F9/45558	1/1
*	F	US-20160162451-A1	06-2016	Xu; Yongyong	G06F8/61	1/1
*	G	US-20150193215-A1	07-2015	Jianu; Sorin	G06F8/61	717/177
*	H	US-20150186126-A1	07-2015	Ivanov; Anton M.	G06F8/61	717/174
*	I	US-20160077819-A1	03-2016	Xin; Xianlong	G06F9/45504	717/174
*	J	US-20110126192-A1	05-2011	Frost; Simon	G06F8/61	717/178
	K					
	L					
	M					

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	CPC Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	15/903,054	AYERS et al.
	Examiner	Art Unit
	INSUN KANG	2193

CPC - Searched*		
Symbol	Date	Examiner

CPC Combination Sets - Searched*		
Symbol	Date	Examiner

US Classification - Searched*			
Class	Subclass	Date	Examiner

* See search history printout included with this form or the SEARCH NOTES box below to determine the scope of the search.

Search Notes		
Search Notes	Date	Examiner
(g06f8/$5.CPC g06f9/$6.CPC.) with text search and review; Palm inventor search; NPL search (IP.com/STIC)	06/09/2019	IK
(g06f8/$5.CPC g06f9/$6.CPC.) with text search and review;	06/10/2019	IK
(g06f8/$5.CPC g06f9/$6.CPC.) with text search and review;	06/23/2019	IK
(g06f8/$5.CPC g06f9/$6.CPC.) with text search and review;	12/30/2019	IK

Interference Search			
US Class/CPC Symbol	US Subclass/CPC Group	Date	Examiner

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	15/903,054	AYERS et al.
	Examiner	Art Unit
	INSUN KANG	2193

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

CLAIMS

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47

CLAIM		DATE								
Final	Original	06/24/2019	12/31/2019							
	1	✓	✓							
	2	✓	✓							
	3	✓	✓							
	4	✓	✓							
	5	✓	✓							
	6	✓	✓							
	7	✓	✓							
	8	✓	✓							
	9	✓	✓							
	10	✓	✓							
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	14	✓	✓							
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	16	✓	✓							
	17	✓	✓							
	18	✓	✓							
	19	✓	✓							
	20	✓	✓							
	21	✓	✓							
	22	✓	✓							
	23	✓	✓							

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S1064	215	(g06f8/$5 g06f9/$6).CPC. and ((((updat$3 install$5) with (set$1up (set near1 up) client launcher agent program manager))) installer) with (automatic$4) with (download$4 install$4) with application and (((run$4 execut$4) with (agent launcher client manager program set$1up installer)) (download$4 install$4)) with (silent background)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/12/30 15:57
S1062	290	(g06f8/$5 g06f9/$6).CPC. and ((((updat$3 install$5) with (set$1up (set near1 up) client launcher agent program manager))) installer) with (automatic$4) with (download$4 install$4) with application and (run$4 execut$4 agent launcher client manager program set$1up installer download$4 with install$4) with (silent background)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/12/30 15:49
S1061	42	(g06f8/$5 g06f9/$6).CPC. and ((((updat$3 install$5) near5 (set$1up (set near1 up) client launcher agent program manager))) installer) with (automatic$4) with (download$4 with install$4) with application and (run$4 execut$4 agent launcher client manager program set$1up installer download$4 with install$4) with background	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/12/30 15:24

EAST Search History (Interference)

< This search history is empty>

12/ 30/ 2019 8:42:41 PM
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:			
	Brandon Brent AYERS et al.	Confirmation No.:	1094
Serial No.:	15/903,054		
Filed:	February 23, 2018	Group Art Unit:	2193
For:	INSTANT INSTALLATION OF APPS		
		Attorney Docket:	**72247**
Examiner:	Insun KANG		

Mail Stop AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

REPLY UNDER 37 CFR 1.116 - EXPEDITED PROCEDURE - TECHNOLOGY CENTER 2193

Sir:

This is in response to the United States Patent and Trademark Final Office Action mailed January 3, 2020, which response is being made on or before May 3, 2020, and for which a one month extension of time fee is due and enclosed herewith.

A Request for After Final Consideration Pilot (AFCP) program is also enclosed herewith.

Applicant submits this response for entry into the record, in which:

Amendments to the Claims begin on page 2.

Remarks begin on page 8.

Please amend the above-identified application as follows:

In the Claims:

1. (Currently Amended) A device configured for running software applications, comprising:

a network interface configured for communicating over a network;

at least one non-transitory computer readable storage medium storing instructions; and

at least one processor associated with said network interface and said storage medium, configured for executing said instructions to:

identify that a link for installation of a first software application is selected by user interaction with a second software application running on said device;

in response to said identifying, determine when an installation client for downloading and installing applications on said device is available on said device, said installation client comprising a third software application;

when said installation client is available on said device:

invoke, without exiting said second software application, said [[an]]installation client for downloading and installing applications on said device to run in the background on said device;

instruct said installation client to automatically download an installation file of said first software application to said device over said network using said network interface; and

using said downloaded installation file, install said first software application on said device;

and

when said installation client is unavailable on said device, redirect said device to an app store.

2. (Previously Presented) A device according to claim 1, wherein said at least one processor is further configured for executing said instructions to close said installation client when said installation of said first software application is completed.

3. (Original) A device according to claim 1, wherein, upon being instructed to automatically download said installation file, said installation client downloads said installation file onto said device from a respective network address of said installation file.

4. (Original) A device according to claim 3, wherein said installation client retrieves said respective network address over said network from an app information server.

5. (Original) A device according to claim 3, wherein said installation client constructs said respective network address using information included in said link.

6. (Original) A device according to claim 1, wherein said automatic download maintains a user experience of interaction with said second software application.

7. (Original) A device according to claim 1, wherein said automatic download is performed without directing said user interaction to an app store.

8. (Original) A device according to claim 1, wherein said installation client is invoked when said link comprises a deep link linking said installation of said first software application to said installation client.

9. (Original) A device according to claim 1, wherein said device comprises a mobile device.

10. (Original) A device according to claim 1, wherein said installation client prompts for user confirmation of said installation of said first software

application prior to said automatic download and performs said automatic download only when said confirmation is obtained.

11. (Original) A device according to claim 10, wherein said prompting for user confirmation comprises retrieving information associated with said first software application from a server over said network using said network interface and displaying said information on a display of said device.

12. (Original) A device according to claim 10, wherein said installation client resumes running in the background when a response is received to said prompting.

13. (Canceled)

14. (Original) A device according to claim 1, wherein said installation client comprises integrated security processes.

15. (Currently Amended) A method for installation of software applications on a device, comprising:

executing, by at least one hardware processor operating in said device, program instructions to:

identify that a link for installation of a first software application is selected by user interaction with a second software application running on said device;

in response to said identifying, determine when an installation client for downloading and installing applications on said device is available on said device, said installation client comprising a third software application;

when said installation client is available on said device:

invoke, without exiting said second software application, said [[an]]installation client for downloading and installing applications on said device to run in the background on said device;

instruct said installation client to automatically download an installation file of said first software application to said device over a network; and

install said first software application on said device using said downloaded installation file;

and

when said installation client is unavailable on said device, redirect said device to an app store.

16. (Original) A method according to claim 15, further comprising closing said installation client when said installation of said first software application is completed.

17. (Original) A method according to claim 15, wherein said automatic download maintains a user experience of interaction with said second software application.

18. (Original) A method according to claim 15, wherein said automatic download is performed without directing said user interaction to an app store.

19. (Original) A method according to claim 15, wherein said installation client is invoked when said link comprises a deep link linking said installation of said first software application to said installation client.

20. (Original) A method according to claim 15, wherein said device comprises a mobile device.

21. (Original) A method according to claim 15, wherein said installation client prompts for user confirmation of said installation of said first software

application prior to said automatic download and performs said automatic download only when said confirmation is obtained.

22. (Currently Amended) A non-transitory computer readable medium including instructions that, when executed by at least one processor, cause the at least one processor to perform operations for installing software applications on a device, said operations comprising:

identifying that a link for installation of a first software application is selected by user interaction with a second software application running on said device;

in response to said identifying, determining when an installation client for downloading and installing applications is available for execution by said at least one processor on said device, said installation client comprising a third software application;

when said installation client is available on said device:

invoking, without exiting said second software application, said [[an]]installation client for downloading and installing applications on said device to run in the background on said device;

instructing said installation client to automatically download an installation file of said first software application to said device over a network using a network interface of said device; and

using said downloaded installation file, installing said first software application on said device;

and

when said installation client is unavailable on said device, redirecting said device to an app store.

23. (Canceled)

24. (New) A device according to claim 1, wherein said at least one processor is further configured for executing said instructions to redirect said device to said app store when said invocation of the installation client fails.

25. (New) A method according to claim 15, further comprising redirecting said device to said app store when said invocation of the installation client fails.

26. (New) A non-transitory computer readable medium according to claim 22, wherein said instructions further comprise redirecting said device to said app store when said invocation of the installation client fails.

REMARKS

Reconsideration of the above-identified application in view of the amendments above and the remarks following is respectfully requested.

Claims 1-23 are in this Application. Claims 1-23 have been rejected under 35 U.S.C. § 103. Claims 13 and 23 have been canceled herewith without prejudice. Claims 1, 15 and 22 have been amended herewith without prejudice. New claims 24-26 have been added herewith.

Amendments To The Claims

Examiner's Response to Arguments

In the second paragraph of p. 14 of the instant Office Action the Examiner states in response to Applicant's arguments that "the claims do not recite separate applications, that is, the installation client is not further recited as being a separate or independent application outside of the claimed instructions that invokes the installation client claimed".

Applicant has amended independent claims 1, 15 and 22 to recite "*said installation client comprising a third software application*".

Applicant respectfully believes that these amendments distinguish between the current app (i.e. the claimed "second software application") and the installation client (i.e. the "third software application") as separate software applications.

35 U.S.C. § 103 Rejections

The Examiner rejected claims 1, 3-7, 9-11, 15, 18 and 20-23 as being unpatentable over US Pat. Publ. 2016/0216954 by Jitkoff et al. (hereafter *Jitkoff*) in view of US Pat. Publ. 2017/0192764 by Cayre et al. (hereafter *Cayre*). The Examiner rejected claims 2 and 16 as being unpatentable over *Jitkoff* in view of *Cayre* in view of US Pat. Publ. 2010/0095924 by Yamada (hereafter *Yamada*). The Examiner

rejected claims 8, 13 and 19 as being unpatentable over *Jitkoff* in view of *Cayre* in view of US Pat. Publ. 2016/0142859 by Molinet (hereafter *Molinet*). The Examiner rejected claim 12 as being unpatentable over *Jitkoff* in view of *Cayre* in view of US Pat. Publ. 2015/0074659 by Madsen (hereafter *Madsen*). The Examiner rejected claim 14 as being unpatentable over *Jitkoff* in view of *Cayre* in view of US Pat. Publ. 2017/0070361by Sundermeyer et al. (hereafter *Sundermeyer*).

For clarity, Applicants are describing the teachings of *Jitkoff*, *Cayre*, *Yamada*, *Molinet*, *Madsen* and *Sundermeyer* individually but are traversing the rejection with respect to the combination of these references, *infra*. That is, the Applicants are not attacking the references individually, rather addressing the combinations of references as set forth in the instant Office Action.

While traversing the rejection and in order to promote the examination, Applicant amended main claim 1 to recite:

> 1. A device configured for running software applications, comprising:
> a network interface configured for communicating over a network;
> at least one non-transitory computer readable storage medium storing instructions; and
> at least one processor associated with said network interface and said storage medium, configured for executing said instructions to:
> identify that a link for installation of a first software application is selected by user interaction with a second software application running on said device;
> in response to said identifying, <u>determine when an installation client for downloading and installing applications on said device is available on said device</u>, said installation client comprising a third software application;
> <u>when said installation client is available on said device</u>:
> <u>invoke, without exiting said second software application, said installation client for downloading and installing applications on said device to run in the background on said device</u>;
> instruct said installation client to automatically download an installation file of said first software application to said device over said network using said network interface; and
> using said downloaded installation file, install said first software application on said device;

and

when said installation client is unavailable on said device, redirect said device to an app store. (Emphasis added.)

Corresponding amendments were made for independent claims 15 and 22. Basis for the amendments can be found, *inter alia*, on p. 3 line 33 to p. 4 line 2, p. 19 lines 20-30 and in Figs. 1 and 6.

As claimed herein, in response to selection of a link for installing a new app (i.e. the "first software application"), it is determined whether an installation client is available on the device. If the installation client is available, the installation client instructions are executed and the installation file is downloaded in the background. If the installation client is unavailable, the device is redirected to an app store.

Thus if the installation client is available the user experience continues in the current app while the new app is downloaded and installed in the background. However if the installation client is unavailable, the new app is still made available to the user by interaction with the app store.

In para. 0013, *Jitkoff* presents an application launcher which searches local and web-based applications for items meeting a user's search criteria. In *Jitkoff* the result of the search by the application launcher may be an application. The items found by the application launcher search are made accessible to the user at the application launcher.

Claims 1, 15 and 22 have been amended to recite an installation client that is separate from the installation client. *Jitkoff* does not teach or suggest a separate application (i.e. an installation client) which performs the download and installation, and certainly not of a separate application which performs the download and installation while running in the background on the device. The application launcher runs in the foreground of the device and therefore does not teach the installation client as claimed.

As acknowledged by the Examiner on p. 4 of the Office Action, *Jitkoff* "does not explicitly teach that the application launcher is provided for downloading and installing applications on said device to run in the background on said device".

The Examiner cites *Cayre* as teaching an installation client for downloading and installing applications to run in the background of the device. *Cayre* teaches a process capable of downloading and installing an application in the background as recited in para. 0046:

> **[0046]** The process can then include installing the second application (step **214**). In some embodiments, this download and installation (steps **212** and **214**) can occur in the background without notifying the user. For example, these steps can occur while the user is signing in or signing up for the service. In some embodiments, these steps occur in anticipation of the condition in step **202** being detected. In some embodiments, the first application can have elevated access privileges to enable the installation of the second application without user involvement (e.g., not triggering a user access control prompt by an operating system).

As claimed herein, the installation client is invoked in response to the user selecting a link. In contrast, *Cayre* para. 0041 teaches that the process begins with detecting a condition. When the condition is detected, the process performs additional steps which may result in an application being downloaded and installed in the background. Thus *Cayre*'s process is necessarily running on the device before the link is selected by the user. Otherwise the condition (such as a link selection) would not be detected.

Applicant therefore submits neither *Jitkoff* nor *Cayre* teach or suggest:

i) "*in response to said identifying, determine when an installation client for downloading and installing applications on said device is available on said device*"; and

ii) "*when said installation client is available on said device:*

> *invoke, without exiting said second software application, said installation client for downloading and installing applications on said device to run in the background on said device;*
> *instruct said installation client to automatically download an installation file of said first software application to said device over said network using said network interface;".*

Claims 1, 22 and 23 include the further limitation of "*when said installation client is unavailable on said device, redirect said device to an app store*". Neither *Jitkoff* nor *Cayre* teach redirecting the device to an app store.

Claim 13, now canceled, included the feature of "*to redirect said device to an app store when said installation client is unavailable on said device*". The Examiner cited *Molinet* for this feature.

Applicant submits that *Molinet* does not teach redirection of the device to the app store as claimed herein. With regard to redirection to an app store, *Molinet* para. 0027 states:

> user. For example, if the user is using a mobile device that supports a mobile application ecosystem, the server may detect this contextual information and respond with a redirection to the application store on the user's client device **120** if the user does not have installed the application referenced in the link.

Claims 1, 15 and 22 explicitly recite that the current application redirects the device to the app store when the installation client is not available on the device. In contrast, *Molinet* redirects the device to an app store when the application being configured is not installed on the device.

Applicant therefore submits that *Molinet* does not teach "*when said installation client is unavailable on said device, redirect said device to an app store*".

Applicant respectfully submits that neither *Jitkoff* nor *Cayre*, alone or in combination, teach or suggest:

i) "*in response to said identifying, determine when an installation client for downloading and installing applications on said device is available on said device*";

ii) "*when said installation client is available on said device:*

invoke, without exiting said second software application, said installation client for downloading and installing applications on said device to run in the background on said device;

instruct said installation client to automatically download an installation file of said first software application to said device over said network using said network interface";

iii) "*when said installation client is unavailable on said device, redirect said device to an app store*".

The possible combination of *Jitkoff* and *Cayre* with *Molinet* does not remedy these deficiencies.

With regard to the dependent claims:

1) The Examiner cited *Jitkoff* in view of *Cayre* in view *Yamada* for claims 2 and 16. *Yamada* teaches an installer program for which performs installation operations collectively for multiple pieces of software. *Yamada* is directed at preventing a user from downloading applications using an administrator account. In *Yamada*, if an administrator account indicates that the account to execute the command is the user account, the command is executed in the user account rather than in the administrator account. *Yamada* does not teach an installation client as claimed, and therefore does not remedy the deficiencies of *Jitkoff* in view of *Cayre*.

2) The Examiner cited *Jitkoff* in view of *Cayre* in view *Molinet* for claims 8, 13 and 19. Claim 13 has been canceled.

With regard to claims 8 and 19, *Molinet* teaches contextual deep linking of applications. The deep link is associated with link data which indicates a configuration of an application. This link data is received from the server by the client device and is

used by the client device to configure the application as indicated in the link data. However, *Molinet* does not determine whether an installation client is available nor does it invoke the installation client when the deep link is selected and therefore does not remedy the deficiencies of *Jitkoff* in view of *Cayre*.

3) The Examiner cited *Jitkoff* in view of *Cayre* in view *Madsen* for claim 12. *Madsen* teaches a web-based installation handler that enables a user to install a full enterprise software suite directly from a web page onto a host machine. *Madsen* does not teach an installation client running in the background on the device and therefore does not remedy the deficiencies of *Jitkoff* in view of *Cayre*.

4) The Examiner cited *Jitkoff* in view of *Cayre* in view *Sundermeyer* for claim 14. *Sundermeyer* relates to a data model for home automation which includes an automation network including a gateway at a premises coupled to a remote server. A security system integrates broadband and mobile access and control with conventional security systems and premise devices to provide a tri-mode security network that enables users to remotely stay connected to their premises. While *Sundermeyer* does teach security processes, these security processes are not integrated into an installation client for downloading and installing applications on a device and therefore do not remedy the deficiencies of *Jitkoff* in view of *Cayre*.

In summary, none of *Jitkoff*, *Cayre*, *Yamada*, *Molinet*, *Madsen* and *Sundermeyer*, alone or in combination, teach or suggest:

i) "*in response to said identifying, determine when an installation client for downloading and installing applications on said device is available on said device*";

ii) "*when said installation client is available on said device:*

invoke, without exiting said second software application, said installation client for downloading and installing applications on said device to run in the background on said device;

instruct said installation client to automatically download an installation file of said first software application to said device over said network using said network interface"; and

iii) "*when said installation client is unavailable on said device, redirect said device to an app store*".

It is therefore submitted that claims 1, 15 and 22 are both novel and inventive over the prior art. It is believed that the dependent claims are allowable as being dependent on an allowable main claim.

New claims

New claims 24-26 include the limitation of redirecting the device to the app store when invocation of the installation client fails. Support for new claims 24-26 is found *inter alia* on p. 15 lines 23-27 of the instant application.

Claims 24-26 provide the benefit of enabling the user to install the new app on the device even when the installation client appears to be available on the device but in actuality is unavailable because it cannot be invoked.

Conclusion

No Disclaimers or Disavowals

Although the present response may include amendments to the application or claims, or characterizations of claim scope or referenced art, Applicants do not concede that previously pending claims in this application are not patentable over the cited references. Rather, any amendments or characterizations are being made to expedite the issuance. Applicants reserve the right to pursue at a later date any previously pending or other broader or narrower claims that relate to subject matter supported by the instant application, including subject matter specifically disclaimed herein or by any prior prosecution. Accordingly, reviewers of this application, or any parent, child or related prosecution history should not infer that Applicants have made any disclaimers or disavowals of any subject matter supported by the instant application.

In view of the above amendments and remarks it is respectfully submitted that claims 1-12, 14-22 and 24-26 are now in condition for allowance. A prompt notice of allowance is respectfully and earnestly solicited.

While the above amendments and/or remarks are believed to be sufficient to overcome the Examiner's rejections, any omissions as to assertions by the Examiner or certain requirements that may be applicable to such rejections (e.g., assertions regarding dependent claims, whether a reference constitutes prior art, whether references are legally combinable for obviousness purposes) is not an admission that such assertions are accurate or such requirements have been met. Applicant reserves the right to analyze and dispute such positions in the future.

Should the Examiner have any questions or comments as to the form, content, or entry of this paper, the Examiner is requested to contact the undersigned at the telephone number below prior to mailing the next Official Action. Similarly, if there are any further issues yet to be resolved to advance the prosecution of this application to issue, the Examiner is requested to telephone the undersigned counsel.

Any fees associated with this paper, for its entry into the record, may be charged to Deposit Account No. 50-1407.

During the pendency of this application, the Commissioner for Patents is hereby authorized to charge payment of any filing fees for presentation of extra claims under 37 CFR § 1.16 and any patent application processing fees under 37 CFR § 1.17, or credit any overpayment, to Deposit Account No. 50-1407.

The Commissioner for Patents is hereby authorized to treat any concurrent or future reply, requiring a petition for extension of time under 37 CFR § 1.136 for its timely submission, as incorporating a petition for extension of time for the appropriate length of time if not submitted with the reply.

Recognizing that Internet communications are not secure, I hereby authorize the USPTO to communicate with the undersigned and practitioners in accordance with 37 CFR § 1.33 and 37 CFR § 1.34 concerning any subject matter of this application by video conferencing, instant messaging, or electronic mail. I understand that a copy of these communications may be made of record in the application file.

Respectfully submitted,

/Martin D. Moynihan/

Martin D. Moynihan
Registration No. 40338
Telephone: (703) 859-9634

Date: April 16, 2020

Enclosures:

- Petition for Extension (One Month)
- Additional Claims Transmittal Fee
- Request for After Final Consideration Pilot (AFCP) Program

Doc Code: A.NE.AFCP
Document Description: After Final Consideration Pilot Program Request

PTO/SB/434 (05-13)

CERTIFICATION AND REQUEST FOR CONSIDERATION UNDER THE AFTER FINAL CONSIDERATION PILOT PROGRAM 2.0

Practitioner Docket No.:	Application No.:	Filing Date:
72247	15/903,054	February 23, 2018
First Named Inventor:	**Title:**	
Brandon Brent AYERS	INSTANT INSTALLATION OF APPS	

APPLICANT HEREBY CERTIFIES THE FOLLOWING AND REQUESTS CONSIDERATION UNDER THE AFTER FINAL CONSIDERATION PILOT PROGRAM 2.0 (AFCP 2.0) OF THE ACCOMPANYING RESPONSE UNDER 37 CFR 1.116.

1. The above-identified application is (i) an original utility, plant, or design nonprovisional application filed under 35 U.S.C. 111(a) [a continuing application (*e.g.*, a continuation or divisional application) is filed under 35 U.S.C. 111(a) and is eligible under (i)], or (ii) an international application that has entered the national stage in compliance with 35 U.S.C. 371(c).
2. The above-identified application contains an outstanding final rejection.
3. Submitted herewith is a response under 37 CFR 1.116 to the outstanding final rejection. The response includes an amendment to at least one independent claim, and the amendment does not broaden the scope of the independent claim in any aspect.
4. This certification and request for consideration under AFCP 2.0 is the only AFCP 2.0 certification and request filed in response to the outstanding final rejection.
5. Applicant is willing and available to participate in any interview requested by the examiner concerning the present response.
6. This certification and request is being filed electronically using the Office's electronic filing system (EFS-Web).
7. Any fees that would be necessary consistent with current practice concerning responses after final rejection under 37 CFR 1.116, *e.g.*, extension of time fees, are being concurrently filed herewith. [There is no additional fee required to request consideration under AFCP 2.0.]
8. By filing this certification and request, applicant acknowledges the following:
   - Reissue applications and reexamination proceedings are not eligible to participate in AFCP 2.0.
   - The examiner will verify that the AFCP 2.0 submission is compliant, *i.e.*, that the requirements of the program have been met (see items 1 to 7 above). For compliant submissions:
     - The examiner will review the response under 37 CFR 1.116 to determine if additional search and/or consideration (i) is necessitated by the amendment and (ii) could be completed within the time allotted under AFCP 2.0. If additional search and/or consideration is required but cannot be completed within the allotted time, the examiner will process the submission consistent with current practice concerning responses after final rejection under 37 CFR 1.116, *e.g.*, by mailing an advisory action.
     - If the examiner determines that the amendment does not necessitate additional search and/or consideration, or if the examiner determines that additional search and/or consideration is required and could be completed within the allotted time, then the examiner will consider whether the amendment places the application in condition for allowance (after completing the additional search and/or consideration, if required). If the examiner determines that the amendment does not place the application in condition for allowance, then the examiner will contact the applicant and request an interview.
       - The interview will be conducted by the examiner, and if the examiner does not have negotiation authority, a primary examiner and/or supervisory patent examiner will also participate.
       - If the applicant declines the interview, or if the interview cannot be scheduled within ten (10) calendar days from the date that the examiner first contacts the applicant, then the examiner will proceed consistent with current practice concerning responses after final rejection under 37 CFR 1.116.

Signature	Date
/Martin D. Moynihan/	April 16, 2020
Name (Print/Typed) Martin D. Moynihan	**Practitioner Registration No.** 40338

Note: *This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4(d) for signature requirements and certifications. Submit multiple forms if more than one signature is required, see below*.*

☑ * Total of 1 forms are submitted.

Privacy Act Statement

The **Privacy Act of 1974 (P.L. 93-579)** requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (*i.e.*, GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Electronic Patent Application Fee Transmittal

Application Number:	15903054
Filing Date:	23-Feb-2018
Title of Invention:	INSTANT INSTALLATION OF APPS
First Named Inventor/Applicant Name:	Brandon Brent AYERS
Filer:	Martin Dennis Moynihan
Attorney Docket Number:	72247

Filed as Small Entity

Filing Fees for Utility under 35 USC 111(a)

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
CLAIMS IN EXCESS OF 20	2202	1	50	50
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Extension-of-Time:				
Extension - 1 month with $0 paid	2251	1	100	100
Miscellaneous:				
			Total in USD ($)	**150**

Electronic Acknowledgement Receipt

EFS ID:	39173414
Application Number:	15903054
International Application Number:	
Confirmation Number:	1094
Title of Invention:	INSTANT INSTALLATION OF APPS
First Named Inventor/Applicant Name:	Brandon Brent AYERS
Customer Number:	67801
Filer:	Martin Dennis Moynihan
Filer Authorized By:	
Attorney Docket Number:	72247
Receipt Date:	16-APR-2020
Filing Date:	23-FEB-2018
Time Stamp:	08:09:26
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	DA
Payment was successfully received in RAM	$150
RAM confirmation Number	E20204F910573056
Deposit Account	501407
Authorized User	Martin Moynihan

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

37 CFR 1.16 (National application filing, search, and examination fees)

37 CFR 1.17 (Patent application and reexamination processing fees)

37 CFR 1.19 (Document supply fees)

37 CFR 1.20 (Post Issuance fees)

37 CFR 1.21 (Miscellaneous fees and charges)

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		72247ResponsetoFinalOAdated 3Jan2020.pdf	298517 71e195632c9c98a0facf2679b1ab83f92156f579	yes	21

	Multipart Description/PDF files in .zip description		
	Document Description	**Start**	**End**
	Extension of Time	1	1
	Transmittal Letter	2	2
	Response After Final Action	3	3
	Claims	4	9
	Applicant Arguments/Remarks Made in an Amendment	10	19
	After Final Consideration Program Request	20	21

Warnings:

Information:

2	Fee Worksheet (SB06)	fee-info.pdf	31917 8d616c96898cc031ff686c3d6f955ad95e23a110	no	2

Warnings:

Information:

Total Files Size (in bytes):	330434

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:			
	Brandon Brent AYERS et al.	Confirmation No.:	1094
Serial No.:	15/903,054		
Filed:	February 23, 2018	Group Art Unit:	2193
For:	INSTANT INSTALLATION OF APPSx		
		Attorney Docket:	**72247**
Examiner:	Insun KANG		

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

PETITION AND FEE FOR EXTENSION OF TIME UNDER 37 C.F.R. §1.136(a)

Sir:

(1) This is a petition for an extension of time to respond to the Final Office Action mailed **January 3, 2020**, for a period of **one (1) month**.

(2) Applicant is a:
_**X**_ small entity ___ verified statement attached
___ verified statement filed

(3)

Extensions (months)	Fees for small entity	Fee for other than small entity
☑ **one month**	**$ 100.00**	$ 200.00
☐ two months	$ 300.00	$ 600.00
☐ three months	$ 700.00	$ 1,400.00

(4) An amendment _**X**_ is filed herewith
___ has been filed

(5) Please charge the extension fee and any other amount required to Deposit Account No. **50-1407**.

(6) The Commissioner is hereby authorized and requested to charge any additional fees which may be required in connection with this application or credit any overpayment to Deposit Account No. **50-1407**. This authorization and request is not limited to payment of all fees associated with this communication, including any Extension of Time fee, not covered by check or specific authorization, but is also intended to include all fees for the presentation of extra claims under 37 CFR §1.16 and all patent processing fees under 37 CFR §1.17 throughout the prosecution of the case. This blanket authorization does not include patent issue fees under 37 CFR §1.18.

Respectfully submitted,
/Martin D. Moynihan/

Martin D. Moynihan
Registration No. 40338
Telephone: (703) 859-9634

Date: April 16, 2020

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:		§		
		§		
	Brandon Brent AYERS et al.	§	Confirmation No.:	1094
		§		
Serial No.:	15/903,054	§		
		§		
Filed:	February 23, 2018	§	Group Art Unit:	2193
		§		
For:	INSTANT INSTALLATION OF APPS	§		
		§		
		§	Attorney Docket:	**72247**
Examiner:	Insun KANG	§		

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

AMENDMENT TRANSMITTAL

Sir:

(1) Applicant is a:
_X_ small entity
___ other than small entity

(2) The fee for claims 37 C.F.R. §1.16(b)-(d) has been calculated as shown below:

For	Claims after Amendment	Highest Claims Previously Paid
Total Claims	24	23
Indep. Claims	3	3

Small Entity	
Rate	**Fee**
1 x $ 50.00	$ 50.00
0 x $230.00	$ 0.00
TOTAL:	**$ 50.00**

(3) A response to the Final Office Action dated January 3, 2020 _X_ is filed herewith
____ has been filed

(4) Please charge the additional claim fee and any other amount required to Deposit Account No. **50-1407**.

Respectfully submitted,

/Martin D. Moynihan/

Martin D. Moynihan
Registration No. 40338
Telephone: (703) 859-9634

Date: April 16, 2020

PTO/SB/06 (09-11)
Approved for use through 1/31/2014. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 15/903,054	Filing Date 02/23/2018	☐ To be Mailed

ENTITY: ☐ LARGE ☑ SMALL ☐ MICRO

APPLICATION AS FILED - PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA		RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A		N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A		N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A		N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*		x $50 =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*		x $230 =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).				
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))					
* If the difference in column 1 is less than zero, enter "0" in column 2.				TOTAL	

APPLICATION AS AMENDED - PART II

		(Column 1)		(Column 2)	(Column 3)			
AMENDMENT	04/16/2020	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	* 24	Minus	** 23	= 1		x $50 =	50
	Independent (37 CFR 1.16(h))	* 3	Minus	*** 3	= 0		x $230 =	0
	☐ Application Size Fee (37 CFR 1.16(s))							
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							
							TOTAL ADD'L FEE	50

		(Column 1)		(Column 2)	(Column 3)			
AMENDMENT		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	*	Minus	**	=		x $0 =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=		x $0 =	
	☐ Application Size Fee (37 CFR 1.16(s))							
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							
							TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.	LIE
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".	/TAMMY D MCBETH BROWN/
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".	
The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.	

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:			
	Brandon Brent AYERS et al.	Confirmation No.:	1094
Serial No.:	15/903,054		
Filed:	February 23, 2018	Group Art Unit:	2193
For:	INSTANT INSTALLATION OF APPS	Attorney Docket:	**72247**
Examiner:	Insun KANG		

Mail Stop AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

REPLY UNDER 37 CFR 1.116 - EXPEDITED PROCEDURE - TECHNOLOGY CENTER 2193

Sir:

This is in response to the United States Patent and Trademark Final Office Action mailed January 3, 2020, which response is being made on or before May 3, 2020, and for which a one month extension of time fee is due and enclosed herewith.

A Request for After Final Consideration Pilot (AFCP) program is also enclosed herewith.

Applicant submits this response for entry into the record, in which:

Amendments to the Claims begin on page 2.

Remarks begin on page 8.

Please amend the above-identified application as follows:

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/903,054	02/23/2018	Brandon Brent AYERS	72247	1094

67801 7590 05/05/2020

MARTIN D. MOYNIHAN d/b/a PRTSI, INC.
c/o Purrfect Patents LLC
11213 Piedmont Drive
Fredericksburg, VA 22407

EXAMINER	
KANG, INSUN	

ART UNIT	PAPER NUMBER
2193	

NOTIFICATION DATE	DELIVERY MODE
05/05/2020	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

usptomail@ipatent.co.il

Advisory Action Before the Filing of an Appeal Brief	**Application No.** 15/903,054	**Applicant(s)** AYERS et al.	
	Examiner INSUN KANG	**Art Unit** 2193	**AIA (FITF) Status** Yes

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 16 April 2020 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

NO NOTICE OF APPEAL FILED

1. ☑ The reply was filed after a final rejection. No Notice of Appeal has been filed. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114 if this is a utility or plant application. Note that RCEs are not permitted in design applications. The reply must be filed within one of the following time periods:
   a) ☑ The period for reply expires 3 months from the mailing date of the final rejection.
   b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action; or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.
   c) ☐ A prior Advisory Action was mailed more than 3 months after the mailing date of the final rejection in response to a first after-final reply filed within 2 months of the mailing date of the final rejection.The current period for reply expires ____ months from the mailing date of *the prior Advisory Action* or SIX MONTHS from the mailing date of the final rejection, whichever is earlier.
   Examiner Note: If box 1 is checked, check either box (a), (b) or (c). ONLY CHECK BOX (b) WHEN THIS ADVISORY ACTION IS THE FIRST RESPONSE TO APPLICANTS FIRST AFTER-FINAL REPLY WHICH WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. ONLY CHECK BOX (c) IN THE LIMITED SITUATION SET FORTH UNDER BOX (c). See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) or (c) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37CFR 41.37(a).

AMENDMENTS

3. ☑ The proposed amendments filed after a final rejection, but prior to the date of filing a brief, will not be entered because
   a) ☑ They raise new issues that would require further consideration and/or search (see NOTE below);
   b) ☐ They raise the issue of new matter (see NOTE below);
   c) ☑ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
   d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.
   NOTE: See Continuation Sheet (See 37CFR 1.116 and 41.33(a)).
4. ☐ The amendments are not in compliance with 37CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicants reply has overcome the following rejection(s): _____
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☑ For purposes of appeal, the proposed amendment(s):(a) ☑ will not be entered, or (b) ☐ will be entered, and an explanation of how the new or amended claims would be rejected is provided below or appended.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____
9. ☐ The affidavit or other evidence filed after final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
10. ☐ The affidavit or other evidence filed after the date of filing the Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
11. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

12. ☐ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: _____.
13. ☐ Note the attached Information *Disclosure Statement*(s). (PTO/SB/08) Paper No(s). _____
14. ☑ Other: Pto-2323.

STATUS OF CLAIMS

15. The status of the claim(s) is (or will be) as follows:
    Claim(s) allowed:_____.
    Claim(s) objected to:_____.
    Claim(s) rejected:1-23.
    Claim(s) withdrawn from consideration:_____.

/INSUN KANG/ Primary Examiner, Art Unit 2193	

Continuation of 3. NOTE: The added limitations such as determining when an installation client for downloading and installing...when said installation client is available on said device and new claims 24-26 would require further consideration and/or search

AFCP 2.0 Decision	Application No.	Applicant(s)	
	15/903,054	AYERS et al.	
	Examiner	Art Unit	AIA (FITF) Status
	INSUN KANG	2193	Yes

This is in response to the After Final Consideration Pilot request filed 16 April 2020.

1. **Improper Request** – The AFCP 2.0 request is improper for the following reason(s) and the after final amendment submitted with the request will be treated under pre-pilot procedure.

   ☐ An AFCP 2.0 request form PTO/SB/434 (or equivalent document) was not submitted.

   ☐ A non-broadening amendment to at least one independent claim was not submitted.

   ☐ The request is not the first proper AFCP 2.0 request submitted in response to the most recent final rejection.

   ☐ Other: _____

2. **Proper Request**

   A. After final amendment submitted with the request will not be treated under AFCP 2.0.
   The after final amendment cannot be reviewed and a search conducted within the guidelines of the pilot program.

   ☑ The after final amendment will be treated under pre-pilot procedure.

   B. Updated search and/or completed additional consideration.
   The examiner performed an updated search and/or completed additional consideration of the after final amendment within the time authorized for the pilot program. The result(s) of the updated search and/or completed additional consideration are:

   ☐ 1. All of the rejections in the most recent final Office action are overcome and a Notice of Allowance is issued herewith.

   ☐ 2. The after final amendment would not overcome all of the rejections in the most recent final Office action . See attached interview summary for further details.

   ☐ 3. The after final amendment was reviewed, and it raises a new issue(s). See attached interview summary for further details.

   ☐ 4. The after final amendment raises new issues, but would overcome all of the rejections in the most recent final Office action. A decision on determining allowability could not be made within the guidelines of the pilot. See attached interview summary for further details, including any newly discovered prior art.

   ☐ 5. Other: _____

   Examiner Note: Please attach an interview summary when necessary as described above.

DO NOT ENTER: /I.K/

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:		§		
		§		
	Brandon Brent AYERS et al.	§		
		§	Confirmation No.:	1094
Serial No.:	15/903,054	§		
		§		
Filed:	February 23, 2018	§	Group Art Unit:	2193
		§		
For:	INSTANT INSTALLATION OF APPS	§		
		§		
		§	Attorney Docket:	**72247**
		§		
Examiner:	Insun KANG	§		

Mail Stop AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

REPLY UNDER 37 CFR 1.116 - EXPEDITED PROCEDURE - TECHNOLOGY CENTER 2193

Sir:

This is in response to the United States Patent and Trademark Final Office Action mailed January 3, 2020, which response is being made on or before May 3, 2020, and for which a one month extension of time fee is due and enclosed herewith.

A Request for After Final Consideration Pilot (AFCP) program is also enclosed herewith.

Applicant submits this response for entry into the record, in which:

Amendments to the Claims begin on page 2.

Remarks begin on page 8.

Please amend the above-identified application as follows:

PTO/SB/30 (08-00)
Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

REQUEST FOR CONTINUED EXAMINATION (RCE) TRANSMITTAL

Subsection (b) of 35 U.S.C. § 132, effective on May 29, 2000, provides for continued examination of an utility or plant application filed on or after June 8, 1995.
See The American Inventors Protection Act of 1999 (AIPA).

Application Number	**15/903,054**
Filing Date	**February 23, 2018**
Examiner Name	**Insun KANG**
First Named Inventor	**Brandon Brent AYERS**
Group Art Unit	**2193**
Confirmation No.:	**1094**
Attorney Docket Number	**72247**

This is a Request for Continued Examination (RCE) under 37 C.F.R. § 1.114 of the above-identified application.

NOTE: *37 C.F.R. § 1.114 is effective on May 29, 2000. If the above-identified application was filed prior to May 29, 2000, applicant may wish to consider filing a continued prosecution application (CPA) under 37 C.F.R. § 1.53 (d) (PTO/SB/29) instead of a RCE to be eligible for the patent term adjustment provisions of the AIPA.* See *Changes to Application Examination and Provisional Application Practice*, Final Rule, 65 *Fed. Reg.* 50092 (Aug. 16, 2000); Interim Rule, 65 *Fed. Reg.* 14865 (Mar. 20, 2000), 1233 *Off. Gaz. Pat. Office* 47 (Apr. 11, 2000), which established RCE practice.

1. **Submission required under 37 C.F.R. § 1.114**
   a. ☒ **Previously submitted**
      i. ☒ Consider the amendment(s)/reply under 37 C.F.R. § 1.116 previously filed on 16 April 2020
      (Any unentered amendment(s) referred to above will be entered).
      ii. ☐ Consider the arguments in the Appeal Brief or Reply Brief previously filed on _____
   b. ☒ **Enclosed**
      i. ☐ Amendment/Reply
      ii. ☐ Affidavit(s)/Declaration(s)
      iii. ☐ Information Disclosure Statement (IDS)
      iv. ☒ Other Two (2) Month Extension fee
      v. ☐ Other

2. **Miscellaneous**
   a. ☐ Suspension of action on the above-identified application is requested under 37 C.F.R. §1.103(c) for a period of ____ months. (Period of suspension shall not exceed 3 months; Fee under 37 C.F.R. § 1.17(i) **required**)
   b. ☐ Other _____

3. **Fees** The RCE fee under 37 C.F.R. § 1.17(e) is required by 37 C.F.R. § 1.114 when the RCE is filed.

4. ☒ **Provisional extension of time if needed**. Applicants authorize any charge of additional fees (except issue fee) that may be required in connection with this application to Deposit Account No. 50-1407.

☒ **Applicant is entitled to Small Entity Status under 37 CFR 1.9 and 37 CFR 1.27**

For:	*Claims after Amendment*	*Highest Claims Previously Paid*	*SMALL ENTITY* RATE	FEE	OTHER THAN A SMALL ENTITY RATE	FEE
Request for Continued Examination (RCE)			**1**	**$650**		**$0**
Multiple Dependent Claims			**0 x $410**	**$0**		**$0**
Total Claims*	**24**	**24**	**0 x $50**	**$0**		**$0**
Independent Claims*	**3**	**3**	**0 x $230**	**$0**		**$0**
*** (If the difference in Column 1 is less than "0", enter "0" in Column 2)**			***TOTAL***	**$650**	***TOTAL***	***$0***

☒ **The Commissioner is hereby authorized to charge $650.00- filing fees to Deposit Account No. 50-1407. In the event additional fees are required, please charge these additional fees to Deposit Account No. 50-1407. In the event of overpayment, please credit Deposit Account No. 50-1407.**

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT REQUIRED

Name (Print/Type)	Martin D. Moynihan	*Registration No. (Attorney/Agent*	40338
Signature	**/Martin D. Moynihan/**	*Date*	**May 18, 2020**

Electronic Patent Application Fee Transmittal

Application Number:	15903054
Filing Date:	23-Feb-2018
Title of Invention:	INSTANT INSTALLATION OF APPS
First Named Inventor/Applicant Name:	Brandon Brent AYERS
Filer:	Martin Dennis Moynihan
Attorney Docket Number:	72247

Filed as Small Entity

Filing Fees for Utility under 35 USC 111(a)

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Extension - 2 months with $100 paid	2252	1	200	200
Miscellaneous:				
RCE- 1ST REQUEST	2801	1	650	650
		Total in USD ($)		**850**

Electronic Acknowledgement Receipt

EFS ID:	39461504
Application Number:	15903054
International Application Number:	
Confirmation Number:	1094
Title of Invention:	INSTANT INSTALLATION OF APPS
First Named Inventor/Applicant Name:	Brandon Brent AYERS
Customer Number:	67801
Filer:	Martin Dennis Moynihan
Filer Authorized By:	
Attorney Docket Number:	72247
Receipt Date:	18-MAY-2020
Filing Date:	23-FEB-2018
Time Stamp:	08:24:47
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	DA
Payment was successfully received in RAM	$850
RAM confirmation Number	E20205H925358123
Deposit Account	501407
Authorized User	Martin Moynihan

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

37 CFR 1.16 (National application filing, search, and examination fees)

37 CFR 1.17 (Patent application and reexamination processing fees)

37 CFR 1.19 (Document supply fees)

37 CFR 1.20 (Post Issuance fees)

37 CFR 1.21 (Miscellaneous fees and charges)

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		72247RCEFiledinResponsetoAdvisorActionDated5May2020.pdf	77185 9551b7871fed1e62467168ff9f0d382678cd265d	yes	2

	Multipart Description/PDF files in .zip description		
	Document Description	**Start**	**End**
	Extension of Time	1	1
	Request for Continued Examination (RCE)	2	2

Warnings:

Information:

2	Fee Worksheet (SB06)	fee-info.pdf	32245 a040c0615a8585db231d1885962d3b6ab2509852	no	2

Warnings:

Information:

Total Files Size (in bytes):	109430

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:		§	
		§	
	Brandon Brent AYERS et al.	§	
		§	Confirmation No.: 1094
Serial No.:	15/903,054	§	
		§	
Filed:	February 23, 2018	§	Group Art Unit: 2193
		§	
For:	INSTANT INSTALLATION OF APPS	§	
		§	
		§	Attorney Docket: **72247**
		§	
Examiner:	Insun KANG	§	

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

PETITION AND FEE FOR EXTENSION OF TIME UNDER 37 CFR 1.136(a)

Sir:

(1) This is a petition for an extension of time to respond to the Final Office Action mailed **January 3, 2020** and the Advisory Action mailed **May 5, 2020** for a period of **two (2) months**.

(2) Applicant is a:
_**X**_ small entity ___ verified statement attached
___ verified statement filed

(3) Extensions (months)	Fees for small entity	Fee for other than small entity
☐ one month	$ 100.00	$ 200.00
☑ **two months**	**$ 300.00**	$ 600.00
☐ three months	$ 700.00	$ 1,400.00

Less one (1) month previously paid on April 16, 2020, in the amount of $100 = Total $200

(4) An amendment __ is filed herewith
_**X**_ has been filed on April 16, 2020

(5) Please charge the extension fee and any other amount required to Deposit Account No. **50-1407**.

(6) The Commissioner is hereby authorized and requested to charge any additional fees which may be required in connection with this application or credit any overpayment to Deposit Account No. **50-1407**. This authorization and request is not limited to payment of all fees associated with this communication, including any Extension of Time fee, not covered by check or specific authorization, but is also intented to include all fees for the presentation of extra claims under 37 CFR §1.16 and all patent processing fees under 37 CFR §1.17 throughout the prosecution of the case. This blanket authorization does not include patent issue fees under 37 CFR §1.18.

Respectfully submitted,

/Martin D. Moynihan/

Martin D. Moynihan
Registration No. 40338
Telephone: (703) 859-9634

Date: May 18, 2020

PTO/SB/06 (09-11)
Approved for use through 1/31/2014. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 15/903,054	Filing Date 02/23/2018	☐ To be Mailed

ENTITY: ☐ LARGE ☑ SMALL ☐ MICRO

APPLICATION AS FILED - PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA		RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A		N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A		N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A		N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*		x $50 =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*		x $230 =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).				
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))					
* If the difference in column 1 is less than zero, enter "0" in column 2.				TOTAL	

APPLICATION AS AMENDED - PART II

		(Column 1)		(Column 2)	(Column 3)			
AMENDMENT	05/18/2020	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	* 24	Minus	** 24	= 0		x $50 =	0
	Independent (37 CFR 1.16(h))	* 3	Minus	*** 3	= 0		x $230 =	0
	☐ Application Size Fee (37 CFR 1.16(s))							
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							
							TOTAL ADD'L FEE	0

		(Column 1)		(Column 2)	(Column 3)			
AMENDMENT		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	*	Minus	**	=		x $0 =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=		x $0 =	
	☐ Application Size Fee (37 CFR 1.16(s))							
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							
							TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.	SLIE
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".	/ADRIENE D. SELLMAN/
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".	
The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.	

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

NOTICE OF ALLOWANCE AND FEE(S) DUE

67801 7590 06/02/2020

MARTIN D. MOYNIHAN d/b/a PRTSI, INC.
c/o Purrfect Patents LLC
11213 Piedmont Drive
Fredericksburg, VA 22407

EXAMINER
KANG, INSUN

ART UNIT	PAPER NUMBER
2193	

DATE MAILED: 06/02/2020

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/903,054	02/23/2018	Brandon Brent AYERS	72247	1094

TITLE OF INVENTION: INSTANT INSTALLATION OF APPS

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	SMALL	$500	$0.00	$0.00	$500	09/02/2020

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the ENTITY STATUS shown above. If the ENTITY STATUS is shown as SMALL or MICRO, verify whether entitlement to that entity status still applies.

If the ENTITY STATUS is the same as shown above, pay the TOTAL FEE(S) DUE shown above.

If the ENTITY STATUS is changed from that shown above, on PART B - FEE(S) TRANSMITTAL, complete section number 5 titled "Change in Entity Status (from status indicated above)".

For purposes of this notice, small entity fees are 1/2 the amount of undiscounted fees, and micro entity fees are 1/2 the amount of small entity fees.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Maintenance fees are due in utility patents issuing on applications filed on or after Dec. 12, 1980. It is patentee's responsibility to ensure timely payment of maintenance fees when due. More information is available at www.uspto.gov/PatentMaintenanceFees.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), by mail or fax, or via EFS-Web.

By mail, send to: Mail Stop ISSUE FEE
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

By fax, send to: (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

67801 7590 06/02/2020

MARTIN D. MOYNIHAN d/b/a PRTSI, INC.
c/o Purrfect Patents LLC
11213 Piedmont Drive
Fredericksburg, VA 22407

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being transmitted to the USPTO via EFS-Web or by facsimile to (571) 273-2885, on the date below.

(Typed or printed name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/903,054	02/23/2018	Brandon Brent AYERS	72247	1094

TITLE OF INVENTION: INSTANT INSTALLATION OF APPS

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	SMALL	$500	$0.00	$0.00	$500	09/02/2020

EXAMINER	ART UNIT	CLASS-SUBCLASS
KANG, INSUN	2193	717-174000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

❑ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.

❑ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-09 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list
(1) The names of up to 3 registered patent attorneys or agents OR, alternatively,
(2) The name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1 _____
2 _____
3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document must have been previously recorded, or filed for recordation, as set forth in 37 CFR 3.11 and 37 CFR 3.81(a). Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) : ❑ Individual ❑ Corporation or other private group entity ❑ Government

4a. Fees submitted: ❑ Issue Fee ❑ Publication Fee (if required) ❑ Advance Order - # of Copies _____

4b. Method of Payment: *(Please first reapply any previously paid fee shown above)*

❑ Electronic Payment via EFS-Web ❑ Enclosed check ❑ Non-electronic payment by credit card (Attach form PTO-2038)

❑ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment to Deposit Account No. _____

5. **Change in Entity Status** (from status indicated above)

❑ Applicant certifying micro entity status. See 37 CFR 1.29

❑ Applicant asserting small entity status. See 37 CFR 1.27

❑ Applicant changing to regular undiscounted fee status.

NOTE: Absent a valid certification of Micro Entity Status (see forms PTO/SB/15A and 15B), issue fee payment in the micro entity amount will not be accepted at the risk of application abandonment.
NOTE: If the application was previously under micro entity status, checking this box will be taken to be a notification of loss of entitlement to micro entity status.
NOTE: Checking this box will be taken to be a notification of loss of entitlement to small or micro entity status, as applicable.

NOTE: This form must be signed in accordance with 37 CFR 1.31 and 1.33. See 37 CFR 1.4 for signature requirements and certifications.

Authorized Signature _____ Date _____

Typed or printed name _____ Registration No. _____

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
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www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/903,054	02/23/2018	Brandon Brent AYERS	72247	1094

67801 7590 06/02/2020

MARTIN D. MOYNIHAN d/b/a PRTSI, INC.
c/o Purrfect Patents LLC
11213 Piedmont Drive
Fredericksburg, VA 22407

EXAMINER	
KANG, INSUN	

ART UNIT	PAPER NUMBER
2193	

DATE MAILED: 06/02/2020

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)
(Applications filed on or after May 29, 2000)

The Office has discontinued providing a Patent Term Adjustment (PTA) calculation with the Notice of Allowance.

Section 1(h)(2) of the AIA Technical Corrections Act amended 35 U.S.C. 154(b)(3)(B)(i) to eliminate the requirement that the Office provide a patent term adjustment determination with the notice of allowance. See Revisions to Patent Term Adjustment, 78 Fed. Reg. 19416, 19417 (Apr. 1, 2013). Therefore, the Office is no longer providing an initial patent term adjustment determination with the notice of allowance. The Office will continue to provide a patent term adjustment determination with the Issue Notification Letter that is mailed to applicant approximately three weeks prior to the issue date of the patent, and will include the patent term adjustment on the patent. Any request for reconsideration of the patent term adjustment determination (or reinstatement of patent term adjustment) should follow the process outlined in 37 CFR 1.705.

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

OMB Clearance and PRA Burden Statement for PTOL-85 Part B

The Paperwork Reduction Act (PRA) of 1995 requires Federal agencies to obtain Office of Management and Budget approval before requesting most types of information from the public. When OMB approves an agency request to collect information from the public, OMB (i) provides a valid OMB Control Number and expiration date for the agency to display on the instrument that will be used to collect the information and (ii) requires the agency to inform the public about the OMB Control Number's legal significance in accordance with 5 CFR 1320.5(b).

The information collected by PTOL-85 Part B is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 30 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450. Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Notice of Allowability	Application No. 15/903,054	Applicant(s) AYERS et al.	
	Examiner INSUN KANG	Art Unit 2193	AIA (FITF) Status Yes

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☑ This communication is responsive to 5/18/2020.
   ☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

2. ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

3. ☑ The allowed claim(s) is/are See Continuation Sheet . As a result of the allowed claim(s), you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see **http://www.uspto.gov/patents/init_events/pph/index.jsp** or send an inquiry to **PPHfeedback@uspto.gov.**

4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   Certified copies:

   a) ☐ All b) ☐ Some *c) ☐ None of the:

   1. ☐ Certified copies of the priority documents have been received.
   2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
   3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____ .

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____ .

   Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☑ Notice of References Cited (PTO-892)
2. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____.
3. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material _____.
4. ☑ Interview Summary (PTO-413), Paper No./Mail Date. 20200526.
5. ☑ Examiner's Amendment/Comment
6. ☑ Examiner's Statement of Reasons for Allowance
7. ☑ Other OA-appendix.

/INSUN KANG/
Primary Examiner, Art Unit 2193

Continuation of 3. The allowed claim(s) is/are: 1-5,8,10-12,14-16,19,21-22 and 24-26

Notice of Pre-AIA or AIA Status

The present application, filed on or after March 16, 2013, is being examined under the first inventor to file provisions of the AIA.

This action responds to the RCE amendment filed on 5/18/2020.

Claims 6, 7, 9, 13, 17, 18, 20, and 23 have been canceled.

Claims 1-5, 8, 10-12, 14-16, 19, 21, 22, and 24-26 are allowed.

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in an interview with Mr. Moynihan (reg. 40,338) on 5/26/2020.

The application has been amended as follows:

1. (Currently Amended) A mobile device configured for running software applications, comprising:

a network interface configured for communicating over a network;

at least one non-transitory computer readable storage medium storing instructions; and

at least one processor associated with said network interface and said storage medium, configured for executing said instructions to:

identify that a link for installation of a first software application is selected by user interaction with a second software application running on said device, the link being embedded in content displayed on said device by the second software application;

in response to said identifying, determine [[when]] whether an installation client for downloading and installing applications on said device is available on said device, said installation client comprising a third software application;

when said installation client is available on said device:

invoke, without exiting said second software application, said installation client for downloading and installing applications on said device to run in the background on said device;

instruct said installation client to automatically download an installation file of said first software application to said device over said network using said network interface in the background on said device, without directing said user interaction to an app store; and

using said downloaded installation file, install said first software application on said device in the background on said device while maintaining a user experience of interaction with said second software application in the foreground; and

when said installation client is unavailable on said device, redirect said device to an app store for downloading and installing said first software application on said device.

6-7 (Canceled).

9. (Canceled)

15. (Currently Amended) A method for installation of software applications on a mobile device, comprising: executing, by at least one hardware processor operating in said device, program instructions to:

identify that a link for installation of a first software application is selected by user interaction with a second software application running on said device, the link being embedded in content displayed on said device by the second software application;

in response to said identifying, determine [[when]] whether an installation client for downloading and installing applications on said device is available on said device, said installation client comprising a third software application;

when said installation client is available on said device:

invoke, without exiting said second software application, said installation client for downloading and installing applications on said device to run in the background on said device;

instruct said installation client to automatically download an installation file of said first software application to said device over said network in the background on said device, without directing said user interaction to an app store; and

install said first software application on said device using said downloaded installation file in the background on said device while maintaining a user experience of interaction with said second software application in the foreground; and

when said installation client is unavailable on said device, redirect said device to an app store for downloading and installing said first software application on said device.

17-18 (Canceled)

20. (Canceled)

22. (Currently Amended) A non-transitory computer readable medium including instructions that, when executed by at least one processor, cause the at least one processor to perform operations for installing software applications on a mobile device, said operations comprising:

identifying that a link for installation of a first software application is selected by user interaction with a second software application running on said device, the link being embedded in content displayed on said device by the second software application;

in response to said identifying, determining [[when]] whether an installation client for downloading and installing applications is available for execution by said at least one processor on said device, said installation client comprising a third software application;

when said installation client is available on said device:

invoking, without exiting said second software application, said installation client for downloading and installing applications on said device to run in the background on said device;

instructing said installation client to automatically download an installation file of said first software application to said device over said network using said network interface of said device in the background on said device, without directing said user interaction to an app store; and

using said downloaded installation file, installing said first software application on said device in the background on said device while maintaining a user experience of interaction with said second software application in the foreground; and

when said installation client is unavailable on said device, redirecting said device to an app store for downloading and installing said first software application on said device.

Reasons for Allowance

The following is an examiner's statement of reasons for allowance:

while Jmijewski (US 20200081696) teach clicking a link on a webpage to a specific mobile device software (e.g. advertisement) to be downloaded wherein if the clicked advertisement is not directed to a URL of a app store but to another URL not tied to the store that has an offer to download mobile device software as well, the URL would be accessed by the browser to display details of the mobile device software offered to let a user decide whether to download the mobile device software. If the user decides to download the mobile device software, it would be downloaded and installed through the platform and a shortcut executable icon i.e. desktop shortcut is created for the mobile device

software (see at least [0225]), Boudville (US 20160359945) teach a reflexive deep link used for multiuser interactions between mobile apps, Lang teaches downloading an application from an enterprise store without needing to access a public application store ([0128]), Jitkoff et al. teach providing a link providing a user with seamless access to an item directly form an application launcher, Cayre teaches downloading and installation in a background, Molinet et al. teach a contextual deep link indicating a particular configuration for an application, ultimately, the prior arts or record, taken alone or in combination, do not teach at least: …in response to said identifying, determine whether an installation client for downloading and installing applications on said device is available on said device, said installation client comprising a third software application; when said installation client is available on said device: invoke, without exiting said second software application, said installation client for downloading and installing applications on said device to run in the background on said device; instruct said installation client to automatically download an installation file of said first software application to said device over said network using said network interface in the background on said device, without directing said user interaction to an app store; and using said downloaded installation file, install said first software application on said device in the background on said device while maintaining a user experience of interaction with said second software application in the foreground; and when said installation client is unavailable on said device, redirect said device to an app store for downloading and installing said first software application on said device, as similarly recited in claims 1, 15, and 22.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to INSUN KANG whose telephone number is (571)272-3724. The examiner can normally be reached on M-F 10 am-6 pm.

Examiner interviews are available via telephone, in-person, and video conferencing using a USPTO supplied web-based collaboration tool. To schedule an interview, applicant is encouraged to use the USPTO Automated Interview Request (AIR) at http://www.uspto.gov/interviewpractice.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chat Do can be reached on 571-272-3721. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/INSUN KANG/
Primary Examiner, Art Unit 2193

Examiner-Initiated Interview Summary	Application No. 15/903,054	Applicant(s) AYERS et al.	
	Examiner INSUN KANG	Art Unit 2193	AIA (FITF) Status Yes

All participants (applicant, applicant's representative, PTO personnel):

(1) INSUN KANG. (3) _____.

(2) Mr. Moynihan (reg. 40,338). (4) _____.

Date of Interview: 26 May 2020.

Type: ☑ Telephonic ☐ Video Conference
☐ Personal [copy given to: ☐ applicant ☐ applicant's representative]

Exhibit shown or demonstration conducted: ☐ Yes ☑ No.
If Yes, brief description: _____.

Issues Discussed ☐ 101 ☐ 112 ☐ 102 ☑ 103 ☑ Others
(For each of the checked box(es) above, please describe below the issue and detailed description of the discussion)

Claim(s) discussed: 1-26.

Identification of prior art discussed: Jitkoff et al..

Substance of Interview
(For each issue discussed, provide a detailed description and indicate if agreement was reached. Some topics may include: identification or clarification of a reference or a portion thereof, claim interpretation, proposed amendments, arguments of any applied references etc...)

It was agreed to further clarity the claim language as shown in the examiner's amendment..

Applicant recordation instructions: It is not necessary for applicant to provide a separate record of the substance of interview.

Examiner recordation instructions: Examiners must summarize the substance of any interview of record. A complete and proper recordation of the substance of an interview should include the items listed in MPEP 713.04 for complete and proper recordation including the identification of the general thrust of each argument or issue discussed, a general indication of any other pertinent matters discussed regarding patentability and the general results or outcome of the interview, to include an indication as to whether or not agreement was reached on the issues raised.

☑ Attachment

/INSUN KANG/ Primary Examiner, Art Unit 2193	

Notice of References Cited	Application/Control No. 15/903,054	Applicant(s)/Patent Under Reexamination AYERS et al.	
	Examiner INSUN KANG	Art Unit 2193	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	CPC Classification	US Classification
*	A	US-20200081696-A1	03-2020	ZMIJEWSKI; Peter Marek	G06F15/00	1/1
*	B	US-20160359945-A1	12-2016	Boudville; Wesley John	H04L67/04	1/1
*	C	US-20160026462-A1	01-2016	Lang; Zhongmin	G06F21/33	717/121
*	D	US-20190068537-A1	02-2019	Judd; Tilke	H04L51/16	1/1
	E					
	F					
	G					
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	J					
	K					
	L					
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FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	CPC Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	15/903,054	AYERS et al.
	Examiner	**Art Unit**
	INSUN KANG	2193

CPC						
Symbol					**Type**	**Version**
G06F	/	8	/	61	F	2013-01-01
G06F	/	21	/	45	I	2013-01-01
G06F	/	21	/	57	I	2013-01-01

CPC Combination Sets								
Symbol					**Type**	**Set**	**Ranking**	**Version**
	/		/					

NONE		Total Claims Allowed:	
(Assistant Examiner)	(Date)	18	
/INSUN KANG/ Primary Examiner, Art Unit 2193	26 May 2020	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	1	12

U.S. Patent and Trademark Office — Part of Paper No.: 20200526

Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	15/903,054	AYERS et al.
	Examiner	**Art Unit**
	INSUN KANG	2193

INTERNATIONAL CLASSIFICATION					
CLAIMED					
G06F	/	9	/	44	
NON-CLAIMED					
	/		/		

US ORIGINAL CLASSIFICATION	
CLASS	**SUBCLASS**
717	174

CROSS REFERENCES(S)						
CLASS	**SUBCLASS (ONE SUBCLASS PER BLOCK)**					

NONE		**Total Claims Allowed:**	
(Assistant Examiner)	(Date)	18	
/INSUN KANG/ Primary Examiner, Art Unit 2193	26 May 2020	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	1	12

U.S. Patent and Trademark Office

Part of Paper No.: 20200526

Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	15/903,054	AYERS et al.
	Examiner	**Art Unit**
	INSUN KANG	2193

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47

CLAIMS

Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original
1	1	7	10	14	19										
2	2	8	11		20										
3	3	9	12	15	21										
4	4		13	17	22										
5	5	10	14		23										
	6	12	15	11	24										
	7	13	16	16	25										
6	8		17	18	26										
	9		18												

NONE		**Total Claims Allowed:**	
(Assistant Examiner)	(Date)	18	
/INSUN KANG/ Primary Examiner, Art Unit 2193	26 May 2020	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	1	12

U.S. Patent and Trademark Office

Part of Paper No.: 20200526

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	15/903,054	AYERS et al.
	Examiner	Art Unit
	INSUN KANG	2193

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

CLAIMS

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47

CLAIM		DATE								
Final	Original	06/24/2019	12/31/2019	05/26/2020						
1	1	✓	✓	=						
2	2	✓	✓	=						
3	3	✓	✓	=						
4	4	✓	✓	=						
5	5	✓	✓	=						
	6	✓	✓	-						
	7	✓	✓	-						
6	8	✓	✓	=						
	9	✓	✓	-						
7	10	✓	✓	=						
8	11	✓	✓	=						
9	12	✓	✓	=						
	13	✓	✓	-						
10	14	✓	✓	=						
12	15	✓	✓	=						
13	16	✓	✓	=						
	17	✓	✓	-						
	18	✓	✓	-						
14	19	✓	✓	=						
	20	✓	✓	-						
15	21	✓	✓	=						
17	22	✓	✓	=						
	23	✓	✓	-						
11	24			=						
16	25			=						
18	26			=						

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	15/903,054	AYERS et al.
	Examiner	Art Unit
	INSUN KANG	2193

CPC - Searched*		
Symbol	Date	Examiner

CPC Combination Sets - Searched*		
Symbol	Date	Examiner

US Classification - Searched*			
Class	Subclass	Date	Examiner

* See search history printout included with this form or the SEARCH NOTES box below to determine the scope of the search.

Search Notes		
Search Notes	Date	Examiner
(g06f8/$5.CPC g06f9/$6.CPC.) with text search and review; Palm inventor search; NPL search (IP.com/STIC)	06/09/2019	IK
(g06f8/$5.CPC g06f9/$6.CPC.) with text search and review;	06/10/2019	IK
(g06f8/$5.CPC g06f9/$6.CPC.) with text search and review;	06/23/2019	IK
(g06f8/$5.CPC g06f9/$6.CPC.) with text search and review;	12/30/2019	IK
(g06f8/$5 g06f9/$6 G06f21/$5).CPC. with text search and review;	05/20/2020	IK
(g06f8/$5 g06f9/$6 G06f21/$5).CPC. with text search and review; Palm inventor search; NPL search (IP.com/STIC/ google)	05/21/2020	IK

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	15/903,054	AYERS et al.
	Examiner	Art Unit
	INSUN KANG	2193

Interference Search			
US Class/CPC Symbol	US Subclass/CPC Group	Date	Examiner
	(g06f8/$5 g06f9/$6 G06f21/$5).CPC. with text; text only- search and review;	05/26/2020	IK

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Relevance Page

ATION OF APPS

n: 15/903054. Filed: February 23, 2018. Published: August 29, 2019. , Database: pplications

e adapted to run software applications includes a network interface, a non- ter readable storage medium and at least one processor. The network interface ommunication over a network. At least one processor executes instructions stored edium to: identify that a **link** for **installation** of a new software application is interaction with a current software application running on the device; in response t the **link** was selected, invoke, without exiting the second software application, an nt to run in the background on the device; instruct the **installation** client to wnload an **installation** file of the new software application over the network using face; and using the downloaded **installation** file, install the first software e device.

90265958

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essaging **App** Forensics: Facebook and Skype

Yee; Dehghantanha, Ali; Choo, Kim-Kwang Raymond; Muda, Zaiton. *PLoS ONE.* 1 Issue 3, p1-29. 29p. Abstract: **Instant** messaging (IM) has changed the way cate with each other. However, the interactive and **instant** nature of these os) made them an attractive choice for malicious cyber activities such as phishing. mination of IM **apps** for modern Windows 8.1 (or later) has been largely he platform is relatively new. In this paper, we seek to determine the data remnants wo popular Windows **Store** application software for **instant** messaging, namely

- eBooks (3,968)
- Patents (1,315)
- Magazines (271)
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- Academic Journals (118)

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kype on a Windows 8.1 client machine. This research contributes to an in-depth the types of terrestrial artefacts that are likely to remain after the use of **instant** ces and application software on a contemporary Windows operating system. s detected during the research include data relating to the **installation** or he **instant** messaging application software, log-in and log-off information, contact ns, and transferred files. [ABSTRACT FROM AUTHOR] DOI: pone.0150300. (*AN: 113801869*), Database: Academic Search Complete

ANT messaging; MOBILE **apps**; FORENSIC sciences; FACEBOOK (Web E (Electronic resource)

xt (3.2MB) USPTO Full Text Options

tering Integration and Customization: Scale Projects Onto the Cloud with Google **Apps**

ric. Birmingham [U.K.] : Packt Publishing. 2011. eBook. Description: This is a n book with clear instructions and lot of code examples. It takes a simple g you through different architectural topics using realistic sample projects. A single ented using different architectural styles to make the reader understand the details ere are also many small independent code samples to explain design patterns, WCF, and localization. This book is for people familiar with the ASP.NET framework using either C# or ... (*AN 390160*), Database: eBook Collection (EBSCOhost)

Subjects: COMPUTERS / Data Science / General; Application software; Web site development--Computer programs

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4. Aircraft Systems : Instruments, Communications, Navigation, and Control

eBook

By: Binns, Chris. Series: Wiley - IEEE. Edition: First edition. Hoboken, NJ : Wiley-IEEE Press. 2019. eBook. Description: An authoritative guide to the various systems related to navigation, control, and other instrumentation used in a typical aircraft Aircraft Systems offers an examination of the most recent developments in aviation as it relates to instruments, radio navigation, and communication. Written by a noted authority in the field, the text includes in-depth descriptions of traditional systems, reviews the latest developments, as well as gives information on the technologies that are likely to emerge in the ... (*AN 1913562*), Database: eBook Collection (EBSCOhost)

Subjects: TECHNOLOGY & ENGINEERING / Aeronautics & Astronautics; Aeronautical instruments

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Table of Contents Most Relevant Pages From This eBook

5. An ubiquitous and non intrusive system for pervasive advertising using NFC and geolocation technologies and air hand gestures.

Academic Journal

By: Borrego-Jaraba, Francisco M.; Ruiz, Irene Luque; Gómez-Nieto, Miguel Ángel. *Mobile Information Systems* , 2014, Vol. 10 Issue 4, p361-384, 24p Abstract: In this paper we present a pervasive proposal for advertising using mobile phones, Near Field Communication, geolocation and air hand gestures. Advertising post built by users in public/private spaces can **store** multiple **ads** containing any kind of textual, graphic or multimedia information. **Ads** are automatically shows in the mobile phone of the users using a notification based process considering relative user location between the posts and the user preferences. Moreover, **ads** can be stored and retrieved from the post using hand gestures and Near Field Communication technology. Secure management of information about users, posts, and notifications and the use of **instant** messaging enable the development of systems to extend the current advertising strategies based on Web, large displays or digital signage. [ABSTRACT FROM AUTHOR]; DOI: 10.1155/2014/906329; (*AN 98898368*), Database: Applied Science & Technology Source

Subjects: Instant messaging; Cell phones; Digital signage; Multimedia communications; Electronics **Stores**; Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing; Wireless Telecommunications Carriers (except Satellite); Electronic components, navigational and communications equipment and supplies merchant wholesalers; Near field communication

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6. 2019 TECHNOLOGY BUYER'S GUIDE: FINDING THE CORRECT TECH FOR YOUR BUSINESS

Periodical

In: Beverage Dynamics. Nov-Dec, 2019, Vol. 131 Issue 6, p23, 10 p.; EPG Media LLC Language: English. Abstract: Technology is as critical as ever for beverage alcohol retailers in 2019/2020. Fending off threats like Amazon and Big Box chains is more easily accomplished with the right digital weapons. [...] (*AN: edsgcl.609344920*), Database: Gale General OneFile

Subjects: Company business management; **Stores**; Alcoholic beverages

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7. FACEBOOK EVERYWHERE.

By: Carr, Austin. *Fast Company.* Jul/Aug2014, Issue 187, p56-92. 11p. 4 Color Photographs, 1 Diagram. Abstract: The article discusses the strategy of Mark Zuckerberg, chief executive officer (CEO) of online social networking service Facebook to improve the relevance of his social network

Periodical

by transforming it into a platform that becomes part of all social interactions in the world. It discusses the six lessons learned by Facebook including every problem cannot be solved by the hacker way, that of moving fast and breaking things, regardless of its dominance, one Facebook application is not sufficient, and opportunity in catalyzing everyone toward one goal. It examine the 10-year plan of Facebook, its investment on virtual reality (VR), drones and artificial intelligence, and ambition of new social interactions and customer populations, and next-level personalization and experiences. (*AN: 96451051*), Database: Computer Source

Subjects: ZUCKERBERG, Mark, 1984-; FACEBOOK Inc.; STRATEGIC planning; FACEBOOK (Web resource); CHIEF executive officers; ONLINE social networks; EMPLOYEES

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8. Assistive Technologies to Support Students With Dyslexia.

Academic Journal

By: Dawson, Kara; Antonenko, Pavlo; Lane, Holly; Zhu, Jiawen. *Teaching Exceptional Children.* Jan/Feb2019, Vol. 51 Issue 3, p226-239. 14p. Abstract: The article focuses on assistive technologies to support students with dyslexia. Topics include devices such as electronic readers can improve reading comprehension and reading speed when text is presented in shorter lines with more spacing and some AT works only on certain operating systems that is the software that runs the basic functions of a device. DOI: 10.1177/0040059918794027. (*AN: 134312822*), Database: Academic Search Complete

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9. THE 2018 TECHNOLOGY BUYER'S GUIDE.

Periodical

Beverage Dynamics. 2018 Special Issue, p8-13. 6p. (*AN: 132526665*), Database: Business Source Complete

Subjects: Beverage industry; Internet marketing; Online business networks (Social networks); Online shopping; Breweries; Bottled Water Manufacturing; Electronic Shopping; Electronic shopping and mail-order houses; Mail-Order Houses; Mobile **apps**

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10. Windows 10: It's familiar, it's powerful, but the Edge browser falls short.

Periodical

By: HACHMAN, MARK. *PCWorld.* Sep2015, Vol. 33 Issue 9, p8-51. 41p. Abstract: The article evaluates the Windows 10 operating system from Microsoft. (*AN: 109311905*), Database: Computer Source

Subjects: MICROSOFT Windows (Operating system); MICROSOFT Corp.

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11. Mining target users for online marketing based on App Store data.

Conference

By: He, Xiuqiang; Dai, Wenyuan; Cao, Guoxiang; Tang, Ruiming; Yuan, Mingxuan; Yang, Qiang. *2015 IEEE International Conference on Big Data (Big Data)* , 2015, p1043-1052, 10p. Publisher: IEEE. (*AN 112658642*), Database: Complementary Index

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12. Best Free Stuff. (cover story).

Periodical

By: GEUSS, MEGAN. *PCWorld.* Jun2012, Vol. 30 Issue 6, p58-65. 8p. 4 Color Photographs, 1 Map. Abstract: The article offers brief reviews of several free software, mobile device application (**app**) programs, and Internet services which are recommended by "PC World" magazine, including media company Crackle's streaming movie service, and the itinerary planners from Concur Technologies and WorldMate. (*AN: 75175936*), Database: Computer Source

Subjects: COMPUTER software; MOBILE **apps**; WEBSITES; CRACKLE Inc.; CONCUR Technologies Inc.; WORLDMATE Inc.

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13. BEST SECURITY SUITES: Stop wasting money.

Periodical

By: Graham-Smith, Darien. *PC Pro* , Apr2020, Issue 306, p76-93, 17p, 30 Color Photographs, 4 Graphs. Publisher: Dennis Publishing Ltd..; Abstract Both of the testing organisations featured in this Labs (see below) also scan a large number of harmless programs and websites to check that the security software correctly gives the green light. The program's Trusted Applications mode locks down Windows so only programs that have been positively validated by Kaspersky as safe can be opened - perfect for a kid's PC, or for a less technically able family member. Since then it's been not only renamed but progressively absorbed into Windows, to the extent that Defender no longer exists at all as a program in its own right: type its name into the Windows 10 Start menu and you'll simply be directed to the main Security page in the Settings **app**. AV-Test also rated G Data Internet Security one of the slowest security suites around, noting a performance drop-off of around 12% when visiting popular websites and launching applications, along with a steep 29% hit when installing new software. The real, useful meat of the program comes down to three components: an automatic software updater, McAfee's WebAdvisor plugin (for Chrome, Edge and Firefox) and the good old virus scanner. [Extracted from the article]; (*AN 141587965*), Database: Complementary Index

Subjects: Computer and peripheral equipment manufacturing; RANSOMWARE; MONEY; USB flash drives; SECURITY management; SPREAD (Finance)

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14. Lean Mobile App Development


eBook

By: Drongelen, Mike van; Dennis, Adam; Garabedian, Richard; Gonzalez, Alberto; Krishnaswamy, Aravind. Birmingham, UK : Packt Publishing. 2017. eBook. Description: About This BookBuild ready-to-deploy **apps** with less iterations and shorter development timesAdopt the lean startup methodologies to develop iOS and Android **apps** that shine in the **App** StoreThis hands-on guide puts continuous innovation into practice to develop successful mobile appsWho This Book Is ForThis book is for developers, CTOs, and architects working for a startup or another kind of lean startup environment, such as start-up within a cooperation. It is is ideal for any iOS and Android developer ... (*AN 1641402*), Database: eBook Index

Subjects: COMPUTERS / Programming / Mobile Devices; Mobile **apps**; Application software--Development

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15. React Native - Building Mobile Apps with JavaScript


eBook

By: Novick, Vladimir. Birmingham, UK : Packt Publishing. 2017. eBook. Description: About This BookBuild cross-platform best seller native mobile applications in JavaScript with React-Native frameworkLearn about real world examples like Whatsapp, Instagram or Twitter.Learn all steps in React Native application development workflow from prototyping to deploymentGet familiar with various mobile APIs covered in React Native framework and learn how to extend it further to non-supported APIsWho This Book Is ForThis book is for JavaScript developers who want to learn how to create native ... (*AN 1583763*), Database: eBook Index

Subjects: COMPUTERS / Internet / Application Development; JavaScript (Computer program language); Mobile **apps**--Programming

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16. App Accomplished : Strategies for App Development Success


eBook

By: Carl Brown. [N.p.] : Addison-Wesley Professional. 2014. eBook. Description: Build Great **Apps**: End-to-End Processes, Tools, and Management Tips for Doing It Right! Foreword by Kyle Richter, CEO, MartianCraft Today, successful **apps** are complex software projects. You can't just knock them off in a weekend--and, worse, many common programming habits don't work well in mobile. You need skills, processes, tools, management techniques, and best practices that are honed for mobile platforms and realities. In **App** Accomplished, top mobile developer Carl Brown provides all that--so ... (*AN 1600674*), Database: eBook Index

Subjects: COMPUTERS / Programming / Mobile Devices; COMPUTERS / Data Transmission Systems / Wireless

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17. The Imaginary **App**

eBook

By: Matviyenko, Svitlana; DJ Spooky That Subliminal Kid. Series: Software Studies. Cambridge, Massachusetts : The MIT Press. 2014. eBook. Description: The mobile **app** as technique and imaginary tool, offering a shortcut to instantaneous connection and entertainment.Mobile **apps** promise to deliver (h)appiness to our devices at the touch of a finger or two. **Apps** offer gratifyingly immediate access to connection and entertainment. The array of **apps** downloadable from the **app store** may come from the cloud, but they attach themselves firmly to our individual movement from location to location on earth. In The Imaginary **App**, writers, theorists, and artists—including ... (*AN 831401*), Database: eBook Index

Subjects: SOCIAL SCIENCE / Media Studies; DESIGN / Graphic Arts / Branding & Logo Design; Computers and civilization; Mobile computing--Social aspects; Application software--Social aspects

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18. **App** Savvy : Turning Ideas Into IPad and IPhone **Apps** Customers Really Want

eBook

By: Yarmosh, Ken. Sebastopol, CA : O'Reilly Media. 2010. eBook. Description: How can you make your iPad or iPhone **app** stand out in the highly competitive **App Store**? While many books simply explore the technical aspects of iPad and iPhone **app** design and development, **App** Savvy also focuses on the business, product, and marketing elements critical to pursuing, completing, and selling your **app** -- the ingredients for turning a great idea into a genuinely successful product.Whether you're a designer, developer, entrepreneur, or just someone with a unique idea, **App** Savvy explains ... (*AN 414845*), Database: eBook Index

Subjects: COMPUTERS / Hardware / Cell Phones & Devices; BUSINESS & ECONOMICS / Marketing / General; COMPUTERS / Programming / Macintosh; Application software--Development; iPhone (Smartphone)--Programming; iPad (Computer)--Programming

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19. Manufacturers Alphabetic Listings

Periodical

In: Air Conditioning, Heating & Refrigeration News. Jan 6, 2020, Vol. 269 Issue 1, p37, 66 p.; BNP Media Language: English. Abstract: A A N Products Inc. 4056 Boomer Rd, Cincinnati, OH 45247-7908 (513) 451-1721; (513) 703-8174 al@vacuator.com www.vacuator.com Vacuum indicator

accurately measures total pressure over a wide range from above 100 [...] (*AN: edsgcl.612113977*), Database: Gale General OneFile

Subjects: North America; United States; Canada; Ontario; Quebec; United Kingdom; Consumer electronics industry; Continental Fan Manufacturing Inc.; Delta Cooling Towers Inc.; Dwyer Instruments Inc.; Empire Machinery and Tools Ltd.; EWC Controls Inc.; Fujitsu General America Inc.; Heat-Timer Corp.; LG Electronics U.S.A. Inc.; Modine Manufacturing Co.; Instrument industry; Heating, ventilation, and air conditioning industry; Control equipment industry

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20. Cloud and Cluster Computing

eBook

By: Berman, Nan; Rivero, Georgetta. Delhi : Academic Studio. 2012. eBook. Description: Chapter 1 - Enzyme Assay Chapter 2 - Alkaline Phosphatase and Alanine Transaminase Chapter 3 - Amylase and Ceruloplasmin Chapter 4 - Glucose Chapter 5 - Bilirubin Chapter 6 - Human Chorionic Gonadotropin Chapter 7 - Biomarker Chapter 8 - Mass Spectrometry Chapter 9 - C–reactive Protein Chapter 10 - Ferritin Chapter 11 - DNA Assay Chapter 12 - Protein Assay Chapter 13 - Drug Test Chapter 14 - Clonogenic Assay and Bacteriological Water Analysis Chapter 15 - Immunostaining Chapter 16 - MTT Assay, Nuclear ... (*AN 446437*), Database: eBook Collection (EBSCOhost)

Subjects: COMPUTERS / Web / General; COMPUTERS / Networking / Intranets & Extranets; Cloud computing

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21. Computer Engineering : Concepts, Methodologies, Tools and Applications

eBook

By: Information Resources Management Association. Hershey, Pa : IGI Global. 2012. eBook. Description: Features perspectives on the fundamental aspects, tools and technologies, methods and design, applications, managerial impact, social/behavioral perspectives, critical issues, and emerging trends in the field of computer engineering. (*AN 431988*), Database: eBook Collection (EBSCOhost)

Subjects: COMPUTERS / Computer Engineering; COMPUTERS / Machine Theory; COMPUTERS / Hardware / General; Computer engineering

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Table of Contents Most Relevant Pages From This eBook

22. Wireless Technologies : Concepts, Methodologies, Tools and

Applications

By: Information Resources Management Association. Hershey, PA : IGI Global. 2012. eBook. (*AN 396408*), Database: eBook Collection (EBSCOhost)

Subjects: TECHNOLOGY & ENGINEERING / Mobile & Wireless Communications; TECHNOLOGY & ENGINEERING / Radio; Wireless communication systems; Telecommunication

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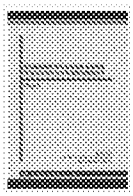

By: Li, Hui. Series: Advanced Materials Research, v. 374-377. Durnten-Zurich : Trans Tech Publications Ltd. 2012. eBook. Description: Selected, peer reviewed papers from the 4th International Conference on Technology of Architecture and Structure, (ICTAS 2011), September 22-24, 2011, Xi'an, China (*AN 517061*), Database: eBook Collection (EBSCOhost)

Subjects: TECHNOLOGY & ENGINEERING / Materials Science / General; Sustainable construction--Congresses; Building materials--Research--Congresses; City planning--Congresses

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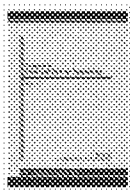

By: Tang, Zhong; Fu, Yang; Zhang, Hao. Series: Advanced Materials Research, v. 354-355. Durnten-Zurich : Trans Tech Publications Ltd. 2012. eBook. Description: Selected, peer reviewed papers from the 2011 International Conference on Energy, Environment and Sustainable Development (ICEESD 2011), October 21-23, 2011, Shanghai, China (*AN 517055*), Database: eBook Collection (EBSCOhost)

Subjects: TECHNOLOGY & ENGINEERING / Materials Science / General; Sustainable development--Congresses; Electrical engineering--Congresses

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25. Innovation for Sustainable Aviation in a Global Environment : Proceedings of the Sixth European Aeronautics Days, Madrid, 30 March - 1 April, 2011

By: Szodruch, Joachim; Knörzer, Dietrich; IOS Press. Amsterdam : IOS Press. 2012. eBook. Description: Jointly organised by the European Commission and the Centre for the Development of

eBook

Industrial Technology in Spain (CDTI), the Aeronautics Days sixth edition – 'Aerodays 2011'– was held on 30th - 31st March and 1st April 2011 in the Palacio Municipal de Congresos of Madrid. It brought together 1400 delegates – policy makers, aerospace manufacturers, engineers, researchers and customers – to report and discuss the challenges and solutions for creating greener, safer, secure and competitive solutions ... (*AN 489942*), Database: eBook Collection (EBSCOhost)

Subjects: TRANSPORTATION / Aviation / General; TECHNOLOGY & ENGINEERING / Aeronautics & Astronautics; TRANSPORTATION / Aviation / Commercial; Aeronautics--Congresses

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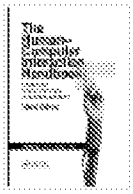
26. Human Computer Interaction Handbook : Fundamentals, Evolving Technologies, and Emerging Applications, Third Edition



eBook

By: Jacko, Julie A. Series: Human Factors and Ergonomics. Edition: 3rd ed. Boca Raton : CRC Press. 2012. eBook. Description: Winner of a 2013 CHOICE Outstanding Academic Title Award The third edition of a groundbreaking reference, The Human–Computer Interaction Handbook: Fundamentals, Evolving Technologies, and Emerging Applications raises the bar for handbooks in this field. It is the largest, most complete compilation of HCI theories, principles, advances, case studies, and more that exist within a single volume. The book captures the current and emerging sub-disciplines within HCI related to research, development, and ... (*AN 452086*), Database: eBook Collection (EBSCOhost)

Subjects: TECHNOLOGY & ENGINEERING / Industrial Health & Safety; Human-computer interaction--Handbooks, manuals, etc; Computer simulation--Handbooks, manuals, etc; Virtual reality--Handbooks, manuals, etc

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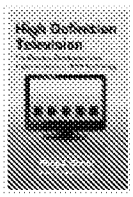
27. High Definition Television : The Creation, Development and Implementation of HDTV Technology



eBook

By: Cianci, Philip J. Jefferson : McFarland. 2012. eBook. Description: The 40-year history of high definition television technology is traced from initial studies in Japan, through its development in Europe, and then to the United States, where the first all-digital systems were implemented. Details are provided about advances in HDTV technology in Australia and Japan, Europe's introduction of HDTV, Brazil's innovative use of MPEG-4 and China's terrestrial standard. The impact of HDTV on broadcast facility conversion and the influx of computer systems and information ... (*AN 422117*), Database: eBook Collection (EBSCOhost)

Subjects: TECHNOLOGY & ENGINEERING / Television & Video; High definition television; Television broadcasting--Technological innovations

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28. **App** Empire : Make Money, Have a Life, and Let Technology Work for You

eBook

By: Mureta, Chad. Hoboken : Wiley. 2012. eBook. Description: A guide to building wealth by designing, creating, and marketing a successful **app** across any platform Chad Mureta has made millions starting and running his own successful **app** business, and now he explains how you can do it, too, in this non-technical, easy-to-follow guide. **App** Empire provides the confidence and the tools necessary for taking the next step towards financial success and freedom. The book caters to many platforms including iPhone, iPad, Android, and BlackBerry. This book includes real-world ... (*AN 493524*), Database: eBook Index

Subjects: BUSINESS & ECONOMICS / Entrepreneurship; Mobile computing--Computer programs; Application software--Development; Application software--Marketing

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29. Predicting Mobile Advertising Response Using Consumer Colocation Networks.

Academic Journal

By: Pal Zubcsek, Peter; Katona, Zsolt; Sarvary, Miklos. *Journal of Marketing*. Jul2017, Vol. 81 Issue 4, p109-126. 18p. 1 Diagram, 7 Charts, 2 Graphs. Abstract: Building on results from economics and consumer behavior, the authors theorize that consumers' movement patterns are informative of their product preferences, and this study proposes that marketers monetize this information using dynamic networks that capture colocation events (when consumers appear at the same place at approximately the same time). To support this theory, the authors study mobile advertising response in a panel of 217 subscribers. The data set spans three months during which participants were sent mobile coupons from retailers in various product categories through a smartphone application. The data contain coupon conversions, demographic and psychographic information, and information on the hourly GPS location of participants and on their social ties in the form of referrals. The authors find a significant positive relationship between colocated consumers' response to coupons in the same product category. In addition, they show that incorporating consumers' location information can increase the accuracy of predicting the most likely conversions by 19%. These findings have important practical implications for marketers engaging in the fast-growing location-based mobile advertising industry. [ABSTRACT FROM AUTHOR] DOI: 10.1509/jm.15.0215. (*AN: 125210188*), Database: Business Source Complete

Subjects: Cell phone advertising; Colocation service providers; Location marketing; Electronic coupons (Retail trade); Consumption (Economics) -- Forecasting; Advertising; Charts, diagrams,

etc.; Outdoor Advertising; Other Services Related to Advertising; Data Processing, Hosting, and Related Services

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30. My IPad for Seniors

eBook

By: Miller, Michael R. Series: My. [Place of publication not identified] : Que Publishing. 2017. eBook. Description: Covers all iPads running iOS 11 My iPad for Seniors, 5th Edition, is a full-color, fully illustrated guide to using all of Apple's iPad models. It includes everything from basic setup information to finding and installing new **apps** to using the iPad for communication, entertainment, and productivity. The information presented in this book is targeted at users aged 50 and up; whenever possible, one best way for any given task is presented, and instructions are simplified with older users in mind. In ... (*AN 1646872*), Database: eBook Index

Subjects: COMPUTERS / Design, Graphics & Media / General; Tablet computers; Computers and older people; iPad (Computer)

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EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
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EAST Search History (Interference)

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		program manager))) downloader installer) with (((application app play apple kindle fire amazon cloud$5 online distributed public) near1 (source store marketplace)) play$1store app$1store$1) and (click$4 hyper$1link link url deep$1link) with (launch$4 execut$4 run$4 updat$3 install$5 download$4) with (ad banner advertis$5 aplication software updat$4 patch$4 app program firmware driver)).clm.				
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5/26/2020 2:19:00 PM
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About 4,180,000 results (0.82 seconds)

Including results for installation deep link app store ***install***

Search only for installation deep link app store installer

www.adjust.com › blog › deferred-deep-links-after-install

Opening up deep link magic after the install | Adjust

Jul 21, 2015 - On Android, you can use an install referrer - this allows you to pass arbitrary data through the Google Play Store and then catch that in the app on ...

www.adjust.com › blog › dive-into-deeplinking

A complete guide to mobile app deep linking | Adjust

When they open the app after install, the product page would be shown. ... Both scheme-based deep linking (for Android and iOS) and iOS 9+ Universal Link are ...

blog.branch.io › Deep Linking

The Ultimate Deep Linking Tutorial on iOS 11—And What's ...

Aug 24, 2018 - Deep linking on iOS is the practice of leveraging contextual links to ... the install process, basically matching the user who clicked a link in a

developers.facebook.com › app-ads › deep-linking

Adding Deep Links - Facebook App Ads

Once you complete the Facebook SDK Setup, add deep linking information in ... send people to a custom view after they install your app through the app store.

savvyapps.com › blog › how-to-use-deep-linking-in-yo...

How to Use Deep Linking in Your Mobile App | Savvy Apps

Jul 23, 2019 - Deep linking enables app creators to drive user engagement and ... if that does not work, redirect the user to the App Store to install the app.

blog.getsocial.im › a-comprehensive-guide-to-deep-lin...

A Comprehensive Guide to Deep Linking for Your Mobile App

Nov 22, 2019 - What is app deep linking, how it works and things you should keep in mind ... Deep links basically eradicate the need for a mobile user to **install** an app ... the app installed, it instead takes them to the right app store and asks ...

www.appsflyer.com › resources › deferred-deep-linking

Deferred Deep Linking: Why it's a Game Changer | AppsFlyer

It refers to the process of deep linking a user after they install an app for the first ... it tries to open Walmart's URI Scheme, and if not, it falls back to the App Store.

businesshelp.snapchat.com › article › deeplink-specs

Deep Link Specifications - Snapchat's business center

If you reach a Snapchatter who does not have your app, they are directed to the app store to install. Deep Link attachments are available for Single Image or ...

stackoverflow.com › questions › android-deep-linking-...

Android Deep linking: Use the same link for the app and the ...

Oct 10, 2015 - If the app isn't installed pressing the link will redirect the user to the Play store with ... because the play store receives a URL argument and the deep link ... is starting, you can retrieve data (link) that was used to install the app.

Deferred **Deep Linking in iOS** - Stack Overflow	4 answers	May 15, 2017
How to open specific activity after **install** an **app** from ...	2 answers	Mar 27, 2019
How to test your deferred **deep link** in **iOS** - Stack ...	2 answers	Feb 7, 2018
Deep Linking for **iOS** Apps which are not **installed** yet ...	3 answers	Apr 22, 2015

More results from stackoverflow.com

4 answers

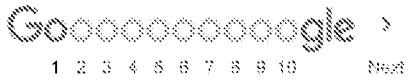
en.wikipedia.org › wiki › Deferred_deep_linking

Deferred deep linking - Wikipedia

An app store to open (Google Play/iOS or Windows App Store depending on the user's device) to enable the user to install the app. Once the app is installed, the ...

Searches related to installation deep link app store installer

deferred deep **linking ios**	**android** deep link **to another** app
deep **linking javascript**	deep link **to** app store
deferred deep **linking android**	deep link app **not installed**
ios open link **in** app **if installed**	deep **linking solutions**



Interview agenda /IK/

1. (Currently Amended) A mobile device configured for running software applications, comprising:

a network interface configured for communicating over a network;

at least one non-transitory computer readable storage medium storing instructions; and

at least one processor associated with said network interface and said storage medium, configured for executing said instructions to:

identify that a link for installation of a first software application is selected by user interaction with a second software application running on said device, the link being embedded in the second software application;

in response to said identifying, determine [[when]] whether an installation client for downloading and installing applications on said device is available on said device, said installation client comprising a third software application;

when said installation client is available on said device:

invoke, without exiting said second software application, said installation client for downloading and installing applications on said device to run in the background on said device;

instruct said installation client to automatically download an installation file of said first software application to said device over said network using said network interface in the background on said device, without directing said user interaction to an app store; and

using said downloaded installation file, install said first software application on said device in the background on said device while maintaining a user experience of interaction with said second software application in the foreground; and

when said installation client is unavailable on said device, redirect said device to an app store for downloading and installing said first software application on said device.

2. (Previously Presented) A device according to claim 1, wherein said at least one processor is further configured for executing said instructions to close said installation client when said installation of said first software application is completed.

6-7 (Canceled).

9. (Canceled)

15. (Currently Amended) A method for installation of software applications on a mobile device, comprising: executing, by at least one hardware processor operating in said device, program instructions to:

identify that a link for installation of a first software application is selected by user interaction with a second software application running on said device, the link being embedded in the second software application;

in response to said identifying, determine [[when]] whether an installation client for downloading and installing applications on said device is available on said device, said installation client comprising a third software application;

when said installation client is available on said device:

invoke, without exiting said second software application, said installation client for downloading and installing applications on said device to run in the background on said device;

instruct said installation client to automatically download an installation file of said first software application to said device over said network in the background on said device, without directing said user interaction to an app store; and

install said first software application on said device using said downloaded installation file in the background on said device while maintaining a user experience of interaction with said second software application in the foreground; and

when said installation client is unavailable on said device, redirect said device to an app store for downloading and installing said first software application on said device.

17-18 (Canceled)

20. (Canceled)

22. (Currently Amended) A non-transitory computer readable medium including instructions that, when executed by at least one processor, cause the at least one processor to perform operations for installing software applications on a device, said operations comprising:

identifying that a link for installation of a first software application is selected by user interaction with a second software application running on said device, the link being embedded in the second software application;

in response to said identifying, determining [[when]] whether an installation client for downloading and installing applications is available for execution by said at least one processor on said device, said installation client comprising a third software application;

when said installation client is available on said device:

invoking, without exiting said second software application, said installation client for downloading and installing applications on said device to run in the background on said device;

instructing said installation client to automatically download an installation file of said first software application to said device over said network using said network interface of said device in the background on said device, without directing said user interaction to an app store; and

using said downloaded installation file, installing said first software application on said device in the background on said device while maintaining a user experience of interaction with said second software application in the foreground; and

when said installation client is unavailable on said device, redirecting said device to an app store for downloading and installing said first software application on said device.

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BIB DATA SHEET

CONFIRMATION NO. 1094

SERIAL NUMBER	FILING or 371(c) DATE RULE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
15/903,054	02/23/2018	717	2193	72247

APPLICANTS
Digital Turbine, Inc., Austin, TX;

INVENTORS
Brandon Brent AYERS, Austin, TX;
Lior Ben Haim, Karkur, ISRAEL;
Jonathan Nogueira, Zachary, LA;

** **CONTINUING DATA** **********

** **FOREIGN APPLICATIONS** **********

** **IF REQUIRED, FOREIGN FILING LICENSE GRANTED** ** SMALL ENTITY **
03/19/2018

Foreign Priority claimed ❑ Yes ☑ No 35 USC 119(a-d) conditions met ❑ Yes ❑ No Verified and Acknowledged /INSUN KANG/ Examiner's Signature	❑ Met after Allowance Initials	STATE OR COUNTRY	SHEETS DRAWINGS	TOTAL CLAIMS	INDEPENDENT CLAIMS
		TX	12	18	3

ADDRESS

MARTIN D. MOYNIHAN d/b/a PRTSI, INC.
c/o Purrfect Patents LLC
11213 Piedmont Drive
Fredericksburg, VA 22407
UNITED STATES

TITLE

INSTANT INSTALLATION OF APPS

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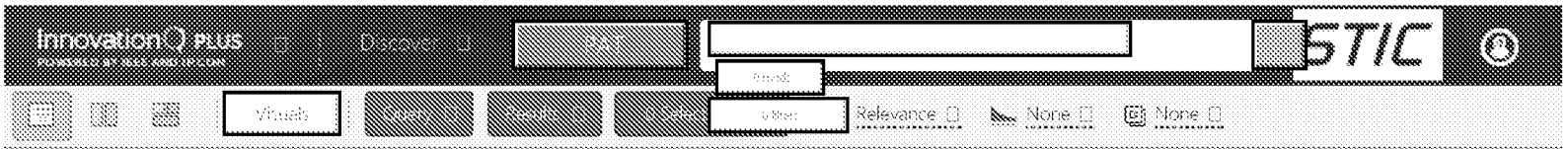

1 - 50 1,129,123 results

1.

Instant installation of apps

A device adapted to run software applications includes a network interface, a non-transitory computer readable storage medium and at least one processor. The network interface enables device communication over a network. At least one processor executes instructions stored in the storage medium to:...

CURRENT ASSIGNEES: DIGITAL TURBINE INC
US20190265958 | US APPLICATIONS | 29-AUG-2019

2.

System and method to install mobile applications from a desktop

Systems and methods for Desktop-To-Mobile (D2M) application installation that allows a publisher to extend their relationship with a consumer from the Desktop PC (PC) to a mobile device. In accordance with some implementations, a mobile application store may be used to offer apps on a user's mobile ...

CURRENT ASSIGNEES: EIGHTPOINT TECH LTD
US9159086 | US PATENTS | 13-OCT-2015

3.

Installation of software applications on mobile devices based on positions thereof

A method for installing software applications on a mobile computing device comprises monitoring a position of the mobile computing device, selecting one or more software applications available to be installed on the mobile computing device according to the location of the mobile computing device,...

CURRENT ASSIGNEES: INTL BUSINESS MACHINES CORP
GB2527753A | GREAT BRITAIN APPLICATIONS | 06-JAN-2016

4.

Cooperative web-assisted deep link redirection

A system provides a software object to a developer for incorporation into an application. The software object includes processor-executable instructions that, upon installation of the software object in a mobile device, register a first domain with an operating system of the mobile device. In...

CURRENT ASSIGNEES: SAMSUNG ELTNC CO LTD
US10180833 | US PATENTS | 15-JAN-2019

5.

Installation of Software Applications on Mobile Devices Based on Positions Thereof

A solution for installing software applications on a mobile computing device is proposed. A corresponding method comprises monitoring a position of the mobile...

Result #1

From: Martin Moynihan
To: Kang, Insun
Subject: Re: Proposed Examiner"s Amendment for 15/903,054
Date: Wednesday, May 27, 2020 3:32:33 PM

Dear Examiner Kang,

Yes, the change is OK. Please proceed with the Examiner's Amendment.

Best Regards,
Martin Moynihan
Reg. # 40,338

From: Kang, Insun <Insun.Kang@USPTO.GOV>
Sent: Wednesday, May 27, 2020 2:03 PM
To: Martin Moynihan <prtsi@msn.com>
Subject: RE: Proposed Examiner's Amendment for 15/903,054

Hello Mr. Moynihan,
Could you please confirm if the change is ok with you asap?-- a mobile device at line 3 of claim 22
Thank you,

Insun Kang
571-272-3724

From: Martin Moynihan <prtsi@msn.com>
Sent: Tuesday, May 26, 2020 1:02 PM
To: Kang, Insun <Insun.Kang@USPTO.GOV>
Subject: Re: Proposed Examiner's Amendment for 15/903,054

Dear Examiner Kang,

We accept the amendment if the Examiner amends claims 1, 15 and 22 in the amended claims by amending "the link being embedded in the second software application" to "the link being embedded in content displayed on said device by the second software application"

Best Regards,
Martin Moynihan
Reg. # 40,338

From: Kang, Insun <Insun.Kang@USPTO.GOV>
Sent: Thursday, May 21, 2020 4:38 PM
To: Martin Moynihan <prtsi@msn.com>
Subject: RE: Proposed Examiner's Amendment for 15/903,054

Hello Mr. Moynihan,
Thanks for the message. Here's the attached proposed amendment to review.
Please let me know if you have any question and if this can be entered for allowance.
Best regards,
Insun Kang
571-272-3724

From: Martin Moynihan <prtsi@msn.com>
Sent: Thursday, May 21, 2020 2:59 PM
To: Kang, Insun <Insun.Kang@USPTO.GOV>
Subject: Proposed Examiner's Amendment for 15/903,054

Dear Examiner Kang,

I received your voice mail suggesting that you send proposed amendments to the claims of Serial No. 15/903,054.

Please send them by return email to this email.

Recognizing that Internet communications are not secure, I hereby authorize the USPTO to communicate with me and any other practitioner of record under 37 CFR § 1.33 and 37 CFR § 1.34 concerning any subject matter of this application via electronic mail or instant messaging. I understand that a copy of these communications may be made of record in the application file (MPEP § 502.03).

Thank you,
/Martin Moynihan/
703.598.7851

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Settings Tools

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How do I use Google Play Instant?

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Use Play Instant Apps - Google Play Help - Google Support

From the Play Store, you can use apps without installing them on your device using Google Play Instant. Use instant apps. How Play Instant Apps work. When you tap a link, Google Play checks if there's an app that could open the ... Install an app ... If you're having issues with Play Instant Apps, get help and troubleshoot the ...

developer.android.com › topic › google-play-instant

Google Play Instant | Android Developers

With Google Play Instant, people can use an app or game without installing it first. ... by surfacing your instant app across the Play Store and Google Play Games app. ... messaging, and other deep links—without needing to install your app first. ... Android App Bundle, so that users can open modules instantly, from any link, ...

developer.android.com › distribute › marketing-tools

Linking to Google Play | Android Developers

Apr 16, 2020 - A Google Play Instant experience. Linking to a store listing. Use the format below to deep-link directly to an app's Store listing page, where users can see the app description, screenshots, reviews and more, and then install it.
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techcrunch.com › 2018/03/19 › google-play-instant-let...

Google Play Instant lets you try games without having to install ...

Mar 19, 2018 - Last year, Google launched Instant Apps, a way for developers to give users a native app experience that didn't involve having to install anything. ... click on a link on the search results page and the instant app would load. ... Instead, you simply head for the Google Play store, find a game that supports this ...

play.google.com › store › apps › details › id=com.micr...

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You love your phone. So does your PC. Get instant access to everything you love on your phone, right on your PC. To get started, install the Your Phone ...
Rating: 4.1 - 190,609 votes - Free - Android - Business/Productivity

play.google.com › store › apps › details

Google Play Games - Apps on Google Play

Games are more fun with the Google Play Games app. We'll help you find your next favorite game – from action to puzzles. And with "Instant play," many games ...
Rating: 4.4 - 10,711,823 votes - Free - Android - Entertainment

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Xcode on the Mac App Store

Mac App Store Preview. Open the Mac App Store to buy and download apps. ... Open Quickly instantly opens any file within your project • Data tips and Quick ...
Rating: 3 - 2 reviews - Free - Developer

books.google.com › books

iLife '11 Made Simple - Page 586 - Google Books Result

... Graphic Inspector tab, 241–243 of iDVD workspace, 165 Link Inspector tab, ... 192, 260 Install Bundled Software icon, 26 Install button, 33, 37 Install iLife icon, ... 27 installing, 25–53 iLife '11 accessing Apple Mac software from App Store, 38–53 ... 47–53 installing button, 42 Instant Alpha option, 256 Instant Replay option, ...

Glen Durdik, MSL Made Simple Learning - 2012 - Computers

apps.apple.com › app › cash-app

Cash App on the App Store

May 15, 2020 - **Instantly** send and receive money from friends. Transfer money from Cash App to another bank account **instantly** instead of waiting days. Use ...

& Rating: 4.8 - 341,426 reviews - Free - iOS - Finance

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Boom Air Hockey 1v1...


Marble Duel: Sphere...


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1972 Publication Date 2020

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of personal information by malware.

s; Tatang, Dennis; Holz, Thorsten; Pohlmann, Norbert. *Journal of Computer* Vol. 27 Issue 4, p459-481, 23p Abstract: Advertisements are the fuel that runs vices such as websites or **mobile apps**, but also adversaries started to abuse **ads** s. Nowadays, online advertising companies track users all over the web in order to l online **ads** campaigns specifically tailored for a target audience. A popular the Internet, so-called adware, abuses online advertisements by maliciously cing **ads** on websites. As many consider **ads** to be quite privacy intrusive, much to studying the effects of online advertisements on users' privacy. However, only en done so far into analyzing the privacy implications of adware. In this work, we capabilities, mainly concerning tracking and personal data exfiltrating, of adware nwanted programs (PUPs), at scale. To this end, we capture the communication of the Firefox browser on the application level to circumvent lower-level encryption g this framework for capturing the network traffic, we dynamically analyze the f over 16,000 adware or potentially unwanted program samples. We find that equests issued by the analyzed samples contain some kind of personal hermore, we identify the services used by adversaries and provide insights on the chniques. [ABSTRACT FROM AUTHOR]; DOI: 10.3233/JCS-191287; (*AN* abase: Applied Science & Technology Source

ge; **Mobile apps**; Browsers (Computer programs); Internet Publishing and d Web Search Portals; Advertising Agencies; Software Publishers; Internet onally identifiable information; Primary audience; Mozilla Firefox (Computer

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Content Provider

ATION OF APPS

n: 15/903054. Filed: February 23, 2018. Published: August 29, 2019. , Database: pplications

e adapted to run software applications includes a network interface, a non-ter readable storage medium and at least one processor. The network interface ommunication over a network. At least one processor executes instructions stored edium to: identify that a **link** for **installation** of a new software application is interaction with a current software application running on the device; in response t the **link** was selected, invoke, without exiting the second software application, an nt to run in the background on the device; instruct the **installation** client to wnload an **installation** file of the new software application over the network using face; and using the downloaded **installation** file, install the first software e device.

90265958

t Options

ECURITY STATE DESIGNATION FOR A E BASED ON A SOURCE OF SOFTWARE

Patent

Patent Application: 16/690876. Filed: November 21, 2019. Published: March 19, 2020. , Database: USPTO Patent Applications

Abstract: For increased security, a source is determined for software to be installed on a computing device. In one approach, an application identifier is received from the computing device for an application to be installed. A source identifier of the application is determined. The application identifier and the source identifier are sent over a network to a server. A first state designation for the first application is received from the server. The first state designation represents a trusted state or an untrusted state. In response to receiving the first state designation, a second state designation is set. The second state designation is sent to the computing device.

AN: edspap.20200089869

USPTO Full Text Options

4. Determining source of side-loaded software using an administrator server

Patent

By: Lookout, Inc. US Patent: 10540,494. Filed: March 01, 2018. Issued: January 21, 2020. , Database: USPTO Patent Grants

Abstract: An action may be performed in response to a determination of a source of side-loaded software. In one case, the handling of an application on a **mobile** device may be based on whether the source of the application is trusted or untrusted. If a software application being newly-installed on a **mobile** device of a user is determined to be untrusted, **installation** or execution is blocked. In one approach, the determination of the source includes: receiving, from the **mobile** device, a first application identifier and a first source identifier, each for a first application; sending the first

application identifier and the first source identifier over a network to an administrator server; receiving, from the administrator server, a first state designation for the first application; setting a second state designation based on the first state designation; and sending the second state designation to the **mobile** device.

AN: edspgr.10540494

USPTO Full Text Options

5. React Native - Building **Mobile Apps** with JavaScript

eBook

By: Novick, Vladimir. Birmingham, UK : Packt Publishing. 2017. eBook. Description: About This BookBuild cross-platform best seller native **mobile** applications in JavaScript with React-Native frameworkLearn about real world examples like Whatsapp, Instagram or Twitter.Learn all steps in React Native application development workflow from prototyping to deploymentGet familiar with various **mobile** APIs covered in React Native framework and learn how to extend it further to non-supported APIsWho This Book Is ForThis book is for JavaScript developers who want to learn how to create native ... (*AN 1583763*), Database: eBook Index

Subjects: COMPUTERS / Internet / Application Development; JavaScript (Computer program language); **Mobile apps**--Programming

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6. METHODS AND SYSTEMS FOR ANALYZING DATA AFTER INITIAL ANALYSES BY KNOWN GOOD AND KNOWN BAD SECURITY COMPONENTS

Patent

Patent Application: 16/670227. Filed: October 31, 2019. Published: March 26, 2020. , Database: USPTO Patent Applications

Abstract: Methods and systems are provided for conditionally allowing a **mobile** communications device to process received data. Initially, the data is analyzed by a known good component without the component determining that the data is safe, and the data is analyzed by a known bad component without the component determining that the data is malicious. Subsequently, the data is analyzed by a decision component on the **mobile** communications device. When the decision component determines the data to be safe, the decision component allows the **mobile** communications device to process the data. When the decision component determined the data to be malicious, the decision component prevents the **mobile** communications device from processing the data.

AN: edspap.20200097665

USPTO Full Text Options

7. Methods and systems for blocking the **installation** of an

application to improve the functioning of a **mobile** communications device


Patent

By: LOOKOUT, INC. US Patent: 9,996,697. Filed: August 25, 2017. Issued: June 12, 2018. , Database: USPTO Patent Grants

Abstract: Methods and systems are provided for sharing information and improving the functioning of devices by blocking the **installation** of an application based on an assessment. In the methods and systems disclosed, a server may receive data pertaining to an application from the **mobile** communications device. The server may process the data from the **mobile** communications device to determine an assessment of the application, where the assessment is based on an analysis using information shared by sources other than the **mobile** communications device. The server may then provide the assessment to the **mobile** communications device.

AN: edspgr.09996697

USPTO Full Text Options

8. Continuous Delivery for **Mobile** with Fastlane : Automating **Mobile** Application Development and Deployment for IOS and Android


eBook

By: Doron Katz; Kyle Mew. Birmingham : Packt Publishing. 2018. eBook. Description: Learn continuous deployment and automation with code-signing, continuous testing, building, deploying, and releasing of your **app**. Key FeaturesA practical guide on automating your **mobile** development pipeline with Fastlane, Jenkins, and Slack.Build, test, run and deploy your **mobile** application release with this end to end guide.Implement Continuous Integration, delivery, and deployment practices to optimize your application development workflow for faster and efficient release builds.Book DescriptionCompetitive ... (*AN 1728039*), Database: eBook Index

Subjects: COMPUTERS / Languages / Ruby; COMPUTERS / Business & Productivity Software / Collaboration; COMPUTERS / Programming / **Mobile** Devices

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9. METHODS AND SYSTEMS FOR BLOCKING THE **INSTALLATION** OF AN APPLICATION TO IMPROVE THE FUNCTIONING OF A **MOBILE** COMMUNICATIONS DEVICE


Patent

Patent Application: 15/687395. Filed: August 25, 2017. Published: December 14, 2017. , Database: USPTO Patent Applications

Abstract: Methods and systems are provided for sharing information and improving the functioning of devices by blocking the **installation** of an application based on an assessment. In the methods and systems disclosed, a server may receive data pertaining to an application from the **mobile** communications device. The server may process the data from the **mobile** communications device to determine an assessment of the application, where the assessment is based on an analysis using information shared by sources other than the **mobile** communications device. The server may then provide the assessment to the **mobile** communications device.

AN: edspap.20170357814

USPTO Full Text Options

10. Methods and systems for conditionally granting access to services based on the security state of the device requesting access

By: LOOKOUT, INC. US Patent: 10509,911. Filed: June 17, 2019. Issued: December 17, 2019. , Database: USPTO Patent Grants

Abstract: Methods and systems are provided for conditionally granting access to service levels based on a determined security state of the device requesting access. A software component, upon receiving a request for access to a provider having a plurality of service levels, determines the current security state of the requesting device. The software component compares that security state to a policy associated with the provider. The software component then allows the requesting device access to the provider services where the device's current security state meets or exceeds the security state required for the service.

AN: edspgr.10509911

USPTO Full Text Options

11. Methods and systems for granting access to services based on a security state that varies with the severity of security events

By: LOOKOUT, INC. US Patent: 10509,910. Filed: June 17, 2019. Issued: December 17, 2019. , Database: USPTO Patent Grants

Abstract: A software component, upon receiving a request for access to a provider having a plurality of service levels, determines the current security state of the requesting device. The security state of the requesting device varies according to severity levels of device security events. The software component compares that security state to a policy associated with the provider. The software component then allows the requesting device access to the provider services where the device's current security state meets or exceeds the security state required for the service.

AN: edspgr.10509910

USPTO Full Text Options

12. Xamarin: Cross-Platform **Mobile** Application Development

By: Jonathan Peppers; George Taskos; Can Bilgin. Series: Learning Path. Birmingham, UK : Packt Publishing. 2016. eBook. Description: Master the skills required to develop cross-platform applications from drawing board to **app store**(s) using XamarinAbout This BookLearn to deliver high-performance native **apps** that leverage platform specific acceleration, complied for native performanceLearn development techniques that will allow you to use and create custom layouts for cross-platform UIGain the knowledge needed to become more efficient in testing, deploying, and monitoring your applicationsImplement application life cycle management ... (*AN 1345249*), Database: eBook Index

Subjects: COMPUTERS / Internet / Application Development; Application software--Development; **Mobile apps**

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13. GREATER TOLEDO BOOK OF LISTS 2019.

Periodical

Toledo Business Journal. Dec2019, Vol. 35 Issue 12, p1B-23B. 22p. (*AN: 139935090*), Database: Business Source Complete

Subjects: Maintenance; Business planning; Facility management; Lessors of Nonresidential Buildings (except Miniwarehouses); Engineering Services; Mechanical engineering; Materials

PDF Full Text (17.8MB) USPTO Full Text Options

14. The **Mobile** Application Hacker's Handbook

eBook

By: Chell, Dominic. Indianapolis, IN : Wiley. 2015. eBook. Description: See your **app** through a hacker's eyes to find the real sources of vulnerability The **Mobile** Application Hacker's Handbook is a comprehensive guide to securing all **mobile** applications by approaching the issue from a hacker's point of view. Heavily practical, this book provides expert guidance toward discovering and exploiting flaws in **mobile** applications on the iOS, Android, Blackberry, and Windows Phone platforms. You will learn a proven methodology for approaching **mobile** application assessments, and ... (*AN 1016323*), Database: eBook Index

Subjects: COMPUTERS / Security / General; **Mobile** computing; **Mobile apps**; Hacking

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15. MANAGING ACCESS TO SERVICES BASED ON FINGERPRINT MATCHING

Patent

Patent Application: 16/241504. Filed: January 07, 2019. Published: May 9, 2019. , Database: USPTO Patent Applications

Abstract: A method includes: receiving a request regarding access by a first computing device (e.g., a **mobile** device of a user) to a service; in response to the request, performing, by a second computing device (e.g., a device risk evaluation server, or a server of an identity provider), an evaluation that includes creating a fingerprint of the first computing device; and determining, by the second computing device, whether the fingerprint matches a fingerprint of one or more other computing devices. The second computing devices determines whether to authorize access to the service based on the evaluation.

AN: edspap.20190141030

USPTO Full Text Options

16. Learning React Native : Building Native **Mobile Apps** with JavaScript

By: Eisenman, Bonnie. Edition: First edition. Sebastopol, CA : O'Reilly Media. 2015. eBook. Description: Get a practical introduction to React Native, the JavaScript framework for writing and deploying fully featured **mobile apps** that look and feel native. With this hands-on guide, you'll learn how to build applications that target iOS, Android, and other **mobile** platforms instead of browsers. You'll also discover how to access platform features such as the camera, user location, and local storage.With code examples and step-by-step instructions, author Bonnie Eisenman shows web developers and frontend ... (*AN 1106129*), Database: eBook Index

Subjects: COMPUTERS / Languages / JavaScript; COMPUTERS / Programming / General; COMPUTERS / Programming / Open Source; COMPUTERS / Internet / Web Programming; COMPUTERS / Programming / **Mobile** Devices; JavaScript (Computer program language); **Mobile apps**--Programming

Full Text Finder USPTO Full Text Options

17. DETERMINING SOURCE OF SIDE-LOADED SOFTWARE USING AN ADMINISTRATOR SERVER

Patent Application: 15/909796. Filed: March 01, 2018. Published: July 5, 2018. , Database: USPTO Patent Applications

Abstract: An action may be performed in response to a determination of a source of side-loaded software. In one case, the handling of an application on a **mobile** device may be based on whether the source of the application is trusted or untrusted. If a software application being newly-installed on a **mobile** device of a user is determined to be untrusted, **installation** or execution is blocked. In one approach, the determination of the source includes: receiving, from the **mobile** device, a first application identifier and a first source identifier, each for a first application; sending the first application identifier and the first source identifier over a network to an administrator server; receiving, from the administrator server, a first state designation for the first application; setting a second state designation based on the first state designation; and sending the second state designation to the **mobile** device.

AN: edspap.20180189478

USPTO Full Text Options

18. Determining source of side-loaded software using signature of authorship

By: Lookout, Inc. US Patent: 9,940,454. Filed: February 08, 2017. Issued: April 10, 2018. , Database: USPTO Patent Grants

Patent

Abstract: A source of side-loaded software is determined. An action may be performed in response to the determination of the source. In one case, the handling of an application on a **mobile** device may be based on whether the source of the application is trusted or untrusted. If a software application being newly-installed on a **mobile** device of a user is determined to be untrusted, **installation** or execution is blocked. In one approach, the determination of the source includes: determining whether a first source identifier of a first application matches a white list of source identifiers or a black list of source identifiers; and sending the first source identifier, a first application identifier, and a signature of authorship for the first application to a different computing device.

AN: edspgr.09940454

USPTO Full Text Options

19. METHODS AND SYSTEMS FOR GRANTING ACCESS TO SERVICES BASED ON A SECURITY STATE THAT VARIES WITH THE SEVERITY OF SECURITY EVENTS

Patent

Patent Application: 16/443682. Filed: June 17, 2019. Published: October 10, 2019. , Database: USPTO Patent Applications

Abstract: A software component, upon receiving a request for access to a provider having a plurality of service levels, determines the current security state of the requesting device. The security state of the requesting device varies according to severity levels of device security events. The software component compares that security state to a policy associated with the provider. The software component then allows the requesting device access to the provider services where the device's current security state meets or exceeds the security state required for the service.

AN: edspap.20190311134

USPTO Full Text Options

20. METHODS AND SYSTEMS FOR CONDITIONALLY GRANTING ACCESS TO SERVICES BASED ON THE SECURITY STATE OF THE DEVICE REQUESTING ACCESS

Patent

Patent Application: 16/443697. Filed: June 17, 2019. Published: October 3, 2019. , Database: USPTO Patent Applications

Abstract: Methods and systems are provided for conditionally granting access to service levels based on a determined security state of the device requesting access. A software component, upon receiving a request for access to a provider having a plurality of service levels, determines the current security state of the requesting device. The software component compares that security state to a policy associated with the provider. The software component then allows the requesting device access to the provider services where the device's current security state meets or exceeds the security state required for the service.

AN: edspap.20190303586

USPTO Full Text Options

21. Methods and systems for blocking potentially harmful communications to improve the functioning of an electronic device

Patent

By: LOOKOUT, INC. US Patent: 10417,432. Filed: June 05, 2018. Issued: September 17, 2019. , Database: USPTO Patent Grants

Abstract: Methods and systems are provided for sharing information and improving the functioning of devices by blocking potentially harmful communications. In the methods and systems disclosed, a security component on an electronic device may receive a policy. The security component may also receive, from a local device proxy on the electronic device, information pertaining to a communication. The security component may compare the information pertaining to the communication to the policy. The comparison may result in a determination that the communication is potentially harmful. The security component may then instruct the local device proxy to block the communication from proceeding past the local device proxy.

AN: edspgr.10417432

USPTO Full Text Options

22. Use of device risk evaluation to manage access to services

Patent

By: Lookout, Inc. US Patent: 10218,697. Filed: June 09, 2017. Issued: February 26, 2019. , Database: USPTO Patent Grants

Abstract: A method includes: receiving a request regarding access by a first computing device (e.g., a **mobile** device of a user) to a service; in response to the request, performing, by a second computing device (e.g., a device risk evaluation server, or a server of an identity provider), an evaluation of the first computing device; and performing, by the second computing device, an action (e.g., authorizing access to the service) based on the evaluation.

AN: edspgr.10218697

USPTO Full Text Options

23. AndroPatchApp: Taming Rogue **Ads** in Android.

Book

By: Tsiakos, Vasilis; Patsakis, Constantinos. ***Mobile**, Secure & Programmable Networking (9783319504629)* , 2016, p183-196, 14p. Publisher: Springer Nature. (*AN 122218443*), Database: Complementary Index

Full Text Finder USPTO Full Text Options

24. USE OF DEVICE RISK EVALUATION TO MANAGE ACCESS TO SERVICES

Patent Application: 15/619356. Filed: June 09, 2017. Published: December 13, 2018. , Database: USPTO Patent Applications

Patent

Abstract: A method includes: receiving a request regarding access by a first computing device (e.g., a **mobile** device of a user) to a service; in response to the request, performing, by a second computing device (e.g., a device risk evaluation server, or a server of an identity provider), an evaluation of the first computing device; and performing, by the second computing device, an action (e.g., authorizing access to the service) based on the evaluation.

AN: edspap.20180359244

USPTO Full Text Options

25. **Mobile** Device and Service Management

Patent

Patent Application: 16/274405. Filed: February 13, 2019. Published: October 24, 2019. , Database: USPTO Patent Applications

Abstract: A wireless end-user device, comprising one or more modems enabling the wireless end-user device to communicate with a network system over a wireless access network, a touch-screen user interface, and one or more processors configured to execute one or more instructions that, when executed by the one or more processors, cause the one or more processors to detect a user input through the touch-screen user interface, the user input comprising a request to remove the wireless end-user device from an existing device group account, the existing device group account being associated with one or more devices including the wireless end-user device, and send a message to the network system over the wireless access network, the message conveying the request to remove the wireless end-user device from the existing device group account.

AN: edspap.20190327363

USPTO Full Text Options

26. Service Plan Design, User Interfaces, Application Programming Interfaces, and Device Management

Patent

Patent Application: 16/654295. Filed: October 16, 2019. Published: February 6, 2020. , Database: USPTO Patent Applications

Abstract: Disclosed herein are methods, systems, and apparatuses to enable subscribers of **mobile** wireless communication devices to view, research, select and customize service plans; to create and manage device groups, share and set permission controls for service plans among devices in device groups; to manage communication services through graphical user interfaces; to sponsor and promote service plans; and to design, manage, and control communication services through application programming interfaces.

AN: edspap.20200045519

USPTO Full Text Options

27. Cloud and Cluster Computing

By: Berman, Nan; Rivero, Georgetta. Delhi : Academic Studio. 2012. eBook. Description: Chapter 1 - Enzyme Assay Chapter 2 - Alkaline Phosphatase and Alanine Transaminase Chapter 3 -

eBook

Amylase and Ceruloplasmin Chapter 4 - Glucose Chapter 5 - Bilirubin Chapter 6 - Human Chorionic Gonadotropin Chapter 7 - Biomarker Chapter 8 - Mass Spectrometry Chapter 9 - C–reactive Protein Chapter 10 - Ferritin Chapter 11 - DNA Assay Chapter 12 - Protein Assay Chapter 13 - Drug Test Chapter 14 - Clonogenic Assay and Bacteriological Water Analysis Chapter 15 - Immunostaining Chapter 16 - MTT Assay, Nuclear ... (*AN 446437*), Database: eBook Collection (EBSCOhost)

Subjects: COMPUTERS / Web / General; COMPUTERS / Networking / Intranets & Extranets; Cloud computing

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Table of Contents Most Relevant Pages From This eBook

28. Manufacturers Alphabetic Listings

Periodical

In: Air Conditioning, Heating & Refrigeration News. Jan 6, 2020, Vol. 269 Issue 1, p37, 66 p.; BNP Media Language: English. Abstract: A A N Products Inc. 4056 Boomer Rd, Cincinnati, OH 45247-7908 (513) 451-1721; (513) 703-8174 al@vacuator.com www.vacuator.com Vacuum indicator accurately measures total pressure over a wide range from above 100 [...] (*AN: edsgcl.612113977*), Database: Gale General OneFile

Subjects: North America; United States; Canada; Ontario; Quebec; United Kingdom; Consumer electronics industry; Continental Fan Manufacturing Inc.; Delta Cooling Towers Inc.; Dwyer Instruments Inc.; Empire Machinery and Tools Ltd.; EWC Controls Inc.; Fujitsu General America Inc.; Heat-Timer Corp.; LG Electronics U.S.A. Inc.; Modine Manufacturing Co.; Instrument industry; Heating, ventilation, and air conditioning industry; Control equipment industry

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29. Complete Control: CREATING AV CONTROL SYSTEMS THAT PROVIDE THE IDEAL USER EXPERIENCE.

Periodical

By: BAKIJA, MARY. *Systems Contractor News.* Feb2019, Vol. 26 Issue 2, p40-48. 8p. Abstract: The article offers information on the integration of Audio and Visual control systems for users with advances in consumer technology. It focus on the importance of the customer's experience and their satisfaction and also mentions overcomplicated of user's experience when the number of devices and rooms increases. (*AN: 137785931*), Database: Computers & Applied Sciences Complete

Subjects: Computer firmware; Panasonic cameras; Internet protocols; Touch screens

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30. Programming the **Mobile** Web : [reaching Users on IPhone, Android, BlackBerry, Symbian, and More]


eBook

By: Firtman, Maximiliano R. Edition: 1st ed. Sebastopol, CA : O'Reilly Media. 2010. eBook. Description: Today's market for **mobile apps** goes beyond the iPhone to include BlackBerry, Nokia, Windows Phone, and smartphones powered by Android, webOS, and other platforms. If you're an experienced web developer, this book shows you how to build a standard **app** core that you can extend to work with specific devices. You'll learn the particulars and pitfalls of building **mobile apps** with HTML, CSS, and other standard web tools. You'll also explore platform variations, finicky **mobile** browsers, Ajax design patterns ... (*AN 415542*), Database: eBook Index

Subjects: COMPUTERS / Programming / General; **Mobile** computing; Internet programming; Pocket computers--Programming; Application software--Development

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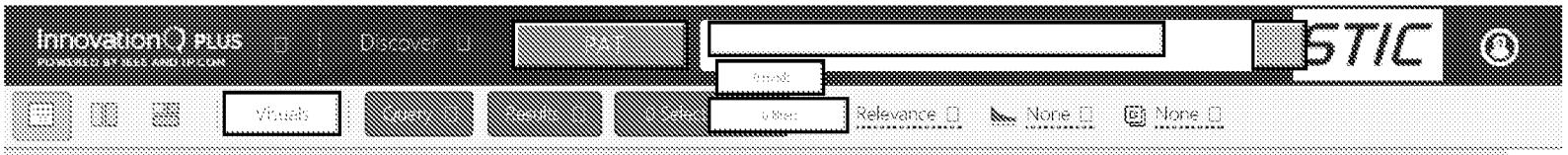
Page: 1 2 3 4 5 Next ▸



1 - 50 24,638,783 results

1.

Instant installation of apps

A device adapted to run software applications includes a network interface, a non-transitory computer readable storage medium and at least one processor. The network interface enables device communication over a network. At least one processor executes instructions stored in the storage medium to:...

CURRENT ASSIGNEES: DIGITAL TURBINE INC

US20190265958 | US APPLICATIONS | 29-AUG-2019

2.

Method to adapt ads rendered in a mobile device based on existence of other mobile applications

A method, apparatus and computer-readable storage medium for adapting alternative documents associated with content to be rendered in a mobile device is disclosed. A method, apparatus and computer-readable storage medium for adapting content, such as ads, based on presence or absence of certain...

CURRENT ASSIGNEES: GOOGLE LLC

AU2018272090A1 | AUSTRALIA APPLICATIONS | 20-DEC-2018

3.

A method to adapt ads rendered in a mobile device based on existence of other mobile applications

A method, apparatus and computer-readable storage medium for adapting alternative documents associated with content to be rendered in a mobile device is disclosed. A method, apparatus and computer-readable storage medium for adapting content, such as ads, based on presence or absence of certain...

CURRENT ASSIGNEES: GOOGLE LLC

CA2834677A1 | CANADA APPLICATIONS | 08-NOV-2012

4.

Method to adapt ads rendered in a mobile device based on existence of other mobile applications

A method, apparatus and computer-readable storage medium for adapting alternative documents associated with content to be rendered in a mobile device is disclosed. A method, apparatus and computer-readable storage medium for adapting content, such as ads, based on presence or absence of certain...

CURRENT ASSIGNEES: GOOGLE LLC

AU2012259931A1 | AUSTRALIA APPLICATIONS | 14-NOV-2013

5.

Method to adapt ads rendered in a mobile device based on existence of other mobile applications

A method, apparatus and computer-readable storage medium for adapting alternative documents associated with content to be rendered in a mobile device is disclosed...

Result #1

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By fax, send to: (571)-273-2885

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67801 7590 06/02/2020

MARTIN D. MOYNIHAN d/b/a PRTSI, INC.
c/o Purrfect Patents LLC
11213 Piedmont Drive
Fredericksburg, VA 22407

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(Typed or printed name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/903,054	02/23/2018	Brandon Brent AYERS	72247	1094

TITLE OF INVENTION: INSTANT INSTALLATION OF APPS

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	SMALL	$500	$0.00	$0.00	$500	09/02/2020

EXAMINER	ART UNIT	CLASS-SUBCLASS
KANG, INSUN	2193	717-174000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.

☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-09 or more recent) attached. **Use of a Customer Number is required.**

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3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document must have been previously recorded, or filed for recordation, as set forth in 37 CFR 3.11 and 37 CFR 3.81(a). Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE: **Digital Turbine, Inc.**

(B) RESIDENCE: (CITY and STATE OR COUNTRY): **Austin, TX**

Please check the appropriate assignee category or categories (will not be printed on the patent) : ☐ Individual ☒ Corporation or other private group entity ☐ Government

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☐ Applicant asserting small entity status. See 37 CFR 1.27

☐ Applicant changing to regular undiscounted fee status.

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Authorized Signature /Martin D. Moynihan/ Date August 18, 2020

Typed or printed name Martin D. Moynihan Registration No. 40338

Electronic Patent Application Fee Transmittal

Application Number:	15903054
Filing Date:	23-Feb-2018
Title of Invention:	INSTANT INSTALLATION OF APPS
First Named Inventor/Applicant Name:	Brandon Brent AYERS
Filer:	Martin Dennis Moynihan
Attorney Docket Number:	72247

Filed as Small Entity

Filing Fees for Utility under 35 USC 111(a)

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
UTILITY APPL ISSUE FEE	2501	1	500	500

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Extension-of-Time:				
Miscellaneous:				
			Total in USD ($)	**500**

Electronic Acknowledgement Receipt

EFS ID:	40311239
Application Number:	15903054
International Application Number:	
Confirmation Number:	1094
Title of Invention:	INSTANT INSTALLATION OF APPS
First Named Inventor/Applicant Name:	Brandon Brent AYERS
Customer Number:	67801
Filer:	Martin Dennis Moynihan
Filer Authorized By:	
Attorney Docket Number:	72247
Receipt Date:	18-AUG-2020
Filing Date:	23-FEB-2018
Time Stamp:	10:57:57
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	DA
Payment was successfully received in RAM	$500
RAM confirmation Number	E20208HA58201668
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37 CFR 1.17 (Patent application and reexamination processing fees)

37 CFR 1.19 (Document supply fees)

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2	Fee Worksheet (SB06)	fee-info.pdf	29808 06162ea65dd104e6c67aa650fbd3da95a7c0e4ea	no	2
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New International Application Filed with the USPTO as a Receiving Office

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APPLICATION NO.	ISSUE DATE	PATENT NO.	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/903,054	09/22/2020	10782951	72247	1094

67801 7590 09/02/2020

MARTIN D. MOYNIHAN d/b/a PRTSI, INC.
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ISSUE NOTIFICATION

The projected patent number and issue date are specified above.

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)
(application filed on or after May 29, 2000)

The Patent Term Adjustment is 20 day(s). Any patent to issue from the above-identified application will include an indication of the adjustment on the front page.

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

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APPLICANT(s) (Please see PAIR WEB site http://pair.uspto.gov for additional applicants):

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Jonathan Nogueira, Zachary, LA;